DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Parts 65, 119, 121, 135, 142

[Docket No. FAA–2008–0677; Notice No. 08–07A]

RIN 2120–AJ00

Qualification, Service, and Use of Crewmembers and Aircraft Dispatchers

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Supplemental notice of proposed rulemaking (SNPRM).

SUMMARY: On January 12, 2009, the FAA published a notice of proposed rulemaking on qualification, service, and use of crewmembers and aircraft dispatchers. Because of the complexity of the issues and the concerns raised by commenters, the FAA is issuing this supplemental notice of proposed rulemaking. The FAA proposes to amend the regulations for crewmember and aircraft dispatcher training programs in domestic, flag, and supplemental operations. The proposed regulations enhance traditional training programs by requiring the use of flight simulation training devices for flightcrew members and including additional training and evaluation requirements for all crewmembers and aircraft dispatchers in areas that are critical to safety. The proposal also reorganizes and revises the qualification, training, and evaluation requirements. The proposed changes are intended to contribute significantly to reducing aviation accidents.

DATES: Send your comments on or before July 19, 2011.

ADDRESSES: You may send comments identified by Docket Number FAA–2008–0677 using any of the following methods:

- *Federal eRulemaking Portal:* Go to *http://www.regulations.gov* and follow the online instructions for sending your comments electronically.
- *Mail:* Send comments to Docket Operations, M–30; U.S. Department of Transportation, 1200 New Jersey Avenue, SE., Room W12–140, West Building Ground Floor, Washington, DC 20590–0001.
- *Hand Delivery or Courier:* Take comments to Docket Operations in Room W12–140 of the West Building Ground Floor at 1200 New Jersey Avenue, SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.
- *Fax:* Fax comments to Docket Operations at 202–493–2251.

For more information on the rulemaking process, see the **SUPPLEMENTARY INFORMATION** section of this document.

Privacy: We will post all comments we receive, without change, to *http://www.regulations.gov,* including any personal information you provide. Using the search function of the docket Web site, anyone can find and read the electronic form of all comments received into any of our dockets, including the name of the individual sending the comment (or signing the comment for an association, business, labor union, *etc.*). You may review DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (65 FR 19477–78) or you may visit *http://DocketsInfo.dot.gov.*

Docket: To read background documents or comments received, go to *http://www.regulations.gov* at any time and follow the online instructions for accessing the docket or Docket Operations in Room W12–140 of the West Building Ground Floor at 1200 New Jersey Avenue, SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

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SUPPLEMENTARY INFORMATION: Later in this preamble under the Additional Information section, we discuss how you can comment on this proposal and how we will handle your comments. Included in this discussion is related information about the docket, privacy, and the handling of proprietary or confidential business information. We also discuss how you can get a copy of this proposal and related rulemaking documents.

Authority for This Rulemaking

The FAA's authority to issue rules on aviation safety is found in Title 49 of the United States Code. This rulemaking is promulgated under the authority described in 49 U.S.C. 44701(a)(5), which requires the Administrator to promulgate regulations and minimum standards for other practices, methods, and procedures necessary for safety in air commerce and national security. In addition, the Airline Safety and Federal Aviation Administration Extension Act of 2010 (Pub. L. 111–216) specifically directed the FAA to issue a final rule with respect to the Notice of Proposed Rulemaking published in the **Federal Register** on January 12, 2009 (74 FR 1280).

Table of Contents

I. Executive Summary
II. Background
A. Summary of Notice of Proposed Rulemaking (NPRM)
B. Summary of Comments
C. Need for Supplemental Notice of Proposed Rulemaking (SNPRM)
D. General Overview of SNPRM
E. Basis for the Rulemaking
F. Impact of SNPRM on AQP Operators
G. Transition From Current Training Program Requirements (§§ 121.1202 and 121.1402)
III. Discussion of Significant Issues in SNPRM
A. Flightcrew Member Job Performance Training (Appendices Q and R)
1. Job Performance Task Requirements and Definitions
2. Pilot Monitoring Requirements (§ 121.1213)
3. Frequency of Training and Evaluation for Recurrent Tasks
4. Proposed Baseline and Minimum Programmed Hours (§ 121.1335)
5. Flight Simulation Training Device (FSTD) Requirements (Including Level of FSTD) (§ 121.1345, Table 3B of the Pilot and Flight Engineer QPS)
B. Reduction in Programmed Hours and Modification of Training Program Based on Operation of Related Aircraft
C. Require Certificated Aircraft Dispatchers for Supplemental Operations
D. Establish Deviation Authority To Allow Contract Aircraft Dispatcher Services (§ 121.1411)
E. Clarify Training Requirements for Other Operations Personnel (§ 121.1475)
F. Requalification Requirements for Crewmembers and Aircraft Dispatchers
1. Flightcrew Member Requalification (§ 121.1239)
2. Flight Attendant Requalification (§ 121.1309)
3. Aircraft Dispatcher Requalification (§ 121.1419)
IV. General Issues for Crewmembers and Aircraft Dispatchers
A. Training Program: Approval and Amendment Process (§§ 121.1337 and 121.1437)
B. Crewmember and Aircraft Dispatcher Manuals and Manual Procedures (§§ 121.133, 121.134, 121.135, and 121.540)

C. Distance Learning
D. Training Program: General—Crewmember Records (§§ 121.1331 and 121.1431)
E. Training Program: Curriculum by Aircraft Type and Curriculum By Aircraft Type and Operation (§§ 121.1333 and 121.1433)
F. Training Program: Administering Training and Evaluation (§§ 121.1341 and 121.1439)
G. Continuous Analysis Process (CAP) (§§ 121.1355 and 121.1441)
H. Fraud, Falsification, or Incorrect Statements (§ 121.9)
I. English Language Requirement (§§ 121.1209 and 121.1407)
J. Crewmember and Dispatcher Record (§§ 121.683 and 121.684)
K. Management and Technical Personnel Required for Operations Conducted Under Part 121 of This Chapter (§ 119.65)
L. Applicability (§§ 121.1201 and 121.1401)
M. Training Program: Contract Training Requirements (§ 121.1339)
N. Curriculum Category Requirements: Check Pilot, Check Flight Engineer, or Check Flight Attendant Initial, Transition, and Recurrent Academic Training (§ 121.1381)
O. Training Program: Academic Evaluation (§ 121.1343)
P. Training Program: Training Equipment Other Than Flight Simulation Training Devices (§ 121.1351)
Q. Curriculum Category Requirements: Crewmember New Hire (§ 121.1363)
R. Initial Cadre for Crewmembers and Aircraft Dispatchers (§§ 121.1257, 121.1323, and 121.1425)
1. Check Airman Initial Cadre (§ 121.1257)
2. Check Flight Attendant Initial Cadre (§ 121.1323)
3. Check Dispatcher Initial Cadre (§ 121.1425)
V. Other Issues by Specialty
A. Flightcrew Member
B. Flight Attendant
C. Aircraft Dispatcher
VI. Impact Statements

I. Executive Summary

On January 12, 2009, the FAA published an NPRM addressing qualification, service, and use of crewmembers and aircraft dispatchers as part of the Administrator's Call to Action and FAA's continuing efforts to reduce fatal accidents in which human error was a major contributing cause. The proposed changes focused on reducing human error and improving performance among flightcrew members, flight attendants, and aircraft dispatchers.

The NPRM proposed regulations to enhance traditional training programs by requiring the use of Flight Simulation Training Devices (FSTD) for flightcrew members and including additional training and evaluation requirements for all crewmembers and aircraft dispatchers in areas that are critical to safety. These areas included:

- Ensuring that flightcrew members are trained and evaluated in a complete flight crew environment;
- Requiring special hazard training for flightcrew members that addresses loss of control and controlled flight into terrain (CFIT); and
- Requiring additional training and practice in the use of crew resource management (CRM) skills.

Further, flight attendants would be required to complete "hands-on" performance drills using emergency equipment and procedures every 12 months, training and experience requirements for check dispatchers and dispatcher instructors would be standardized and all certificate holders would be required to develop a continuous analysis process (CAP) to identify and correct deficiencies in their training programs.

The FAA received approximately 150 comments in response to the NPRM (with approximately 3,000 pages of detailed comments). Many commenters asserted that the FAA understated the impact of the NPRM on air carriers conducting training under an approved Advanced Qualification Program (AQP) and underestimated the number of FSTD periods required to meet flightcrew member training and evaluation requirements.

In response to these comments, the FAA developed a report to validate FAA cost estimates in the NPRM and SNPRM regarding: (1) The number of simulator sessions, hours, and tasks required to accomplish proposed flightcrew member training and evaluation requirements for both AQP and non-AQP air carriers; and (2) the minimal impact of the proposed rule on carriers training under an AQP in accordance with the provisions in part 121, subpart Y.[1]

Building on the foundation set in the NPRM and review of the comments submitted, the FAA is issuing this SNPRM to address several key issues that were not addressed in the NPRM and to clarify several other issues raised in the comments. These issues include:

- Allowing modification of training program requirements for flightcrew members based on an air carrier's operation of aircraft with similar flight handling characteristics;
- Requiring certificated aircraft dispatchers for certificate holders conducting supplemental operations;
- Establishing deviation authority to allow contract aircraft dispatchers; and
- Establishing training requirements for other operations personnel (*e.g.,* ground operations and management personnel).

In addition, the Airline Safety and Federal Aviation Administration Extension Act of 2010 (Act) was enacted on August 1, 2010. See Public Law 111–216, §§ 208, 209. Under the Act, Congress has directed the FAA to conduct rulemaking to ensure that all flightcrew members receive ground (academic) training and flight (job performance) training in the recognition and avoidance of stalls, and recovery from stall, and recognition and avoidance of upset of an aircraft, as well as the proper techniques to recover from upset. The Act also requires the development of remedial training programs for flightcrew members who have demonstrated performance deficiencies or experienced failures in the training environment.

This SNPRM integrates these new requirements with the original NPRM and lays out a process by which significant safety benefits can be achieved. This SNPRM does this through a focus on the requirements of the Act, an effort to address or partially address 28 NTSB recommendations, and adjustments to the original NPRM based upon public comment.

The result is a vision for enhanced certificate holder training that builds on the strengths in the current regulations and guidance and defines a path for making that training more effective. The key features of the SNPRM include:

- Enhancing training programs by requiring the use of flight simulation training devices (FSTD) for flight crewmembers;
- Addressing National Transportation Safety Board (NTSB) recommendations regarding crewmember training;
- Realigning the recurrent training and evaluation interval to 9 months for both pilots in command (PICs) and second in command (SICs) that results in an equivalent level of training for both. SICs would now receive twice the amount of FSTD time over a 36 month training cycle as they receive today;
- Focusing on the value of training and evaluation in a complete flightcrew environment through this realignment, which would increase the likelihood that PICs and SICs who need recurrent training would train together;
- Providing a clear definition of the tasks required to train and evaluate pilots in part 121 operations during the 36-month recurrent training cycle while maintaining flexibility for the certificate holder;

[1] "Flightcrew Member Training and Qualification Review and Analysis Technical Report," April 5, 2010 (FAA Technical Report).

• Clarifying the minimal impact on certificate holders training under an Advanced Qualification Program (AQP).

The FAA estimated cost of this proposed rule over the 10-year analysis interval is $391.9 million, $199.1 million at a seven percent present value, and $290.3 million at a three percent present value. The estimated potential quantified safety benefits over the 10-year analysis interval is $445.1 million, $222.9 million at a seven percent present value, and $327.5 million at a three percent present value.

The following table shows the benefit and cost results.

SNPRM Benefits and Costs ($ Millions)			
		Present Value	
	Nominal	7%	3%
Benefits ($M)	$445.1	$222.9	$327.5
Costs ($M)	$391.9	$199.1	$290.3

In addition, the following tables show a comparison of crewmember and aircraft dispatcher training hours.

COMPARISON OF CURRENT AND PROPOSED RECURRENT JOB PERFORMANCE TRAINING HOURS FOR PICS AND SICS OVER A 36-MONTH TRAINING CYCLE

	Current rule		SNPRM	
	PIC (hours)	SIC (hours)	PIC (hours)	SIC (hours)
6 months	4	4	6	6
12 months	4	″		
18 months	4	4	6	6
24 months	4	″	6	6
30 months	4	4	6	6
36 months	4	″		
	24	12	24	24

Comparison of Current and Proposed Flight Attendant Program Training Hours					
	Current Rule	Proposed NPRM	Proposed SNPRM	Rule to SNPRM Change	Rule to SNPRM Percent Change
Basic Qualification Training					
New Hire (Turbojet & Turboprop)	40	40	40	0	0.0%
Emergency (Turbojet & Turboprop)	24	24	24	0	0.0%
Initial Group 1 Turboprop - 2 a/c groups	16	36	36	20	125.0%
Initial Group 2 Turbojet - 2 a/c groups	32	36	36	4	12.5%
Total - Turboprop	80	100	100	20	25.0%
Total - Turbojet	96	100	100	4	4.2%
Recurrent Flight Attendant Training					
Group 1 - Turboprop	5	13	12	7	140.0%
Group 2 - Turbojet	12	13	12	0	0.0%
Requalification Flight Attendant Training					
Phase 1 - Turboprop	31	26	26	-5	-16.1%
Phase 1 - Turbojet	31	26	26	-5	-16.1%
Phase 2 - Turboprop	54	84	84	30	55.6%
Phase 2 - Turbojet	54	84	84	30	55.6%
Check Flight Attendant Training					
Initial - (Turbojet & Turboprop)	0	0	4	4	New
Recurrant - (Turbojet & Turboprop)	0	0	2	2	New
Flight Attendant Instructor training.					
Initial - (Turbojet & Turboprop)	0	0	4	4	New
Recurrant - (Turbojet & Turboprop)	0	0	2	2	New

Source: U.S. Department of Transportation, Federal Aviation Administration

Comparison of Current and Proposed Aircraft Dispatcher Program Training Hours					
	Current Rule	Proposed NPRM	Proposed SNPRM	Rule to SNPRM Change	Rule to SNPRM Percent Change
Initial Training					
Dispatchers --Supervised Operating Experience	80	88	88	8	10.0%
Check Dispatchers	0	4	4	4	New
Dispatcher Instructors	0	4	4	4	New
Transition Training					
Dispatchers	0	8	8	8	New
Check Dispatchers	0	0	0	0	0.0%
Dispatcher Instructors	0	0	0	0	0.0%
Recurrent Training					
Dispatchers	20	22	22	2	10.0%
Check Dispatchers	0	4	4	4	New
Dispatcher Instructors	0	4	4	4	New

Source: U.S. Department of Transportation, Federal Aviation Administration

II. Background

A. Summary of Notice of Proposed Rulemaking (NPRM)

On January 12, 2009, the FAA published an NPRM (74 FR 1280), proposing to amend the regulations for crewmember and aircraft dispatcher training programs in domestic, flag, and supplemental operations. The primary purpose of the NPRM was to establish new requirements for traditional air carrier training programs to ensure that safety-critical training and evaluation is provided. The secondary purpose of the NPRM was to reorganize, simplify and recodify all rule language relating to crewmember and aircraft dispatcher qualification and training requirements in subparts N, O, and P of part 121, into subparts BB and CC of part 121. The proposed changes sought to make a significant contribution to the FAA's accident reduction goal by improving performance and reducing human error among flightcrew members, flight attendants, and aircraft dispatchers. These changes included:

- Training and evaluating flightcrew members in a complete flight crew environment;
- Requiring Line Oriented Flight Training (LOFT) to be administered to flightcrew members in a full flight simulator (FFS) during recurrent training;
- Requiring the use of qualified FSTD for training and evaluating flightcrew members;
- Requiring special hazard training for flightcrew members, such as loss of control and CFIT; and
- Requiring additional training and practice in the use of CRM skills;
- Requiring flight attendants to complete "hands on" performance drills every 12 months using emergency equipment and procedures;
- Requiring trained and qualified flight attendant ground instructors and evaluators;
- Standardizing the training and experience requirements for check dispatchers and dispatcher instructors;
- Implementing supervised operating experience (SOE) requirements for aircraft dispatchers;
- Establishing requalification training and evaluation for crewmembers and aircraft dispatchers;
- Requiring a CAP for certificate holders.

In addition to these requirements, the FAA also proposed to reformat existing subparts N, O, and P, into subparts BB and CC. Subpart BB addresses the qualification standards and training and evaluation requirements for flightcrew members and flight attendants currently in subparts N, O, and P, as well as appendices E, F, and H. Subpart CC addresses the qualification standards and training and evaluation requirements for aircraft dispatchers and other operations personnel currently in subparts N and P. The FAA also proposed to establish four Qualification Performance Standards (QPS) Appendices: Pilots, appendix Q; Flight Engineers, appendix R; Flight Attendants, appendix S; and Aircraft Dispatchers, appendix T. These appendices contained the minimum training and evaluation standards as well as procedures for crewmembers and aircraft dispatchers to become qualified and maintain qualification. In each QPS appendix, the material was separated into two sections: "QPS Requirements," which were regulatory and in addition to the requirements in part 121, and "QPS Information," which contained advisory material and explained methods of compliance with the regulatory requirements of subparts BB and CC, as well as the QPS requirements sections.

As proposed in the NPRM, each training program curriculum would consist of categories of training (referred to as curriculum categories in the SNPRM) related to the individual's level of qualification experience. These categories of training addressed first time qualification for a certificate holder, first time qualification in type, configuration differences within type or series, maintaining and regaining qualification, and changes in operation. These categories of training included new hire, initial, transition, conversion (full and core), upgrade (full and core), emergency, differences, recurrent, requalification, and special. For these curriculum categories, the NPRM established minimum programmed hours and specific task requirements for both academic and job performance training and evaluation. Academic training and evaluation, commonly referred to as ground training, provides students with the required knowledge and cognitive skills necessary to perform the tasks required for the crewmember duty position or training or evaluation duty position. This training may be completed in either a classroom setting or through distance learning.[2] Job performance training and evaluation provides students with the practical, hands-on experience of integrating knowledge and skills and learning the related motor skills necessary to perform the job. The FAA also proposed revising manual requirements and requiring separate approvals of the flightcrew member, flight attendant, and aircraft dispatcher operating manuals.

The comment period for the NPRM was originally scheduled to close on May 12, 2009. In response to requests, the FAA issued a notice (74 FR 17910, April 20, 2009) extending the comment period until August 10, 2009.

B. Summary of Comments

The FAA received approximately 150 comments in response to the NPRM (with approximately 3,000 pages of detailed comments). The issues raised by commenters are discussed in more detail later in this document under the heading "Discussion of Significant Issues." Commenters included industry organizations, unions, individual airlines, aircraft manufacturers, the NTSB, and individual members of the public. Many commenters, including Air Transport Association of America (ATA), Regional Airline Association (RAA), and individual airlines, raised the following general concerns with the NPRM:

- The FAA understated the impact of the NPRM on air carriers conducting training under an approved AQP.
- The FAA underestimated the number of FSTD periods required to meet flightcrew member training and evaluation requirements.
- The FAA did not adequately consider the impact of requiring a full crew for flightcrew member training and evaluation.

Several unions representing pilots and flight attendants, and a professional organization representing dispatchers, generally supported most of the NPRM, although all submitted specific recommendations for change or clarification.

In addition, the NTSB generally supported the NPRM. In its comments, the NTSB listed 13 open safety recommendations related to crewmember training and included an explanation of whether the NPRM addressed each of them.[3]

[2] The FAA has defined distance learning in FAA guidance as "learning that is accomplished by any training method not including an instructor and a gathering of trainees collocated in a traditional classroom".

[3] NTSB recommendations A–95–124, A–96–120, A–07–44, A–08–16, and A–08–17 also include operations conducted under part 135 or operations conducted under part 91, subpart K. Although the NPRM and SNPRM address NTSB recommendations for part 121 operators, the NPRM and SNPRM would not address these recommendations for part 135 operations or part 91, subpart K operations.

C. Need for Supplemental Notice of Proposed Rulemaking (SNPRM)

Upon review of the comments, the FAA identified the following major issues that were not adequately addressed in the NPRM: the impact of the proposed rule on air carriers conducting training under an approved AQP; modification of training program requirements for flightcrew members based on an air carrier's operation of aircraft with similar flight handling characteristics; certificated aircraft dispatchers for certificate holders conducting supplemental operations; deviation authority to allow contract aircraft dispatchers; and training requirements for other operations personnel. Furthermore, the FAA determined that additional data and clarification was necessary regarding the development of the minimum programmed hours for curriculum categories and flightcrew member job performance task requirements for the initial and recurrent curriculum categories', the proposed frequency for conducting training; the level of FSTD required to meet the proposed training program requirements', and the interim requirements for air carriers transitioning from the requirements of subparts N, O, and P to the requirements of subparts BB and CC.

In addition, the Airline Safety and Federal Aviation Administration Extension Act of 2010 was enacted on August 1, 2010. See Public Law 111–216, §§ 208, 209. Under this Act, Congress has mandated that the FAA issue a final rule with respect to this proposal within 14 months after the date of the enactment of the Act. Congress also has required the FAA to conduct rulemaking to ensure that all flightcrew members receive ground training and flight training in the recognition and avoidance of stalls, and recovery from stall, and recognition and avoidance of upset of an aircraft, as well as the proper techniques to recover from upset. The Act also prescribes the development of remedial training programs for flightcrew members who have demonstrated performance deficiencies or experienced failures in the training environment. The FAA has included these requirements in the SNPRM. The FAA is providing the public an opportunity to comment on these additional requirements, as well as other changes from the NPRM.

Because of the substantive changes and reorganization of the NPRM, the FAA is publishing the rulemaking proposal in its entirety in this SNPRM. These changes are discussed below. To facilitate review, the FAA has provided a distribution and derivation table in the docket, listing the current rule requirements, the sections as proposed in the NPRM, and where those requirements appear in the SNPRM.

D. General Overview of SNPRM

This section provides a summary of the SNPRM and offers further explanation for the need for the proposed safety improvements. It also clarifies the impact of the proposal on air carriers conducting training under an approved AQP, as well as the interim requirements for operators transitioning from the training program requirements of existing subparts N, O and P to subparts BB and CC.

The FAA has retained the structure of the rule as proposed in the NPRM, with minor changes. Each air carrier that currently trains under the requirements of subparts N, O, and P rather than through an approved AQP would be required to have an approved training program that meets the standards set forth in subparts BB and CC. As discussed later in this document, based on the FAA's analysis of six existing AQP carriers, on average, an AQP carrier may expect to add 5–6 flightcrew member training or evaluation tasks to its curriculum, assuming the carrier has not obtained approval of alternative means of compliance for the proposed tasks in subpart BB that are not currently addressed. The requirements for qualification, service and use of pilots, flight engineers, and flight attendants (including the training program requirements for each population) are set forth in subpart BB and appendices Q, R, and S. The requirements for the qualification, service, and use of aircraft dispatchers (including the training program requirements) and the training requirements for other operations personnel, are set forth in subpart CC and appendix T. The training program must include the task requirements that pertain to each certificate holder's particular operations for academic and job performance training and evaluation for the following curriculum categories: new hire, initial, transition, conversion, upgrade, emergency, differences, recurrent, requalification, and special. The task requirements for each air carrier would vary depending on the air carrier's particular operations. The academic and job performance training and evaluation tasks for these curriculum categories are set forth in the QPS appendix specific to each population. In addition to the curriculum categories, each training program must also include the personnel, facilities, equipment, and other resources used to meet the training requirements, as further outlined in subparts BB and CC.

In the SNPRM, the FAA made one significant format change regarding the QPS appendices. Several commenters stated that including guidance information with the regulatory requirements made it difficult to determine which provisions in the appendices were required. To eliminate this confusion, the FAA has removed all of the non-regulatory informational sections from the QPS appendices and placed this guidance material in the following draft advisory circulars (ACs): Aircraft Dispatcher Training and Evaluation, Flight Attendant Training and Evaluation, and Flightcrew Member Training and Evaluation. In addition, the FAA also revised AC 120–53A, Guidance for Conducting and Use of Flight Standardization Board Evaluations, to address the new process set forth in the SNPRM for certificate holders seeking modification of their training programs based on operation of aircraft with similar flight handling characteristics, or as otherwise referred to in the SNPRM, related aircraft. These draft ACs are available for review in the docket.

E. Basis for the Rulemaking

The safety need for this rulemaking is based on a review of accidents involving U.S. certificate holders required to train under part 121, NTSB recommendations regarding training requirements, and the resulting need to codify existing recommended practices contained in FAA guidance material that represent current industry practices. The FAA received several comments regarding the basis for the NPRM and this section provides additional clarification.

As discussed in the NPRM, the leading causes of fatal accidents for U.S. air carriers over the last 20 years have been loss of control and CFIT. Human error was also a major factor in many of the accidents during this time period. This was most recently evidenced in the Colgan Air crash that occurred on February 12, 2009, when the pilot lost control of the aircraft after failing to follow appropriate procedures, resulting in the death of 45 passengers, two flight attendants, both pilots, and an individual on the ground. This rulemaking is necessary to address the training inadequacies the FAA identified in its accident analysis, as well as the multiple NTSB recommendations resulting from these accidents.

In the NPRM, the FAA identified 169 accidents that occurred from 1985 to 2004 that could have been mitigated if

the proposed enhanced training requirements had been in effect at the time of those accidents. Several commenters raised questions regarding whether this accident analysis included air carriers training under an approved AQP or accidents that had already been accounted for by other rulemaking actions. As a result of these comments, the FAA conducted a new accident analysis for the SNPRM. In this analysis, the FAA identified 178 accidents that occurred between 1988 and 2009 that were the result of inadequate training, incomplete operating manuals, and inadequate training standards and operating procedures. These accidents resulted in 492 fatalities, 196 serious injuries, and 615 minor injuries. This accident analysis does not include accidents by operators training under an approved AQP, or any accident that occurred while an air carrier was operating under the requirements of part 135. A detailed description of this analysis, and how it was conducted, is provided in section III.B.2 of the regulatory evaluation that is available for review in the docket.

The NTSB investigation reports of these accidents revealed, among other issues, the following areas of training inadequacies: Recovery from stall, active pilot monitoring skills, effective CRM, CFIT, operations in icing conditions, contaminated runways, upset recovery and recognition, and special hazards training. The NTSB often noted that these issues were compounded further by incomplete manuals and inadequate standards and operating procedures. These accidents resulted in the NTSB issuing several recommendations for training program requirements. The changes proposed in the NPRM and SNPRM incorporate the applicable sections relevant to training from the following NTSB recommendations:

- Crewmember Resource Management (CRM) training (Recommendations A–88–71 and A–94–96);
- Flight attendant training (Recommendations A–92–67, A–92–70, A–92–71, A–92–74, and A–92–77);
- Traffic Collision and Avoidance System Resolution Advisory (TCAS RA) training (Recommendation A–93–46);
- Use of simulators to conduct LOFT (Recommendations A–94–191 through 194);
- Training of flightcrews to respond to sudden, unusual or unexpected aircraft upsets (Recommendation A–96–120);
- Training of crewmembers to respond to in-flight fires (Recommendations A–01–83 through A–01–85);
- Aircraft pressurization on the ground while the ground air conditioning source is supplying conditioned (cooled or heated) air to the cabin (Recommendation A–07–96);
- Monitoring of exit availability on the ground after a significant event to help expedite and emergency evacuation (Recommendation A–09–26);
- Communication and coordination between Flight Crewmembers and Flight Attendants regarding emergency and unusual situations (Recommendation A–09–27);
- Pilot monitoring duties (Recommendation A–10–10);
- Requirements for flightcrew member academic training regarding leadership (Recommendations A–10–13, A–10–14, and A–10–15);
- Pilot recordkeeping requirements regarding training performance (Recommendations A–10–17 and A–10–18);
- Develop and implement procedures to establish airspeed reference (Recommendation A–10–21); and
- Develop and conduct stall recovery training and provide stick pusher familiarization training for pilots of stick-pusher equipped aircraft (Recommendations A–10–22 and A–10–23).

In the SNPRM, the FAA has included several provisions to respond directly to these NTSB recommendations. For example, the FAA has required training on certain new tasks for flightcrew member and flight attendant job performance and academic training. In addition, the FAA has enhanced the CRM training requirements, including leadership and command training for flightcrew members and requiring CRM training in initial, upgrade, and recurrent for flightcrew members.

In addition to addressing the problems revealed in the FAA's accident analysis and NTSB recommendations, this rulemaking is also necessary to codify existing guidance material now contained in FAA Order 8900.1 (Sept. 13, 2007).[4] This Order is available for review at *http://fsims.avs.faa.gov/fsims/fsims.nsf.* This order contains the primary guidance for FAA inspectors conducting oversight of air carriers. In drafting the proposed requirements for the NPRM and SNPRM, especially with regard to the minimum programmed hour requirements for curriculum categories, the FAA reviewed the sections in the Order pertaining to training and proposed to codify some of these recommended practices for all air carriers.

F. Impact of SNPRM on AQP Operators

This rulemaking principally affects air carriers training in accordance with the provisions of current subparts N, O, and P. Rather than train under the standards in subparts N, O, and P, an air carrier may elect to train under an approved AQP established in accordance with the provisions in subpart Y of part 121. AQP is an alternative method for developing training and testing materials for pilots, flight attendants, and aircraft dispatchers based on instructional systems design, advanced simulation equipment, and comprehensive data analysis to continuously validate curriculums. The NPRM and the SNPRM contain a number of AQP-based requirements, such as crew-oriented, scenario-based training, and mandated use of FSTDs. As noted in the NPRM, however, the FAA believed that current AQP training programs already met the safety improvements that were proposed in the NPRM, and thus air carriers training under an approved AQP would not be affected by the proposed rule. For this reason, the FAA originally estimated that the proposed revisions to subpart N and O would have minimal to no impact on air carriers currently operating under an approved AQP curriculum.

Upon review of the NPRM, some commenters suggested that the FAA require AQP for everyone, while others suggested that the proposed revisions to the training requirements would require significant revision to their approved AQP.

Although the FAA considers AQP to be an effective voluntary alternative for compliance with minimum training and qualification requirements, the FAA does not believe that it is appropriate to require all air carriers to train under AQP. As stated in the AQP final rule, the FAA recognized, and continues to recognize, that AQP may not be appropriate for every certificate holder. The AQP is a voluntary program established to allow a greater degree of regulatory flexibility in the approval of innovative training programs. Based on a documented analysis of operational requirements, a certificate holder under AQP may propose to depart from the traditional practices with respect to what, how, when, and where training and testing is conducted. Detailed AQP documentation requirements, data collection, and analysis provide the FAA and the operator with the tools necessary to adequately monitor and

[4] This guidance material was previously contained in FAA Orders 8400 and was consolidated into FAA Order 8900.1.

administer an AQP. See 70 FR 54810, 54811 (Sept. 16, 2005).

The FAA recognizes that some air carriers may not wish to incur the costs associated with an AQP. Such costs include additional personnel and management infrastructure to develop and facilitate the required data collection, analysis and application required under AQP. Furthermore, some air carriers may prefer the structured requirements of a traditional program to the analytically-driven AQP training program. Other air carriers that use contract training facilities may not find AQP to be a suitable alternative to traditional training requirements. The FAA also acknowledges that to get the most benefit from AQP data collection, a stable work force and route structure is necessary. Therefore, for those air carriers that have a higher turnover in their pilot ranks or conduct supplemental operations where the routes may vary, AQP may not be appropriate. Accordingly, in the SNPRM, the FAA is not proposing to require all certificate holders to operate under the AQP requirements in subpart Y of part 121.

To determine the impact of the proposed rule on operators training under an approved AQP, the FAA conducted an analysis of six air carriers that are representative of those currently operating under an approved AQP. *See* FAA Technical Report, Sec.III, p. 12, App. B. The purpose of the analysis was to identify where the existing AQP pilot flight training curriculums for the representative fleets and operators (a) complied with the NPRM requirement, (b) had AQP-approved alternatives in place, or (c) did not address the NPRM requirement. For this analysis, the FAA used the criteria presently employed for AQP approvals. In addition to examining AQP curriculum content against the NPRM, the average AQP planned hours for each of the target curriculums were compared to the time required to accomplish the current requirements under part 121 appendices E and F and the time required to accomplish the proposed requirements under the NPRM. The FAA then examined the six carriers' programs to determine the time differences between the current AQP curriculums and the tasks proposed in the NPRM that were not currently addressed in those curriculums. Although the FAA recognizes that AQP carriers may propose alternative means of compliance for those tasks, for the purposes of this analysis, the FAA did not make any assumptions regarding any alternative proposals for those NPRM tasks not currently addressed in existing AQPs. The average amount of time required for accomplishing this analysis for each air carrier was 30 hours per fleet. For the results of these analyses, see Table 6 in the FAA Technical Report. Tables for all six AQP carriers are included in appendix B of the FAA Technical Report and summarized in Table 8. The tables in appendix B and the excerpt in Table 7 show the tasks in the proposed rule that presently have no approved AQP alternative method of compliance.

Based on the FAA's analysis of six existing AQP carriers, on average, an AQP carrier may expect to add 5–6 tasks to its curriculum, assuming the carrier has not obtained approval of alternative means of compliance for the proposed tasks in subpart BB that are not currently addressed. Based on an estimate that each task may take anywhere from 2 to 10 minutes to complete, a certificate holder conducting training under an AQP may be required to add anywhere from 10–60 minutes of training to its current program. Some of the tasks that may be added by an individual certificate holder training under AQP may not require evaluation (*e.g.,* during both initial and recurrent curriculum categories the task "slow flight" is incorporated for training but is not subject to evaluation,) and some of the added tasks are incorporated within an existing and over-arching task (*e.g.,* "use of airport diagrams" or "acquire appropriate clearance before crossing or entering active runways" are already covered under the existing task of "taxi").

The FAA maintains its position in the NPRM that any additional task(s) that may be required of certificate holders training under the AQP would have a minimal, if any, impact on the length of the certificate holder's current approved AQP.

In the SNPRM, the FAA has added language in § 121.1202(e) to clarify the impact of the proposal on certificate holders with an approved AQP or those certificate holders applying for approval of an AQP. Certificate holders who have an approved AQP curriculum under subpart Y or have applied for approval of a training program under subpart Y before the effective date of the final rule would be required to submit the Qualification Standards Document required for AQP under 14 CFR 121.909(b)(4). In the SNPRM, proposed § 121.1202(e) would require the certificate holder to indicate in the Qualification Standards Document the specific provisions of subparts BB and CC that would be replaced by the AQP curriculum. The certificate holder would be required to provide a justification and a continuing process approved by the FAA to show how the AQP curriculum would provide an equivalent level of safety for the requirements in subparts BB and CC. The certificate holder would be required to submit the Qualification Standards Document no later than 5 years after the effective date of the final rule.

G. Transition From Current Training Program Requirements (§§ 121.1202 and 121.1402)

To help transition non-AQP air carriers from the current regulations to the revised requirements for qualification, service, and use of crewmembers and aircraft dispatchers, the FAA proposed in the NPRM to continue the current regulations under subparts N, O, and P, for 5 years after the effective date of the final rule. The effective date of the final rule is 120 days after publication in the **Federal Register**. Certificate holders who have an approved training program before the effective date of the final rule or have submitted a training program for approval before the effective date of the final rule may comply with existing regulations, subparts BB and CC, or both. The proposed rule permits simultaneous compliance to allow the certificate holder to continue using its approved programs while transitioning to the new requirements. The FAA has maintained these provisions in the SNPRM.

On the date the current regulations expire, all certificate holders who are not conducting training under an approved AQP, and all crewmembers and aircraft dispatchers who are not trained under an approved AQP, must be in compliance with the requirements of subparts BB and CC of part 121. Therefore, it will be necessary for certificate holders to begin training under subparts BB and CC in sufficient time to ensure that all crewmembers and aircraft dispatchers are trained, qualified, and meet the applicable look back provisions of subparts BB and CC before the expiration of the current regulations. Proposed § 121.1202 and § 121.1402 would require certificate holders to submit a transition plan that specifies the transition completion date, which must be before the expiration of the current regulations.

For example, during the transition period, the air carrier may decide to train all newly-hired crewmembers in accordance with the proposed rules, while continuing to train existing crewmembers under the current requirements. Individual crewmembers would be required to be fully in

compliance with the requirements of the existing regulations or with the proposed regulations. Another example would be when a certificate holder submits a training program for a new aircraft type after the effective date of the rule. The training program developed for this new aircraft type must be in compliance with and approved under proposed subparts BB and CC. However, the certificate holder would be allowed to continue conducting training and evaluation on aircraft in its existing fleet in accordance with the regulations in subparts N, O, and P within the 5-year transition period. A carrier could not "cherry pick" between the two sets of regulations for individual employees. Setting the effective date for 120 days after publication of the final rule and allowing use of the existing regulations for 5 years after this period provides existing certificate holders and the FAA time to smoothly transition to the new requirements. By using this approach, certificate holders seeking FAA approval for a new training program would not have to develop one training program to comply with the old regulations, and then develop another training program to comply with the new regulations.

The SNPRM, like the NPRM, proposes that if a new training program is submitted for approval after the rule's effective date, the training program must meet the requirements of subparts BB and CC, as applicable. The FAA does not intend that non-significant modifications that may be proposed to a current training program under the existing regulations would require the certificate holder to initiate development of a training program to comply with subpart BB or CC any earlier than they had planned in accordance with their current business plan.

The FAA has included a grandfather provision in proposed subpart BB to allow persons qualified for a crewmember duty position under the current rules to meet the requirements of the proposed rule without having to repeat certain categories of training they have already completed under the current rules. Proposed subpart CC contains a similar grandfather provision for aircraft dispatchers. For example, currently-qualified crewmembers and aircraft dispatchers would not have to repeat basic qualification, new hire, or initial curriculum categories, as applicable.

During the transition, § 121.1202(d) states "the lesser qualification requirements apply for that duty position for that operation." If one crewmember hasn't yet been transitioned to subpart BB and one has, when they are working together on an aircraft, the "lesser" operational requirement may be met. For example, current § 121.455 requires the PIC to have had additional training before the crew lands at a "special airport" but the SNPRM requires both pilots to have had additional training before they land at a "special airport." If the SIC was still being trained under the current requirements, the SIC would not have the additional training required under the SNPRM, but the airplane could land because the "lesser" operational requirement would be met.

The NPRM did not specify when certificate holders must comply with proposed requirements that are outside subparts N, O, and P of part 121. A commenter noted that the time frames specified in §§ 121.400, 121.431, and 121.1202 apply only to subparts N and O of part 121, which do not contain the manual requirements. In the SNPRM, the FAA has clarified the dates of compliance for § 119.65, § 119.67, § 119.69, § 119.71, § 121.9, § 121.125, § 121.126, § 121.133, § 121.134, § 121.135, § 121.136, § 121.392, § 121.465, § 121.536, § 121.537, § 121.540, § 121.683, § 121.684, § 121.689, § 121.690, § 121.711, and § 121.805.

III. Discussion of Significant Issues in SNPRM

This section provides clarification of major areas of concern raised by commenters, introduces new requirements, and explains the significant revisions of requirements proposed in the NPRM.

During the comment period, the FAA received several requests for clarification of the job performance training for flightcrew members, with specific regard to the training and evaluation task requirements and definitions in the NPRM, pilot monitoring skills, minimum programmed hours, frequency of training, availability of simulators as a result of the increased frequency, and the level of FSTD required to complete training. On April 7, 2009, the FAA held a public meeting to provide clarification. During the public meeting, participants from industry questioned the basis for the proposal and requested additional data to support the proposed changes. In the comments received after the public meeting, ATA and individual airlines requested additional information regarding the projected costs of the proposed requirements and how the tasks, based on the task definitions, could be accomplished within the proposed programmed hours.

After the close of the comment period, the FAA determined it was necessary to gather additional data regarding (1) the number of simulator sessions, hours, and tasks required to accomplish the proposed flightcrew member training and evaluation requirements for both AQP and non-AQP air carriers; and (2) the impact of the proposed rule on carriers training under an AQP, as set forth in part 121, subpart Y. While the FAA primarily developed the FAA Technical Report to validate the cost and impact of the proposed training and evaluation requirements in the NPRM, throughout the process of developing the FAA Technical Report, the FAA determined that it was necessary to revise and clarify the training and evaluation requirements in the SNPRM. The FAA also held a meeting on December 8, 2009, with ATA and several member airlines to clarify the comments received during the comment period. A summary of this meeting is available for review in the docket. The following provides clarification of the job performance training and evaluation for flightcrew members.

A. Flightcrew Member Job Performance Training (Appendices Q and R)

1. Job Performance Task Requirements and Definitions

The flightcrew member tasks that must be performed during job performance training and evaluation for the various curriculum categories are set forth in Table 3A of appendices Q and R of the NPRM and SNPRM. In the NPRM, the FAA also provided corresponding definitions for the tasks that provided additional instruction for completion of these tasks. Several commenters questioned the basis for the tasks, the frequency for accomplishing the tasks during recurrent training and evaluation, and how, based on the definitions, the tasks could be accomplished within the proposed minimum programmed hours for the curriculum categories.

Upon review of the comments and based on the discussion on December 8, 2009, the FAA, as part of the FAA Technical Report, conducted a comparison analysis of initial and recurrent curriculum categories task requirements for the current requirements and those proposed in Table 3A of appendix Q of the NPRM and SNPRM. The FAA focused on these two curriculum categories because (1) the initial curriculum category contains the largest number of tasks for any curriculum category under both the

current rule and the proposed revisions, and (2) the recurrent curriculum category under the NPRM and SNPRM contains the largest cost because each flightcrew member is required to complete task requirements every 9 months.

In the NPRM, the FAA proposed to require 8 hours of training and evaluation for pilots in recurrent job performance training. However, based on the results of the FAA's Technical Report, the FAA believes that all of the recurrent training and evaluation task requirements can be completed in less than the 8 hours set forth in the NPRM. The Actual Simulator Trial conducted as part of the FAA Technical Report demonstrated that the required tasks for a recurrent evaluation could be completed in 3 hours and 29 minutes. With all of the required "every nine month" tasks [5] having been completed during the recurrent evaluation, the FAA believes the requirements for the LOFT session could be accomplished in under 3 hours. In addition, during those recurrent training cycles that include an FFS course of instruction instead of an evaluation, depending on the number of required "every nine month" tasks accomplished during the FFS course of instruction, the FAA believes the LOFT also could be accomplished in 3 hours.

In the SNPRM, the FAA has revised the minimum programmed hours for recurrent training from 8 hours (as proposed in the NPRM) to 6 hours. The FAA has not made a similar change to the programmed hours in the other curriculum categories (initial, transition, and upgrade) because flightcrew members who are newly hired or not yet qualified on the type of aircraft may require more repetition of the assigned tasks to become proficient.

As identified in the FAA Technical Report, initial training under the current provisions of subparts N and O require training on 62 job performance tasks for pilots in command (PICs) and 56 job performance tasks for seconds in command (SICs). The NPRM proposed a total of 125 job performance tasks for PIC and SIC initial training. In the SNPRM, the FAA has revised the abnormal and emergency procedures tasks, which now results in a total of 94 required tasks for initial training. These 94 job performance tasks are based on a recodification of existing requirements in appendix E and H of part 121, NTSB recommendations, and standard industry practices. The FAA determined the standard industry practices by reviewing existing AQP training programs and non-AQP training programs. See FAA Technical Report, Table 2, p. 7. A detailed review of these training programs is provided in Appendices A and B of the FAA Technical Report.

The FAA recognizes that some of the confusion regarding the proposed task requirements was a result of the proposed task definitions in attachment 4 of the Pilot and Flight Engineer QPS appendices. For example, for the task "unannunciated abnormal procedures," some commenters interpreted the corresponding task definition as requiring training on all unannunciated abnormal procedures. For some aircraft, this might require training on 58 different procedures. This is not what the FAA intended. The proposed definition was intended to allow a certificate holder to select a representative sample to ensure adequate exposure to these unannunciated abnormal procedures. To clarify the intent, the FAA has removed the flightcrew member task definitions and deleted attachment 4 of appendices Q and R. The flightcrew member task definitions serve as more of a guide to certificate holders in tailoring the tasks in Table 3A to the certificate holder's unique operations and are more appropriate as guidance material in the draft Flightcrew Member AC. As a result of deleting all of attachment 4, however, some tasks in Table 3A required further specification and others required consolidation. As a result of this consolidation and reorganization, the FAA has adjusted the number of overall tasks from the current rule to the SNPRM in both initial and recurrent training and evaluation as follows: (1) From 62 tasks for PICs and 56 tasks for SICs to 94 tasks for each in initial training; (2) from 34 tasks for PICs and 32 tasks for SICs to 54 tasks for each in initial evaluation; (3) from 36 tasks for PICs and 35 tasks for SICs to approximately 52 tasks (assuming equal distribution of those tasks that are required every 36 months) for each 9-month recurrent cycle that does not contain a recurrent evaluation and approximately 12 tasks (assuming equal distribution) for each recurrent cycle that contains a recurrent evaluation; and (4) 34 tasks for PICs and 32 tasks for SICs to 54 tasks for each in recurrent evaluation. See FAA Technical Report, Sec. III, Comparison of Current Rule, NPRM and SNPRM, Table 2, p. 7 (Apr. 5, 2010). The FAA clarified, modified, and added tasks for all curriculum categories to ensure that pilots develop the necessary skills to properly and safely perform routine functions. These include landing on contaminated runways, landing from a non-precision approach, and performing visual approaches and landings without the aid of electronic or other glide path information. In addition, the FAA consolidated line environments, addressed in section 13 of Table 3A of the NPRM, into other sections of Table 3A of the SNPRM to specifically require maneuvers in a particular environment. These revisions were necessary to eliminate confusion regarding the required tasks in Table 3A. The following provides a detailed explanation for the development of some of the significant proposed task requirements, as well as the task requirements prescribed by Public Law 111–216. In developing the tasks in Table 3A, the FAA recognized that loss of control is a major factor in aviation accidents involving a fatality. The FAA's proposal to revise requirements for recovery from approach to stall training in the NPRM would have addressed some of the causal factors in accidents where loss of control was identified. While the tasks currently required under appendices E and F for "recoveries from approaches to stall" remain a viable part of the training syllabus, the SNPRM now describes a requirement to have pilots newly qualifying on an airplane perform recoveries from a complete stall. There are three scenarios in which stalls generally occur: clean configuration (table 3A, task 5.2.1), takeoff and maneuvering configuration (table 3A, task 5.2.2), and landing configuration (table 3A, task 5.2.3). Under the proposed tasks, the flightcrew member would be required to complete two recoveries from stall for each scenario for initial and transition training, and one recovery from stall in each scenario for conversion, upgrade, and all phases of requalification training. For recurrent training and all evaluations, the flightcrew member would be required to complete one recovery from stall from one of the three scenarios. For flightcrew members operating aircraft equipped with stick-pusher, the recoveries from stall must be completed by going through stick-pusher release, regardless of the scenario selected. In addition to the job performance training for recovery from stall, the FAA also has proposed academic training. Under Table 2A, section (d)(10), air carriers will be required to provide training for special hazards, which includes recovery from a stall in the three scenarios.

These proposed changes are supported by the NTSB final report (NTSB/AAR–10/01) on the Colgan Air

[5] See table 3A in appendix Q and appendix R.

accident of February 12, 2009, and respond to the training requirements in Public Law 111–216, § 208(a)(1)(A) (Aug. 1, 2010).

The FAA also added tasks to ensure flightcrew members understand the performance and handling qualities of the aircraft they are flying. This would ensure that they are prepared to deal with situations such as "jet upsets," "CFIT," and "icing conditions." Accordingly, in the SNPRM the FAA added the following tasks to the requirements in Table 3A of the Pilot QPS: task 5.6 "Upset Recognition and Recovery," for initial and recurrent training and evaluation; task 5.14 "CFIT/Terrain Avoidance," for initial and recurrent training and evaluation; and task 5.15 "Structural Icing when Airborne," for initial and recurrent training only. The FAA also added task 5.1 "slow flight," for initial training, with recurrent training required every 36 months, to provide pilots with an understanding of the performance of the airplane and a "hands-on" exposure to the way the airplane handles at airspeeds that are just above the approach to stall warning. In addition, the FAA is also requiring academic training for these subjects. See Table 2A, (d)(1)–(11).

The task requirement, "taxi," is a current requirement in appendix E of part 121 and, as such, is included in training programs for flightcrew members. Upon review of several accidents, including accidents in August 2006 (NTSB/AAR–07/05, NTSB Recommendation A–07–44) and August 2005 (NTSB Event ID CHI05LA238), the FAA determined that it was necessary to expand this task to include 3 sub-tasks for taxi, which would be treated as separate tasks that must be completed. In the SNPRM, to comply with the task requirement "taxi," a flightcrew member would be required to complete the sub-tasks "Use of airport diagram (surface movement chart)," "Appropriate clearance before crossing or entering active runways," and "Observation of all surface movement guidance control markings and lighting." See AC 120–74A, Parts 91, 121, 125 and 135 Flightcrew Procedures During Taxi Operations and Safety Alert for Operators 06013 and 07003. Although some certificate holders may already address this task requirement at this level of specificity, the FAA has determined that this task must be targeted by all certificate holders to ensure that flightcrew members use available cues and aids to identify the airplane's location on the airport surface during taxi and verify that the airplane is on the correct runway before takeoff. The FAA does not believe the training time required for the accomplishment of these sub-tasks for "taxi" would take any longer than the time required to complete the currently required "taxi" task. See FAA Technical Report, Table 2, p. 7, n. 9.

In the SNPRM, the FAA added bounced landing recovery training to the initial training tasks. The FAA is also proposing in the SNPRM that bounced landing recovery training be conducted at least once every 36 months in recurrent training. This task teaches pilots identification of and procedures for bounced landing recovery. The FAA determined this requirement is necessary based on FAA review of accidents that occurred in September 2004 and July 1997. See NTSB Event ID DCA04MA082 (Sept. 19, 2004); NTSB Report AAR–00/02 (July 31, 1997). The NTSB found the probable cause of the September 2004 accident was due to the pilot's over-rotation during a go-around maneuver that was initiated because of a bounced landing. This task requirement also would respond to NTSB recommendations issued after the July 1997 accident (NTSB Rec. A–00–93 and A–00–94), which requested that the FAA develop a training tool and provide a syllabus for simulator training on the execution of stabilized approaches and techniques for avoiding overcontrol and premature derotation during bounced landings.

In the SNPRM, the FAA also added task requirements to Table 3A of the flightcrew member QPS appendices for approved low altitude windshear flight training to encompass requirements currently in § 121.409(d). Addressing these tasks in initial and recurrent evaluation would ensure that pilots have developed the necessary skills to recover from a windshear encounter. The FAA determined these requirements were necessary based on a review of an accident that occurred in April 1993, in which the flightcrew failed to recognize, or recognized too late, an inadvertent encounter with an un-announced windshear on final approach. See NTSB Event ID: DEN93FA047.

Questions from commenters regarding the pilot job performance tasks and definitions also extend to flight engineers. Table 3A in appendix R for flight engineers also now incorporates the same format and essentially the same tasks as required for pilots. Understanding that the flight engineer is part of the full crew concept that the original NPRM established, training under this concept would require the flight engineer to be exposed to essentially the same tasks as the pilots. However, in this exposure, the flight engineer would have differing responsibilities and performance requirements for each such task than the pilots. Because of this difference, it may appear initially that revised Table 3A in the Flight Engineer QPS describes a dramatic increase in the number of tasks for flight engineer training, but the overall tasks and frequencies for flight engineers remain essentially unchanged from the NPRM.

As a result of the FAA accident analysis, further consideration of NTSB recommendations, as well as industry comments regarding the complex nature of the number of requirements and frequency for accomplishing the tasks, the FAA has proposed to increase the frequency of some tasks, reduce the frequency of other tasks, and minimally change the total number of tasks to be addressed in Table 3A. To accomplish this, the FAA has clarified how the training tasks are to be accomplished and has described how to supplement the recurrent curriculum category (specifically the proficiency check requirements) by focusing on the training requirements. This clarification is set forth in the FAA Technical Report, which provides one method of developing a recurrent training and evaluation program that would meet the proposed requirements in the SNPRM. See the FAA Technical Report, Sec. V, p. 18–20, App. C.

The FAA continues to propose additional simulator requirements to provide for additional training through the conduct of LOFT and FFS courses of instruction for both pilots and flight engineers. In the NPRM, the FAA proposed that an FSTD course of instruction could be conducted in an FFS or Flight Training Device (FTD). Upon further review, the FAA has determined that the tasks proposed in Table 3C of the Pilot QPS could not be accomplished effectively in an FTD. The FAA concluded that the tasks required for an FSTD course of instruction could only be conducted in an FFS. In the SNPRM, the FAA is requiring that the course of instruction be conducted only in an FFS. Therefore, in the SNPRM the FAA has replaced FSTD course of instruction with FFS course of instruction.

2. Pilot Monitoring Requirements (§ 121.1213)

Another area of confusion surrounding the flightcrew member job performance task requirements concerned the proposed requirement for evaluating pilot monitoring skills. Several individual airlines commented that the pilot monitoring task would

require all of the tasks in Table 3A of the Pilot QPS to be performed twice, once as the pilot flying, and once as the pilot monitoring the operation. This is not the case.

The current regulations do not explicitly address pilot monitoring skills. Historically, however, the FAA has commonly referred to this individual as the pilot not flying, and the duties of this individual are currently included in the manual required by § 121.133. Individuals serving as the pilot not flying currently receive training in LOFT and other training scenarios. In 2003, the FAA revised guidance addressing procedures for the pilot not flying, and the term "pilot not flying" was replaced with the term "pilot monitoring." See AC 120–71A, Standard Operating Procedures for Flight Deck Crewmembers, (February 27, 2003). The NPRM proposed to codify the use of the term "pilot monitoring" to reflect the activities conducted by the pilot who is not actually flying the aircraft or the FSTD. The purpose of using the term "pilot monitoring" is to convey that the pilot monitoring is actively engaged in the safe operation of the aircraft and as such should be trained and evaluated in performing active monitoring skills.

In the NPRM and SNPRM, the FAA has not changed the current duties and responsibilities of the pilot monitoring. The FAA has for the first time proposed requiring the evaluation of active pilot monitoring skills. These proposed changes are further supported by the NTSB final report (NTSB/AAR–10/01) on the Colgan Air accident of February 12, 2009. In the report, the NTSB concluded that "the monitoring errors made by the accident flight crew demonstrate the continuing need for specific pilot training on active monitoring skills." NTSB Rec. AAR–10/01, at p. 94 (Feb. 2, 2010).

To meet this requirement, however, the FAA did not intend that each individual task be accomplished twice by each flightcrew member. Because a full crew would be required during training and evaluation, during the accomplishment of any task there would always be a pilot flying and a pilot monitoring, where both are being observed by a check airman (pilot) or flight instructor, which is consistent with AC 120–71A. The NPRM and SNPRM would only require that both pilots be evaluated for the skill they are performing during each task, whether it is a flying skill or a monitoring skill.

3. Frequency of Training and Evaluation for Recurrent Tasks

In addition to the questions regarding the Tasks in Table 3A, several commenters questioned the frequency with which the Tasks would be required to be accomplished during recurrent training and evaluation. Recurrent training and evaluation comprises a large portion of an air carrier's training program. Under the NPRM and SNPRM, flightcrew members would be required to complete the assigned recurrent tasks during two simulator sessions every 9 months over the course of a 36-month cycle for the recurrent curriculum category. In the NPRM, the FAA designed Table 3A to require that specific tasks be completed during 9-month, 18-month, and 36-month cycle for recurrent training and evaluation. An unintended consequence of this design was that some tasks appeared to be required during every recurrent training and evaluation simulator period. The FAA did not intend this result for some of the tasks. To clarify the FAA's intent, in the SNPRM, the FAA has revised the frequency for accomplishing the tasks during training and evaluation in Table 3A in appendix Q. The FAA has changed the column titles for recurrent training and evaluation from "Every 9 months," "Every 18 months," and "Every 36 months," to "Every 9 months," and "At least once every 36 months." Accordingly, if there is an "x" in the "every 9 months" column, that task must be accomplished once during every 9-month cycle. The FAA notes that recurrent evaluation is required every other 9-month cycle. Therefore, a cycle may encompass either two training events, or a training event and an evaluation event. If a task is designated to be completed "every 9 months," that task may be completed in either training session but is not required to be completed in both. However, if the cycle includes an evaluation session and there is an "x" in the proficiency check column for that task, the task must be accomplished in the evaluation session. The task can be done again in the training session but is not required to be done in the training session for that 9-month cycle. If there is an "x" in the "At least once every 36 months" column, that task must be accomplished at least once over the 36-month recurrent training and evaluation period. This revision is necessary to provide certificate holders with an opportunity to use simulator time to target critical training tasks unique to their operations.

4. Proposed Baseline and Minimum Programmed Hours (§ 121.1335)

In the NPRM, the FAA proposed minimum programmed hours for new hire, initial, full conversion, core conversion, transition, full upgrade, core upgrade and recurrent curriculum categories. As proposed, programmed hours for requalification and differences would be determined by the Administrator, and for the special curriculum category, the hours would be developed by the certificate holder and approved by the Administrator. The programmed hours were based on a review of guidance in FAA Order 8900.1, Vol. 3, Ch. 19, Sec. 6, para. 3–1230 (Sept. 13, 2007), and the proposed task requirements that would need to be accomplished during the programmed hours. The proposed task requirements resulted in an increase in minimum and baseline programmed hours from the hours noted in the FAA guidance material.

The FAA notes that in the NPRM and SNPRM, when a certificate holder initially submits a training program for approval, § 121.1335 states it must have the baseline programmed hours. After a training program has final approval, § 121.1335 allows for a reduction to the minimum hours as specified in the QPSs.

Continental generally commented that the curriculum category programmed hours for job performance flight training for flightcrew members in the NPRM do not reflect the actual time it would take to accomplish the job performance tasks in Table 3A.

In the SNPRM, these baseline and minimum programmed job performance hours are set forth in Table 1A of the appendix Q in the SNPRM and are as follows: Initial, 36 hours; conversion, 20 hours; transition; 24 hours; upgrade, 20 hours; recurrent, 6 hours every 9 months; requalification, 6 hours for phase I, 20 hours for phase II, and 24 hours for phase III; and the minimum hours for differences training are determined by the FAA. These programmed hours are based on FAA guidance in FAA Order 8900.1, Vol. 3, Ch. 19, Sec. 6, para. 3–1230 (Sept. 13, 2007) and review of the proposed required tasks in Table 3A.

As discussed earlier, the FAA conducted a technical analysis of the time required to accomplish the training and evaluation tasks contained in the current rule, the NPRM, and the SNPRM for initial and recurrent curriculum categories. In this analysis, the FAA concluded that the programmed hours proposed in the NPRM were appropriate. (See FAA Technical

Report, Sec. III., Tables 3, 6, pp. 9–11.) Therefore, in the SNPRM the FAA has retained the programmed hours specified in Table 1A of appendix Q, attachment 1, of the Pilot QPS. In regard to initial training and evaluation, the FAA has clarified that the initial job performance training consisting of 36 hours must be conducted independently of the initial evaluation. There is no specified time requirement for the initial evaluation because the time necessary to complete the evaluation is dependent on the tasks that must be accomplished during the evaluation. Because of the addition of the LOFT requirement and the additional tasks in Table 3A, the time necessary to complete initial flight training increased from 20 hours under the current rule to 36 hours in the SNPRM. Furthermore, for requalification programmed hours for flightcrew members, the NPRM did not provide specific hours. In the SNPRM, the FAA has proposed specific programmed hours for the requalification curriculum category. The programmed hours proposed for phases I, II, and III of requalification are based on the programmed hours proposed for recurrent, conversion, and transition curriculum categories respectively. These phases of requalification are appropriate because they provide a graduated increase in training based on the amount of time the individual has been unqualified and thus would ensure that the crewmember is proficient and qualified to serve. In addition, the FAA removed the task requirements described in attachment 4 of the QPS in the NPRM to avoid confusion concerning the definition, number, and frequency of tasks required for initial and recurrent curriculum categories. The FAA believes, based on the analysis in the FAA Technical Report, that the tasks can be performed at the frequency established in Table 3A of appendix Q within the minimum programmed hours set forth in Table 1A of appendix Q.

Midwest, American, FedEx, ATA, and UPS commented that programmed hours apply to specific training categories (*e.g.,* initial, transition) and that programmed hours in each training category can apply to more than one duty position simultaneously, such as when the PIC is completing pilot monitoring tasks and the SIC is completing pilot flying tasks. The commenters questioned whether this practice would be an acceptable means of compliance with the task requirements.

To clarify that some task requirements can be accomplished simultaneously by the PIC and SIC, in the SNPRM the FAA has revised Table 3A in the Pilot QPS to identify those tasks that are performed by the PIC and SIC as a crew. These tasks are flight deck inspection, navigation system setup, pushback and powerback, taxi, pre take-off procedures, deicing before takeoff, after landing, contaminated runway operations, traffic collision avoidance system (TCAS), structural icing airborne, and extended operations (ETOPS) Procedures.

Based on the increased frequency and the proposed increase in recurrent training and evaluation, many commenters raised concerns regarding the number of simulator periods that would be required to accomplish the job performance tasks for recurrent training and evaluation. The commenters estimated that it would take 22 simulator periods over the course of the 36-month recurrent training and evaluation timeframe to complete all of the required tasks.

Although the commenters stated that the task requirements for recurrent training and evaluation in the NPRM would require 22 simulator periods over a 36-month recurrent cycle, during the Actual Simulator Trial discussed in the FAA Technical Report, the PIC and SIC were able to complete 76 of the potential 82 tasks that were proposed in the NPRM for a recurrent evaluation within 3 hours and 29 minutes. See FAA Technical Report, Sec. V, pp 17–20; App C. In addition to the 76 tasks, the PIC completed six more tasks and the SIC completed 5 more tasks within the same simulator session. These additional tasks included: an additional approach to stall procedure; upset recognition and recovery; windshear encounter at takeoff; CFIT avoidance; rejected landing; and additional instrument arrival (PIC only). In the SNPRM, the FAA has proposed to require that these tasks, except for the additional recovery from approach to stall, be accomplished during a recurrent evaluation. As the Actual Simulator Trial demonstrated, all of these tasks were completed in 3 hours and 29 minutes (including a 12-minute break), well within the 4-hour simulator period that is normally allotted to complete a proficiency check. See id. The remaining required recurrent training tasks could be completed during the remaining 31 minutes of simulator time and the additional LOFT or FFS course of instruction simulator session. Using conservative estimates regarding the usage of available simulators, the FAA believes there is an adequate number of simulators and simulator hours available to meet the requirements of the SNPRM. See FAA Technical Report, Sec. V, pp 29–32.

The FAA has also conducted an evaluation of the simulator period requirements necessary to complete the remaining tasks identified for recurrent training and evaluation. In Table 3A of appendix Q in the SNPRM, there are a maximum of 54 tasks that would be required during each recurrent evaluation. In addition, there are a maximum of 43 tasks that would be required every 9 months during recurrent training. Attachment 3 of appendix Q in the SNPRM indicates, however, that, when a task is required to be completed "every 9 months," this requirement is satisfied by the task being completed during the proficiency check during the 9-month cycle when a proficiency check is conducted. Therefore, for example, during the 9- and 27-month cycles, 40 of the 43 tasks required every 9 months would be completed during the required proficiency check. As such, these tasks would not need to be repeated during the accompanying LOFT or FFS course of instruction. When a proficiency check is not conducted, the 43 tasks in the "every 9 months column" must be completed during the two simulator training sessions (LOFT and FFS course of instruction).

In addition to these requirements, there are 33 tasks in Table 3A that must be completed "at least once every 36 months." If the 33 tasks are equally distributed across 36 months (8 simulator sessions), there would be approximately 8 tasks added to each 9-month recurrent cycle (or approximately 4 tasks per simulator session). See FAA Technical Report, Table 16, p. 28. During the Actual Simulator Trial, pilots were able to complete 87 tasks using only 3 hours and 29 minutes. They were able to reduce the simulator time they used by integrating tasks when the combination was a logical occurrence.

The FAA also notes that for initial training, the tasks must be completed over a minimum of 36 hours of flight training. For those operators who have established simulator periods of 4 hours duration, to accomplish the training tasks within the 36-hour minimum requirement, nine simulator periods of training would be required (including one simulator period for a LOFT) and one simulator period for the evaluation would be required, for a total of 10 simulator periods. See FAA Technical Report, Sec. III, Table 1, p. 6 (Programmed Hours).

5. Flight Simulation Training Device (FSTD) Requirements (Including Level of FSTD) (§ 121.1345, Table 3B of the Pilot and Flight Engineer QPS)

The NPRM proposed, in § 121.1345, to require that all pilot, flight engineer, check pilot, check flight engineer, flight instructor, flight engineer instructor, and Aircrew Program Designee (APD) job performance training and evaluation be completed in a qualified FSTD approved by the carrier's Principal Operations Inspector (POI). However, § 121.1345(b) allowed a certificate holder to request a deviation from the requirement to use FSTDs for training and evaluation, and § 121.1229(a) would permit the use of aircraft for compliance with recency of experience requirements. This is a significant change in current requirements, which only prescribe use of an FSTD for windshear training under § 121.409(d). Current appendix H of part 121 permits air carriers to use simulators for varying amounts of the required training, testing, and checking. Appendix H is a voluntary alternative to training and checking in the airplane.

None of the commenters opposed the requirement to complete all job performance training and evaluation in a qualified FSTD that is approved by the POI. In fact, Continental acknowledged that air carriers "are already substantially in compliance" with this proposed requirement. Boeing asserted that there may be times when simulators are not available, yet training and checking needs to be accomplished. Boeing questioned, therefore, whether the proposed rule would allow for training in airplanes. It stated that in these limited situations, training could be accomplished safely in an airplane. The FAA believes it is important to require the use of FSTDs for training. Using FSTDs allows for in-depth training, including the practice of critical emergency procedures, in a safer environment. This proposed requirement also addresses NTSB Recommendations A–94–191 through 194, which state that "training and checking in flight simulators, whether conducted under Part 121 or 135, should be the standard, not the exception."

Furthermore, the FAA has long recognized that the use of simulation in flight training provides an opportunity to train, practice, and demonstrate proficiency in a safe, controlled environment. Returning to the airplane for the training or evaluation of all skill sets has several disadvantages, including significant accident risk, higher costs for insurance and fuel, additional atmospheric pollution, and airport traffic saturation. The FAA emphasizes that the skill sets that are used in simulation must be the same skill sets that would be used when operating the airplane. Accordingly, the FAA has determined that use of simulation must be required for flight training.

However, to accommodate the limited circumstance where the only option available is to conduct flight training in an airplane because there is no FSTD available for that airplane or there are not enough FSTDs for the airplane, the FAA has proposed to allow a deviation from the requirement to use FSTDs. In the SNPRM, the FAA has revised § 121.1345(a) to draw attention to the deviation authority in paragraph (b). Paragraph (b) proposes an alternative training program for using an airplane instead of an FSTD or using an airplane in combination with an FSTD, including methods of achieving an acceptable level of safety.

RAA was concerned about the time limit for applying for the deviation from the use of FSTDs. The FAA notes that paragraph (b)(1) only establishes a time limit for requesting deviations for certificate holders who have an approved program or have submitted a training program for approval before the effective date of the final rule. Under paragraph (b)(2) there is no time limit on requesting deviations as part of a request for approval of an initial cadre program.

The FAA does not intend that the deviation provide a loophole for certificate holders who want to continue training and evaluating in airplanes. Rather, the deviation is designed to accommodate those certificate holders who use airplanes for which there are no FSTDs available (*e.g.* DC–6) or who, for extraordinary reasons, do not have access to an FSTD for the aircraft type they operate. FAA believes that options provided under paragraph (b) are appropriate and these requirements have not been changed in the SNPRM.

American recommended allowing FSTDs to be used for LOFT rather than requiring an FFS. In the SNPRM, the FAA has retained the requirement that the qualification and recurrent LOFT must be conducted in an FFS because the FAA believes that motion is a necessary element of LOFT. A level A FFS[6] is the first level of FSTD for which a motion system is required. Requiring LOFT in an FFS is consistent with recommendations in AC 120–35C, Line Operational Simulations: Line Oriented Flight Training, Special Purpose Operational Training, Line Operational Evaluation (Sept. 27, 2004). However, in the SNPRM, the FAA has modified Table 3B (Table 3C in the NPRM) to broaden the level of FFS allowed to be used for LOFT. In the NPRM, certificate holders would not have been permitted to use a level A or B FFS for qualification LOFT, or a level A FFS for recurrent LOFT. In the SNPRM, for both qualification and recurrent LOFT, a level A, B, C, or D FFS may be used. Upon review of the task requirements, the FAA determined that, although an FFS was necessary for LOFT, it was unnecessarily restrictive to limit qualification LOFT to levels C or D FFS and to limit recurrent LOFT to levels B, C, or D FFS. As such, the SNPRM proposes to allow the tasks for qualification and recurrent LOFT to be accomplished in levels A, B, C, or D FFSs.

The FAA's determination that an FFS must be used for LOFT is based on the universally recognized conclusion that while both visual and vestibular systems are directly impacted by simulation, the element of these systems that is critical to satisfactory training is motion on-set (or acceleration) cueing. Various studies have shown an increase in pilot performance when they use simulators with motion. See Showalter, T.W.; Parris, B.L., "The Effects Of Motion And G–Seat Cues On Pilot Simulator Performance Of Three Piloting Tasks," Ames Research Center, Jan 1, 1980 (indicating 40% improvement on yaw performance and Roll performance, engine out on takeoff with use of motion simulators); Parris, B.L.; Cook, A.M., "Effects of visual and motion simulation cueing systems on pilot performance during takeoffs with engine failures," Ames Research Center, Dec 1, 1978; Hosman, R.J. A.W., & van der Vaart, J.C. "Effects of vestibular and visual motion perception on task performance," (1981); Heintzman, Richard J. "Determination of Force Cueing Requirements for Tactical Combat Flight Training Devices," Training Systems Product Group Aeronautical Systems Center Air Force Materiel Command Wright Patterson AFB, February 1997; Gebman, J.R.; Stanley, W.L.; Barbour, A.A.; Berg, R.T.; Birkler, J.L., "Assessing the Benefits and Costs of Motion for C–17 Flight Simulators," Department of The Air Force, Washington, DC, June 1986. Accordingly, the FAA has determined that LOFT must be conducted in a level A, B, C, or D FFS because the FFS provides the level of motion cueing

[6] FFS levels become more sophisticated as they move up the alphabet. Accordingly, a level B simulator is more complex than a level A simulator.

necessary to ensure proper response in real flight line operations.

American also questioned the emphasis on level D FFS in Table 3C "Minimum FSTD Required for Credit," noting that many of the tasks could be appropriately accomplished in a level C FFS. American suggested revising Table 3C to lower the requirements to accommodate the use of level C FFS.

To ensure effective training and evaluation, a pilot needs to experience a certain level of visual and motion cues that accurately replicate the aircraft. Level D FFSs have more accurate sound, visual, and data capabilities than level C FFSs. However, the FAA recognizes if a pilot meets certain experience requirements, a level C FFS can provide effective training and evaluation. In the SNPRM, the FAA has maintained the requirements in the NPRM regarding the use of level C and D simulators in Table 3 B (Table 3 C in the NPRM). However, the FAA has also permitted the use of level C FFSs in certain circumstances. Where a Level D FFS is indicated in Table 3B, a level C FFS may be used to complete the training and proficiency test if the pilot meets specified experience requirements. The FAA believes there are a sufficient number of FFSs available for use by air carriers to meet the proposed requirements of the SNPRM. A detailed discussion of the current availability of FSTDs for use in training and evaluation is available for review in the FAA Technical Report. See FAA Technical Report, sec. V.C., p, 29.

As discussed previously, the FAA believes that in light of current flight simulation technology, job performance training must be conducted in the specified level of FFS to ensure that the pilot is trained and evaluated in an environment that accurately replicates the actual aircraft. The FAA, however, is aware that this flight simulation technology is rapidly changing. Therefore, the FAA requests comment on whether the deviation authority proposed in § 121.1345(b) should be expanded to permit certificate holders to apply for a deviation that would allow them to conduct training or evaluation in other FSTDs, provided the certificate holder could demonstrate that training or evaluation in the other FSTDs would provide an equivalent level of safety to the training, evaluation, or qualification provided in the level of device as specified in the QPS.

B. Reduction in Programmed Hours and Modification of Training Program Based on Operation of Related Aircraft

Current § 121.405(d) and (g) allow for a reduction in programmed hours, subjects, and tasks based on training aids, devices, methods, and procedures listed in the certificate holder's curriculum that increase the quality and effectiveness of the teaching-learning process and the certificate holder's operations, and that address the complexity of the make, model, and series of the aircraft used. One tool that is used in determining whether a reduction in programmed hours may be appropriate for a certificate holder is outlined in AC 120–53A, Guidance for Conducting and Use of Flight Standardization Board Evaluations. When requested by industry, the FAA, through the FAA Aircraft Evaluation Group (AEG), has undertaken an analysis of new and derivative aircraft and their associated systems regarding recommendations for training, checking, recency of experience, and operating experience applications. The FAA uses these analyses to develop consistent and practical recommendations for use in developing training, checking, currency, recent experience and certification programs for pilots of transport category aircraft. These recommendations are documented in Flight Standardization Board (FSB) reports for each aircraft and may be used by a certificate holder to develop its training program curriculum. The NPRM did not include these allowances for modification of programmed hours, subjects, and tasks, nor did it incorporate the guidance material in AC 120–53A.

The FAA received two comments on this issue. Boeing and Airbus commented that the NPRM did not allow for modification of programmed hours, subjects, and tasks. They noted that the NPRM incorporated neither the modifications currently allowed under § 121.405(d) and (g), nor the AEG responsibilities regarding recommendations for training, checking, recency of experience, and operating experience applications.

The FAA recognizes that due to differences in instrumentation and installed equipment, the skills and knowledge required to operate two aircraft of the same make and model can differ. The range of differences between variations of a basic aircraft model may be very wide or very narrow, given the introduction of computerized guidance systems, electronic instrument displays, and two crewmember flightcrews. Crewmembers trained on one variant of an aircraft may require additional training to safely and efficiently operate other variants of that aircraft. In 1989, FAA established FSBs to begin analyzing the differences in variants of existing aircraft during certification. These analyses are published in a Master Differences Program Requirements (MDPR) document in each FSB report. The MDPR document contains differences and differences training requirements for each variation of aircraft type. An operator preparing a training program may review the MDPR, determine the differences between the aircraft, and develop a training program, subject to FAA approval, that addresses these differences.

In certain circumstances, the differences between each variant may be so significant that additional training may be necessary. However, in other cases, technologies in modern aircraft systems and displays may allow different type certificated aircraft to have common flight deck and systems designs, such that minimal differences training may be warranted. In these situations, the FSB has recommended credits for similarities between aircraft, provided the necessary and critical levels of training, checking, currency, and recent experience are maintained.

For example, the Boeing 737 family of aircraft, whose variations have encompassed all models from the B–737–100 to the current B–737–NG family, is an example of one "type" of aircraft having diverse configurations and technologies incorporated in the same type certificate. In this case, the FAA has established the minimum differences to maintain an equivalent level of safety by managing the training, checking, currency, and recent experience requirements across this fleet of aircraft. On the other hand, the FAA has determined that it may be appropriate to allow credit based on commonality of systems design and handling characteristics for the Airbus family of aircraft (A320/330/340/380).

With the rapid advancement in modern technologies, both in manufacturing techniques and systems design and application, the industry has incorporated products and processes that have redefined the relationships between and within aircraft fleets. For example, the technological development of flight guidance computers has produced "fly-by-wire" control laws embedded in computer software that increasingly determine and control the handling or flight characteristics of an aircraft. The use of such technology can produce aircraft of differing models and aerodynamic airframes, whose handling or flight characteristics are similar.

To address these "relationships" among different type certificated aircraft, the FAA proposes adding a new definition for "related aircraft" that applies specifically to flightcrew members in part 121, subpart BB. Related aircraft means any two or more aircraft of the same make for which the FAA has determined that the flight handling characteristics and operating systems of the aircraft are so similar that it may be appropriate to give credit for some of the training, testing, checking, recency of experience, or operating experience conducted in one of the aircraft for the training, testing, checking, recency of experience, or operating experience that would be required for the other aircraft. These credits must be authorized by the FAA.

Based on the FAA's experience with evaluating aircraft similarities and dissimilarities regarding training, evaluation, and operations, the FAA is proposing to allow certificate holders to seek related aircraft designation. The process for seeking related aircraft designation is outlined in proposed § 121.1206. Having such a designation may allow certificate holders to take advantage of any similarities that may exist between aircraft in its fleet and make modifications to their training programs, as set forth in § 121.1215, or seek a deviation from the recency and qualification requirements as set forth in § 121.1230. Before a certificate holder may take advantage of the allowances in proposed §§ 121.1215 and 121.1230, it must submit an application for related aircraft designation and obtain approval of that application. The application must be submitted to the Division Manager of the Air Transportation Division of Flight Standards Service through the FAA office responsible for approval of the certificate holder's operations specifications.

In creating the related aircraft designation, the FAA recognizes that the range of differences between variations of a basic aircraft model may be very wide or very narrow given the introduction of computerized guidance systems, electronic instrument displays, and two crewmember flightcrews. Crewmembers trained on one variant of an aircraft would likely require additional training to safely and efficiently operate other variants of that aircraft. Consistent with current practice, provided a flightcrew member is able to demonstrate proficiency and complete the training and evaluation requirements set forth in the certificate holder's approved training program, the FAA has not established a limit on the number of aircraft type, or series within a type, that a flightcrew member may be qualified to serve.

C. Require Certificated Aircraft Dispatchers for Supplemental Operations

In the NPRM, the FAA proposed qualification and training program requirements for all aircraft dispatchers serving in domestic and flag operations, but was silent with regard to supplemental operations. Currently, §§ 121.125 and 121.127 require certificate holders conducting supplemental operations to maintain a flight following center. Supplemental operators are not required to use certificated aircraft dispatchers but may use operations personnel, commonly referred to as flight followers. The certificate holder must be able to show these individuals are able to perform the function of operational control of the aircraft and other job functions as required. The NPRM did not include training requirements for these flight followers.

Midwest and Transport Workers Union (TWU) recommended that the FAA require certificated aircraft dispatchers for supplemental operations in order to achieve one level of safety in part 121 operations. Airline Dispatchers Federation (ADF), TWU, Southwest TWU Local 550, and three individuals also suggested that the FAA include training requirements for flight followers in supplemental operations. The Crewmember/Dispatcher Qualification Aviation Rulemaking Committee (ARC) [7] dispatcher working group recommended eliminating the release and operational control rules for supplemental operations and requiring certificated aircraft dispatchers for all operations conducted under part 121. See Recommendation Document "Elimination of Part 121 Supplemental Release and Operational Control Rules" Docket entry FAA–2008–0677–049.1.

Under the current provisions, training for flight followers is generally stated in § 119.65(d). This regulation requires that anyone in a position to exercise control of operations must be "qualified through training, experience, and expertise," to the extent of their responsibilities and have a full understanding with respect to the operation. The FAA notes that as of September 30, 2009, there were 32 supplemental operators. Of these 32 operators, 21 operators employ only certificated aircraft dispatchers to perform flight following services and 8 employ some FAA certificated dispatchers as flight followers, Only three operators do not employ any FAA certificated dispatchers as flight followers. Of the 32 operators, 31 use flight followers located in the United States. These 31 operators employ 332 flight followers, 300 of which are certificated aircraft dispatchers, and 3 more who are presently in the process of obtaining an aircraft dispatcher certificate.

A majority of supplemental operators already use aircraft dispatchers as flight followers, recognizing FAA-certificated aircraft dispatchers provide a higher level of safety than non-certificated flight followers. Because flight followers may perform the function of operational control for the Director of Operations without a formal training program, it is necessary to ensure these individuals are qualified and trained to perform this function. The provisions in the SNPRM that would require aircraft dispatchers in supplemental operations are consistent with other FAA initiatives that serve to establish a single level of safety for all commercial airlines. Furthermore, adding these requirements for flight followers would also conform to ICAO Annex 6 section 4.2.1.3 regarding training for people designated with operational control responsibilities.[8]

Accordingly, the FAA proposes in this SNPRM to require flight followers to be FAA-certificated aircraft dispatchers, trained and qualified under proposed subpart CC. This action is further supported by the following accident history.

On December 28, 2001, a Boeing 747 cargo airplane operated by a part 121 Supplemental Operator had a tail strike on departure from Anchorage, Alaska. The NTSB found prior to departure that the crew failed to account for the weight of the additional fuel and inadvertently used the same performance cards that were used for the previous landing. The NTSB found the probable cause of the accident was inadequate preflight planning/preparation and failure to calculate aircraft weight and balance by the flight crew (NTSB Event ID ANC02LA008). The FAA believes this accident could have been mitigated if the pilots had been required to share joint responsibility with a certificated aircraft dispatcher involved in the preflight planning of this operation. Based on this analysis and in response to comments, the FAA proposes to amend §§ 121.125 and 121.127 to

[7] The FAA established the ARC on May 3, 2004, as a forum for the FAA and the aviation community to discuss crewmember and aircraft dispatcher qualification and training.

[8] ICAO Annex 6 was approved and became effective in November 2006, after the ARC had completed its work.

require personnel performing flight following services to meet the qualification and training standards set forth in subpart CC. For the purposes of these new requirements dispatch release and flight release have the same meaning.

As a result of requiring certificated aircraft dispatchers in supplemental operations, the FAA recognizes that the shared responsibility of operational control between the PIC and the certificated aircraft dispatcher increases the safety of the flight. With this added layer of safety, the FAA believes it is appropriate to allow supplemental carriers to file domestic flight plans with no alternate airport, under the provisions of § 121.619, as is currently allowed for part 121 domestic operations. This would result in a fuel savings for the supplemental operators because current regulations for supplemental operators require an alternate airport for all of their operations. Therefore, the FAA has included new § 121.536 to allow supplemental operators to comply with domestic alternate airport requirements in § 121.619 when they meet the requirements of §§ 121.125 and 121.127.

D. Establish Deviation Authority To Allow Contract Aircraft Dispatcher Devices (§ 121.1411)

In the NPRM, the FAA proposed a new requirement that aircraft dispatchers be employees of the certificate holder. The NPRM would have continued the current FAA policy of prohibiting the use of contract dispatchers. While current regulations do not address the use of contract dispatchers, on March 29, 1984, the FAA issued information to domestic and flag air carriers on "operational responsibilities and use of dispatchers who are not in the employ of the certificate holder," which stated that "to permit the dispatchers operational control functions and responsibilities to be fulfilled by a person who is not an employee of the certificate holder would, in effect, permit a portion of the certificate holder's operational control responsibilities to be fulfilled by a party other than the certificate holder which is contrary to §§ 121.533(a) and 121.535(a)." This policy thus prohibited the use of contract aircraft dispatchers based on concerns that sharing dispatch services between carriers, by contract or some other arrangement, clouds which carrier really controls the dispatchers and whether the air carrier that uses the dispatch services and dispatchers from the other air carrier really has full operational control of its flights.

A September 1988 letter from Robert L. Goodrich, Acting Director, Flight Standards Service, to Marshall S. Filler, attorney for Eastern, also discussed the sharing or contracting of aircraft dispatchers. In closing, Mr. Goodrich concluded permitting contract aircraft dispatchers would be a change in existing policy that would necessitate public notice and comment. He stated further that the FAA would be reluctant to adopt such a radically new policy unilaterally without benefit of comment from interested parties.

On November 30, 2000, the New England Deputy Regional Counsel restated the long standing policy against permitting contract dispatchers to Boston-Maine Airways (BM). See Letter to Boston-Maine Airways, from FAA Regional Counsel (New England) (Nov. 30, 2000) (copy available in the docket).

The FAA did permit the sharing of aircraft dispatch services in certain limited conditions in Alaska (SFAR 80) from 1997 until March 12, 2001. In establishing the SFAR, the FAA recognized its long-standing policy that each certificate holder subject to § 121.395 have aircraft dispatchers that are employed exclusively by that certificate holder. However, small operations located in remote areas in Alaska had difficulty attracting qualified, certificated aircraft dispatchers to work and live in those areas. Accordingly, the FAA issued the SFAR for a 4-year period to allow these operators, upon authorization by the Administrator, to contract dispatch services, with the expectation that adequate communications facilities would become available in all parts of Alaska and other areas within that time. 62 FR 13255 (Mar. 19, 1997). This SFAR was not renewed and, in fact, terminated on March 12, 2001.

In addition to the exception provided for certificate holders in Alaska from 1997 to 2001, current certificate holders conducting supplemental operations are allowed to contract flight following services, provided the certificate holder continues to be responsible for operational control of each flight. See § 121.125(b).

The FAA received three comments on this issue. Jeppesen suggested that the employment requirement be removed because the positions of aircraft dispatcher, check dispatcher, and dispatch program designee could be filled by contract employees who could provide an equivalent or higher level of safety as provided by an employee of the certificate holder. TWU International and Southwest TWU 550 supported the employment requirement proposed in the NPRM.

Upon review of the comments and further analysis, the FAA is retaining the employment requirement in this SNPRM. The FAA recognizes, however, that supplemental air carriers have been able to demonstrate an equivalent level of safety using contract flight following services as when using only employee flight followers. Based on this experience, the FAA believes that domestic and flag operators may also be able to demonstrate an equivalent level of safety by using contract dispatch services. Accordingly, the SNPRM proposes to allow a deviation from the employment requirement provided that the certificate holder can demonstrate that operational control is maintained. Advances in communications, weather analysis and dissemination, and flight tracking software have improved the operational control capabilities of the aircraft dispatcher. The consolidation of aircraft dispatchers in a centralized location could, under certain conditions, provide availability of experienced aircraft dispatcher personnel. The FAA reiterates that, in using contract aircraft dispatchers, certificate holders must maintain operational control. Accordingly, the FAA has included in the SNPRM deviation authority language in § 121.1411 to allow the use of contract aircraft dispatchers.

The proposed deviation to § 121.1411 would place strict conditions and requirements on the certificate holder regarding the issuance of operations specifications that outline operational control. These provisions include: (1) That the certificate holder has at least one certificated aircraft dispatcher who is an employee of the certificate holder and is responsible for managing policies, procedures, training, and qualifications of the contract aircraft dispatchers; (2) that the certificate holder demonstrates an ability to maintain operational control and comply with all requirements of this part; and (3) that the Administrator may, at any time, terminate any grant of deviation authority that allows the use of contract dispatch services. Furthermore, this deviation authority is not based on the size of the certificate holder's operation. Rather, the certificate holder must demonstrate that an equivalent level of safety would be achieved and there would not be an adverse effect on safety as a result of using contract aircraft dispatchers.

The FAA also recognizes that the proposed requirements in the SNPRM do not prohibit an aircraft dispatcher from engaging in dispatcher employment for more than one certificate holder. To ensure that aircraft

dispatchers are in compliance with the duty time limitations in part 121, the FAA is proposing to amend § 121.465(b) to place responsibility for compliance with duty time limitations on both the certificate holder and the aircraft dispatcher, consistent with the requirements applicable to flightcrew members. This requirement would become effective 120 days after publication of the final rule.

The FAA is also amending § 121.711 to extend the communication record requirements to include supplemental operations and clarify the contents of the record required for each en route radio contact between the certificate holder and its pilots. En route for the purposes of communication recording requirements commences at the time the aircraft has pushed back from the gate at the origin station and ends when it arrives at the gate at its destination. In a recent legal interpretation, the FAA determined that, at a minimum, the following information must be contained in the record to comply with the requirements of § 121.711: The date and time of the contact; the flight number; aircraft registration number; approximate position of the aircraft during the contact; call sign; and narrative of the contact. See Legal Interpretation to John S. Duncan, Division Manager, Air Transportation Division, FAA Flight Standards Service, from Rebecca B. MacPherson, Assistant Chief Counsel, Regulations Division (Feb. 2, 2010). The FAA is proposing to add these recordkeeping requirements to § 121.711, effective 120 days from the publication of the final rule.

E. Clarify Training Requirements for Other Operations Personnel (§ 121.1475)

Current subpart N prescribes the requirements applicable to each certificate holder for establishing and maintaining a training program for crewmembers, aircraft dispatchers, and "other operations personnel." 14 CFR 121.400(a). However, subpart N does not define who these personnel are, nor does it prescribe any actual training requirements for these personnel. Therefore, the FAA proposed in the NPRM to remove the reference to "other operations personnel."

During the FAA's review of comments regarding training for flight followers, the FAA determined that the requirement for the training of other operations personnel was removed in error. Currently, certificate holders are required to prepare and keep current a manual that flight, ground operations and management personnel may use in conducting operations under part 121. See 14 CFR 121.133, 121.135. That manual must include instructions and information necessary to allow these personnel to perform their duties and responsibilities with a high degree of safety. The requirement for training of "other operations personnel" as outlined in § 121.400(a) is intended to ensure these flight, ground operations, and management personnel receive training regarding their duties and responsibilities as outlined in the manual required under §§ 121.133 and 121.135. To ensure these personnel continue to receive training regarding their safety-related responsibilities and duties as specified in the manual, the FAA has revised proposed §§ 121.1401 and 121.1403 and added § 121.1475 to include training for ground operations and management personnel. The FAA currently tracks this training under the Air Transportation Oversight System (ATOS) and has determined that it is not necessary to establish specific training program requirements for these individuals other than requiring training on their safety-related duties and responsibilities as outlined in the certificate holder's manual. Approval of this training is not required, but the training must be acceptable to the Administrator.

F. Requalification for Crewmembers and Aircraft Dispatchers

The current provisions in subparts N, O, and P do not specifically identify how a crewmember or aircraft dispatcher becomes unqualified or how the crewmember can become requalified. Many air carriers have modified their training programs under § 121.401 to include a requalification curriculum, based on existing guidance in FAA Order 8900.1. See FAA Order 8900.1, Vol. 3, Ch. 19, Sect. 11, para. 3–1361–1369 (flightcrew members); FAA Order 8900.1, Vol. 3, Ch. 23, Sect. 1, para. 3–1727–1729 (flight attendants); FAA Order 8900.1, Vol. 3, Ch. 22, Sect. 5, para. 3–1701 (aircraft dispatchers). Without this curriculum, crewmembers and dispatchers who did not complete recurrent training within the required timeframe would be required to complete initial academic and job performance training in order to become requalified. In the NPRM, the FAA proposed to codify existing guidance material in FAA Order 8900.1 that permits certificate holders to develop requalification curriculums for crewmembers and aircraft dispatchers. The requalification phases were based on the number of months the person had been unqualified and the number of months since the person last served in a crewmember duty position for the aircraft type.

1. Flightcrew Member Requalification (§ 121.1239)

In the NPRM, the FAA did not propose to establish minimum programmed hours for requalification for flightcrew members. Rather, the FAA proposed that these hours would be determined by the Administrator. In the SNPRM, the FAA has revised the requalification requirements to clarify the phases of requalification and establish minimum and baseline programmed hours for each phase of requalification. Under the proposed requirements, phase I requalification is triggered if it has been less than 9 months since the end of the flightcrew member's base month; phase II requalification is triggered if it has been 9 months or more, but less than 27 months since the end of the person's base month; and phase III requalification is triggered if it has been 27 months or more since the end of the person's base month. The phases require increasing training requirements depending on the amount of time the crewmember has been unqualified. The programmed hours for phase I requirements are based on recurrent requirements; phase II programmed hour requirements are based on conversion requirements; and phase III programmed hour requirements are based on transition requirements.[9] The phase III requalification requirements are the most extensive because the amount of time that the person has been unqualified is relatively long, and the flightcrew member has lost more proficiency.

In determining the appropriate phases and minimum programmed hours for requalification, the FAA reviewed existing requalification programs for 22 non-AQP air carriers. These requalification programs provided a wide range of phases for requalification based on the time for which pilots had been unqualified. These phases varied from less than 3 months to more than 60 months. Some airlines had only two phases of requalification while others had as many as seven phases. The various phases generally settled into the following four ranges: 0–12 months; 12–36 months; 36–60 months; and more than 60 months. These four divisions also had a wide variety of approved academic training hours and job

[9] Conversion is a curriculum category used to qualify a flightcrew member when that person has qualified and served in that crewmember position on the same aircraft type for another certificate holder conducting operations under this part. Transition is a curriculum category used to qualify a flightcrew member when that person has qualified and served in that crewmember position on another aircraft in the same group.

performance training hours assigned to regain qualification. These approved time requirements ranged from 4 hours of academic training and 2 hours of flight training, to completion of initial training with respect to equipment qualification (120 hours of academic training and 6 to 10 simulator sessions of job performance training.) See FAA Technical Report, appendix F.

Based on the wide variance in current requalification programs as evidenced in appendix F in the FAA Technical Report, the FAA has determined that it is necessary to establish a uniform standard for requalification programs. In order to reduce administrative burden and not require additional development of content for requalification, the FAA proposes requiring that flightcrew members who enter phase I requalification complete the recurrent academic and job performance training and evaluation to become qualified. For flightcrew members entering phase II requalification, flightcrew members would be required to complete the academic and job performance training and evaluation for conversion to become qualified; and flightcrew members entering phase III requalification would be required to complete the academic and job performance training and evaluation requirements for transition to become qualified. Thus, the minimum programmed hours for the phases of requalification in Table 1A mirror the minimum programmed hours for these curriculum categories. These phases and hours reflect an appropriate graduated increase in training and evaluation based on the amount of time the flightcrew member has been unqualified. To ensure standardization, the FAA also removed language in § 121.1239 stating that the Administrator would determine programmed hours and revised Table 1A of the QPS documents to provide these specific programmed hours.

In addition, ATA, American, and Southwest suggested that the certificate holder should control scheduling the beginning date for requalification training. They stated that there might be some circumstances, beyond the control of the certificate holder, which may result in training not being completed within the 9-month time frame. In such cases, the commenters asserted that as long as the training occurs within the 30-day window, continuity of training would be maintained. Commenters also stated that any time requalification training is conducted, the flightcrew member's base month should be changed to align with current industry practice.

The FAA wants to ensure consistency regarding the requalification training requirements based on the length of time a flightcrew member has been unqualified. The standardized time frames for triggering the three phases of requalification would ensure this consistency in application. In the SNPRM the FAA has maintained the time frames for completion of training, as proposed in the NPRM. Regardless of whether a person has begun requalification training, the person remains unqualified until the training and evaluation is complete. The longer a person has been unqualified, the more rigorous the requirements are to become requalified.

Continental and United believe "Core Conversion" in phase II requalification is in conflict with Tables 2A and 3A, which states "Full Conversion." In the SNPRM, the FAA removed core conversion and full conversion from the proposal. To provide clarity, the requalification requirements in § 121.1239 refer only to requalification curriculum category and reference the requalification curriculum as established in the flightcrew member QPS.

2. Flight Attendant Requalification (§ 121.1309)

Similar to flightcrew members, the current regulations for flight attendants do not address how a flight attendant becomes unqualified or how an unqualified flight attendant can become requalified. In the NPRM, the FAA identified how a flight attendant becomes unqualified and proposed a process for requalification. As with the proposed flightcrew member requirements, the requalification phases were based on the number of months the person has been unqualified. Despite the lack of regulatory requirements in the current rules, however, many air carriers have developed requalification curriculums as part of their FAA-approved training programs. These curriculums were based on FAA advisory material regarding flight attendant requalification. See FAA Order 8900.1, Vol. 3, Ch. 23, Sec. 1, para. 3–1727, 1728 (Sept. 17, 2009).

The FAA reviewed the FAA-approved flight attendant training programs for 39 part 121 airlines, employing 82,673 flight attendants, to determine the appropriate phases and training and evaluation required for requalification. Of the 39 training programs reviewed, 37 had approved Requalification Training programs for flight attendants and two did not. Similar to the flightcrew member requalification programs, there was a wide variance in the phases of requalification and content of requalification. See FAA Technical Report, appendix D. However, the FAA found that generally the current approved programs, in both programmed hours and curriculum content, were very similar to proposed requirements for phase I requalification. There was more variance regarding curriculum content and the number of programmed hours for requalification requirements for flight attendants who had been unqualified for over 24 months. Based on the wide variance in current requalification programs as evidenced in appendix D in the FAA Technical Report, the FAA has determined that it is necessary to establish a uniform standard for requalification programs and has based the proposed requirements on the FAA guidance in Order 8900.1, Vol. 3, Ch.23, Sec.1, para. 3–1727, 1728 (Sept. 17, 2009). Thus, proposed § 121.1309 establishes that to be requalified, the flight attendant must meet either the requirements for basic qualification or requalification based on the amount of time the person has been unqualified.

The FAA received several comments regarding the requirement in phase I and phase II requalification that flight attendants complete all missed training, including all study materials and evaluations from the previous recurrent flight attendant training cycle(s) which were still applicable but were not included in the current recurrent flight attendant training cycle. Commenters expressed concerns that such a requirement to maintain past training programs was burdensome and unnecessary and limited the carrier's flexibility to determine the most efficient manner to provide flight attendant training on tasks, policies, and procedures that were missed in previous training cycles. One commenter stated that air carriers would have to re-create previous years' recurrent training for each returning flight attendant, keeping track of and maintaining every lesson plan, training aid, presentation and computer-based training course offered during the time the flight attendant was not able to accomplish recurrent training.

To simplify the requalification requirements, the FAA is combining previously proposed phase I and phase II into phase I requalification and redesignating phase III as phase II requalification. In addition, in the SNPRM, the FAA is retaining the requirement for a flight attendant to complete all missed training but is removing the requirement to include all missed study materials and evaluations

from the previous recurrent flight attendant training cycle(s). Recurrent training tasks are based on new hire, initial, and emergency curriculum category task requirements. Because of the large number of tasks, in the NPRM and SNPRM, the FAA has required air carriers to train and evaluate flight attendants on all tasks at least once during three consecutive recurrent training cycles. To ensure that flight attendants in phase I requalification receive the necessary information from the missed recurrent training cycle(s), which may have included emphasis on different tasks, the FAA is proposing to require that a flight attendant receive training on all tasks that were included in the missed recurrent training cycle(s). In addition, the certificate holder would be required to provide training on all new policies, procedures, and security requirements applicable to flight attendant duties that have been implemented since the last time the flight attendant completed recurrent training. Additionally, in phase I requalification, a flight attendant must complete a knowledge test on all new hire, initial, and emergency curriculum category tasks.

The FAA did not intend to create an undue administrative burden by requiring an air carrier to retain old training and evaluation documents. Therefore, in the SNPRM the FAA has removed the requirement that the certificate holder must include all study materials and evaluations from the previous recurrent training cycle. The FAA believes this change will still ensure that flight attendants receive the training content that they missed, while reducing the administrative burden.

American Eagle and RAA expressed concern that the Administrator has the ability to determine the programmed hours for requalification. They contend that, without guidelines to the air carrier and Certificate Management Offices, this provision could lead to non-standardization and a competitive disadvantage for some carriers.

In the NPRM and the SNPRM, for different phases of flight attendant requalification, the FAA proposed requiring completion of certain curriculum categories that have baseline and minimum program hours. For example, in the SNPRM, for phase I requalification, the flight attendant must complete the current recurrent cycle and also complete required information or tasks from the last recurrent cycle that are not included in the current recurrent cycle. Therefore, the required hours for phase I requalification are based on recurrent curriculum category programmed hours plus the time necessary to complete training content that was not contained in the current recurrent training cycle. The requirements for phase II requalification are based on the curriculum requirements for new hire, initial, emergency, and differences curriculum categories. Upon review, the FAA believes that establishing a standard curriculum is appropriate for phase II requalification. However, due to operational differences, the time necessary to complete the training would vary. Therefore, the FAA has revised § 121.1309 of the SNPRM to remove the requirement for minimum programmed hours that was proposed in the NPRM.

American Eagle stated that, within the industry, a corporation may hold several certificates in which there is a combined flight attendant seniority list that allows flight attendants to transfer between certificates. It contends that compliance with requalification requirements for multiple air carriers would require additional, expensive automation that is not accounted for in the cost benefit analysis. It commented that the proposed rule's impact on the carrier is significant in the area of increases in wages for training and associated costs for hotel and per diem allowances.

Regardless of whether there is a merged seniority list, under the current rule, NPRM, and SNPRM, flight attendants must meet the training and qualification requirements for each certificate holder for which they serve as a flight attendant. The proposal in the NPRM and SNPRM merely establishes the records that need to be maintained; it does not specify the type of recordkeeping system that must be used. Therefore, an air carrier may determine the complexity of its recordkeeping system. In addition, the FAA has addressed the cost of flight attendant training, including hotels and per diem allowances, in the regulatory evaluation, which is available in the docket.

American Eagle and RAA sought clarification regarding the requirement to change a base month and contended that the software that is currently used at many air carriers would require extensive change to accommodate the requalification requirements. The FAA notes that the proposed requirements in the SNPRM do not prohibit the adjustment of the flight attendant's base month in both phase I and phase II requalification. If an air carrier decides to adjust the base month, the FAA believes that the training requirements for phase I and II requalification would ensure that the flight attendant remains trained and qualified.

Continental stated that, for the proposed requalification requirements, carriers ultimately would be forced to have additional staff on hand to recreate and facilitate the proposed crew or combined exercises for classes as small as a single student. There is nothing in the proposed rule that requires air carriers to conduct a certain task as a group exercise. The FAA notes that, under the proposed requirements in the SNPRM, the tasks identified in the QPS requirements as "G" may be conducted as either an individual or a group exercise; however, those identified as "I" must be conducted on an individual basis.

ATA questioned what data supports requiring Basic Qualification Training, including 5 hours of operating experience on at least one aircraft type (AOE) after being unqualified for more than 24 months. In addition, the Association of Professional Flight Attendants (APFA) believes check flight attendants should be used only for new hire flight attendant training and not to perform check flight attendant duties for experienced flight attendants who are accomplishing requalification training.

The FAA believes that after an extended absence from line operations, flight attendants need an opportunity to consolidate re-acquired knowledge and skills. The FAA recognizes, however, that there may be alternative methods of accomplishing this without requiring AOE. In the SNPRM, the FAA is removing the AOE requirement for phase II requalification and is proposing to allow flight attendants for the first two operating cycles after completing phase II requalification to serve either as a required flight attendant under the supervision of a check flight attendant or as a non-required flight attendant.

3. Aircraft Dispatcher Requalification (§ 121.1419)

Current rules are also silent on how dispatchers who have failed to maintain their qualification may become requalified. It is current FAA policy that, in order to requalify, a person must retake the recurrent training, tests, or checks that were missed and, in some cases, receive additional training or evaluation to become requalified as a certificated aircraft dispatcher. See FAA Order 8900.1, Vol. 3, Ch. 22, Sect. 5, para 3–1708.

In the NPRM, the FAA proposed to establish five phases of requalification for aircraft dispatchers who have become unqualified by failing to complete recurrent training and evaluation requirements, including the proficiency checks required by proposed § 121.1413(a)(2). Midwest

commented that having five different levels of requalification is excessive and creates undue administrative burdens. It requested that the FAA combine phase I and phase II requalification to cover 0 to 12 months. It also recommended that, due to the rapidly changing nature of the industry, the FAA require phase V requalification for all dispatchers who have been unqualified for 24 months. RAA also commented that creating five phases of requalification training is impracticable. It recommended that requalification should be focused on a training-to-proficiency concept. UPS requested clarification on the timeline for phase I and phase II requalification.

In developing the requalification requirements for the SNPRM, the FAA reviewed existing guidance material as well as the FAA-approved aircraft dispatcher training programs for 23 part 121 airlines, to determine the appropriate phases and training and evaluation required for requalification. All 23 air carriers had approved requalification training programs for aircraft dispatchers. Similar to the flightcrew member and flight attendant requalification programs, there was a wide variance in the phases of requalification and content of requalification. See FAA Technical Report, appendix E. However, the FAA found that generally the current approved programs, in both programmed hours and curriculum content, were very similar to proposed requirements for phase I requalification. There was more variance regarding curriculum content and the number of programmed hours for requalification requirements for aircraft dispatchers who had been unqualified for over 12 months. Accordingly, the FAA has determined that a uniform standard for aircraft dispatcher requalification is necessary and has based the proposed requirements on the FAA guidance in Order 8900.1, Vol. 3, Ch. 22, Sect. 5, para 3–1708.

In the SNPRM, the FAA is proposing to establish three levels of requalification instead of the five phases proposed in the NPRM. In merging the five phases into three, the FAA simplified the administrative burden without reducing the amount of training proposed in the NPRM. For example, in the NPRM, phase I requalification required certain training if the aircraft dispatcher was unqualified for less than 6 months. Phase II requalification required more training if the aircraft dispatcher was unqualified for at least 6 months but less than 12 months.

In the SNPRM, the FAA is proposing to merge phase I and II requalification into phase I requalification for aircraft dispatchers who have been unqualified for less than 12 months, redesignate phase III requalification as phase II requalification for aircraft dispatchers who have been unqualified at least 12 months, but less than 24 months, and merge phase IV and V requalification into phase III requalification for aircraft dispatchers who have been unqualified for 24 months or more. The training required for phase I in the SNPRM is equivalent to what would have been required for phase II in the NPRM, and the training required for phase III in the SNPRM is equivalent to what would have been required for phase V. Therefore, there is no decrease in the training required to return a dispatcher to proficiency.

Midwest commented, in regard to the requirement that a student in phase V requalification must complete the assigned materials within 60 days, that there would be times when a student may require additional time to complete the assigned materials. Midwest requested that the FAA remove the 60-day limit and instead establish an appropriate number of days to complete requalification requirements in each phase of requalification.

In the SNPRM, the time limit for completing new phase III (phase V in the NPRM) has been extended under the SNPRM to 120 days, consistent with the time limit for initial training and evaluation for new aircraft dispatchers. This provision will provide the flexibility requested by commenters while maintaining an adequate requalification requirement for an aircraft dispatcher when 24 months or more have elapsed since the end of the aircraft dispatcher's base month for recurrent training.

American commented that the requalification training requirement does not address under which date for requalification the dispatcher necessarily falls. It asked whether the time required to complete requalification is included in the "unqualified" time.

Regardless of whether a person has begun requalification training, the person remains unqualified until the training and evaluation is completed. The longer a person has been unqualified, the more rigorous the requirements are to become requalified. The amount of time required to complete the training and evaluation is included in the "unqualified" time, and the air carrier must take this into account when determining what phase of requalification is required.

IV. General Issues for Crewmembers and Aircraft Dispatchers

A. Training Program: Approval and Amendment Process (§§ 121.1337 and 121.1437)

Under current regulations, requirements for training program amendment and approval are found in §§ 121.401, 121.402, and 121.405(a)–(e). In the NPRM, the FAA based the proposed amendment and approval process language on current requirements and added more specific requirements regarding necessary documentation, approval of a new curriculum category (special training and evaluation), information regarding instructors, and FAA review of amendments to the training program in proposed §§ 121.1337 and 121.1437.

Continental, Midwest, ATA, United, FedEx, Southwest, American, UPS, and RAA commented that the voluminous submission of documents required for a minor revision is burdensome, redundant, and unnecessary. Commenters stated that it should not be required in every submission of a request for approval of curriculum changes. Commenters also requested that a timeframe for FAA approval after a training program or training program revision is submitted be included in the requirements.

The intent of the proposed requirements was not to have certificate holders resubmit redundant paperwork for approval of revisions to an already approved training program. In the SNPRM, the FAA has proposed adding a paragraph to §§ 121.1337 and 121.1437 to clarify that certificate holders are required to submit only the documents necessary to allow the FAA to review and evaluate the requested revision to an approved training program. In addition, the FAA believes that, in light of the fact that the proposed requirement must accommodate revisions of different sizes and complexity, it is inappropriate to set forth a timeframe for FAA approval.

ATA commented that the allowance to have submission of paperwork required under these provisions "in a form acceptable to the Administrator" allows for subjective interpretations of the regulation. The FAA recognizes that the proposed requirement needs to provide certificate holders with the flexibility to submit training program materials via different types of media. However, it is also necessary for certificate holders to submit training program materials via a type of media that allows the FAA to effectively evaluate and approve submissions. This provision was proposed in the NPRM

and is retained in the SNPRM to be able to achieve those two objectives.

ATA, Southwest, and UPS commented that initial and final FAA approval of a training program is unnecessary. They stated that if any portion of an approved training program is shown to be ineffective through analysis of collected data, the Administrator may request revisions to that portion of the training program. Southwest commented that, if a proposed training program or revision meets the regulatory requirements, it should be considered approved.

The FAA agrees that any program that meets the regulatory requirements should be approved. FAA review, evaluation, initial approval, additional evaluation, and final approval of a training program are the appropriate way to make the determination that a training program meets the regulatory requirements. Therefore, in the SNPRM, the FAA is retaining the language that requires initial and final FAA approval of a training program.

Midwest, ATA, United, FedEx, Southwest, American, and UPS commented that resource management of instructors and evaluators is the responsibility of the certificate holder and that submission of this ever-changing data as part of the approval of the training program is overly burdensome. Commenters requested that the FAA remove § 121.1337(a)(3) and (4) from the proposed requirement. They also stated that submission of crew operating manuals and the general operations manual required in § 121.1337(a)(10) and (11) is redundant because the certificate holding district office already has a copy of those manuals.

The proposed requirements to submit the number of instructor and evaluators as well as a copy of crewmember manuals that are already in the possession of the certificate holding district office are not necessary. Therefore, the FAA has removed these requirements from §§ 121.1337 and 121.1437.

Southwest, ATA, and UPS commented that a statement that training would be administered by persons other than the certificate holder should be required only if there are plans to use non-employees for instruction, as opposed to the proposed requirement to report whether non-employees would be used for instruction. As proposed in the NPRM, the requirement is administratively burdensome. In the SNPRM, the FAA has amended the requirement to state that the certificate holder must only indicate if they use non-employees for instruction and has revised the proposed language in §§ 121.1337(a)(7) and 121.1437(a)(5).

FedEx, ATA, Midwest, and American commented on several proposed requirements for the special curriculum category in § 121.1337. Midwest made similar comments regarding the proposed requirements for the special curriculum category in § 121.1437. Commenters stated that depending on the duration of the circumstances, special training and evaluation may not need to be integrated into the approved training program. They contend that the proposed language did not address this situation. Midwest commented that there are times when training is for short-lived events and continued training would not be warranted. It requested that the FAA change the wording to establish that special training may be integrated into the approved training program if appropriate. Commenters also stated that the POI should not determine the proposed training hours but should only evaluate the number of program hours submitted by the certificate holder for each special curriculum category. They contend that the POI is not in the business of developing training but is instead tasked with overseeing and approving training developed by the certificate holder.

The FAA recognizes that in some cases, training may be for short-lived events and continued training would not be warranted. In the SNPRM the FAA has amended the language to add "if appropriate." In addition, the FAA has determined that it is appropriate for the certificate holder to develop the number of programmed hours for each special curriculum category. Under § 121.1337, the FAA has proposed that the certificate holder would be required to submit its proposed programmed hours to the POI for review. The POI would then determine whether the number of programmed hours submitted by the certificate holder for each special curriculum category are sufficient.

Midwest, Southwest, American, FedEx, UPS, and ATA generally commented that the appeal process for required revisions to FAA approved training programs should be amended to require a full record of decisions. They also commented that the initial appeal of a training program amendment should be handled by the certificate holding district office and that the next level of review should be accomplished by the Administrator.

The Administrator has an obligation to request necessary revisions to ensure that crewmembers and aircraft dispatchers are being appropriately trained. As with other regulations that permit the exercise of discretion, a certificate holder has the opportunity to appeal certain decisions through the consistency and standardization initiative (CSI). The CSI process allows for multiple stages of review within the FAA's Aviation Safety organization. In this process, the certificate holder is provided with a similar process to that requested, with the exception of the commenters' request to bypass Flight Standards Service. The FAA believes that review by the Director of the Flight Standards Service is essential because it represents the final technical determination before a stakeholder may appeal to the Associate Administrator for Aviation Safety. The CSI process allows for multiple stages of review within the FAA's Aviation Safety organization (AVS). At each level, and between levels, the review progresses through increasingly higher levels of management. When an AVS action is questioned or disputed, decision-makers at every level of AVS management are expected to thoroughly review the matter and be accountable for the answers provided. More information about this process is available at *http://www.faa.gov/about/office_org/headquarters_offices/avs/consistency_standardization.* In the SNPRM, the FAA has retained the language as originally proposed in the NPRM.

Southwest commented that it was inappropriate for the FAA to require an amendment to an approved training program for a security reason. They stated that security requirements are not determined by the FAA.

Many Transportation Security Administration security requirements affect a certificate holder's operational procedures. It is appropriate, therefore, to include both safety and security as a basis for necessary revisions to approved training programs. The FAA is retaining this proposed language in the SNPRM.

UPS, American Eagle, RAA, ATA, and Southwest recommended that criteria for considering revisions to a certificate holder's training program be withdrawn from § 121.1337 and § 121.1437 because such factors as "experience level of the student population" would create a bias against smaller certificate holders.

The factors in §§ 121.1337(g) and 121.1437(g) do not correlate in any way to the size of the certificate holder. For example, the experience level of the student population could apply to a small operator that is introducing turbo-jet aircraft to their operation or a very large operator that is moving for the first time to international or over-water

operations. In addition, the NPRM and the SNPRM revise the current requirements to clarify and update the basis on which the Administrator decides to approve or deny revisions to a training program. All of these factors are appropriate for FAA consideration when evaluating or requiring training program revisions. Therefore, in the SNPRM, the FAA has retained the language as proposed.

B. Crewmember and Aircraft Dispatcher Manuals and Manual Procedures (§§ 121.133, 121.134, 121.135, and 121.540)

Currently, except for certain portions of flightcrew operating manuals, manuals are "accepted" by the FAA. Manual content requirements are broad and there is no specific language that addresses crewmember and aircraft dispatcher responsibility for manual contents. To address this issue, the FAA proposed revising § 121.133 (§ 121.134 as proposed in the SNPRM) to require crewmember or aircraft dispatcher manuals, as well as any changes, to be approved by the Administrator. The FAA also proposed to require in § 121.540 that each crewmember perform the respective job function in accordance with the information, instructions, duties, and responsibilities contained in the manual required by § 121.134. Conforming changes were proposed for § 121.136 (§ 121.135 as proposed in the NPRM), to require consistency between training curriculums and manual procedures.

American Eagle, Southwest, and ATA opposed the proposed requirement for FAA approval of flight attendant manuals and stated that the FAA failed to provide data or adequate justification to require all revisions to flight attendant manuals to be approved by the FAA. American Eagle and ATA further stated that there is no correlation between (1) approved manuals and training performance, or (2) the way an air carrier communicates its policies and procedures in flight attendant manuals and the outcome of an accident. American Eagle, Southwest and ATA also stated that changes in flight attendant manuals often have a direct impact on the safety of the operation and require timely communication to their flight attendants, which would be affected by a lengthy FAA approval process for every revision to the flight attendant manual. American Eagle, Southwest, United, RAA and ATA generally commented that the proposed requirement for crewmember and aircraft dispatcher manual approval also would result in redundant and burdensome administrative requirements while unnecessarily extending the time required to write, publish and distribute critical changes in safety policies or procedures, severely restrict an air carrier's ability to make timely changes to their programs, and significantly impact the workload of the FAA.

The FAA agrees that changes in flight attendant manuals have a direct impact on the safety of the operation. The FAA disagrees that there is no correlation between (1) flight attendant manuals and training performance, or (2) the way an air carrier communicates its policies and procedures in flight attendant manuals and the outcome of an accident. The NTSB also has recognized the importance of the development and availability of standardized procedures for flight attendants. As stated in NTSB Report, "Flight Attendant Training and Performance During Emergency Situations" "although flight attendants provide[d] valuable assistance to passengers during emergency situations, they did not always follow their air carrier's approved emergency procedures or perform their duties in accordance with their training * * *. There are many examples of flight attendants who have performed extremely well, even heroically, during life-threatening emergencies and who were responsible for preventing and/or minimizing injuries to passengers. Nonetheless, there have been many examples of flight attendants who lacked knowledge about emergency equipment and procedures, or who acted otherwise contrary to training." NTSB Special Investigation Report 92/02, p. 35 (adopted June 9, 1992). In light of the need to have standard operating procedures, the FAA has retained the approval requirement in the SNPRM.

Furthermore, the FAA does not anticipate any significant increase in administrative burden or delay by requiring FAA approval of manuals. The process by which a certificate holder revises a manual would not change. The FAA approval of other safety critical information is now currently required for revisions to the Airplane Flight Manual. The FAA is not aware of any delays caused by this approval process. The FAA expects that similar approval timeframes would apply to the proposed requirements. The FAA also does not anticipate any increase in workload for aviation safety inspectors to approve manual content because aviation safety inspectors currently spend the same amount of time and vigilance reviewing crewmember and aircraft dispatcher manual contents for acceptance.

ATA, RAA, United, UPS, Continental, American, Alaska, Midwest, TWU, AFA, and several individuals opposed the implementation of § 121.540, Manual Procedures Requirements, as proposed in the NPRM. They all found the language to be too broad and overreaching to the extent that FAA enforcement would extend to the level of detailed procedures found in crewmember and aircraft dispatcher manuals. Many commenters also found the inclusion of crewmember responsibility for "information" in the proposed requirements to be superfluous and vague. Midwest, American, FedEx, United, UPS, and ATA proposed alternate language to clarify airline and crewmember responsibilities regarding safety-related job functions.

The FAA agrees that the scope of tasks and procedures proposed in the NPRM was overly broad and the inclusion of "information" in the proposed language was too vague. In the SNPRM, the FAA is proposing to limit those tasks and procedures for both manual approval and crewmember responsibility to "safety-related duties and tasks that satisfy regulatory requirements."

ATA, American, Midwest, FedEx, and UPS stated that training regulations should not include a requirement for compliance with the flightcrew member operating manual. The commenters stated that there may be times when a pilot is instructed to behave in a manner that may conflict with what is specified in the Flightcrew Member Operating Manual (FCOM) in order to complete a training objective (such as incapacitated pilot, get into upset event, and check pilot training).

The FAA notes that § 121.540 requires that each crewmember must perform the safety-related duties and tasks that satisfy regulatory requirements contained in the manual that would be required by § 121.134, and each certificate holder must ensure that each crewmember is trained and checked in the respective safety-related duties and responsibilities contained in the manual that would be required by § 121.134. Training and operational effectiveness are enhanced when operational procedures and crewmember duties are thoroughly and accurately defined. Accordingly, the FAA has retained the requirement for compliance with the crewmember and aircraft dispatcher operating manuals.

C. Distance Learning

Current rules are silent on the use of distance learning to satisfy training and qualification requirements under part

121. The FAA has defined distance learning in guidance as "learning that is accomplished by any training method not including an instructor and a gathering of trainees co-located in a traditional classroom" and has provided guidance on the appropriate use of distance learning in FAA Order 8900.1. See FAA Order 8900.1, Vol. 3, Ch. 19, Sec. 5, para. 3–1208 (Sept. 13, 2007) (flightcrew members); FAA Order 8900.1, Vol. 3, Ch. 23, Sec. 5, para. 3–1833 (Sept. 13, 2007) (flight attendants); FAA Order 8900.1, Vol. 3, Ch. 22, Sec. 3, para. 3–1661 (Sept. 13, 2007) (aircraft dispatchers).

In the SNPRM, the FAA proposes to codify the guidance material in FAA Order 8900 regarding distance learning. The guidance material for flightcrew members allows academic training and evaluation to be conducted 100 percent via distance learning, while the current guidance for aircraft dispatchers and flight attendants allows as much as 50 percent of academic training and evaluation to be conducted via distance learning. For aircraft dispatchers, in accordance with existing guidance, the FAA may approve distance learning in excess of 50 percent if the certificate holder can establish the effectiveness of the distance learning. For flight attendants, the SNPRM does not explicitly include a 50 percent limitation on distance learning. However, the FAA has established limits in the SNPRM that are similar to the 50 percent limit in current guidance by requiring defined programmed hours for job performance training, which may not be accomplished by distance learning.

American Eagle and RAA recommended that the proposal be rewritten to include a precise definition of distance learning. The FAA defines distance learning in FAA Order 8900.1. The FAA did not define distance learning in the regulations so as not to limit innovation in training outside the traditional classroom.

In § 121.1335 of the NPRM and SNPRM, the FAA proposed to require specific approval for instruction in a training environment other than a classroom for all crewmembers and aircraft dispatchers. The proposal allows certificate holders to conduct training outside a traditional classroom setting. However, because such training encompasses many different learning environments, technologies, and instructional methods, the FAA has proposed to require that training conducted in an environment other than a classroom, such as training accomplished by distance learning, be specifically approved in order to ensure that the training would provide the students with the knowledge and cognitive skills to perform their required duties. However, because this requirement is already captured in § 121.1331, the FAA is removing this section in the SNPRM.

ATA, RAA, American, FedEx, UPS, Atlas Air, Inc, Southwest, and Midwest were concerned that the proposed requirement that recurrent training and evaluation begin and end within the eligibility period would not allow for the use of year-round distance learning. In the SNPRM, the FAA has removed the requirement that academic training begin and end within the eligibility period. This would allow air carriers to incorporate distance learning into their instructional design as long as the training and evaluation are completed by the end of the eligibility period. This change is necessary to accommodate year-round distance learning, which can be an effective training delivery method.

In regard to the 50% limit on distance learning for aircraft dispatchers, Midwest commented that the FAA is in effect limiting certificate holders to old and ineffective methods of training by placing an artificially generated limit on distance learning for aircraft dispatcher training. It contends that this limitation would be a step backwards regarding training programs. An individual commented that, for recurrent training, air carriers should determine what percent of a topic, if any, may be covered though distance learning and airlines should use a set timeframe for the distance training to be completed. Several commenters asked that the limitation on distance learning be withdrawn because it is not supported by any studies or documentation and is contrary to the ARC recommendations. On the other hand, TWU commented that distance learning is unnecessary for aircraft dispatchers who normally live and work where they are based. It stated that although there is no distance learning requirement for aircraft dispatchers, such instruction could become an unnecessary safety loophole.

RAA commented that each of the instruction areas for which distance learning is prohibited contains a knowledge element that is appropriate for distance learning. Midwest specifically objected to the restriction on using distance learning for dispatcher resource management (DRM) training and for training on contingency operations for maintaining operational control in the event of single or multiple system failures. Midwest recommended that these restrictions be removed and the POI be allowed to approve the method of training based on its merits.

In the SNPRM, the FAA is retaining the restriction on distance learning for specific areas of instruction for aircraft dispatchers. Due to the unique nature of the aircraft dispatcher's operational control responsibilities, there is a need to be able to assess and evaluate a dispatcher's knowledge as well as the dispatcher's ability to apply that knowledge with direct instructor-student interaction in the areas designated in the dispatcher QPS. For example, DRM training is the incorporation of team management concepts in flight operations. It focuses on the interaction among flightcrew members, flight attendants, aircraft dispatchers, maintenance personnel, air traffic controllers, and others. CRM and DRM activities include team building, information transfer, problem solving, decision making, maintaining situational awareness, and using automated systems. These team-oriented goals cannot be accomplished through distance learning. In addition, the FAA believes that distance learning is inappropriate for training in contingency operations because in this area of instruction it is important to conduct a hands-on assessment of the dispatcher's decision making, workload management, interpersonal skills, application of company procedures and policies, and situational awareness.

Permitting the use of distance learning where it is appropriate and where it would not compromise safety acknowledges the advances made in training delivery methods. Consistent with FAA policy in FAA Order 8900.1, in the SNPRM the FAA is retaining the 50% limitation on distance learning for aircraft dispatchers. However, as under current guidance, the FAA may approve distance learning in excess of 50% if the certificate holder can establish the effectiveness of the distance learning. Because distance learning is considered part of the approved training program, to seek approval of any distance learning, the certificate holder would follow the procedures for approval and appeal as set forth in § 121.1337 and § 121.1437. See FAA Order 8900.1, Vol. 3, Ch. 22, Sec. 3, para. 3–1661 (Sept. 13, 2007).

D. Training Program: General—Crewmember Records (§§ 121.1331 and 121.1431)

Current § 121.401 governs the general requirements for part 121 certificate holders' training programs. In the NPRM, the FAA proposed similar overall requirements but also proposed requirements to ensure consistency between the operating procedures for each required task in the QPS and the

operating procedures set forth in the manual required by § 121.133. The NPRM also proposed to require a certificate holder conducting training under a part 121 approved training program to train and evaluate the individuals who administer training or evaluation within the certificate holder's training program. In addition, the NPRM proposed to require that records of unsatisfactory results for flightcrew members include the specific items for which performance was unsatisfactory.

Many commenters stated that crewmember performance records, which contain personally identifiable data, could be subject to public inquiry and be misused or misinterpreted, creating a potential liability for the crewmember, the operator, and the FAA. ATA commented that because the requirement to keep unsatisfactory results was intended to help monitor the adequacy of training programs, that objective can be met with de-identified data as is currently done with AQP. They recommended that an operator be allowed to de-identify such data after a pilot has satisfactorily completed a curriculum and hold that data outside of the crew record system.

The requirements set forth in § 121.1331(f)(1) and § 121.1431(e)(1) are consistent with the requirements in new § 121.684, which would replace current § 121.683. In the SNPRM, the FAA has retained the provisions that would require that certification of crewmember and dispatcher knowledge and proficiency be included in the records required under current § 121.683, in § 121.684. For flight attendants, the FAA agrees that only records of satisfactory completion are necessary to determine whether a flight attendant is qualified. The FAA proposes to remove the requirement that unsatisfactory performance be included in flight attendant records. The FAA has amended the SNPRM language accordingly.

TWU Local 550 and TWU sought clarification regarding what information the FAA expects to receive when a certificate holder reports a failed proficiency test, proficiency check, or practical test for aircraft dispatchers under proposed § 121.1439(f).[10] They recommended that the FAA require only empirical data and stated that personal information is unnecessary. TWU Local 550 suggested that failures should be reported to the Administrator as a percentage on a monthly, quarterly, semi-annual, or annual basis. RAA noted that the section-by-section analysis indicates that the purpose of reporting failed tests and checks is to ensure that, if repeat failures occur, the operator would "correct the program" as part of the CAP. RAA acknowledged the usefulness of an operator accounting for such "failures" within its CAP but failed to see a valid reason why it is necessary for the operator to report individual failures to the FAA. RAA requested that the provision be withdrawn as redundant to the CAP.

The information required by § 121.1431(e)(1) is necessary for assessing the overall effectiveness of the certificate holder's training program. It is also necessary for assessing the operational control capabilities of individual dispatchers and is appropriate information for a dispatcher's records. The reporting of an individual's failure would help the FAA to identify whether there is a problem with an individual who is exercising operational control or whether there is a problem with the certificate holder's training program.

In addition to concerns regarding the confidentiality of crewmember and dispatcher records, commenters also stated that the requirement for lesson plan approval is onerous and would hamper the airlines' ability to update and improve their training in a timely manner.

In the SNPRM, the FAA proposes to amend §§ 121.1331(e)(1) and 121.1431(d)(1) to clarify that certificate holders must provide curriculums and curriculum categories as a means of demonstrating that they have satisfied all of the training and evaluation requirements of part 121. The FAA intends that, under the proposed regulations, a certificate holder would submit a training program for approval that includes these requirements. While the FAA expects that the detailed course material (*e.g.,* lesson plans and handouts) used to meet this training requirement would be available for FAA review, the FAA does not intend certificate holders to submit all course material as part of training program approval. The FAA has revised the proposed language in § 121.1337(a)(6) and § 121.1437(a)(4) to state that the certificate holder must make all training and evaluation materials available for review upon request by the FAA to clearly reflect this intent.

American Eagle noted that, while pilots certainly need to be kept current on any information affecting the aircraft that they fly, it is not necessary that pilots be kept informed of changes to an air carrier's policies and operation that may not be pertinent to their duties, such as some changes in the air carrier's maintenance program. It stated that § 121.1331 should be amended to require that pilots be kept current only on the subject matter that affects their performance.

The intent of the regulation was to keep crewmembers current only on those changes in air carrier policies and procedures that are pertinent to their duties. The FAA has clarified this requirement in the SNPRM.

ATA and Southwest noted that minor changes to policies and operations may be conveyed in various formats. They contend that, depending on the criticality and complexity of the change, inclusion in the curriculum is not always the most effective and timely means of conveying information and that other appropriate means could include bulletins and electronic messages.

The FAA notes that the proposed requirements do not prevent an air carrier from disseminating information via bulletin. The proposed requirements merely ensure that the information is included in the training program, as appropriate. Therefore, the FAA proposes no change to the language in the SNPRM.

ATA, American, and Southwest commented that the detail required in the QPS would unnecessarily expand the manual and a flight attendant's responsibilities. Southwest stated that the manual is an operations manual, not always a training manual. Southwest noted that an operations manual lists what tasks should be done, not necessarily how to perform each task.

The FAA notes that the intent of the proposed requirement is to ensure that the operating procedures in the crewmember manuals and the training program are consistent. The detail in the operations manual should be at a level that is appropriate for that document. Therefore, the FAA proposes no change to the language in the SNPRM.

Continental commented regarding the requirement that the person responsible for instructing or evaluating has certified in writing or electronically that the crewmember is knowledgeable and proficient in the specific subject, task, or environment. It stated that this requirement would not accommodate situations where direct access to computerized recordkeeping systems is not always possible, for example during outages or at remote locations. It stated that in such cases someone other than the instructor or evaluator would make the entry. It noted that a transmittal sheet is used to verify that an entry is

[10] The FAA proposed requirements for reporting unsatisfactory results for aircraft dispatchers in § 121.1439. Based on substantive revision of § 121.1439, these requirements are now set forth in § 121.1431(e)(1).

correct no earlier than 48 hours after initial entry and by another individual. Continental indicated that, once the information is verified, the transmittal sheet is destroyed. It commented that the transmittal sheets are subject to FAA inspection within the 48-hour window. Continental and other commenters suggested that the rule state that "the certification required by (f) shall be recorded in the crewmember's record in a manner approved by the Administrator."

Because the suggested change provides the air carrier with the needed flexibility to use the most efficient system, the FAA has amended the SNPRM language to include "by a means approved by the Administrator." However, the FAA notes that the proposal in the SNPRM merely establishes the records that need to be maintained and does not impose the type of recordkeeping system that must be used. Therefore, an air carrier may determine the complexity of its recordkeeping system.

E. Training Program: Curriculum by Aircraft Type and Curriculum by Aircraft Type and Operation (§§ 121.1333 and 121.1433)

Under current rules, the requirements for training program curriculums are found in § 121.403 and § 121.415. The requirements for special airport qualifications are located in § 121.445.

In the NPRM, the curriculum requirements were generally similar to current regulations but some additional requirements were proposed. For example, the NPRM proposed specific training requirements for flightcrew members regarding the nature and effects of safety hazards and periodic weather extremes and their effect on operations. In addition, the NPRM required certificate holders to integrate CRM and DRM training into their curriculums. The FAA also proposed to make some clarifying revisions and to include requirements for additional training equipment that is used by the air carrier in its training program.

Some commenters, including ATA, American, Southwest, Midwest, UPS, and FedEx stated that the training program requirements in § 121.1333(b)(1)–(6) were impossible because a certificate holder could not ensure that each crewmember remains trained, proficient, and knowledgeable in all of those areas. Commenters recommended that the proposed language be revised to clarify that the certificate holder has the responsibility to provide training and evaluation to crewmembers and that satisfactory completion of that training and evaluation satisfies the certificate holders' responsibility to ensure that the crewmember possesses adequate knowledge, skills, and proficiency to accomplish his or her duties.

In the SNPRM, the FAA has revised the language to clarify that certificate holders must provide the training and evaluation necessary to ensure that crewmembers and aircraft dispatchers have demonstrated proficiency in the areas specified in § 121.1333(b). The FAA has made similar changes to § 121.1433(b).

Southwest commented that, under the proposed regulation, differences training must be included in all academic and job performance training segments for purposes of training and evaluation. It stated that differences would not always require job performance training and recommended that the requirement be revised to clarify that differences would not necessarily be applied to all job performance training. The FAA agrees that differences would not necessarily require job performance training and, in the SNPRM, has included clarifying language in § 121.1333(c)(5).

RAA also sought clarification as to what is required for differences training for aircraft dispatchers. The FAA notes that differences training and evaluation, when discussed as a curriculum category, requires additional training and evaluation on a particular aircraft type when the Administrator finds, during the training program approval process, that the training and evaluation is necessary before that aircraft dispatcher may serve in the same capacity on a particular variation within a series of an aircraft type or a different series within an aircraft type.

An individual commented that the language in § 121.1333(b)(3) suggests that there is an alternative to an FCOM. There is no alternative to an FCOM and the FAA has removed the language from (b)(3) to clarify the requirement.

An individual requested clarification regarding what is meant by abnormal, non-normal, and emergency procedures as referenced in § 121.1333(c)(3). The FAA notes that these terms, as presently used in § 121.403, retain their current meaning in § 121.1333.

TWU commented that the requirements set forth in proposed § 121.1433(b)(2) through (b)(4) that would require an aircraft dispatcher to remain knowledgeable of the information contained in multiple manuals as well as the newly required Aircraft Dispatcher's Procedures Manual, are too burdensome and would result in increased time demands and undue pressure. The FAA notes that the requirement for a dispatcher to remain knowledgeable of the information contained in multiple manuals is no different from current regulatory requirements. Dispatchers are not required to know every single item in a set of manuals; however, they should know the contents of a manual so that they may easily reference the correct manual when specific information is needed.

F. Training Program: Administering Training and Evaluation (§§ 121.1341 and 121.1439)

Sections 121.411(a)(1)–(2) and 121.412(a)(1)–(2) require that proficiency checks for training and evaluation must be given by the Administrator or a check airman. In the NPRM, the FAA provided further clarification regarding who may be authorized to conduct training and evaluation and supervise individuals undergoing operating experience, by affiliation and position, including those persons beyond the current authorizations listed in §§ 121.411 and 121.412. This information now appears in the SNPRM in Table 3C of appendix Q.

Upon further review, the FAA noted that § 121.1341 and § 121.1439 contained many requirements that were addressed in more detail in other areas of the proposal. The FAA has removed the duplicate requirements and these sections now address requirements for individuals administering training or evaluation and the unauthorized use of equipment and facilities in training programs. The FAA has clarified that individuals responsible for conducting training and evaluation must be familiar with the facilities and equipment specified in the certificate holder's approved training program.

With regard to the proposed requirement that persons providing training must be familiar with the facilities and only use the facilities specified in the training program to administer training and evaluation, Ameristar Air Cargo (Ameristar) commented that the term "facilities" is limited and does not recognize that academic training can be accomplished anywhere there is a computer, provided the individual is aware of how to complete the training.

The FAA did not intend to limit an air carrier's flexibility regarding the instructional design of, and delivery methods for, its training program. Because these sections address the delivery of both academic and job performance training and evaluation, the broad reference to "facilities, equipment, and procedures" is

necessary. To clarify, the FAA has revised the language in the SNPRM by adding the phrase, "as appropriate."

American commented that the requirement to list the names of all approved instructors and check persons in the QPS is burdensome due to the changing nature of that population on a regular basis. Commenters suggested language that training and evaluation activities must be administered by the persons listed in the certificate holder's approved recordkeeping system.

The NPRM did not require certificate holders to list the names of all approved instructors and check persons in the QPS. As proposed, § 121.1341 and § 121.1439 merely direct that training and evaluation may be administered only by the persons who are current and qualified in the positions set forth in the applicable tables in the QPS. The QPSs specify the positions eligible to be authorized to administer training, evaluation, and observation activities under subparts BB and CC for the part 119 certificate holder. The FAA notes, however, that other provisions in subparts BB and CC, such as §§ 121.1321 and 121.1323, require certificate holders to submit the names of persons who would be administering training and evaluation for acceptance by the FAA. This facilitates effective FAA surveillance of an air carrier's training program.

American also asked for clarification regarding the proposed provision that would deny credit for any training or evaluation conducted by an unqualified individual or conducted without the use of approved facilities or equipment. The FAA clarifies that if an individual completes a training or evaluation activity, the FAA would not consider the activity to be completed if the certificate holder used facilities, equipment, or materials that were not specifically approved for that activity as part of the certificate holder's approved training program, or if the certificate holder used unauthorized or unqualified persons to administer the activity. The FAA believes that this provision is essential to ensure that training and evaluation are conducted in compliance with the requirements of subparts BB and CC. This proposal is necessary to prevent an unsafe condition from occurring as a result of unqualified persons serving as crewmembers in job performance training and evaluation.

With regard to § 121.1439, RAA commented that there is no guidance as to who or what qualifies as an acceptable trainer or facility. It contends that such requirements are completely arbitrary without further specification. RAA requested that the FAA remove subparagraphs (a), (b), and (c), which would require the persons administering training to be acceptable to the FAA, persons who conduct evaluations for the certificate holder to be approved by the FAA, and for persons administering training or evaluation to use only the equipment and the facilities that are specifically approved for the certificate holder's training program.

Specific eligibility, qualification and training requirements for individuals who are authorized to administer training and evaluation are found in §§ 121.1251, 1253, 121.1255, 121.1257, 121.1271, 121.1281, 121.1291, 121.1321, 121.1323, 121.1337, 121.1379, 121.1381, 121.1383, 121.1385, 121.1387, 121.1421, and 121.1423. The specific requirements for training environments and equipment are found in §§ 121.1347, 121.1351, as well as each QPS, as applicable. These requirements establish unambiguous criteria for instructors, evaluators, training environments and training equipment that determine what the FAA requires for an individual or facility. These requirements are necessary to ensure that training is conducted by qualified individuals in an effective training environment, using equipment that results in adequate instruction and evaluation. In the SNPRM, the FAA has retained the language as originally proposed in the NPRM.

G. Continuous Analysis Process (CAP) (§§ 121.1355 and 121.1441)

The current rules do not require a CAP for crewmember or dispatcher training. In the NPRM, the FAA proposed §§ 121.1355 and 121.1441 as new requirements based on existing § 121.373, which addresses continuing analysis and surveillance for maintenance programs. As proposed in the NPRM, the CAP would ensure that certificate holders identify and correct deficiencies in their training programs. The NPRM proposed notification and appeal procedures to ensure that any changes to the CAP were approved by the FAA. These procedures were consistent with the training approval and amendment process for crewmember and aircraft dispatchers.

RAA and ATA commented that the CAP provisions should not be adopted unless the FAA provides more detailed requirements and develops guidance to explain how the CAP would be administered, including how operators would receive approval for their CAP. Continental, Ameristar, Midwest, American, and ATA commented that the CAP must be customized to the air carrier's individual needs.

The intent of the proposed CAP requirements in the NPRM was to ensure that each certificate holder had a process in place to identify and correct deficiencies in its training programs. In light of these comments and the mandate to establish a remedial training program for flightcrew members in Public Law 111–216, the FAA has revised this process to include more detailed requirements to ensure that all crewmembers are monitored throughout their training and evaluation, and that any deficiencies in crewmember performance, or operation of the training program, are identified and corrected. See Public Law 111–216, § 208(a)(2). Section 121.1355 of the SNPRM specifies that the CAP must provide for the regular analysis of crewmember performance on proficiency tests and checks to identify and correct any deficiencies in either crewmember performance or operation of the training program(s). For flightcrew members, the CAP also must provide for the regular analysis of flightcrew member performance in LOFT and FFS courses of instruction to identify and correct any deficiencies in either flightcrew member performance or operation of the training program(s). In addition, in the SNPRM, the FAA has specifically required that the CAP provide for the monitoring of persons having completed remedial training or re-evaluation due to the failure of a proficiency test or check or unsatisfactory performance during a LOFT or FFS course of instruction, as appropriate. In the SNPRM, the FAA has also revised § 121.1441 to specifically include review of aircraft dispatcher performance on proficiency tests in the CAP. As proposed in the SNPRM, certificate holders would be able to develop a CAP for the collection and use of data that effectively meets the needs of their operations. Furthermore, for clarification, the FAA notes that the CAP is considered part of the approved training program, and therefore, is subject to the approval and appeal procedures set forth in § 121.1337 and § 121.1437.

Ameristar questioned whether the proposed requirement that the CAP ensure that each training program and the standards of qualification for each duty position are documented would require a certificate holder to develop a CAP for each duty position. The FAA notes that a separate CAP for each duty position is not required. Rather, the FAA intended the development of one CAP that contains procedures for

evaluating all of the various components of the training program.

ATA, Midwest, and American commented that the CAP requirement to conduct at least two annual standardization meetings to review training program content, application, and results is not necessary. They asserted that program content, application, and results should be accomplished through a data-driven analysis process.

The FAA has retained the requirement for standardization meetings because these meetings provide an important opportunity for check airmen and APDs to become aware of and learn from the review of training program content, application, and results. However, the standardization meetings are only one part of the CAP. The CAP also includes a data driven analysis process that requires certificate holders to collect and analyze specific data to identify and correct deficiencies in their training programs.

ATA stated that the FAA estimate of 8 hours for developing the CAP and 2 hours annual burden for maintaining the CAP is grossly inadequate based on average time and administrative expense that certificate holders who currently train under AQP have incurred in developing effective data collection and analysis systems.

The FAA does not intend for the CAP to meet the detailed data collection requirements for AQP. The cost estimates for the NPRM are the time estimates to prepare and maintain the actual document that outlines the certificate holder's CAP for FAA approval as part of the approved training program in accordance with § 121.1337. These hours do not account for the time required to implement the program. For example, the following activities are not included in the FAA's time estimate: Collecting data; analyzing data; identifying trends; and identifying recommendations for necessary changes in the training program to ensure that the training program remains effective. The FAA believes that such costs are part of the general costs of maintaining an approved training program and do not arise from the CAP requirement.

H. Fraud, Falsification, or Incorrect Statements (§ 121.9)

In the NPRM, the FAA proposed § 121.9, a new general requirement for part 121 that would prohibit false or fraudulent statements on an application, record, or report required by this subpart. The NPRM also specified the consequences of making a false or fraudulent statement. Although the language would be added to part 121 for the first time, it is not a new concept in FAA regulations. Similar language already appears in 14 CFR 67.403. The FAA proposed adding the requirement to part 121 to emphasize the importance of truthful statements regarding training and evaluation of crewmembers.

Continental, RAA, and ATA made similar general comments regarding the proposed language. They commented that assignment of responsibility and potential penalties could easily be misinterpreted and that a description of appropriate allocation of responsibility is missing. They stated that the FAA should clarify that air carrier responsibility for fraudulent or intentionally false statements would occur only when there is evidence that the air carrier approved or endorsed such actions and that individual employee or contractor actions would not be automatically attributed to the certificate holder. TWU commented that the proposed language is too ambiguous and therefore could result in an unnecessary penalty if a mistake is made. RAA questioned why such provisions were needed when a violation of any regulation is fully enforceable with or without making a fraudulent or intentionally false statement. Continental, ATA, and RAA all requested that the provision be withdrawn.

In response to the comments regarding allocation of responsibility, the FAA states unambiguously that the air carrier has the ultimate responsibility for regulatory compliance. The FAA notes, however, that during the investigation that occurs when the FAA has reason to suspect non-compliance with any regulation, careful consideration is given to all the facts and circumstances including evidence of air carrier approval or endorsement of such actions and individual employee or contractor actions. Furthermore, the FAA emphasizes that fraud, falsification, and incorrect statements regarding crewmember training and evaluation could result in a failure to satisfy the minimum training and evaluation requirements. This directly affects aviation safety. For the reasons stated above, the FAA is retaining this requirement, as originally proposed, in the SNPRM.

I. English Language Requirement (§§ 121.1209 and 121.1407)

Current regulations require English language proficiency for flightcrew members and aircraft dispatchers under 14 CFR parts 61, 63 and 65. See 14 CFR 61.123(b), 61.153(b), 63.31(b), 65.33(c) (2010). There is no similar provision for flight attendants. In the NPRM, the FAA proposed an English proficiency requirement for flightcrew members, flight attendants, and aircraft dispatchers.

RAA commented that the proposed requirements in §§ 121.1209 and 121.1407 were redundant for flightcrew members, as this requirement is already contained in §§ 61.123(b), 61.153(b), and 63.31(b). It stated § 65.33(c) already contains an English language requirement for aircraft dispatchers. Several commenters also stated that this requirement was unnecessary for flight attendants. Atlas Air and Midwest raised concerns that the English language proficiency evaluations required under § 121.1209 would place an undue burden on operators. The National Air Carrier Association (NACA) suggested that there may be liability issues due to the fact that there appears to be a difference between the FAA and individual companies regarding the definition of English proficiency. Also, Horizon, Midwest, American Eagle, and Ameristar noted that the NPRM contained no standards for assessing an individual's reading, writing, and speaking skills. Some of the commenters, including RAA, suggested that successful completion of the training program conducted in English would qualify as a demonstration of proficiency. ATA suggested that the FAA add two new paragraphs to § 121.1209 to codify this method, as well as acceptance of an airman certificate with an English language endorsement.

In the SNPRM, the FAA is retaining the English language requirements. After considering the comments, however, the FAA is proposing to add two new paragraphs to §§ 121.1209 and 121.1407 to clarify acceptable methods of assessing an individual's proficiency in reading, writing, speaking, and understanding English. Successful completion of the certificate holder's approved training program conducted solely in English would be an acceptable method for demonstrating English proficiency. This requirement would ensure that flightcrew members, flight attendants, and aircraft dispatchers have the ability to communicate with each other and that air carriers have consistent assessment methods.

J. Crewmember and Dispatcher Record (§§ 121.683 and 121.684)

The current provisions in 14 CFR 121.683 require a certificate holder to maintain records for each crewmember and aircraft dispatcher to show that the

individual meets the qualification standards and has satisfied the training requirements in subparts N, O, and P. However, these requirements do not conform to the statutory requirements in the Pilot Records Improvement Act of 1996 (PRIA) (49 U.S.C. 44936(f) and (g)). In the NPRM, the FAA proposed to revise current § 121.683 to conform to the statutory requirements in PRIA and to apply similar requirements for all crewmembers and aircraft dispatchers.

PRIA (49 U.S.C. 44703(h)) requires that, before allowing a pilot to begin service, an employing air carrier must request and receive information concerning that individual, including certain records from other air carriers that have employed the person as a pilot in the previous five years. PRIA requires that the former employing air carrier provide records pertaining to the individual that are maintained by the air carrier under § 121.683 (other than records relating to flight time, duty time, or rest time) and other records pertaining to the individual's performance as a pilot that are maintained by the air carrier concerning the training, qualifications, proficiency, or professional competence of the individual, including comments and evaluations made by a check airman. In the NPRM, the FAA proposed to revise current § 121.683 to make it consistent with the records that must be provided by an air carrier under PRIA. In addition, the NPRM proposed to apply similar requirements to the records of flight attendants and aircraft dispatchers.

Several commenters, including American, RAA, Midwest, TWU, and American Eagle, stated that disciplinary actions do not belong in a pilot's training records. They were concerned about privacy issues and stated that instructors and check pilots should not be able to view those actions. They asserted that the training records should show only the training and evaluations, whether those events were successfully accomplished, and if remedial training was conducted, if applicable. They did not believe it was appropriate to require that records include instructor comments and reasons for unsatisfactory performance on tasks.

The FAA notes that current § 121.683 contains requirements for maintaining more than just training records. It requires the maintenance of records concerning the release from employment or physical or professional disqualification of any flightcrew member or aircraft dispatcher. Therefore, in the SNPRM the FAA has maintained the requirements for the maintenance of other than flight training records. In addition, in the SNPRM under § 121.684, the FAA proposes to codify current guidance contained in FAA Order 8000.88 that addresses how the records should be kept. FAA Order 8000.88, PRIA Guidance for FAA Inspectors (Mar. 14, 2006). In addition, in the SNPRM, the FAA has clarified in § 121.684(a)(2) that only check person comments are required to be maintained, which is consistent with the statutory requirements of PRIA. The FAA has also amended language in § 121.684(b) in the SNPRM to require that all records, except for records on flight time, duty and rest periods, must be maintained for at least 5 years.

K. Management and Technical Personnel Required for Operations Conducted Under Part 121 of This Chapter (§ 119.65)

In the NPRM, the FAA proposed a revision to § 119.65, which requires at least one line qualified check pilot, and, if appropriate, at least one check flight engineer, for each aircraft make and model and aircraft type for which the certificate holder has more than five pilots. Under the proposed rule, a check pilot or check flight engineer would be able to hold the additional position of Director of Safety, Director of Operations, or Chief Pilot, if the check pilot or check flight engineer meets the requirements of the additional position.

NACA and Midwest are strongly opposed to the change and stated that the FAA should not make check airmen part of the required management personnel. Midwest stated that the role of the line check pilot is ensuring that training has been effective, not managing the training process. Midwest and ALPA suggested that if the FAA wants to add personnel responsible for managing training to the required staff at an airline, the Director or Manager of Training would be a much more effective choice. Midwest further stated that it, as well as its union, do not consider line check pilots to be management personnel. It contends that if the FAA proceeds with this change there would be a contractual issue that could cause a significant turnover in line check pilots. Ameristar stated that requiring a check airman would add to the certification of new entrants and is a redundant requirement because current § 119.67(b) requires the chief pilot to be type rated on at least one aircraft type the carrier operates.

The requirement, as proposed in the NPRM, was intended solely to ensure adequate staffing for flightcrew member line checks. In addition, the FAA notes that the language in § 119.65(a) states that the section applies to both management and technical personnel. As long as the proposed requirement is met, there is nothing that compels an airline to confer a particular employment status on an employee. To clarify that the provision applies to management and technical personnel, the FAA proposes in the SNPRM to include technical personnel in the title of § 119.65.

An individual stated that the FAA should additionally require at least one qualified check flight attendant for each aircraft type for which the certificate holder has more than ten flight attendants. The individual also recommended requiring at least one qualified check dispatcher for more than four dispatchers.

As stated previously, the intent of the requirement is solely to ensure adequate staffing for flightcrew member line checks. Line checks are not required activities for flight attendants or aircraft dispatchers; therefore, this suggested change is unnecessary.

L. Applicability (§§ 121.1201 and 121.1401)

In the NPRM, the FAA made some conforming changes to part 135 that did not impose new requirements on part 135 operators. An individual commented that the FAA should not require part 135 commuters to comply with these regulations. The NPRM and the SNPRM do not introduce any new requirements for part 135 and do not affect part 135 operations except for those part 135 certificate holders who must train in accordance with the provisions of part 121. See 14 CFR 135.3(c).

Atlas Air and NACA both commented that it is unclear as to whether the duty positions of current check persons would be grandfathered under the new rule. Atlas Air suggested that the transition of check persons and evaluators to the new regulatory requirements should be part of the transition plan that each air carrier must coordinate with the FAA under § 121.1202(b).

In the SNPRM, the FAA has added paragraph (c) as a grandfather provision that allows persons qualified in a training or evaluation position under the current rules to meet the requirements of the proposed rule without having to repeat certain training. The FAA has also clarified in §§ 121.1202(b)(2) and 121.1402(b)(2) that this requirement would become part of an air carrier's transition plan. Also, the FAA has added designated flight engineer examiners (DFEE) to the list of check persons.

M. Training Program: Contract Training Requirements (§ 121.1339)

Current regulations that govern training centers that provide training under contract or other arrangement for air carriers are found in 14 CFR part 142. In the NPRM, the FAA proposed additional rules regarding the use of another certificate holder certificated under part 119 or a training center certificated under part 142 to conduct crewmember training. The NPRM clarified the conditions a certificate holder must meet in order to use persons from another part 119 certificate holder or a part 142 training center in its training program. The proposed requirement also ensured that the training is specific to the certificate holder, even if administered by someone other than an employee of the part 119 certificate holder. Under the proposal in the NPRM, all training materials, FSTDs, and other training equipment would have to meet the requirements of subpart BB, and be specifically approved for use in the certificate holder's program. In addition, any instructor or check person must be qualified under subpart BB and approved by the POI to provide training and evaluation in the certificate holder's program.

The NTSB commented that it supports the NPRM's proposals for establishing qualifications for training centers and other 14 CFR part 119 facilities. Flight Safety International (Flight Safety) commented that there was inadequate verbiage in § 121.1339, as it does not specify if part 142 training centers already approved by the FAA Training Center Program Manager (TCPM) would be considered acceptable locations for academic training in the classroom or if they must go through an additional approval process under subpart BB.

The FAA does not believe it is necessary to add language to § 121.1339 to except part 142 training centers from the requirement that the certificate holder must have the facilities it proposes to use for academic training approved. Section 121.1337, Training Program Approval and Amendment Process, in the NPRM and SNPRM, proposes that each training program must be approved by the Administrator. To obtain approval of a training program, a part 119 certificate holder must provide certain information, including a description of the academic training facilities to be used. Furthermore, both in the NPRM and SNPRM, § 121.1335 proposes to require that academic training hours must be in a classroom provided by the certificate holder unless otherwise approved by the Administrator. Therefore, academic training provided in a classroom would be part of the general training program approval process for the part 119 certificate holder and would not require a separate approval process for a part 142 training center.

In addition, in the SNPRM, the FAA has addressed the timeframes for transition from current rules to proposed rules for certificate holders who are required to meet the requirements of subparts BB and CC. Section 121.1202 outlines the process for transitioning from training programs established in accordance with subparts N, O, and P of this part to the training program requirements provided in subparts BB and CC of this part. At the completion of the transition process, certificate holders must meet the requirements of subparts BB and CC. Any part 142 training center that is providing contract training for a part 119 certificate holder must transition to the new requirements of subpart BB as that part 119 certificate holder transitions to the requirements of subpart BB.

Flight Safety also raised concerns that the proposal in the NPRM dilutes the intent of contractual arrangements allowed between part 121 certificate holders and part 142 training centers and does not adequately clarify how contractual arrangements are used to meet certificate holder training requirements. Flight Safety also stated that the basic intent of the special rule should be to allow certificate holders to contract with approved part 142 training centers and use the part 142 qualification of instructors and evaluators to meet the requirements of the applicable parts of part 121. Flight Safety further stated that the language used in the proposed rule does not adequately address the use of simulators through contract training with part 142 training centers.

The intent of the proposal in the NPRM was to provide flexibility for certificate holders by allowing training programs to be administered by non-employees. It also maintained the integrity of the training program and ensured that only those persons and equipment specifically approved for the program would be used. In the SNPRM, the FAA has revised the language in § 121.1339 to adequately clarify (1) how contractual arrangements could be used to meet the certificate holder's training requirements under subpart BB and CC; (2) how part 142 training center instructors and evaluators may be qualified to meet the requirements of the applicable parts of part 121; and (3) how simulators may be used through contract training with part 142 training centers.

N. Curriculum Category Requirements: Check Pilot, Check Flight Engineer, or Check Flight Attendant Initial, Transition, and Recurrent Academic Training (§ 121.1381)

Current § 121.413 provides for the initial and transition training and checking requirements of check airmen (airplane) and check airmen (simulator).

The NPRM proposed requirements for initial, transition, and recurrent academic training for check pilots, check flight engineers, and check flight attendants. It contains the same requirements in current § 121.413, which apply to check airmen. The FAA based its recurrent academic training requirements on current part 121, appendix H, Advanced Simulation Training Program. The FAA has established these requirements to ensure that each check person remain proficient in the knowledge and skills necessary to evaluate crewmembers.

Continental stated that the proposal appears to conflict with or omit the semiannual standardization meeting requirements of §§ 121.1253(d)(2)(ii)(A) and 121.1355(a)(2). The requirement to attend standardization meetings is not necessary in this section. Therefore, there is no conflict with §§ 121.1253 and 121.1355. The standardization meetings are not curriculum category requirements and therefore are not appropriate to include in § 121.1381. The proposed requirement to have standardization meeting is in § 121.1355(a)(2), the proposed requirement for check airmen to attend the meetings is in § 121.1253, and the proposed requirement for APDs to attend the meetings is in § 121.1271.

American requested deleting § 121.1381(a)(5)(i), which proposed to require training in proper evaluation of student performance, including the detection of improper or insufficient training. Proposed § 121.1381(a)(5)(i) repeats the current requirement in § 121.413(c)(4)(i). The FAA did not propose changing this requirement and believes it remains a valid requirement because the instructor's ability to detect improper or insufficient training helps to ensure the instructor's proficiency as an instructor. Therefore, the FAA has retained the requirement in the SNPRM.

O. Training Program: Academic Evaluation (§ 121.1343)

Although there are requirements for academic testing in the current regulations, there are no requirements for how those academic evaluations are

to be developed or implemented. In the NPRM and SNPRM, the FAA has included specific requirements regarding development, maintenance, and implementation of academic evaluations. ATA and Continental stated that the proposed assessment rules appear to preclude oral examination, which the FAA has long recognized as a fundamental assessment technique. They requested that it be preserved. In the SNPRM, the FAA has added language in the QPSs to clarify that oral examination is still appropriate under the proposed requirements.

RAA stated that it is unclear whether test questions have to be approved by the FAA for every class based on the proposed QPS requirement for knowledge assessment that states that "the form and content of each test must be approved by the Administrator." RAA noted that this requirement would be more restrictive than AQP.

The FAA did not intend that each individual test question and test be approved by the FAA. Rather, the intent was that the method of developing and administrating academic tests be approved by the FAA under the general training program approval process required in § 121.1337. In the SNPRM, the FAA has revised the requirement in § 121.1343 to clarify that it is only necessary to establish a method to develop written, oral, or electronic tests that is approved by the Administrator as part of the approved training program.

ATA, UPS, Midwest, American, RAA, Continental, and FedEx commented that the proposed requirement for random selection of tests would require an automated assessment process that would require additional staff and computer software changes. They contend that such costs were not mentioned in the regulatory evaluation. They stated that the requirement is logistically complex and expensive. Horizon and Alaska commented that their lack of computer testing complicates their ability to meet the criteria in this rule. The commenters suggested that the rule be clarified to reference the random selection strategy of paragraph (d) and to simply state that the use of the random strategy is sufficient to generate the desired result. FedEx proposed specific language to address this concern, specifically that the certificate holder must create tests using the random selection method described in paragraph (d) so that each student receives a different test each time the student is tested on an area of instruction.

In the SNPRM, the FAA has retained the requirement that the certificate holder create tests using the random selection method. However, the FAA has removed the language that required the certificate holder to ensure that each student receives a different test each time the student is tested on an area of instruction.

P. Training Program: Training Equipment Other Than Flight Simulation Training Devices (§ 121.1351)

Current regulations do not provide specific requirements for training equipment other than flight simulation devices except to require that they are adequate.

The NPRM established requirements for training equipment, other than FSTDs, that is used in an approved training program. These requirements are needed to ensure that all equipment used in training programs is adequate for the task for which it is to be used. Such equipment includes portable emergency equipment, aircraft exits, and equipment for overwater operations. The NPRM also proposed to require that all training equipment be specifically approved by the Administrator for the certificate holder, the duty position, and the procedure involved and that each piece of training equipment replicates certain characteristics or functions of equipment on the airplane. The NPRM also proposed to require that a discrepancy log be kept in close proximity to each piece of training equipment.

American Eagle, Continental, ATA, American, United and an individual commented that the requirement for certificate holders to duplicate equipment furnishings, such as stowage areas and aircraft compartments, in training centers would add significant cost and barriers to training and would lead to a significant increase in training injuries without providing a commensurate level of improved crewmember training.

The focus of the requirement is the removal of each piece of emergency equipment and training device from the same bracket or securing device that is used on the aircraft prior to being operated by each flight attendant. In the SNPRM, the FAA has removed the phrase "as installed in the aircraft, including all equipment and furnishings that may affect the operation of that equipment." The FAA did not intend for air carriers to replicate stowage areas and aircraft compartments for use during hands-on job performance drills.

The Association of Flight Attendants (AFA) supported the language as proposed but requested clarification regarding the phrase "force and travel" as it pertains to what the equipment must duplicate. AFA commented that, in order to cover all types of training equipment, the requirement be revised to read "The required force, actions, and travel of the equipment." In the SNPRM, the FAA has added the term "actions" to the proposed requirement in order to cover all types of equipment used for training.

American Eagle, ATA, Continental, Midwest, American, and FedEx all generally commented that the proposed requirements for recording discrepancies were too prescriptive and that the proposed language limited an air carrier's flexibility to determine the most efficient reporting system for their operation. Commenters suggested alternative language to require that emergency training equipment must have a method of documenting discrepancies, such as replacing "discrepancy log" with "method of documenting discrepancies" and replacing "log" with "documenting system." In the SNPRM, the FAA has revised the proposed language to be less prescriptive and give air carriers flexibility to determine the most efficient reporting system for their operation.

ATA commented that the proposed requirements should allow training to continue if equipment is in a degraded state due to minor missing, malfunctioning, or inoperative components of the equipment. ATA and Midwest also commented that the proposed requirement was overly broad and open to interpretation. They stated that as drafted, these requirements would extend to training equipment such as life vests and fire extinguishers.

The purpose of the proposed requirement is to ensure that crewmembers do not receive training on emergency equipment that does not replicate the equipment they would use in emergency situations in aircraft operations, including life vests and fire extinguishers. In the SNPRM, the FAA continues to prohibit the use of training equipment with a missing, malfunctioning, or inoperative component to meet crewmember training or evaluation requirements for tasks that require the use of the correctly operating equipment. In the SNPRM, the FAA continues to extend the requirement to all training equipment.

Midwest commented that drills that are accomplished in a cabin trainer include group exercises involving passenger control, adverse conditions, and other scenarios. It stated that the skills exercised in these drills are not airplane type specific and can be

accomplished in any "type" of cabin trainer.

The goals and objectives of much of the scenario-based training and group exercises, such as passenger control, briefings, cabin preparation, CRM, and communication and coordination, can be accomplished in a general cabin trainer or classroom. The proposed requirements in this section apply to training equipment used to accomplish job performance requirements where replication of the actual equipment used in operations is key to the learning objectives of the drill.

Q. Curriculum Category Requirements: Crewmember New Hire (§ 121.1363)

Current § 121.415 requires that a training program must provide a Basic indoctrination ground training for newly hired crewmembers or aircraft dispatchers including 40 programmed hours of instruction, unless reduced under § 121.405 or as specified in § 121.401(d).

The NPRM proposed requirements for new hire training for pilots, flight engineers, and flight attendants. The NPRM required new hire training for crewmembers qualifying for the first time for the certificate holder and for flight attendants who were required to complete phase III requalification training, which includes new hire training. AFA recommended listing the required hours in the regulation to clear up any ambiguity and possible misinterpretation of the hours required for training proficiency.

Programmed hours are set forth in the QPS, which is regulatory and must be considered in conjunction with the rule sections in subparts BB and CC. The FAA has determined that the language in the NPRM was appropriate and is maintaining the language in the SNPRM.

Ameristar recommended citing the exact QPS appendix letter in the wording of § 121.1363(b)(1). When referring to multiple training populations, the FAA has used "applicable QPS requirements." The FAA has determined that the language in the NPRM was appropriate and is maintaining the language in the SNPRM.

ATA, American, FedEx, and UPS commented that new hire training should only be a one-time event whether an individual is a pilot or a flight engineer. The commenters recommended using a general term "flightcrew member new hire" instead of "pilot new hire" and "flight engineer new hire."

In the SNPRM the FAA has retained the term "crewmember new hire" because this term is applicable to all crewmembers. The FAA recognizes that once a flight engineer receives new hire training at a certificate holder the flight engineer would not need to receive new hire training again if he or she became a pilot for the same certificate holder.

R. Initial Cadre for Crewmembers and Aircraft Dispatchers (§§ 121.1257, 121.1323, and 121.1425)

1. Check Airman Initial Cadre (§ 121.1257)

For new certificate holders initiating service, and existing certificate holders adding new airplane types to their operation, it is necessary to establish a check airman program to conduct training and evaluation. In order to establish a check airman program, initial cadre check airmen are first required. Initial cadre check airman candidates must first become fully qualified as flightcrew members and then be trained, evaluated, and approved as check airmen. Current provisions in subpart N do not address a training process for initial cadre check airmen. Rather, a recommended process is set forth in FAA Order 8900.1, Vol. 3, Ch. 20, para. 3–1427 (Sept. 13, 2007). The FAA proposed to codify this process in the NPRM.

ATA, Continental, American, Midwest, and FedEx requested the FAA reconsider regulating initial cadre programs. Commenters stated that current policy in FAA Order 8900.1 on initial cadre training and evaluation is adequate and has proven safe. Commenters stated that maintaining this guidance provides the necessary flexibility to develop appropriate training and qualification as the need arises.

The FAA believes that the importance of the initial cadre period, when certain air carrier employees may provide training and evaluation without meeting certain qualification requirements, requires standardization in the regulations and is not appropriate for guidance. The SNPRM, like the NPRM, proposes to codify FAA policy in the FAA Order 8900.1, Vol. 3, Ch. 20, sect. 2, para. 3–1427, "Approval of Initial Cadre Check Airmen" (3/11/09). The initial cadre program is a practical way to initiate and build a check airmen program, and it takes advantage of proving flights when the operator or applicant is under close FAA scrutiny.

ATA, FedEx, and American recommended clarification of the requirements in § 121.1257(b)(1), which requires that the person be employed by the certificate holder, and § 121.1257(e), which describes the individuals who may be used as instructors, check pilots, and APDs by the certificate holder to train the initial cadre of check airmen described under paragraph (b). The commenters believe these requirements are in conflict. Commenters also recommended that the FAA revise paragraph (b)(1) to require that the initial cadre check airmen be employed by the part 119 certificate holder or comply with § 121.1257(e).

In the SNPRM, the FAA has clarified the relationship between individuals who may be trained as the initial cadre of check airmen for a certificate holder in paragraph (b), and the individuals in paragraph (d) who may be used as instructors, check pilots, and APDs by the certificate holder to train the initial cadre of check airmen described under paragraph (b). Paragraph (d) allows the certificate holder to use current employees, employees of part 142 certificate holders, employees of other part 119 certificate holders, or aircraft manufacturers to create the pool of instructors, check pilots, and APDs who would support the certificate holders initial cadre program and train the initial cadre check airmen.

ATA, American, Midwest, and Continental believe that in § 121.1257(b)(4) the last sentence should be deleted because this section could be misconstrued to require an initial cadre check pilot or check pilot to accomplish the entire syllabus twice, once in each seat. They stated this would conflict with the seat dependant task training in the QPS as specified in § 121.1383(c)(3).

The intent of § 121.1257(b)(4) is not to require initial cadre check pilots to accomplish the entire syllabus twice, once in each seat. In the SNPRM, the FAA has revised § 121.1357(b)(4) to clarify that initial cadre check pilots need to complete seat dependent task training.

ATA, American, FedEx, and Midwest believe that the requirement in (b)(5) for the FAA to observe each of the duties that the check airman would be authorized to perform is excessive and should be replaced with (b)(6), which requires POI approval for the duties to be performed.

While approval for an individual to serve as a check airman under proposed § 121.1253 requires signoff by an FAA aviation safety inspector or APD, in the case of initial cadre training and evaluation, it is necessary for the FAA to have the FAA aviation safety inspector conduct the observation and provide the signoff because, in an initial cadre situation, the certificate holder would not have an APD. This requirement is also in accordance with FAA policy in FAA Order 8900.1, Vol.

3, Ch. 20, sect. 2, para. 3–1427 (3/11/09). Therefore, in the SNPRM the FAA has not revised the requirement.

2. Check Flight Attendant Initial Cadre (§ 121.1323)

In the NPRM, the FAA proposed to establish requirements for qualifying an initial cadre of check flight attendants when a certificate holder is unable to meet the requirements of § 121.1321. The proposed section is necessary to standardize industry practice for qualifying an initial cadre of check flight attendants.

ATA, Midwest, American, and American Eagle commented that the NPRM does not require an FAA aviation safety inspector observing a potential initial cadre check flight attendant to have any experience in the aircraft group or type or be qualified in the certificate holder's procedures. Southwest and ATA stated that the FAA aviation safety inspectors must be required to meet the same qualifications as the flight attendants they are inspecting.

The aviation safety inspectors (cabin safety) who are assigned to observe a certificate holder's initial cadre check flight attendants possess the required knowledge regarding the regulations, the air carrier's approved training program, and the air carrier's operating procedures to adequately perform the observation. Provisions regarding the training requirements of FAA aviation safety inspectors are not appropriate for this rulemaking.

American and Southwest commented that the NPRM sets forth no appeal process to contest a termination of an individual's initial cadre status. In the SNPRM, some sections in the rule language regarding FAA approval, such as training program approval, contain a formal appeal process. In the case of determinations regarding the length of time that initial cadre status is conferred on a particular operator, the certificate holder may appeal the determination through the CSI. As discussed previously, this is the process for appealing any FAA regulations administered by AVS that permit the exercise of FAA discretion.

In the NPRM, the FAA set forth a requirement that each individual check flight attendant would require approval by the FAA. American stated that, if initial cadres of check flight attendants are required with the implementation of these regulations, certificate holders should be allowed to develop check flight attendant programs that are approved by the FAA but not supervised by the FAA. American, Southwest, and ATA stated that FAA oversight of an initial cadre of check flight attendants introduces a significant burden on the FAA and may prevent the certificate holder from selecting and qualifying employees. They contend that the certificate holder should maintain the responsibility of ensuring the qualification of check flight attendants through personnel selection and training and that the FAA should be responsible for approving and observing the check flight attendant training program. Southwest, American, ATA, and Midwest stated that the FAA oversight of the check flight attendant program should be accomplished through training program approval and continuous analysis rather than personnel approval.

In the SNPRM, the FAA has removed the requirement for approval of individual check flight attendants. Instead, the FAA is proposing to require only that the certificate holder maintain a current list of all initial cadre check flight attendants and submit that list to the FAA. FAA observation of the newly trained check flight attendants is only necessary for initial cadre. An existing certificate holder would be able to meet the qualification requirements of § 121.1321, which allows observation by another check flight attendant and does not require any additional FAA approval.

Southwest commented that certificate holders with established check flight attendant programs do not need an initial cadre designation when adding a new aircraft type. It commented that as long as check flight attendants have received training on the new aircraft type, there is no need for an initial cadre of check flight attendants. It contends that flight attendant duties and check flight attendant duties do not vary by aircraft type in the same way that pilot and flight engineer duties do.

The initial cadre requirements for check flight attendants are necessary only when a check flight attendant candidate does not meet the eligibility for training requirements of § 121.1321, which include a requirement to have served as a flight attendant for the certificate holder for at least the previous 180 days. Therefore, an air carrier would not need to use the initial cadre provisions when adding a new aircraft type as long as it uses check flight attendants who have worked for the air carrier for at least the previous 180 days.

RAA stated the proposed rule stipulates that a flight attendant with experience on an aircraft of the same group is to perform duties as an initial cadre check flight attendant. RAA stated that this would prevent an experienced flight attendant at an air carrier with turboprop aircraft from serving as a check flight attendant should the carrier acquire turbojet airplanes. It requested that the phrase "of the same group" be withdrawn.

In the SNPRM, the FAA has withdrawn the phrase "of the same group" and has established a more appropriate requirement that flight attendants must have previously served 3 of the last 6 years in part 121 operations to serve as a check flight attendant in these situations. The FAA reiterates that the initial cadre requirements for check flight attendants are necessary only when a check flight attendant candidate does not meet the eligibility for training requirements of § 121.1321.

American Eagle sought clarification as to whether the term "FAA Inspector" is the same as the term aviation safety inspector in Table 3A. In the SNPRM, the FAA has revised the proposed regulation to include the term aviation safety inspector.

3. Check Dispatcher Initial Cadre (§ 121.1425)

In the NPRM, the FAA also proposed to establish requirements for qualifying an initial cadre of check aircraft dispatchers when a certificate holder is unable to meet the eligibility, training, evaluation, and supervised operating experience requirements of § 121.1417 and § 121.1421. The proposed section was necessary to standardize industry practice for qualifying an initial cadre of check aircraft dispatchers.

TWU recommended that the FAA revise the language in § 121.1417 and § 121.1421 to clarify that the requirements apply only to "start-up" airlines or operations. The requirements for the check dispatchers under § 121.1417 and § 121.1421 apply to all operations. Relief for start up airlines or a new type of operation for an existing air carrier is provided under § 121.1425, Check dispatcher: Initial cadre. The initial cadre requirements for check dispatchers are necessary only when a check dispatcher candidate does not meet the eligibility and training requirements of §§ 121.1417 and 121.1421. Therefore, the FAA has not revised the language in these sections.

NACA questioned the requirement in § 121.1425(c)(2) that would require an individual attempting to qualify as an initial cadre check dispatcher to have served as an aircraft dispatcher for 3 of the last 6 years with that aircraft type. NACA maintains that this requirement is inconsistent with the requirements in § 121.1421 for check dispatchers which does not establish an aircraft type

limitation for qualification as a check dispatcher. NACA therefore recommended deleting the aircraft type limitation in § 121.1425(c)(2). Midwest also raised concerns that if adopted as proposed, dispatchers attempting to qualify as an initial cadre check dispatcher who work for an operator that has a new type of aircraft would not be able to meet this requirement. Midwest recommended removing the aircraft type requirement and requiring the individual to have served at least 3 of the last 6 years as a certificated dispatcher performing dispatch duty.

In the SNPRM, the FAA is revising § 121.1425(c)(2) to remove the requirement that a dispatcher have experience in the aircraft type and instead require that, to be eligible to be an initial cadre check dispatcher, a dispatcher must have served at least 3 years in the past 5 years as a dispatcher in the same aircraft group. The aircraft group limitation is necessary because individuals attempting to qualify as an initial cadre aircraft dispatcher may not have recent experience serving as an aircraft dispatcher with that certificate holder. Instead of establishing a recency requirement, the FAA has determined that it is more appropriate to establish the aircraft group limitation given the difference in aircraft performance, operational requirements, and the overall operating environments for Group I and Group II airplanes. This would ensure that the initial cadre check dispatcher is familiar with the certificate holder's operating environment, while also accommodating the needs of new part 119 certificate holders and certificate holders that are planning to operate a new aircraft type or in a new type of operation. Upon review of § 121.1421, the FAA identified an error in the recency experience requirements as proposed in the NPRM. The FAA has revised § 121.1421 to require check dispatchers to have served at least 3 years in the past 5 years as a dispatcher for the certificate holder for whom the dispatcher is to perform the duties of a check dispatcher.

Midwest commented that the requirement that a dispatcher hold a certificate without restriction is unclear as they are unaware of any restrictions on dispatcher certificates. Prior to 1996 (when 14 CFR part 65 was revised) some aircraft dispatcher certificates were issued with English language limitations to individuals with foreign residency. If these individuals sought employment in the United States, this restriction would have to be removed prior to their employment. As these certificates do not expire, it is necessary to retain this language in the SNPRM.

V. Other Issues by Specialty

A. Flightcrew Member

1. Training Program: Line Oriented Flight Training (LOFT) and Full Flight Simulator (FFS) Course of Instruction (§ 121.1353)

Current § 121.409(b) addresses training courses using airplane simulators. The requirements proposed in the NPRM were based on § 121.409(b), § 121.441(a) and requirements in appendix H to part 121. The NPRM proposed to consolidate into one section the various requirements related to LOFT, to provide more specific requirements regarding the use of simulators, including qualification LOFT, recurrent LOFT, and FSTD course of instruction. These requirements promote a training environment that closely resembles actual line operations.

Current § 121.409(b)(3) requires a complete flight crew. In the NPRM, the FAA proposed in § 121.1353(a)(4) to require that the flight crew consist of crewmembers who are qualified or in student status to serve in the duty position.

Several commenters raised concerns that the FAA's proposal to require a full flight crew would not allow flexibility. They stated that without such flexibility, if an individual is unable to report for training, the certificate holder would have to cancel the training and incur additional costs associated with rescheduling the session, such as transportation and lodging costs for the crew. In addition, ATA, American, Continental, FedEx, and Midwest requested the FAA allow "a person who is task familiar" and a "student in training" to be a substitute for a crewmember who is qualified or in student status to serve in the duty position.

In the SNPRM, the FAA has revised the language in § 121.1353 to reference a complete flight crew as described in § 121.1221(d). In addition, the FAA broadened the language in § 121.1221 to allow "another individual qualified to occupy that seat" to be part of the complete flight crew. For a more detailed discussion of the change to "complete flight crew," see Section V.A.13. Flightcrew member: Training and evaluation (§ 121.1221 and § 121.1335) later in the preamble.

Continental requested clarification regarding the intent of the proposed LOFT requirements as they apply to qualification and recurrent LOFT. The FAA has clarified that the LOFT requirements are the same for recurrent LOFT and qualification LOFT. Under the proposal, a LOFT would require training in an FFS, plus a briefing and debriefing. In addition, each duty position must be filled by a person who is qualified or in student status to serve in that position. This proposed requirement is needed because the training value of LOFT is diminished when inappropriate crew substitutions are made, such as using an SIC to substitute for a PIC. The certificate holder selects the tasks to be performed during the operating cycles from the list provided in Table 3A of the Pilot QPS and Table 3A of the Flight Engineer QPS, if applicable. Each operating cycle incorporating the tasks should be structured in such a way to mirror as closely as possible typical line operations. In this way, the FAA is certain the selected tasks are appropriate for the certificate holder's operations.

ATA, American, FedEx, UPS, and Midwest commented that requiring two operating cycles be completed during each LOFT is not appropriate as it limits the certificate holders' ability to review data and information collected in the CAP to identify areas that need additional training and incorporate those areas during the time remaining in the LOFT. Furthermore, they stated that a single cycle LOFT should be permitted, if appropriate and approved, if pilot flying and pilot monitoring duties are observed. ATA, American, Continental, UPS, and FedEx recommended removing the proposed requirement in § 121.1353(b)(5) to demonstrate or practice tasks identified as areas of concern because this area is covered in the CAP. The FAA continues to believe that two operating cycles are necessary so that an instructor can fully evaluate both the pilot flying and pilot monitoring skills of all crewmembers participating in the LOFT.

American, Continental, and Atlas stated that proposed § 121.1353(a)(5) should be revised to allow for "minimal interruption" of the LOFT by the instructor to allow the correction of errors noted during training. The commenters stated that this change would be in accordance with AC 120–35C which includes "instructor guidance to prevent scenario degradation to negative learning and reinforcement of preferred or standardized solutions to problems."

The FAA recognizes there are some circumstances where an instructor might need to interrupt training to give guidance to a student. The FAA did not intend for this type of "interruption" to be prohibited. The FAA has clarified

this intention by removing the phrase "the instructor." The FAA's intent was to prohibit interruption of the LOFT scenario itself, which must be conducted as a line operation. The FAA believes this change is consistent with the guidance in AC 120–135C and has revised the text to allow for minimal interruption during both the LOFT and FFS course of instruction.

ATA, FedEx, UPS, and Midwest requested that the FAA add APD to the list of pilots who may conduct a LOFT. The FAA has modified the SNPRM to allow an APD to administer LOFT because APDs have the appropriate qualifications to conduct this function.

ATA, American, and UPS commented that a remedial training program should be based on the severity and the nature of the deficiency. They stated that the deficiency might be minor enough that it does not require an additional simulator session.

After review, the FAA has determined that it is not necessary to require a separate LOFT training session for all remedial training. In the SNPRM, the FAA has removed from § 121.1353(a)(6) and (b)(4) the proposed requirement for a separate training session for remedial training. Instead, the FAA has included a requirement that the person administering the LOFT could correct any deficiencies during the post-flight debriefing of the flight crew.

2. Flightcrew Member: Operating Experience (§ 121.1225)

The current requirements regarding flightcrew member operating experience are found in § 121.434. The FAA proposed to recodify the operating experience requirements in § 121.1225. This provision established the operating cycle and observation requirements of operating experience, and also added two new provisions. The new provisions allow check pilots to have a rest period during the en route portion of a flight that is more than 8 hours in duration, and allow credit for operating experience if the pilot or flight engineer was under the direct supervision of an evaluator.

Continental and RAA questioned why only an APD or FAA inspector must observe the operating cycle performed by a pilot after initial or upgrade training. The commenters suggested allowing an authorized line check pilot to perform the observation.

The FAA has revised the requirements in paragraph (b)(2) to require observation by an APD or FAA inspector only when a pilot is qualifying as a pilot in command for the certificate holder for the first time. The FAA recognizes that a qualified check pilot has adequate experience to conduct observations that occur after the pilot has qualified for the first time, such as when a pilot is qualifying for a new aircraft type. The FAA has revised the language to allow a qualified line check pilot to conduct observations after the initial APD or FAA observation of the pilot as PIC. This change is consistent with current regulations in § 121.434, which allow line check pilots to conduct these subsequent observations.

Continental, UPS, and Ameristar commented that the requirement to restart operating experience based on poor performance may result in pressure to pass a pilot who performs marginally during the last days of the eligibility period to avoid the cost of restarting operating experience. The commenters suggested that the pilot be afforded another opportunity to complete the operating experience or proficiency test without restarting operating experience in its entirety. They further commented that a proficiency test should be replaced with proficiency check because the pilot has already received a type rating, and a proficiency check would allow for correction of minor deficiencies.

After further review, in the SNPRM, the FAA has revised the requirement in § 121.1225(b)(1) to require a proficiency check instead of a proficiency test to re-initiate operating experience. The FAA believes a proficiency check would allow for proper evaluation of all required items, and provide an additional opportunity to identify, train, and correct minor deficiencies for pilots who would have marginally passed under the standard proposed in the NPRM. In addition, throughout the SNPRM, the FAA has removed the term "proficiency review" and replaced it with proficiency check because a proficiency review is the same as a proficiency check.

Continental, Midwest, American, and FedEx commented that they do not agree with the proposed requirement that at least one operating cycle, flown as the pilot flying, must be conducted with the autopilot disengaged. In the SNPRM, the FAA has added language to clarify that this does not require the flight crew to operate contrary to published or otherwise required departure or arrival procedures. However, the SNPRM proposes that if at least one cycle is not flown with the autopilot disengaged after takeoff until departing the terminal area and prior to approach upon entering the terminal area during the required operating experience, this fact must be recorded in the crewmember's record. The FAA proposes to require that at least one of the cycles flown as the pilot flying must be flown with the autopilot disengaged during the departure and arrival phases of flight. This requirement is necessary to measure the pilot's level of proficiency during these demanding phases of flight.

ATA, American, FedEx, UPS, Southwest, RAA, and Midwest asserted that a two-cycle line check is not necessary and that everything may be accomplished in one cycle. Upon review of the comments, the FAA has determined that the two-cycle line check is necessary. In order to reflect actual line operations, during a two-cycle line check, the FAA expects a pilot to be the "pilot flying" on one cycle and the "pilot monitoring" on the other cycle. This would ensure adequate evaluation of the pilot's flying skills, as well the pilot's monitoring skills. During a two cycle line check, each pilot has an adequate opportunity to be the "pilot flying" on one cycle and the "pilot monitoring" on the other cycle.

3. Pilot: Consolidation (§ 121.1227)

Current § 121.434(g) and (h) require pilots to acquire at least 100 hours of line operating flight time for consolidation of knowledge and skills. The requirements proposed in the NPRM were based on § 121.434(g) and (h). In the NPRM, the FAA proposed additional requirements that the 100 hours of line flight time begin no later than 60 days after, and be completed within 120 days after, the proficiency test. The FAA also proposed that pilots completing conversion would be required to undergo consolidation. Furthermore, the NPRM proposed to extend consolidation to the first recurrent proficiency test and would require that a pilot restart consolidation if the pilot fails to complete the 100 hours of line flight time by the time the proficiency test for recurrent training is complete.

ATA, FedEx, and American were concerned that the proposal does not provide for deviation that would provide mitigating relief if new aircraft enter the fleet, or pilots are relocated to a new domicile and are then required to become qualified and cannot complete the consolidation requirements within the 60- to 120-day time frame.

Rather than providing a deviation for pilots who have not accumulated 100 hours, the FAA added language to § 121.1227(c)–(e) to provide for extension of time for completion of consolidation. The FAA recognizes that there are circumstances where a pilot would not be able to meet the 120-day period. In the SNPRM, the FAA would permit an extension of the consolidation

period if the pilot meets additional evaluation requirements. The proposal permits two extensions of consolidation with additional evaluation requirements for each extension. The only deviation from these consolidation requirements is set forth in § 121.1230. This deviation would allow the Administrator to authorize credit toward satisfying the consolidation requirements of § 121.1227 for hours of line flight time accumulated in operations of related aircraft.

4. Pilot Recency of Experience (§ 121.1229)

Under the current rules, in order to maintain recency of experience, pilots typically complete three takeoffs and landings in an aircraft simulator. If the visual simulator is a level A simulator, the pilot must perform additional maneuvers and procedures. Pilots using level B, C, or D simulators are not required to perform additional maneuvers and procedures.

In the SNPRM, as in the NPRM, the FAA has continued the current requirement for three takeoffs and landings within the preceding 90 days. The SNPRM, as in the NPRM, proposes, to allow pilots to complete the takeoffs and landings in an aircraft during line operations or in an aircraft simulator qualified for takeoffs and landings under part 60, with one of the takeoff and landing requirements being conducted in LOFT environment training. In the SNPRM, the FAA has proposed a definition of LOFT environment training in § 121.1205, which clarifies that this training is used primarily for the maintenance or regaining of landing currency and, therefore, is not required to meet the time requirements of other LOFT scenarios.

In addition, in the SNPRM, the FAA has clarified when a pilot is considered to have lapsed in recency. If it has been 90 days or more since the pilot has completed the recency requirements of three takeoffs and landings, then he or she is considered to have lapsed. In paragraph (b), if a pilot's recency lapses and has been lapsed for 90 days or less, the SNPRM establishes that the pilot may regain recency only by completing the takeoff and landing requirements in paragraph (a)(2) in a LOFT environment. Under paragraph (c), pilots whose recency has been lapsed for more than 90 days would be required to complete the requirements in paragraph (b) and an FFS course of instruction. The FAA has revised the text in paragraph (c) to replace core conversion training with FFS course of instruction to allow certificate holders to target the critical training needs of the pilot.

ATA, American, United, Southwest did not agree with the proposal to require one of the takeoff and landings to be done in a LOFT environment. Commenters believed the NPRM required a full LOFT to reestablish pilot recency.

The FAA recognizes that there was no definition for LOFT environment in the NPRM. The FAA did not intend to require a full LOFT to reestablish recency after it had lapsed for 90 days or less. To clarify the difference between LOFT and LOFT environment, the FAA has added a definition of LOFT Environment Training in § 121.1205 of the SNPRM. The definition of LOFT environment is training in an FFS with a complete flightcrew using procedures expected in line operations but without the use of simulator resets or repositioning. This training is used primarily for the maintenance or regaining of landing currency and, therefore, is not required to meet the time requirements of other LOFT scenarios.

The FAA believes the requirement for LOFT environment training has a minimal impact on cost (as it does not contain all the requirements of a full LOFT) and has a positive impact on safety because it provides the training in a "line environment" which more closely simulates what occurs during actual flight operations, as opposed to the current practice of using a "task training environment."

5. Flightcrew Members at Controls (§ 121.1241)

The current requirements for flightcrew member at the controls appear in § 121.543. That provision contains reduced qualification requirements for relief pilots. Proposed § 121.1241 in the NPRM and SNPRM would revise the requirements in § 121.543 to require the relief pilot to be a fully qualified pilot in command. In the NPRM and SNPRM, the requirements of § 121.543 would expire 5 years and 120 days after publication of the final rule. After that date, the requirements of § 121.1241 would apply. However, if an air carrier transitions to the requirements of subpart BB before the end of the transition period, the air carrier would be required to comply with the provisions in § 121.1241 at that time.

ATA, American, Continental, FedEx, Midwest, United, and UPS commented that forcing takeoff and landing currency among all relief pilots may deteriorate the proficiency of all pilots. For example, on long-haul aircraft, the commenters asserted there are not enough operating cycles to allow all pilots to maintain landing currency in the aircraft. In addition, spreading these aircraft landings among relief pilots reduces the available landings for those pilots who would actually make landings in line operations. Commenters also stated that some labor agreements prevent forcing a relief pilot into the SIC or PIC position during line operations, and would, therefore, require additional crewmembers to have to requalify for takeoffs and landing in the simulator. Additionally, commenters disagreed with the proposal to require relief pilots to meet the same consolidation and recency requirements as all other pilots. The commenters stated that the proposed rule would add complexity and cost. The commenters believe the proposed rule would have the unintended consequence of forcing carriers to schedule fleets on routes that would not require augmented crews. Accordingly, commenters recommended that the FAA maintain current regulatory requirements for landing currency.

The proposal in the NPRM and SNPRM that all pilots need to establish and maintain recency would ensure that all pilots on the flight deck are adequately trained and qualified to serve in that duty position. In case of an emergency, it is necessary to ensure that all pilots, including relief pilots who may be called upon during flight to act as pilot in command or second in command, are fully qualified in all phases of flight. Accordingly, the FAA has maintained the qualification requirement for relief pilots as proposed in the NPRM.

ATA, Continental, American, Midwest, FedEx, and UPS objected to the designation of an acting PIC in paragraph (b) which says that, if the pilot in command is taking a rest period, the PIC must designate an acting PIC on the flight deck. Commenters also stated that the regulations should recognize that chain of command is designated by a carrier's flight operations manual.

After reviewing §§ 121.1241 and 121.1237, the FAA believes that § 121.1241(b)(4) is unnecessary because § 121.1237 establishes requirements for who is the PIC. Therefore, in the SNPRM, the FAA has removed § 121.1241(b)(4).

6. Check Pilot and Check Flight Engineer: Training, Evaluation, Approval, and Recent Experience (§ 121.1253)

Current regulations §§ 121.411 and 121.413 require that check airmen must be current and qualified in the aircraft

and capable of conducting their responsibilities. In the NPRM, the FAA proposed requiring that the check pilot must have made at least five takeoffs and landings in an FFS qualified in accordance with part 60 of this chapter and approved for performing takeoffs and landings. The check flight engineer must have served as a flight engineer on five takeoffs and landings in an FFS qualified in accordance with part 60 of this chapter and approved for performing takeoffs and landings. In addition, the NPRM proposed observation requirements and requirements for check airmen to attend standardization meetings.

Continental, ATA, American, FedEx, UPS, Midwest, and Southwest state that check pilots and simulator instructors should not have recency of experience requirements that are any different than those of a line pilot. The commenters assert that the FAA has not provided data to support that an increased landing currency requirement has any correlation with safety.

After further review, the FAA believes the additional takeoff and landings are unnecessary to maintain recency. In the SNPRM, the FAA has revised the recency requirements to remove the additional recency requirements proposed in § 121.1253(d)(1) of the NPRM. In the SNPRM, § 121.1253(d)(1) only requires the check airmen to comply with the pilot and flight engineer recency requirements set forth in § 121.1229 or § 121.1231.

ATA, Southwest, American, United, Midwest, and RAA commented that evaluating and instructing skills are very similar and therefore both should count toward minimum requirements. They requested that the § 121.1253(d)(2) recent experience requirement for completing at least eight evaluation activities be reduced to six because they were not aware of data that explains the need for eight. In addition, commenters suggested adding language to allow a POI to approve reductions below 6 events in cases where the experience level of the evaluator, job position, or training activity warrants such reductions.

Recent experience as an evaluator is necessary to maintain proficiency as an evaluator. The proposed requirement for eight evaluation activities was excessive for maintaining recency. In the SNPRM, the FAA has revised § 121.1253(d)(2) to require completion of at least six evaluation activities. This requirement is necessary to ensure that the evaluator maintains a minimum level of proficiency to properly evaluate members.

ATA, United, American, and Continental believe that it may not be possible for check pilots and simulator instructors to attend "all standardization meetings" for many reasons. In many cases, certificate holders schedule multiple standardization meetings covering the same material to allow check pilots and simulator instructors to attend the meeting that best accommodates their schedule. This approach provides flexibility to the check pilots and simulator instructors (*e.g.,* in case of illness during a scheduled meeting) as well as to the certificate holder. The commenters suggest that the requirement should be for check pilots and simulator instructors to complete the certificate holder's standardization curriculum which would cover all required standardization material.

Upon review of the comments, the FAA has revised the proposed rule language by deleting the word "all" in those places where the standardization meetings are referenced. The FAA expects check airmen, and other required individuals, to attend the standardization meetings for each aircraft type in which the check airmen is authorized to conduct check pilot or check flight engineer duties. If a certificate holder schedules multiple sessions of the same standardization meeting covering the same content, it is not the FAA's intent that the check airman attend all of the multiple sessions. Rather, the check airman should attend one of the multiple sessions scheduled by the certificate holder to complete the standardization curriculum.

Continental, Atlas, Ameristar, Midwest, and Southwest comment that this proposed rulemaking complicates check airman certification requirements significantly and adds multiple layers of FAA observation and certification. Commenters stated that not all aircraft can accommodate two individuals simultaneously in flight deck jumpseats. Commenters further stated that their computerized recordkeeping system may not be able to handle the proposed recordkeeping requirement because air carrier recordkeeping systems may not be able to handle APD and FAA aviation safety inspector sign-offs.

For clarification, in the SNPRM, the FAA uses the term check airman as used in the current regulations. As with current regulations, the requirements to observe a check airman performing a line check can be satisfied in the FFS or by having the check airman occupy a required crewmember seat so the observer can occupy the jump seat. The requirements for recordkeeping remain as originally proposed because the certificate holder's records must accurately reflect that they have complied with the requirements.

Continental and FedEx assert that the line check requirements in § 121.1385(a) of the NPRM are overly burdensome and would be costly. In the SNPRM, the FAA has clarified that satisfaction of the line check requirement in § 121.1253(b)(2) would also satisfy the line check requirements of § 121.1233 which apply to all PICs. Since most check pilots authorized to conduct line checks are PICs, the additional cost of satisfying the proposed requirements in § 121.1253(b)(2) is only the cost of completing a line check while under the supervision of an FAA aviation safety inspector or an APD, as described in § 121.1253(b)(2)(ii) of the SNPRM.

American requests the addition of "line" to the generic term "check pilot" to clarify the intent of § 121.1385 (NPRM) that the term applies only to those individuals acting as check pilots in line operations. The commenter states that the skills required to conduct operating experience and line checks are identical.

In the SNPRM, the FAA uses the term check airman to apply to check pilot and check flight engineer. A check airman may perform duties in the FSTD or in line operations (as required by § 121.1253(b)(2)) depending on his or her qualifications.

ATA recommended removing from § 121.1385 the requirement that check pilots must complete qualification requirements every 24 months. The commenter also recommends conducting checks in the FSTD instead of the aircraft.

The proposed requirement for a 24-month look back is consistent with the current regulation in § 121.413(a)(2). The FAA has maintained this requirement in the SNPRM. As proposed, the regulation would allow for checks to be conducted in either an FSTD or an aircraft.

United stated that the requirement that APDs supervising observations must be specifically designated by the FAA is an excessive burden on the POI. The requirement that an APD observing line checks must be specifically designated to do so by the FAA is consistent with the current regulation in § 121.413(a)(2). The FAA has maintained this requirement in the SNPRM.

7. Aircrew Program Designee (APD): Training, Evaluation, and Recent Experience (§ 121.1271)

In the NPRM, the FAA proposed requiring that pilot and flight engineer

APDs be trained under the certificate holder's approved academic and job performance training program. Proposed § 121.1271 would codify FAA policy in FAA Order 8900.1, Volume 13 (8/31/09) regarding APDs who serve only in part 119 certificate holder approved training programs. Under current practice, an APD is an examiner who performs evaluation functions for a certificate holder on behalf of the Administrator under designation authority pursuant to part 183. The certificate holder identifies an employee it would like to have designated as an APD. The employee must then be approved by the POI, and issued a certificate of authority and a certificate of designation under part 183. At any time, the FAA may terminate an APD's certificate of designation.

ATA, Continental, UPS, American, and Midwest request training for APDs to be conducted by the FAA, since the APDs are acting on behalf of the FAA and this would be in accordance with current industry practice.

To clarify, consistent with current policy and practice (FAA Order 8900.1, Vol. 13 (8/31/09)), the FAA would continue to provide additional training regarding the individual's role as an FAA designee. FAA training would include topics such as: (1) The knowledge, ability, and skill requirements for the original issuance of the airline transport pilot (ATP) certificate and added ratings, as applicable; (2) the procedures, methods, and techniques associated with administering the required certification tests; (3) the responsibilities, authority, and limitations of an examiner under 14 CFR; (4) the use of FAA forms and job aids associated with the particular APD function.

Although the APDs are working under a designation from the FAA, they are employed by the certificate holders and it is appropriate that they be trained by the certificate holders to be familiar with the certificate holder's training program. As with all other training conducted by the certificate holder, APD training and evaluation would be subject to FAA approval and oversight. The proposed training requirements for APDs in § 121.1271 are part of the certificate holder's approved training program. It is not appropriate for the FAA to conduct this training.

ATA, FedEx, UPS, Midwest, and American contend that an APD should be required to be observed conducting line checks. The FAA does not believe it is necessary for an APD to be observed conducting both a proficiency test and a line check. The conduct of a proficiency test for certification requires demonstration of all the skills required for a proficiency check, as well as other critical safety skills. For these reasons, the FAA has revised the language in § 121.1271(b)(1) of the SNPRM to require an APD to be observed only while conducting a proficiency test. The FAA has also revised paragraph (c)(1) of the SNPRM to allow the APD to conduct proficiency tests, proficiency checks, and line checks.

ATA, RAA, American, FedEx, and Midwest suggested that the recency of experience for APDs should be the same as the recency requirements for a line pilot. In the SNPRM the FAA has revised paragraph (d)(1) to require the same recency requirements for APDs and flightcrew members. The revised language requires that APDs maintain recency as a pilot or flight engineer as required by § 121.1229 or § 121.1231, as applicable.

8. Curriculum Category Requirements: Pilot and Flight Engineer Initial, Conversion, Transition, and Upgrade Academic and Job Performance Training (§ 121.1365)

Current §§ 121.419, 121.424, and 121.425 provide the requirements for pilots and flight engineers initial, transition, and upgrade ground and flight training. In § 121.1365 of the NPRM, the FAA proposed requirements for initial, conversion, transition, and upgrade academic and job performance training segments for pilots and flight engineers. In the NPRM, the FAA specified that evaluations must be conducted by check pilots, check flight engineers, pilot APDs, or flight engineer APDs, provided the individual was an employee of the air carrier.

American, ATA, FedEx, Continental, and UPS believe that the requirement that the evaluator must be an employee of the certificate holder would create a significant cost burden. Commenters state that the proposal would require proficiency tests, check rides, and type ratings to be conducted by company employees. Commenters question whether FAA aviation safety inspectors would continue to perform evaluations and question whether proposed § 121.1331(d) conflicts with proposed § 121.1365.

Section 121.1331(d) allows the certificate holder to train persons other than employees of the certificate holder to conduct training and evaluation in the certificate holder's training program. Section 121.1365, as proposed in the NPRM, would only prohibit the use of "persons other than employees of the certificate holder," from conducting job performance proficiency tests as required under paragraph (b) of § 121.1365. However, after review of § 121.1365(d), the FAA is revising the proposed requirement in the SNPRM to permit a training center evaluator (TCE) employed by a part 142 certificate holder to conduct proficiency tests under paragraph (b). The FAA believes this is acceptable because the FAA has already approved an individual to be a TCE under part 142, which authorizes the individual to conduct proficiency tests that result in pilot certification, and under proposed § 121.1339, the certificate holder would have to obtain FAA approval to use the part 142 training center, and its evaluators, in its training program. Therefore, the FAA believes a TCE has the necessary qualifications to conduct proficiency tests under part 121. In addition, the FAA retains oversight of the training program, including TCEs used in the training program.

American Eagle believes the order of the proficiency test and LOFT has not been mandatory until now. The commenter stated that it is not unusual for a crew to be scheduled for checking, but for some reason it cannot be accomplished on the scheduled date. It stated it can now use the time to accomplish the LOFT, but under the proposal would lose the simulator time because it would have to reschedule the sessions to ensure they were done in the specific order as set forth in the rule.

In the SNPRM the FAA has retained the requirement that LOFT be conducted after the completion of the proficiency test. The LOFT integrates all the training and evaluation tasks into a scenario-based training exercise. Therefore, the FAA believes that requiring LOFT to be conducted after a proficiency test accomplishes consolidation of proficiency. In addition, this requirement codifies the guidance found in FAA Order 8900.1 (12/18/08), Volume 3 regarding the order of the proficiency test and LOFT

ATA, American and UPS believe it is impractical to require that a particular cycle contain all other-than-normal flight operations. In addition, the commenters noted an inconsistency between § 121.1353, which requires that each cycle be representative of the certificate holder's operation, and § 121.1365, which requires two operating cycles, one normal, and one non-normal and emergency flight operations.

In the SNPRM the FAA has revised the section to remove the inconsistencies and to reference proposed § 121.1353, which requires the LOFT to contain at least two operating cycles representative of the certificate holder's operation.

Atlas Air disagrees with the proposal to require sharing of pilot flying and pilot monitoring duties during each cycle. The FAA recognizes that during a LOFT event, each pilot has an opportunity to demonstrate pilot flying skills and pilot monitoring skills, regardless of which seat the pilot is assigned. In the SNPRM the FAA has removed the requirement in § 121.1365 that "The pilot in command and second in command share pilot flying and pilot monitoring duties during each cycle," because it is unnecessary.

9. Curriculum Category Requirements: Pilot and Flight Engineer Recurrent Academic, Recurrent Job Performance, and Recurrent Aircraft Emergency Equipment Training (§ 121.1367)

The NPRM proposed curriculum requirements for recurrent academic, recurrent job performance, and recurrent aircraft emergency equipment training for pilots and flight engineers. The FAA based the proposal on current § 121.427(b) and (d).

ATA, American, Continental, FedEx, UPS, ALPA, and Midwest believe that the proficiency test should be replaced by a proficiency check because a proficiency test provides no opportunity for corrective action, undermining the purpose of recurrent training. Commenters suggest that proficiency tests should not be part of recurrent training because the pilot has completed a proficiency test at the completion of initial, transition, upgrade or conversion training. Commenters also stated that combining the LOFT with the proficiency test prohibits operators from taking corrective action on minor issues.

In the SNPRM, the FAA has revised paragraph (b)(2) to allow either a proficiency test or proficiency check in the first recurrent training event. While the proficiency test does not provide the opportunity for immediate corrective action, the proficiency check allows for limited training and practice. The FAA believes that by only allowing a proficiency test in this first recurrent training event, as proposed in the NPRM, there may be a lost opportunity for limited training and practice when appropriate.

NACA, Florida International University, and individual commenters see no value in reducing the frequency of flightcrew member emergency "hands on" drills and adding unannunciated fire drills in flight training.

While this proposal decreases the frequency of hands-on drills for flightcrew members, it increases the frequency of hands-on drills for flight attendants. In the SNPRM, the FAA has enhanced the requirements for flightcrew member academic training in these subjects. Under current regulations, academic training in these subjects is required at a 12-month interval. In the SNPRM, the FAA has proposed an 18-month frequency for flightcrew member recurrent academic training in some subjects and increased the frequency to 9 months for other academic subjects. Furthermore, increased security rules require that flightcrew members on the flight deck may have to remain on the flight deck. Therefore, consistent with the post-9/11 security procedures, the FAA has proposed in the SNPRM, as in the NPRM, new hands-on drill frequency requirements for flight attendants to recognize their additional responsibilities and has also introduced a performance drill for flightcrew members to provide training and evaluation on identifying and combating fires that may not trigger an alarm in the flight deck.[11]

10. Curriculum Category Requirements: Flight Instructor Initial, Transition, and Recurrent Academic Training (§ 121.1377)

Current § 121.414 provides for initial and transition training and checking requirements for flight instructors (airplane) and flight instructors (simulator). The NPRM proposed initial academic training requirements consistent with current § 121.414 with an additional requirement for training policies and procedures. The transition academic training requirements are the same as current § 121.414. The recurrent ground training requirements in the NPRM are based on current appendix H, Advanced Simulation Training Program. The NPRM requirements apply to all instructors and to all check persons.

Atlas and an individual asked which subjects listed in § 121.1377(a) are "applicable" under paragraph (c)(1). They questioned whether all of the subjects listed in paragraph (a) are applicable to recurrent flight instruction.

In the SNPRM, the FAA revised § 121.1377(c)(1) to remove the words "if applicable." For quality flight instruction, all subjects listed in paragraph (a) should be covered during recurrent training.

American and an individual believe that some air carriers may want the flexibility of having courses that exceed 4 hours. The FAA notes that if an air carrier wishes to provide training in excess of 4 hours, the regulation would not preclude it from doing so.

11. Curriculum Category Requirements: Check Pilot and Check Flight Engineer Initial, Transition, and Recurrent Job Performance Training (§ 121.1383)

Current § 121.413 provides the requirements for initial and transition training and checking for check airmen (airplane), check airmen (simulator).

In § 121.1383 of the NPRM, the FAA proposed substantially the same requirement as current § 121.413 which requires training that ensures check airmen competence in conducting job performance evaluations and training in an FSTD. In addition, the NPRM proposed new requirements for check pilots who conduct operating experience and line checks.

Atlas and an individual commenter stated that § 121.1383 does not state the frequency of recurrent job performance training for check pilots and flight engineers. After review, the FAA has revised § 121.1383 in the SNPRM to clarify the recurrent training requirements for check airmen. In the SNPRM, § 121.1383(b) requires check airman to meet the recurrent training requirements of § 121.1223 and for check pilots, to include seat dependent task training from both seats, in accordance with the QPS, in the recurrent training requirements of § 121.1223.

Continental questions whether the rule requires that this training be conducted in an aircraft during line operations. Neither the NPRM nor the SNPRM proposed to require that job performance training for check persons be conducted during line operations. All job performance requirements in proposed § 121.1383 must be completed in an FSTD, unless a deviation has been issued under § 121.1345(b). The FAA has not revised this requirement in the SNPRM.

ATA, American, FedEx and UPS suggested creating one type of check pilot (line check pilots) who can supervise operating experience. In the SNPRM the FAA uses the term check airman, which applies to check pilot or check flight engineer. The check airman may be qualified to perform duties in the simulator or in line operations.

12. Medical Certificate Requirements (§ 121.1211)

In the NPRM, the FAA proposed language that combined the medical certificate requirements of current §§ 121.411 and 121.412. As proposed, § 121.1211 did not change the current

[11] These fires are referred to as "unannunciated fires" in the regulatory text and are fires that occur on the aircraft that are not announced by a signaling device in the flight deck that emits an audible signal or a visual indication, such as smoke or fumes of an unknown origin, fires in the cabin of the aircraft, or hidden fires.

medical certificate requirements in §§ 61.21, 63.31, 121.411, and 121.412. It stated that no certificate holder may use any person, nor may any person serve, on an aircraft as a required flightcrew member in operations under this part unless that person has a valid medical certificate required by § 61.23 or § 63.31 of this chapter, as appropriate for the duty being performed. Further, proposed paragraph (b) provided that no medical certificate is required to serve in an FSTD.

ATA, American, and Continental questioned whether a medical certificate is required to train or be trained in an FSTD. The commenters stated that the regulation should harmonize with the definition of "Simulator Only Instructor/Check person" to clarify that it only applies to the instructors and simulator check pilots (not used in line operations) and that crewmembers undergoing training must have a valid medical certificate.

As proposed in the NPRM, § 121.1211(b) states that no medical certificate is required to serve in an FSTD. The term "serve," as proposed in § 121.1205, is defined as "to perform the duties and discharge the responsibilities required under this part." This paragraph does not require a medical certificate to train or be trained in an FSTD. The FAA is not changing the text as proposed.

13. Flightcrew Member: Training and Evaluation (§§ 121.1221 and 121.1335)

Current § 121.415 addresses crewmember and aircraft dispatcher training. As proposed in the NPRM, § 121.1335 and the applicable QPS documents contain an outline of flightcrew member training and evaluation requirements and specify the training curriculum requirements and programmed hours.

American Eagle, RAA, ATA, Continental, American, and FedEx objected to the language in § 121.1221(c), which requires a person undergoing qualification for the first time to complete: New hire training; the subsequent initial, conversion, transition, upgrade, or differences academic and job performance training as necessary; a proficiency test; and a qualification LOFT, within 120 days of beginning training. The commenters asserted that the proposal is too costly, impractical and has no apparent impact on enhancing safety.

Training requirements that enhance the efficacy of training result in enhanced job performance and safety. Crewmembers and aircraft dispatchers typically receive training on knowledge and job performance skills that they may not use often, but would be expected to effectively perform in specific emergency situations. A review of the scientific literature does not establish specific optimum timeframes in "days" but does indicate that the length of the intervals between training has dramatic adverse effects on task performance for people with low task experience.[12] Accordingly, the FAA has determined that the 120-day requirement for completion of training and evaluation for individuals undergoing qualification for the first time is the appropriate interval to ensure there is no adverse impact on task performance for this population.

American, RAA, FedEx, ATA, NACA, Continental, FedEx, and Midwest objected to the complete flight crew requirement in paragraph (d), specifically, that only a qualified person may serve in the required support duty position during training. The commenters suggest that the support position be filled by a person who is "task familiar" rather than qualified.

In the SNPRM the FAA has modified § 121.1221 to allow "another individual qualified to occupy that seat" to be part of the complete flight crew. The FAA believes this change is more appropriate and provides a clear standard of qualification, rather than allowing "a person who is task familiar," which is a vague standard. During job performance training of flightcrew members it is important to have qualified individuals participating throughout the training session. The revised language would provide an improved training environment in an FSTD that would more closely replicate the environment in line operations where both crewmembers are qualified on the specific equipment. In addition, the FAA notes that a medical certificate is not required for a member of a flight crew in an FSTD to satisfy the complete flight crew requirement in paragraph (d).

Upon review of the comments, the FAA has determined that for job performance training purposes only, the flight crew may consist of less than fully qualified flightcrew members. The FAA has added § 121.1221(e) to allow for substitution of flightcrew members. For planned job performance training, where a certificate holder knows well in advance that the flight crew may consist of less than fully qualified flightcrew members, such as training when a new aircraft is added to a fleet, the certificate holder must submit a request for amendment of its training program. The amendment must include a justification for not being able to meet the complete crew requirements, the proposed composition of the training crews, and the expected duration of the amendment. The provision also allows for substitution if, due to circumstances beyond the control of the certificate holder, a flightcrew member is unable to report for training. These circumstances may include an unexpected illness, unsuccessful progression through the training program, transportation issues, or simulator mechanical failures. In these instances, the certificate holder may allow students training for that same duty position to function as a complete flight crew. If a certificate holder uses this substitution, it must notify the certificate holding district office within 30 days of the substitution. For evaluations, fully qualified flightcrew members would be required. However, in the SNPRM, the FAA has revised the requirement to allow air carriers to efficiently schedule and train flightcrew members while maintaining the integrity of flight crew positions during LOFT.

14. Flightcrew Member: Recurrent Training and Evaluation Schedule for Continuing Qualification (§ 121.1223)

The NPRM proposed requirements for providing recurrent training and evaluation for flightcrew members. The FAA based this section on current §§ 121.427 and 121.433(c). The key features of this section include a repeating 9-month interval between recurrent training activities where some subjects, tasks, and environments would be required once each 9-month period, some would be required only once each 18 months, and some would be required only once each 36 months. Recurrent activities would be considered completed during the interval if completed during the eligibility period. The eligibility period consists of the base month, the month before the base month and the month after the base month. The base month is any one of the following: the ninth month following the month during which the proficiency test required in § 121.1365(b)(1) is completed; the ninth month following the month in which the proficiency test authorized in § 121.1239 is completed; or the ninth month following the completion of the recurrent academic and job performance training modules when adjusting the base month in accordance with § 121.1223(f).

[12] See Lance, C.E, Parisi, A.G, Bennett, W.R, Teachout, M.S., Harville, D.L. Welles, M.L. (1998). Moderators of Skill Retention Interval/Performance Decrement Relationships in Eight U.S. Air Force Enlisted Specialties. Human Performance, II (1), 103–123.

The proposed recurrent activities, periods, and cycles are identical for PIC and SIC. This differs from the current rule, which has a repeating 6-month interval between recurrent activities for PICs and a repeating 12-month interval between recurrent activities for SICs. Most importantly, this proposed change in intervals produces two substantial benefits: More effective flightcrew training and increased FSTD time for SICs.

The first substantial benefit, training and evaluating the PIC and SIC as a complete flight crew, is valuable for incorporating CRM concepts into training and ensuring that the training occurs in an environment similar to line operations. The FAA believes that alignment of recurrent training events for PICs and SICs would further enhance flightcrew training by providing greater opportunity for a certificate holder to pair pilots who need recurrent training, lessening the need to rely on stand-by and fill-in pilots to fill simulator seats.

The impact of the alignment in training intervals is demonstrated when looking at how the current scheduling of PICs versus SICs occurs. Tables 6 and 7 in the Regulatory Evaluation available in the docket for this rulemaking show that there are approximately 15,000 PICs and 14,000 SICs in the affected pilot population. Since the population between PICs and SICs is relatively similar, a certificate holder would be training PICs 66% of the time and SICs 33% of the time. In other words, PICs are only likely to have an SIC that needs recurrent training sitting in the right seat 50% of the time. The rest of the time, the pilot filling the right seat during the training session is a pilot who does not need the training, such as a fill-in SIC, an instructor, or any other pilot qualified to occupy that seat. While this clearly meets the requirements for PIC training under current regulations by providing a qualified crew complement, the FAA believes that the SNPRM improves on the present model by increasing the likelihood that a training session would have a PIC and SIC who both need recurrent training.

The metric of any flightcrew training program should be the degree to which the flightcrew is able to translate the tasks that have been demonstrated during the training into operations. Learning within an environment that is more likely to be experienced in the real world significantly enhances the quality of that training.

The second significant outcome of aligning the recurrent training cycle is that the pilots who need FSTD time the most—SICs—would receive twice the amount of time in an FSTD that they now receive while PICs would maintain current amounts. The following table shows how the proposed training cycle and distribution of required tasks accomplishes this over a 36-month training cycle.

COMPARISON OF RECURRENT JOB PERFORMANCE TRAINING HOURS FOR PICS AND SICS OVER A 36-MONTH TRAINING CYCLE

	Current rule		SNPRM	
	PIC (hours)	SIC (hours)	PIC (hours)	SIC (hours)
6 months	4	4	6	6
12 months	4	″		
18 months	4	4	6	6
24 months	4	″	6	6
30 months	4	4	6	6
36 months	4	″		
	24	12	24	24

The intent of the 36-month cycle is to provide an interconnected evaluation and training environment. Each 9 month cycle provides 6 hours of time for training and evaluation. The required tasks can be completed at any time during those 6 hours, resulting in the ability to adjust FSTD session length to best use those valuable resources and meet specific certificate holder program requirements.

PICs would continue to receive the same amount of time in a FSTD by virtue of the additional hours required for FSTD training (6 hours instead of 4 hours per cycle), even though the interval between training is reduced (from the current twice-yearly schedule to once every 9 months). In contrast, by reducing the time between training intervals and increasing the hours required in the FSTD for those sessions, newer pilots who make up the SIC ranks would now receive double the amount of FSTD time and task evaluation than under the current regulations. The FAA views this as a positive outcome since a higher degree of focus would be placed on those pilots who would benefit the most from the training.

ATA, NACA, Midwest, American, and FedEx asserted that regulating the "base month" creates inflexibility. It is the opinion of industry that the ability to move the base month up by one month is an administrative tool that is commonly used when trying to minimize training during peak holiday or vacation periods.

In the SNPRM, the FAA has added a new paragraph (d) based on the current requirement in § 121.401(b) to clarify that the base month does not change if recurrent training or a proficiency test or check is completed within the eligibility period.

15. Flight Engineer Recency of Experience (§ 121.1231)

The current rule (§ 121.453) requires that no certificate holder may use any person nor may any person serve as a flight engineer on an airplane unless, within the preceding 6 calendar months, the flight engineer has had at least 50 hours of flight time as a flight engineer on that type airplane or the certificate holder or the Administrator has checked him or her on that type airplane and determined that he or she is familiar and competent with all essential current information and operating procedures.

In the NPRM, the FAA proposed a 90-day recency of experience requirement for three takeoffs and landings that parallels the pilots' recency of experience requirement. This requirement differs from the current requirement for 50 hours of flight time within the preceding 6 months. The NPRM proposed that flight engineers

who have been out of recency for 90 days or less would be required to complete a proficiency check in a complete crew environment. Flight engineers who have been out of recency for more than 90 days would have been required to complete core conversion training.

In the SNPRM the FAA has replaced the reference to the "maneuvers and procedures specified in the Flight Engineer QPS" with the actual maneuvers and procedures. These maneuvers and procedures are the same ones that were listed in the QPS in the NPRM. The maneuvers and procedures must be accomplished (in any combination or order) during the required three takeoffs and landings. In addition, the FAA has revised the text to replace core conversion training with FFS course of instruction to allow the certificate holder to target the critical training needs of the flight engineer during an FFS course of instruction.

16. Line Check (§ 121.1233)

Current § 121.440 requires that to serve as a PIC a pilot must pass a line check in which he or she satisfactorily performs the duties and responsibilities of a PIC in one of the types of airplanes to be flown within the preceding 12 months. Further it states that the check be given by a pilot check airman who is current and qualified on the route and the airplane.

In the NPRM the FAA proposed that a PIC complete a line check within the preceding 24 months in one of the aircraft types the pilot is to serve. The NPRM further stated that a PIC line check for domestic and flag operations must be administered by a check PIC or APD who is current and qualified on both the route and the aircraft type. If any required flightcrew member performs below standard on any tasks, that person would not be able to serve as a required flightcrew member in operations under this part until he or she receives training on such tasks and completes a proficiency test in those tasks. If it has been 30 months or more since the pilot received his or her last line check, the pilot must complete the core conversion training category in accordance with the Pilot QPS and complete a line check.

ATA, UPS American, Midwest, and Continental raised concerns that a proficiency check may not allow an opportunity to address performance problems found during the failed line check. Accordingly, in the SNPRM, the FAA proposes to require that if a flightcrew member does not perform in accordance with the certificate holder's policies and procedures, the check pilot or APD may correct the performance deficiency during the post-flight debriefing with the flightcrew member and allow the flightcrew member to continue operations. This proposal ensures that performance issues that are not yet below standard, but are of concern to the check pilot or APD, are addressed during the post-flight debriefing.

Southwest and FedEx suggest that if a line check does not occur within 30 months, it does not indicate a lack of proficiency in aircraft operation or recency of experience. Thus, the requirement for core conversion training in this instance is not necessary. Southwest also recommended deleting paragraph (g)(2), asserting that this is a requalification requirement that is more appropriately addressed in the § 121.1239.

The intent of § 121.1233(g) is to address a missed line check, which is not the same as becoming unqualified. However, the FAA recognizes that the requirements in paragraph (g)(2) are confusing. In the SNPRM the FAA has removed paragraph (g)(2) and merged paragraph (g)(1) into paragraph (g) to require that if a pilot does not receive a line check as required by § 121.1233(a), the pilot may not serve until the pilot receives a line check with a check pilot or APD serving as the PIC.

17. Pilot: Routes and Airports (§ 121.1235)

As proposed in the NPRM, § 121.1235 contains requirements for certificate holders in disseminating specific route and airport information to pilots, including information and qualification requirements related to special areas and airports. The proposed section combines the current requirements in §§ 121.443 and 121.445.

American, Continental, United, and NACA stated that approval of photographs and diagrams approved by the Administrator was too burdensome for the FAA and the current requirement that these diagrams be "acceptable to the Administrator" should be retained. Upon review of the comments and historical and current procedures for special use routes and airports, the FAA has reconsidered its original position and proposes in the SNPRM to require FAA acceptance of procedures for special use routes and airports.

In addition, Continental and Atlas Air stated that serving as pilot flying or pilot monitoring should be sufficient for qualification into special airports, instead of the proposal to require pilots to have made a takeoff and landing at the special airport while serving as a pilot flying the aircraft. The proposal would ensure that all pilots have experience in special use airports and routes.

In the NPRM, the FAA did not account for the pilot monitoring position as providing skills for flying into special use airports. The increased training requirements for the pilot monitoring duty position, as proposed in the NPRM and SNPRM, make it appropriate to allow the pilot monitoring experience to count for qualification for special use airports and routes. In the SNPRM, the FAA has modified the rule language to allow this practice.

As proposed in the SNPRM, § 121.1235 would provide a higher level of safety than under the current rules because the requirements would apply to all pilots. As proposed, PICs and SICs would undergo the same training and be subject to the same requirements for special use airports and routes. This approach differs from the current rule, which only requires special airport training for PICs. Furthermore, the additional training requirements for pilot flying and pilot monitoring would improve the safety of flying into special use airports and routes. The provisions of paragraph (c) would also ensure that pilots serving on operations into special use airports and routes have some experience with the special use airport or route in the previous 18 months. This experience can be as pilot flying or pilot monitoring during a takeoff and landing or through the use of photographs and diagrams acceptable to the FAA. In cases where photographs are not possible, paragraph (c)(3) permits the use of written description and diagrams.

18. Pilot: Operating Limitations and Crew Pairing (§ 121.1237)

Current § 121.438 establishes limits on pilots operating in certain situations, such as adverse weather conditions, special airport operations, and crew pairing based on pilot experience. For these situations, the NPRM specified the pilot seat from which the PIC and SIC are expected to perform their respective duties. The PIC is expected to be trained for, be assigned to, and operate the aircraft from the left-hand pilot's seat, and the SIC is expected to be trained for, be assigned to, and operate the aircraft from the right-hand pilot's seat. However, the NPRM allowed the certificate holder to assign the PIC to the right hand pilot seat or assign the SIC to the left hand pilot seat provided the pilots have completed either a training program for that respective pilot seat or have completed the seat dependent task training for that pilot seat in accordance with the Pilot QPS.

ATA stated that PICs have the knowledge, skill, and ability to exercise full control and authority in the operation of the aircraft, without limitation, over other crewmembers and their duties during flight time, whether or not the PIC holds valid certificates authorizing him or her to perform the duties of those crewmembers during flight operations. Accordingly, ATA suggested removing the requirement that PICs have seat dependent task training to serve as an SIC. ATA commented that this would allow qualified PICs capable of performing SIC tasks related to flight operations to serve as either the PIC or SIC.

Neither the NPRM nor the SNPRM propose to restrict the authority of the PIC. As proposed, paragraph (c) defines the pilot seat from which the PIC and SIC are expected to perform their respective duties. The current requirements, as described by the commenters, do not require that the PIC be trained to operate from the right seat and do not require that the SIC be trained to operate from the left seat. The FAA does not believe that current practice adequately qualifies a PIC to operate from the right seat, nor an SIC to operate from the left seat. Accordingly, the FAA has not changed the requirement for seat dependent task training from that proposed in the NPRM.

In addition, the FAA proposes to add paragraph (e) to address the process for designating a PIC when the PIC takes a rest break. This is necessary to ensure that there is always a PIC actively participating in the conduct of the flight. The FAA does not specify the procedure the certificate holder must use to determine the acting PIC. Certificate holders may develop their own procedures to make this determination, as long as the person meets the qualification requirements set forth in paragraph (e).

19. Eligibility: Check Pilot, Check Flight Engineer, Aircrew Program Designee (APD), and Flight Instructor (§ 121.1251)

Proposed § 121.1251 was based on the current regulations in § 121.411 for check airmen qualification. This section contains the requirements for a person to be eligible to become a check pilot, check flight engineer, APD, or flight instructor and to continue to serve as a check pilot, check flight engineer, APD, or flight instructor. The FAA based the proposed rule on current regulations, but included the use of Training Center Evaluators (TCE) qualified under part 142.

ATA, American, United, and UPS commented that the experience requirement of one year is not sufficient to qualify as a check pilot. The commenters stated that 500 hours as PIC, 1000 hours as SIC, or a year's experience as an instructor better reflects the experience needed to perform the task of a check pilot. Flight Safety stated that the experience requirement is excessive with respect to training center evaluators qualified under part 142 and suggested that experience gained as a training center evaluator is sufficient.

In the SNPRM, the FAA has maintained the proposed requirement that a flightcrew member serve for at least 1 year to qualify for training as a check pilot, check flight engineer, APD, and flight instructor. The FAA believes that the combination of the requirements for the flightcrew member to have 1 year of experience, have an ATP certificate, and have completed the certificate holder's training and evaluation is sufficient to ensure a person is qualified to become a check airmen, APD, or flight instructor.

ATA, American, and Flight Safety state that for simulator instructors, recency of experience requirements do not improve the quality of safety, training or evaluation, and would be very costly and require building expensive tracking mechanisms, distinct from pilot takeoff and landing tracking, for these individuals. The FAA believes that requiring recency of experience for all instructors, including simulator instructors, is appropriate and improves the quality of training being provided. Accordingly, the FAA has retained this proposed requirement in the SNPRM.

20. Initial Operating Experience (IOE) Pilot: Additional Training Requirements (§ 121.1255)

In the NPRM § 121.1255, Check Captain: Additional training requirements, is based on current regulations in §§ 121.411 and 121.413. The FAA failed to include recurrent training requirements for IOE pilots. The FAA has proposed recurrent training requirements that are based on the proposed requirements for check airmen to ensure these individuals maintain proficiency as evaluators.

21. Instructor (Ground and Flight): Training, Evaluation, and Recent Experience (§ 121.1281)

Current §§ 121.412 and 121.414 require flight instructors to meet training, qualification and recency requirements. The NPRM proposed to continue these existing requirements for qualification and training for flight instructors. In the SNPRM the FAA has added requirements for instructors providing academic training and evaluation.

ATA, RAA, United, Southwest, and Continental raised concerns that the proposed rule adds new layers to the approval process for check pilots and instructors by requiring an FAA authorization letter. Commenters stated that the rule would be too cumbersome for the operator and that current processes ensure the qualifications of instructors. In the SNPRM the FAA has revised § 121.1281 to remove any requirement for any flight instructor to be authorized by the FAA to conduct flight instructor activities.

ATA, UPS, FedEx, American, Continental, and Southwest state that no evidence is presented indicating a need for increasing the number of takeoffs and landings for flight instructors to maintain recency. In the SNPRM the FAA has revised the recency requirements to remove the additional recency requirements proposed in § 121.1281(d)(1) of the NPRM. In the SNPRM § 121.1281(d)(1) only requires the check airmen comply with the pilot and flight engineer recency requirements in § 121.1229 or § 121.1231.

22. Training Program: Qualification and Approval of Flight Simulation Training Devices (§ 121.1347)

Current §§ 121.407 and 121.409 provide the requirements for the qualification and approval of airplane simulators and other training devices. The NPRM proposed an updated version of current § 121.407 requirements by stating that an approved training program must be evaluated, qualified, and approved by the POI. Further, it state that the required FSTD qualification level for specific tasks is specified in the QPS. In the SNPRM the FAA has moved the requirements originally proposed in § 121.1345 into § 121.1347.

NACA asserted that these requirements would be too burdensome for the FAA simulator team to complete timely evaluations of simulators. The FAA does not believe the evaluation of FSTDs would be overly burdensome. Maintaining the qualification of FSTDs is mandatory under part 60. Accordingly, the FAA did not revise the requirements in proposed § 121.1347.

B. Flight Attendant

1. Requirement for Flight Attendants To Receive Aircraft Operating Experience on Each Individual Aircraft Type (§ 121.1305)

Under the current regulations, qualifying flight attendants are required

to receive a total of 5 hours of operating experience (OE) for the group of aircraft (Group I—Turboprop or Group II—Turbojet) on which they receive training. While flight attendants may be trained on multiple types of airplanes in a group, they are not required to receive OE on each type of airplane. The current regulation waives OE if the flight attendant had previously received OE on that group of aircraft with another part 121 operator. It also allows for a reduction of 50% of OE if the qualifying flight attendant has been trained in a cabin device that replicates one of the aircraft the air carrier operates. As a result, current regulations allow newly qualified flight attendants to serve as required flight attendants on aircraft types on which they have never flown. In addition, the regulations currently limit flexibility regarding instructional design for approved flight attendant training programs by requiring that OE be accomplished after the completion of all ground training.

In the NPRM, the FAA proposed to use the term "aircraft operating experience" (AOE) to highlight the fact that the proposed rule requires OE on each aircraft type prior to the qualifying flight attendant serving as a required crewmember on that aircraft. The proposed requirement would ensure that qualifying flight attendants who have been trained on a large number of different aircraft types have an opportunity to work with, and be supervised by, check flight attendants on each type aircraft before serving as required crewmembers. Such experience is necessary because critical safety procedures can differ significantly between aircraft types. The NPRM also allowed greater flexibility in instructional design by allowing the certificate holder to integrate AOE on a specific aircraft type into flight attendant basic qualification training, rather than requiring AOE to take place at the end of training.

Integrating AOE throughout basic qualification training allows qualifying flight attendants to consolidate knowledge and skills gained during training. This provision also permits certificate holders to claim training credit for AOE gained throughout basic qualification training.

NACA, American Eagle, RAA, Southwest, ATA, Midwest, and American commented that requiring AOE for qualifying flight attendants on each aircraft type for which they are trained is unnecessary and redundant. Commenters asserted that flight attendant duties are the same from aircraft to aircraft and given the similarity among fleet types regarding cabin configuration, AOE on each aircraft type is not necessary. In addition, they stated that completing AOE for each aircraft type is not necessary because a qualifying flight attendant receives hands on experience on all safety related items during basic qualification training. They further stated that AOE would not provide qualifying flight attendants with hands-on experience related to safety. American commented that, with the enhancement of training devices and training requirements, qualifying flight attendants would receive an abundance of realistic training on each aircraft type on which they are qualified during their initial training period.

Cabins of different type aircraft can vary greatly. Differences between aircraft types can include items such as location of emergency equipment, procedures for normal door operations, latching mechanisms on compartments, operation of galley equipment, boarding procedures, briefing procedures, location of exit seats, location of circuit breakers, electronic notification systems, entertainment systems, stowage provisions for carry-on baggage and electronic equipment for lights, interphone systems, and public address systems. The proposed requirement also addresses some of the issues regarding flight attendants who are qualified on multiple aircraft types in the NTSB analysis of accidents involving flight attendant performance during emergency situations in NTSB/SIR–92/02. Accordingly, the FAA has retained the AOE requirements in the SNPRM.

Southwest commented that the increased number of qualifying flight attendants gaining AOE would detract from the normal safe operation of the flight. Under the current rule, there is no limit placed on the number of qualifying flight attendants who may gain AOE on a flight. The FAA believes that the proposed rule would increase safety by limiting the number of persons who may receive or supervise AOE on any one operating cycle. In the SNPRM, the FAA has retained this proposed requirement.

Flight Safety suggested that the FAA add a provision to allow part 142 flight attendant instructors to supervise AOE.

In the NPRM and SNPRM, an employee of a part 142 training center, who is not a qualified flight attendant for the air carrier, would be prohibited from serving as a flight attendant during flight operations. As such, a part 142 employee would be severely limited in the ability to supervise AOE. The FAA reiterates that the intent of the proposed requirements is to ensure that, before evaluating other qualifying flight attendants, the check flight attendant is qualified for the certificate holder and has experience with the certificate holder's operations and the aircraft type in order to effectively evaluate the qualifying flight attendant.

Several commenters questioned whether, as permitted under the current regulations, the FAA would permit AOE credit if the qualifying flight attendant has been trained in a cabin device that replicates one of the aircraft the air carrier operates. In addition, RAA was concerned that the proposal eliminates the provision within the current regulations that allows OE credit received on the same group aircraft at one certificate holder to satisfy the OE requirement at another certificate holder. RAA requested that the proposed requirement that prohibits OE credit apply only if the previously trained procedures from one certificate holder to another are "significantly different."

The SNPRM retains the proposal from the NPRM that removes the provisions that allow (1) AOE credit if the qualifying flight attendant has been trained in a cabin device that replicates one of the aircraft the air carrier operates, and (2) OE received on the same group aircraft at one certificate holder to satisfy the OE requirement at another certificate holder. The FAA believes these changes are necessary because flight attendant procedures can differ significantly between certificate holders, even for the same aircraft type, and because there is no substitute for operating experience gained during actual line operations with passengers onboard.

Southwest commented that the requirement of two operating cycles is not necessary when a total of 5 hours is required for AOE. The FAA believes that requiring two operating cycles is necessary to ensure that a qualifying flight attendant completing AOE gains operating experience during at least two takeoffs and landings, which are the most critical phases of flight. Therefore, the FAA has retained this requirement in the SNPRM.

Midwest stated that AOE should not be required for flight attendants who qualify for transition training. Similarly, APFA commented that check flight attendant supervision for AOE should only be required during basic qualification training. ATA commented that the AOE requirement would make it impossible to train all qualifying flight attendants and line flight attendants within 90 days of initial or transition training.

Under § 121.1305, flight attendants completing transition training are not

subject to the AOE requirements. Therefore, the FAA has retained the language as proposed in the NPRM.

RAA, Southwest, NACA, Air Carrier Association of America (ACAA), and American commented that the proposed requirements would add training costs and increase administrative workload, especially for carriers with multiple fleet types. ATA and American stated that completing AOE for each aircraft type on which the flight attendant is to serve would cause air carriers to lose potential revenue on flight segments that are used for AOE. In addition, they stated that AOE for each aircraft type on which the flight attendant is to serve would require air carriers to extend their basic qualification training schedule to accommodate additional AOEs and would result in additional costs to the air carrier. American also commented that there would be additional cost to support the check flight attendant program. NACA noted that qualifying flight attendants who are accomplishing AOE cannot be considered as part of the required flight attendant crew and suggested requiring OE on only one type of aircraft followed by supervision while operating for the first time as a required crewmember on any other type aircraft.

While the NPRM may have imposed additional costs to the air carrier, the proposal as modified in the SNPRM reduces the impact of the proposal to minimal recordkeeping responsibilities and training costs for check flight attendants. In addition, concerns regarding extension of the time required to complete basic qualification training have been addressed through changes to language in the SNPRM by making the requirements for AOE more flexible. After a qualifying flight attendant has completed basic qualification and received 5 hours of AOE on at least one type of aircraft, that flight attendant is no longer considered to be a "qualifying flight attendant" and may be used as a required crewmember while being supervised on additional new aircraft types. In addition, when a flight attendant is being supervised, the check flight attendant who is doing the supervision can also be a required crewmember.

The FAA has retained the general provisions that require each flight attendant to complete AOE during basic qualification training. In the SNPRM the FAA is maintaining the provision that allows air carriers to integrate AOE throughout basic qualification training.

In the SNPRM, the FAA also proposes that, on any flight within 180 days of completing basic qualification training, flight attendants may serve as required flight attendants on any aircraft type for which they have not completed AOE provided certain conditions are met. These conditions include: (1) Flight attendants who are serving as required flight attendants on any type aircraft for which they have not completed AOE must be supervised by a check flight attendant during the first two operating cycles on that aircraft type; (2) the supervised experience must be completed in passenger carrying operations under this part or in proving flights conducted under part 91 of this chapter; (3) the check flight attendant may not supervise more than four persons on any one operating cycle; (4) not more than two check flight attendants may supervise persons on any one operating cycle; and (5) the number of persons receiving supervision on a particular aircraft may not exceed twice the number of flight attendants required by § 121.391 for that aircraft. If these conditions are not met and it is still within 180 days of the flight attendant having completed basic qualification training, then the flight attendant may still serve, but not as a required flight attendant. When 180 days have passed since a flight attendant has completed basic qualification training, there is no requirement for AOE or supervised experience in order for that flight attendant to serve as a required flight attendant on that aircraft type.

The airline operating environment has changed significantly over the last 30 years since operating experience requirements for flight attendants were first established. Currently many airlines operate multiple types of aircraft in their fleet. As there is no limit on the number of aircraft types on which a flight attendant can be qualified, the proposed requirements are necessary to ensure that a flight attendant qualified on a large number of different aircraft types for a certificate holder has actual supervised experience on each aircraft type.

2. Requirement for Flight Attendant Instructor Training and Qualification (§ 121.1291)

For flight attendant instructors, current regulations only require that "each certificate holder shall provide adequate ground and flight training facilities and properly qualified ground instructors for the training required by this subpart." § 121.401(a)(2). Under this regulation, the training and qualification of flight attendant instructors varies greatly among certificate holders. The intent of the NPRM was to clarify the requirements and provide uniform standards for all certificate holders to ensure that flight attendant instructors have been trained on the certificate holder's program and received training on how to be an instructor. In addition, the FAA intended to allow part 142 schools or other part 119 certificate holders to provide individuals to serve as flight attendant instructors provided they received the appropriate training.

American, American Eagle, and ACAA were concerned that the limitation that instructors may provide instruction only in drills that they are able to physically perform would remove training flexibility from the air carrier. They stated that this would create an unnecessary scheduling hardship on the carrier with no benefit in improving safety or improvement in the quality of instruction. Commenters believed the training department should make decisions about which instructors to use and commented that the inability to perform a drill should not restrict a person from evaluating a drill.

In the NPRM, the FAA only allowed flight attendant instructors to instruct in performance drills that they were able to perform at that time. The SNPRM retains this proposal because the requirement would ensure that flight attendant training is delivered by instructors who are able to demonstrate the performance drill. The FAA notes that neither the NPRM nor the SNPRM would prevent a person authorized to administer flight attendant proficiency tests from evaluating a drill, even though that person was not physically capable of performing the drill (see § 121.1387).

American and American Eagle were concerned about the training topics for flight attendant instructor training. They believed there was a difference between what topics should be required for initial and recurrent flight attendant instructor training. American Eagle commented that the flight attendant instructor qualification and training requirements should be clarified and revised as the intent is not clear.

In the NPRM, the FAA outlined the basic curriculum requirements for initial and recurrent training of flight attendant instructors. In the SNPRM, the FAA is retaining this proposal because it is necessary for certificate holders to train all instructors on these basic curriculum requirements. However, the FAA does not prescribe the level of detail given to these topics and expects that the certificate holder would develop a program based on their operation and the individual training needs of their instructors.

Flight Safety noted that the NPRM, as written, precluded the use of other part 121 certificate holders or part 142

schools. The NPRM limited the ability of other part 121 certificate holders or part 142 schools to satisfy the flight attendant instructor qualification requirements of § 121.1291. The FAA is modifying the proposed language in the SNPRM to facilitate the training of flight attendants by other part 121 certificate holders and part 142 schools while maintaining certain flight attendant instructor qualification and training requirements. In the SNPRM, the FAA has removed the requirement that a flight attendant instructor must have completed basic qualification or recurrent flight attendant training for the certificate holder within the past 12 months. The FAA notes that in the SNPRM, flight attendant proficiency tests must still be conducted by an employee of the part 119 certificate holder.

3. Specific Requirements for Qualifying and Maintaining Qualification as a Check Flight Attendant (§ 121.1321)

The current rules require air transportation supervisors to supervise operating experience for flight attendants. In the NPRM, the FAA proposed to require an operator to have check flight attendants for the purpose of supervising and evaluating qualifying flight attendants who are gaining AOE. Under the NPRM, check flight attendants are qualified for the certificate holder and have experience with the certificate holder's operations as well as the aircraft type on which the supervision is occurring.

ATA, Alaska, RAA, American, American Eagle, and Midwest commented that a person who maintains flight attendant qualification and successfully completes check flight attendant training requirements is sufficiently qualified to be a check flight attendant. ATA, American, and Midwest recommended deleting § 121.1321(a)(1), which requires the flight attendant to have experience as a flight attendant for that certificate holder, and removing the currency requirement from (a)(2).

The FAA believes that a qualified flight attendant who has served as a flight attendant for that certificate holder has had an opportunity to consolidate knowledge and skills and become familiar with company procedures. In the SNPRM, the FAA has retained the experience requirement but has revised the eligibility criteria for training as a check flight attendant from 12 months to 180 days. The 180-day requirement provides the check flight attendant candidate with the necessary skills and experience to effectively supervise and evaluate flight attendants who are new to the aircraft type.

In the SNPRM, the FAA is also retaining the requirement that check flight attendants be current and qualified with the certificate holder on the aircraft type on which they are supervising AOE because it is necessary for the check flight attendant to have current knowledge and experience with the certificate holder's operations and the aircraft type.

ATA, American Eagle, American, Midwest, and RAA stated that the approval of check flight attendants should remain with the carrier, as allowed under the current rules. Some of the commenters believed that FAA oversight of the check flight attendant training program should be accomplished through training program approval and CAP rather than personnel approval. Midwest and American also expressed concern that approval by the Administrator would not improve the process and would add unnecessary time and increase resources for the Administrator.

The proposed requirements are necessary to achieve effective oversight of check flight attendants and ensure that evaluation of a person completing operating experience is conducted by effective and qualified evaluators. However, in the SNPRM, the FAA has removed the requirement for FAA approval of check flight attendants and only requires that check flight attendants are acceptable to the FAA.

American Eagle, Midwest, American, Alaska, and ATA commented that the language concerning eligibility is too restrictive and limits the carrier's ability to use supervisors, subject matter experts, instructors or other qualified personnel as check flight attendants. They recommended deleting § 121.1321(d)(1) through (d)(5).

These requirements ensure that, before evaluating other flight attendants, the check flight attendant is qualified for the certificate holder and has experience with the certificate holder's operations and the aircraft type. Therefore, the FAA has retained this requirement in the SNPRM.

Horizon, American Eagle, and ATA stated that it would be difficult to maintain compliance with currency requirements if certificate holders were not hiring new flight attendants because there would be no opportunity for check flight attendants to conduct check rides. Midwest, American, and ATA stated that the requirement should be removed. The ACAA noted that the proposed requirement was burdensome and needed to be evaluated for those carriers that are not expanding. It stated that the proposal would increase the time and cost to train and check flight attendants and the requirement was too restrictive for carriers who are in a period of low or no growth. RAA and American Eagle stated that current software does not allow for adherence to the requirements of continuing qualification of reestablishing recent experience. They contend that compliance would require additional, expensive automation which is not accounted for in the cost benefit analysis. These commenters requested that the proposal be withdrawn due to the substantial, unjustified cost.

In the SNPRM, the FAA has removed the requirement that, within the preceding 12 months, check flight attendants must provide AOE for at least one operating cycle to maintain their continuing qualification. The FAA has maintained the requirements that the check flight attendant serve as a flight attendant or check flight attendant on that type aircraft in the preceding 12 months, and must also complete check flight attendant training as required by § 121.1321. This ensures that check flight attendants are prepared to perform flight attendant evaluations but also provides some flexibility to the certificate holder. The FAA believes that this approach addresses many commenters' concerns regarding the administrative burden and increased costs of the program.

American Eagle and RAA were concerned that FAA aviation safety inspectors did not have to meet the same training requirements as check flight attendants in order to observe a check flight attendant. They contended that FAA aviation safety inspectors should meet the requirements in Table 3A of the flight attendant QPS and be qualified as specified in §§ 121.1291 and 121.1301. In both the NPRM and SNPRM, the FAA has limited the personnel who would be observing check flight attendants to aviation safety inspectors (cabin safety) to ensure they have the appropriate technical background to accomplish effective observation. Based on the FAA qualification requirements to be an aviation safety inspector (cabin safety), FAA aviation safety inspectors (cabin safety) possess the required knowledge to effectively evaluate the performance of a check flight attendant.

Midwest and American recommended removing the language in § 121.1321(b)(2) that requires check flight attendants to have the initial, transition, or recurrent academic training required by § 121.1381. They suggested that, in order to serve as a check flight attendant, the proposed rule

should require only that a person be a qualified flight attendant for the certificate holder and be observed supervising AOE on at least one operating cycle by a check flight attendant or FAA aviation safety inspector.

The proposed initial, transition, and recurrent academic training requirement for check pilots, check flight engineers, or check flight attendants is necessary to ensure that evaluation of a person is conducted by trained and qualified evaluators. Therefore, the FAA has retained this requirement in the SNPRM.

Flight Safety stated that Part 142 flight attendant instructors are not authorized nor qualified as check flight attendants under § 121.1321(a)(2). It recommends adding a provision to allow part 142 flight attendant instructors to qualify as check flight attendants.

The intent of the proposed requirements is to ensure that, before evaluating other qualifying flight attendants, the check flight attendant is qualified for the certificate holder and has experience with the certificate holder's operations and the aircraft type in order to effectively evaluate the qualifying flight attendant. Therefore, the FAA is retaining the proposed requirement in the SNPRM.

4. Removal of Recent Experience Requirement for Flight Attendants

Current regulations do not require recent experience for flight attendants but do for other crewmembers. As long as flight attendants have maintained their training qualification, they may return to serve as a flight attendant without any further training. In the NPRM, the FAA proposed a new requirement for flight attendants to maintain recent experience.

American Eagle, Midwest, Alaska, RAA, American, APFA, APA, Southwest, and ATA did not agree with the proposal to require recent experience for flight attendants. Many commenters were concerned with the administrative cost and contend that it would require them to obtain new software to track this requirement for flight attendants. Commenters also stated that the safety benefits did not justify the expense.

AFA fully supported the concept of a "recent experience" requirement for flight attendants and states that it would make the regulations more proficiency-based by supporting retention of job skills via continued performance of flight attendant duties onboard the aircraft. RAA saw value in capturing the intent of this provision as a "best practice" in an AC but did not see merit in making it regulatory.

In this SNPRM, the FAA has not included a requirement for flight attendant recent experience. Although the FAA believes the number of flight attendants affected by the proposal would be minimal, the potential administrative costs would apply to the entire flight attendant population and may not justify the safety enhancements. The FAA believes withdrawing the recent experience proposal would have a minimal impact on safety because the number of flight attendants affected would be small and all flight attendants must continue to be trained and qualified.

5. Increase in Frequency of Recurrent Training on Automated External Defibrillators (§ 121.805)

Current rules require flight attendants to perform proficiency drills on automated external defibrillators (AED) every 24 months. In the NPRM, the FAA proposed to change the recurrent proficiency drill training requirement for AEDs from 24 months to 12 months.

The RAA stated that neither the preamble nor the section-by-section discussion document provided any rationale to support a training cycle that is twice as stringent as the current rule. It requested that the 24-month training cycle be retained.

The increase from 24 months to 12 months is appropriate with regard to AED training in order to be consistent with the increase in the frequency of all performance drills using emergency equipment and procedures. In-flight medical events occur frequently on airlines and continuing changes regarding CPR and responding to cardio-vascular emergencies necessitate the increase in training to ensure flight attendants are trained on the most current practices. These drills provide critical practice in the actions that flight attendants would take during an in-flight medical event. As stated in NTSB Report, Flight Attendant Training and Performance During Emergency Situations (NTSB/SIR–92/02), "[f]light attendants must immediately change from passenger service oriented roles to their critical safety-related roles in an emergency * * *. These skills are perishable, and continuing and effective training is essential for maintaining them."

American, Midwest, and Southwest commented that, as written, the provision appears to apply to all crewmembers. They requested that the term "crewmember" be changed to "flight attendant."

The requirements of § 121.805 continue to apply to all crewmembers with the exception of paragraph (b)(5), which applies only to flight attendants. There was a typographical error in the NPRM, which mistakenly referred to paragraph (b)(4) rather than (b)(5). The proposed change in the frequency of proficiency training drills was intended to be applicable only to flight attendants, and the rule language in the SNPRM has been changed to correct the error.

6. Continuing Qualification (§ 121.1303)

Under current rules, the FAA has established separate requirements for maintaining flight attendant qualification to ensure that each crewmember is adequately trained and proficient with respect to the type airplane and crewmember position involved.

In the NPRM, the FAA proposed § 121.1303 to set forth the three methods for maintaining and reestablishing flight attendant qualification. These include basic qualification, recurrent, and requalification. The specific requirements for these methods are set forth in separate provisions.

American Eagle questioned the rationale and safety value for introducing a new term "continuing qualification" to describe a flight attendant's standing with his or her training and recommended the section be withdrawn. The FAA notes that the term continuing qualification merely refers to methods for maintaining and reestablishing flight attendant qualification which already exist in current regulations. In the SNPRM, however, the FAA has revised § 121.1303 in order to clarify the eligibility period and base month and when a person becomes unqualified to serve as a flight attendant.

7. Order of Training (§ 121.1301)

Current regulations do not provide an order of training for basic qualification of flight attendants. In the NPRM, the FAA proposed a specific order of training for qualifying flight attendants in order to provide fundamental knowledge prior to presenting more specific technical information.

American Eagle, Alaska, ATA, and RAA objected to the order of training. American, Midwest, American Eagle, Southwest, and ATA believed that training is most effective when developers are allowed the flexibility to integrate various elements of a subject matter when teaching. They stated that the proposed rule requiring a specified order of training was too rigid and would not allow the training to flow

properly. Alaska acknowledged that, although the bulk of emergency training would necessarily follow new hire and initial training, some emergency training, such as emergency evacuation commands, can begin almost immediately.

The FAA recognizes the value of airlines having the flexibility to decide how to integrate various elements of required subject content to achieve effective learning. In addition, the FAA acknowledges that it may be difficult to satisfy the QPS requirements and remain in compliance with the order of flight attendant training prescribed in § 121.1301(b). Therefore, the FAA has not included the requirement that training occur in a particular order in the SNPRM.

8. 180-Day Service Requirement for Transition Training (§ 121.1371)

Certificate holders that operate multiple fleets of aircraft currently use two methods for training flight attendants under current requirements. One method trains qualifying flight attendants on each type of aircraft during initial training and then provides operating experience after the completion of all training. The second method is to train qualifying flight attendants on one type of aircraft, provide OE, and then provide transition training on additional aircraft types after the flight attendant has served as a line flight attendant.

In the NPRM, the FAA proposed that flight attendants satisfy a 180-day service requirement in order to qualify for transition training. Transition training is intended to accommodate two different types of training situations. The first situation is when a certificate holder chooses not to train a qualifying flight attendant on all aircraft types the certificate holder operates during their basic qualification training. The second situation is to accommodate an air carrier that adds a new aircraft type to their operation.

ATA, Midwest, American and RAA questioned the 180-day service requirement and sought clarification regarding the criteria used to determine the required number of days. They contend that there is no data establishing that the transfer of knowledge would be more effective after 180 days in service and state that the new requirement would add to their scheduling and recordkeeping processes and increase costs. The RAA requested supporting documentation for the proposed provision and stated that the 180-day requirement could be disruptive to the overall carrier operation.

In the SNPRM, the FAA again proposes a 180-day service requirement to qualify for transition training. The proposed rule is based on the principle that, during the 180 days, flight attendants would have consolidated their operational and safety skills while serving as line flight attendants, thereby reducing the need for supervision while serving as a flight attendant for the first time on a new aircraft type. In determining the appropriate number of days, the FAA considered the recommendation of the ARC, with a membership that included industry and union representatives as well as FAA aviation safety inspectors with experience as flight attendants and flight attendant managers, and concluded that 180 days was an appropriate timeframe. It is consistent with the probationary time established by several certificate holders for newly-hired flight attendants and also takes into consideration that newly-hired flight attendants are normally on reserve and initially may not fly on a regular basis. The FAA believes that the 180-day time period allows certificate holders relief from the supervision requirements of § 121.1305 without compromising safety on the aircraft. The FAA does not anticipate a significant increase in the administrative burden placed on certificate holders who are already required to track training requirements for flight attendants.

9. Clarification of Terminology Used in Flight Attendant Training Requirements

In the NPRM, the FAA proposed training requirements for check flight attendants (§ 121.1381) and persons authorized to administer flight attendant proficiency tests (§ 121.1387).

AFA commented that the proposed regulations were identical in the initial paragraphs except for the fact that § 121.1381(a)(4) required check flight attendants to receive academic training on the appropriate methods and techniques for conducting "required evaluations" while § 121.1387(a)(4) required persons authorized to administer proficiency tests to receive academic training on the appropriate methods and techniques for conducting "required checks." AFA asked for clarification as to whether the two provisions were necessary and suggested removing duplication where appropriate and changing § 121.1387 to reflect this language.

The FAA recognizes the similarity of the proposed regulations. However, each regulation applies to training requirements for different persons authorized to administer flight attendant training and evaluation activities. One provision specifies training requirements for all check personnel, and the other is specific to persons who are authorized to administer flight attendant proficiency tests. As AFA noted, the word "evaluation" is a broader term that includes reviews, checks and tests. The term is not appropriate to use regarding persons authorized to administer proficiency tests as they do not conduct proficiency checks or reviews. In the SNPRM, the FAA has proposed changes to the QPS that remove proficiency checks from emergency training. Under this proposal, all proficiency checks occur during AOE and therefore would only be administered by check flight attendants or FAA aviation safety inspectors (Cabin Safety).

A review of the proposed rule and the QPS did reveal a discrepancy in Table 3E, Section A, of the NPRM. In the SNPRM the FAA redesignated Table 3E, Section A, as Table 3B and redesignated Table 3E, Section B, as Table 3C. In addition, the FAA removed the proficiency checks from Table 3C, with regard to emergency training to comply with the proposed language of § 121.1373(c), which requires only proficiency tests.

10. Curriculum Category Requirements: Flight Attendant Recurrent Training (§ 121.1375)

Under current regulations, in order to maintain their qualification, flight attendants qualified on Group I airplanes are required to have 5 hours of recurrent training every 12 months on Group I airplanes and flight attendants qualified on Group II airplanes are required to have 12 hours of recurrent training every 12 months.

In the NPRM, the FAA proposed to require flight attendants who are qualified on 2 to 5 types of airplanes to have 13 hours of recurrent training every 12 months, regardless of whether those airplanes are Group I or Group II airplanes.

Continental stated that there would be an operational and financial impact on the airlines due to the increased number of flight attendants needed to cover the requirements created by the proposal. It contended that the duration of recurrent training for most air carriers would be extended from two to three days and that check flight attendants would be required to attend annual recurrent training in addition to standard recurrent training.

Upon review of the comments, the FAA has revised the hours proposed in the NPRM and maintained the current requirement that flight attendants who are solely qualified on smaller

turboprop airplanes require 5 hours of recurrent training and flight attendants qualified on 1–5 types of turbojet airplanes require 12 hours of recurrent training. The proposed regulations do not prohibit current industry practices, such as distance learning, which mitigate the potential operational and financial impact of the marginal increase for those air carriers operating Group II airplanes. Although the programmed hours are different for flight attendants solely qualified on turboprop airplanes, the FAA is proposing the same curriculum requirements for all flight attendants, as is required in current regulations. This would ensure that all flight attendants receive the same safety-critical training.

11. Omission of Emergency Training From § 121.392(b)

In the NPRM, the FAA proposed to require that any person identified as a flight attendant on an aircraft in operations must be trained and qualified in accordance with subpart BB. In § 121.392(b) of the proposed rule, the FAA intended to create an exception which permitted qualifying flight attendants who had completed new hire and initial training to be identified as flight attendants while satisfying their aircraft operating experience (AOE) requirement.

The AFA believes that it was an oversight to exclude emergency training from the requirements of § 121.392(b). AFA states that emergency training is an integral part of flight attendant training and it is imperative that qualifying flight attendants have completed such training prior to being identified as flight attendants.

The FAA acknowledges that allowing air carriers some flexibility in instructional design is necessary to the extent that air carriers may integrate AOE into basic qualification, which would allow qualifying flight attendants to perform the duties of a flight attendant during passenger carrying operations, under supervision. However, the identification of a crewmember as a flight attendant implies that the crewmember is fully qualified to perform all duties of a flight attendant. Therefore, the FAA has revised the language in § 121.392(b) to require that these individuals be identified to passengers as qualifying flight attendants during AOE.

C. Aircraft Dispatcher

1. Acceptable Time for Completing Recurrent Requirements (§ 121.1409)

Current § 121.401(b) allows recurrent training, certain checks, and operating familiarization to be considered completed in the month required (*i.e.,* "base month") if completed in the month before or after the base month (*i.e.,* "eligibility period").

In the NPRM, the FAA proposed § 121.1409, which was based on § 121.401(b) and permits an aircraft dispatcher who has not completed the recurrent activity during the eligibility period to remain qualified and serve until the end of the eligibility period. The dispatcher becomes unqualified and can no longer serve after the eligibility period ends.

An individual sought clarification as to whether the use of the word "or" in § 121.1409(a) implied that operating familiarization does not have to be completed within the eligibility period. The FAA is modifying the rule language by changing the word "or" to "and" in order to clarify that all of the listed activities must be completed within the eligibility period.

The commenter also asked whether the requirements to complete an evaluation within the eligibility period for aircraft dispatchers under § 121.1409(a) was covered by the requirement to complete recurrent training within the eligibility period under § 121.1455. Section 121.1409(a) governs the time within which the recurrent requirements listed in § 121.1455 must be completed. In the SNPRM, § 121.1455 has been revised to reference § 121.1409(a), which establishes the acceptable time for completing recurrent requirements.

2. Training and Evaluation (§ 121.1413)

Under the current rule, aircraft dispatchers are required to complete five hours of operating familiarization. There is no current requirement that the five hours be completed in international operations if the dispatcher is dispatching internationally. In addition, there is currently no continuity of training requirement for aircraft dispatchers.

In the NRPM, the FAA proposed that aircraft dispatchers who dispatch in international operations be required to complete operating familiarization in international operations. The proposal was intended to ensure that dispatchers obtained familiarity within their area of responsibility because each area of operation has unique differences such as route structure, air traffic control procedures, communications, and country-specific regulations. In addition, for the first time, the FAA proposed in the NPRM a continuity of training requirement in paragraph § 121.1413(b) to ensure that training occurred within a reasonable time so that knowledge and skills were retained throughout the training period. Proposed paragraph (c) clarifies that if a person fails to successfully complete the curriculum category in the time prescribed in paragraph (b), the person must repeat the entire curriculum category (including academic evaluation) as opposed to completing individual subjects or evaluation requirements. In the SNPRM, the FAA is retaining these proposed requirements.

American sought clarification regarding whether a dispatcher in both domestic and international operations in a single year must have completed five hours of operating familiarization in each type of operation. UPS commented that the requirement to do a familiarization flight on both a domestic and a flag flight would be an additional expense that the air carrier presently does not incur.

Under the proposed rule, an aircraft dispatcher who dispatches both domestic and flag operations must complete operating familiarization in both kinds of operations in an aircraft type that the person has dispatched within the preceding 24 months. In the SNPRM, the FAA is revising the proposed rule language to clarify that, within a 24-month period, a dispatcher who dispatches both domestic and international operations must complete operating familiarization for domestic operations during one 12-month period and complete operating familiarization for international operations during the other 12-month period. Under the proposed rule, dispatchers who work solely in domestic or international operations are required to complete operating familiarization within their area of operations annually. The FAA notes that there has been no change from the current rule in the number of hours required for operating familiarization.

The FAA also responds that, for flag operations, the operating familiarization must be conducted within a flag area of operation for which the person dispatches in accordance with the Aircraft Dispatcher QPS. The proposed language adds that if an aircraft dispatcher dispatches both domestic and flag operations, then within the previous 24 months, the person must complete operating familiarization in both kinds of operations.

American requested an extension from 120 days to 180 days for the time within which a dispatcher must complete the initial curriculum category. It noted that, rather than limit the candidate to classroom training, it presents the dispatcher with a module

in the classroom and then reinforces the training with practical experience at an operational desk. American contended that this method of training, while taking more time, strengthened the process and provided better training. Midwest objected to the requirement that a dispatcher who does not complete initial training within the 120-day period must repeat the entire initial curriculum category. It recommended that the student be allowed to complete training after evaluation of the material that has been covered with additional training in the area weakness.

The 120 day time frame is appropriate to complete the minimum academic training and evaluation requirements of the initial curriculum category because the requirement would ensure that training occurs within a reasonable time so that knowledge and skills are not lost during the training period. Extending the training period to 180 days would constitute a 50 percent increase in the allowable training period.

RAA commented that the proposed 120-day requirement would be even more difficult when a training class of six new hire dispatchers completes training and there are only one or two dispatchers that are qualified to oversee supervised operating experience (SOE). These requirements would be extremely difficult to comply with and place an undue burden on the company.

The FAA believes it is necessary to include SOE in the 120-day continuity of training requirement to ensure that training occurs within a reasonable time. However, in the SNPRM, the FAA has revised the requirements for the individual who oversees SOE. In the SNPRM, the individual overseeing SOE must be a current and qualified dispatcher who meets certain experience requirements. This person does not need to meet all of the requirements of a check dispatcher, as proposed in the NPRM. The FAA recognizes that it may take an uncertificated individual in a combined certification and initial course more than 120 days to complete all of the necessary requirements. Therefore, in the NPRM and SNPRM the FAA has allowed 180 days for these individuals to complete the necessary requirements.

RAA also commented that § 121.1413(a)(1)(i)(A) conflicts with the definition in current § 121.400(c)(2) which defines transition training as the training required for crewmembers and dispatchers "who have qualified and served in the same capacity on another airplane of the same group." It recommended that the language in the proposed section be changed from "aircraft type" to "aircraft group" in order to be consistent with § 121.400(c)(2).

In the SNPRM, the FAA is revising the proposed rule language to clarify that, in order to qualify for transition, a dispatcher must have satisfactorily completed initial training and evaluation for another aircraft type within the same airplane group.

3. Operating Familiarization (§ 121.1415)

In the NPRM, the FAA proposed that, for flag operations, the operating familiarization must be conducted within a flag area of operation for which the person dispatches in accordance with the Aircraft Dispatcher QPS.

NACA commented that the new regulations require each dispatcher to perform a familiarization ride every 12 months and dispatchers qualified to operate flag flights must be on a flag flight in one of the 12 areas that they are certified to dispatch. This requirement would place a financial burden on the carriers as flights may be gone for weeks, so the air carrier would have to bear the expense of a commercial ticket back from some location. Additionally, it contended that this requirement is impossible to plan for and some carriers would be forced to change the dispatcher's base month every year.

The FAA reiterates that, due to the unique differences within areas of operation, the proposed requirement that dispatchers working in international operations have operating familiarization in international operations was intended to ensure that dispatchers obtained familiarity within their area of responsibility. The FAA notes that the dispatcher has the option under § 121.1415(b) to complete the operating familiarization requirement in a LOFT simulator session which would reduce the financial burden for those carriers who have non-scheduled operations. The FAA has retained the requirement, as proposed in the NPRM.

American commented that it conducts scenario based simulator training by virtue of the pilot AQP training program rather than LOFT simulator sessions. It recommended that the FAA approve line scenario based simulator training for aircraft dispatchers.

In the SNPRM, the FAA is revising § 121.1415(b) to include AQP equivalent simulator training. In addition, the FAA proposes in the SNPRM to allow briefing and debriefing time to be included in the 5-hour requirement. This change would allow the certificate holder more flexibility to complete operating familiarization in a simulator.

Midwest commented that, with the introduction of new types of operations, the demand for jumpseat observations can become higher than normal with flight and FAA observations. It requested that the FAA extend the 90-day window for new type operations to 120 days. It asserted that the 30-day extension would not adversely affect safety but would allow additional scheduling flexibility to accomplish these observation flights.

In the SNPRM, the FAA is extending the period from 90 to 120 days. The FAA believes that this is a reasonable extension that would not have a negative impact on safety.

4. Supervised Operating Experience (§ 121.1417)

Under the current regulations, there is no requirement for supervised operating experience for aircraft dispatchers, although it is a common practice within industry. In the NPRM, the FAA proposed to require a minimum number of hours of supervised operating experience.

TWU commented that under the proposed rule, aircraft dispatchers gaining operating experience would essentially be required to be supervised by a check dispatcher because the language of the rule requires supervision by "a current and qualified aircraft dispatcher who meets the requirements of § 121.1421(b)(1) through (4)," which are the requirements for a check dispatcher.

In the SNPRM, the FAA is revising the requirements for a dispatcher who oversees supervised operating experience. Under the new proposal, a dispatcher overseeing SOE would be required to meet only the experience requirements contained in § 121.1421 (b)(2), which requires that the person has performed the duties of an aircraft dispatcher for at least 8 hours within a 24-hour period in the preceding 90 days, and (b)(4), which requires that the person has been current and qualified as an aircraft dispatcher for a part 121 operation for at least 3 of the previous 5 years. The FAA believes that requiring dispatchers to meet these two conditions ensures that the supervising dispatcher has sufficient experience and expertise with the certificate holder's operation to provide adequate supervision. The FAA notes that there is no need for the supervising dispatcher to be a check dispatcher because the supervising dispatcher does not administer proficiency checks or proficiency tests. The supervising dispatcher oversees a dispatcher who already has completed the academic training and evaluation. The FAA believes that this change would ensure adequate safety for supervised operating

experience and provide staffing flexibility for air carriers.

NACA commented that the proposed rule requires each dispatcher to receive eight hours of SOE for each of the 12 (flag) areas. It stated that this supervision is virtually impossible to plan given the way in which some NACA members operate. It contends that some of its members do not have flights in all 12 areas defined by the NPRM, even though they are qualified to dispatch in those areas. In addition, NACA stated that getting on-the-job training in each area would be impossible.

The FAA clarifies that § 121.1417(a)(2) would require the person to have been supervised for the minimum hours prescribed in the Aircraft Dispatcher QPS for each type of operation (domestic or flag) in which the person serves. This would require SOE in each flag area of operation. Based on current industry training practices the FAA does not expect there to be increased costs associated with this proposal.

TWU recommended that, in Table 1 of appendix T under the columns for initial and combined certification and initial, the hours for "Supervised Operating Experience, Domestic" should be increased to 40 hours and the hours for "Supervised Operating Experience per Flag Area of Operation" should be increased to at least 24 hours. It stated that 8 hours is only sufficient for a seasoned and expert aircraft dispatch instructor. It recommended for similar reasons that, in Table 3 of appendix T, the hours of SOE per flag area for requalification should be adjusted to 24 hours for both domestic and flag operations.

Because there is a wide variance in size and complexity of part 121 carriers, the FAA has proposed minimum SOE requirements for certificate holders. A certificate holder operating only one type of aircraft in a small geographical region would not require the hours of SOE recommended by the commenter. The FAA anticipates that certificate holders would increase the hours as necessary to ensure that safety is maintained within their specific operations.

Midwest commented that, as this section is written, the student receiving supervised operating experience already would have received his or her proficiency test or check. It recommended that the FAA clarify the proposed rule by specifying that the student must have satisfactorily completed the knowledge portion of the listed trainings. In the SNPRM, the FAA has revised the language to clarify that SOE occurs after academic training and evaluation but before the proficiency test (during initial, combined certification and initial, or phase III requalification) and before the proficiency check (during phases I and II of requalification).

American commented that training reinforced by on-the-job training (OJT) is more beneficial to a candidate than receiving training all at one time. It recommended allowing observation to be interspersed throughout academic training. UPS commented that it is more beneficial to first have classroom training, then OJT, and then observation.

Nothing in the NPRM or SNPRM prevents a certificate holder from allowing observation to be interspersed throughout academic training. The intent of requiring SOE at the completion of all academic training is to ensure that the dispatcher is proficient in all areas of academic instruction and capable of applying that knowledge in a working environment.

RAA agreed that one student for one supervisor is generally what occurs but stated that a rule requiring one-on-one supervision in every instance is not practical since the workload between operators, the size and scope of operation, and the number of flights within the day would vary greatly among all the part 121 operators. RAA requested that subpart (c) be revised to allow two students for one supervisor as long as the workload is manageable (as described in an AC).

The FAA is retaining the proposed requirement because supervising only one person at a time ensures that the supervising aircraft dispatcher has a safe and manageable workload. In addition, the supervising dispatcher is the dispatcher of record for each flight dispatched or released, thus ensuring that all flights are dispatched and released by a current and qualified dispatcher.

5. Dispatcher Instructor and Check Dispatcher: Eligibility, Training, and Evaluation (§ 121.1421)

Under current regulations, there are no specific training or qualification requirements for persons who may administer training and evaluation to aircraft dispatchers. The current rules require that aircraft dispatchers complete competence checks annually. These checks are given by "an appropriate supervisor or ground instructor that demonstrates knowledge and ability with the subjects set forth in" the regulations.

In the NPRM, the FAA proposed to establish a "check dispatcher" to administer proficiency tests (currently the competence check required by § 121.422(b)) and proficiency checks. In addition, the FAA proposed to establish training and qualification requirements for check dispatchers and dispatcher instructors.

Several commenters, including RAA, UPS, and American, expressed concern that the proposed requirements for check dispatchers would prevent them from using their most experienced and knowledgeable individuals in this position. RAA requested that § 121.1421(b)(2) and (b)(4) be withdrawn. American requested that the proposed rule include other qualifications, as accepted by the Administrator, and currently documented in their Approved Training Manual (*e.g.,* Air Transportation Supervisors) and in FAA Order 8900.1 Flight Standards Information Management System (FSIMS) Volume 3, Chapter 20.

While current guidance in FAA Order 8900.1, Vol. 3, Ch. 20, Sec. 1, para. 3–1387 (Sept. 17, 2009) states that aircraft dispatchers may be given competency checks by appropriately qualified air transportation supervisors or ground instructors, the current regulations and guidance do not explicitly state the qualification requirements for these individuals. The FAA is retaining the check dispatcher requirements because it is essential for a person who is evaluating the operational control authority of a dispatcher to have recently performed the duties of an aircraft dispatcher. The provisions of this paragraph do not prevent the company from using their most experienced and knowledgeable individuals as instructors and check dispatchers as long as they satisfy the requirements of proposed § 121.1421(a) and (b).

TWU Local 550 commented that there is no requirement that a dispatcher instructor ever actually perform the duties of a dispatcher. It recommended that, at a minimum, a dispatcher instructor should be required to meet the currency requirements of § 121.1421(b)(2), which requires check dispatchers to have performed the duties of a dispatcher for at least eight hours within a 24-hour period in the preceding 60 days.

Section 121.1421(a)(1) requires a dispatcher instructor to maintain currency in accordance with the certificate holder's approved training program. The FAA does not believe that it is necessary for a dispatcher instructor to have performed the duties of a dispatcher because, unlike check dispatchers, an instructor does not

evaluate the operational control authority of an aircraft dispatcher.

Midwest commented that its flight standards and training department uses ground instructors who are licensed aircraft dispatchers but who would not meet the currency requirement of the proposed regulation. The carrier expressed its belief that, under the proposed regulation, it could continue to use these instructors under the title subject matter experts. It further stated that there would be periods of time where even certificated dispatcher instructors could run the risk of becoming unqualified due to the 60-day dispatch requirement and, for smaller operations, the burden can quickly become limiting.

To provide clarification, the FAA notes that in order to meet the currency requirement of § 121.1421(a), an instructor needs only to maintain dispatcher currency in accordance with the certificate holder's approved training program. Nothing in the proposed rule requires a dispatch instructor to have served as an aircraft dispatcher within a certain period of time.

American, TWU Local 550, and RAA sought clarification on the meaning of "acceptable" as it refers to subject matter experts (SME). TWU Local 550 recommended that the FAA define what makes a SME acceptable and RAA requested that the FAA provide text within the provision or guidance material that better defines what is acceptable. American asked whether acceptable meant that they merely had to communicate the information to the FAA. TWU Local 550 noted that check dispatchers must be approved by the FAA, but stated that there is no explanation on how that approval is achieved beyond meeting the requirements of § 121.1439 and the currency requirements § 121.1421. It recommended that the FAA define or give guidance in the final rule for what procedures or standards must be met to be "approved by the FAA" as a check dispatcher as opposed to being "acceptable to the FAA" as in the case of a SME (§ 121.1421(a)(2)).

The FAA notes that in the SNPRM the language of the proposed rule has been revised to require certificate holders to submit a list of current check dispatchers, SMEs, and instructors to the FAA. The list may contain only check dispatchers or instructors who have been trained in accordance with the requirements of part 121 and are qualified to perform the duties and responsibilities associated with their position. With regard to SMEs, the SME must have the experience and knowledge to conduct training in his or her field of expertise.

TWU Local 550 and TWU commented that the panel at the public meeting indicated that it envisioned a SME as a certified meteorologist covering weather phenomena of a specific area of operation or a mechanic explaining the maintenance of an aircraft system. TWU Local 550 stated that it supports the panel's explanation but recommended that the FAA add language that would limit and clearly list what SME subjects would be approved. TWU asserted that, if specific guidance and examples are not given, this was a potential area of concern. TWU Local 550 expressed concern that a person may take a course of instruction in a narrow subject area and be considered a SME while having no foundation in the basic theory of the subject matter. It requested that the "Generic Training, General Knowledge and Skills, and Basic Aircraft Type" and "Specific Aircraft Type" mentioned in Table 5 should be expanded to further the intent that SMEs should also understand how their subject matter applies to the dispatch of an aircraft under part 121 regulations. Midwest commented that it believes that it is a risk to allow dispatch instructors who are not employees familiar with the carrier's operation to conduct a wide range of training. It asked that the FAA limit non-employees to providing instruction on generic subjects.

The FAA notes that certain subjects listed in Table 5 of the QPS must be conducted by a certificated dispatcher. To the extent that the commenters have requested a list of what SME subjects would be approved, the FAA believes it is appropriate to allow SMEs to instruct on a broad range of subjects in order to permit the certificate holder to identify and use the best available personnel to conduct required training. The fact that the overall training program is approved by the FAA ensures that SMEs are providing instruction in their area of expertise and that the information is relevant to the certificate holder's specific operations.

RAA sought clarification as to whether a check dispatcher may oversee supervised operating experience under § 121.1417. The FAA notes that, as shown in appendix T, Table 5, a check dispatcher may conduct SOE.

American Eagle commented that the requirement that a check dispatcher have performed the duties of a dispatcher in the preceding 60 days is not consistent with other FAA policies including the requirements for check airman and flight instructor which is 90 days. Midwest asks that the FAA drop the 60-day requirement because it does nothing to enhance safety. It commented that, if the individual has complied with § 121.1421(b)(1), then he or she should know that the individual being observed is conducting dispatcher duties in accordance with the QPS.

The proposed requirement is necessary because under the current rules, dispatchers who currently administer competency checks are not required to have recent practical work experience. In order to evaluate whether dispatchers are performing their responsibilities in accordance with the certificate holder's current policies and procedures, the check dispatcher must be familiar with the certificate holder's operational environment and its current operating policies and procedures. Requiring check dispatchers to serve in operations with the certificate holder ensures that check dispatchers are aware of the certificate holder's current policies and procedures and can effectively evaluate other aircraft dispatchers performing their responsibilities in accordance with the certificate holder's policies and procedures. However, the FAA has reconsidered the 60-day timeframe proposed in the NPRM and believes the objectives of the proposal can be met using the 90-day timeframe that is consistent with the timeframe for check airmen and flight instructors. The proposed 90-day requirement for check dispatchers in the SNPRM still ensures that check dispatchers are aware of the certificate holder's current policies and procedures and can effectively evaluate other aircraft dispatchers. The FAA has revised § 121.1421 accordingly.

6. Eligibility and Qualification for Dispatch Program Designee (§ 121.1423)

Under current regulations, the position of dispatch program designee does not exist. In the NPRM, the FAA proposed to create this position for the purpose of issuing aircraft dispatcher certificates for certificate holders who elect to establish combined certification and initial training programs.

Midwest commented that the reference to § 183.25 in proposed § 121.1423(a)(3) appears to be wrong and it was unable to determine what is the correct reference for a designated aircraft dispatcher examiner. Section 183.25 is the correct reference for a designated aircraft dispatcher examiner. The FAA notes that the authority of a designated aircraft dispatcher examiner is set forth in paragraph (f) of that section.

Midwest also objected to the requirement that the dispatch program designee must be an aircraft dispatcher serving for the certificate holder for the

aircraft type and operation. It contended that this greatly limits the effectiveness of the designee program and would most likely result in few certificate holders utilizing this option. In response, the FAA has revised the language of proposed § 121.1423(a)(2) to remove the requirement for aircraft type and operation.

7. Curriculum Category Requirements: Aircraft Dispatcher Initial, Combined Certification and Initial, and Transition Training (§ 121.1453)

Under current regulations, an aircraft dispatcher may only become certificated under part 65. In the NPRM, the FAA proposed to establish, under part 121, a curriculum category that combines aircraft dispatcher certification, initial training, and initial evaluation for the part 121 certificate holder.

ADF recommended that, because aircraft dispatchers are required to ride in the cockpit for initial and recurrent familiarization and observation requirements, it would be appropriate to require initial and, at some interval recurrent training in aircraft emergency procedures. The FAA notes that, although not specifically required, the certificate holder could include these areas of training in addition to the requirements of appendix T, attachments 2 and 3.

Midwest commented that there is no reason for certification to be included in the proposed rule. It stated that part 121 carriers would not train noncertified persons solely for the reason of allowing them to gain certification and the new certification portion of this rule is not really appropriate for part 121. Midwest recommended that the certification remain in Part 65, just as training and certification of pilots is located in part 61.

The proposed certification program is optional and is conducted in conjunction with certificate holder's initial training and evaluation curriculum. The proposed rule merely gives the certificate holder the ability to train and certificate an aircraft dispatcher to their standards in compliance with the requirements of Part 65.

8. Curriculum Category Requirements: Aircraft Dispatcher Recurrent Training (§ 121.1455)

Under current regulation, § 121.427(b)(2), annual recurrent training and evaluation for aircraft dispatchers must include all of the subjects required during initial training. The NPRM proposed to establish that, for recurrent training and evaluation, certificate holders must cover all of the areas of instruction listed in section B of attachment 1 of the Aircraft Dispatcher QPS and all of the subjects listed in section C of attachment 2 of the Aircraft Dispatcher QPS on an annual basis. As proposed in the NPRM, certificate holders with more than one aircraft type would be allowed 3 years to cover aircraft systems for all of their aircraft types if approved by the Administrator.

American commented that it supports the proposal, as long as the three-year allowance to cover all subjects does not change. It stated that it currently covers everything over a 36-month period. American and UPS requested clarification on whether the proposed rule means that each subject must be covered every 12 months. TWU commented that it supports a 3-year cycle for recurrent training material; however, it sought clarification regarding certificate holders with only one aircraft type.

In the SNPRM, the FAA is retaining the recurrent training and evaluation requirements that were proposed in the NPRM, with one exception. In the SNPRM, the FAA has maintained the current programmed hour requirement for recurrent training and evaluation. The FAA believes that the current programmed hour requirement is adequate to accomplish all of the curriculum requirements. The FAA has reorganized some of the attachment to clarify that, although certificate holders must provide annual training on each area of instruction listed in new section C of attachment 1 that is pertinent to their operation, they are not required to cover every subject within that area of instruction each and every year. With regard to the recurrent training and evaluation required by section C of attachment 2, the FAA reiterates that certificate holders must cover all of the subjects listed in that section on an annual basis. The SNPRM retains the provision that permits certificate holders with more than one aircraft type three years to cover aircraft systems for all of their aircraft types if approved by the Administrator. For example, a certificate holder with six aircraft types may cover aircraft systems for two aircraft per year during a three-year period. For those certificate holders with a single aircraft type, aircraft systems for that aircraft must be covered annually.

TWU questioned the requirement in § 121.1455(c) that would require individuals completing a knowledge test for academic evaluation to score 80% overall, but require aircraft dispatchers to score 80% on each task to pass the job performance evaluation. The requirement to achieve at least 80% in each task area on the proficiency test is more difficult than achieving 80% overall on the knowledge test because a subpar showing on a particular task area would cause a failure even if the individual scores exceptionally well on the majority of the test.

The FAA has reviewed § 121.1455(c) and the corresponding QPS requirements in attachments 1 and 4 of appendix T and determined that the requirement for a score of 80% in each task area of evaluation of the proficiency check is not appropriate. The FAA has removed the 80% requirement for proficiency tests from attachment 4 of appendix T. Each proficiency test must include a representative number of questions for each task which demonstrates the aircraft dispatcher's proficiency. Each area of evaluation must then be satisfactorily demonstrated to the Check Dispatcher, Dispatch Program Designee, or FAA principal Operations Inspector, as applicable. This standard is necessary to ensure that the dispatcher has mastered the subjects within the areas of instruction before serving in operations. Academic evaluations for each curriculum category would still require an overall score of 80% or better.

9. Areas of Instruction and Subjects in the Aircraft Dispatcher QPS (Appendix T)

Midwest commented that many of the references that are made in the area of instruction in attachment 1 entitled "manual overview" are redundant to a given manual or would be contained in the FCOM and/or ADPM. It recommended that, when the section says manual overview, it should address manuals and not a collection of procedures that are contained within the different operational manuals of an air carrier. Midwest contends that few if any operators retain the airplane flight manual for daily use, but instead the necessary sections are incorporated into manuals like the FCOM or ADPM.

The references are appropriate to this area of instruction. A certificate holder is not required to retain the Airplane Flight Manual (AFM) for daily use if the relevant portions of that manual are contained in appropriate company manuals. Training is required for the dispatcher on the contents for the AFM that are relevant to dispatch duties.

Midwest commented that, in the area of instruction dedicated to "meteorology," the FAA has failed to clearly identify two important weather areas, the jet stream and clear air turbulence. It requested that these two areas be clearly identified in this list of

weather subjects. Midwest further stated that the interpretation and use of weather charts should be enhanced to include weather radar use and interpretation. The FAA notes that these subjects are covered in attachment 1 (section A) under the subject headings "upper air meteorology," "turbulence (all types)," and "interpretation and use of weather charts."

Midwest commented that the subjects listed in the area of instruction entitled "approach plates and charts" cover only departure and arrival procedures. It recommended that the FAA add approach charts (instrument and charted visual) to this list if that is the intent of this section or correct the heading to departure and arrival procedure charting. The FAA notes that these subjects are covered under the subject heading "terminal and en route charts and publications."

Midwest recommended that the FAA change the "inoperative navigation aid" subject heading to include discussion of navigation aid substitution, which should include both en route and approach navigation aid substitution. The FAA notes that the information is covered under the subject heading "inoperative navigation aids."

Midwest commented that, for Basic Aircraft Training and Evaluation Requirements under section B of attachment 2, a number of the subjects listed under "additional training" already have been covered in other areas of instruction. It contends that, for operators with single fleet types, this training is repetitive. Midwest requested that the FAA consider either adding the statement "for operators of more than one fleet type" to the opening statement to this area of instruction or retain only the subjects set forth in (c), (e), (f), and (k) of section B.4.

The inclusion of these subjects under Basic Aircraft Training and Evaluation is appropriate because there are both generic issues and carrier or aircraft specific issues associated with these subjects. Any areas that may be considered redundant would be accounted for in the certificate holder's approved training program.

TWU questioned section C.3.(a)(6) of attachment 4, "Review of the Flight Crew Qualification for route to be flown," stating that placing these requirements on dispatchers would likely exacerbate workload issues or hold dispatchers responsible for validating information that they cannot access. The FAA notes that this section deals with the evaluation of a dispatcher during proficiency tests and checks. The section requires an aircraft dispatcher to demonstrate that he has reviewed the crew qualifications for the route to be flown. This provision does not exacerbate the workload as this task is already part of a dispatcher's duties under current regulations.

TWU questioned the section in attachment 4 entitled "Review AIM." It stated that, because the Aeronautical Information Manual exists as a reference, there is no need for it to be reviewed during any given shift except in response to a specific question, which may or may not arise. It commented that the requirement to review the AIM is inconsistent with the daily shift duties of an aircraft dispatcher, except in specific circumstances, and should be withdrawn.

For evaluation purposes, the dispatcher should be familiar with the AIM and its contents. This task is an appropriate area of evaluation because, as acknowledged by the commenter, situations arise during daily operations that require the dispatcher to use the information in the AIM.

Midwest Airlines commented that few if any users directly access the National Weather Service and rely instead on a weather provider or Internet connection for access to weather information. It recommended that the FAA rephrase the title and subject material of attachment 4, paragraph C.1.(d) to reflect the skills the average dispatcher is going to demonstrate for the task subject area. Unless the certificate holder has an approved EWINS program, it is required under § 121.101 to use weather data provided by the National Weather Service or a source approved by the National Weather Service.

Midwest Airlines commented that the information contained in attachment 4, C.1.(b)(1), "Aircraft Performance and Limitations Knowledge," would be better placed in paragraph (a), "Equipment Knowledge." The item was appropriately placed under the tasks that relate to aircraft performance and limitations.

Midwest commented that, with regard to the tasks set forth under the heading "Certificate Holder Manuals, Procedures, and Operating Information" in attachment 4, it is not a dispatcher's role to verify the currency of operational procedures. It stated that dispatchers must know how to check currency of a manual and be responsible for maintaining the currency of the carrier's individual manuals, but it is the certificate holder who is responsible for ensuring the dispatcher has current procedures. Midwest requested that the FAA reword section to indicate that dispatchers are responsible only for verifying the currency of the manuals made available to them by the certificate holder. Although the certificate holder is responsible for ensuring the dispatcher has current procedures and manuals, it is the dispatcher's responsibility to verify that the manual being used is current.

Midwest objected to the use of the word "all" in C.3.(a)(1) of attachment 4 because it suggests that the dispatcher would directly provide to the crew items like tables, conversion graphs, ATIS reports, and radar reports which are generally not handled by the dispatcher. The information listed for evaluation and dissemination by an aircraft dispatcher is appropriate. The dispatcher is not required to provide the actual reports and charts to crewmembers, but rather to communicate the information in those documents that is necessary to ensure the safe operation of the flight. In addition, the items listed are consistent with § 121.601, which directs that an aircraft dispatcher provide the PIC with "all available weather reports and forecasts of weather phenomena that may affect the safety of flight" and "additional available information of meteorological conditions and irregularities of facilities and services that may affect the safety of the flight."

Midwest commented that a number of items listed under section C.3, "Planning and Executing a Dispatch Release" of attachment 4 are repetitive. Midwest stated that most of the items center on the aircraft status, fuel planning, and ATC, which already have been demonstrated and checked prior to this portion of the task. It stated that, for example, if the dispatcher demonstrates a task such as checking aircraft MEL status and its effect, there is no value added by repeating this item during an evaluation.

Although these items are similar, they are applied differently depending on the task the dispatcher is performing. Accordingly, in the SNPRM the FAA has retained the proposed requirements.

10. Other Required Training (Appendix T, Attachment 1)

Midwest commented that not having the "other required training" subjects (*i.e.* hazardous materials, drug testing program) listed in the other three attachments of the rule could lead to consistency problems for those that need to develop programs based on the guidance that they provide. It recommended that it should be one standard format across the board.

These areas of training are required only during initial and recurrent training. As such, they are not

appropriate for the other attachments in appendix T. Because these areas of instruction are mandated by other regulations (as identified in attachment 1, B.1.(o) and C.3), they are not included in the required hours of training in subpart CC.

11. Organization of the Aircraft Dispatcher QPS (Appendix T)

Midwest commented that the title to section A of attachment 1 indicates that the materials cover "Initial, Combined Certification and Initial, Recurrent, and Requalification." It asked whether this meant that all of the materials in section A are required in recurrent and requalification training or just the materials listed in section B of attachment 1. In addition, it commented that section B directs the user back to A.6.(c) for some of the recurrent and requalification material. The carrier requested that the FAA either remove "recurrent and requalification training" from the title of section A or remove section B as it serves no useful purpose.

In the SNPRM, attachment 1 has been reorganized to clarify the areas of instruction and subjects that must be covered in each of the curriculum categories. Proposed section B covers those areas of instruction and subjects which must be covered (if pertinent to the certification holder's operation) in initial or combined certification and initial. Proposed section C covers those areas of instruction which must be covered during recurrent and requalification training and evaluation. The FAA reiterates that, for recurrent and requalification, certificate holders must provide training on each area of instruction in section C on an annual basis; however, not every subject that falls under those areas of instruction must be covered annually.

A commenter indicated that section C.3 of attachment 2 provides confusing and conflicting information on what is "special training" and how to handle it while developing training programs. In the proposed rule, the special curriculum category is addressed in § 121.1437. Because special training could apply to other parts of a certificate holder's training program, this section has been moved from attachment 2 to the beginning of Aircraft Dispatcher QPS. The special curriculum category covers any training and evaluation that is necessary to address changes to the certificate holder's operations or to correct deficiencies identified by the certificate holder's CAP.

12. Required Questions for Proficiency Tests and Checks (Appendix T, Attachment 4)

Midwest commented that the number of knowledge questions required in attachment 4 of appendix T is 130, is more than the Knowledge Test administered by the FAA in granting a dispatcher certificate. It stated that the knowledge evaluation for initial, recurrent, and requalification training already have been addressed in attachments 1 and 2 of appendix T and there is no need to address these knowledge items which have already been tested.

The proficiency tests and checks under attachment 4 are an evaluation of the dispatcher's knowledge and skills as applied in a work environment. The FAA has, however, removed the number of required questions from attachment 4 because evaluators who are administering proficiency tests and checks must be able to present scenarios that encompass several operational areas and permit the evaluator to assess the dispatcher's situational awareness and abilities.

13. Calculation of Evaluation Questions for Requalification (Appendix T, Attachments 1 and 2)

Midwest commented that it occasionally needs to conduct requalification training for dispatchers. It contends that it attempted to apply the proposed QPS requirements to the case of a dispatcher who has had a lapse of currency of 25 months and believes that the correct amount of questions that would be required by this phase IV requalification with one flag area of operation is 65, based on 2 missed recurrent programs and 5 areas required by Table 3. It requested whether the calculation was accurate.

In the SNPRM, the FAA has revised the proposed requirements for requalification. Under the new proposal, a dispatcher who has had a lapse in currency of 25 months would be required to repeat initial training in the certificate holder's training program. A dispatcher who has missed one recurrent cycle would be required to satisfactorily complete an academic evaluation containing 20 questions, as required in attachment 1, A.4.(c), and 20 questions, as required in attachment 2, A.4.(c). In addition, the FAA has revised the language in appendix T to clarify that the academic evaluation must also contain five questions for each additional "academic" training and evaluation activity listed in Table 3, (General Knowledge and Skills, Specific Training per Aircraft Type, and General Knowledge per Flag Area of Operation).

14. Dispatch Resource Management (DRM) (Appendix T)

Under current regulations, DRM training is required under 121.404 and 121.422. In the NPRM, the FAA included DRM in the Aircraft Dispatcher QPS as a required area of instruction for Initial, Combined Certification and Initial, Recurrent, and Requalification Curriculum Categories.

US Airways and Midwest commented that resource management training falls short of providing an adequate understanding of the resources available to both pilots and dispatchers. Several commenters recommended that the FAA consider including in the QPS a requirement for joint training in DRM and CRM. US Airways stated that it regularly sees examples of flight crews not being aware of what resources dispatchers can provide. The ADF recommended that crews be trained to notify the dispatcher of any emergency or abnormal situation as soon as practical because often dispatchers have all the available tools to provide support and assist the crew, begin preparation for ground assistance, and communicate the required notifications for any given situation. TWU stated that LOFT should be employed as part of DRM.

The DRM AC (AC 121–32A) discusses in greater detail how to integrate DRM into operational control and numerous departments within the certificate holder's operations. Joint training in CRM and DRM is a recommended practice in AC 121–32; however, it may not be practical for some certificate holders due to scheduling conflicts and the availability of operations personnel. The DRM requirements set forth in the QPS establish only the minimum requirements necessary to ensure the effective management of available resources by aircraft dispatchers. The FAA notes that a certificate holder is free to enhance the training above the minimum requirements.

Midwest commented that the QPS leaves the operator little or no way to address the changing state of DRM. It contended that the listed subjects are repetitive in nature and fail to address the current generation of DRM/CRM which directly address "Threat and Error Management." It commented that the FAA's failure to include "Threat and Error Management" is inconsistent with standard industry practice. Midwest recommended that the references to multi-tasking, tactical and strategic use of resources, preparation, planning and vigilance could be better addressed by

simply using the phrase "Threat and Error Management."

DRM has evolved because of the joint responsibility for the preflight planning, delay, and dispatch release of a flight between the PIC and aircraft dispatcher. It is intended to address problems associated with poor group decision-making, ineffective communication, inadequate leadership, and poor task or resource management. The FAA has identified fundamental topics associated with DRM training. These topics are designed to result in better management of information that has a direct impact on safe flight operations and promote a better interface with each PIC, as consistent with the joint responsibility. The specific content of training and organization of these topics should reflect an organization's unique culture and specific needs.

RAA commented that attachment 4 of the dispatcher QPS provides only one means for evaluation that is acceptable for the proficiency test or check. It would like the ability to provide other means of testing and checking to assess the DRM indicators. It contends that the process becomes self-limiting if the only method allowed for evaluation is DRM indicators.

Because DRM training is the incorporation of team management concepts in flight operations, it is essential that these team-oriented goals be demonstrated in a scenario-based setting in order to ensure that a dispatcher is able to employ all available resources during flight operations. The FAA proposed to require dispatchers to demonstrate and apply DRM concepts throughout their proficiency tests and checks. As always, a certificate holder may devise and administer alternative evaluations in addition to the evaluations required by the proposed rule.

VI. Impact Statements

Paperwork Reduction Act

Paperwork Reduction

This proposal contains the following new information collection requirements. As required by the Paperwork Reduction Act of 1995 (44 U.S.C. 3507(d)), the FAA has submitted the information requirements associated with this proposal to the Office of Management and Budget for its review.

Title: Qualification, Service, and Use of Crewmembers and Aircraft Dispatchers

Summary: The FAA proposes to amend the regulations for crewmember and aircraft dispatcher training programs in domestic, flag, and supplemental operations. The proposed regulations enhance traditional training programs by requiring the use of FSTD for flightcrew members and including additional training requirements in areas that are critical to safety. The proposal also reorganizes and revises the qualification and training requirements. The proposed changes are intended to contribute significantly to reducing aviation accidents.

Use of: This project is in direct support of the Department of Transportation's Strategic Plan—Strategic Goal—SAFETY; *i.e.,* to promote the public health and safety by working toward the elimination of transportation-related deaths and injuries. This request for clearance reflects requirements necessary under Title 14 CFR parts 65, 119, 121, 135, and 142, to ensure safety of flight by making certain that complete and adequate training, testing, checking, and experience is obtained and maintained by those who operate under these parts of the regulation and that the use of flight simulation is used to its maximum practical extent in achieving these goals. The FAA will use the information it collects and reviews to ensure compliance and adherence to regulations and, where necessary, to take enforcement action on violators of the regulations.

Respondents (including number of): The FAA estimates there are 80 certificate holders who would be required to provide information in accordance with the proposed rule. The respondents to this proposed information requirement are certificate holders using the training requirements in 14 CFR part 121.

Frequency: The FAA estimates certificate holders will have a one time information collection, then will collect or report information occasionally thereafter.

Annual Burden Estimate: This proposal would result in an annual recordkeeping and reporting burden as follows:

The proposed SNPRM changes that deal with manuals for operations in accordance with part 121 would require revisions to the manual requirements. The manuals must include the instructions and information necessary to allow the pilots, other pilots and flight engineers to perform their required safety related duties and responsibilities. The manual, and any changes, must be approved by the Administrator.

The FAA estimates for a certificate holder operating under part 121 or 121/135 with two aircraft groups,[13] approximately 35% of the content of these manuals would require revision. On average, the agency estimate that this constitutes about 86 pages for each aircraft group.

Table 16 shows the estimated time for industry to update manuals.

Table 16	
Hourly Workload Estimate	
	Hours
Technical Writer - Manager	128.0
Technical Writer	0.5

The total industry paperwork cost of reviewing the updated manuals is $1.47 million. On average, over the 10-year analysis interval, the costs to update the manuals would be $147,000 annually.

In addition, the CAP requires certificate holders to document the effectiveness of their training and qualification programs, or the need to change, to allow for continuance. The cost estimates are the time estimates to prepare and maintain the actual document that outlines the certificate holder's CAP for FAA approval as part of the approved training program. The FAA estimates industry costs for documenting the effectiveness of operators with traditional training programs for each category as follows:

(a) Pilots (includes training programs for pilots, flight engineers, check pilots and flight engineers, and instructors):

1. Initial documenting requires eight hours for review by a Technical Writer Manager for 80 passenger and cargo air carriers.

[13] OAG Fleet Database.

2. Recurrent documenting requires two hours for review by a Technical Writer Manager for 80 passenger and cargo air carriers.

(b) Flight Attendants:

1. Initial documenting requires eight hours for review by a Technical Writer Manager for passenger 66 air carriers.

2. Recurrent documenting requires two hours for review by a Technical Writer Manager for 66 passenger air carriers.

Table 17 summarizes the FAA expected results of the industry paperwork cost of reviewing and updated manuals and the CAP.

Table 17								
Industry Operating Manual and CAP Paperwork Cost								
Year	Operating Manual	CAP		Total Cost	7% Present Value		3% Present Value	
		Pilots	F/A		Discount Rate	Cost	Discount Rate	Cost
2010	$0	$0	$0	$0	1.0000	$0	1.0000	$0
2011	$0	$0	$0	$0	0.9346	$0	0.9709	$0
2012	$0	$0	$0	$0	0.8734	$0	0.9426	$0
2013	$0	$0	$0	$0	0.8163	$0	0.9151	$0
2014	$0	$0	$0	$0	0.7629	$0	0.8885	$0
2015	$0	$0	$0	$0	0.7130	$0	0.8626	$0
2016	$146,628	$45,726	$37,724	$230,079	0.6663	$153,301	0.8375	$192,691
2017	$146,628	$11,432	$9,431	$167,491	0.6227	$104,296	0.8131	$136,187
2018	$146,628	$11,432	$9,431	$167,491	0.5820	$97,480	0.7894	$132,217
2019	$146,628	$11,432	$9,431	$167,491	0.5439	$91,098	0.7664	$128,365
2020	$146,628	$11,432	$9,431	$167,491	0.5083	$85,136	0.7441	$124,630
2021	$146,628	$11,432	$9,431	$167,491	0.4751	$79,575	0.7224	$120,995
2022	$146,628	$11,432	$9,431	$167,491	0.4440	$74,366	0.7014	$117,478
2023	$146,628	$11,432	$9,431	$167,491	0.4150	$69,509	0.6810	$114,061
2024	$146,628	$11,432	$9,431	$167,491	0.3878	$64,953	0.6611	$110,728
2025	$146,628	$11,432	$9,431	$167,491	0.3624	$60,699	0.6419	$107,512
Total	$1,466,282	$148,610	$122,603	$1,737,495		$880,412		$1,284,865

The agency is soliciting comments to—

(1) Evaluate whether the proposed information requirement is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility;

(2) Evaluate the accuracy of the agency's estimate of the burden;

(3) Enhance the quality, utility, and clarity of the information to be collected; and

(4) Minimize the burden of collecting information on those who are to respond, including by using appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology.

Individuals and organizations may send comments on the information collection requirement to the address listed in the **ADDRESSES** section at the beginning of this preamble by July 19, 2011. Comments also should be submitted to the Office of Management and Budget, Office of Information and Regulatory Affairs, Attention: Desk Officer for FAA, New Executive Building, Room 10202, 725 17th Street, NW., Washington, DC 20053.

According to the 1995 amendments to the Paperwork Reduction Act (5 CFR 1320.8(b)(2)(vi)), an agency may not collect or sponsor the collection of information, nor may it impose an information collection requirement unless it displays a currently valid OMB control number. The OMB control number for this information collection will be published in the **Federal Register**, after the Office of Management and Budget approves it.

International Compatibility

In keeping with U.S. obligations under the Convention on International Civil Aviation, it is FAA policy to conform to International Civil Aviation Organization (ICAO) Standards and Recommended Practices to the maximum extent practicable. The FAA has reviewed the corresponding ICAO Standards and Recommended Practices and has identified no differences with these proposed regulations.

Regulatory Evaluation, Regulatory Flexibility Determination, International Trade Impact Assessment, and Unfunded Mandates Assessment

Changes to Federal regulations must undergo several economic analyses. First, Executive Orders 12866 and 13563 direct that each Federal agency shall propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs. Second, the Regulatory Flexibility Act of 1980 (Pub. L. 96–354) requires agencies to analyze the economic impact of regulatory changes on small entities. Third, the Trade Agreements Act (Pub. L. 96–39) prohibits agencies from setting standards that create unnecessary obstacles to the foreign commerce of the United States. In developing U.S. standards, this Trade Act requires agencies to consider international standards and, where appropriate, that they be the basis of U.S. standards. Fourth, the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4) requires agencies to prepare a written assessment of the costs, benefits, and other effects of proposed or final rules that include a Federal mandate likely to result in the expenditure by State, local, or Tribal governments, in the aggregate, or by the private sector, of $100 million or more annually (adjusted for inflation with base year of 1995). This portion of the preamble summarizes the FAA's analysis of the economic impacts of this proposed rule. Readers seeking greater detail should read the full regulatory evaluation, a copy of which we have placed in the docket for this rulemaking.

In conducting these analyses, the FAA has determined that this proposed rule: (1) Has benefits that justify its costs, (2) is not an economically "significant regulatory action" as defined in section 3(f) of Executive Order 12866, (3) is "significant" as defined in DOT's Regulatory Policies and Procedures; (4) would have a significant economic impact on a substantial number of small entities; (5) would not create an unnecessary obstacles to the foreign

commerce of the United States; and (6) would not impose an unfunded mandate on state, local, or Tribal governments, or on the private sector by exceeding the threshold identified above. These analyses are summarized below.

Total Benefits and Costs of This Rule

The FAA estimates the total cost of the proposed rule would be approximately $391.9 million in nominal dollars, $199.1 million at a seven percent present value, and $290.3 million at a three percent present value. The estimated potential quantified safety benefits over the 10-year analysis interval is $445.1 million, $222.9 million at a seven percent present value, and $327.5 million at a three percent present value.

The following table shows these results.

SNPRM Benefits and Costs ($ Millions)			
		Present Value	
	Nominal	7%	3%
Benefits ($M)	$445.1	$222.9	$327.5
Costs ($M)	$391.9	$199.1	$290.3

More detailed qualitative and quantitative benefit and cost information is provided below.

Who is potentially affected by this rule?

This proposed rulemaking will affect operators of transport category airplanes operating under 14 CFR Parts 121 and 121/135.

Assumptions:

- Discount rates—a 7% base case with a 3% sensitivity analysis rate.
- This proposed rule would become a final rule in 2011.
- This proposed rule would become effective in 2016.
- Period of analysis—2016 through 2025 because this analysis period fully accounts for the expected benefits and costs.
- It is not the intent of the FAA for this proposed rule to affect operators with Advance Qualification Program (AQP) pilot training programs.
- Value of a fatality avoided—$6.0 million.

Changes from the NPRM to the SNPRM

Upon review of the NPRM comments, the FAA identified several key issues to be addressed. In the SNPRM the FAA proposes to establish provisions for training program modifications for flightcrew members, clarifies the minimal impact on AQP operators, requires certificated aircraft dispatchers for supplemental operations, revises the training and evaluation task requirements in the flightcrew member and flight engineer Qualification Performance Standards appendices (QPS), and removes the information portion of the QPS appendices and placing the information in advisory circulars. The FAA also made other changes to many of the proposals in the NPRM. For example, the FAA has simplified the Flight Attendant and Aircraft Dispatcher requalification requirements, revised and clarified the programmed hour requirements, and revised and clarified the initial cadre requirements. The FAA has also clarified the programmed hour requirements for pilots.

Benefits of This Rule

Phased-in potential benefits would accrue from the additional training initiatives and are estimated to be about $445.06 million, $222.86 million at a seven percent present value, and $327.48 million at a three percent present value over the 10-year analysis interval. The following table shows the proposals benefit breakdown by pilot, flight attendant, and aircraft dispatcher.

Total SNPRM Benefit and Percent of Total		
Category	Benefits ($M)	Percent of Total
Pilots	$438.17	98.5%
Flight Attendants	$4.91	1.1%
Dispatcher	$1.97	0.4%
Total	$445.06	100.0%

In addition, the proposed rule generates qualitative benefits for pilots, dispatchers, flight attendants, and flight engineers as it responds to the FAA "Call to Action" and to the 28 NTSB safety recommendations.

The changes proposed in this SNPRM address the following NTSB recommendations:

- Crewmember Resource Management (CRM) training (Recommendations A–88–71 and A–94–96);
- Flight attendant training (Recommendations A–92–67, A–92–70, A–92–71, A–92–74, and A–92–77);
- TCAS RA training (Recommendation A–93–46);
- Use of simulators to conduct LOFT (Recommendations A–94–191 through 194);
- Training of flightcrews to respond to sudden, unusual or unexpected aircraft upsets (Recommendation A–96–120);
- Training of crewmembers to respond to in-flight fires (Recommendations A–01–83 through A–01–85);
- Aircraft pressurization on the ground while the ground-based air conditioning is supplying conditioned (cooled or heated) air to the cabin (Recommendation A–07–96);
- Monitoring of exit availability on the ground after a significant event to help expedite and emergency evacuation (Recommendation A–09–26);
- Communication and coordination between Flight Crewmembers and Flight Attendants regarding emergency and

unusual situations (Recommendation A–09–27);

• Pilot monitoring duties (Recommendation A–10–10);

• Requirements for flightcrew member academic training regarding leadership (Recommendations A–10–13, A–10–14, and A–10–15);

• Pilot recordkeeping requirements regarding training performance (Recommendations A–10–17 and A–10–18);

• Develop and implement procedures to establish airspeed reference (Recommendation A–10–21); and

• Develop and conduct stall recovery training and provide stick pusher familiarization training for pilots of stick-pusher equipped aircraft (Recommendations A–10–22 and A–10–23).

Costs of This Rule

From 2010 to 2025, the FAA estimates the total cost of the proposed rule would be approximately $391.9 million in nominal dollars, $199.1 million at a seven percent present value, and $290.3 million at a three percent present value. The total costs include increased training for pilots, flight engineers, flight attendants and aircraft dispatchers along with additional costs of more simulators, paperwork for updating manuals, and government costs for review and approval of the modified training programs and manuals.

The following table shows the proposals cost breakdown by pilot and flight engineer training, flight attendant training, aircraft dispatcher training, government and paperwork.

Total SNPRM Costs and Percent of Total ($ Millions)		
Cost Category	Total Costs	Percent of Total
Pilots and Flight Engineer Training	$380.9	87.4%
Flight Attendant Training	$5.5	1.4%
Aircraft Dispatcher Training	$1.2	0.3%
Government	$2.6	0.7%
Paperwork	$1.7	0.4%
Total	**$391.9**	**100.0%**

Alternatives Considered

The FAA considered multiple alternatives to the rule. Two alternatives address giving relief to small entities, one alternative considered accepting the NPRM, and the last alternative addressed AQP pilot training programs. A discussion of these alternatives can be found in the associated regulatory impact analysis and regulatory flexibility analysis. The FAA seeks comment on these alternatives and other potential approaches to the proposals contained within this SNPRM.

Regulatory Flexibility Determination

The Regulatory Flexibility Act of 1980 (Pub. L. 96–354) (RFA) establishes "as a principle of regulatory issuance that agencies shall endeavor, consistent with the objectives of the rule and of applicable statutes, to fit regulatory and informational requirements to the scale of the businesses, organizations, and governmental jurisdictions subject to regulation. To achieve this principle, agencies are required to solicit and consider flexible regulatory proposals and to explain the rationale for their actions to assure that such proposals are given serious consideration." The RFA covers a wide-range of small entities, including small businesses, not-for-profit organizations, and small governmental jurisdictions.

Agencies must perform a review to determine whether a rule will have a significant economic impact on a substantial number of small entities. If the agency determines that it will, the agency must prepare a regulatory flexibility analysis as described in the RFA.

The FAA believes that this proposal would result in a significant economic impact on a substantial number of small entities. The purpose of this analysis is to provide the reasoning underlying the FAA determination.

Section 603 of the Act requires agencies to prepare and make available for public comment an initial regulatory flexibility analysis (IRFA) describing the impact of final rules on small entities.

Section 603(b) of the Act specifies the content of a FRFA.

Each IRFA must contain:

Under Section 603(b) of the RFA, the analysis must address:

• A description of the reasons why action by the agency is being considered;

• A succinct statement of the objectives of, and legal basis for, the proposed rule;

• A description of the projected reporting, record keeping and other compliance requirements of the proposed rule including an estimate of the classes of small entities which will be subject to the requirement and the type of professional skills necessary for preparation of the report or record;

• An identification, to the extent practicable, of all relevant Federal rules which may duplicate, overlap or conflict with the final rule;

• A description and an estimate of the number of small entities to which the rule will apply;

• An analysis cost and affordability for small entities,

• An estimation of the potential for business closures,

• Conduct a disproportionality analysis,

• Conduct a competitive analysis,

• A summary of significant issues raised by public comments in response to the initial regulatory flexibility analysis and how the agency resolved those comments, and

• Each initial regulatory flexibility analysis shall also contain a description of any significant alternatives to the final rule which accomplish the stated objectives of applicable statutes and which minimize any significant economic impact of the final rule on small entities.

Reasons Why the Rule Is Being Proposed

The primary purpose of this proposed rule is to establish new requirements for traditional air carrier training programs to ensure that safety-critical training and evaluation is provided for crewmembers and aircraft dispatchers. The proposed changes seek to make a significant contribution to the FAA's accident reduction goal by directly addressing the safety goals from two recent FAA "Call to Action" initiatives including pilot "upset recovery" training and improvement of runway safety by requiring training in critical runway

safety issues. The proposed requirements also implement numerous safety recommendations from the National Transportation Safety Board.

The Objectives and Legal Basis for the Rule

The objective of the rule is to enhance crewmember and aircraft dispatcher training programs by including additional training requirements in areas that are critical to safety. The proposed changes are intended to contribute significantly to reducing aviation accidents and improving crewmember and dispatcher performance.

The legal basis for the rule is 49 U.S.C. 44701 *et seq.,* which provides that for regulations related to airmen certification, the FAA must consider the duty of an air carrier to provide service with the highest possible degree of safety in the public interest. The FAA must also consider, as a matter of policy, reducing or eliminating the possibility of recurrence of accidents in air transportation (49 U.S.C. 44701(c)).

Projected Reporting, Recordkeeping and Other Requirements

We expect no more than minimal new reporting and recordkeeping compliance requirements to result from this final rule. Costs for the associated labor constitute a burden under the Paperwork Reduction Act and are accounted for in the preamble to the final rule.

Overlapping, Duplicative, or Conflicting Federal Rules

We are unaware that the proposed rule will overlap, duplicate or conflict with existing Federal Rules.

- Each final regulatory flexibility analysis shall also contain a description of any significant alternatives to the final rule which accomplish the stated objectives of applicable statutes and which minimize any significant economic impact of the final rule on small entities.
- A summary of significant issues raised by public comments in response to the initial regulatory flexibility analysis and how the agency resolved those comments.
- The type and number of small entities to which the rule will apply.

Under the RFA, the FAA must determine whether a proposed rule significantly affects a substantial number of small entities. This determination is typically based on small entity size and cost thresholds that vary depending on the affected industry.

Using the size standards from the Small Business Administration for Air Transportation and Aircraft Manufacturing, we defined companies as small entities if they have fewer than 1,500 employees.

This proposed rule would become final in 2010 and fully effective in 2015. Our forecasts do not have the granularity to determine if an operator will still be in business or will still remain a small business entity. Therefore we will use 2008 U.S. operator's employment and annual revenue in order to determine the number of operators this proposal would affect.

For this analysis, we considered the economic impact of this proposed rule on small-business part 121 and 121/135 operators. We obtained a list of part 121 and 121/135 U.S. operators from the FAA Flight Standards Service NVIS database. Using information provided by the U.S. Department of Transportation Form 41 filings we obtained company revenue and employment for each of the part 121 and 121/135 U.S. operators.

Using the methodology discussed above we determined of the 98 part 121 and 121/135 U.S. operators could be affected by the rule. Of the 98 operators, there are 55 that reported annual employment and operating revenue data. Of the 55 air carriers that reported annual employment data, 31 air carriers meet the SBA size standard of small business of 1,500 employees. Of the 31 air carriers that meet the SBA size standard of small business, there are three operators who do not have traditional pilot training programs who would not be affected by the proposal. Therefore, there are 28 air carriers that meet the SBA size standard of small business and are affected by the proposal.

Due to the sparse amount of publicly available data on internal company financial statistics for small entities, it is not feasible to estimate the total population of small entities affected by this proposed rule.

Cost and Affordability for Small Entities

To assess the proposed rule's cost impact to small business part 121 and 121/135 operators, we determined the incremental amount of additional time this proposal would add for training.

The FAA used the hourly wages, including benefits, of flight crew member as a basis to estimate costs. We expected the additional training requirements would also result in additional travel for training. We also contacted industry and determined that additional simulators would need to be purchased and training facilities would need to be either built or expanded. In order to maintain confidentiality of the operators who provided costs estimates for the increased simulator and training facilities, we summed the incremental costs of this proposal and then calculated an average cost by flight crew member.

We estimated each operator's total compliance cost by multiplying the average cost by flight crew member by the number of flight crew members for each of the 28 air carriers that meet the SBA size standard of small business of 1,500 employees. We then measured the economic impact on small entities by dividing the estimated compliance cost by each of the 28 small entity's annual revenue.

The proposal's cost is estimated to be greater than two percent of annual revenue for nine of the 28 small entity operators.

Thus the FAA has determined that a substantial number of small entities will be significantly affected by the rule.

Business Closure Analysis

Since many of the other commercial small business air operator firms do not make their annual revenue publicly available, it is difficult to assess the financial impact of this final rule on their business. To fully assess whether this final rule could force a small entity into bankruptcy requires more financial information than is publicly available.

In the NPRM, the FAA requested comment, with supportive justification, to determine the degree of hardship, and feasible alternative methods of compliance, the final rule will have on these small entities. We did not receive comment specific to this request.

Disproportionality Analysis

The disproportionately higher impact of the final rule on small operators may result in disproportionately higher costs to small operators because the FAA does not intend on this proposal to affect operators with Advance Qualification Program (AQP) pilot training programs. Currently, due to the voluminous amount of data that is required to be collected, most operators that train under AQP pilot training programs are large entities employing over 1,500 people. Although a small operator may apply for an AQP pilot training program, many choose to remain under the traditional Federal Aviation Regulations and would therefore be affected by this proposal. Based on the percent of potentially affected current operators, small U.S. business operators with traditional pilot training programs

may bear a disproportionate impact from the final rule.

Competitive Analysis

The aviation industry is an extremely competitive industry with slim profit margins. The number of operators who entered the industry and have stopped operations because of mergers, acquisitions, or bankruptcy litters the history of the aviation industry.

As mentioned in the Disproportionality Analysis, many small entities currently train their pilots under the traditional Federal Aviation Regulations and would be affected by this proposal. With the exception of one major operator, every major operator current trains their pilots under an AQP program and would not be affected by this proposal. Therefore, many of the small entity operators would incur a significant cost from this proposal, while larger operators would not.

In this competitive industry, cost increases imposed by this regulation will be hard to recover by raising prices. This factor makes it difficult for the small operators to recover their compliance costs by raising prices. If small operators cannot recover all the additional costs imposed by this regulation, market shares could shift to the large operators.

Small operators successfully compete in the aviation industry by providing unique services and controlling costs. To the extent the affected small entities operate in niche markets, this enhances small entity's ability to pass on costs. Overall, in terms of competition, this rulemaking reduces small operator's ability to compete.

Significant issues raised by public comments in response to the initial regulatory flexibility analysis for the NPRM.

The only significant issue raised by public comments in response to the initial regulatory flexibility analysis for the NPRM was from the Regional Airline Association (RAA). The RAA contended that the FAA is obligated under the Regulatory Flexibility Act to consider alternatives for small businesses and the adoption of current Advanced Qualification Program (AQP) is one of those alternatives.

The NPRM did consider two alternatives for small entities. The first alternative was to mandate a 12-month recurrent training cycle for small entities. The second alternative was to extend the final compliance date to 7 years for small entities. The FAA concluded for both alternatives that it would be contrary to our policy for one high level of safety in all part 121 operations to exclude certain operators simply because they are small entities.

Subpart Y of part 121 provides an alternative method (known as "AQP") for qualifying, training, certifying, and otherwise ensuring competency of crewmembers, aircraft dispatchers, other operations personnel, instructors, and evaluators who are required to be trained under parts 121 and 135 of this chapter. With FAA approval, Subpart Y of part 121 allows a certificate holder (operator) the ability to voluntarily elect to have their flight crewmembers or dispatchers train under AQP.

Analysis of Alternatives

The FAA considered alternatives to the rule for the small air carriers. A discussion of these alternatives follows.

Alternative 1—12-Month Recurrent Training Cycle for Small Entities

Currently, PICs train every 6 months and SICs train every 12 months. The FAA could extend the recurrent training cycle for PICs working for small entities to 12 months to coincide with current SIC recurrent training cycles, instead of proposing to require PICs and SICs to attend recurrent training on a 9-month training cycle. This would result in cost savings for small entities. Again, in the proposal the FAA has required improvements that would reduce human error among crewmembers and aircraft dispatchers, particularly in situations with special hazards. Reducing the training cycle for PICs to a 12-month cycle is contrary to the purpose of this rulemaking.

In the proposal, the FAA has required improvements that would reduce human error among crewmembers and aircraft dispatchers, particularly in situations with special hazards because these problems are equally incurred by all part 121 air carriers, regardless of size, it would be contrary to our policy for one high level of safety in all part 121 operations to exclude certain operators simply because they are small entities. Thus, the FAA does not accept this alternative.

Alternative 2—Extending the Final Compliance Date to 7 Years for Small Entities

Extending the final compliance date from 5 years to 7 years for small entities reduces the costs to small entities. Under this alternative, the FAA expects that the projected annualized cost of the rule would still be significant for some of the 20 operators studied.

In the proposal, the FAA has required improvements that would reduce human error among crewmembers and aircraft dispatchers, particularly in situations with special hazards. Because these requirements would address problems equally incurred by all part 121 air carriers, regardless of size, it would be contrary to our policy for one high level of safety in all part 121 operations to exclude certain operators simply because they are small entities. Thus, the FAA does not accept this alternative.

Alternative 3—The NPRM

Accepting the preamble and rule language from the NPRM and moving forward with a final rule.

From the comments and the FAA meeting with industry it was apparent that the NPRM was not clear and concise. Industry commented that the rule language was unclear and could cause major costs to occur. Also, although it was not the intention of the FAA for this proposal to affect operators with AQP training programs, industry commented that they believed the NPRM would have a major impact on operators with AQP training programs.

Alternative 4—AQP Pilot Training Program

All operators can choose to adopt the AQP training program. Thus far, most of the larger operators have AQP pilot training programs. This alternative is available for all operators affected by this proposal.

The FAA rejected alternatives 1, 2, and 3 and note that all operators can choose to be subject to the AQP pilot training program.

International Trade Impact Assessment

The Trade Agreements Act of 1979 (Pub. L. 96–39), as amended by the Uruguay Round Agreements Act (Pub. L. 103–465), prohibits Federal agencies from establishing standards or engaging in related activities that create unnecessary obstacles to the foreign commerce of the United States. Pursuant to these Acts, the establishment of standards is not considered an unnecessary obstacle to the foreign commerce of the United States, so long as the standard has a legitimate domestic objective, such the protection of safety, and does not operate in a manner that excludes imports that meet this objective. The statute also requires consideration of international standards and, where appropriate, that they be the basis for U.S. standards. The FAA has assessed the potential effect of this proposed rule and determined the objective is safety and is not considered an unnecessary obstacle to foreign commerce of the United States.

Unfunded Mandates Assessment

Title II of the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4) requires each Federal agency to prepare a written statement assessing the effects of any Federal mandate in a proposed or final agency rule that may result in an expenditure of $100 million or more (in 1995 dollars) in any one year by State, local, and Tribal governments, in the aggregate, or by the private sector; such a mandate is deemed to be a "significant regulatory action." The FAA currently uses an inflation-adjusted value of $143.1 million in lieu of $100 million. This proposed rule does contain such a mandate; therefore, the requirements of Title II of the Act do apply. We considered three alternatives to the rule, as described above, and four alternatives in the regulatory flexibility analysis described above.

Executive Order 13132, Federalism

The FAA has analyzed this proposed rule under the principles and criteria of Executive Order 13132, Federalism. The agency has determined that this action would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government, and, therefore, would not have federalism implications.

Environmental Analysis

FAA Order 1050.1E identifies FAA actions that are categorically excluded from preparation of an environmental assessment or environmental impact statement under the National Environmental Policy Act in the absence of extraordinary circumstances. The FAA has determined this proposed rulemaking action qualifies for the categorical exclusion identified in paragraph 312f and involves no extraordinary circumstances.

Regulations That Significantly Affect Energy Supply, Distribution, or Use

The FAA has analyzed this NPRM under Executive Order 13211, Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use (May 18, 2001). The agency has determined that while it is a "significant regulatory action" under Executive Order 12866 and DOT's Regulatory Policies and Procedures, it is not a "significant energy action" under the executive order and is not likely to have a significant adverse effect on the supply, distribution, or use of energy.

Additional Information

Comments Invited

The FAA invites interested persons to participate in this rulemaking by submitting written comments, data, or views. It also invites comments relating to the economic, environmental, energy, or federalism impacts that might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, please send only one copy of written comments, or if you are filing comments electronically, please submit your comments only one time.

The agency will file in the docket all comments it receives, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. Before acting on this proposal, it will consider all comments it receives on or before the closing date for comments. The FAA will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. The FAA may change this proposal in light of the comments it receives.

Proprietary or Confidential Business Information

Do not file in the docket information that you consider to be proprietary or confidential business information. Send or deliver this information directly to the person identified in the **FOR FURTHER INFORMATION CONTACT** section of this document. You must mark the information that you consider proprietary or confidential. If you send the information on a disk or CD–ROM, mark the outside of the disk or CD–ROM and also identify electronically within the disk or CD–ROM the specific information that is proprietary or confidential.

Under 14 CFR 11.35(b), when the FAA is aware of proprietary information filed with a comment, it does not place it in the docket. The agency holds it in a separate file to which the public does not have access, and places a note in the docket that it has received it. If the FAA receives a request to examine or copy this information, it treats it as any other request under the Freedom of Information Act (5 U.S.C. 552). The FAA processes such a request under the DOT procedures found in 49 CFR part 7.

Availability of Rulemaking Documents

You can get an electronic copy of rulemaking documents using the Internet by—Searching the Federal eRulemaking Portal (*http://www.regulations.gov*); Visiting the FAA's Regulations and Policies Web page at *http://www.faa.gov/regulations_policies* or Accessing the Government Printing Office's Web page at *http://www.gpoaccess.gov/fr/index.html*.

You can also get a copy by sending a request to the Federal Aviation Administration, Office of Rulemaking, ARM–1, 800 Independence Avenue, SW., Washington, DC 20591, or by calling (202) 267–9680. Make sure to identify the docket number, notice number, or amendment number of this rulemaking.

You may access all documents the FAA considered in developing this proposed rule, including economic analyses and technical reports, from the Internet through the Federal eRulemaking Portal referenced in paragraph (1).

List of Subjects

14 CFR Part 65

Aircraft, Airmen, Aviation safety, Reporting and recordkeeping requirements.

14 CFR Part 119

Administrative practice and procedure, Air carriers, Aircraft, Aviation safety, Reporting and recordkeeping requirements.

14 CFR Part 121

Air carriers, Aircraft, Aviation safety, Reporting and recordkeeping requirements, Safety, Transportation.

14 CFR Part 135

Air taxis, Aircraft, Airmen, Aviation safety, Reporting and recordkeeping requirements.

14 CFR Part 142

Administrative practice and procedure, Airmen, Educational facilities, Reporting and recordkeeping requirements, Schools, Teachers.

The Proposed Amendment

In consideration of the foregoing, the Federal Aviation Administration proposes to amend Chapter 1 of Title 14, Code of Federal Regulations (CFR) parts 65, 119, 121, 135, and 142, as follows:

PART 65—CERTIFICATION: AIRMEN OTHER THAN FLIGHT CREWMEMBERS

1. The authority citation for part 65 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701–44703, 44707, 44709–44711, 45102–45103, 45301–45302.

2. Amend § 65.57 by revising the introductory text and adding paragraph (c) to read as follows:

§ 65.57 Experience or training requirements.

An applicant for an aircraft dispatcher certificate must present documentary evidence satisfactory to the Administrator that he or she has the experience prescribed in paragraph (a) of this section or has accomplished the training described in paragraph (b) of this section or has completed a dispatcher training program in accordance with paragraph (c) of this section as follows:

* * * * *

(c) Successfully completed an aircraft dispatcher training program approved in accordance with subpart CC of part 121 of this chapter.

3. Amend § 65.70 by revising the introductory text of paragraph (a) to read as follows:

§ 65.70 Aircraft dispatcher certification courses: Records.

(a) The operator of an aircraft dispatcher certification course set forth under appendix A of this part must maintain a record for each student, including a chronological log of all instructors, subjects covered, and course examination and results. The record must be retained for at least 3 years after graduation. The course operator must also prepare for its records, and transmit to the Administrator not later than January 31 of each year, a report containing the following information for the previous year:

* * * * *

PART 119—CERTIFICATION: AIR CARRIERS AND COMMERCIAL OPERATORS

4. The authority citation for part 119 continues to read as follows:

Authority: 49 U.S.C. 106(g), 1153, 40101, 40102, 40103, 40113, 44105, 44106, 44111, 44701–44717, 44722, 44901, 44903, 44904, 44906, 44912, 44914, 44936, 44938, 46103, 46105.

5. Amend § 119.65 by revising the section heading and adding paragraph (a)(6) to read as follows:

§ 119.65 Management and technical personnel required for operations conducted under part 121 of this chapter.

(a) * * *

(6) At least one line qualified check pilot, and, if appropriate, at least one check flight engineer, for each aircraft make and model and aircraft type for which the certificate holder has more than five pilots. A check pilot or check flight engineer may hold the additional position of Director of Safety, Director of Operations, or Chief Pilot, if the check pilot or check flight engineer meets the requirements of the additional position. Compliance with this paragraph (a)(6) is required no later than [date 5 years and 120 days after publication of the final rule].

* * * * *

6. Amend § 119.67 by adding paragraph (f) to read as follows:

§ 119.67 Management personnel: Qualifications for operations conducted under part 121 of this chapter.

* * * * *

(f) To serve as a check pilot or check flight engineer for an aircraft type under § 119.65(a) a person must be qualified in accordance with §§ 121.1251, 121.1253, and 121.1255 of this chapter. Compliance with this paragraph (f) is required no later than [date 5 years and 120 days after publication of the final rule].

7. Amend § 119.69 by adding paragraph (a)(4) to read as follows:

§ 119.69 Management personnel required for operations conducted under part 135 of this chapter.

(a) * * *

(4) A line qualified check pilot or check flight engineer for each aircraft make and model and aircraft type for which the certificate holder has more than five pilots and is required to have, or elects to have, an approved training program under part 121 of this chapter. A check pilot or check flight engineer can hold the additional position of Director of Safety, Director of Operations, or Chief Pilot, if the check pilot or check flight engineer meets the requirements of the additional position. Compliance with this paragraph (a)(4) is required no later than [date 5 years and 120 days after publication of the final rule].

* * * * *

8. Amend § 119.71 by redesignating paragraphs (e) and (f) as paragraphs (f) and (g) respectively, and adding a new paragraph (e) to read as follows:

§ 119.71 Management personnel: Qualifications for operations conducted under part 135 of this chapter.

* * * * *

(e) To serve as a check pilot for an aircraft make and model and aircraft type under § 119.69 a person must be qualified in accordance with § 121.1251 of this chapter. Compliance with this paragraph (e) is required no later than [date 5 years and 120 days after publication of the final rule].

* * * * *

PART 121—OPERATING REQUIREMENTS: DOMESTIC, FLAG, AND SUPPLEMENTAL OPERATIONS

9. The authority citation for part 121 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 40119, 44101, 44701–44702, 44705, 44709–44711, 44713, 44716–44717, 44722, 44901, 44903–44904, 44912, 46105.

10. Revise § 121.1(c) to read as follows:

§ 121.1 Applicability.

* * * * *

(c) Each person who applies for initial or provisional approval of an Advanced Qualification Program curriculum, curriculum segment, or portion of a curriculum under subpart Y of this part and each person employed or used by a person authorized to conduct operations under this part to perform training, qualification, or evaluation functions in accordance with an Advanced Qualification Program under subpart Y of this part.

* * * * *

11. Add § 121.9 to read as follows:

§ 121.9 Fraud, falsification, or incorrect statements.

(a) No person may make, or cause to be made, any of the following:

(1) A fraudulent or intentionally false statement in any application or any amendment thereto, or in any other record or test result required by this part or by any QPS associated with this part.

(2) A fraudulent or intentionally false statement in, or a known omission from, any record or report that is kept, made, or used to show compliance with this part or with any QPS associated with this part, or to exercise any privileges under this chapter.

(b) The commission by any person of any act prohibited under paragraph (a) of this section is a basis for any one or any combination of the following:

(1) A civil penalty.

(2) Suspension or revocation of any certificate held by that person that was issued under this chapter.

(3) The denial of an application for approval of a training program established under this part.

(4) The removal of approval for a training program established under this part.

(c) The following may result in denial of an application or removal of approval for a training program established under this part:

(1) An incorrect statement, upon which the FAA relied or could have relied, made in support of an application for approval of a training program.

(2) An incorrect entry, on which the FAA relied or could have relied, made in any training records or test results required to be kept, made, or used to show compliance with any requirement of this part or with any QPS associated with this subpart.

(d) Compliance with the requirements of this section is required no later than [date 5 years and 120 days after publication of the final rule].

12. Amend § 121.125 by adding paragraph (e) to read as follows:

§ 121.125 Flight following system.

* * * * *

(e) Compliance with this section is not required on or after [date 5 years and 120 days after publication of the final rule].

13. Add § 121.126 to read as follows:

§ 121.126 Flight following system.

Compliance with this section is required no later than [insert date 5 years and 120 days after publication of the final rule].

(a) Each certificate holder conducting supplemental operations must show that it has—

(1) An approved flight following system established in accordance with subpart U of this part and adequate for the proper monitoring of each flight, considering the operations to be conducted; and

(2) Flight following centers located at those points necessary—

(i) To ensure the proper monitoring of the progress of each flight with respect to its departure at the point of origin and arrival at its destination, including intermediate stops and diversions therefrom, and maintenance or mechanical delays encountered at those points or stops; and

(ii) To ensure that the pilot in command is provided with all information necessary for the safety of the flight.

(b) A certificate holder conducting supplemental operations must use aircraft dispatchers qualified in accordance with the requirements in subpart CC of this part. A certificate holder may request a deviation from the employment requirement in § 121.1411(a) provided the certificate holder meets the requirements of § 121.1411(b).

(c) The certificate holder's operations specifications specify the flight following system it is authorized to use and the location of the centers.

14. Revise § 121.127(a)(1) introductory text to read as follows:

§ 121.127 Flight following system; requirements.

(a) * * *

(1) The system has adequate facilities and the personnel required by either § 121.125 or § 121.126 to provide the information necessary for the initiation and safe conduct of each flight to—

* * * * *

15. Amend § 121.133 by adding paragraph (c) to read as follows:

§ 121.133 Preparation.

* * * * *

(c) Compliance with this section is not required on or after [date 5 years and 120 days after publication of the final rule].

16. Add § 121.134 to read as follows:

§ 121.134 Preparation of manuals.

(a) Each certificate holder must prepare and keep current a manual for the use and guidance of flight and ground operations, and management personnel in conducting its operations.

(b) The certificate holder may prepare the manual, in whole or in part, in printed form or other form acceptable to the Administrator. The manual must include the instructions and information necessary to allow crewmembers and aircraft dispatchers to perform their required safety-related duties and responsibilities with the highest possible degree of safety. The manual, and any changes, must be approved by the Administrator and contain the following:

(1) A Flight Attendant Operating Manual (FAOM) that addresses the safety-related duties and responsibilities for each aircraft type operated by the certificate holder in operations under this part.

(2) A Flightcrew Member Operating Manual (FCOM) that addresses the safety-related duties and responsibilities for each aircraft type operated by the certificate holder in operations under this part.

(3) An Aircraft Dispatcher Procedures Manual (ADPM) that addresses the safety-related duties and responsibilities for all types of operations and, if required, the aircraft types,

(c) Compliance with the requirements of this section is required no later than [date 5 years and 120 days after publication of final rule].

17. Amend § 121.135 by adding introductory text, to read as follows:

§ 121.135 Manual contents.

Compliance with this section is not required on or after [date 5 years and 120 days after publication of the final rule].

* * * * *

18. Add § 121.136 to read as follows

§ 121.136 Manual contents.

(a) Each manual required by § 121.134 must—

(1) Include instructions and information necessary to allow the personnel concerned to perform their duties and responsibilities with a high degree of safety;

(2) Be in a form that is easy to revise;

(3) Have the date of last revision on each page concerned; and

(4) Not be contrary to any applicable Federal regulation and, in the case of a flag or supplemental operation, any applicable foreign regulation, or the certificate holder's operations specifications or operating certificate.

(b) The manual may be in two or more separate parts, containing together all of the following information, but each part must contain that part of the information that is appropriate for each group of personnel:

(1) General policies.

(2) Duties and responsibilities of each crewmember, appropriate members of the ground organization, and management personnel.

(3) Reference to appropriate Federal Aviation Regulations.

(4) Flight dispatching and operational control, including procedures for coordinated dispatch or flight control or flight following procedures, as applicable.

(5) En route flight, navigation, and communication procedures, including procedures for the dispatch or release or continuance of flight if any item of equipment required for the particular type of operation becomes inoperative or unserviceable en route.

(6) For domestic or flag operations, appropriate information from the en route operations specifications, including for each approved route the types of airplanes authorized, the type of operation such as VFR, IFR, day, night, *etc.,* and any other pertinent information.

(7) For supplemental operations, appropriate information from the operations specifications, including the area of operations authorized, the types of airplanes authorized, the type of operation such as VFR, IFR, day, night, *etc.,* and any other pertinent information.

(8) Appropriate information from the airport operations specifications, including for each airport—

(i) Its location (domestic and flag operations only);

(ii) Its designation (regular, alternate, provisional, *etc.*) (domestic and flag operations only);

(iii) The types of airplanes authorized (domestic and flag operations only);

(iv) Instrument approach procedures;

(v) Landing and takeoff minimums; and

(vi) Any other pertinent information.

(9) Takeoff, en route, and landing weight limitations.

(10) For ETOPS, airplane performance data to support all phases of these operations.

(11) Procedures for familiarizing passengers with the use of emergency equipment, during flight.

(12) Emergency equipment and procedures.

(13) The method of designating succession of command of flightcrew members.

(14) Procedures for determining the usability of landing and takeoff areas, and for disseminating pertinent information thereon to operations personnel.

(15) Procedures for operating in periods of ice, hail, thunderstorms, turbulence, or any potentially hazardous meteorological condition.

(16) Each training program curriculum required by § 121.1333.

(17) Instructions and procedures for maintenance, preventive maintenance, and servicing.

(18) Time limitations, or standards for determining time limitations, for overhauls, inspections, and checks of airframes, engines, propellers, appliances and emergency equipment.

(19) Procedures for refueling aircraft, eliminating fuel contamination, protection from fire (including electrostatic protection), and supervising and protecting passengers during refueling.

(20) Airworthiness inspections, including instructions covering procedures, standards, responsibilities, and authority of inspection personnel.

(21) Methods and procedures for maintaining the aircraft weight and center of gravity within approved limits.

(22) Where applicable, pilot and dispatcher route and airport qualification procedures.

(23) Accident notification procedures.

(24) For passenger flag operations and for those supplemental operations that are not all-cargo operations outside the 48 contiguous States and Alaska,

(i) For ETOPS greater than 180 minutes a specific passenger recovery plan for each ETOPS Alternate Airport used in those operations, and

(ii) For operations in the North Polar Area and South Polar Area a specific passenger recovery plan for each diversion airport used in those operations.

(25)(i) Procedures and information, as described in paragraph (b)(25)(ii) of this section, to assist each crewmember and person performing or directly supervising the following job functions involving items for transport on an aircraft:

(A) Acceptance;

(B) Rejection;

(C) Handling;

(D) Storage incidental to transport;

(E) Packaging of company material; or

(F) Loading.

(ii) Ensure that the procedures and information described in this paragraph are sufficient to assist the person in identifying packages that are marked or labeled as containing hazardous materials or that show signs of containing undeclared hazardous materials. The procedures and information must include:

(A) Procedures for rejecting packages that do not conform to the Hazardous Materials Regulations in 49 CFR parts 171 through 180 or that appear to contain undeclared hazardous materials;

(B) Procedures for complying with the hazardous materials incident reporting requirements of 49 CFR 171.15 and 171.16 and discrepancy reporting requirements of 49 CFR 175.31

(C) The certificate holder's hazmat policies and whether the certificate holder is authorized to carry, or is prohibited from carrying, hazardous materials; and

(D) If the certificate holder's operations specifications permit the transport of hazardous materials, procedures and information to ensure the following:

(*1*) That packages containing hazardous materials are properly offered and accepted in compliance with 49 CFR parts 171 through 180;

(*2*) That packages containing hazardous materials are properly handled, stored, packaged, loaded, and carried on board an aircraft in compliance with 49 CFR parts 171 through 180;

(*3*) That the requirements for Notice to the Pilot in Command (49 CFR 175.33) are complied with; and

(*4*) That aircraft replacement parts, consumable materials or other items regulated by 49 CFR parts 171 through 180 are properly handled, packaged, and transported.

(26) Each task specified in each of the crewmember and aircraft dispatcher Qualification Performance Standards (QPS) must be tailored to the specific aircraft type as provided in the FAOM, FCOM, or ADPM and must be trained or evaluated as indicated in the appropriate QPS.

(27) Each FCOM must also include the contents described in § 23.1581(a)(1) or § 25.1581(a)(1) of this chapter, as appropriate for the specific aircraft type.

(28) Other information or instructions relating to safety.

(c) Each certificate holder shall maintain at least one complete copy of the manual at its principal base of operations.

(d) Compliance with the requirements of this section is required no later than [date 5 years and 120 days after publication of the final rule].

19. Revise § 121.141 to read as follows:

§ 121.141 Airplane flight manual.

Each certificate holder must keep a current approved Airplane Flight Manual for each type of airplane that it operates except for nontransport category aircraft certificated before January 1, 1965.

20. Add § 121.392 to read as follows:

§ 121.392 Personnel identified as flight attendants.

(a) Any person identified by the certificate holder as a flight attendant on an aircraft in operations under this part must be trained and qualified in accordance with subpart BB of this part. This includes:

(1) Flight attendants provided by the certificate holder in excess of the number required by § 121.391(a) and (b);

(2) Flight attendants provided by the certificate holder on an aircraft having a passenger seating capacity of 9 or less; and

(3) Flight attendants provided by the certificate holder on an aircraft with a payload capacity of 7,500 pounds or less and a passenger seating capacity of 19 or less.

(b) A qualifying flight attendant who is gaining aircraft operating experience on an aircraft in operations under this part must be identified to passengers as a qualifying flight attendant.

(c) Compliance with the requirements of this section is required no later than [date 5 years and 120 days after publication of final rule].

§ 121.393 [Amended]

21. Amend § 121.393(a) introductory text and (b)(2) by removing the reference to "§ 121.417" in both paragraphs and adding in its place "§ 121.1373 or 121.417, as applicable."

22. Amend § 121.400 by adding paragraph (d) and a note to paragraph (d), to read as follows:

§ 121.400 Applicability and terms used.

* * * * *

(d) Except for § 121.429, the provisions of this subpart, and Appendices E, F, and H of this part, expire on [date 5 years and 120 days after publication of the final rule]. After [date 5 years and 120 days after publication of the final rule], all training programs must be established and maintained in accordance with the provisions in subparts BB and CC of this part, or in accordance with the certificate holder's approved Advanced Qualification Program under subpart Y of this part.

NOTE TO PARAGRAPH (D): See §§ 121.1202 and 121.1402 for provisions outlining the process for transitioning from training programs established in accordance with subparts N, O, and P of this part, to the training program requirements provided in subparts BB and CC of this part.

23. Amend § 121.431 by adding paragraph (c), and a note to paragraph (c), to read as follows:

§ 121.431 Applicability.

* * * * *

(c) Except for §§ 121.455, 121.457, 121.458, and 121.459, the provisions of this subpart, and Appendices E, F, and H of this part, expire on [date 5 years and 120 days after publication of the final rule]. After [date 5 years and 120 days after publication of the final rule], all training programs must be established and maintained in accordance with the provisions in subparts BB and CC of this part, or in accordance with the certificate holder's approved Advanced Qualification Program under subpart Y of this part.

Note to paragraph (c): See §§ 121.1202 and 121.1402 for provisions outlining the process for transitioning from training programs established in accordance with subparts N, O, and P of this part, to the training program requirements provided in subparts BB and CC of this part.

24. Amend § 121.465 by revising paragraphs (b) and (c) to read as follows:

§ 121.465 Aircraft dispatcher duty time limitations: Domestic and flag operations.

* * * * *

(b) Except as provided in paragraph (c) of this section, no certificate holder may assign an aircraft dispatcher and no aircraft dispatcher may accept an assignment for duty time that exceeds 10 consecutive hours of duty.

(1) If an aircraft dispatcher is scheduled for more than 10 hours of duty in 24 consecutive hours, the aircraft dispatcher must have a rest period of at least 8 hours at or before the end of 10 hours of duty.

(2) Each aircraft dispatcher must be relieved of all duty with the certificate holder for at least 24 consecutive hours during any seven consecutive days or the equivalent thereof within any calendar month.

(c) An aircraft dispatcher is not considered to be scheduled for duty in excess of the limitations in paragraph (b) of this section if the duty time is exceeded due to circumstances or emergency conditions beyond the control of the certificate holder.

26. Add § 121.536 to read as follows:

§ 121.536 Responsibility for operational control: Supplemental operations.

Compliance with this section is required no later than [date 5 years and 120 days after publication of final rule].

(a) Each certificate holder conducting supplemental operations—

(1) Is responsible for operational control; and

(2) Must list each person authorized by it to exercise operational control in its operator's manual.

(b) The pilot in command and the aircraft dispatcher are jointly responsible for the preflight planning, delay, and flight release of a flight in compliance with this chapter and operations specifications.

(c) The aircraft dispatcher is responsible for—

(1) Monitoring the progress of each flight;

(2) Issuing necessary instructions and information for the safety of the flight; and

(3) Cancelling or redispatching a flight if, in his opinion or the opinion of the pilot in command, the flight cannot operate or continue to operate safely as planned or released.

(d) Each pilot in command of an aircraft is, during flight time, in command of the aircraft and crew and is responsible for the safety of the passengers, crewmembers, cargo, and aircraft. The pilot in command has full control and authority in the operation of the aircraft, without limitation, over other crewmembers and their duties during flight time, whether or not he holds valid certificates authorizing him to perform the duties of those crewmembers.

(e) Each pilot in command of an aircraft is responsible for the preflight planning and the operation of the flight in compliance with this chapter and the operations specifications.

(f) No pilot may operate an aircraft, in a careless or reckless manner, so as to endanger life or property.

27. Add introductory text to § 121.537, to read as follows:

§ 121.537 Responsibility for operational control: Supplemental operations.

Compliance with this section is not required on or after [date 5 years and 120 days after publication of the final rule].

* * * * *

28. Add § 121.540 to read as follows:

§ 121.540 Manual procedures requirements.

Each crewmember must perform the safety-related duties and tasks that satisfy regulatory requirements contained in the manual required by § 121.134, and each certificate holder must ensure that each crewmember is trained and checked in the respective safety-related duties and responsibilities contained in the manual required by § 121.134. The information, instructions, duties, and responsibilities must include standard operating procedures, abnormal procedures, non-normal procedures, emergency procedures, airplane performance, and airplane limitations. Compliance with this section is required no later than [date 5 years and 120 days after publication of the final rule].

29. Amend § 121.543 by adding paragraph (c), to read as follows:

§ 121.543 Flightcrew members at controls.

* * * * *

(c) The requirements of this section will expire on [5 years and 120 days after publication of the final rule]. After [date 5 years and 120 days after publication of the final rule], the requirements of § 121.1241 apply.

30. Revise § 121.553 to read as follows:

§ 121.553 Restriction or suspension of operation: Supplemental operations.

When a certificate holder conducting supplemental operations or pilot in command knows of conditions, including airport and runway conditions, that are a hazard to safe operations, the certificate holder, pilot in command, or other individual authorized to exercise operational control, must restrict or suspend operations until those conditions are corrected.

31. Amend § 121.597 by revising paragraph (b) to read as follows:

§ 121.597 Flight release authority: Supplemental operations.

* * * * *

(b) No person may start a flight unless the pilot in command and the person authorized by the operator to exercise operational control over the flight have executed a flight release setting forth the conditions under which the flights will be conducted. The pilot in command may sign the flight release only when he and the person authorized by the operator to exercise operational control

believe that the flight can be made with safety.

* * * * *

32. Revise § 121.623 to read as follows:

§ 121.623 Alternate airport for destination: IFR or over-the-top: Supplemental operations.

(a) Except as provided in paragraphs (b) and (c) of this section, each person releasing an aircraft for operation under IFR or over-the-top shall list at least one alternate airport for each destination airport in the flight release.

(b) Provided a certificate holder meets the requirements of § 121.126, for domestic operations, no alternate airport is required if for at least 1 hour before and 1 hour after the estimated time of arrival at the destination airport the appropriate weather reports or forecasts, or any combination of them, indicate—

(1) The ceiling will be at least 2,000 feet above the airport elevation; and

(2) Visibility will be at least 3 miles.

(c) An alternate airport need not be designated for IFR or over-the-top operations where the aircraft carries enough fuel to meet the requirements of §§ 121.643 and 121.645 for flights outside the 48 contiguous States and the District of Columbia over routes without an available alternate airport for a particular airport of destination.

(d) For the purposes of paragraph (a) of this section, the weather requirements at the alternate airport must meet the requirements of the certificate holder's operations specifications.

(e) No person may release a flight unless he lists each required alternate airport in the flight release.

33. Amend § 121.683, by adding introductory text to read as follows:

§ 121.683 Crewmember and dispatcher record.

Compliance with this section is not required on and after [date 5 years and 120 days after publication of the final rule].

* * * * *

34. Add § 121.684 to read as follows:

§ 121.684 Crewmember and dispatcher record.

Compliance with this section is required no later than [date 5 years and 120 days after publication of the final rule].

(a) Each certificate holder must maintain current records for each crewmember and dispatcher in accordance with the following requirements:

(1) The records must show whether the crewmember or aircraft dispatcher complies with the applicable sections of this chapter, including proficiency and route checks, airplane and route qualifications, training, and all required physical examinations, flight time, and duty and rest periods.

(2) Training records must include qualifications, instruction, certificate and ratings, and satisfactory proficiency evaluations. For flightcrew members, the training records must also include both satisfactory and unsatisfactory performance evaluations, as well as comments and evaluations made by a check person designated under §§ 121.1251, 121.1271, 125.295, or 135.337 of this chapter.

(3) For flightcrew members and aircraft dispatchers, records must show any disciplinary action that was taken with respect to the individual that was not later overturned.

(4) For flightcrew members and aircraft dispatchers, records must show any release from employment or resignation, termination, or disqualification with respect to employment.

(b) Except for records on flight time, and duty and rest periods, crewmember and aircraft dispatcher records must be maintained for at least 5 years.

(c) Each certificate holder conducting supplemental operations must maintain the records required by this section at its principal base of operations, or at another location used by it and approved by the Administrator.

(d) Computer record systems approved by the Administrator may be used in complying with the requirements of this section.

35. Amend § 121.689 by adding paragraph (d) to read as follows:

§ 121.689 Flight release form: Supplemental operations.

* * * * *

(d) Compliance with this section is not required on or after [date 5 years and 120 days after publication of final rule].

36. Add § 121.690 to read as follows:

§ 121.690 Flight release form: Supplemental operations.

Compliance with this section is required no later than [date 5 years and 120 days after publication of the final rule].

(a) The flight release may be in any form but must contain at least the following information concerning each flight:

(1) Identification number of the aircraft.

(2) Trip number.

(3) Departure airport, intermediate stops, destination airports, and alternate airports.

(4) A statement of the type of operation (*e.g.,* IFR, VFR).

(5) Minimum fuel supply.

(6) For each flight released as an ETOPS flight, the ETOPS diversion time for which the flight is released.

(7) Signatures of the pilot in command and dispatcher.

(b) The flight release must contain, or have attached to it, weather reports, available weather forecasts, or a combination thereof, for the destination airport, intermediate stops, and alternate airports, that are the latest available at the time the release is signed by the pilot in command and dispatcher. It may include any additional available weather reports or forecasts that the pilot in command or the aircraft dispatcher considers necessary or desirable.

37. Revise § 121.711 to read as follows:

§ 121.711 Communication records: Domestic, flag, and supplemental operations.

(a) Each certificate holder conducting domestic, flag, or supplemental operations must record each en route radio contact between the certificate holder and its pilots, and must keep that record for at least 30 days. The record must contain at least the following information:

(1) The date and time of the contact;

(2) The flight number;

(3) Aircraft registration number;

(4) Approximate position of the aircraft during the contact;

(5) Call sign; and

(6) Narrative of the contact.

(b) Compliance with § 121.711(a)(1) through (a)(6) is required no later than [date 120 days after publication of the final rule].

38. Amend § 121.805 by revising paragraph (b)(5)(iii) and adding paragraph (b)(5)(iv) to read as follows:

§ 121.805 Crewmember training for in-flight medical events.

* * * * *

(b) * * *

(5) * * *

(iii) Recurrent training, to include performance drills, in the proper use of an automated external defibrillator and in cardiopulmonary resuscitation at least once every 24 months. Compliance with this paragraph is not required on or after [date 5 years and 120 days after publication of the final rule].

(iv) Recurrent training, to include performance drills, in the proper use of an automated external defibrillator and in cardiopulmonary resuscitation at least once every 12 months. Compliance with this requirement is required no

later than [date 5 years and 120 days after publication of the final rule].

* * * * *

§ 121.901 [Amended]

39. Amend § 121.901(b) by removing the reference to "§ 121.401" and adding in its place "§ 121.1331, or the provisions of subpart N and O of this part, as applicable".

§ 121.909 [Amended]

40. Amend § 121.909(d) by removing the reference to "§ 121.405(e)" and adding in its place "§ 121.1337(e) or § 121.405, as applicable".

41. Add subpart BB to part 121, consisting of §§ 121.1201 through 121.1387, to read as follows:

Subpart BB—Requirements for Qualification, Service, and Use of Crewmembers

General

Sec.

121.1201 Applicability.
121.1202 Interim requirements for training programs transitioning from the requirements of subparts N and O of this part.
121.1203 Certificate holder responsibility for compliance with this subpart.
121.1205 Definitions.
121.1206 Designation of related aircraft.
121.1207 Certification requirements: Crewmembers, flight instructors, check pilots, check captain, and check flight engineers.
121.1209 English language requirement.
121.1211 Medical certificate requirements.
121.1213 Pilot monitoring (not flying) duties.
121.1215 Modification of training program.

Flightcrew Member

121.1221 Flightcrew member: Training and evaluation.
121.1223 Flightcrew member: Recurrent training and evaluation schedule for continuing qualification.
121.1225 Flightcrew member: Operating experience.
121.1227 Pilot: Consolidation.
121.1229 Pilot: Recent experience.
121.1230 Deviation from §§ 121.1225, 121.1227, and 121.1229.
121.1231 Flight engineer: Recent experience.
121.1233 Line checks.
121.1235 Pilot: Routes and airports.
121.1237 Pilot: Operating limitations and crew pairing.
121.1239 Flightcrew member: Requalification.
121.1241 Flightcrew members at controls.

Check Pilot and Check Flight Engineer Qualification

121.1251 Eligibility: Check pilot, check flight engineer, Aircrew Program Designee (APD), and Flight Instructor.
121.1253 Check pilot and check flight engineer: Training, evaluation, approval, and recent experience.
121.1255 IOE Pilot: Additional training requirements.
121.1257 Check airmen: Initial cadre.

Aircrew Program Designee Qualification

121.1271 Aircrew Program Designee (APD): Training, evaluation, and recent experience.

Flight Instructor Qualification

121.1281 Instructor (Academic and Job Performance): Training, evaluation and recent experience.

Flight Attendant Instructor Qualification

121.1291 Flight attendant instructor: Qualification and training.

Flight Attendant

121.1301 Flight attendant: Training and evaluation.
121.1303 Flight attendant: Continuing qualification.
121.1305 Flight attendant: Aircraft operating experience.
121.1309 Flight attendant: Requalification.

Check Flight Attendant Qualification

121.1321 Check flight attendant: Eligibility, approval, qualification, and continuing qualification.
121.1323 Check flight attendant: Initial cadre.

General Training Program Requirements

121.1331 Training program: General.
121.1333 Training program: General curriculum requirements.
121.1335 Training program: Curriculum category programmed hours.
121.1337 Training program: Approval and amendment process.
121.1339 Training program: Contract training requirements.
121.1341 Training program: Individuals administering training or evaluation and unauthorized use of equipment and facilities in training programs.
121.1343 Training program: Academic evaluation.
121.1345 Training program: Mandatory use of flight simulation training devices.
121.1349 Training program: Limitations on the use of flight simulation training devices.
121.1351 Training program: Training equipment other than flight simulation training devices.
121.1353 Training program: Line Oriented Flight Training (LOFT) and Full Flight Simulator (FFS) Course of Instruction.
121.1355 Training program: Continuous analysis process.

Curriculum Category Requirements

121.1363 Curriculum category requirements: Crewmember new hire.
121.1365 Curriculum category requirements: Pilot and flight engineer initial, conversion, transition, and upgrade, academic and job performance training.
121.1367 Curriculum category requirements: Pilot and flight engineer recurrent academic, recurrent job performance, and recurrent aircraft emergency equipment training and evaluation.
121.1369 Curriculum category requirements: Flight attendant initial and transition training.
121.1371 Curriculum category requirements: Flight attendant eligibility for transition training.
121.1373 Curriculum category requirements: Flight attendant emergency training.
121.1375 Curriculum category requirements: Flight attendant recurrent training.
121.1377 Curriculum category requirements: Flight instructor initial, transition, and recurrent academic training.
121.1379 Curriculum category requirements: Flight instructor initial and transition job performance training.
121.1381 Curriculum category requirements: Check pilot, check flight engineer, or check flight attendant initial, transition, and recurrent academic training.
121.1383 Curriculum category requirements: Check pilot and check flight engineer initial, transition, and recurrent job performance training.
121.1387 Curriculum category requirements: Initial, transition, and recurrent academic training for persons authorized to administer flight attendant proficiency tests.

Subpart BB—Requirements for Qualification, Service, and Use of Crewmembers

General

§ 121.1201 Applicability.

(a) This subpart prescribes the following:

(1) Requirements for qualification, service, and use for:

(i) Persons who serve in operations under this part as crewmembers, flight instructors, check pilots, check flight engineers, aircrew program designees (APDs), designated flight engineer examiners, flight attendant instructors, check flight attendants, or persons authorized to conduct flight attendant proficiency tests.

(ii) Persons who serve in operations under part 135 of this chapter for a certificate holder that is permitted or required by § 135.3 of this chapter to conduct training curriculums in compliance with this subpart.

(2) Requirements applicable to each certificate holder for establishing, obtaining approval of, and maintaining a training program, for crewmembers, flight instructors, check pilots, check flight engineers, APDs, designated flight engineer examiners, flight attendant instructors, check flight attendants, and persons authorized to conduct flight attendant proficiency tests, who serve under this part.

(3) Requirements applicable to persons other than the certificate

holder's employees who are used by the certificate holder to assist in meeting the certificate holder's responsibilities under this subpart.

(b) Any person qualified in a duty position for the certificate holder before [date 120 days after publication of the final rule], or qualified under the provisions in subparts N and O of this part, may continue to serve in that duty position for that certificate holder without complying with new hire training under § 121.1363, initial training under § 121.1365 or § 121.1369, operating experience under § 121.1305, or emergency training under § 121.1373.

(c) Any person qualified in a training or evaluation position, for the certificate holder before [date 120 days after publication of the final rule], or qualified under the provisions in subparts N and O of this part, may continue to serve in that training or evaluation position for that certificate holder during the transition to the requirements of this subpart.

§ 121.1202 Interim requirements for training programs transitioning from the requirements of subparts N and O of this part.

(a) Contrary provisions of this subpart notwithstanding, a person who has submitted a training program for approval before [date 120 days after publication of the final rule] that was constructed in accordance with the applicable provisions of subparts N and O of this part in effect on or before [date 119 days after publication of the final rule], may complete the approval and implementation process and conduct operations in compliance with the applicable provisions of subparts N and O of this part instead of the provisions of this subpart BB.

(b) A certificate holder must submit a transition plan to the FAA no later than [date 4 years and 120 days after publication of the final rule]. The transition plan must include the following:

(1) Subpart BB training program(s), as applicable.

(2) Plan for transition for crewmembers and persons involved in training or evaluation of crewmembers from the provisions of subparts N and O to the provisions of this subpart.

(3) A transition completion date that is before [date 5 years and 120 days after the publication of the final rule].

(c) During the transition, the certificate holder may use people to conduct operations under this part provided those people are trained under the applicable provisions of subparts N and O of this part, or this subpart. While a certificate holder may simultaneously operate training programs in compliance with the applicable provisions of subparts N and O of this part and this subpart, each individual (crewmember or aircraft dispatcher) must be trained and qualified under the requirements of either the applicable provisions of subparts N and O of this part, or the applicable provisions of this subpart.

(d) The certificate holder may not use a crewmember, nor may a crewmember serve, in a duty position unless that person is current and qualified to perform the duties to which he or she is assigned. If, during the operation of the aircraft, one required crewmember is current and qualified in accordance with the appropriate provisions of subparts N and O of this part, and another required crewmember is current and qualified in accordance with this subpart, the lesser qualification requirements apply for that duty position for that operation.

(e) For certificate holders who have an approved AQP curriculum under subpart Y of this part, or have applied for approval of a training program under subpart Y of this part on or before [date 119 days after publication of the final rule], these certificate holders must submit a revision to the Qualification Standards Document as prescribed under § 121.909(b)(4), indicating specifically the provisions of this subpart BB and subpart CC of this part that would be replaced by the AQP curriculum. The certificate holder must provide a justification and a continuing process approved by the FAA to show how the AQP curriculum provides an equivalent level of safety for each requirement of this subpart BB and subpart CC of this part that is to be replaced by the AQP curriculum. This document must be submitted before [date 5 years and 120 days after the publication of the final rule], and will be subject to review and FAA approval under § 121.909.

§ 121.1203 Certificate holder responsibility for compliance with this subpart.

Responsibility for compliance with the requirements of this subpart applies as follows:

(a) Each certificate holder is responsible for ensuring that its approved training program, including all portions of the training program conducted by persons other than the part 119 certificate holder's employees, meets the requirements of this subpart.

(b) Each certificate holder is responsible for ensuring that all training program procedures, manuals, and other materials submitted for initial or final approval are kept up to date.

(c) Each certificate holder is responsible for ensuring that all training and evaluation is completed in accordance with the requirements of this subpart. Training or evaluation that does not meet the definition of complete, as used in this subpart, must be repeated to ensure that the requirements of this subpart are met.

§ 121.1205 Definitions.

For the purpose of this subpart, the following terms and their definitions apply: *Academic evaluation.* This is a written, oral, or electronic test of the knowledge obtained during academic training.

Academic training. This is instruction and practice that provides individuals with the required knowledge and cognitive skills necessary to perform the tasks required for the crewmember duty position, instructor, or evaluator duty position.

Actual fire. A fire fueled by ignited combustible material, in controlled conditions, of sufficient magnitude and duration to complete crewmember training requirements for the firefighting drill as contained in the Pilot QPS, Flight Engineer QPS, and Flight Attendant QPS.

Aircrew Program Designee (APD). An employee of the certificate holder who is authorized to perform airman certification on behalf of the FAA, in one type of aircraft for the certificate holder's flightcrew members who have been trained under the certificate holder's FAA-approved training program.

Airplane Flight Manual (AFM). A document that contains aircraft operating limitations, operating procedures, and performance information. The FAA may review and approve amendments to the operating limitations section of the AFM. Amendments to the AFM that are adopted via Airworthiness Directives are enforceable by the FAA.

Approved fire extinguisher device. A training device that has been approved by the FAA for use in meeting crewmember training requirements for operation of a specific type of aircraft installed hand fire extinguisher as contained in the Pilot QPS, Flight Engineer QPS, and Flight Attendant QPS.

Approved protective breathing equipment (PBE) device. A training device that has been approved by the FAA for use in meeting crewmember training requirements for operation of a specific type of protective breathing equipment as contained in the Pilot, Flight Engineer, and Flight Attendant QPS.

Base month. The month in which a recurrent activity is due.

Basic Qualification (flight attendant). All requirements that a person must complete prior to working his or her first flight for a certificate holder as a flight attendant. It includes the following curriculum categories: new hire, initial, emergency, and differences, as applicable, as well as aircraft operating experience.

Certificate holder. A person certificated under part 119 of this chapter that conducts operations under part 121, or a person certificated under part 119 of this chapter that conducts operations under part 135 of this chapter and is permitted or required by § 135.3 of this chapter to conduct training curriculums in compliance with this subpart.

Check airman (flight engineer). A person who is qualified and authorized by the FAA to conduct flight engineer training and evaluation required by this part and certifies the proficiency and knowledge of those flight engineers receiving the training and evaluation.

Check airman (pilot). A person who is qualified and authorized by the FAA to conduct flight training and evaluation required by this part and certifies the proficiency and knowledge of those pilots receiving the training and evaluation.

Check flight attendant. A person who meets the qualification and training requirements for a check flight attendant and is authorized to evaluate a person who is completing aircraft operating experience as required by the Flight Attendant QPS.

Check person. A person who meets the training and qualification requirements to serve as an aircrew program designee, check pilot, check flight engineer, or check flight attendant.

Combat. To properly fight an actual fire or simulated fire using an appropriate type of fire extinguisher until that fire is extinguished.

Complete. To fully carry out the training or evaluation required by this subpart, including being eligible to receive or administer the training or evaluation, and demonstrating the required level of proficiency. In addition, for flightcrew members, performing the training or evaluation in a flight simulation training device (FSTD) appropriately qualified in accordance with the requirements of part 60 of this chapter.

Consolidation. The process by which a person through practice and practical experience increases proficiency in newly acquired knowledge and skills.

Conversion. A curriculum category used to qualify a flightcrew member when that person has qualified and served in that crewmember position on the same aircraft type for another certificate holder conducting operations under this part.

Crewmember Duty Position. A crewmember duty position is a pilot in command, second in command, flight engineer, or flight attendant serving in operations under this part.

Current. Current means satisfying the recency of experience requirements prescribed in § 121.1229 or § 121.1231.

Currently Serving. Currently serving means current and qualified as defined in this subpart.

Curriculum. A curriculum is the category or categories of training and evaluation required to qualify a person for a crewmember duty position, or an instructor or evaluator duty position for an aircraft type. The curriculum includes the categories of training and evaluation, the programmed hours for training and evaluation, and the appropriate subjects, tasks and maneuvers.

Curriculum category. Parts of a curriculum that relate to qualification experience levels, first time qualification for a certificate holder, first time qualification in group (applicable to flightcrew members), configuration differences within type or series, maintaining and regaining qualification, and changes in operations. Curriculum categories include: new hire, initial, transition, conversion, upgrade, emergency, differences, recurrent, requalification, and special. Each curriculum category contains academic training and evaluation, and job performance training and evaluation, as required.

Differences. A curriculum category that establishes training and evaluation requirements, as appropriate, for a particular aircraft type when the FAA finds additional training, or training and evaluation, is necessary before a person serves in the same capacity on a particular variation within a series of an aircraft type or a different series within an aircraft type.

Eligibility Period. The eligibility period consists of the month in which the recurrent activity is due (the "base month"), the month before and the month after (the "grace month").

Emergency training (flight attendant). A curriculum category that qualifies flight attendants to conduct emergency procedures, operate emergency equipment, and enhance passenger and crewmember survivability.

Environment. A combination of external, physical, and surrounding conditions that affect aircraft performance, aircraft and equipment operation, and decisionmaking.

Evaluation. Any testing or checking, in which a person's knowledge and skills are assessed by a person authorized to perform that evaluation.

Exit device. Exit device means emergency exit doors, plugs, and hatches, including window exits, floor level exits, tailcone exits, ventral stairs, flight deck exits, and any other exit designed for passenger or crewmember egress from the aircraft.

Flight Attendant Jumpseat. A flight attendant jumpseat is a seat located in the cabin of an aircraft that meets the requirements of § 121.311(g).

Flight Attendant Operating Manual (FAOM). An FAA-approved document that includes the instructions and information necessary to allow the flight attendant to perform his or her required safety related duties and responsibilities with the highest possible degree of safety. The FAOM contains standard operating procedures, abnormal or non-normal procedures, and emergency procedures.

Flight instructor. A person authorized by the FAA to conduct flight training required by this part and certifies the proficiency and knowledge of those flightcrew members receiving that training. Flight instructors include pilot flight instructors and flight engineer flight instructors.

Flight simulation training device (FSTD). A Full Flight Simulator (FFS) or a Flight Training Device (FTD).

Flight tasks. The maneuvers and procedures necessary to operate the aircraft in various phases of flight operations and environments.

Flight Training Device (FTD). A replica of aircraft instruments, equipment, panels, and controls in an open flight deck area or an enclosed aircraft flight deck replica. It includes the equipment and computer programs necessary to represent aircraft (or set of aircraft) operations in ground and flight conditions having the full range of capabilities of the systems installed in the device as described in part 60 of this chapter and the qualification performance standard (QPS) for a specific FTD qualification level.

Flightcrew Member Operating Manual (FCOM). An FAA-approved document that includes the instructions and information necessary to allow a flightcrew member to perform his or her required safety related duties and responsibilities with the highest possible degree of safety. The FCOM contains standard operating procedures, abnormal or non-normal procedures, and emergency procedures. The FCOM

also contains information such as ground and flight operations tasks, flight deck checklists, systems descriptions, and evacuation procedures.

Full Flight Simulator (FFS). A replica of a specific type, make, model, or series aircraft. It includes the equipment and computer programs necessary to represent aircraft operations in ground and flight conditions, a visual system providing an out-of-the-flight deck view, a system that provides cues at least equivalent to those of a three-degrees-of-freedom motion system, and has the full range of capabilities of the systems installed in the device as described in part 60 of this chapter and the QPS for a specific FFS qualification level.

Full Flight Simulator (FFS) course of instruction. A session of training conducted in an FFS with a complete flightcrew that provides an opportunity to practice the tasks and operate in the environments addressed in the Pilot QPS, and other appropriate areas as determined by the certificate holder. This session of training requires the person conducting the session to ensure that any lack of competency seen in a member of the flightcrew is corrected prior to that person serving in line operations.

Group. A broad categorization of aircraft based on propulsion methods. Group I is propeller driven, including reciprocating powered and turbopropeller powered. Group II is turbojet powered.

Head-Up Display/Head-Up Guidance System (HUD/HGS). An aircraft system which provides head-up guidance to the pilot during flight. It includes the display element, sensors, computers, and power supplies, indications and controls. It may receive inputs from an airborne navigation system or flight guidance system.

Initial Cadre. The specific persons approved by the FAA for the start-up time frame necessary, not to exceed 24 months, for a new part 119 certificate holder to initiate operations under part 119 of this chapter, or for a current part 119 certificate holder to initiate operations of a new aircraft type not operated previously or to initiate a new type of operation.

Initial (flight attendant). A curriculum category required to qualify a person to serve as a flight attendant on an aircraft type when the person has not served as a flight attendant for at least 180 days in operations under this part for the certificate holder.

Initial (flight instructors, check persons, flight attendant instructors, and persons authorized to conduct flight attendant proficiency tests). A curriculum category that is required to qualify a person to serve for the first time for the certificate holder as a flight instructor, check person, flight attendant instructor, and a person authorized to conduct flight attendant proficiency tests.

Initial (flightcrew member). A curriculum category of training used to qualify a flightcrew member when that person has not qualified and served in that crewmember position on another airplane type in the same group.

Initial Operating Experience (IOE) Pilot. A person qualified as pilot in command who is current and qualified on the navigation system necessary for the route to be flown and the aircraft on which he or she will be supervising operating experience, and who is specifically approved by the FAA for supervising operating experience.

Job performance evaluation. For flightcrew members, this is a check or test of the skills obtained during job performance training conducted in an aircraft, in a flight simulation training device approved under part 60 of this chapter, or in another training device approved under this part. For flight attendants, this is a check or test of the skills obtained during job performance training conducted in a training device approved under this part or in a classroom.

Job performance training. For flightcrew members, this is instruction, practice, and review conducted in an aircraft, in a flight simulation training device approved under part 60 of this chapter, or in another training device approved under this part. For flight attendants, this is instruction and practice conducted in a training device approved under this part or in a classroom. This training provides individuals with the practical, hands on experience of integrating knowledge and skills, and learning the related motor skills necessary to perform the job.

Line flight time. Flight time performed in operations under this part.

Line Oriented Flight Training (LOFT). Training conducted in a full flight simulator (FFS) with a complete flightcrew using representative flight segments that contain procedures that may be expected in line flight time. The LOFT includes real-time scenarios that address routine, abnormal, and emergency situations and provides training in crew resource management.

(1) A qualification LOFT is a LOFT session conducted to facilitate the transition from a structured flight training syllabus environment to a representation of line flight time.

(2) A recurrent LOFT is a LOFT session conducted to meet periodic recurrent job performance training requirements.

Line Qualified. Qualified to serve as a flightcrew member in operations under this part.

LOFT Environment Training. Training in a FFS with a complete flightcrew using procedures expected in line operations but without the use of simulator resets or repositioning. This training is used primarily for the maintenance or regaining of landing currency and, therefore, is not required to meet the time requirements of other LOFT scenarios.

Month. Calendar month.

New Hire training. A curriculum category required to qualify a person to serve as a crewmember for the first time for the certificate holder under this part

Observation Drill. Observation drill means a drill where a person watches without actively participating in the training or evaluation.

Observer Seat. An observer seat is a seat on the flight deck, or a forward passenger seat with headset or speaker that provides adequate visibility of the flight controls, instruments, and external views.

Operating cycle. A complete flight segment consisting of the time from push back/power back, taxi out, takeoff, climb, en route portion, descent, landing, taxi in, parking, and shutdown.

Practice. A physical or verbal exercise of skills in an instructor led environment that encourages interaction among participants for the specific area of knowledge.

Procedure. A procedure is a step-by-step method used to complete a specific task. Types of procedures are:

(1) *Standard operating procedure.* A procedure associated with systems that are functioning in their usual manner.

(2) *Abnormal or Non-normal operating procedure.* A procedure associated with systems that are not functioning in their usual manner and that require crewmember action for continued safe flight and landing.

(3) *Emergency procedure.* A procedure requiring immediate crewmember action to protect the aircraft and occupants from serious harm.

Proficiency. Demonstrated awareness of existing circumstances, competence in the necessary knowledge and skill, and performance of the relevant task (maneuver or procedure) within the operating range of environments to the standards identified and required by the appropriate QPS.

Proficiency check (PC). An assessment of crewmember proficiency during which limited training or practice is allowed. The assessment is of

knowledge and skill in tasks to the standards identified and required by the appropriate QPS. The proficiency check must be conducted by a check person.

Proficiency test (PT). An assessment of crewmember proficiency during which additional training or practice is not allowed. The assessment is of knowledge and skill in tasks to the standards identified and required by the appropriate QPS. For flightcrew members, when a proficiency test is not for the purpose of obtaining an airman certificate or rating, it may be conducted by a check pilot or an APD. When a proficiency test is conducted for the purpose of obtaining an airman certificate or rating, it must be conducted by an APD or an FAA Aviation safety inspector. For flight attendants, the proficiency test may only be conducted by a person authorized to administer flight attendant proficiency tests or an FAA Aviation safety inspector.

Programmed hours. The academic and job performance hours set forth in this subpart for curriculum categories.

Protective Breathing Equipment (PBE) drill. An emergency drill in which a crewmember combats an actual fire or simulated fire while using PBE.

Qualification Performance Standards (QPS). FAA standards providing all of the tasks and areas of training and evaluation, including activities, procedures, and knowledge needed to qualify a person to serve under this part. The QPSs are in part 121 appendices as follows: Appendix Q: Pilot Qualification Performance Standards; appendix R: Flight Engineer Qualification Performance Standards; appendix S: Flight Attendant Qualification Performance Standards; and appendix T, Aircraft Dispatcher Qualification Performance Standards.

Qualified. Qualified, when used in reference to an individual, means:

(1) For a flight attendant crewmember duty position or a flight attendant training or evaluation duty position, an individual who has completed the certificate holder's FAA-approved curriculum for the aircraft type to serve in that position under this part.

(2) For a flightcrew member duty position or a flightcrew member training or evaluation duty position, an individual who has completed the certificate holder's FAA-approved curriculum for the aircraft type to serve in that position under this part and holds the appropriate U.S. medical certificate and airman certificates and ratings.

Recurrent. A curriculum category that must be completed to enable a qualified person to continue to serve in a crewmember duty position or a training or evaluation duty position for the certificate holder under this part.

Recurrent Flight Attendant Cycle. The 12-month period in which required tasks are trained and evaluated in accordance with the Flight Attendant QPS.

Related Aircraft. Any two or more aircraft of the same make with either the same or different type certification data sheets that have been demonstrated and determined to have commonality to the extent that credit between those aircraft may be applied for training, testing, checking, recency of experience, or operating experience, as authorized by the FAA.

Requalification. A curriculum category required to allow crewmembers to become qualified again to serve in a crewmember duty position for the certificate holder in operations under this part.

Serve. To perform the duties and discharge the responsibilities required under this part.

Simulated fire. An artificial duplication of smoke or flame used to create various aircraft firefighting scenarios, such as lavatory, galley oven, and aircraft seat fires.

Special training. A category of training necessary to address changes to the certificate holder's operations or to correct deficiencies identified by the certificate holder's continuous analysis process. Special training is temporary and is integrated into the approved training program.

Training. Instruction, practice or review.

Training center evaluator. An individual who meets the requirements of § 142.55 of this chapter.

Training or evaluation duty position. Flight instructors, flight attendant instructors, check persons, IOE captains, and persons authorized to conduct flight attendant proficiency tests.

Training program. A certificate holder's training curriculums, personnel, facilities, equipment, and other resources used to meet the training requirements under this subpart.

Transition (check persons and persons authorized to conduct flight attendant proficiency tests). A curriculum category required to qualify check persons and persons authorized to conduct flight attendant proficiency tests to serve in a training or evaluation duty position on an aircraft type for the certificate holder when they have previously served in the same training or evaluation duty position on a different aircraft type in the same group for that certificate holder.

Transition (flight attendants). A curriculum category that allows a flight attendant to qualify on an aircraft type if the flight attendant has been qualified for at least 180 days and served in the previous 180 days on an aircraft as a flight attendant for that certificate holder.

Transition (flightcrew members). A curriculum category used to qualify a flightcrew member when that person has qualified and served in that crewmember position on another aircraft in the same group.

Upgrade. A curriculum category required to qualify flightcrew members as either PIC or SIC in an aircraft in which they have been previously qualified and served as SIC or flight engineer, respectively, for that certificate holder.

§ 121.1206 Designation of related aircraft.

In order to seek approval of a training program under § 121.1215(b), or a deviation under § 121.1230, a certificate holder must submit an application for related aircraft designation, and obtain approval of that application. The application must be submitted through the FAA office responsible for approval of the certificate holder's operations specifications, to the Division Manager of the Air Transportation Division of Flight Standards Service.

§ 121.1207 Certification requirements: Crewmembers, flight instructors, check pilots, check captain, and check flight engineers.

No certificate holder may use any person, nor may any person serve, as a crewmember, flight instructor, check pilot, check captain, or check flight engineer in a training program or in operations under this part, unless that person meets the following requirements, as applicable:

(a) *Pilots.* (1) For pilots serving as pilot in command, or as second in command of an aircraft that requires three or more pilots in a flag or supplemental operation, a pilot must hold an airline transport pilot certificate and an appropriate type, category, and class rating for that aircraft.

(2) For pilots serving as second in command of an aircraft that requires only two pilots in flag operations or in international supplemental operations, a pilot must hold at least a commercial pilot certificate with appropriate type, category, and class ratings for that aircraft, and an instrument rating.

(3) For pilots serving as second in command of an aircraft in domestic operations, a pilot must hold at least a commercial pilot certificate with appropriate category and class ratings

for that aircraft, and an instrument rating.

(b) *Flight engineers.* To serve as a flight engineer, a person must hold a flight engineer certificate with the appropriate aircraft class rating.

(c) *Flight instructors, check pilots, check captains, and check flight engineers.* No person may use, nor may any person serve, as a flight instructor, check pilot, check captain, or check flight engineer in a training program or in operations under this part, with respect to the aircraft type involved, unless the person holds the airman certificates and ratings required to serve as a pilot in command or flight engineer, as applicable, in operations under this part.

(d) *Flight attendant.* A person is considered to hold a Certificate of Demonstrated Proficiency and is eligible to serve as a flight attendant once the Administrator is notified by a certificate holder that the person has the demonstrated proficiency to be a flight attendant.

(e) *Certification of persons currently serving.* A person who is currently serving as a pilot or flight engineer for the certificate holder or a person who is engaged in training and evaluation activities for the certificate holder (as described in § 121.1331(d)) may be issued the appropriate certificate or type rating if that person meets the following requirements:

(1) The applicable eligibility, aeronautical knowledge, and experience required by part 61 or part 63 of this chapter.

(2) The applicable training requirements of this subpart.

(3) The proficiency test requirements of § 121.1365(b)(1). The FAA or an APD must administer the proficiency test.

§ 121.1209 English language requirement.

(a) No certificate holder may use any person, nor may any person serve, as a flightcrew member, flight attendant, or person acquiring flight attendant operating experience in operations under this part, unless that person has demonstrated to an individual qualified to conduct evaluations under this part, that he or she can:

(1) Read, write, speak, and understand the English language.

(2) Have his or her English language and verbal and written communications understood.

(b) Compliance with this section may be shown by:

(1) Completion of a certificate holder's approved training program conducted solely in English, or

(2) An airman certificate with an English language endorsement.

§ 121.1211 Medical certificate requirements.

(a) No certificate holder may use any person, nor may any person serve, on an aircraft as a required flightcrew member in operations under this part unless that person has a valid medical certificate required by § 61.23 or § 63.31 of this chapter, as appropriate for the duty being performed.

(b) No medical certificate is required to serve in an FSTD.

§ 121.1213 Pilot monitoring (not flying) duties.

Each pilot who is seated at the pilot controls of the aircraft or FSTD, while not flying the aircraft or FSTD, is required to accomplish pilot monitoring duties as appropriate in accordance with the FCOM. Pilot monitoring duties are subject to the same oversight and evaluation as pilot flying duties.

§ 121.1215 Modification of training program.

(a) *Differences: Modification of training program.* If the certificate holder finds that differences exist between the aircraft on which a crewmember will serve as a required crewmember and an aircraft of the same type or series aircraft on which the crewmember has satisfactorily completed qualification training, the certificate holder must consider the differences between the aircraft of the same type and report such differences to the Administrator. The report must include recommendations for the training necessary to ensure that each crewmember is adequately trained to perform their assigned duties. Differences training and evaluation for crewmembers must consist of at least the following as applicable to their assigned duties and responsibilities:

(1) Each appropriate subject or task required for the academic training and evaluation for the aircraft unless the Administrator finds that particular subjects are not necessary.

(2) Each appropriate maneuver or procedure required for the job performance training and evaluation for the aircraft unless the Administrator finds that particular maneuvers or procedures are not necessary.

(3) The number of programmed hours of academic and job performance training and evaluation determined by the Administrator to be necessary for the aircraft, the operation, and the duty position. The programmed hours required for differences training and evaluation are in addition to other required programmed hours.

(b) *Modification of flightcrew member training program based on related aircraft classification.* (1) If the FAA determines under § 121.1206 that a certificate holder is operating related aircraft, the certificate holder may submit a request for approval of a training program that includes modifications of the flightcrew member training program requirements specified in §§ 121.1221, 121.1223, and 121.1239, and the applicable QPS requirements. The request for approval must include the following:

(i) Each appropriate subject or task required for the academic training and evaluation for the related aircraft.

(ii) Each appropriate maneuver or procedure required for the job performance training and evaluation for the related aircraft.

(iii) The number of programmed hours of academic and job performance training and evaluation necessary based on review of the related aircraft, the operation, and the duty position.

(iv) For recurrent curriculum category, provide for the 9-month cycle as prescribed under 121.1223, and ensure, during each cycle, that the individual is provided all of the following:

(A) Job performance training on one of the related aircraft;

(B) Applicable academic or job performance training for the differences, as determined by the FAA, on that aircraft and the other aircraft determined to be related; and

(C) Evaluation for the aircraft on which the individual did not receive the job performance training during that same 9-month cycle.

(2) The request for approval must be submitted to the certificate holding district office and a copy sent to the Director of Flight Standards Service.

Flightcrew Member

§ 121.1221 Flightcrew member: Training and evaluation.

(a) *Requirements to serve as a flightcrew member.* Except as approved by the FAA under § 121.1215(b), no certificate holder may use any person, nor may any person serve, as a required flightcrew member in operations under this part unless that person has completed the required curriculum for the appropriate training categories for the aircraft type and crewmember duty position, including the programmed hours for training and evaluation, as specified in § 121.1335, the appropriate QPS, and the following curriculum categories:

(1) New hire, as prescribed in § 121.1363.

(2) Initial, conversion, transition, or upgrade, as prescribed in § 121.1365, as applicable.

(3) Differences, if necessary, as prescribed in § 121.1215(a).

(4) Recurrent, as prescribed in § 121.1367, according to the schedule prescribed in § 121.1223.

(5) Requalification if necessary, as prescribed in § 121.1239.

(6) Special, if necessary, as prescribed in § 121.1337.

(b) *Continuity of training and evaluation.* Within 120 days of beginning qualification a person must have completed in the following order:

(1) The required new hire academic and job performance training and evaluation as described in paragraph (a)(1) of this section, if the person is qualifying for the first time for the certificate holder.

(2) The required initial, conversion, transition, or upgrade academic and job performance training and evaluation described in paragraph (a)(2) of this section, as applicable; and differences as described in paragraph (a)(3) of this section, if applicable.

(3) A proficiency test as prescribed in § 121.1365(b)(1).

(4) A qualification LOFT as prescribed in § 121.1365(b)(2).

(c) *Failure to complete the academic and job performance training and evaluation prescribed in paragraph (b) of this section within 120 days.* If a person fails to complete the required training and evaluation curriculum category within the 120 days, as required by paragraph (b) of this section, the person must repeat the entire academic and job performance training and evaluation requirements of the curriculum category.

(d) *Requirements to complete job performance training: Complete flightcrew.* Except as provided in paragraph (e) of this section, and as provided in paragraph (d)(3) of this section allowing for the absence of a flight engineer in an airplane requiring a flight engineer, a complete flightcrew is required for flightcrew member job performance training and evaluation under this part. Each pilot flightcrew member duty position must be filled by a person prescribed in paragraph (d)(1) or (d)(2) of this section.

(1) A student training to serve in that crewmember duty position; or

(2) Another person qualified to serve in that duty position, as follows.

(i) A line qualified crew member;

(ii) A check pilot;

(iii) An IOE pilot;

(iv) A flight instructor;

(v) An APD;

(vi) A simulator-only instructor;

(vii) A designated relief pilot authorized to relieve a pilot serving in that crewmember duty position; or

(viii) Another individual qualified to occupy that seat.

(ix) To be considered "qualified" to serve in the duty position under paragraph (d)(2) of this section, a medical certificate is not required to serve in the FSTD in accordance with § 121.1211(b)(2).

(3) For aircraft certificated for two pilots and a flight engineer: When using an FSTD, at the discretion of the instructor, after the flight engineer completes the minimum hours of job performance training, flightcrew member job performance training, on specific piloting tasks may be conducted without the flight engineer duty position being filled. In these situations, the FSTD flight engineer panel must be properly set for the pilot training tasks and must not require further monitoring or adjustment. The flight engineer is required for job performance evaluation.

(4) Substitution for complete flight crew: job performance training only.

(i) If a certificate holder is not able to meet the complete flightcrew requirements of paragraphs (d)(1) through (2) of this section for planned job performance training, the certificate holder must submit a request for approval of an amendment to the training program. The request for amendment must be submitted to the certificate holding district office at least 30 days prior to the planned job performance training. That request must include at least the following:

(A) A justification for granting the amendment, including reasons why the requirements of paragraphs (d)(1) through (2) of this section cannot be met.

(B) The proposed composition of the training crews for the planned job performance training.

(C) The duration of the amendment, which must not exceed the time necessary to complete the planned job performance training.

(ii) If, due to circumstances beyond the control of the certificate holder (such as unexpected illness of an individual, unsuccessful training progression, transportation issues, simulator mechanical failure), a complete flight crew as prescribed in paragraphs (d)(1) through (2) of this section is not available for job performance training, the certificate holder may allow students training for the same duty position to function as a complete flight crew. If the certificate holder allows for substitution under this paragraph, the certificate holder must notify the certificate holding district office within 30 days of the substitution.

(e) *Completion of programmed hours.* Notwithstanding the requirements for programmed hours of academic or job performance training set forth in this subpart, the programmed hours for the curriculum categories described in paragraphs (a)(2) and (a)(3) of this section are not required to be completed by the individual flightcrew member provided that flightcrew member has:

(1) Demonstrated satisfactory knowledge in each academic area applicable to the crewmember position involved to a qualified instructor at least once during training and the instructor has determined that the flightcrew member is knowledgeable and may take the knowledge test; or

(2) Demonstrated satisfactory skill on each of the tasks applicable to the crewmember position involved to a qualified instructor or check pilot at least once during training and the instructor or check pilot has determined that the flightcrew member is proficient on each applicable task, and may take the proficiency check or test.

§ 121.1223 Flightcrew member: Recurrent training and evaluation schedule for continuing qualification.

(a) Except as provided in § 121.1215(b), to serve as a flightcrew member, a person must complete the recurrent training and evaluation for each aircraft type, as prescribed in § 121.1367, in accordance with the associated programmed hours specified in § 121.1335 and the requirements in the applicable QPS, by the end of the eligibility period.

(b) The eligibility period includes the month before and the month following the base month. The base month is one of the following:

(1) The ninth month following the month during which the proficiency test required in § 121.1365(b)(1) is completed.

(2) The ninth month following the month in which the proficiency test authorized in § 121.1239 is completed.

(3) The ninth month following the completion of the recurrent academic and job performance training and evaluation when adjusting the base month in accordance with § 121.1223(f).

(c) A flightcrew member who has not completed recurrent curriculum category by the end of the base month may continue to serve until the end of the eligibility period. However, if the recurrent curriculum category is not completed during the eligibility period, the person is unqualified for that flightcrew member duty position on the first day of the month following the eligibility period. The unqualified person may not serve in that flightcrew member duty position until the person completes the applicable phase of the

requalification curriculum category in accordance with § 121.1239.

(d) Whenever a flightcrew member who is required to take recurrent training or evaluation, completes the training or evaluation in the calendar month before or after the calendar month in which that training or evaluation is required, he or she is considered to have completed the training or evaluation in the calendar month in which it was required.

(e) Except as provided in paragraph (f) of this section, time required to complete recurrent training:

(1) *Academic training.* A flightcrew member may initiate recurrent academic training at any time during the recurrent cycle.

(2) *Job performance training.* A flightcrew member must initiate job performance training within the eligibility period.

(i) Once flight training is initiated, it must end within 96 hours from the beginning of the training.

(ii) A flightcrew member may initiate recurrent aircraft emergency equipment training drills at any time during the recurrent cycle.

(f) A certificate holder may adjust a base month established in paragraph (b) of this section by requiring the person to complete the required recurrent academic and job performance training prior to the beginning of the eligibility period established under one of the methods in paragraph (b) of this section.

§ 121.1225 Flightcrew member: Operating experience.

(a) Except as authorized by a deviation granted under § 121.1230, no certificate holder may use any person, nor may any person serve, as a required flightcrew member on an aircraft, unless the person has completed the operating experience and operating cycles required by this section for that aircraft type and in that duty position in operations under this part. The certificate holder must ensure that the flightcrew member completing operating experience and operating cycles is current and qualified for the duty position in accordance with this part.

(b) Pilots must complete operating experience and operating cycles as follows:

(1) *General.* Operating experience must include at least four operating cycles and 21 hours in operations under this part and meet the following requirements:

(i) At least one cycle must be flown as the pilot monitoring the aircraft.

(ii) At least two cycles must be flown as the pilot flying the aircraft.

(iii) At least one of the cycles flown as the pilot flying the aircraft must be flown with the automatic pilot disengaged after takeoff until departing the terminal area and prior to approach upon entering the terminal area, provided this does not require the flight crew to operate contrary to published or otherwise required departure or arrival procedures. If at least one cycle is not flown with the automatic pilot disengaged after takeoff until departing the terminal area and prior to approach upon entering the terminal area during the required operating experience, this fact must be recorded in the crewmember's record.

(iv) A pilot will receive one hour of credit towards the 21 hours required by this paragraph for each operating cycle completed in excess of the four operating cycles required.

(v) Operating experience must be started no later than 60 days and completed within 120 days of completing the proficiency test given at the end of initial, transition, upgrade, or conversion training. If operating experience is not started within 60 days or completed within 120 days of completing the proficiency test or check, a proficiency check is required to re-initiate operating experience.

(2) *Pilot in command.* (i) A qualifying pilot in command completing operating experience and operating cycles must complete all of the following:

(A) Serve as the second in command of record.

(B) Perform the duties of a pilot in command under the supervision of a check pilot or IOE pilot, except as provided in paragraph (d) of this section.

(C) Be given a line check conducted by a qualified line check pilot when the IOE pilot or check pilot determines that the pilot has reached an adequate level of proficiency. The line check must consist of at least two operating cycles. During one of the cycles the qualifying pilot in command must perform the duties of the pilot flying the aircraft. In the other cycle, the qualifying pilot in command must perform the pilot monitoring duties.

(D) For a pilot qualifying as pilot in command for the certificate holder for the first time, when the pilot receives operating experience after completing initial, conversion, or upgrade training, the pilot must perform the duties of a pilot in command during at least one operating cycle under the observation of an APD authorized to conduct these observations or an FAA aviation safety inspector. For the pilot's subsequent qualifications as PIC for the certificate holder, the observation must be observed by an FAA aviation safety inspector, APD, or qualified line check pilot.

(ii) Except as provided in paragraph (d) of this section, the check pilot or IOE pilot supervising operating experience must serve as the pilot in command and occupy a pilot station under the following requirements:

(A) While supervising the transitioning or converting pilot in command until the qualifying pilot in command has completed the following, at which time the check pilot or IOE pilot may occupy the observer's seat for the remaining portion of the operating experience:

(*1*) Made at least two takeoffs and landings in the aircraft;

(*2*) Satisfactorily demonstrated to the check pilot or IOE pilot the ability to perform the duties of a pilot in command of that aircraft type.

(B) While supervising an initial or upgrading pilot in command.

(3) *Second in command.* A second in command pilot must perform the duties of a second in command under the supervision of a qualified line check pilot or IOE pilot.

(c) A flight engineer must perform the duties of a flight engineer for at least 10 hours of operating experience in operations under this part under the supervision of a check flight engineer, a check pilot, a IOE pilot, or a flight engineer who is authorized by the FAA to supervise operating experience.

(d) During operating experience following transition, conversion, or upgrade training, the check pilot or IOE pilot may take a rest period during the en route cruise portion of flight, if the following conditions are met:

(1) The pilot obtaining operating experience meets the requirements of paragraphs (b)(2)(ii)(A)(*1*) and (*2*) of this section.

(2) The relief pilot meets the requirements in § 121.1241(b)(3).

(e) In the case of an aircraft not previously used by the certificate holder in operations under this part, operating experience for pilots and flight engineers completed in the aircraft during proving flights or ferry flights may be used to meet this requirement.

(f) Credit for operating experience hours may only be taken while the pilot or flight engineer is under the direct supervision of the check pilot or IOE pilot.

§ 121.1227 Pilot: Consolidation.

(a) Pilots completing the proficiency check or test given at the end of initial, transition, or conversion training must complete at least 100 hours of line flight time for consolidation in that aircraft

type for the certificate holder, unless otherwise authorized by deviation issued under § 121.1230 for operation of related aircraft. The consolidation hours must be completed within 120 days after completing the proficiency check or test.

(1) If the consolidation flight time in an aircraft type is interrupted by flight time in another aircraft type, the pilot must complete an FFS course of instruction to refresh the pilot's knowledge and skills, as provided in the certificate holder's approved training program. The FFS course of instruction must be completed in the aircraft type in which consolidation was started before continuing the consolidation. The FFS course of instruction must be conducted by a pilot flight instructor (includes simulator instructor) or check pilot (includes simulator check pilot) qualified under this part.

(2) Consolidation must be started no later than 60 days after completion of the proficiency check or test given at the end of initial, transition, or conversion training. If consolidation is not started within 60 days of completing the proficiency check or test, another proficiency check or test is required to re-initiate consolidation.

(b) If consolidation is not completed within 120 days of completing the proficiency check or test given at the end of initial, transition, or conversion training, the certificate holder may extend the 120-day period to no more than 150 days if the pilot continues to meet all other requirements of this subpart and one of the following conditions is met:

(1) On or before the 120th day the pilot completes an FFS course of instruction conducted by a qualified and authorized pilot flight instructor (includes simulator instructor) or check pilot (includes simulator check pilot) to refresh the pilot's knowledge and skills, as provided in the certificate holder's approved training program.

(2) A check pilot determines that the pilot has retained an adequate level of proficiency after observing that pilot in a supervised line operating flight.

(c) If consolidation is not completed within 150 days of completing the proficiency check or test given at the end of initial, transition, or conversion training, the certificate holder may extend the 150-day period to no more than 210 days if both of the following conditions are met:

(1) The pilot continues to meet all other applicable requirements of this subpart.

(2) On or before the 150th day the pilot completes a proficiency check or test in a Level C or D FFS.

(d) If consolidation is not completed within 210 days of completing the proficiency check or test given at the end of initial, transition, or conversion training, the remaining line flight time that is necessary to complete consolidation must be supervised by a check pilot.

(e) If consolidation is not completed by the time the proficiency check or test required by § 121.1223 is completed for the first recurrent period, consolidation must start over.

§ 121.1229 Pilot: Recent experience.

(a) Except as authorized by deviation under § 121.1230, no certificate holder may use any person, nor may any person serve, as a required pilot unless the person has made, within the preceding 90 days, at least three takeoffs and landings as the pilot flying in the aircraft type in which the person is to serve. The three takeoffs and landings required by this paragraph must be satisfied by compliance with either of the following:

(1) Use of aircraft. The pilot must complete three takeoffs and three landings in the aircraft type in which the pilot serves.

(2) Use of a full flight simulator (FFS). Provided the FFS is qualified in accordance with part 60 of this chapter and approved for takeoff and landing maneuvers, the pilot must complete in a single simulator session at least three takeoffs and three landings. One takeoff and one landing must be completed in a LOFT environment training. The three takeoffs and three landings must include the following:

(i) At least one takeoff with a simulated failure of the most critical engine.

(ii) At least one landing from a precision category approach to the lowest minimums authorized for the certificate holder.

(iii) At least one landing to a full stop.

(iv) At least one visual traffic pattern and landing.

(b) If it has been 90 days or less since the pilot's recency has lapsed (the last takeoff landing occurred 91 to 180 day previously), the pilot may regain recency only by completing in a LOFT environment as provided in § 121.1353, the three takeoffs and landings as required by paragraph (a)(2) of this section.

(c) If it has been more than 90 days since the pilot's recency has lapsed (the last takeoff landing occurred more than 180 day previously), the pilot may regain recency only by completing the requirements in paragraph (b) of this section and an FFS course of instruction. Completing the FFS course of instruction to reestablish recency of experience does not change the pilot's recurrent training base month.

§ 121.1230 Deviation from §§ 121.1225, 121.1227, and 121.1229.

(a) The Administrator may authorize a deviation from the following based on classification of related aircraft:

(1) Operating experience requirements of § 121.1225.

(2) Consolidation requirements of § 121.1227.

(3) Recency requirements of § 121.1229.

(b) Before issuing a deviation from these requirements, the Administrator will determine whether the certificate holder can demonstrate an equivalent level of safety. The deviation request must include at least the following:

(1) Identification of aircraft operated by the certificate holder that may be classified as related aircraft.

(2) Hours of operating experience and number of operating cycles necessary based on review of the related aircraft, the operation, and the duty position.

(3) Consolidation hours necessary based on review of the related aircraft, the operation, and the duty position.

(4) The number of takeoffs, landings, maneuvers and procedures necessary to maintain or reestablish recency based on review of the related aircraft, the operation, and the duty position.

(c) The request for deviation must be submitted to the Director of Flight Standards Service. If granted, the Director of Flight Standards Service may, at any time, terminate a grant of deviation authority issued under this section.

§ 121.1231 Flight engineer: Recent experience.

(a) No certificate holder may use any person, nor may any person serve, as a required flight engineer unless, within the preceding 90 days, the person has performed the duties of a flight engineer during at least three takeoffs and landings in the aircraft type in which the person is to serve. If it has been more than 90 days since the flight engineer has completed the recency requirements in this paragraph the flight engineer is considered to have lapsed in recency. The three takeoffs and landings required by this paragraph must be satisfied by compliance with either of the following:

(1) Use of aircraft. The flight engineer must perform the duties of a flight engineer during at least three takeoffs and landings in the aircraft type in which the flight engineer serves.

(2) Use of a Full Flight Simulator. Provided the FFS is qualified in

accordance with part 60 of this chapter and approved for takeoff and landing maneuvers, the flight engineer must in a single simulator session perform the duties of a flight engineer during three takeoffs and landings. One takeoff and one landing must be included in a LOFT environment under § 121.1353. The three takeoffs and three landings must include the following:

(i) At least one takeoff with a simulated failure of the most critical engine.

(ii) At least one landing from a precision category approach to the lowest minimums authorized for the certificate holder.

(iii) At least one landing to a full stop.

(iv) At least one visual traffic pattern and landing.

(b) Lapse of recency: 90 days or less. If it has been 90 days or less since the flight engineer's recency has lapsed (the last takeoff landing occurred 91 to 180 day previously), the flight engineer may regain recency only by completing in a LOFT environment as provided in § 121.1353, all the three takeoffs and landings as required by paragraph (a)(2) of this section.

(c) Lapse of recency: More than 90 days. If it has been more than 90 days since the flight engineer last completed the recency requirements in accordance with paragraph (a)(1) or (a)(2) of this section, the flight engineer is considered to have lapsed in recency. To reestablish recency, the flight engineer must, in a LOFT environment as provided in § 121.1353, perform the duties of a flight engineer during the three takeoffs and landings as required by paragraph (a)(2) of this section.

(d) Lapse of recency: More than 90 days since lapsing. If it has been more than 90 days since the flight engineer's recency has lapsed (the last takeoff landing occurred more than 180 day previously), the flight engineer may regain recency only by completing the requirements in paragraph (b) of this section and an FFS course of instruction. Completing the FFS course of instruction to reestablish recency of experience does not change the flight engineer's recurrent training base month.

§ 121.1233 Line checks.

(a) No certificate holder may use any person, nor may any person serve, as a pilot in command, unless:

(1) Within the preceding 24 months, that person has completed a line check for that certificate holder in the aircraft type in which he or she is to serve. To serve as pilot in command in aircraft that have been determined by the FAA to be related aircraft, within the preceding 24 months, that person must complete a line check for the certificate holder in one of the related aircraft. During the line check, the person must perform the duties and responsibilities of a pilot in command;

(2) For a pilot who has attained 60 years of age, to continue to serve in operations under this part, the certificate holder must evaluate the pilot's performance every 6 months, through a line check. Notwithstanding the foregoing, a certificate holder is not required to conduct for a 6-month period a line check under this paragraph of a pilot serving as a second-in-command if the pilot has undergone a regularly scheduled simulator evaluation during that period.

(b) A pilot in command line check for domestic and flag operations must be administered by a check pilot or APD who is current and qualified on both the route and the aircraft type. A pilot in command line check for supplemental operations must be administered by a check pilot or APD who is current and qualified in the aircraft type and must be conducted on an instrument flight rules flight plan.

(c) A line check conducted under this part must consist of at least two operating cycles during operations under this part. In one of the cycles the pilot in command must perform the duties of the pilot flying the aircraft. In the other cycle, the pilot in command must perform the pilot monitoring duties.

(d) The check pilot or APD conducting the line check must evaluate the entire flight crew in the performance of their duties during the line check of the pilot in command required by paragraph (a) of this section. The check pilot or APD must record the evaluation of the pilot in command and any other required flightcrew member that demonstrates a lack of proficiency. If any required flightcrew member performs in a way that is inconsistent with policies and procedures, and the check pilot or APD determines that the performance inconsistency can be corrected during the post-flight debriefing, the required flightcrew member may continue operations. If any required flightcrew member performs below standard on any tasks, and the check pilot or APD determines that the performance deficiency is not correctable through a post-flight debriefing, the flightcrew member may not serve as a required flightcrew member in operations under this part until he or she receives training on such tasks, and completes a proficiency test in those tasks. These actions and their completion must be entered into the flightcrew member's record.

(e) Check pilots or APDs conducting line checks must conduct a post-flight debriefing of the flight crew that includes technical and resource management competencies.

(f) On flights with a flight engineer as a required crewmember, check pilots or APDs who meet the qualification requirements of this subpart to conduct pilot in command line checks will evaluate flight engineer performance during the line check. The check pilot or APD is not required to hold a flight engineer certificate to conduct flight engineer evaluations during line checks.

(g) If a pilot does not receive the line check required by paragraph (a) of this section, the pilot may not serve as pilot in command in operations under this part until he or she completes a line check. The check pilot or APD must serve as the pilot in command during the line check and must occupy a pilot duty station.

(h) If, during a line check required by paragraph (a) of this section, a flightcrew member demonstrates a lack of knowledge or a lack of skills such that the person conducting the line check determines the flightcrew member should be removed from the flight, that flightcrew member may not serve in operations under this part until he or she successfully completes requalification in accordance with § 121.1239. These actions and their completion must be entered into the crewmember's record.

§ 121.1235 Pilot: Routes and airports.

(a) No certificate holder may use any person, nor may any person serve, as a pilot, unless that pilot has current information provided by the certificate holder regarding routes, airports and terminal areas into which that pilot operates. The certificate holder must ensure that each pilot has adequate knowledge and skill to use the information. The certificate holder must provide information on at least the following subjects:

(1) Weather.

(2) Navigation facilities.

(3) Communication procedures, including airport visual aids.

(4) Terrain and obstructions.

(5) Minimum safe flight levels.

(6) En route and terminal area arrival and departure procedures, holding procedures and authorized instrument approach procedures for the airports involved.

(7) Congested areas and physical layout of each airport in the terminal area in which the pilot will operate.

(8) Notices to Airmen.

(b) Each certificate holder must provide a system acceptable to the Administrator for disseminating the information required by paragraph (a) of this section to the pilots and appropriate flight operations personnel. The system must also provide an acceptable means for showing compliance with pilot qualification for special areas, routes, and airports.

(c) The Administrator may determine that certain airports (due to items such as surrounding terrain, obstructions, or complex approach or departure procedures) are special airports requiring special airport qualifications and that certain areas or routes require a special type of navigation qualification. If the Administrator makes such a determination,no certificate holder may use any person, nor may any person serve, as a pilot in special airport operations unless, within the preceding 18 months, the pilot has met one of the following requirements:

(1) Served as a pilot flying or pilot monitoring during a takeoff and landing at the special airport.

(2) Qualified by using photographs and diagrams acceptable to the Administrator for the special airport.

(3) Qualified by using written descriptions and diagrams of the special characteristics of the airport only in those cases where the country in which the airport is located does not allow photographs to be taken of the airport. The written descriptions and diagrams must be acceptable to the Administrator.

§ 121.1237 Pilot: Operating limitations and crew pairing.

(a) No certificate holder may use any person, nor may any person serve, as a pilot in operations under this part unless either the pilot in command or the second in command has at least 75 hours of line flight time in the aircraft being operated.

(b) If the second in command has fewer than 100 hours of flight time as second in command in operations under this part in the aircraft being operated and the pilot in command is not an appropriately qualified check pilot, the pilot in command must make all takeoffs and landings in any of the following conditions:

(1) The prevailing visibility value in the latest weather report for the airport is below ¾ mile.

(2) The runway visual range for the runway to be used is below 4,000 feet.

(3) The runway to be used has water, snow, slush or similar conditions that may adversely affect aircraft performance.

(4) The braking action on the runway to be used is reported to be less than good.

(5) The crosswind component for the runway to be used is in excess of 15 knots.

(6) Windshear is reported in the vicinity of the airport.

(7) Any time the pilot in command determines it to be necessary to make the takeoffs and landings.

(c) Except for check pilots, newly qualifying PIC in the aircraft type, and as described in paragraph (d) of this section, no certificate holder may use any person, nor may any person serve, as a PIC or SIC in operations under this part unless the PIC has been trained for, is assigned to, and operates the aircraft from the left hand pilot's seat, and the SIC has been trained for, is assigned to, and operates the aircraft from the right hand seat.

(d) A certificate holder may authorize an assigned PIC to operate the aircraft from the right hand pilot seat and to authorize the assigned SIC to operate the aircraft from the left hand pilot seat provided the pilots have completed either a training program for that pilot seat or the seat dependent task training for that pilot seat in accordance with the Pilot QPS. The responsibilities of the PIC and SIC who exchange operating seats as described in this paragraph, remain unchanged regardless of the pilot seat being occupied. Duties and functions of the pilot flying and the pilot monitoring will change only due to the limitations and requirements imposed by occupying the opposite pilot seat.

(e) On flights requiring an augmented crew, the pilot in command may take a rest break as authorized in § 121.1241(b)(4) provided pilot in command meeting the requirements of § 121.1241(b)(3) is designated by the pilot in command. The acting pilot in command must then remain on the flight deck during the absence of the pilot in command and may occupy either the left hand or the right hand pilot seat.

§ 121.1239 Flightcrew Member: Requalification.

(a) No certificate holder may use any person, nor may any person serve, as a pilot or flight engineer if that person has become unqualified by failing to complete the recurrent curriculum category, including proficiency tests or proficiency checks, as required by § 121.1223.

(b) To be requalified, the person must complete the initial curriculum category requirements of § 121.1365 in accordance with the applicable QPS including operating experience and proficiency test, or the person must meet the requirements of this paragraph in accordance with the appropriate requalification phase. The requalification phases are based on the number of months after the end of the person's base month for recurrent training.

(1) *Phase I requalification.*

(i) *Eligibility for phase I requalification.* An unqualified flightcrew member may requalify by completing the phase I requalification program if it has been less than 9 months since the end of the person's base month for recurrent training.

(ii) *Phase I requalification program.* The flightcrew member must complete phase I requalification in accordance with the applicable QPS. The academic training requirements must be completed within 30 days of beginning requalification training. The job performance training requirements must be completed within 96 hours of initiating job performance training. The flightcrew member must complete all phase I requalification academic training and job performance training requirements in less than 9 months from the end of the person's base month for recurrent training.

(2) *Phase II requalification.*

(i) *Eligibility for phase II requalification.* An unqualified flightcrew member may requalify by completing the phase II requalification program if it has been 9 months or more, but less than 27 months since the end of the person's base month for recurrent training.

(ii) *Phase II requalification program.* The flightcrew member must complete the following phase II requalification requirements within 60 days of beginning requalification training and less than 27 months from the end of the person's base month for recurrent training:

(A) The flightcrew member must complete phase II requalification in accordance with the applicable QPS. A pilot in command must also complete a line check.

(B) The flightcrew member's recurrent base month must be changed as appropriate to correspond to the month in which the proficiency test was completed.

(3) *Phase III requalification.*

(i) *Eligibility for phase III requalification.* An unqualified flightcrew member must complete the phase III requalification program if it has been 27 months or more since the end of the person's base month for recurrent training.

(ii) *Phase III requalification program.* The flightcrew member must complete the following phase III requalification requirements within 90 days of beginning requalification training:

(A) The flightcrew member must complete phase III requalification in accordance with the applicable QPS.

(B) The flightcrew member must complete a qualification LOFT.

(C) The pilot in command must complete a line check.

(D) The flightcrew member's recurrent base month must be changed as appropriate to correspond to the month in which the proficiency test was completed.

§ 121.1241 Flightcrew members at controls.

(a) Except as provided in paragraph (b) of this section, each required flightcrew member on flight deck duty must remain at the assigned duty station with seat belt fastened while the aircraft is taking off or landing, and while it is en route.

(b) A required flightcrew member may leave the assigned duty station only in the following situations:

(1) If the crewmember's absence is necessary for the performance of duties in connection with the operation of the aircraft.

(2) If the crewmember's absence is in connection with physiological needs.

(3) If the crewmember (PIC or SIC) is taking a rest period, and relief is provided during the en route cruise portion of the flight by a pilot who meets all of the following:

(i) Holds an airline transport pilot certificate and a type rating on the aircraft.

(ii) Is qualified as pilot in command or second in command on the aircraft.

(iii) Has completed operating experience in accordance with § 121.1225.

(iv) Has completed line operating flight time for consolidation, if applicable, within the time prescribed in § 121.1227.

(v) Has completed either of the following:

(A) Training for the duty station to be occupied.

(B) Seat dependent task training described in the pilot QPS.

(vi) Is maintaining recency in accordance with § 121.1229.

Check Pilot and Check Flight Engineer Qualification

§ 121.1251 Eligibility: Check pilot, check flight engineer, Aircrew Program Designee (APD), and Flight Instructor.

To be eligible to enter training as a check pilot, check flight engineer, APD, or Flight Instructor, a person must meet the following requirements:

(a) For pilots:

(1) Have an ATP certificate and a rating for the aircraft type in which they are to serve.

(2) Have served in one of the following capacities for at least 1 year in an aircraft of the same group in which that person is authorized to instruct or evaluate:

(i) A flight instructor in a certificate holder's approved training program.

(ii) A pilot in command.

(iii) A Training Center Evaluator (TCE).

(iv) A second in command.

(3) Have completed the certificate holder's academic and job performance training and evaluation for pilot in command, in accordance with §§ 121.1365 and 121.1367, for the aircraft type on which they are to serve as an instructor, check pilot, or APD.

(b) For flight engineers:

(1) Have a flight engineer certificate and a rating for the aircraft type in which they are to serve.

(2) Have served as a flight engineer for at least 1 year in an aircraft of the same group in which that person is authorized to instruct or evaluate.

(3) Have completed the certificate holder's academic and job performance training and evaluation for flight engineer in accordance with §§ 121.1365 and 121.1367, for the aircraft type on which they are to serve as a check flight engineer.

§ 121.1253 Check pilot and check flight engineer: Training, evaluation, approval and recent experience.

No certificate holder may use any person, nor may any person serve, as a check pilot or check flight engineer in a training program established under this subpart, with respect to the aircraft type involved, unless the person has satisfied the requirements of this section.

(a) Training:

(1) For check pilots, the following:

(i) The certificate holder's approved academic and job performance training for check pilots, as required by §§ 121.1381 and 121.1383.

(ii) The seat dependent task training from both seats, in accordance with the QPS.

(2) For check flight engineers, the certificate holder's approved academic and job performance training for check flight engineers, as required by §§ 121.1381 and 121.1383.

(b) Evaluation:

(1) For check pilots, the following observation checks:

(i) To be authorized to conduct proficiency tests or proficiency checks, the person must be observed conducting either a proficiency test or a proficiency check in an FFS by an FAA aviation safety inspector or an APD, and the pilot undergoing that proficiency test or proficiency check for this observation must be signed off by the FAA aviation safety inspector or the APD as the instructor or evaluator of record.

(ii) To be authorized to conduct line checks, the person must be observed conducting a line check by an FAA aviation safety inspector or an APD, and the pilot undergoing the line check for this observation must be signed off by the FAA aviation safety inspector or the APD as the evaluator of record.

(2) For check pilots to be authorized to conduct line checks, prior to conducting line checks from one of the pilot operating seats, the person must, initially, and thereafter once each 24 months, complete the following qualification requirements:

(i) At least two operating cycles in the aircraft during line operations, one operating cycle in each pilot seat, under the supervision of a check pilot authorized to conduct operating experience and line checks, who must occupy the opposite pilot seat. Satisfaction of this requirement will also satisfy the line check requirements of § 121.1233.

(ii) At least one operating cycle in the aircraft during line operations under the supervision of an FAA aviation safety inspector or an APD designated to conduct the observation of a check pilot conducting PIC line checks.

(3) For check flight engineers, to be authorized to conduct proficiency tests or proficiency checks, the person must be observed conducting a proficiency test or proficiency check in an FFS by an FAA aviation safety inspector or an APD, and the flight engineer undergoing the proficiency test or proficiency check for this observation must be signed off by the FAA aviation safety inspector or the APD as the instructor or evaluator of record.

(c) Approval:

(1) For check pilots, after completing the requirements of paragraphs (a) and (b) of this section, the check pilot may be issued an FAA letter of authorization to conduct the following:

(i) Proficiency tests and proficiency checks, in an FFS, unless the check pilot is authorized to conduct these activities in an airplane.

(ii) Line checks.

(2) For check flight engineers, after completing the requirements of paragraphs (a) and (b) of this section, the check flight engineer may be issued an FAA letter of authorization to

conduct proficiency tests and proficiency checks.

(3) Check pilots and check flight engineers may conduct only those activities listed on the FAA letter of authorization.

(4) For those check pilots and flight engineers who have reached their 65th birthday or who do not hold medical certificates, the check pilot or check flight engineer may be authorized to conduct only proficiency tests, checks, or line checks, but may not serve as flightcrew members in operations under this part.

(5) For a certificate holder to continue to use, and a person to continue to serve as a check pilot or check flight engineer under a letter of authorization issued under paragraph (c) of this section, the person must satisfactorily complete one of the authorized activities under the observation of an FAA aviation safety inspector or the APD, once every 24 months after the date of issuance of the letter of authorization. The observations required under this paragraph are considered to have been completed in the month required if completed in the calendar month before, or the calendar month after, the month in which it is due.

(d) Recent experience:

(1) Except as provided in paragraph (d)(2)(iii)(B) of this section, check pilots and check flight engineers must maintain recency as a pilot or flight engineer as required by § 121.1229 or § 121.1231, as applicable.

(2) After a person has been a check pilot or a check flight engineer for 12 months:

(i) The person may not serve as a check pilot or a check flight engineer unless in the preceding 12 months the person has completed at least 6 evaluation activities for the certificate holder. The minimum of 6 activities must include at least one of each activity he or she is authorized to conduct in accordance with the applicable QPS.

(ii) If the check pilot or check flight engineer fails to conduct at least 6 activities, that person may not serve as a check pilot or check flight engineer until the person is re-observed by an FAA aviation safety inspector or an APD while conducting a proficiency test or proficiency check.

(iii) If the person has conducted six activities but one or more of the authorized activities have not been conducted:

(A) The check pilot or check flight engineer may not serve as a check pilot or check flight engineer for any activity until re-observed by an FAA aviation safety inspector or an APD while conducting a proficiency test or proficiency check; or

(B) The certificate holder must request that the FAA update the check pilot's or check flight engineer's letter of authorization by removing the activities that were not conducted from the authorizations.

(iv) Within the 12 months preceding performing the duties of a check pilot or check flight engineer, the check pilot or check flight engineer must have completed the following:

(A) Attended the standardization meetings required by § 121.1355(b) for each aircraft type in which the person is authorized to conduct check pilot or check flight engineer duties; and

(B) If the check pilot or check flight engineer meets the requirements of paragraph (d)(1) of this section by completing § 121.1229(a)(1) or § 121.1231(a) through aircraft operations other than line operations under this part, or by completing § 121.1229(a)(2) or § 121.1231(a)(2) in a qualified and approved FFS, the check pilot or check flight engineer must have observed the line operations of the certificate holder in the airplane for which the check pilot or check flight engineer is to perform evaluation duties. This observation must be part of an FAA-approved line-observation program.

§ 121.1255 IOE pilot: Additional training requirements.

(a) No certificate holder may use any person, nor may any person serve, as an IOE pilot in operations under this part with respect to the aircraft type involved, unless the person is current and qualified as a pilot in command for the part 119 certificate holder with the appropriate certificates and ratings and has satisfied the following requirements:

(1) Received training on safety measures to be taken from either pilot seat for emergency situations that are likely to develop during flight operations.

(2) Received training on potential consequences of improper, untimely or unexecuted safety measures during flight operations.

(3) Completed the seat dependent task training described in the QPS.

(4) Been observed initially, and at least every 24 months thereafter, conducting at least two cycles of IOE by an APD or check pilot authorized by the FAA to conduct IOE.

(b) Recurrent training for IOE pilot must be completed in accordance with § 121.1223, and must include the following:

(1) The safety measures to be taken from either pilot seat for emergency situations that are likely to develop during flight operations.

(2) The potential consequences of improper, untimely or unexecuted safety measures during flight operations.

(3) Seat dependent task training from both seats, in accordance with the QPS.

§ 121.1257 Check airmen: Initial cadre.

(a) This section establishes the requirements for initial cadre check airmen and requirements for the instructors, check airmen, and APDs who will train the initial cadre check airmen. A certificate holder may use a person as a check airman even though the person does not meet the experience, recency, crew pairing, or consolidation requirements of this subpart, if the person meets the initial cadre check airmen requirements of this section. The FAA will determine the period of initial cadre status and may terminate initial cadre status entirely or for an individual check airman, if necessary. In no case will initial cadre status exceed a period of 24 months.

(b) *Initial cadre check airmen: Qualification.* To be an initial cadre check airman for a part 119 certificate holder and to continue to serve in that capacity for the authorized period, a person must meet all of the following requirements:

(1) Be employed by the part 119 certificate holder.

(2) Have served at least 3 years in the past 6 years as a pilot in command or as a flight engineer, as applicable, on an aircraft of the same group in which the person is to perform duties as an initial cadre check airman.

(3) Have the appropriate certificates and ratings for the aircraft type and pilot or flight engineer position.

(4) Have completed the academic and job performance training and evaluation of the applicable curriculum categories, as approved by the FAA for the part 119 certificate holder that are required to serve as a pilot in command or flight engineer, as applicable. For initial cadre check pilots, seat dependent task training must be completed.

(5) Perform each of the duties to be accomplished as a check pilot or check flight engineer under the observation of an FAA aviation safety inspector. When an observed activity must be made part of a training record, the people undergoing the observed activities must be signed off by the FAA aviation safety inspector as the evaluator of record.

(6) Be approved by the FAA for the specific check airman duties to be performed.

(c) *Initial cadre check airmen: Operating experience.* Initial cadre check airmen may obtain aircraft

operating experience while supervising or being supervised by other initial cadre check airmen, and while being observed by the FAA.

(1) Operating experience for initial cadre check airmen may be obtained during revenue passenger operations or during aircraft delivery flights, ferry flights, repositioning flights, or proving flights.

(2) An initial cadre check airman may not gain operating experience in operations under this part unless there is at least one initial cadre check pilot on that flight who has the following experience in the aircraft type:

(i) Has at least 5 hours of operating experience at the pilot controls; and

(ii) Has made at least two takeoffs and landings within the previous 60 days.

(d) *Training initial cadre check airmen.* The part 119 certificate holder may use current employees, employees of part 142 certificate holders, employees of other part 119 certificate holders, or aircraft manufacturers as instructors, check airmen, and aircrew program designees (APDs) for training initial cadre check airmen. The part 119 certificate holder must receive FAA approval for the instructors, check airmen, and aircrew program designees (APDs) used to train initial cadre check airmen. The FAA must complete all evaluation of the initial cadre check airmen.

(e) *Initial cadre check airmen: Consolidation.* Notwithstanding contrary provisions of § 121.1227 for consolidation of knowledge and skills (including operating experience required under § 121.1225), an initial cadre check pilot may delay initiating line flight time for consolidation. The initiation of consolidation may be delayed until 180 days after completing the proficiency test at the end of the initial or transition curriculum category, or until 10 days after the initial cadre status is terminated by the FAA, whichever is sooner. Once consolidation is initiated, the pilot must acquire 100 hours of line operating experience within 120 days. If consolidation is not completed as required by this paragraph, the pilot must restart consolidation in accordance with § 121.1227.

(f) *Initial cadre check airmen: Recency.* Notwithstanding contrary provisions of § 121.1229 for recent takeoff and landing experience, an initial cadre check pilot may perform the duties of a pilot in command or second in command in operations under this part if the initial cadre check pilot has satisfied the following two requirements:

(1) Has accumulated at least 5 hours of operating experience as pilot flying in the aircraft type.

(2) Has made at least two takeoffs and landings as pilot flying within the previous 60 days in the aircraft type.

(g) *Initial cadre check airmen: Operating limitations.* Notwithstanding contrary provisions of § 121.1237 for crew pairing, an initial cadre check pilot may perform the duties of a pilot in command or second in command in operations under this part without respect to the minimum number of hours of line flight time in that aircraft type accumulated by the pilot occupying the other pilot position if the initial cadre check pilot has satisfied the following two requirements:

(1) Has accumulated at least 5 hours of operating experience as the pilot flying in the aircraft type.

(2) Has made at least two takeoffs and landings as the pilot flying within the previous 60 days in the aircraft type.

Aircrew Program Designee Qualification

§ 121.1271 Aircrew Program Designee (APD): Training, evaluation, and recent experience.

No certificate holder may use any person, nor may any person serve, as a pilot APD or a flight engineer APD in a training program established under this subpart, with respect to the aircraft type involved, unless the person meets the requirements of § 121.1251 and has satisfied the requirements of this section.

(a) Training:

(1) For pilot APDs, the following:

(i) The certificate holder's approved academic and job performance training for check pilots, as required by §§ 121.1381 and 121.1383.

(ii) The seat dependent task training from both seats, in accordance with the QPS.

(2) For flight engineer APDs, the certificate holder's approved academic and job performance training for check flight engineers, as required by §§ 121.1381 and 121.1383.

(b) Evaluation:

(1) For pilot APDs, the APD must be observed conducting a proficiency test by an FAA aviation safety inspector. The pilot undergoing the proficiency test for this observation must be signed off by the FAA aviation safety inspector as the evaluator of record.

(2) For flight engineer APDs, to be authorized to conduct proficiency tests, the person must be observed conducting a proficiency test in an FFS by an FAA aviation safety inspector, and the flight engineer undergoing the proficiency test for this observation must be signed off by the FAA aviation safety inspector as the evaluator of record.

(c) Approval:

(1) For pilot APDs, after completing the requirements of paragraphs (a) and (b) of this section, the pilot APD may be issued an FAA certificate of designation and certificate of authority under § 183.13(b) of this chapter to conduct proficiency tests, proficiency checks or line checks.

(2) For flight engineer APDs, after completing the requirements of paragraphs (a) and (b) of this section, the flight engineer APD may be issued an FAA letter of authorization and a certificate of designation to conduct proficiency tests.

(d) Recent experience:

(1) APDs must maintain recency as a pilot or flight engineer as required by § 121.1229 or § 121.1231, as applicable.

(2) After a person has been an APD for 12 months, within the 12 months preceding performing the duties of a pilot or flight engineer APD, the APD must:

(i) Have attended the standardization meetings as required by § 121.1355(a)(2) for each aircraft type in which the person is authorized to conduct APD duties; and

(ii) If the APD has met the requirements of paragraph (d)(1) of this section by completing § 121.1229(c) or § 121.1231(c), complete an FAA approved line-observation program by observing the certificate holder's line operations from the observer seat.

Flight Instructor Qualification

§ 121.1281 Instructor (Academic and Job Performance): Training, evaluation, and recent experience.

No certificate holder may use any person, nor may any person serve, as an instructor in a training program established under this subpart, with respect to the aircraft type involved, unless the person has satisfied the requirements of this section. Pilot and flight engineer flight instructors who have reached their 65th birthday or who do not hold an appropriate medical certificate may function as flight instructors, but may not serve as flightcrew members in operations under this part.

(a) Training:

(1) *Ground instructor (pilot or flight engineer).* Must complete training that includes the following:

(i) Training policies and procedures.

(ii) Instructor duties, functions and responsibilities.

(iii) The applicable regulations of this chapter and the certificate holder's policies and procedures.

(iv) Appropriate methods, procedures and techniques for conducting academic training.

(v) Evaluation of student performance.

(vi) Appropriate action in the case of unsatisfactory performance.

(vii) The approved methods, procedures and limitations for instructing and evaluating in the required normal, abnormal and emergency procedures applicable to the aircraft.

(viii) Curriculum review.

(2) *Pilot flight instructor.* Must satisfy the requirements of § 121.1251 and complete the following:

(i) The FAA-approved training program for the certificate holder in the appropriate category of academic and job performance training for pilots, as required by § 121.1365; and, when applicable, the recurring academic and job performance training for pilots, as required by § 121.1367.

(ii) The part 119 certificate holder's approved academic training for pilot flight instructors, as required by § 121.1377, and the part 119 certificate holder's job performance training for pilot flight instructors, as required by § 121.1379.

(iii) The seat-dependent task training from both seats, in accordance with the QPS.

(3) *Flight engineer flight instructor.* Must complete the following:

(i) The FAA-approved training program for the certificate holder in the appropriate category of academic and job performance training for flight engineers, as required by § 121.1365; and, when applicable, the recurring academic and job performance training for flight engineers, as required by § 121.1367.

(ii) The part 119 certificate holder's approved academic training for flight engineer flight instructors, as required by § 121.1377, and the part 119 certificate holder's job performance training for flight engineer flight instructors, as required by § 121.1379.

(4) *Subject matter expert.* A person who is a subject matter expert with specific technical knowledge on a subject may be used to conduct flightcrew member training in accordance with § 121.1339.

(b) Evaluation:

(1) Pilot and flight engineer ground instructors must be observed by an accepted pilot or flight engineer ground instructor, as appropriate, conducting a representative number of academic subjects.

(2) For pilot flight instructors, the following observation checks:

(i) To be authorized to conduct flight training:

(A) The flight instructor must be observed conducting flight training in an FFS by a check pilot.

(B) The pilot undergoing the flight training for this observation must be signed off by the check pilot as the instructor of record.

(ii) To be authorized to conduct proficiency reviews:

(A) The flight instructor must be observed conducting a proficiency review by a check pilot.

(B) The pilot undergoing the proficiency review for this observation must be signed off by the check pilot as the evaluator of record.

(3) For flight engineer flight instructors, to be authorized to conduct flight training:

(i) The flight instructor must be observed conducting flight training in an FFS by a check flight engineer; and

(ii) The flight engineer undergoing the flight training for this observation must be signed off by the check flight engineer as the instructor of record.

(4) Pilot and flight engineer instructors must be re-observed at least once every 24 months:

(i) For ground instructors, by an accepted pilot or flight engineer ground instructor, as appropriate, conducting a representative number of academic subjects.

(ii) For flight instructors, by a check pilot or check flight engineer, as appropriate, conducting flight training in an FFS.

(c) Acceptance of ground and flight instructors: The certificate holder must submit a list of all ground and flight instructors including the activities each would be authorized to perform, to the FAA. These instructors must be acceptable to the FAA.

(d) Recent experience:

(1) Flight instructors must maintain recency as a pilot or flight engineer as required by § 121.1229 or § 121.1231, as applicable. If this recency is maintained in accordance with § 121.1229(a)(1) or § 121.1231(a) through aircraft operations other than line operations under this part, or by completing § 121.1229(a)(2) or § 121.1231(a)(2) in a qualified and approved FFS, the flight instructor must have observed the line operations of the certificate holder in the airplane for which the flight instructor is to perform flight instruction duties. This observation must be part of an FAA-approved line-observation program.

(2) After a person has been an instructor for 12 months:

(i) The person may not serve as a pilot or flight engineer ground instructor, as appropriate, unless in the preceding 12 months the person has completed at least 1 initial, transition, upgrade, or conversion ground school or at least six recurrent ground school sessions. If the person fails to conduct at least 1 initial, transition, upgrade, or conversion ground school or at least six recurrent ground schools within the previous 12-month period, that person may not serve as a pilot or flight engineer ground instructor, as appropriate, until the person is observed by an accepted pilot or flight engineer ground instructor, as appropriate, conducting a representative number of academic subjects.

(ii) The person may not serve as a flight instructor unless in the preceding 12 months the person has completed at least six instructor activities for the certificate holder. The minimum of six instructor activities must include at least one LOFT and one FFS course of instruction. If the person fails to conduct at least six activities within the previous 12-month period, that person may not serve as a flight instructor until the person is observed conducting a LOFT or an FFS course of instruction by a check pilot, or check flight engineer, as appropriate. This observation will allow the person to conduct LOFT or the FFS course of instruction. During this observation the check pilot, or check flight engineer, as appropriate, must be the instructor of record.

Flight Attendant Instructor Qualification

§ 121.1291 Flight attendant instructor: Qualification and training.

(a) Except as provided in paragraph (b) of this section, no certificate holder may use any person, nor may any person serve, as a flight attendant instructor in a training program established under this subpart unless that person meets the following requirements:

(1) A person may provide instruction only in those performance drills that the person can perform at the time of instruction.

(2) Within the past 12 months completed initial or recurrent flight attendant instructor training for the certificate holder as follows:

(i) Training policies and procedures.

(ii) Instructor duties, functions and responsibilities.

(iii) The applicable regulations of this chapter and the certificate holder's policies and procedures.

(iv) Appropriate methods, procedures and techniques for conducting academic training to include performance drills.

(v) Evaluation of student performance.

(vi) Appropriate action in the case of unsatisfactory performance.

(vii) The approved methods, procedures and limitations for

instructing and evaluating in the required normal, abnormal and emergency procedures applicable to the aircraft.

(viii) Curriculum review, including amendments to the certificate holders approved training program.

(b) A person who is a subject matter expert with specific technical knowledge on a subject may be used to conduct flight attendant training in accordance with the Flight Attendant QPS.

Flight Attendant

§ 121.1301 Flight attendant: Training and evaluation.

No certificate holder may use any person, nor may any person serve, as a required flight attendant in operations under this part unless that person has completed the required curriculum for that aircraft type and crewmember duty position.

(a) A curriculum consists of the programmed hours, including training and evaluation, as specified in § 121.1335 and in the Flight Attendant QPS, and the following curriculum categories.

(1) New hire as prescribed in § 121.1363.

(2) Initial as prescribed in § 121.1369.

(3) Emergency as prescribed in § 121.1373.

(4) Differences as prescribed in § 121.1391.

(5) Transition as prescribed in § 121.1369 for flight attendants eligible under § 121.1371.

(6) Recurrent as prescribed in § 121.1375, according to the schedule prescribed in § 121.1303.

(7) Requalification, if necessary, as prescribed in § 121.1309.

(8) Special, if necessary, as prescribed in § 121.1337.

(b) *Continuity of training.* Within 120 days of beginning first time qualification for the certificate holder, a person must have completed the following curriculum categories:

(1) New hire as prescribed in § 121.1363.

(2) Initial as prescribed in § 121.1369.

(3) Emergency as prescribed in § 121.1373.

(4) Aircraft Operating Experience on at least one aircraft type as prescribed in § 121.1305.

(c) *Failure to complete training within 120 days.* If a person fails to complete the requirements of paragraph (b) within the 120 days, the person must repeat the required training categories. No credit is given for any of the training previously completed if the entire curriculum is not completed within 120 days.

§ 121.1303 Flight attendant: Continuing qualification.

No certificate holder may use any person, nor may any person serve, as a flight attendant unless the person has completed the training required by paragraph (a), (b), or (c) of this section within the previous 12 months:

(a) New hire training, initial training, transition training, emergency training, and differences training, as applicable, as described in § 121.1301(a)(1) through (5).

(b) Recurrent training as required by § 121.1375.

(1) A flight attendant must complete recurrent academic and job performance training by the end of the eligibility period. The eligibility period consists of the base month, the month before the base month and the month after the base month.

(2) A flight attendant who has not completed recurrent training by the end of the base month may continue to serve until the end of the eligibility period.

(c) Requalification training as prescribed in § 121.1309.

(d) The eligibility period includes the month before and the month following the base month. The base month is one of the following:

(1) The 12th month following the month during which the person completes new hire training, initial training, transition training, emergency training, and differences training, as applicable, as described in § 121.1301(a)(1) through (5).

(2) The 12th month following the month in which the person last completed the recurrent training authorized in § 121.1375.

(3) The month as prescribed in § 121.1309.

(e) Whenever a flight attendant who is required to take recurrent training or evaluation completes the training or evaluation in the calendar month before or after the calendar month in which that training or evaluation is required, he or she is considered to have completed the training or evaluation in the calendar month in which it was required.

(f) A flight attendant who has not completed recurrent training by the end of the base month may continue to serve until the end of the eligibility period. However, if the recurrent training is not completed during the eligibility period, the person is unqualified for that flight attendant duty position on the first day of the month following the eligibility period. The unqualified person may not serve in that flight attendant duty position until the person completes the applicable phase of the requalification curriculum category as prescribed in § 121.1309.

§ 121.1305 Flight attendant: Aircraft operating experience.

(a) No certificate holder may use any person, nor may any person serve, as a flight attendant, unless that person has completed, for the certificate holder, the aircraft operating experience required by this section and the Flight Attendant QPS.

(1) A qualifying flight attendant may not begin aircraft operating experience for a specific aircraft type until the qualifying flight attendant has completed initial training for the aircraft type.

(2) A qualifying flight attendant receiving aircraft operating experience must perform the duties of a flight attendant on at least two operating cycles in the aircraft type under the supervision of a check flight attendant.

(3) A qualifying flight attendant receiving aircraft operating experience must perform the assigned duties of a flight attendant for a combined total of at least 5 hours of aircraft operating experience.

(4) A qualifying flight attendant must complete aircraft operating experience for the aircraft type on which the qualifying flight attendant is to serve as a flight attendant.

(5) A qualifying flight attendant receiving aircraft operating experience may not serve as a required crewmember on that aircraft type.

(6) Aircraft operating experience must be completed in passenger carrying operations under this part or in proving flights conducted under part 91 of this chapter.

(b) Notwithstanding the requirements of paragraph (a) of this section, within 180 days of completing the training required by § 121.1301(a)(1) through (4), flight attendants may serve as required crewmembers on any aircraft type for which they have not completed AOE provided the following conditions are met:

(1) The flight attendant must have met the requirements of paragraph (a) of this section for at least one type aircraft for that certificate holder;

(2) When flight attendants serve as required crewmembers on any type aircraft for which they have not accomplished AOE, they must be supervised by a check flight attendant for the first two operating cycles in that aircraft type; and

(3) The supervised experience must be completed in passenger carrying operations under this part or in proving flights conducted under part 91 of this chapter.

(c) While a check flight attendant is conducting supervision, the following requirements apply:

(1) A check flight attendant may not supervise more than four persons on any one operating cycle.

(2) Not more than two check flight attendants may provide supervision on any one operating cycle.

(3) The number of persons receiving supervision on a particular aircraft may not exceed twice the number of flight attendants required by § 121.391 for that aircraft.

(d) Flight attendants completing transition training are not subject to the aircraft operating experience requirements of this section.

§ 121.1309 Flight Attendant: Requalification.

No certificate holder may use any person, nor may any person serve, as a flight attendant if that person has become unqualified by failing to meet the recurrent training requirements of § 121.1303(b). The requalification requirements for each phase must be completed before the end of the applicable phase of requalification. To be requalified the person must repeat the training required by § 121.1301(a)(1) through (a)(5), or satisfy one of the following requirements:

(a) *Phase I Requalification program.* If less than 24 months have elapsed since the end of the person's base month for recurrent training, the person may be requalified by completing the following:

(1) Complete the current recurrent flight attendant training cycle. The base month for recurrent training may be changed.

(2) Receive training on tasks that were missed and all policies, procedures, and security requirements, applicable to flight attendant duties that have been updated, modified, or implemented since the last time the flight attendant completed recurrent.

(3) For flight attendants qualified in extended overwater operations, participate in a cabin preparation and evacuation drill (ditching), if not part of the current recurrent flight attendant training cycle.

(b) *Phase II Requalification program.* If 24 months or more have elapsed since the end of the person's base month for recurrent training, the person may be requalified by completing the requirements of this paragraph. The base month for recurrent may be changed.

(1) New hire, initial, transition, emergency, and differences curriculum categories, as applicable, as described in § 121.1301.

(2) After satisfactorily completing phase II requalification, one of the following conditions must be met for the first two operating cycles:

(i) The flight attendant may not serve as a required flight attendant; or

(ii) The flight attendant may serve as a required flight attendant under the supervision of a check flight attendant.

(3) For the purposes of phase II requalification, the Administrator determines the number of programmed hours required for each curriculum category listed in paragraph (b)(1) of this section.

Check Flight Attendant Qualification

§ 121.1321 Check flight attendant: Eligibility, approval, qualification, and continuing qualification.

(a) *Eligibility for training.* To be eligible for training as a check flight attendant for an aircraft type, a person must meet the following requirements:

(1) Have been qualified for at least 180 days and served in the previous 180 days on an aircraft as a flight attendant for the part 119 certificate holder.

(2) Be current and qualified to serve as a flight attendant on that aircraft type for the part 119 certificate holder.

(b) *Initial qualification.* No certificate holder may use any person, nor may any person serve, as a check flight attendant for the first time on the aircraft type, unless the person meets the following requirements for the part 119 certificate holder:

(1) Continue to meet the requirements of paragraph (a) of this section.

(2) Complete the check flight attendant training requirements in accordance with § 121.1381.

(3) Supervise operating experience for at least one operating cycle on the aircraft type under the observation of a check flight attendant or an FAA aviation safety inspector. The person undergoing operating experience must be signed off by the check flight attendant or the FAA aviation safety inspector conducting the observation.

(c) *Continuing qualification.* No certificate holder may use a check flight attendant, nor may any check flight attendant serve as a check flight attendant, unless the check flight attendant meets the following requirements for the part 119 certificate holder:

(1) Within the preceding 12 months, has completed recurrent check flight attendant training in accordance with § 121.1381(c)(1) and (c)(3).

(2) Within the preceding 12 months, has completed at least one operating cycle as a flight attendant or check flight attendant.

(d) *Reestablishing recent experience.* If the requirements of paragraph (c)(2) of this section are not met, the person may not serve as a check flight attendant until the person is observed supervising aircraft operating experience in the aircraft type for at least one cycle by another check flight attendant or an FAA aviation safety inspector.

(e) *Acceptance of check flight attendants.* The certificate holder must maintain a current list of all check flight attendants and submit that list to the FAA. The check flight attendants must be acceptable to the FAA.

§ 121.1323 Check flight attendant: Initial cadre.

(a) A certificate holder may use a person as a check flight attendant even though the person does not meet the experience requirements of § 121.1321 if the person meets the initial cadre requirements of this section. The FAA will determine the period of initial cadre status and may terminate initial cadre status entirely or for an individual check flight attendant, if necessary. In no case will initial cadre status exceed a period of 24 months.

(b) To be an initial cadre check flight attendant for a part 119 certificate holder, and to continue to serve in that capacity for the authorized period, a person must meet all of the following requirements:

(1) Be employed by the part 119 certificate holder.

(2) Have served at least 3 years in the past 6 years as a flight attendant in part 121 operations.

(3) Have completed the training as specified in § 121.1301(a)(1) through (6), as appropriate.

(4) Complete the check flight attendant training requirements in accordance with § 121.1381.

(5) Perform the duties of a check flight attendant for the new part 119 certificate holder or a certificate holder transitioning to a new aircraft type under the observation of an FAA aviation safety inspector. This observation check can be conducted during operations under this part or during proving flights conducted under part 91 of this chapter. When an observed activity must be made part of a training record, the people undergoing the observed activities must be signed off by the FAA aviation safety inspector as the evaluator of record.

(c) If the certificate holder wants FAA approval for a person to be an initial cadre check flight attendant but that person has not met the requirements of § 121.1305, he or she can satisfy those requirements by meeting the following:

(1) Being observed by the FAA while supervising other flight attendants, while supervising other check flight

attendants, or while performing the duties of a flight attendant; and

(2) During operations conducted under this part or during proving flights conducted under part 91 of this chapter.

(d) Only employees of a part 142 certificate holder, part 119 certificate holder, or the aircraft manufacturer may administer the training and evaluation activities for initial cadre check flight attendants, in accordance with the Flight Attendant QPS and as approved by the FAA. In addition, current and qualified check flight attendants for the part 119 certificate holder that is adding a new aircraft type do not need to meet the observation requirements of paragraph (c)(2) of this section for the new aircraft type.

(e) Acceptance of initial cadre check flight attendants: The certificate holder must maintain a current list of all initial cadre check flight attendants and submit that list to the FAA. The initial cadre check flight attendants must be acceptable to the FAA.

General Training Program Requirements

§ 121.1331 Training program: General.

(a) Each certificate holder must establish and maintain a current training program for each aircraft type used. Each curriculum in a training program must be kept current with respect to any changes in the requirements of this chapter or the certificate holder's policies and operation pertinent to crewmember duties. Each certificate holder must obtain initial and final approval of its training program, as specified in § 121.1337.

(b) The training program must contain all of the following:

(1) The requirements of this subpart.

(2) The requirements of the crewmember QPS, as applicable.

(3) The operating procedures for each required task in the crewmember's QPS. These operating procedures are contained in the information, duties, and responsibilities of crewmembers that are contained in the manual required by § 121.134.

(4) For flightcrew members, the procedures, limitations, and performance information from the Flightcrew Member Operating Manual required by §§ 121.134 and 121.136.

(c) Each certificate holder is responsible for ensuring that its crewmembers are adequately trained and crewmember training and evaluation is conducted in accordance with the certificate holder's approved training program.

(d) Persons other than employees of the certificate holder may be trained by the certificate holder for the purpose of instructing in the certificate holder's training program, conducting evaluations in the certificate holder's training program, or conducting evaluations of the certificate holder's training program.

(e) A certificate holder's training program must provide the following, as applicable:

(1) Curriculums and curriculum category requirements applicable for use for the specific certificate holder as required by this subpart and approved by the Administrator.

(2) A sufficient number of academic and job performance instructors, trained and qualified in accordance with this subpart, to provide the approved training and evaluation.

(3) A sufficient number of check pilots, check flight engineers and check flight attendants, trained and qualified in accordance with this subpart, to complete the training and evaluations required by this subpart.

(4) FSTD required by this subpart and approved for use by the Principal Operations Inspector responsible for approving the certificate holder's training program. FSTD must be available in sufficient quantity to conduct the training program as approved.

(5) Training equipment other than flight simulation training devices in accordance with § 121.1351. This training equipment must be available in sufficient quantity to conduct the training program as approved.

(6) Adequate academic and job performance training facilities.

(7) Current training materials, examinations, forms, instructions, and procedures for use in conducting the training and evaluation required by this part with respect to each aircraft type, and if applicable, the particular variations within that aircraft type.

(f) No certificate holder may use a person as a crewmember, unless the person responsible for instructing or evaluating an academic training subject or job performance training task or environment, has certified in a manner approved by the Administrator that the crewmember is knowledgeable and proficient in the specific subject, task, or environment.

(1) The documentation required by this paragraph (f) must be made a part of the crewmember's record required by subpart V of this part.

(i) For flight attendants, the record must show that the individual has satisfactorily completed each of the training categories in § 121.1301, as appropriate.

(ii) For flightcrew members, the record must show if the individual satisfactorily or unsatisfactorily completed each of the training categories in § 121.1221, as appropriate. In addition, the record must show if the individual satisfactorily or unsatisfactorily completed each of the proficiency tests, proficiency checks, or proficiency reviews required by this part. Records of unsatisfactory results must include the specific items for which performance was unsatisfactory.

(2) When the record of certification required by this paragraph (f) is made by an entry in a computerized recordkeeping system, the identity of the certifying instructor, check pilot, check flight engineer, or check flight attendant must be recorded, and the record of the certification must be completed by a means approved by the Administrator.

§ 121.1333 Training program: General curriculum requirements.

(a) Each certificate holder must establish and maintain a current written training program curriculum for each aircraft type operated by that certificate holder under this part. Curriculums must be available for each crewmember position required for that aircraft type. Each curriculum must include curriculum categories containing the appropriate subjects, tasks, and environments required by this subpart and the appropriate QPS.

(b) Each training program curriculum must provide training and evaluation as necessary to ensure that each crewmember:

(1) Has demonstrated proficiency with respect to each aircraft type, crewmember position, and type of operation in which the crewmember serves.

(2) Has demonstrated proficiency in the duties and responsibilities for the aircraft type that are contained in the manual required by § 121.134 as outlined in § 121.136.

(3) Has demonstrated that they are knowledgeable in the current operating limitations, procedures, loading, and performance sections of the current Flight Crew Operating Manual.

(4) Qualifies in new equipment, facilities, procedures, and techniques, including modifications to aircraft. Pilots must also qualify in designated special airports and navigation routes and areas as required by § 121.1235.

(5) Has demonstrated understanding of the nature and effects of safety hazards, and for flightcrew members, periodic weather extremes and their effect on operations.

(6) Has demonstrated, through knowledge and application, through all phases of flight, crew resource management skills identified in the QPS.

(c) Each curriculum category must include all of the following:

(1) A list of academic training and evaluation including the subjects that are provided.

(2) A list of all job performance training and evaluation including the tasks and environments. The list must include the level(s) of FSTD in which each job performance task must be performed and in which each environment may be encountered, unless the certificate holder has been granted a deviation from the FSTD requirements of this subpart in accordance with § 121.1345.

(3) Detailed descriptions or pictorial displays of the approved standard operating procedures, abnormal procedures, non-normal procedures, and emergency procedures that will be performed during job performance training and evaluation. For a certificate holder that has been granted a deviation under § 121.1345, detailed descriptions or pictorial displays of the approved normal, abnormal, and emergency maneuvers, procedures, and functions that will be performed during each job performance training or during each proficiency test, check, or review, indicating those maneuvers, procedures and functions that are to be performed during job performance training and during each proficiency test, check, or review.

(4) An outline of each curriculum category that includes academic and job performance training and evaluation by subject, task, and environment, as applicable.

(5) Differences that relate to the variations of a particular aircraft type to be included in all academic and relevant job performance training for purposes of training and evaluation.

(6) A list of all the FSTD, and other training and evaluation equipment that the certificate holder will use, including approval for particular tasks or functions.

(7) The approved programmed hours for each curriculum category.

(8) A copy of each statement issued by the Administrator under § 121.1335(c) for reduction of baseline programmed hours.

§ 121.1335 Training program: Curriculum category programmed hours.

(a) Each certificate holder's training program submitted for initial approval under this subpart must have at least the programmed baseline hours of training as specified in the applicable crewmember QPS. Training programmed hours include training and evaluation.

(1) Academic training hours must be in a classroom provided by the certificate holder unless otherwise approved by the Administrator. Proposals for a training environment other than a classroom provided by the certificate holder must be accompanied by a plan for assessing the knowledge and cognitive skill requirements to be supported by the proposed alternative environment, and for providing the testing of each student to ensure the knowledge and skill requirements are met.

(2) Programmed hours for flightcrew member job performance training are for FSTD lessons for a specific duty position in a curriculum category.

(3) Programmed hours for flight attendant job performance training must be completed in an environment that complies with the requirements of the Flight Attendant QPS.

(b) The certificate holder must have programmed hours approved by the Principal Operations Inspector. A certificate holder may apply for a reduction of training programmed hours based on the factors outlined in § 121.1337(g). The Administrator will not approve a reduction of programmed hours below the minimum hours set forth in the applicable crewmember QPS.

(c) If approval of a reduction in training programmed hours is granted, the Administrator provides the certificate holder with a statement of the basis for the approval.

(d) The Administrator may grant a deviation to certificate holders described in § 135.3(b) and (c) of this chapter to allow reduced programmed hours of academic training if the Administrator determines that a reduction is warranted based on the certificate holder's operations and the complexity of the make, model, and series of the aircraft used.

(e) The certificate holder must have the required programmed hours approved by the Principal Operations Inspector for initial, transition, and recurrent academic training and evaluation for flight instructors, check pilots, check flight engineers, check flight attendants, flight attendant instructors, and persons authorized to conduct flight attendant proficiency checks.

§ 121.1337 Training program: Approval and amendment process.

(a) Each training program described in this subpart must be approved by the Administrator. To obtain initial or final approval of a training program, each certificate holder must provide the Administrator the following information in a form acceptable to the Administrator:

(1) An outline of the proposed program, including an outline of the proposed curriculum required in § 121.1333 for a preliminary evaluation of the proposed training program.

(2) Curriculums and curriculum categories applicable for use by the certificate holder as required by this subpart.

(3) A list of the FSTD that are to be used in the training program.

(4) A list of training equipment, other than FSTD, that is to be used in the training program.

(5) A description of the academic and job performance training facilities.

(6) A synopsis of the materials, examinations, forms, instructions, and procedures to be used for the training and evaluation required by this subpart with respect to each aircraft type, and if applicable, the particular variations within that aircraft type. Upon request, the certificate holder must make the items required in this paragraph available to the FAA for review.

(7) If training is to be conducted by persons other than the part 119 certificate holder's employees, a statement that training will be provided by persons other than the part 119 certificate holder's employees in accordance with § 121.1339.

(8) The continuous analysis process established in accordance with § 121.1355.

(9) Additional relevant information requested by the Administrator.

(b) To request a revision to an approved training program, each certificate holder must provide the Administrator the relevant information in paragraph (a) of this section that has not already been provided to the Administrator. The information must be in a form acceptable to the Administrator.

(c) If the proposed training program or proposed revision complies with this subpart, the Administrator grants initial approval in writing, after which the certificate holder may conduct the training and evaluation in accordance with that program. The Administrator then evaluates the effectiveness of the initially approved training program and advises the certificate holder of any deficiencies that must be corrected.

(d) A revision to an approved training program may be proposed as a special curriculum category that reflects changes to the certificate holder's operation, or as a differences curriculum

category that reflects differences in configuration within an aircraft type.

(1) The proposed special curriculum category will include training and evaluation. This training and evaluation will be initially approved and evaluated. Upon satisfactory evaluation, the special curriculum category will receive final approval and be integrated into the existing curriculum categories, if appropriate. If integrated, it will no longer be called a special curriculum category, but will be part of the approved training program. The Principal Operations Inspector will determine if the number of submitted programmed hours is sufficient.

(2) The proposed differences curriculum category will include training and evaluation. This training and evaluation will be initially approved, evaluated and, upon satisfactory evaluation, added to the previously approved differences curriculum category. The Principal Operations Inspector will determine if the number of submitted programmed hours is sufficient.

(e) The Administrator grants final approval of a training program if the certificate holder shows that the training and evaluation conducted under the initial approval obtained under paragraph (c) of this section ensures that each person who completes the training and evaluation is adequately trained to perform his or her assigned duties.

(f) The Administrator may require revisions to an approved training program anytime the FAA finds that revisions are necessary in the interest of safety or security. If the FAA finds that revisions are necessary for the continued adequacy of a training program that has been granted initial or final approval, the certificate holder must, after notification by the FAA, make all changes in the program that the FAA finds necessary.

(1) Within 30 days after the certificate holder receives a notice to revise the program, it may file a petition with the Director of Flight Standards to reconsider the notice. The filing of a petition to reconsider stays the notice pending a decision by the Director of Flight Standards.

(2) If the FAA finds that there is an emergency that requires immediate action in the interest of safety or security, the FAA may, upon a statement of the reasons, require a change effective without stay.

(g) The Administrator considers the following factors in approving revisions or requiring revisions to a training program:

(1) The pass and fail rate in the curriculum under consideration.

(2) The quality and effectiveness of the teaching-learning process (*e.g.,* quality of instructors, training equipment, methods, and procedures listed in the certificate holder's curriculum required by § 121.1333).

(3) The experience levels of the student population.

(4) The experience levels of the instructors and check persons.

(5) The type and scope of operations conducted by the certificate holder.

(6) The complexity of make, model, and series of aircraft used.

§ 121.1339 Training program: Contract training requirements.

Only another part 119 certificate holder or a training center certificated under part 142 of this chapter may provide training or evaluation as allowed by this subpart under contract or other arrangement when the following requirements are met:

(a) The curriculum, curriculum categories, programmed hours, manuals, and checklists are approved by the FAA for the part 119 certificate holder.

(b) The facilities, personnel, FSTD, other training equipment, and courseware meet the applicable requirements of this subpart.

(c) Flightcrew members. The instructors and check persons selected by the part 119 certificate holder must, in addition to meeting the requirements of § 121.1253 or § 121.1281, as appropriate, must be eligible and qualified under this subpart for the specific instruction or evaluation requested by the certificate holder, and must meet one of the following criteria:

(1) For another part 119 certificate holder, be an authorized instructor, check airman, or APD for that part 119 certificate holder; or

(2) For a part 142 training center, be a flight instructor authorized to conduct training for that training center, or be a check airman authorized to conduct evaluations for that training center, in accordance with the part 119 Certificate Holder's FAA-approved training program. In addition, when the evaluation requires or provides for the issuance of airline transport pilot certificate or an appropriate type rating, the person conducting the evaluation must be authorized to conduct the ATPC practical test or the type rating practical test for that training center in accordance with § 61.157 of this chapter, where both authorizations may be exercised simultaneously.

(d) The use of subject matter experts.

(1) Flightcrew members: Under § 121.1281, a subject matter expert, with specific technical knowledge on a subject, may be used to conduct training on specific tasks, however, a qualified instructor must be present during the training.

(2) Flight attendants: Under § 121.1291, a subject matter expert, with specific technical knowledge on a subject, may be used to conduct training on specific tasks, in accordance with the following:

(i) Except as provided in paragraph (d)(2)(ii) of this section, when flight attendant training is provided by a subject matter expert, a qualified flight attendant instructor must be present.

(ii) Subject matter experts may provide flight attendant training on the following specific tasks without a qualified flight attendant instructor present:

(A) Firefighting and firefighting equipment.

(B) Emergency medical events and emergency medical equipment.

(C) Hazardous materials recognition.

§ 121.1341 Training program: Individuals administering training or evaluation and unauthorized use of equipment and facilities in training programs.

(a) No certificate holder may use a person to administer, nor may any person administer, training, evaluation, or operating experience, except:

(1) In accordance with this section; or

(2) If applicable, as provided in the initial cadre requirements of §§ 121.1257 and 121.1323.

(b) Persons who administer training or evaluation must be knowledgeable in the facilities, equipment, and procedures, as appropriate.

(c) Persons who administer training or evaluation must use only the equipment and the facilities that are specifically approved for the certificate holder's training program.

(d) Training and evaluation is not successfully completed, even if the individual successfully completed the activity, when the certificate holder does one of the following:

(1) Uses facilities, equipment, and materials that are not specifically approved for that activity as part of the certificate holder's approved training program.

(2) Uses persons who are not authorized to administer the activity as specified in the applicable crewmember QPS or who do not meet the requirements of this subpart.

§ 121.1343 Training program: Academic evaluation.

(a) The certificate holder must establish a method to develop written, oral, or electronic tests of the knowledge obtained during academic training that is approved by the Administrator as part

of the approved training program. The training program must include development and maintenance of the academic evaluation, methods to establish the validity of the academic evaluation, required student remediation, and adjustment of instruction when required.

(b) The QPS provides job tasks and related areas of required instruction. Each area of instruction is provided with subjects that must be trained and evaluated. An academic evaluation must include the minimum number of questions indicated in the QPS for each subject. Students must achieve a performance of 80% in each area of instruction.

(1) Student performance is at least 80%. Student performance of at least 80% in an area of instruction must be corrected to 100%. This correction must include a discussion of the correct answer and why the person's original answer was incorrect. Re-evaluation is not required.

(2) Student performance below 80%. Student performance below 80% in an area of instruction must be corrected to 100%. This correction must include a discussion of the correct answer and why the person's original answer was incorrect. Upon completion of this correction, the person must be re-evaluated.

(c) A test question repository must be developed to include a minimum number of questions for each subject, as required by the QPS.

(d) The certificate holder must use the repository to create tests that allow random selection of questions from which alternative tests will be created.

§ 121.1345 Training program: Mandatory use of flight simulation training devices.

(a) *Mandatory use of FSTDs in Training Program.* All flight training and evaluation must be completed in FSTD, approved by the Administrator, in accordance with the applicable Pilot or Flight Engineer QPS. Except as provided in paragraph (b) of this section, no credit will be given in the QPS for training and evaluation conducted in an aircraft.

(1) Each FSTD used in an approved training program required under this part must be evaluated, qualified, and maintained in accordance with part 60 of this chapter and approved by the Administrator for training or evaluating tasks required by the applicable QPS.

(2) The qualification level of the FSTD required to be used by an applicant to demonstrate flightcrew member task proficiency is specified in the applicable QPS.

(3) The level of FSTD that may be used for initial training and evaluation is dependent on the pilot's experience requirements as specified in the Pilot QPS.

(b) *Deviation from use of FSTD.*

(1) A certificate holder may request a deviation from paragraph (a) of this section to conduct training and evaluation activities in an aircraft only if one of the following applies:

(i) The certificate holder has an approved program or has submitted a training program for review and approval prior to [date 120 days after publication of final rule]. The certificate holder must request the deviation no later than [date 40 months after the publication date of the final rule].

(ii) The certificate holder requests the deviation as part of a request for approval of an initial cadre program. If approved, the deviation will become effective at the same time as the initial cadre program.

(2) Deviation requests must be submitted to the FAA for review and approval, and must include:

(i) The number of FSTD training hours the certificate holder's flightcrew members would need to meet the training requirements in this part.

(ii) An FSTD availability assessment, including hours by specific FSTD and location of the FSTD.

(iii) An FSTD shortfall analysis that includes the tasks and environments that cannot be completed in an FSTD qualified at the level specified in the applicable QPS.

(iv) Proposed alternative means to address the shortfall in task training and evaluation. The requester must identify the tasks that can be completed in an FSTD qualified at a lower level than that specified in the applicable QPS or can be completed in the aircraft.

(v) An alternative training program for using the aircraft instead of an FSTD or using an aircraft in combination with an FSTD, including methods of achieving an acceptable level of safety.

(3) A certificate holder may request an extension of a deviation issued under this section.

(4) Deviations or extensions to deviations will be issued for a period not to exceed 12 months.

§ 121.1349 Training program: Limitations on the use of flight simulation training devices.

(a) An FSTD may not be used for credit for the following:

(1) The pilot in command line check required by § 121.1233.

(2) Exterior preflight checks.

(3) The pilot and flight engineer operating experience required by § 121.1225.

(4) Consolidation required by § 121.1227.

(b) To receive credit for training and evaluation of required tasks and LOFT, the flightcrew member must complete these activities in FSTD that are approved for those tasks and LOFT as part of the certificate holder's training program.

§ 121.1351 Training program: Training equipment other than flight simulation training devices.

Training equipment, other than FSTD qualified under part 60 of this chapter, used in an approved training program required under this part must be approved and used in accordance with the following:

(a) The FAA must approve training equipment used to functionally replicate aircraft equipment for the certificate holder and the crewmember duty or procedure involved.

(b) The certificate holder must demonstrate that the training equipment meets all of the following:

(1) The form, fit, function, and weight, as appropriate, of the equipment

(2) Normal operation (and abnormal and emergency operation, if appropriate) including the following:

(i) The required force, actions and travel of the equipment.

(ii) Variations in equipment operated by the certificate holder, if applicable.

(3) Operation of the equipment under adverse conditions, if appropriate.

(c) Training equipment must be modified to ensure that it maintains the performance and function of the aircraft type or aircraft equipment replicated.

(d) All training equipment must have a method of documenting discrepancies in close proximity. The documenting system must be readily available for review by each instructor or check person prior to conducting training or evaluation with that equipment.

(1) Each instructor or check person conducting training or evaluation, and each person conducting an inspection of the equipment who discovers a discrepancy, including any missing, malfunctioning, or inoperative components, must write or cause to be written a description of that discrepancy into the documenting system at the end of the inspection or the training session.

(2) All corrections to discrepancies must be recorded when the corrections are made, and the dates of the discrepancies and corrections must be recorded.

(3) A record of a discrepancy must be maintained for at least 60 days.

(e) No person may use, allow the use of, or offer the use of training equipment with a missing, malfunctioning, or

inoperative component to meet the crewmember training or evaluation requirements of this chapter for tasks that require the use of the correctly operating component.

§ 121.1353 Training program: Line Oriented Flight Training (LOFT), and Full Flight Simulator (FFS) Course of Instruction.

(a) *Line Oriented Flight Training (LOFT).* LOFT must meet the following requirements:

(1) LOFT must be administered by a pilot flight instructor, a check pilot qualified in accordance with this subpart, or an APD. A flight engineer flight instructor or a check flight engineer may assist the pilot flight instructor, check pilot, or APD.

(2) LOFT must be accomplished in an FFS that has the qualification level specified in the applicable QPS.

(3) LOFT must include flight training as described in the appropriate QPS. Each LOFT must include the following:

(i) At least two operating cycles representative of the certificate holder's operation.

(ii) A pilot flying cycle and a pilot monitoring cycle for each qualifying pilot.

(iii) Normal line operations.

(iv) Abnormal, non-normal, or emergency flight operations.

(4) Except as authorized in § 121.1221(e), LOFT must be conducted with a complete flight crew as described in § 121.1221(d).

(5) LOFT must be conducted as a line operation with minimal interruption during the session.

(6) Any person serving in a flightcrew member position during a LOFT who does not perform satisfactorily may not serve as a required crewmember in operations under this part without receiving training to correct the deficiencies and demonstrating that the deficiencies have been corrected. Corrections of performance deficiencies that require demonstration must be completed during the LOFT. Corrections of other deficiencies related to understanding of procedures may be completed during the post-flight debriefing of the flightcrew, as appropriate.

(b) *FFS Course of instruction.*

(1) An FFS course of instruction must be administered by a pilot flight instructor, a check pilot, or an APD qualified in accordance with this subpart. A flight engineer flight instructor or a check flight engineer may assist the pilot flight instructor, check pilot, or APD.

(2) An FFS course of instruction must be accomplished in an FFS that is qualified in accordance with part 60 of this chapter and that has the qualification level specified in the applicable QPS.

(3) The FFS course of instruction must include flight training as described in the applicable QPS .

(4) Except as authorized in § 121.1221(e), FFS course of instruction must be conducted with a complete flight crew as described in § 121.1221(d).

(5) Any person serving in a flightcrew member position during an FFS course of instruction who does not perform satisfactorily may not serve as a required crewmember in operations under this part without receiving training to correct the deficiencies and demonstrating that the deficiencies have been corrected. Corrections of performance deficiencies that require demonstration must be completed during the FFS course of instruction. Corrections of other deficiencies related to understanding of procedures may be completed during the post-flight debriefing of the flightcrew, as appropriate.

§ 121.1355 Training program: Continuous analysis process.

(a) Each certificate holder must develop and submit to the FAA for approval a program that provides for the continuous monitoring and regular analysis of the performance and effectiveness of its training program(s) and operation that will:

(1) Ensure that each training program and the standards of qualification for each duty position are documented;

(2) Provide for the review of training program content, application, and results through at least two standardization meetings annually for those persons required to attend such meetings in accordance with §§ 121.1251 and 121.1271;

(3) Ensure the persons completing the training program(s) are competent and qualified to perform the duties for which they have been trained;

(4) Provide for the regular analysis of crewmember performance on proficiency tests and checks to identify and correct any deficiencies in either crewmember performance or operation of the training program(s). Additionally, for flightcrew members provide for the regular analysis of flightcrew member performance in LOFTs and FFS courses of instruction to identify and correct any deficiencies in either flightcrew member performance or operation of the training program(s).

(5) Provide for the monitoring of persons having completed remedial training or re-evaluation due to the failure of a proficiency test or check or unsatisfactory performance during a LOFT or FFS course of instruction, as appropriate; and

(6) Provide a means for changing or updating the program(s) as changes are required.

(b) The monitoring conducted under paragraph (a)(5) of this section must continue until the crewmember satisfactorily completes the next recurrent training session to ensure the crewmember's competent performance during this period.

Curriculum Category Requirements

§ 121.1363 Curriculum category requirements: Crewmember new hire.

(a) Each training program must include new hire training for all of the following individuals:

(1) Each person who is qualifying for the first time as a crewmember for the certificate holder.

(2) Each person who is required to complete flight attendant phase II requalification in accordance with § 121.1309(b) and the Flight Attendant QPS.

(b) The content of the new hire curriculum category must include the following:

(1) The subjects listed in the Pilot QPS that are representative of the certificate holder's operations, and approved by the POI as such;

(2) The subjects listed in the flight engineer QPS that are representative of the certificate holder's operations, and approved by the POI as such;

(3) The subjects listed in the Flight Attendant QPS that are representative of the certificate holder's operations, and approved by the POI as such.

(4) An academic evaluation of the new hire subjects identified in paragraph (b) of this section.

§ 121.1365 Curriculum category requirements: Pilot and flight engineer initial, conversion, transition, and upgrade, academic and job performance training.

(a) *Academic training.* Initial, conversion, transition, and upgrade academic training for flightcrew member must include training in the subjects specified in the Pilot and Flight Engineer QPS that are representative of the certificate holder's operations and the flightcrew member's assigned duties.

(b) *Job performance training.* Initial, conversion, transition, and upgrade job performance training for pilots and flight engineers must include all of the following:

(1) Training and evaluation in the tasks and environments set forth in the Pilot and Flight Engineer QPS that are

representative of the certificate holder's operation and the pilot and flight engineer's assigned duties. Following training, the pilot or flight engineer must complete an evaluation by demonstrating the knowledge and skills required for the aircraft type and duty position. The evaluation must be accomplished by a proficiency test that also may be used for airman certification or type rating. This proficiency test must be conducted by a check pilot, a check flight engineer, a pilot APD, or a flight engineer APD who is qualified to conduct the test who is an employee of the certificate holder or by a TCE employed by a part 142 certificate holder, who has been authorized to conduct the test by the FAA.

(2) Qualification LOFT is conducted after a person completes the proficiency test at the end of initial, conversion, transition, or upgrade training. Qualification LOFT must meet the requirements of § 121.1353.

(c) A pilot or flight engineer is qualified after completing the proficiency test prescribed in paragraph (b)(1) of this section and the Qualification LOFT.

§ 121.1367 Curriculum category requirements: Pilot and flight engineer recurrent academic, recurrent job performance, and recurrent aircraft emergency equipment training and evaluation.

(a) Recurrent training and evaluation is required every 9 months following completion of the training and evaluation set forth in § 121.1365 for initial qualification, and must consist of the following:

(b) Recurrent academic training and evaluation, to include:

(1) Training in the subjects and tasks listed in the Pilot and Flight Engineer QPS that are representative of the certificate holder's operations and the pilot and flight engineer's assigned duties, for the recurrent curriculum category for the aircraft in which the pilot or flight engineer is currently serving.

(2) Evaluation must include a knowledge and comprehension assessment of the flightcrew member's knowledge of the subjects in which training has occurred.

(c) Job performance training and evaluation. During each 9-month recurrent cycle, the cycle must include:

(1) Two FFS job performance sessions of at least four hours each for pilots, and at least 2 hours each for flight engineers at the intervals specified in the Pilot and Flight Engineer QPS that are representative of the certificate holder's operations and the pilot and flight engineer's assigned duties.

(2) During the first 9-month recurrent cycle following the proficiency test required by § 121.1365(b)(1) for initial training, the recurrent cycle must include a LOFT and an evaluation.

(3) Recurrent evaluation is required to be conducted during every other 9 month recurrent cycle. A certificate holder may elect to conduct an evaluation during every 9 month recurrent cycle.

(4) In those 9-month recurrent cycles where evaluation is not conducted, the cycle must include a LOFT and an FFS course of instruction.

§ 121.1369 Curriculum category requirements: Flight attendant initial and transition training.

Initial and transition training for flight attendants must include all of the following:

(a) Academic and job performance training in the subjects and tasks specified in the Flight Attendant QPS.

(b) A test of the flight attendant's knowledge with respect to the aircraft and crewmember duty position.

(c) Practice in the performance of specific tasks in accordance with the Flight Attendant QPS to determine ability to perform assigned duties and responsibilities for each aircraft type on which the flight attendant is to serve.

§ 121.1371 Curriculum category requirements: Flight attendant eligibility for transition training.

No person is eligible for flight attendant transition training unless that person has been qualified for at least 180 days and served in the previous 180 days on an aircraft as a flight attendant for that certificate holder.

§ 121.1373 Curriculum category requirements: Flight attendant emergency training.

Each emergency training program must include the following:

(a) The emergency training requirements as specified in the Flight Attendant QPS with respect to each aircraft type, model, and configuration, and each kind of operation conducted by the certificate holder.

(b) A test of the flight attendant's knowledge with respect to the aircraft type and crewmember duty position involved.

(c) Completion of proficiency tests to determine the flight attendant's ability to perform assigned duties and responsibilities for each aircraft type on which the flight attendant is to serve.

§ 121.1375 Curriculum category requirements: Flight attendant recurrent training.

Recurrent training for flight attendants must include the following:

(a) Training in the subjects and tasks specified in the Flight Attendant QPS.

(b) A test of the flight attendant's knowledge with respect to the aircraft type and crewmember duty position involved.

(c) Completion of proficiency tests in accordance with the Flight Attendant QPS to determine the flight attendant's ability to perform assigned duties and responsibilities for each aircraft type on which the flight attendant is to serve.

§ 121.1377 Curriculum category requirements: Flight instructor initial, transition, and recurrent academic training.

(a) *Initial flight instructor academic training.* At least a 4-hour block of instruction that includes the following:

(1) Training policies and procedures.

(2) Flight instructor duties, functions, and responsibilities.

(3) Appropriate provisions of the regulations of this chapter and the certificate holder's policies and procedures.

(4) The appropriate methods, procedures, and techniques for conducting flight instruction.

(5) Proper evaluation of student performance including the detection of the following:

(i) Improper or insufficient training.

(ii) Student behaviors that could adversely affect safety.

(6) The corrective action in the case of unsatisfactory training progress.

(7) The approved methods, procedures, and limitations for instructing in the required standard operating procedures, abnormal procedures, non-normal procedures, and emergency procedures applicable to the aircraft.

(8) Except for holders of a flight instructor certificate, the following:

(i) The fundamental principles of the teaching-learning process.

(ii) Teaching methods and procedures.

(iii) The instructor-student relationship.

(9) Use of FSTD for training and evaluation.

(i) Operation of FSTD controls.

(ii) FSTD limitations.

(iii) Minimum FSTD equipment required for each task and environment.

(b) *Transition flight instructor academic training.* Transition academic training for flight instructors must include the approved methods, procedures, and limitations for instructing in the required standard

operating procedures, abnormal procedures, non-normal procedures, and emergency procedures applicable to the aircraft to which the flight instructor is transitioning.

(c) *Recurrent flight instructor academic training.* The recurrent flight instructor academic training must be at least a 4-hour block of instruction completed every 18 months and must include the following:

(1) The subjects required in paragraph (a) of this section.

(2) FSTD operations, limitations, and minimum required equipment.

(3) Changes in crewmember qualification curriculums.

§ 121.1379 Curriculum category requirements: Flight instructor initial and transition job performance training.

Initial and transition job performance training for flight instructors must include training to ensure competence in conducting flight instruction as required by this part and the applicable QPS.

(a) For pilot flight instructors, the methods for conducting the required training from either pilot seat and the instructor's operating station (IOS), as well as the operation of the FSTD from the IOS or either pilot seat if the FSTD is so equipped.

(b) For flight engineer flight instructors, the methods for conducting the required training from the IOS, as well as the operation of the FSTD from the IOS.

§ 121.1381 Curriculum category requirements: Check pilot, check flight engineer, or check flight attendant initial, transition, and recurrent academic training.

(a) The initial academic training for check pilots, check flight engineers, or check flight attendants must include the following:

(1) Evaluation policies and procedures.

(2) Check pilot, check flight engineer, or check flight attendant duties, functions, and responsibilities, as applicable.

(3) The applicable regulations of this chapter and the certificate holder's policies and procedures.

(4) The appropriate methods, procedures, and techniques for conducting the required evaluations.

(5) Proper evaluation of student performance including the detection of:

(i) Improper or insufficient training; and

(ii) Student behaviors that could adversely affect safety.

(6) The appropriate action in the case of unsatisfactory performance.

(7) The approved methods, procedures, and limitations for performing the required standard operating procedures, abnormal procedures, non-normal procedures, and emergency procedures applicable to the aircraft type.

(8) FSTD and other training equipment, as applicable, operations, limitations, and minimum equipment required for tasks and environments.

(b) The transition academic training for check pilots, check flight engineers, or check flight attendants must include approved methods, procedures, and limitations for performing the required standard operating procedures, abnormal procedures, non-normal procedures, and emergency procedures applicable to the aircraft type to which the check person is transitioning.

(c) The recurrent academic training for check pilots and check flight engineers must be completed every 18 months. The recurrent academic training for check flight attendants must be completed every 12 months. The recurrent academic training for check pilots, check flight engineers, and check flight attendants must include the following:

(1) The subjects required in paragraph (a) of this section, as applicable.

(2) The operation of, limitations of, and minimum equipment required for tasks and environments for FSTD and other training equipment use.

(3) Changes in crewmember qualification curriculums.

§ 121.1383 Curriculum category requirements: Check pilot and check flight engineer initial, transition, and recurrent job performance training.

(a) Initial and transition job performance training for check pilots and check flight engineers must include the following:

(1) Training to ensure competence in conducting job performance evaluation in each of the tasks specified in the applicable QPS.

(2) Each check pilot authorized to conduct training or evaluations in an FSTD must have completed the following:

(i) The requirements for qualification and training for flight instructors described in § 121.1379(a).

(ii) Training on the methods for conducting required evaluations in an FSTD, including conducting the evaluation from either pilot seat and from the IOS, as well as operation of the FSTD from the IOS or either pilot seat if the FSTD is so equipped.

(3) Check pilots authorized to conduct operating experience or line checks, must do the following in an FSTD:

(i) Learn the safety measures to be taken from either pilot seat for emergency situations that are likely to develop during flight operations.

(ii) Learn the potential consequences of improper, untimely or unexecuted safety measures during flight operations.

(iii) Complete the seat dependent task training described in the QPS.

(4) Each check flight engineer must have been trained on the methods for conducting the flight engineer evaluation described in paragraph (a) of this section in an FSTD from either the IOS or a flight engineer operating station if the FSTD is so equipped.

(b) Recurrent job performance training for check pilots and check flight engineers must be accomplished every 18 months in conjunction with the recurrent academic training described in § 121.1381, and must include the following:

(1) Flightcrew member recurrent training in accordance with § 121.1223;

(2) For check pilots, seat dependent task training from both seats, in accordance with the QPS, including the safety measures to be taken from either pilot seat in emergency situations during flight operations.

§ 121.1387 Curriculum category requirements: Initial, transition, and recurrent academic training for persons authorized to administer flight attendant proficiency tests.

(a) Initial academic training instruction for persons authorized to administer flight attendant proficiency tests must include the following:

(1) Training policies and procedures.

(2) Duties, functions, and responsibilities of persons authorized to administer flight attendant proficiency tests.

(3) The applicable regulations of this chapter and the certificate holder's policies and procedures.

(4) The appropriate methods, procedures, and techniques for conducting the required tests.

(5) Proper evaluation of student performance including the detection of—

(i) Improper and insufficient training; and

(ii) Student behaviors that could adversely affect safety.

(6) The appropriate corrective action in the case of unsatisfactory tests.

(7) The approved methods, procedures, and limitations for instructing and evaluating in the required normal, abnormal, and emergency procedures applicable to the aircraft.

(8) Simulator and trainer operations, limitations, and minimum required equipment, as appropriate.

(b) Transition academic training instruction for persons authorized to

administer flight attendant proficiency tests must include approved methods, procedures, and limitations for evaluating the required normal, abnormal, and emergency procedures applicable to the aircraft to which the person authorized to conduct proficiency tests is in transition.

(c) The recurrent academic training for persons authorized to administer proficiency tests must be completed every 12 months. Recurrent academic training instruction for persons authorized to administer proficiency tests must include the following:

(1) The subjects, as necessary, required in paragraph (a) of this section.

(2) Simulator and trainer operations, limitations, and minimum required equipment, as appropriate.

(3) Changes in crewmember qualification curriculums.

45. Add subpart CC to part 121 to read as follows:

Subpart CC—Aircraft Dispatcher Qualifications and Training Requirements For Ground Operations Personnel and Management Personnel

General

Sec.
121.1401 Applicability.
121.1402 Interim requirements for transitioning training programs.
121.1403 Certificate holder responsibility for compliance.
121.1405 Definitions.
121.1407 English language requirement.
121.1409 Acceptable time for completing recurrent requirements.

Qualification

121.1411 Aircraft dispatcher: Employment and certificate.
121.1413 Aircraft dispatcher: Training and evaluation.
121.1415 Aircraft dispatcher: Operating familiarization.
121.1417 Aircraft dispatcher: Supervised operating experience.
121.1419 Aircraft dispatcher: Requalification.
121.1421 Dispatcher instructor and check dispatcher: Eligibility, training, and evaluation.
121.1423 Dispatch program designee: Eligibility and qualification.
121.1425 Check dispatcher: Initial cadre.

General Training Program Requirements

121.1431 Training program: General.
121.1433 Training program: General curriculum by aircraft type and operation.
121.1435 Training program: Curriculum programmed hours.
121.1437 Training program: Approval and amendment process.
121.1439 Training program: Individuals administering training or evaluation, and unauthorized use of equipment and facilities in training programs.
121.1441 Training program: Continuous analysis process.

Curriculum Category Requirements

121.1451 Curriculum category requirements: Standards used in aircraft dispatcher training.
121.1453 Curriculum category requirements: Aircraft dispatcher initial, combined certification and initial, and transition training.
121.1455 Curriculum category requirements: Aircraft dispatcher recurrent training.
121.1457 Curriculum category requirements: Dispatcher instructor initial and recurrent training.
121.1459 Curriculum category requirements: Check dispatcher initial and recurrent training.

Other Training Requirements

121.1471 Differences training and evaluation.
121.1473 [Reserved]

Training Requirements For Ground Operations and Management Personnel

121.1475 Training requirements.

Subpart CC—Aircraft Dispatcher Qualifications and Training Requirements For Ground Operations Personnel and Management Personnel

General

§ 121.1401 Applicability.

(a) This subpart provides the following:

(1) Qualification requirements for aircraft dispatchers for certificate holders conducting domestic, flag, and supplemental operations.

(2) Requirements applicable to each certificate holder for establishing, obtaining approval of, and maintaining a training program to qualify certificated aircraft dispatchers and an optional program to certificate aircraft dispatcher candidates.

(3) Requirements applicable to each certificate holder for establishing, obtaining acceptance of, and maintaining a training program for ground operations and management personnel.

(b) Any person qualified in a duty position for the certificate holder before [date 120 days after publication of the final rule] or under the provisions of subparts N and P of this part in effect on or before [date 119 days after publication of the final rule] may continue to serve in that duty position for that certificate holder without complying with initial training under § 121.1453.

(c) Any person qualified in a training or evaluation position, for the certificate holder before [date 120 days after publication of the final rule], or qualified under the provisions in subparts N and P of this part, may continue to serve in that training or evaluation position for that certificate holder during the transition to the requirements of this subpart.

§ 121.1402 Interim requirements for training programs.

(a) Contrary provisions of this subpart notwithstanding, a person who has submitted a training program for approval before [date 120 days after publication of the final rule] that was constructed in accordance with the applicable provisions of subparts N and P of this part in effect on or before [date 119 days after publication of the final rule], may complete the approval and implementation process and conduct operations in compliance with the applicable provisions of subparts N and P of this part instead of the provisions of this subpart.

(b) A certificate holder must submit a transition plan to the FAA no later than [date 4 years and 120 days after publication of the final rule]. The transition plan must include the following:

(1) Subpart CC training program(s), as applicable.

(2) Plan for transition for aircraft dispatchers and persons involved in training or evaluation of aircraft dispatchers from the applicable provisions of subparts N and P of this part to the provisions of this subpart.

(3) A transition completion date that is before [date 5 years and 120 days after the publication of the final rule].

(c) During the transition, the certificate holder may use people to conduct operations under this part provided those people are trained under the applicable provisions of subparts N and P of this part, or this subpart. While a certificate holder may simultaneously operate training programs in compliance with the applicable provisions of subparts N and P of this part and this subpart, each aircraft dispatcher must be trained and qualified.

(d) A certificate holder may not use an aircraft dispatcher, nor may an aircraft dispatcher serve, in a duty position unless that person is current and qualified to perform the duties to which he or she is assigned. If more than one aircraft dispatcher is required for an operation, and one aircraft dispatcher is current and qualified in accordance with the applicable provisions of subparts N and P of this part, and the other aircraft dispatcher is current and qualified in accordance with this subpart, then the lesser qualification requirements apply for that operation.

§ 121.1403 Certificate holder responsibility for compliance.

(a) Each certificate holder is responsible for ensuring that its

approved training program, including all portions of the training program that are conducted by individuals other than employees of the part 119 certificate holder, meets the requirements of this subpart.

(b) Each certificate holder is responsible for ensuring that all procedures, manuals, and other materials submitted to obtain initial or final approval of a training program are kept up to date and followed.

(c) Each certificate holder is responsible for ensuring that all procedures, manuals and other materials submitted for acceptance of a training program for ground operations and management personnel are kept up to date and followed.

§ 121.1405 Definitions.

For the purpose of this subpart, the following terms and their definitions apply:

Academic evaluation. This is a written, oral, or electronic test of the knowledge obtained during academic training.

Academic training. This is instruction and practice that provides individuals with the required knowledge and cognitive skills necessary to perform the tasks required for the aircraft dispatcher duty position, instructor, or evaluator duty position.

Base month. The month in which a recurrent activity is due.

Certificate holder. A person certificated under part 119 of this chapter that conducts operations under part 121.

Combined certification and initial. An optional curriculum category specifically approved under part 121 that integrates an approved certificate holder's initial curriculum category with part 65 requirements. The curriculum category allows for both the issuance of an aircraft dispatcher certificate and qualification of the individual to serve as an aircraft dispatcher for the certificate holder. The aircraft dispatcher's certificate is issued under 14 CFR part 65, not part 121.

Current. Current means satisfying the initial training and evaluation requirements prescribed in § 121.1453 or the recurrent training and evaluation requirements prescribed in § 121.1455, as applicable.

Curriculum. A curriculum is the category or categories of training and evaluation required to qualify a person for an aircraft dispatcher duty position, or an instructor or evaluator duty position. The curriculum includes the categories of training and evaluation, the programmed hours for training and evaluation, and the appropriate subjects and tasks.

Curriculum category. Parts of a curriculum that relate to qualification experience levels, first time qualification for a certificate holder, configuration differences within type or series, maintaining and regaining qualification, and changes in operations. Curriculum categories include: initial, transition, differences, recurrent, requalification, and special. Each curriculum category contains academic training and evaluation.

Differences. A curriculum category on a particular aircraft type and operation when the Administrator finds additional training is necessary before that aircraft dispatcher serves in the same capacity on a particular variation within a series of an aircraft type or a different series within an aircraft type.

Duty position. A duty position is the position held by an Aircraft Dispatcher that requires unique qualification and currency requirements to serve in operations under this part. The term duty position includes the variations within a position, such as check dispatcher, dispatcher instructor, or dispatch program designee.

Eligibility period. The eligibility period consists of the month in which the recurrent activity is due (the "base month"), the month before and the month after (the "grace month").

Environment. A combination of external, physical, and surrounding conditions that affect aircraft performance, aircraft and equipment operation, and decisionmaking.

Evaluation. Any testing or checking activities in which a person's skills and knowledge are assessed by a person authorized to perform that evaluation.

Ground operations personnel. Any person who is assigned safety-related duties and responsibilities that affect the operation of the aircraft while on the ground. This may include but is not limited to: computing weight and balance, loading and unloading aircraft, directing or moving aircraft.

Initial. A curriculum category that must be successfully completed to qualify an aircraft dispatcher to serve as an aircraft dispatcher for a certificate holder in operations under this part.

Initial cadre. The specific persons approved by the FAA for the time frame necessary, not to exceed 24 months, for a new part 119 certificate holder to initiate operations under part 119, or for a current part 119 certificate holder to initiate operations of a new aircraft type not operated previously or to initiate a new type of operation.

Management personnel. Any person who is assigned safety-related management duties and responsibilities in accordance with part 119 of this chapter.

Month. Calendar month.

Practical test. The final test required for certification of a person as an aircraft dispatcher.

Proficiency. Demonstrated awareness of existing circumstances, competence in the necessary knowledge and skills, and performance of the relevant task within the operating range of environments to the established standards of performance identified and required by the Aircraft Dispatcher QPS.

Proficiency check. An assessment of dispatcher proficiency during which limited training or practice is allowed. The assessment is of knowledge and skill in tasks to the standards identified and required by the Aircraft Dispatcher QPS.

Proficiency test. An assessment of dispatcher proficiency during which additional training or practice is not allowed. The assessment is of knowledge and skill in tasks to the standards identified and required by the Aircraft Dispatcher QPS. This assessment is administered:

(1) After the completion of initial training and evaluation, operating familiarization, and supervised operating experience; and

(2) After the completion of transition training.

Programmed hours. The required number of hours (baseline and minimum) set forth in this subpart for curriculum categories identified and required by the Aircraft Dispatcher QPS.

Qualification performance standards (QPS). FAA standards providing all of the tasks, areas of instruction, and evaluation, including activities, procedures, and knowledge needed to certify, qualify, retain currency, and requalify dispatchers for performing in operations under this part. The QPS for dispatchers is part 121 appendix T: Aircraft Dispatcher Qualification Performance Standards.

Qualified. When used in reference to an individual, means an individual who has completed the certificate holder's FAA-approved curriculum under this part and holds an aircraft dispatcher certificate.

Recurrent. A curriculum category that must be successfully completed within the eligibility period to maintain aircraft dispatcher qualification.

Requalification. A curriculum category that must be successfully completed to restore qualified status to an aircraft dispatcher previously qualified for the certificate holder when qualification is lost due to failure to meet recurrent requirements.

Serve. Performing the duties of an aircraft dispatcher, dispatcher instructor, check dispatcher, or dispatch program designee for a certificate holder.

Special. A curriculum category necessary to address changes to the certificate holder's operations or to correct deficiencies identified by the certificate holder's continuous analysis process. Special training is temporary and is integrated into the approved training program.

Supervised Operating Experience (SOE). Training and other supervised activities conducted for the purpose of demonstrating the ability to perform the duties of an aircraft dispatcher prior to the proficiency test or proficiency check.

Training. Instruction and practice.

Training program. A certificate holder's training curriculums, personnel, facilities, equipment, and other resources used to meet the training requirements of this subpart.

Transition. A curriculum category to be completed by an aircraft dispatcher who is presently qualified on an aircraft type in operations under this part for the certificate holder to allow that aircraft dispatcher to serve as an aircraft dispatcher for a different aircraft type.

§ 121.1407 English language requirement.

(a) No certificate holder may use any person, nor may any person serve, as an aircraft dispatcher under this part, unless that person has demonstrated to an individual qualified to conduct evaluations under this part, that he or she can:

(1) Read, write, speak, and understand the English language.

(2) Have his or her English language and verbal and written communications understood.

(b) Compliance with this section can be shown by:

(1) Completion of a certificate holder's approved training program conducted solely in English, or

(2) An aircraft dispatcher certificate without limitations.

§ 121.1409 Acceptable time for completing recurrent requirements.

(a) An aircraft dispatcher must complete recurrent training, evaluation, and operating familiarization during the eligibility period.

(b) An aircraft dispatcher who has not completed recurrent training by the end of the base month may continue to perform dispatcher duties until the end of the eligibility period.

Qualification

§ 121.1411 Aircraft dispatcher: Employment and certificate.

(a) No certificate holder may use any person, nor may any person serve, as an aircraft dispatcher in domestic, flag, or supplemental operations, unless that person is an employee of the part 119 certificate holder and has in his or her possession an aircraft dispatcher certificate issued to the person by the FAA without limitations, in accordance with part 65 subpart C of this chapter.

(b) *Deviation authority.*

(1) The Administrator may authorize a deviation from the employment requirement in paragraph (a) of this section. Before issuing a deviation, the Administrator will determine whether the certificate holder can demonstrate an equivalent level of safety of paragraph (a) of this section, and meets at least the following:

(i) The certificate holder has at least one certificated aircraft dispatcher who is an employee of the certificate holder and is responsible for managing policies, procedures, training, and qualifications of the contract aircraft dispatchers.

(ii) The certificate holder demonstrates an ability to maintain operational control and comply with all requirements of this part.

(2) The Administrator may, at any time, terminate any grant of deviation authority issued under this paragraph (b).

§ 121.1413 Aircraft dispatcher: Training and evaluation.

No certificate holder may use any person, nor may any person serve, as an aircraft dispatcher in domestic, flag, or supplemental operations unless that person meets the following requirements:

(a) *Training and evaluation.* The person has successfully completed, in a training program approved under this subpart for the certificate holder, the following:

(1) Training in accordance with the Aircraft Dispatcher QPS, and the associated programmed hours required by § 121.1435, as follows:

(i) Within the preceding 12 months, initial, combined certification and initial, transition, or recurrent training categories as prescribed in § 121.1453 or § 121.1455 as applicable.

(A) An aircraft dispatcher is eligible for transition training only if the aircraft dispatcher is otherwise qualified as an aircraft dispatcher for the certificate holder on another aircraft type in the same airplane group in operations under this part.

(B) To be eligible for recurrent training, an aircraft dispatcher must be otherwise qualified and have successfully completed the initial, combined certification and initial, or transition training for the certificate holder.

(ii) Differences training, if necessary, as prescribed in § 121.1471.

(iii) Requalification training, if necessary, as prescribed in § 121.1419.

(iv) Special training, if necessary, as prescribed in § 121.1437.

(2) A proficiency test or check in accordance with § 121.1453(a)(2), § 121.1453(b)(2), or § 121.1455(c), as applicable.

(3) Supervised operating experience, as prescribed in § 121.1417.

(b) *Continuity of training.*

(1) *Initial for certificated dispatchers.* A certificated aircraft dispatcher must successfully complete all of the required initial curriculum category, including the proficiency test, prescribed in § 121.1453(a)(2) within 120 days of beginning the initial curriculum category.

(2) *Combined certification and initial for non-certificated person.* A non-certificated person must successfully complete all of the required combined certification and initial curriculum category, including the practical test and proficiency test, prescribed in § 121.1453(b)(2) within 180 days of beginning the combined certification and initial category.

(c) *Failure to complete training.* If a person fails to successfully complete the training in the time required by paragraph (b) of this section, the person must repeat the initial training, or combined certification and initial training, as required by paragraph (a) of this section within the time period required in paragraph (b) of this section.

(d) *Operating familiarization.* The person has successfully completed operating familiarization every 12 months in accordance with § 121.1415. For domestic operations, the operating familiarization must be conducted within a geographic area into which the person dispatches. For flag operations, the operating familiarization must be conducted within a flag area of operation for which the person dispatches in accordance with the Aircraft Dispatcher QPS.

(1) If the person dispatches in either domestic operations or flag operations, but not both, the person must have completed operating familiarization in the type of operation, domestic or flag, and in an aircraft type that the person dispatches within the preceding 12 months.

(2) If the person dispatches in both domestic and flag operations, the person must have completed operating familiarization within the preceding 12 months in an aircraft type which the person dispatches in either domestic or flag operations. In a 24-month period, the person must complete operating familiarization in both domestic operations and flag operations.

(3) If the person dispatches both propeller driven (including reciprocating powered and turbopropeller powered) and turbojet powered aircraft, the person must have completed operating familiarization in both propeller driven and turbojet powered aircraft within the preceding 24 months.

§ 121.1415 Aircraft dispatcher: Operating familiarization.

(a) Except as provided in paragraphs (b) and (c) of this section, the operating familiarization required by § 121.1413(d) must consist of at least 5 hours of observing operations under this part from the flight deck. This observation must be made from the flight deck or, for airplanes without an observer seat on the flight deck, from a forward passenger seat with headset or speaker. This requirement may be reduced by one hour for each additional takeoff and landing, but the reduction must not exceed 2½ hours.

(b) The requirement of paragraph (a) of this section may be satisfied by observation of simulated flight time during a Line Oriented Flight Training (LOFT) session or AQP equivalent training, required by subpart BB of this part. The observation must occur in a Full Flight Simulator (FFS) approved in accordance with part 60 of this chapter for the aircraft type and operation. The actual observed simulated flight time, to include LOFT briefing and debriefing time, must not be reduced below 5 hours.

(c) If the requirement of paragraphs (a) and (b) of this section cannot be met, the certificate holder may request a deviation to complete operating familiarization through a ground training program approved by the Administrator.

(d) A person may serve as an aircraft dispatcher for a new type of operation (domestic or flag) without meeting the requirements of this section for 120 days after the certificate holder introduces a new type of operation.

§ 121.1417 Aircraft dispatcher: Supervised operating experience.

(a) No certificate holder may use any person, nor may any person serve, as an aircraft dispatcher unless that person meets all of the following requirements:

(1) The person has been supervised by a current and qualified dispatcher who meets the experience requirements of § 121.1421(b)(2) and (b)(4).

(2) The person has been supervised for the minimum hours prescribed in the Aircraft Dispatcher QPS for each type of operation (domestic or flag) in which the person serves.

(3) The person has successfully completed a proficiency test or check, as appropriate.

(b) No person is eligible to receive the supervised operating experience required in paragraph (a) of this section unless that person has satisfactorily completed the academic training and evaluation of initial, combined certification and initial, requalification training, and operating familiarization, as applicable, in accordance with the requirements listed in the Aircraft Dispatcher QPS.

(c) An aircraft dispatcher administering operating experience may not supervise more than one person at a time.

(d) During the supervised operating experience session, the supervising dispatcher must be the dispatcher of record for each flight dispatched or released.

§ 121.1419 Aircraft dispatcher: Requalification.

(a) No certificate holder may use any person, nor may any person serve, as an aircraft dispatcher if that person has become unqualified by not satisfactorily completing recurrent training, including proficiency checks as required by § 121.1413(a). The requalification requirements for each phase must be completed before the end of the applicable phase of requalification.

(b) To be requalified, the person must complete:

(1) The initial training requirements of § 121.1453(a) in accordance with the Aircraft Dispatcher QPS, including supervised operating experience, operating familiarization, and proficiency test, or

(2) All missed recurrent training and evaluation and the additional requirements for the applicable phase of requalification training in accordance with the Aircraft Dispatcher QPS, including all applicable proficiency checks or proficiency tests.

(c) The requalification requirements for phases I and II must be completed within 60 days of beginning requalification. Phase III requalification must be completed within 120 days.

(d) To qualify for:

(1) *Phase I requalification.* A person may requalify under the phase I requalification program if less than 12 months have elapsed since the end of the person's base month for recurrent training. The base month for recurrent training may be changed.

(2) *Phase II requalification.* A person may requalify under the phase II requalification program if at least 12 months, but less than 24 months, have elapsed since the end of the person's base month for recurrent training. The base month for recurrent training may be changed.

(3) *Phase III requalification.* A person may requalify under the phase III requalification program if 24 months or more have elapsed since the end of the person's base month for recurrent training. The base month for recurrent training may be changed.

§ 121.1421 Dispatcher instructor and check dispatcher: Eligibility, training, and evaluation.

(a) *Dispatcher instructor.* No certificate holder conducting domestic or flag operations may use any person, nor may any person serve, as a dispatcher instructor in a training program established under this part unless the person meets one of the following:

(1) The person must meet the applicable requirements of § 121.1439 and hold an aircraft dispatcher certificate. The person must maintain aircraft dispatcher currency in accordance with the certificate holder's approved training program. Within the preceding 12 months, the person has successfully completed an initial training curriculum or a recurrent training curriculum in accordance with § 121.1457.

(2) A person who does not meet the requirements of paragraph (a)(1) of this section, but who is a subject matter expert with specific technical knowledge on a subject may be used to conduct training in the subjects specified in the Aircraft Dispatcher QPS.

(b) *Check dispatcher.* No certificate holder conducting domestic or flag operations may use any person, nor may any person serve, as a check dispatcher in a training program established under this subpart unless the person meets the following requirements:

(1) The person meets the applicable requirements of § 121.1439 and holds an aircraft dispatcher certificate. The person must maintain aircraft dispatcher currency in accordance with the certificate holder's approved training curriculum.

(2) The person has performed the duties of an aircraft dispatcher for at

least 8 hours within a 24-hour period in the preceding 90 days.

(3) Within the preceding 12 months, the person has successfully completed the check dispatcher initial curriculum category or check dispatcher recurrent curriculum category in accordance with § 121.1459.

(4) The person has served at least 3 years in the previous 5 years as a dispatcher for the certificate holder for whom the person is to perform the duties of a check dispatcher.

(c) The certificate holder must maintain a current list of all dispatcher instructors, subject matter experts, and check dispatchers and submit that list to the FAA.

§ 121.1423 Dispatch program designee: Eligibility and qualification.

If the certificate holder elects to establish a combined certification and initial curriculum category, the FAA may approve one or more dispatch program designees to represent the FAA for the purpose of issuing aircraft dispatcher certificates.

(a) To be eligible to become a dispatch program designee and to remain qualified to serve as a dispatch program designee, a person must meet the following requirements:

(1) Be an employee of the certificate holder.

(2) Be a check dispatcher in accordance with § 121.1421 and be currently serving as an aircraft dispatcher for the certificate holder.

(3) Be a designated aircraft dispatcher examiner in accordance with § 183.25 of this chapter.

(4) Conduct a practical test under the observation of the FAA and be designated as a dispatch program designee by the FAA. The person undergoing the practical test for this purpose must be signed off by the FAA aviation safety inspector as the evaluator of record.

(5) A designee may continue to conduct practical tests if, within the preceding 12 months, the designee has done one of the following under the observation of the FAA:

(i) Conducted a practical test.

(ii) Conducted a proficiency test.

(iii) Conducted a proficiency check.

(b) The dispatch program designee is only approved to perform the duties of a dispatch program designee for the certificate holder.

§ 121.1425 Check dispatcher: Initial cadre.

(a) *Purpose of this section.* This section is used to qualify an initial cadre of check dispatchers in lieu of the experience and recency requirements of §§ 121.1417 and 121.1421. A certificate holder may use a person as a check dispatcher even though the person does not meet the experience or recency requirements of the subpart, if the person meets the initial cadre requirements of this section.

(b) *Duration of initial cadre status.* The FAA will determine the period of initial cadre status, and may terminate initial cadre status for the certificate holder or for an individual check dispatcher, if necessary. In no case will initial cadre status exceed a period of 24 months.

(c) *Eligibility for initial cadre status for check dispatcher.* To be eligible to become an initial cadre check dispatcher for a part 119 certificate holder, and to continue to serve in that capacity for the authorized period, a person must meet all of the following requirements:

(1) Be an employee of the part 119 certificate holder (or applicant).

(2) Have served at least 3 years in the past 5 years as a dispatcher for the same aircraft group for which the person is to perform duties as an initial cadre check dispatcher.

(3) Have an aircraft dispatch certificate without restrictions.

(4) Have successfully completed initial, transition, or differences training, as appropriate, as approved by the FAA for the part 119 certificate holder (or applicant) that is required to serve as an aircraft dispatcher.

(5) Have conducted activities for which the person is to perform duties as a check dispatcher under the observation of an FAA aviation safety inspector. When an observed activity must be made part of a training record, the people undergoing the observed activities must be signed off by the FAA aviation safety inspector as the evaluator of record.

(6) Be approved by the FAA for the specific duties to be performed.

(d) *Operating experience for initial cadre check dispatchers.*

(1) An initial cadre check dispatcher may receive credit for his or her own operating experience while administering operating experience to another initial cadre check dispatcher.

(2) Initial cadre check dispatchers may obtain operating experience only if at least one of the other initial cadre check dispatchers has:

(i) Experience with the aircraft type on which the person is to perform duties as a check dispatcher or has received training for the aircraft type in accordance with the QPS.

(ii) Experience within the type of operation, domestic or flag, in which the person is to perform duties as a check dispatcher or has received training for the type of operation in accordance with the QPS.

(e) *Persons authorized to administer training and evaluation.* As approved by the FAA:

(1) Employees of a part 142 certificate holder, another part 119 certificate holder, or the aircraft manufacturer may administer the training for initial cadre check dispatchers.

(2) Only a person who holds an aircraft dispatcher certificate issued under part 65 who is an employee of the part 119 certificate holder, or the FAA, may administer the evaluation for initial cadre check dispatchers.

(3) Check dispatchers who are employees of an existing part 119 certificate holder that is adding a new aircraft type or operation may continue to serve as check dispatchers for the new aircraft type or operation during the initial cadre period.

General Training Program Requirements

§ 121.1431 Training program: General.

(a) Each certificate holder must establish and keep current an aircraft dispatcher training program. Each curriculum in a training program must be current and must be kept current with respect to any changes in the certificate holder's policies, operations, and requirements of this chapter. Each certificate holder must obtain the appropriate initial and final approval of its training program, as specified in § 121.1437.

(b) The aircraft dispatcher training program must address all of the following:

(1) The requirements of this subpart.

(2) The requirements of the Aircraft Dispatcher QPS.

(c) Each certificate holder is responsible for ensuring that its aircraft dispatchers are adequately trained and that aircraft dispatcher training and evaluation is conducted in accordance with the certificate holder's approved training program.

(d) As part of its training program, a certificate holder must provide the following, as applicable:

(1) Curriculums and curriculum category requirements applicable for use by the certificate holder as required by this subpart and approved by the Administrator.

(2) A sufficient number of dispatcher instructors, trained and qualified in accordance with this subpart, to provide the approved training.

(3) A sufficient number of check dispatchers trained and qualified in accordance with this subpart, to complete the applicable evaluation of

knowledge and skills in tasks in accordance with the Aircraft Dispatcher QPS.

(4) Adequate training facilities.

(5) Appropriate and current training materials, examinations, forms, instructions, and procedures for use in conducting the training, evaluation, and supervised operating experience required by this part with respect to each aircraft type and operation, and if applicable, the particular variations within that aircraft type.

(e) No certificate holder may use a person as an aircraft dispatcher unless each dispatcher instructor or check dispatcher who is responsible for a curriculum category, under this part has certified in a manner approved by the Administrator the proficiency and knowledge of the individual being trained or evaluated.

(1) The certification required by this paragraph (e) must be made a part of the aircraft dispatcher's record required by subpart V of this part. The record must indicate whether the individual successfully completed each of the training and evaluation requirements for the specific curriculum listed in this paragraph (e). A proficiency test, proficiency check, or practical test is not successfully completed if the individual did not successfully complete all required portions of the training curriculum before taking the proficiency test, proficiency check, or practical test. The certificate holder must report a failure of a proficiency test, practical test or proficiency check to the FAA.

(2) When the record of the certification required by this paragraph (e) is made by an entry in a computerized recordkeeping system, the dispatcher instructor or check dispatcher making the certification must be identified with that entry, and the record must be in a form approved by the Administrator.

§ 121.1433 Training program: General curriculum requirements by aircraft type and operation.

(a) Each certificate holder must prepare and keep current a training curriculum for each aircraft type and operation conducted by that certificate holder under this part. The curriculum must be available to each aircraft dispatcher required for that aircraft type and operation. Each curriculum must include the curriculum categories and the ground training required by this subpart and the Aircraft Dispatcher QPS.

(b) Each training program curriculum must provide training and evaluation as necessary to ensure that each aircraft dispatcher:

(1) Has demonstrated proficiency with respect to each aircraft type and operation (domestic and flag operations) in which the aircraft dispatcher serves.

(2) Has demonstrated proficiency in the duties and responsibilities for the aircraft type and operation that are contained in the manual required by § 121.134, as outlined in § 121.136.

(3) Is trained and knowledgeable as to the current operating limitations sections of the applicable FCOM.

(4) Is trained and knowledgeable on the procedures and performance sections of the applicable FCOM.

(5) Qualifies in new equipment, facilities, procedures, techniques, computer applications, and technology required to perform the duties of an aircraft dispatcher.

(6) Understands the nature and effects of safety hazards, weather extremes, and the effects of these on operations.

(7) Has demonstrated, through knowledge and application, Dispatch Resource Management (DRM) skills identified in the Aircraft Dispatcher QPS.

(c) Each curriculum category must include the following:

(1) The areas of instruction with subjects and the tasks required by the Aircraft Dispatcher QPS.

(2) A list of all equipment used by the certificate holder for training and evaluation.

(3) An outline of each curriculum category that includes ground training and evaluation by subject matter.

(4) The approved programmed hours of training that will be applied to each required curriculum category.

(5) Differences that relate to the variations of a particular aircraft type to be included in all ground training for purposes of training and evaluation, as applicable.

(6) A copy of each statement issued by the Administrator under § 121.1435 for a reduction of baseline programmed hours of training and evaluation.

(7) Letters of authorization from the FAA for dispatch program designees, if applicable. A letter of authorization must be made a part of the aircraft dispatcher's record required by subpart V of this part.

§ 121.1435 Training program: Curriculum programmed hours.

(a) Each certificate holder's training program submitted for initial approval under this subpart must have at least the baseline programmed hours specified in the Aircraft Dispatcher QPS. Programmed hours include training and evaluation.

(b) The Administrator will not approve a reduction in the baseline programmed hours specified in this subpart during the initial approval of training programs. For a training program that has final approval, a certificate holder may apply for a reduction of programmed hours based on the factors outlined in § 121.1437(g). The Administrator will not approve a reduction of programmed hours below the minimum hours in the Aircraft Dispatcher QPS.

(c) When the Administrator approves a reduction in programmed hours, the Administrator will provide the certificate holder with a statement of the basis for the approval.

(d) The Administrator will determine the required programmed hours for the requalification curriculum category as specified in the Aircraft Dispatcher QPS.

§ 121.1437 Training program: Approval and amendment process.

(a) Each training program described in this subpart must be approved by the Administrator. To obtain initial or final approval of a training program, each certificate holder must provide the Administrator the following information in a form acceptable to the Administrator:

(1) An outline of the proposed program, including an outline of the proposed curriculum required in § 121.1433 for a preliminary evaluation of the proposed program.

(2) Curriculums and curriculum categories applicable for use by the certificate holder as required by this subpart.

(3) A description of the ground training facilities.

(4) A synopsis of the materials, examinations, forms, instructions, and procedures to be used for the training and evaluation required by this subpart with respect to each aircraft type, and if applicable, the particular variations within that aircraft type. Upon request, the certificate holder must make the items required in this paragraph available to the FAA for review

(5) If training is to be conducted by persons other than the part 119 certificate holder's employees, a statement that training will be provided by persons other than the part 119 certificate holder's employees in accordance with § 121.1439.

(6) The continuous analysis process established in accordance with § 121.1441.

(7) Academic training hours must be in a classroom provided by the certificate holder unless otherwise approved by the Administrator. Proposals for a training environment other than a classroom provided by the

certificate holder must be accompanied by a plan for assessing the knowledge and cognitive skill requirements to be supported by the proposed alternative environment, and for providing the testing of each student to ensure the knowledge and skill requirements are met.

(8) Additional relevant information required by the Administrator.

(b) To request a revision to an approved training program, each certificate holder must provide the Administrator the relevant information in paragraph (a) of this section that has not already been provided to the Administrator.

(c) If the proposed training program or proposed revision complies with this subpart, the Administrator grants initial approval in writing, after which the certificate holder may conduct the training and evaluation in accordance with that program. The Administrator then evaluates the effectiveness of the initially approved training program and advises the certificate holder of any deficiencies that must be corrected.

(d) A revision to an approved training program may be proposed as a special curriculum category that reflects changes to the certificate holder's operation, or as a differences curriculum category that reflects differences in configuration within an aircraft type.

(1) The proposed special curriculum category will include training and evaluation. This training and evaluation will be initially approved and evaluated. Upon satisfactory evaluation, the special curriculum category will receive final approval and be integrated into the existing curriculum categories, if appropriate. If integrated, it will no longer be called a special curriculum category, but will be part of the approved training program. The Principal Operations Inspector will determine if the number of submitted programmed hours is sufficient.

(2) The proposed differences curriculum category will include training and evaluation. This training and evaluation will be initially approved, evaluated, and upon satisfactory evaluation, added to the previously approved differences curriculum category. The Principal Operations Inspector will determine if the number of submitted programmed hours is sufficient.

(e) The Administrator grants final approval of a training program if the certificate holder shows that the training and evaluation conducted under the initial approval obtained under paragraph (b) of this section ensures that each person who completes the training and evaluation is adequately trained to perform his or her assigned duties.

(f) The Administrator may require revisions to an approved training program anytime the FAA finds that revisions are necessary in the interest of safety or security. If the Administrator finds that revisions are necessary for the continued adequacy of a training program that has been granted initial or final approval, the certificate holder must, after notification by the Administrator, make all changes in the program that the Administrator finds necessary.

(1) Within 30 days after the certificate holder receives a notice to revise the program, it may file a petition with the Director of Flight Standards to reconsider the notice. The filing of a petition to reconsider stays the notice pending a decision by the Director of Flight Standards.

(2) If the Administrator finds that there is an emergency that requires immediate action in the interest of safety or security, the Administrator may, upon a statement of the reasons, require a change effective without stay.

(g) The Administrator considers the following factors in approving revisions or requiring revisions to a training program:

(1) The pass and fail rate in the curriculum under consideration.

(2) The quality and effectiveness of the teaching-learning process (*e.g.,* quality of instructors, training equipment, methods, and procedures listed in the certificate holder's curriculum required by § 121.1433).

(3) The experience levels of the student population.

(4) The experience levels of the instructors and check persons.

(5) The type and scope of operations conducted by the certificate holder.

(6) The complexity of make, model, and series of aircraft used.

§ 121.1439 Training program: Individuals administering training or evaluation, and unauthorized use of equipment and facilities in training programs.

(a) No certificate holder may use a person to administer, nor may any person administer, training or evaluation, except:

(1) In accordance with this section; or

(2) If applicable, as provided in the initial cadre requirements of § 121.1425.

(b) Persons who administer academic or job performance training and evaluation must be knowledgeable about the certificate holder's facilities, equipment, and procedures, as appropriate.

(c) Persons who administer training or evaluation must use only the equipment and the facilities that are specifically approved for the certificate holder's training program.

(d) Training and evaluation is not successfully completed, even if the individual successfully completed the activity, when the certificate holder does one of the following:

(1) Uses facilities, equipment, and materials that are not specifically approved for that activity as part of the certificate holder's approved training program.

(2) Uses persons who are not authorized to administer the activity as specified in the Aircraft Dispatcher QPS, or who do not meet the requirements of this subpart.

§ 121.1441 Training program: Continuous analysis process.

Each certificate holder must establish and maintain a process for the continuous analysis of the performance and effectiveness of its training program and operation that will allow the certificate holder the ability to recognize where improvements are needed. This process must:

(a) Incorporate procedures to ensure that the training program and the standards of qualification for each duty position are documented and provide a means for updating as changes are required;

(b) Provide for the review of training program content, application, and results, including aircraft dispatcher performance on proficiency tests, for each aircraft type and operation; and

(c) Continually measure and monitor the outcome of the training program and operation in terms of the aircraft dispatcher's performance and qualification, and provide a means to identify and correct deficiencies in the aircraft dispatcher's performance and qualification and in the training program and operation. Procedures must include correction of deficiencies.

Curriculum Category Requirements

§ 121.1451 Curriculum category requirements: Standards used in aircraft dispatcher training.

(a) The certificate holder must include in the training categories the subjects, tasks, and standards set forth in the Aircraft Dispatcher QPS.

(b) The QPS requirements for aircraft dispatcher training and evaluation include all of the following:

(1) The subjects and areas of instruction listed in the Aircraft Dispatcher QPS for initial, combined certification and initial, recurrent, transition, differences, and requalification training.

(2) The Dispatch Resource Management (DRM) skills listed in the Aircraft Dispatcher QPS.

(3) The requirements for administering specific evaluations.

(4) The requirements and performance standards for each task and environment.

§ 121.1453 Curriculum category requirements: Aircraft dispatcher initial, combined certification and initial, and transition training.

(a) Initial and transition training for aircraft dispatchers must include all of the following:

(1) Training and evaluation in the subjects listed in the Aircraft Dispatcher QPS.

(2) Successful completion of a proficiency test in accordance with the Aircraft Dispatcher QPS for each aircraft type and operation, and the particular variations within the aircraft type.

(b) Combined certification and initial training must include all of the following:

(1) Training and evaluation in the subjects listed in the Aircraft Dispatcher QPS.

(2) Successful completion of a practical test and proficiency test in accordance with the Aircraft Dispatcher QPS for each aircraft type and operation, and the particular variations within the aircraft type. The FAA or dispatch program designee must administer the practical test.

§ 121.1455 Curriculum category requirements: Aircraft dispatcher recurrent training.

Recurrent training for aircraft dispatchers must be completed within the eligibility period set forth in § 121.1413(a) and must include all of the following:

(a) Instruction in the subjects specified in the Aircraft Dispatcher QPS.

(b) An academic evaluation of the aircraft dispatcher's knowledge with respect to the aircraft type and operation involved.

(c) Successful completion of a proficiency check in accordance with the Aircraft Dispatcher QPS for each aircraft type and operation, and the particular variations within the aircraft type.

§ 121.1457 Curriculum category requirements: Dispatcher instructor initial and recurrent training.

(a) *Initial training.* Initial training for a dispatcher instructor must consist of a 4-hour block of instruction that includes the following subjects:

(1) Aircraft dispatcher instructor duties, functions, and responsibilities.

(2) Appropriate provisions of the regulations of this chapter and the certificate holder's policies and procedures.

(3) Appropriate methods, procedures, and techniques for conducting aircraft dispatcher instruction.

(4) Evaluation of student performance, including recognition of the following:

(i) Improper and insufficient training; and

(ii) Personal characteristics of a student that could adversely affect safety.

(5) Corrective action in the case of unsatisfactory training progress.

(6) Approved methods, procedures, and limitations for performing the required normal, abnormal, and emergency procedures in the dispatch facility.

(7) Principles of the teaching-learning process.

(8) Teaching methods and procedures.

(9) Instructor-student relationship.

(b) *Recurrent training.* Recurrent training for a dispatcher instructor must consist of a 2-hour block of instruction every 12 months that includes the following:

(1) Subjects required in paragraph (a) of this section.

(2) Instructional and evaluation methods and techniques.

(3) Changes in aircraft dispatcher qualification curriculums.

(4) Continuous analysis process review based on the factors addressed in § 121.1441.

§ 121.1459 Curriculum category requirements: Check dispatcher initial and recurrent training.

(a) *Initial training.* Initial training for a check dispatcher must consist of a 4-hour block of instruction that includes the following subjects:

(1) Check dispatcher duties, functions, and responsibilities.

(2) Appropriate provisions of the regulations of this chapter and the certificate holder's policies and procedures.

(3) Appropriate methods, procedures, and techniques for conducting the required tests and checks.

(4) Evaluation of student performance, including recognition of the following:

(i) Improper and insufficient training; and

(ii) Personal characteristics of a student that could adversely affect safety.

(5) Corrective action in the case of unsatisfactory evaluations.

(6) Approved methods, procedures, and limitations for performing the required normal, abnormal, and emergency procedures in the dispatch facility.

(b) *Recurrent training.* Recurrent training for a check dispatcher must consist of a 2-hour block of instruction every 12 months that includes the following:

(1) Subjects required in paragraph (a) of this section.

(2) Instructional and evaluation methods and techniques.

(3) Changes in aircraft dispatcher qualification curriculums.

(4) Continuous analysis process review based on the factors addressed in § 121.1441.

Other Training Requirements

§ 121.1471 Differences training and evaluation.

Each aircraft dispatcher training program must provide differences training if the Administrator finds that, due to differences between aircraft of the same type operated by the certificate holder, additional training is necessary to ensure that each aircraft dispatcher is adequately trained to perform the assigned duties. The Administrator will determine the number of additional training hours and subjects necessary for the aircraft type and operation.

§ 121.1473 [Reserved]

Training Requirements for Ground Operations and Management Personnel

§ 121.1475 Training requirements.

A certificate holder must provide training on the safety-related duties and responsbilities for all ground operations and management personnel as established in the certificate holder's manual under § 121.134 and § 121.136.

42. Add appendix Q to part 121 to read as follows:

Appendix Q to Part 121—Pilot, Qualification Performance Standards A Crew Resource Management (CRM) Administration.

The pilot must demonstrate knowledge and skills in the technical and CRM competencies for each particular task.

1. Certain CRM-related procedures must be associated with flight tasks and their related pilot performance requirements. These procedures must be evaluated during job performance training programs.

2. In addition to the CRM-related procedures, situational awareness must be evaluated as an integral part of each flight task and environment. A task is not completed unless the evaluator has determined that the pilot has demonstrated knowledge and skills in the technical and CRM competencies.

3. Additionally, the following CRM behaviors are required knowledge to be taught and tested during academic training:

(a) Task: Authority of the Pilot In Command

(1) The Captain's authority, including responsibility for the safety of flight in routine and emergency conditions
(2) Leadership and command
(3) Chain of command and importance of chain of command
(b) Task: Communication Processes and Decisions
(1) Briefing
(2) Inquiry, advocacy, and assertiveness
(3) Self-critique:
(i) Know and respect own limitations
(ii) Know and respect limitations of the aircraft
(4) Communication with appropriate personnel
(5) Decisionmaking, including the following:
(i) Recognize problem/opportunity
(ii) Analyze situation
(iii) Consider goals
(iv) Identify alternatives
(v) Consider consequences
(vi) Select the alternative
(vii) Act on the decision
(viii) Accept responsibility
(ix) Evaluate results
(6) Threat and Error Management:
(i) Where threats are events that:
(A) Occur outside the influence of the flight crew (*i.e.,* not caused by the crew)
(B) Increase the operational complexity of a flight; and/or
(C) Require crew attention and management
(ii) Where errors are occurrences that:
(A) Lead to a deviation from crew or organizational intentions or expectations
(B) Reduce safety margins and
(C) Increase the probability of adverse operational events on the ground or during flight
(c) Task: Building and Maintenance of a Flight Team
(1) Leading and following, including the importance of crewmembers functioning as a team
(2) Use of interpersonal skills and leadership styles in a way that fosters crew effectiveness
(3) Significance of cultural differences
(d) Task: Workload Management and Situational Awareness
(1) Preparation and planning
(2) Vigilance
(3) Workload distribution
(4) Distraction avoidance
(e) Task: Communication and Coordination
(1) Flight deck and cabin chimes and interphone signals for routine situations
(2) Flight attendant notification to flight crew that aircraft is ready for movement on the surface
(3) Flight crew notification to flight attendant to be seated prior to take-off
(4) Flight attendant recognition of critical phases of flight
(5) Crewmember coordination and notification regarding access to flight deck
(6) Notification to flight attendants of turbulent air conditions
(7) Notification between flight crew and flight attendants of emergency or unusual situations
(8) Notification between flight crew and flight attendants of inoperative equipment that is pertinent to flight attendant duties and responsibilities
(9) Normal and emergency communication procedures to be used in the event of inoperative communication equipment
(f) Task: Crewmember Briefing
(1) Crewmember responsibilities regarding briefings
(2) Flight crew briefing
(3) Flight crew to flight attendant(s) briefings
(4) Flight attendant to flight attendant(s) briefings
(5) Required information
(6) Security procedures
(7) Communication procedures
(8) Emergency procedures
(9) MELs affecting flight operations and cabin safety equipment and procedures
(10) Flight information
(g) Task: Communication and Coordination During a Passenger Interference Situation
(1) Certificate holder's written program regarding the handling of passenger interference, including crewmember communication and coordination
(2) Techniques for diffusing a passenger interference situation
(3) Importance of crewmembers and other employees working as a team
(4) Role of management and crewmember in follow-up
(5) Actions to report an occurrence of passenger interference
(h) Task: Communication and Coordination During an Emergency Situation
(1) Actions for each emergency situation
(2) Importance of notification and who must be notified
(3) Alternate actions if unable to notify
(4) Communication during preparation for a planned emergency evacuation, including the time available, type of emergency, signal to brace, and special instructions

Attachment 1 of Appendix Q to Part 121

Programmed Hour Requirements for New Hire, Initial, Transition, Conversion, Upgrade, Differences, Requalification, Recurrent, and Special Curriculum Categories (see §§ 121.1205; 121.1239; 121.1331; 121.1333; 121.1335; 121.1337; 121.1367; and 121.1215)

A. Programmed Hour Requirements: Pilots (PIC and SIC). (see §§ 121.1205; 121.1331; 121.1333; 121.1335)

1. *Baseline and Minimum Programmed Hours.* Table 1A sets out the baseline and minimum programmed hours for each curriculum category. The FAA may approve a reduction in the baseline programmed hours if the certificate holder demonstrates that the reduction is warranted. However, reduction below the minimum authorized programmed hours will require concurrence from FAA Headquarters. Individual flightcrew members are not required to complete the programmed hours described in this attachment. Refer to § 121.1221(f).

2. *Required hours for differences and special training.* The hours established for differences and special training are in addition to the previously approved programmed hours for the approved training program. For differences training (§ 121.1215), the hours remain in the differences curriculum category. For special training (§ 121.1337(c)), the certificate holder integrates the training into the existing categories in Table 1A. Therefore, there are no programmed hours in Table 1A for differences and special training.

TABLE 1A—PROGRAMMED HOURS: PILOTS (PIC AND SIC)

CURRICULUM CATEGORIES	TRAINING AND EVALUATION *		
	ACADEMIC	JOB PERFORMANCE	
	Ground training and evaluation	Flight training and evaluation	Emergency equipment drills and demonstrations
NEW HIRE	Baseline 24	N/A.	Baseline 4.
	Minimum 20		Minimum 4.
INITIAL	Baseline 116	Baseline 36	Baseline 8.
	Minimum 80	Minimum 36	Minimum 8.
CONVERSION	Baseline 68	Baseline 20	Baseline 4.
	Minimum * 52	Minimum 20	Minimum 4.
TRANSITION	Baseline 92	Baseline 24	Baseline 4.
	Minimum 62	Minimum 24	Minimum 4.
UPGRADE	Baseline 68	Baseline 20	Baseline 4.
	Minimum ** 52	Minimum 20	Minimum 4.

TABLE 1A—PROGRAMMED HOURS: PILOTS (PIC AND SIC)—Continued

CURRICULUM CATEGORIES	TRAINING AND EVALUATION *		
	ACADEMIC	JOB PERFORMANCE	
	Ground training and evaluation	Flight training and evaluation	Emergency equipment drills and demonstrations
RECURRENT	Baseline 18 (each 9-month Recurrent training period).	Baseline 6 (each 9-month Recurrent training period).	Baseline 8 (each 36-month period).
	Minimum 14	Minimum 6	Minimum 8.
REQUALIFICATION Phase I	Baseline 18	Baseline 6	Baseline 8.
	Minimum 12	Minimum 6	Minimum 8.
REQUALIFICATION Phase II	Baseline 68	Baseline 20	Baseline 4.
	Minimum ** 52	Minimum 20	Minimum 4.
REQUALIFICATION Phase III	Baseline 92	Baseline 24	Baseline 4.
	Minimum 62	Minimum 24	Minimum 4.
DIFFERENCES	Determined by FAA	Determined by FAA	Determined by FAA.
SPECIAL	Developed by Certificate Holder, Approved by the FAA.	Developed by Certificate Holder, Approved by the FAA.	Determined by FAA.

* Special authorizations for flightcrew members previously qualified in the same crewmember duty position in the same aircraft type for another certificate holder conducting operations under this part within the preceding 9 months.

** Special authorizations for flightcrew members having qualified and served as SIC or flight engineer for that certificate holder within the preceding 9 months.

Note: If authorized by the FAA, programmed hours may be adjusted for related aircraft (see § 121.1205).

Attachment 2 of Appendix Q to Part 121

Academic Training and Evaluation Requirements—Subjects and Tests—for New Hire, Initial Transition, Conversion, Upgrade, Requalification, Recurrent, Differences, and Special Training Categories

A. Required Academic Training and Evaluation Subjects by Curriculum Category. (see §§ 121.1221; 121.1223; 121.1225; 121.1227; 121.1229; 121.1333; 121.1335; 121.1341; 121.1343; 121.1361; 121.1363; 121.1365; 121.1367; 121.1377; 121.1381; and 121.1215)

The FAA may allow distance learning for academic subjects in each area of instruction unless otherwise indicated.

TABLE 2A—REQUIRED ACADEMIC TRAINING SUBJECTS BY CATEGORY OF TRAINING

Area of instruction—individual subject(s) [1]	New hire	Initial and phase III requalification	Transition	Conversion and phase II requalification	Upgrade,	Recurrent (includes phase I requalification)
(a) General Subjects:						
(1) Duties and responsibilities of flightcrew members	X					
(2) Appropriate requirements of the Federal Aviation Regulations		X	X	X	X	18
(3) General relationship of FAA to the certificate holder	X					
(4) General overview of the contents of the certificate holder's Operating Certificate and Operations Specifications	X					
(5) Meteorology to ensure a practical knowledge of weather phenomena, including the principles of frontal systems, icing, fog, thunderstorms, and high altitude weather situations. Recognizing and avoiding severe weather situations and other hazards	X					
(6) Air traffic control systems, airspace, procedures, and phraseology	X					
(7) Navigation and the use of navigation aids, including instrument approach procedures including how to use the information available on approach charts and maps and on airport diagrams		X	X	X	X	18

TABLE 2A—REQUIRED ACADEMIC TRAINING SUBJECTS BY CATEGORY OF TRAINING—Continued

Area of instruction—individual subject(s) [1]	New hire	Initial and phase III requalification	Transition	Conversion and phase II requalification	Upgrade,	Recurrent (includes phase I requalification)
(8) Development of and operating in the National Airspace System	X					
(9) General Concepts of TCAS Operation		X	X	X	X	18
(i) The meaning of Traffic Alerts (TAs),						
(ii) The meaning of preventive Resolution Advisories (RAs),						
(iii) The meaning of corrective RAs. TCAS equipment components controls, displays, audio alerts, and annunciations; interfaces and compatibility with other aircraft systems; TCAS surveillance range versus display range; altitude ceiling operators; when an intruder will not be displayed; and TCAS performance on the ground.						
(10) High Altitude Physiology—Operations above 10,000 ft.—Aircraft Decompression; Causes and Recognition of cabin pressure loss; Physiological Effects and time of useful consciousness; Immediate Actions; Altitude and Flight Level requiring the wearing of oxygen masks	X					
(11) Mechanical and Incident Reporting Procedures	X					
(12) Voluntary Safety Program and Participation, including ASAP, FOQA, LOSA, and other government and industry accident prevention programs	X					
(13) Normal and emergency communications	X	X	X	X	X	18
(14) General content, control, and maintenance of applicable portions of the certificate holder's operating manual, including the Flightcrew Member Operating Manual (FCOM). Relationship of FCOM to the Airplane Flight Manual	X					
(15) Dispatch and flight release procedures. Flight planning as applicable	X	X		X*	X	
(b) Crew Resource Management (CRM):						
(1) Task: Authority of the Pilot In Command	X	X			X	18
(i) The Captain's Authority, including responsibility for the safety of flight in routine and emergency conditions.						
(ii) Leadership and command.						
(iii) Chain of command and importance of chain of command.						
(2) Task: Communication Processes and Decisions	X	X			X	18
(i) Briefing.						
(ii) Inquiry, advocacy, and assertiveness.						
(iii) Self-critique.						
(iv) Communication with available personnel.						

TABLE 2A—REQUIRED ACADEMIC TRAINING SUBJECTS BY CATEGORY OF TRAINING—Continued

Area of instruction—individual subject(s) [1]	New hire	Initial and phase III requalification	Transition	Conversion and phase II requalification	Upgrade,	Recurrent (includes phase I requalification)
(v) Decisionmaking.						
(vi) Conflict resolution.						
(3) Task: Building and Maintenance of a Flight Team	X	X			X	18
(i) Leading and following, including the importance of crewmembers functioning as a team.						
(ii) Use of interpersonal skills and leadership styles in a way that fosters crew effectiveness.						
(iii) Significance of cultural differences.						
(4) Task: Workload Management and Situational Awareness	X	X			X	18
(i) Preparation and planning.						
(ii) Vigilance.						
(iii) Workload distribution.						
(iv) Distraction avoidance.						
(5) Task: Communication and Coordination	X	X			X	18
(i) Flight deck and cabin chimes and interphone signals for routine situations.						
(ii) Flight attendant notification to flight crew that aircraft is ready for movement on the surface.						
(iii) Flight crew notification to flight attendant to be seated prior to take-off.						
(iv) Flight attendant recognition of critical phases of flight.						
(v) Crewmember coordination and notification regarding access to flight deck.						
(vi) Notification to flight attendants of turbulent air conditions.						
(vii) Notification between flight crew and flight attendants of emergency or unusual situations.						
(viii) Notification between flight crew and flight attendants of inoperative equipment that is pertinent to flight attendant duties and responsibilities.						
(ix) Normal and emergency communication procedures to be used in the event of inoperative communication equipment.						
(6) Task: Crewmember Briefing	X	X			X	18
(i) Crewmember responsibilities regarding briefings.						
(ii) Flight crew briefing.						
(iii) Flight crew to flight attendant(s) briefings.						
(iv) Flight attendant to flight attendant(s) briefings.						
(v) Required information.						
(vi) Security procedures.						
(vii) Communication procedures.						
(viii) Emergency procedures.						

TABLE 2A—REQUIRED ACADEMIC TRAINING SUBJECTS BY CATEGORY OF TRAINING—Continued

Area of instruction—individual subject(s) [1]	New hire	Initial and phase III requalification	Transition	Conversion and phase II requalification	Upgrade,	Recurrent (includes phase I requalification)
(ix) MELs affecting flight operations and cabin safety equipment and procedures.						
(x) Flight information.						
(7) Task: Communication and Coordination During a Passenger Interference Situation	X	X			X	18
(i) Certificate holder's written program regarding the handling of passenger interference, including crewmember communication and coordination.						
(ii) Techniques for diffusing a passenger interference situation.						
(iii) Importance of crewmembers and other employees working as a team.						
(iv) Role of management and crewmember in follow-up.						
(v) Actions to report an occurrence of passenger interference.						
(8) Task: Communication and Coordination During an Emergency Situation	X	X			X	18
(i) Actions for each emergency situation.						
(ii) Importance of notification and who must be notified.						
(iii) Alternate actions if unable to notify.						
(iv) Communication during preparation for a planned emergency evacuation, including the time available, type of emergency, signal to brace, and special instructions.						
(c) Aircraft Type Specific:						
(1) Contents of the certificate holder's operating manual, including the FCOM. Use of any FCOM-based quick reference handbook (QRH)		X	X	X	X	18
(2) Operating limitations		X	X	X	X	18
(3) Coordination, communication, and methodology for the performance of each normal, abnormal, and emergency procedure contained in the FCOM		X	X	X	X [2]	18 [2]
(4) Aircraft systems as described in the FCOM		X	X	X	X	18
(5) Instrument procedures and low visibility operations		X	X	X	X	18
(6) Aircraft performance determinations and flight planning for all phases of flight, including takeoff and landing requirements considering aircraft, crew, airport, and weather requirements for takeoff, departure, and landing		X	X	X	X	18
(7) Operations Specifications authorizations and limitations		X	X	X	X	18
(8) MMEL, MEL, CDL		X	X	X	X	18
(9) Emergency communications with passengers and other crewmembers	X	X	X	X	X	18

TABLE 2A—REQUIRED ACADEMIC TRAINING SUBJECTS BY CATEGORY OF TRAINING—Continued

Area of instruction—individual subject(s) [1]	New hire	Initial and phase III requalification	Transition	Conversion and phase II requalification	Upgrade,	Recurrent (includes phase I requalification)
(10) Storage of and how to administer medicinal oxygen	X			X		18
(11) The certificate holder's policy and FCOM procedures on the use of command and control automation and criteria for selecting and deselecting appropriate levels of automation (including manual control of flight) must be included in the lateral and vertical modes of takeoff, approach, and landing		X	X	X	X	18
(d) Special Hazards:						
(1) Preventing controlled flight into terrain (CFIT) and approach and landing accidents		X	X	X	X	18
(2) Recovery from loss of control due to airplane design, airplane malfunction, human performance, and atmospheric conditions		X	X	X	X	18
(3) Low altitude windshear		X	X	X	X	9
(i) Recognition and avoidance.						
(ii) Recovery from inadvertent encounter.						
(4) Takeoff safety: Decisionmaking and high speed aborts, including propulsion system malfunction analysis, causes, symptoms, recognition, and the effects on aircraft performance and handling		X	X	X	X	18
(5) Airport surface movement safety and runway incursion prevention		X	X	X	X	18
(6) Hazards of operating in or near thunderstorms, turbulent air, icing, hail, volcanic ash, and other potentially hazardous conditions		X	X			
(7) Land and hold short operations (LAHSO)		X	X	X	X	9
(8) Ground anti-icing and deicing		X	X	X	X	18
(9) Ice accumulation in flight		X	X	X	X	18
(10) Recognition and recovery from stall in clean configuration, takeoff and maneuvering configuration, and landing configuration		X	X	X	X	9
(11) Upset recognition and recovery		X	X	X	X	9
(e) Special Operations Areas:						
(1) Close simultaneous parallel precision approach operations with Precision Radar Monitor (PRM)		X	X	X	X	18
(2) Special routes, areas and airports		X	X	X	X	18
(f) International Operations:						
(1) Area and route characteristics	X	X	X	X	X	18
(2) Flight planning, charts, course plotting, and tables	X	X	X	X	X	18
(3) Class II Navigation	X	X	X	X	X	18
(4) Communications	X	X	X	X	X	18
(5) ETOPS or EROS, as applicable	X	X	X	X	X	18
(6) International rules and regulations	X	X	X	X	X	18
(7) Abnormal Operations	X	X	X	X	X	18
(g) Emergency Equipment Training:						
(1) Emergency communications with passengers and other crewmembers	X	X	X	X	X	18
(2) Crewmember-specific roles in dealing with crewmember and passenger injury and illness, and disruptive passengers	X					9

TABLE 2A—REQUIRED ACADEMIC TRAINING SUBJECTS BY CATEGORY OF TRAINING—Continued

Area of instruction—individual subject(s) [1]	New hire	Initial and phase III requalification	Transition	Conversion and phase II requalification	Upgrade,	Recurrent (includes phase I requalification)
(3) Location and familiarization of contents for first aid and medical kits		X	X	X		9
(4) Location and use of defibrillator		X	X	X		
(5) Certificate holder's blood-borne pathogen awareness program	X					9
(6) Location and use of emergency exits		X	X	X		18
(7) Location and use of emergency equipment. Equipment must include:		X	X	X		18
(i) For over water operations: life preservers, flotation seat cushions, life rafts, slides, and slide rafts		X	X	X		18
(ii) For ground or water evacuation: escape ropes, megaphones, flashlight, emergency lighting, emergency locator transmitters, first aid kit, slides, slide rafts, fire extinguishers (each type used), smoke and fume protection (such as PBE and smoke goggles), megaphones, oxygen (portable, passenger oxygen system, flight crew masks), supplemental (flight deck key, demonstration equipment, smoke detectors, trash containers, seat belt extensions)		X	X	X		18
(8) Fires-in flight and on the ground.						
(i) Procedures and strategies for fire prevention		X	X			
(ii) Classes of fires and correct methods of extinguishing each		X				
(iii) Flight attendant role in exterior, APU, jetway, and ramp fire		X	X	X		18

[1] If authorized by the FAA, subjects may be adjusted for related aircraft (see §§ 121.1205, 121.1215).
[2] All abnormal and emergency procedures are required. Only selected normal procedures are required.
"X" indicates the subject must be included in the category of training.
"9" indicates the subject must be trained every 9 months.
"18" indicates that the subject must be trained every 18 months.
* (Conversion Only).

B. Academic Evaluation. (see §§ 121.1341 and 121.1343)

1. Knowledge and understanding of each subject within each area of instruction must be evaluated by written, oral, or electronic based testing at the end of academic training, and must provide for the following:

(a) A score of 80% or better on each instructional area is required to be satisfactory

(b) A minimum of 5 questions must be developed for each subject

(c) Two questions for each subject must be randomly selected for each test

(d) The test must be corrected to 100%

(e) Correction of missed questions must include a discussion or review of which answer is correct and why, and why the person's original answer was incorrect

(f) Reevaluation is required for each instructional area in which a score of 80% or better is not achieved

2. The following standards are for evaluating the pilot performance in limitation, systems, and performance and loading subjects.

(a) Limitations—The pilot must know all of the limitations appropriate to the aircraft with respect to:

(1) Systems and components

(2) Performance

(b) Systems—The pilot must understand and be knowledgeable about the following subjects (systems and components) and be able to explain their operation as described in the FCOM and their applicability, as appropriate, to the Minimum Equipment List (MEL), Configuration Deviation List (CDL), and the operations specifications:

(1) Landing gear: including, as appropriate, extension and retraction system(s), indicators, brakes, anti-skid, tires, nose-wheel steering, and shock absorbers

(2) Engine(s) and Auxiliary Power System(s): including controls and indications, induction system, carburetor and fuel injection, turbo-charging, cooling, fire detection and protection, mounting points, turbine wheels, compressors, deicing, anti-icing, and other related components

(3) Propellers (if appropriate): including type, controls, feathering and unfeathering, auto feather, negative torque sensing, synchronizing, and synchro-phasing

(4) Fuel system: including capacity, drains, pumps, controls, indicators, cross-feeding, transferring, jettison, fuel grade, color and additives, fueling and de-fueling procedures, and allowable fuel substitutions, if applicable

(5) Oil system: including capacity, grade, quantities, and indicators

(6) Hydraulic system: including capacity pumps, pressure, reservoirs, grade, and regulators

(7) Electrical system: including alternators, generators, battery, circuit breakers and protection devices, controls, indicators, and external and auxiliary power sources and ratings

(8) Environmental systems: including heating, cooling, ventilation, oxygen and pressurization, controls, indicators, and regulating devices

(9) Avionics and communications: including autopilot; flight director; Electronic Flight Indicating Systems (EFIS); Flight Management System(s) (FMS); navigation systems and components (LORAN; Doppler Radar; Inertial Navigation Systems; Global Positioning System such as GPS/DGPS/WGPS; VOR; NDB; ILS/MLS; RNAV); indicating devices; transponder; emergency locator transmitter; electronic flight bags; Aircraft Communications Addressing and Reporting System (ACARS), and others, as may be appropriate

(10) Ice protection (anti-ice and de-ice): including pitot-static system, propeller (if appropriate), windshield, wing and tail surfaces

(11) Crewmember and passenger emergency equipment and procedures: including oxygen system, survival gear, emergency exits, evacuation procedures with crew duties, and quick donning oxygen mask for crewmembers and passengers

(12) Flight controls: including ailerons, elevator(s), rudder(s), control tabs, balance tabs, stabilizer, flaps, spoilers, leading edge flaps and slats, and trim systems

(13) Flightdeck automation: including the certificate holder's written automation policy and written operating procedures for selecting and deselecting appropriate levels of automation. This must include the certificate holder's policy for conducting CAT II and CAT III approaches when authorized

(14) Pneumatic system

(15) Other systems as may be contained in the FAA-approved Airplane Flight Manual

(c) Performance and loading—The pilot must understand and be proficient in the use of the Certificate Holder's performance charts, tables, graphs, and other data relating to the following areas:

(1) Accelerate—stop distance

(2) Accelerate—go distance

(3) Balanced field

(4) Takeoff performance, all engines and with engine(s) inoperative, as appropriate.

(5) Climb performance including segmented climb performance; with all engines operating; with one or more engines inoperative; and with other engine malfunctions as appropriate

(6) Service ceiling, all engines, with engines(s) inoperative, including drift down, if appropriate

(7) Cruise performance

(8) Fuel consumption, range, and endurance

(9) Descent performance

(10) Go-around from rejected landings

(11) The effects of meteorological conditions on performance characteristics with correct application of these factors to a specific chart, table, graph or other performance data

(12) How to determine longitudinal and lateral center-of-gravity location for a specific load condition, including how to add, remove, or shift weight to meet longitudinal (forward and aft), and lateral balance limits for takeoff, cruise, and landing

(13) Planning and application of operational factors affecting aircraft performance such as high altitude airports, cluttered and contaminated runways, ground and in-flight icing, and other performance data appropriate to the aircraft

Attachment 3 of Appendix Q to Part 121

Job Performance Training Requirements for All Categories of Training

(Tasks, Environments, Drills, and Observations With Instruction, Evaluation, and Simulation Credits)

A. Determining the job performance (flight training) tasks and environments required for instruction and evaluation for each category of training. (see §§ 121.134; 121.136; 121.1221; 121.1223; 121.1225; 121.1227; 121.1229; 121.1333; 121.1335; 121.1337; 121.1339; 121.1341; 121.1343; 121.1345; 121.1347; 121.1349; 121.1351; 121.1353; 121.1361; 121.1363; 121.1365; 121.1367; 121.1377; 121.1379; 121.1381; 121.1383; 121.1385; and 121.1215)

1. *Certificate holder responsibilities with respect to the FCOM and Table 3A.*

(a) The certificate holder must use the FAA-approved FCOM to construct each curriculum category required by this subpart in accordance with an FAA-approved job performance training program. The tasks listed in the FCOM must reflect the tasks included in Table 3A of this Attachment, as amended, and include standard operating procedures, abnormal procedures, non-normal procedures, and emergency procedures, as well as the authorizations contained in the certificate holder's operations specifications.

(b) If the certificate holder adds tasks or environments to those listed in Table 3A, those tasks or environments must be further developed to include the requirement and frequency for training and evaluation in each additional task or environment. These changes must be reflected in the FCOM and submitted to the FAA for approval.

(c) If the certificate holder's operation does not permit, or the operation of the aircraft flown by the certificate holder does not require one or more of the tasks listed in Table 3A, those tasks must not be included in the FCOM, and, therefore, are not required to be trained or evaluated.

(d) Changes to the FCOM must be submitted to the FAA for approval.

2. *Job Performance Requirements.*

(a) Table 3A describes the piloting tasks required for initial, transition, conversion, upgrade, and requalification (phases I, II, and III) training, and the piloting tasks required for the proficiency check or test conducted for flightcrew member qualification or certification. Table 3A also describes the piloting tasks that are required for the recurrent proficiency check as well as the pilot training tasks that are described for the LOFT and the FFS course of instruction.

(b) When a task is identified as being required each 9 months during recurrent training (*i.e.,* an "X" is located in the "every 9 months" column of Table 3A):

(1) This requirement is satisfied by the task being completed during either the LOFT or the FFS course of instruction during the 9 month period when a proficiency check is not conducted.

(2) This requirement is satisfied by the task being completed during the proficiency check during the 9-month period when a proficiency check is conducted. The task does not need to be repeated again during the accompanying LOFT or FFS course of instruction.

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Table 3A – Job Performance Tasks
TRAINING AND EVALUATION

PILOTING TASKS	INITIAL, TRANSITION, CONVERSION, UPGRADE, AND REQUALIFICATION				RECURRENT		
	TRAINING			EVALUATION	TRAINING - In a LOFT or in an FFS Course of Instruction		EVALUATION
	Initial, Transition, and Phase III Requalification	Conversion and Phase II Requalification	Upgrade and Phase I Requalification	Qualification (or Certification) Proficiency Test	Every 9 months	At least once every 36 months	Proficiency Check
1.0 All Operations							
1.1 Normal Procedures	X	X	X	X	X		X
1.2 Operation of Systems and Controls at the Flight Engineer's Panel	X	X	X	X	X		X
1.3 Human Factors and CRM (crew item)	X	X	X	X	X		X
1.4 Aircraft Handling Standards	X	X	X	X	X		X
1.5 ATC Communications and Procedures (crew item)	X	X	X	X	X		X
1.6 Seat Dependent Training	X	X	X	See Paragraph D3 Of This Attachment			
1.7 MEL Relief (crew item)	X	X	X			X	
2.0 Preflight Procedures							
2.1 Planning	X	X	X	X	X		X
2.2 Flight Deck Inspection (crew item)	X	X	X	X	X		X
2.3 Cabin Inspection (in briefing)	X	X	X			X	
2.4 Exterior Inspection (in briefing)	X	X	X	X	X		X
2.5 Navigation System Setup (crew item)	X	X	X	X	X		X
3.0 Ground Operations							
3.1 Engine Start							
3.1.1 Normal	X	X	X	Select 1	X		Select 1
3.1.2 Non-normal	X	X	X		X		
3.2 Pushback and Powerback (crew item)	X	X	X	X	X		X
3.3 Taxi (crew item)	X	X	X	X	X		X
3.3.1 Use of airport diagram (surface movement chart)	X	X	X	X	X		X
3.3.2 Appropriate clearance before crossing or entering active runways	X	X	X	X	X		X

Table 3A – Job Performance Tasks
TRAINING AND EVALUATION

PILOTING TASKS	INITIAL, TRANSITION, CONVERSION, UPGRADE, AND REQUALIFICATION				RECURRENT		
	TRAINING			EVALUATION	TRAINING - In a LOFT or in an FFS Course of Instruction		EVALUATION
	Initial, Transition, and Phase III Requalification	Conversion and Phase II Requalification	Upgrade and Phase I Requalification	Qualification (or Certification) Proficiency Test	Every 9 months	At least once every 36 months	Proficiency Check
3.3.3 Observation of all surface movement guidance control markings and lighting	X	X	X	X	X		X
3.4 Pre-Takeoff Procedures (crew item)	X	X	X	X	X		X
3.4.1 Receipt of takeoff clearance	X	X	X	X	X		X
3.4.2 Confirmation of aircraft location, and FMS entry (if appropriate), for departure runway prior to crossing hold short line for takeoff	X	X	X	X	X		X
3.5 Deicing Before Takeoff (crew item)	X	X	X			X	
3.6 Anti-Icing	X	X	X	X			X
3.7 After Landing (crew item)	X	X	X	X	X		X
3.8 Parking and Securing	X	X	X	X	X		X
4.0 Takeoff							
4.1 Normal and Crosswind – With All Engines Operating	X	X	X	X	X		X
4.2 Instrument with Lowest Authorized RVR	X	X	X	X	X		X
4.3 With Engine Failure -							
4.3.1 Between V1 and VR	X	X	X	**Select 1**	**Alternate**		**Select 1**
4.3.2 Between VR and 500 ft. above field elevation	X	X	X				
4.4 Rejected With Lowest Authorized RVR	X	X	X	X	X		X
4.5 Contaminated Runway Operations (crew item)	X	X	X		X		
4.6 Takeoff from High Density Altitude Runways	X	X	X			X	
5.0 In Flight Tasks and Aircraft Handling							
5.1 Slow Flight	X	X	X			X	
5.2 Recognition of, and Recovery from, Approach to Stall (Instruction and Practice must include manual control and							

Table 3A – Job Performance Tasks
TRAINING AND EVALUATION

PILOTING TASKS	INITIAL, TRANSITION, CONVERSION, UPGRADE, AND REQUALIFICATION				RECURRENT		
	TRAINING			EVALUATION	TRAINING - In a LOFT or in an FFS Course of Instruction		EVALUATION
	Initial, Transition, and Phase III Requalification	Conversion and Phase II Requalification	Upgrade and Phase I Requalification	Qualification (or Certification) Proficiency Test	Every 9 months	At least once every 36 months	Proficiency Check
autopilot connected entries for each of the configurations indicated. Initial and Transition training must include at least 2 recoveries from stall, either "stall break" or "control limitation" for 5.2.1, 5.2.2, and 5.2.3. For flightcrew members operating aircraft equipped with stick-pusher, recoveries from stall must be completed by going through stick-pusher release. The configuration selected must include a turn with a bank angle between 15 and 30 degrees.							
5.2.1 Clean Configuration	X	X	X	Select 1	Select 1		Select 1
5.2.2 Takeoff or Maneuvering Configuration	X	X	X				
5.2.3 Landing Configuration	X	X	X				
5.3 Asymmetric Thrust							
5.3.1 Engine Inflight Shutdown	X		X			X	
5.3.2 Maneuvering with One Engine Inoperative	X		X			X	
5.3.3 Engine Inflight Restart	X		X			X	
5.3.4 One Engine Inoperative En Route	X		X			X	
5.4 Runaway Trim or Stabilizer	X	X	X			X	
5.5 Jammed Trim or Stabilizer	X	X	X			X	
5.6 Upset Recognition and Recovery	X	X	X	X	X		X
5.7 Turns with and without Spoilers	X		X			X	
5.8 Stability Augmentation Inoperative	X	X	X			X	
5.9 Mach Tuck and Mach Buffet	X	X	X			X	
5.10 Recovery from High Sink Rate inside final approach fix	X	X	X			X	
5.11 Flight Envelope Protection Demonstration	X	X	X			X	
5.12 Windshear Avoidance and Encounter							
5.12.1 Takeoff	X	X	Select 1	Select 1	Select 1		Select 1
5.12.2 Departure	X	X					

Table 3A – Job Performance Tasks
TRAINING AND EVALUATION

PILOTING TASKS	INITIAL, TRANSITION, CONVERSION, UPGRADE, AND REQUALIFICATION				RECURRENT		
	TRAINING			EVALUATION	TRAINING - In a LOFT or in an FFS Course of Instruction		EVALUATION
	Initial, Transition, and Phase III Requalification	Conversion and Phase II Requalification	Upgrade and Phase I Requalification	Qualification (or Certification) Proficiency Test	Every 9 months	At least once every 36 months	Proficiency Check
5.12.3 Approach	X	X					
5.13 Traffic Collision Avoidance System (TCAS) (crew item)	X	X	X			X	
5.14 CFIT/Terrain Avoidance (GPWS, EGPWS or TAWS) (crew item)	X	X	X	X			X
5.15 Structural Icing, Airborne	X	X				X	
5.16 Thunderstorm Avoidance Departure and Arrival	X	X				X	
5.17 ETOPS Procedures (crew item)	X	X	X			X	
5.18 Anti-Icing prior to descent/approach	X	X	X	X			X
6.0 Instrument Procedures							
6.1 Instrument Departure	X	X	X	X			X
6.2 Instrument Arrival	X	X	X	X			X
6.3 Holding	X	X	X	X			X
6.4 Approach Transition	X	X	X	X	X		X
6.5 Manually Controlled Departure and Arrival	X	X	X			X	
7.0 Approaches							
7.1 Instrument Approaches (at least one must be flown with an engine inoperative and one must be flown manually)							
7.1.1 Precision Approach. Precision approach must be accomplished with the lowest minimums authorized. For certificate holders authorized auto-coupled precision approaches, training must include auto-coupled approaches– including auto-land if required or authorized. If authorized, Cat II and Cat III approaches both must be trained. However, during evaluation, only one of the Cat II or Cat III approaches must be accomplished with lowest precision minimums authorized, and other approach must be briefed.	X	X	X	X	X		X

Table 3A – Job Performance Tasks
TRAINING AND EVALUATION

PILOTING TASKS	INITIAL, TRANSITION, CONVERSION, UPGRADE, AND REQUALIFICATION				RECURRENT		
	TRAINING			EVALUATION	TRAINING - In a LOFT or in an FFS Course of Instruction		EVALUATION
	Initial, Transition, and Phase III Requalification	Conversion and Phase II Requalification	Upgrade and Phase I Requalification	Qualification (or Certification) Proficiency Test	Every 9 months	At least once every 36 months	Proficiency Check
7.1.2 Non-Precision Approach (includes, if authorized, non-precision approach with vertical guidance). For evaluation purposes only, 2 approaches must be completed. If authorized to conduct approaches with vertical guidance, one of the non-precision approaches must be flown with vertical guidance.	X	X	X	X	X		X
7.2 Visual Approaches							
7.2.1 Visual Approach from either traffic pattern downwind with no vertical guidance provided	X	X	X	Select 1	Select 1		Select 1
7.2.2 Visual Approach from initial approach altitude with no vertical guidance provided	X	X	X				
8.0 Missed Approach							
8.1 All Engines Operating	X	X	X	Select 1	X		Select 1
8.2 One Engine Inoperative	X	X	X		X		
8.3 From a Circling to Land	X	X	X			X	
8.4 Break-Out Maneuver from PRM Approach	X	X	X			X	
9.0 Landing							
9.1 All Engines Operating (including crosswind)	X	X	X	X	X		X
9.2 Engine(s) Inoperative							
9.2.1 One Engine Inoperative	X	X	X	X	X		X
9.2.2 Two Engines Inoperative (3 and 4 Engine Aircraft)	X	X	X			X	
9.3 From a Precision Approach	X	X	X	X	X		X
9.4 From a Non-Precision Approach	X	X	X	X	X		X
9.5 From Visual Approach	X	X	X	X			X
9.6 From Circle to Land	X	X	X	X	X		X

Table 3A – Job Performance Tasks
TRAINING AND EVALUATION

PILOTING TASKS	INITIAL, TRANSITION, CONVERSION, UPGRADE, AND REQUALIFICATION				RECURRENT		
	TRAINING			EVALUATION	TRAINING - In a LOFT or in an FFS Course of Instruction		EVALUATION
	Initial, Transition, and Phase III Requalification	Conversion and Phase II Requalification	Upgrade and Phase I Requalification	Qualification (or Certification) Proficiency Test	Every 9 months	At least once every 36 months	Proficiency Check
9.7 Recovery from a Bounced Landing	X	X				X	
9.8 Rejected Landing	X	X	X	X			X
9.9 From Zero or Partial Flaps Approach	X	X	X			X	
9.10 Using Enhanced Flight Vision System-EFVS	X	X	X	X			X
9.11 Using Head-up Display-HUD	X	X	X	X			X
9.12 Landing on Contaminated Runways	X	X	X			X	
9.13 Landing on High Density Altitude Runways	X	X	X			X	
10.0 Abnormal Procedures (crew items)							
10.1 Un-Annunciated	A	A	A	At least 2 from 10.0		A	At least 2 from 10.0
10.2 Annunciated Systems (ATA code)							
10.2.1. Air Conditioning (21)	A	A	A			A	
10.2.2 Auxiliary Power Unit (49)	A	A	A			A	
10.2.3. Autopilot (22)	A	A	A			A	
10.2.4 Brakes (32)	A	A	A			A	
10.2.5 Communications (23)	A	A	A			A	
10.2.6 Doors (52)	A	A	A			A	
10.2.7 Electrical Power (24)	A	A	A			A	
10.2.8 Emergency Equipment (25)	A	A	A			A	
10.2.9 Engine (72)	A	A	A			A	
10.2.10 Fire Protection (26)	A	A	A			A	

Table 3A – Job Performance Tasks
TRAINING AND EVALUATION

PILOTING TASKS	INITIAL, TRANSITION, CONVERSION, UPGRADE, AND REQUALIFICATION				RECURRENT		
	TRAINING			EVALUATION	TRAINING - In a LOFT or in an FFS Course of Instruction		EVALUATION
	Initial, Transition, and Phase III Requalification	Conversion and Phase II Requalification	Upgrade and Phase I Requalification	Qualification (or Certification) Proficiency Test	Every 9 months	At least once every 36 months	Proficiency Check
10.2.11 Flaps (27)	A	A	A			A	
10.2.12 Flight Controls (27)	A	A	A			A	
10.2.13 Fuel (28)	A	A	A	At least 2 from 10.0		A	At least 2 from 10.0
10.2.14 GPWS/EGPWS or TAWS (34)	A	A	A			A	
10.2.15 HUD (34)	A	A	A			A	
10.2.16 Hydraulic Power (29)	A	A	A			A	
10.2.17 Ice and Rain Protection (30)	A	A	A			A	
10.2.18 Instruments (31)	A	A	A			A	
10.2.19 Landing Gear (32)	A	A	A			A	
10.2.20 Navigation (34)	A	A	A			A	
10.2.21 Oxygen (35)	A	A	A			A	
10.2.22 Pneumatic (36)	A	A	A			A	
10.2.23 Propellers (61)	A	A	A			A	
10.2.24 Stall Warning (27)	A	A	A			A	
10.2.25 Thrust Reversers (78)	A	A	A			A	
10.2.26 Warning Systems (various)	A	A	A			A	
11.0 Emergency Procedures (crew items)							
11.1 Fire and Smoke in Aircraft	A	A	A	At least 2		A	At least 2

Table 3A – Job Performance Tasks
TRAINING AND EVALUATION

PILOTING TASKS	INITIAL, TRANSITION, CONVERSION, UPGRADE, AND REQUALIFICATION				RECURRENT		
	TRAINING			EVALUATION	TRAINING - In a LOFT or in an FFS Course of Instruction		EVALUATION
	Initial, Transition, and Phase III Requalification	Conversion and Phase II Requalification	Upgrade and Phase I Requalification	Qualification (or Certification) Proficiency Test	Every 9 months	At least once every 36 months	Proficiency Check
11.2 Un-annunciated Fire in Flight	A	A	A	from 11.0		A	from 11.0
11.3 Ditching	A	A	A			A	
11.4 Emergency Descent	A	A	A	At least 2 from 11.0		A	At least 2 from 11.0
11.5 Rapid Decompression	A	A	A			A	
11.6 Emergency Evacuation	A	A	A			A	
11.7 Engine Fire, Severe Damage, or Separation	A	A	A			A	
11.8 Landing with Degraded Flight Controls	A	A	A			A	
11.9 Pilot Incapacitation	A	A	A			A	
11.10 All other emergencies in accordance with the FCOM	A	A	A			A	
12.0 Aircraft Emergency Equipment Training Drills							
12.1 Performance Drills – Individual							
12.1.1 Fire Extinguishers	X	X	X			X	
12.1.2 Portable Oxygen Systems	X	X	X			X	
12.1.3 Equipment Mountings	X	X	X				
12.1.4 Flight Deck Oxygen Systems	X	X	X			X	
12.1.5 Emergency Exits	X	X	X			X	
12.1.6 Flotation Devices	X	X	X			X	
12.1.7 Emergency Evacuation (with Escape Slide) – One Time Drill	New Hire Only						
12.1.8 Emergency Evacuation (without Escape Slide) – One Time Drill	New Hire Only						
12.1.9 Firefighting (Actual Fire) – One Time Drill	New Hire Only						
12.2 Performance Drills – Group							

Table 3A – Job Performance Tasks
TRAINING AND EVALUATION

PILOTING TASKS	INITIAL, TRANSITION, CONVERSION, UPGRADE, AND REQUALIFICATION				RECURRENT		
	TRAINING			EVALUATION	TRAINING - In a LOFT or in an FFS Course of Instruction		EVALUATION
	Initial, Transition, and Phase III Requalification	Conversion and Phase II Requalification	Upgrade and Phase I Requalification	Qualification (or Certification) Proficiency Test	Every 9 months	At least once every 36 months	Proficiency Check
12.2.1 Ditching Survival (Dry Training Environment)	X	X	X			X	
12.2.2 Ditching Survival (Wet Training Environment) – One Time Drill	New Hire Only						
12.3 Observation Drills							
12.3.1 Preparation of Emergency Exits in Emergency Mode	X	X	X			X	
12.3.2 Emergency Evacuation Using an Escape Slide	X	X	X			X	
12.3.3 Deployment, Inflation, and Detachment of Slide, Raft, or Slide-Raft	X	X	X			X	

NOTES:
X – Task must be completed.
A – Select as many of the systems and devices necessary, and appropriate to the certificate holder's operation, to ensure pilots receive adequate academic and job performance training.

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B. Aircraft Emergency Equipment Training Requirements. Aircraft Emergency Procedures Drills and Observations. (see §§ 121.1205; 121.1215; 121.1233; 121.1255;

121.1333; 121.1337; 121.1351; 121.1365; 121.1367; 121.1381; 121.1383; 121.1387; and 121.1389)

1. All emergency drills and observations must be completed within the time frames specified in Table 3A of this attachment.

2. In accordance with Table 3A of this attachment, each flightcrew member must perform individual hands on training and evaluation demonstrations through individual performance drills using the specified emergency equipment, or participate as part of a group of persons completing a specific drill through group performance drills.

3. During group performance drills, it is not necessary for each flightcrew member to complete each task in the performance drill; however, each flightcrew member must observe the actions and activities of the other persons who are completing the performance drill tasks.

4. In accordance with Table 3A of this attachment, each flightcrew member must observe a specific procedural drill being conducted by other persons (an observation drill) in a live setting or through an audio-visual medium.

5. Each flightcrew member must operate each exit on each aircraft type on which the flightcrew member is to serve in both the normal and emergency modes, including the actions and forces required in the deployment of emergency evacuation slides.

6. Each flightcrew member must complete the required emergency training drills during the specified training periods, using those items of installed emergency equipment for each aircraft type on which the flightcrew member is to serve.

7. Each piece of emergency equipment and training device must be in its fully secured, pinned, bracketed, or stowed condition, as installed on the aircraft, prior to being operated by each flightcrew member during each performance drill. The removal and stowage of each piece of emergency equipment may be completed separately from the performance drill as part of the equipment mountings drill.

8. Flightcrew members must demonstrate proficiency by completing each performance drill without reference to any guidance material or instruction.

9. Individual evaluations of each flightcrew member's performance by an instructor is required. Flightcrew members who do not complete emergency training drills must be retrained in accordance with the certificate holder's approved training program prior to reevaluation.

C. Determining the level of FSTD that must be used for training, evaluation, and recent experience. (see §§ 121.1345; 121.1347; 121.1349; and 121.1351)

To use an FSTD for training, evaluation, and recent experience the following general requirements must be met. The code shown in Table 3B of this attachment for the task or environment indicates the lowest FSTD qualification level that may be used.

1. *General Requirements.* In addition to the approval of the FAA required by part 121, to be used for any task or environment, an FSTD must:

(a) Have a qualification level assigned in accordance with part 60 of this chapter.

(b) Be maintained in accordance with part 60 of this chapter.

(c) Have all of the aircraft and FSTD systems installed and operating that are necessary to complete the task or environment.

(d) Be operated in accordance with § 60.25 of this chapter, Operation with missing, malfunctioning, or inoperative components.

(e) Have the qualification level indicated in Table 3B of this attachment, or a higher qualification level, for the task or environment and the category of training indicated. Certain tasks may be trained in an FSTD at a different level than required for evaluating that specific task. The instructor must observe the pilot perform the task to proficiency in the level of FSTD required for the evaluation prior to the evaluation by a check person.

2. *LOFT Requirements.* For Qualification LOFT or Recurrent LOFT, a FFS at level A, B, C, or D must be used.

3. *Takeoff and Landing 90 Day Recency of Experience.*

For maintaining recency of experience in a FFS, a level B, C, or D must be used. For regaining recency of experience, a level C or D is required.

4. FFS Requirements for Training and Evaluation.

(a) The training session immediately preceding the proficiency test or check, as well as the proficiency test or check administered at the conclusion of initial, transition, conversion, upgrade, or requalification training, must be conducted in no more than two levels of FFS.

(b) The recurrent training and evaluation (proficiency test or check) administered as part of the recurrent qualification requirements may only be conducted in one level of FFS. The level of FFS that is required is the lowest level in which all tasks that must be completed can be accomplished in that level of FFS. For recurrent training, this is at least a level A FFS; for the proficiency test or check, this is at least a level B FFS.

5. Experience Requirements for Allowing Credit for Level C Full Flight Simulators. Where a Level D FFS is indicated in Table 3C, a Level C FFS may be used to complete the training and the proficiency test if the pilot applicant meets the following prerequisite experience requirements:

(a) For first time qualification in group, the pilot must have a minimum of 1500 hours of flight time as a pilot in an aircraft, including a minimum of 750 hours of multiengine time.

(b) For upgrade to PIC, the pilot must have a minimum of 200 hours in the aircraft type.

(c) For SIC training and evaluation:

(1) The pilot must have a minimum of 1500 hours as a pilot, 500 hours of multiengine time as a pilot, and 500 hours in the aircraft type as a flight engineer; or

(2) The pilot must meet the flight time requirements set out in § 61.159 of this chapter.

D. Seat Dependent Task Training. (see §§ 121.1253; 121.1255; 121.1257; 121.1281; 121.1345; 121.1347; 121.1349; and 121.1351)

1. The seat dependent task training that must be provided for all check pilots, IOE pilots, pilot flight instructors, relief pilots, and PICs and SICs if a certificate holder authorizes the PIC to operate the aircraft from the right hand pilot seat and the SIC to operate the aircraft from the left hand pilot seat is described in this paragraph.

2. Seat dependent task training must address the use of systems that involve the flight path or speed of the aircraft and the use of systems that have controls not centrally located, or are accessible or operable from only the left or from the right pilot seat and includes all of the following:

(a) Normal takeoff
(b) Rejected takeoff
(c) Takeoff with the failure of an engine
(d) Climb to, cruise at, or descent from an intermediate operating altitude
(e) At least one recovery from an approach to stall conducted at "en route" operating altitudes
(f) Precision instrument approach
(g) Non-precision instrument approach
(h) A missed approach
(i) Landing with an engine failed

3. To retain currency as a pilot qualified to operate the airplane from the opposite pilot seat, the pilot must complete, in an alternating sequence, a normally scheduled recurrent training session, and then a normally scheduled training session where 3 tasks must be completed from the opposite pilot seat. These three tasks are a recovery from an approach to stall at normal operating altitudes, a precision or non-precision approach, and a landing with an engine failed.

4. Check pilots and pilot flight instructors authorized to conduct training or evaluation functions must be provided training and practice in conducting flight training or flight checks from the left hand and right hand pilot seats, including the required standard operating procedures, abnormal procedures, non-normal procedures, and emergency procedures sufficient to ensure competence to conduct the pilot training and flight checks required by this subpart.

5. Check pilots and IOE pilots who are authorized to conduct operating experience or line checks in the airplane during flight, must be provided training and practice in the safety measures to be taken from either pilot seat for emergency situations that are likely to develop during flight operations.

6. Training and evaluation in the airplane is limited to certificate holders operating in accordance with the deviation described in § 121.1345(b).

TABLE 3B—MINIMUM FSTD REQUIRED FOR CREDIT

Curriculum category	Initial, transition, conversion, upgrade, and requalification		Recurrent	
Piloting Tasks Each task may be performed in the FSTD level specified or any higher level of FSTD	Training [1]	The training session immediately preceding, and the proficiency test or check [2]	Training (loft or FFS course of instruction)	Proficiency test or check [3]
1.0 All Operations:				
1.1 Normal Procedures	4	A	A	B
1.2 Operation of Systems and Controls at the Flight Engineer's Panel	4	A	A	B
1.3 Human Factors and CRM	Must be incorporated throughout training and evaluation.			
1.4 Aircraft Handling Standards	As authorized for each task or environment.			
1.5 ATC Communications and Procedures	As authorized for each task or environment.			
1.6 Seat Dependent Training	See paragraph D3 of this attachment.			
1.7 MEL Relief	Incorporated periodically throughout training.			
2.0 Preflight Procedures:				
2.1 Planning and use of checklists	4	A	A	B
2.2 Flight Deck Inspection	4	A	A	B
2.3 Cabin Inspection	Aircraft or approved pictorial means			
2.4 Exterior Inspection	Aircraft or approved pictorial means			
2.5 Navigation System Setup	4	A	A	B
3.0 Ground Operations:				
3.1 Engine Start	4	A	A	B
3.1.1 Normal	4	A	A	B
3.1.2 Non-Normal	4	A	A	B
3.2 Pushback and Powerback	A	A	A	B
3.3 Taxi	A	[4] D	A	B
3.4 Pre-Takeoff Procedures	4	A	A	B
3.5 Deicing Before Takeoff	4	A	A	B
3.6 Anti-Icing (after start, before takeoff)	4	A	A	B
3.7 High Density Altitude Runway Operations	A	A	A	B
3.8 After Landing	4	A	A	B
3.9 Parking and Securing	A	A	A	B
4.0 Takeoff:				
4.1 Normal and Crosswind–All Engines Operating	A	D	A	B
4.2 Instrument with Lowest Authorized RVR	A	A	A	B
4.3 With Engine Failure	.....	.....	.....	.....
4.3.1 Between V_1 and V_R	A	A	A	B
4.3.2 Between V_R and 500 ft. above field elevation	A	A	A	B
4.4 Rejected With Lowest Authorized RVR	A	A	A	B
4.5 Contaminated Runway Operations	A	A	A	B
4.6 Takeoff from High Density Altitude Runways	A	A	A	B
5.0 In Flight Tasks and Aircraft Handling:				
5.1 Slow Flight	A	[4] D	A	B
5.2 Recognition of, and Recovery from, Approach to Stall	.....	.....	.....	.....
5.2.1. Clean configuration	A	[4] D	A	B
5.2.2. Takeoff or maneuvering configuration	A	[4] D	A	B
5.2.3. Landing configuration	A	[4] D	A	B
5.3 Asymmetric Thrust	A	A	A	B
5.3.1 Engine Shutdown	A	A	A	B
5.3.2 Maneuvering with One Engine Inoperative	A	A	A	B
5.3.3 Engine Restart	A	A	A	B
5.3.4 One Engine Inoperative En Route	A	A	A	B
5.4 Runaway Trim or Stabilizer	A	A	A	B
5.5 Jammed Trim or Stabilizer	A	A	A	B
5.6 Upset Recognition and Recovery	A	[4] D	A	B
5.7 Turns with and without Spoilers	A	A	A	B
5.8 Stability Augmentation Inoperative	A	A	A	B
5.9 Mach Tuck and Mach Buffet	A	A	A	B
5.10 Recovery from High Sink Rate inside final approach fix	A	[4] D	A	B
5.11 Flight Envelope Protection Demonstration	A	A	A	B
5.12 Windshear Avoidance and Encounter.				
5.12.1 Takeoff	A	A	A	B

TABLE 3B—MINIMUM FSTD REQUIRED FOR CREDIT—Continued

Curriculum category	Initial, transition, conversion, upgrade, and requalification		Recurrent	
Piloting Tasks Each task may be performed in the FSTD level specified or any higher level of FSTD	Training [1]	The training session immediately preceding, and the proficiency test or check [2]	Training (loft or FFS course of instruction)	Proficiency test or check [3]
5.12.2 Departure	A	A	A	B
5.12.3 Approach	A	A	A	B
5.13 Traffic Avoidance (TCAS)	[5,7] 6	A	A	B
5.14 CFIT/Terrain Avoidance (GPWS, EGPWS or TAWS)	[7] 6	A	A	B
5.15 Structural Icing, Airborne	A	A	A	B
5.16 Thunderstorm Avoidance Departure and Arrival	A	A	A	B
5.17 ETOPS Procedures	6	A	A	B
5.18 Anti-Icing prior to descent/approach	A	A	A	B
6.0 Instrument Procedures:				
6.1 Instrument Departure or Arrival	6	A	A	B
6.2 Holding	6	A	A	B
6.3 Approach Transition	6	A	A	B
6.4 Manually Controlled Departure and Arrival	A	A	A	B
7.0 Approaches:				
7.1 Instrument Approaches				
7.1.1. Precision Approach	A	[4] D	A	B
7.1.2. Non-Precision Approach	A	A	A	B
7.2 Visual Approach	A	[4] D	A	B
8.0 Missed Approach:				
8.1 All Engines Operating	A	[4] D	A	B
8.2 One Engine Inoperative	A	A	A	B
8.3 From Circle to Land	A	A	A	B
8.4 Descending Break-Out Maneuver from PRM Approach	A	A	A	B
9.0 Landing:				
9.1 All Engines Operating (including crosswind)	A	[4] D	A	B
9.2 Engine(s) Inoperative	.....	.....	.....	.....
9.2.1 One Engine Inoperative	A	[4] D	A	B
9.2.2 Two Engines Inoperative (3 and 4 Engine Aircraft)	A	[4] D	A	B
9.3 From a Precision Approach	A	B	A	B
9.4 From a Non-Precision Approach	A	B	A	B
9.5 From a Visual Approach	A	B	A	B
9.6 From Circle to Land (if authorized)	A	B	A	B
9.7 Recovery from a Bounced Landing	A	B	A	B
9.8 Rejected Landing	A	A	A	B
9.9 From Zero or Partial Flaps Approach	A	A	A	B
9.10 Using Enhanced Flight Visual System—EFVS	[6] A	[6] A	[6] A	B
9.11 Using Head-Up Display—HUD	[6] A	[6] A	[6] A	B
9.12 Landing on Contaminated Runways	A	[4] D	A	B
9.13 Landing at High Density Altitude Runways	A	[4] D	A	B
10.0 Abnormal Procedures:				
10.1 Un-annunciated	4	A	A	B
10.2.0 Systems.				
10.2.1. Air Conditioning	4	A	A	B
10.2.2 APU	4	A	A	B
10.2.3. Autopilot	5	A	A	B
10.2.4 Brakes	4	A	A	B
10.2.5 Communications	4	A	A	B
10.2.6 Doors	4	A	A	B
10.2.7 Electrical Power	4	A	A	B
10.2.8 Emergency Equipment	4	A	A	B
10.2.9 Engine	4	A	A	B
10.2.10 Fire Protection	4	A	A	B
10.2.11 Flaps	4	A	A	B
10.2.12 Flight Controls	5	A	A	B
10.2.13 Fuel	4	A	A	B
10.2.14 EGPWS or TAWS	5	A	A	B
10.2.15 HUD	5	A	A	B
10.2.16 Hydraulic Power	4	A	A	B
10.2.17 Ice and Rain Protection	4	A	A	B
10.2.18 Instruments	5	A	A	B
10.2.19 Landing Gear	4	A	A	B
10.2.20 Navigation	5	A	A	B
10.2.21 Oxygen	4	A	A	B
10.2.22 Pneumatic	4	A	A	B
10.2.23 Propellers	4	A	A	B

TABLE 3B—MINIMUM FSTD REQUIRED FOR CREDIT—Continued

Curriculum category	Initial, transition, conversion, upgrade, and requalification		Recurrent	
Piloting Tasks Each task may be performed in the FSTD level specified or any higher level of FSTD	Training [1]	The training session immediately preceding, and the proficiency test or check [2]	Training (loft or FFS course of instruction)	Proficiency test or check [3]
10.2.24 Stall Warning	5	A	A	B
10.2.25 Thrust Reversers	4	A	A	B
10.2.26 Warning Systems (various)	4	A	A	B
11.0 Emergency Procedures:				
11.1 Fire or Smoke in Aircraft	4	A	A	B
11.2 Ditching	4	A	A	B
11.3 Emergency Descent	5	A	A	B
11.4 Rapid Decompression	4	A	A	B
11.5 Emergency Evacuation	4	A	A	B
11.6 Engine Fire, Severe Damage, or Separation	A	A	A	B
11.7 Landing with Degraded Flight Controls	[6] A	[6] A	[6] A	[6] B
11.8 Pilot Incapacitation	5	A	A	B
11.9 All other emergencies in accordance with the FCOM	5	[6] A	A	[6] B

Footnotes:

1. Where Level 4 or 5 FTD is shown, all systems (and systems interoperability) necessary for the task must be installed in the FTD and operating correctly.
2. A maximum of 2 levels of FFS may be used to complete the proficiency test following initial, transition, conversion, upgrade, or requalification training.
3. Only one FFS may be used to complete the recurrent proficiency test or check. The level of FFS that is required is the lowest level in which all tasks that must be completed can be accomplished.
4. See paragraph C.5 of this attachment for requirements to use Level C FFS in place of Level D FFS.
5. Interactive Computer Based Instruction is an acceptable method for training.
6. Check for appropriate system installation and for FSTD qualification for this task.
7. The FTD may be used, but a visual system meeting Level A FFS requirements must be installed and working properly.

E. Persons Authorized to Administer Pilot Training, Evaluation, and Observation Activities Under Subpart BB. (see §§ 121.1215; 121.1251; 121.1253; 121.1255; 121.1257; 121.1271; 121.1281; 121.1341; 121.1349; 121.1377; 121.1379; 121.1381; 121.1383; and 121.1385)

Table 3C of this attachment identifies who must administer certain required training and evaluation for pilots, and who must supervise and observe instructors and check pilots.

TABLE 3C—PERSONS ELIGIBLE TO BE AUTHORIZED TO ADMINISTER PILOT TRAINING, EVALUATION, AND OBSERVATION ACTIVITIES UNDER SUBPART BB (APPENDIX Q) FOR THE PART 119 CERTIFICATE HOLDER *

	Affiliation and position							
	Contractor			The Part 119 certificate holder				
	Other than Part 142 or other Part 119 certificate holder	Part 142 or other Part 119 certificate holder						
Pilot training, evaluation, and observation activities under subpart BB (by aircraft type)	Ground instructor	Ground instructor	Flight instructor	Ground instructor	Flight instructor	Check pilot	Aircrew program designee	IOE Pilot
Academic (Ground School) Training	X	X	X	X				
Job Performance (Flight) Training			X		X			
Certificate or Rating Examination			X [4]				X	
Proficiency Test/Check (Initial, Transition, Conversion, Upgrade, Recurrent, Requalification)			X [4]			X [1]	X	
LOFT/FFS Course of Instruction			X		X	X		
Supervision of Operating Experience						X		X
PIC Line Check (all flight crew observed)						X		
Observation of:								
• PIC—Initial Line						X [3]	X	
• Flight Instructor—Initial						X		
• Flight Instructor—Recurring						X		
• Check Pilot—Initial							X [2]	

TABLE 3C—PERSONS ELIGIBLE TO BE AUTHORIZED TO ADMINISTER PILOT TRAINING, EVALUATION, AND OBSERVATION ACTIVITIES UNDER SUBPART BB (APPENDIX Q) FOR THE PART 119 CERTIFICATE HOLDER *—Continued

Pilot training, evaluation, and observation activities under subpart BB (by aircraft type)								
• Check Pilot—Recurring						X	X [2]	
• Check Pilot—PIC Line Check							X [2]	

* See § 121.1257 for special limited authorizations for Initial Cadre Personnel. When POI authorization is required, the designation will specifically state the authorizations granted to the instructor, check pilot, or APD. Part 142 Training Center instructors and other part 119 certificate holders' check pilots may be qualified and authorized as check pilots by the part 119 certificate holders' POI in accordance with subpart BB of this part. When qualified and authorized, these check pilots are considered a component of the part 119 certificate holders' training program resources.

[1] When the proficiency test does not involve the issuance of a certificate or rating.

[2] With POI authorization, employees of the part 119 certificate holder who are designated as APDs and specifically designated to do so, may conduct the Initial or Recurring check pilot observation.

[3] PIC Line Observation subsequent to the Initial Line Observation.

[4] The flight instructor must be designated as a check pilot for the certificate holder.

F. Administering Evaluations. (see §§ 121.1215; 121.1221; 121.1253; 121.1255; 121.1257; 121.1271; 121.1281; 121.1341; 121.1343; 121.1361; 121.1363; 121.1365; 121.1367; 121.1377; 121.1379; 121.1381; 121.1383; 121.1385; 121.1387; 121.1389)

The following requirements apply to the evaluation activity indicated. Refer to Table 3D of this attachment for who may administer each type of evaluation.

1. *Line Checks.* A line check must be completed in accordance with § 121.1233.

2. *Proficiency Tests* or Checks.

Proficiency tests or checks must be administered for first time qualification in a duty position. Employees of the certificate holder who are used or will be used in the certificate holder's operations and who have completed all of the required training may use the proficiency test to obtain a certificate or rating.

3. *Other Assessments.*

(a) After qualification, the pilot's performance in all job performance training activities (including LOFT) must be assessed for a satisfactory level of task proficiency based upon this QPS.

(b) During a scheduled FFS course of instruction, if a task is performed unsatisfactorily the pilot may retrain on the unsatisfactory task; however, all scheduled tasks, including any retraining, must be completed within the approved scheduled time period.

4. *Satisfactory or Unsatisfactory Performance.*

(a) No evaluator or instructor may assess the pilot's performance as satisfactory unless that pilot:

(1) Performs the tasks in accordance with the standards and tolerances established in the QPS.

(2) Demonstrates mastery of the aircraft or simulated aircraft with the successful outcome of each task never in doubt. However, when the pilot recognizes that an action taken was not correct, or recognizes that an action should have been taken and was not, and then the pilot either corrects the action taken or takes the appropriate action to correct the situation, the task may be assessed as satisfactory and the "error" portion of "threat and error management" may be assessed as satisfactory as well.

(3) Except as described in paragraph (a)(2) of this attachment, demonstrates performance such that no corrective or instructive action is required by another pilot to maintain safe flight.

(4) Demonstrates CRM competencies in accordance with duties outlined in the FCOM requiring crew interactions, including in a crew briefing before each takeoff and before each approach.

(5) Demonstrates sound judgment.

(b) The evaluator or instructor must assess a pilot's performance as unsatisfactory if the pilot fails to take prompt corrective action when tolerances are exceeded.

5. *Recording, Reporting and Correcting Unsatisfactory Performance.* The certificate holder must report a failure of a test or check to the FAA in accordance with § 121.1331(f)(1). The pilot must be retrained and reevaluated to a satisfactory level before the pilot may begin or be returned to line operations.

43. Add appendix R to part 121 to read as follows:

Appendix R to Part 121—Flight Engineer, Qualification Performance Standards

A. Crew Resource Management (CRM) Administration

The flight engineer must demonstrate knowledge and skills in the technical and CRM competencies for each particular task.

1. Certain CRM-related procedures must be associated with flight tasks and their related flight engineer performance requirements. These procedures must be evaluated during job performance training programs.

2. In addition to the CRM-related procedures, situational awareness must be evaluated as an integral part of each flight task and environment. A task is not completed unless the evaluator has determined that the flight engineer has demonstrated knowledge and skills in the technical and CRM competencies.

3. Additionally, the following CRM behaviors are required knowledge to be taught and tested during academic training, as shown in Attachment 2 of this appendix:

(a) Task: Authority of the Pilot In Command

(1) The Captain's authority, including responsibility for the safety of flight in routine and emergency conditions

(2) Leadership and command

(3) Chain of command and importance of chain of command

(b) Task: Communication Processes and Decisions

(1) Briefing

(2) Inquiry, advocacy, and assertiveness

(3) Self-critique:

(i) Know and respect own limitations

(ii) Know and respect limitations of the aircraft

(4) Communication with appropriate personnel

(5) Decisionmaking, including the following:

(i) Recognize problem/opportunity

(ii) Analyze situation

(iii) Consider goals

(iv) Identify alternatives

(v) Consider consequences

(vi) Select the alternative

(vii) Act on the decision

(viii) Accept responsibility

(ix) Evaluate results

(6) Threat and Error Management:

(i) Where threats are events that;

(A) Occur outside the influence of the flight crew (*i.e.,* not caused by the crew)

(B) Increase the operational complexity of a flight and/or

(C) Require crew attention and management

(ii) Where errors are occurrences that:

(A) Lead to a deviation from crew or organizational intentions or expectations

(B) Reduce safety margins and

(C) Increase the probability of adverse operational events on the ground or during flight

(c) Task: Building and Maintenance of a Flight Team

(1) Leading and following, including the importance of crewmembers functioning as a team

(2) Use of interpersonal skills and leadership styles in a way that fosters crew effectiveness

(3) Significance of cultural differences

(d) Task: Workload Management and Situational Awareness

(1) Preparation and planning

(2) Vigilance

(3) Workload distribution

(4) Distraction avoidance
(e) Task: Communication and Coordination
(1) Flight deck and cabin chimes and interphone signals for routine situations
(2) Flight attendant notification to flight crew that aircraft is ready for movement on the surface
(3) Flight crew notification to flight attendant to be seated prior to take-off
(4) Flight attendant recognition of critical phases of flight
(5) Crewmember coordination and notification regarding access to flight deck
(6) Notification to flight attendants of turbulent air conditions
(7) Notification between flight crew and flight attendants of emergency or unusual situations
(8) Notification between flight crew and flight attendants of inoperative equipment that is pertinent to flight attendant duties and responsibilities
(9) Normal and emergency communication procedures to be used in the event of inoperative communication equipment
(f) Task: Crewmember Briefing
(1) Crewmember responsibilities regarding briefings
(2) Flight crew briefing
(3) Flight crew to flight attendant(s) briefings
(4) Flight attendant to flight attendant(s) briefings
(5) Required information
(6) Security procedures
(7) Communication procedures
(8) Emergency procedures
(9) MELs affecting flight operations and cabin safety equipment and procedures
(10) Flight information
(g) Task: Communication and Coordination During a Passenger Interference Situation
(1) Certificate holder's written program regarding the handling of passenger interference, including crewmember communication and coordination
(2) Techniques for diffusing a passenger interference situation
(3) Importance of crewmembers and other employees working as a team
(4) Role of management and crewmember in follow-up
(5) Actions to report an occurrence of passenger interference
(h) Task: Communication and Coordination During an Emergency Situation
(1) Actions for each emergency situation
(2) Importance of notification and who must be notified
(3) Alternate actions if unable to notify
(4) Communication during preparation for a planned emergency evacuation, including the time available, type of emergency, signal to brace, and special instructions

Attachment 1 of Appendix R to Part 121

Programmed Hour Requirements for New Hire, Initial, Transition, Conversion, Differences, Requalification, Recurrent, and Special Training Categories (see §§ 121.1205; 121.1331; 121.1333; 121.1335)

Programmed Hour Requirements: Flight Engineers

1. *Baseline and Minimum Programmed Hours.* Table 1A of this attachment sets out the baseline and minimum programmed hours for each curriculum category. The FAA may approve a reduction in the baseline programmed hours if the certificate holder demonstrates that the reduction is warranted. However, reduction below the minimum authorized programmed hours will require concurrence from FAA Headquarters. Individual flightcrew members are not necessarily required to complete the programmed hours described in this attachment. Refer to § 121.1221(f).

2. *Required hours for differences and special training.* The hours established for differences and special training are in addition to the previously approved programmed hours for the approved training program. For differences training (§ 121.1215), the hours remain in the differences curriculum category. For special training (§ 121.1337(c)), the certificate holder integrates the training into the existing categories in Table 1A of this attachment. Therefore, there are no programmed hours in Table 1A of this attachment for differences and special training.

TABLE 1A—PROGRAMMED HOURS: FLIGHT ENGINEERS

Curriculum categories	Training and evaluation		
	Academic	Job performance	
	Ground training and evaluation	Flight training and evaluation	Emergency equipment drills and demonstrations
New Hire	Baseline 24	N/A	Baseline 4.
	Minimum 20		Minimum 4.
Initial	Baseline 116	Baseline 8	Baseline 8.
	Minimum 80	Minimum 8	Minimum 8.
Conversion	Baseline 68	Baseline 6	Baseline 4.
	Minimum *52	Minimum 6	Minimum 4.
Transition	Baseline 76	Baseline 6	Baseline 6.
	Minimum 58	Minimum 6	Minimum 6.
Recurrent	Baseline 18 (each 9-month recurrent training period).	Baseline 4 (each 9-month recurrent training period).	Baseline 8 (each 36-month period).
	Minimum 12	Minimum 4	Minimum 8.
Requalification Phase I	Baseline 18	Baseline 4	Baseline 8.
	Minimum 12	Minimum 4	Minimum 8.
Requalification Phase II	Baseline 68	Baseline 6	Baseline 4.
	Minimum *52	Minimum 6	Minimum 4.
Requalification Phase III	Baseline 76	Baseline 6	Baseline 6.
	Minimum 58	Minimum 6	Minimum 6.
Differences	Determined by FAA	Determined by FAA	Determined by FAA.
Special	Developed by Certificate Holder, Approved by the FAA.	Developed by Certificate Holder, Approved by the FAA.	Determined by FAA.

* Special authorizations for flightcrew members previously qualified in the same crewmember duty position in the same aircraft type for another certificate holder conducting operations under this part within the preceding 9 months.

Note: If authorized by the FAA, programmed hours may be adjusted for related aircraft (see § 121.1205).

Attachment 2 of Appendix R to Part 121

Academic Training and Evaluation Requirements—Subjects and Tests—for New Hire, Initial, Transition, Conversion, Requalification, Recurrent, Differences, and Special Curriculum Categories

A. Required Academic Training and Evaluation Subjects by Curriculum Category (see §§ 121.1221; 121.1223; 121.1225; 121.1331; 121.1343; 121.1361; 121.1363; 121.1365; 121.1367; 121.1377; 121.1381; and 121.1215)

The FAA may allow distance learning for academic subjects in each area of instruction unless otherwise indicated.

TABLE 2A—REQUIRED ACADEMIC TRAINING SUBJECTS BY CATEGORY OF TRAINING

Area of instruction individual subject(s) [1]	New hire	Initial and phase III requalification	Transition	Conversion and phase II requalification	Recurrent (includes phase I requalification)
(a) General Subjects:					
(1) Duties and responsibilities of flightcrew members	X				
(2) Appropriate requirements of the Federal Aviation Regulations		X	X	X	18
(3) General relationship of FAA to the certificate holder	X				
(4) General overview of the contents of the certificate holder's Operating Certificate and Operations Specifications	X				
(5) Meteorology to ensure a practical knowledge of weather phenomena, including the principles of frontal systems, icing, fog, thunderstorms, and high altitude weather situations. Recognizing and avoiding severe weather situations and other hazards	X				
(6) Air traffic control systems, airspace, procedures, and phraseology	X				
(7) Navigation and the use of navigation aids, including instrument approach procedures		X	X	X	18
(8) Development of and operating in the National Airspace System	X				
(9) General Concepts of TCAS Operation;		X	X	X	18
(i) The meaning of Traffic Alerts (TAs),					
(ii) The meaning of preventive Resolution Advisories (RAs),					
(iii) The meaning of corrective RAs. TCAS equipment components controls, displays, audio alerts, and annunciations; interfaces and compatibility with other aircraft systems; TCAS surveillance range versus display range; altitude ceiling operators; when an intruder will not be displayed; and TCAS performance on the ground.					
(10) High Altitude Physiology—Operations above 10,000 feet—Aircraft Decompression; Causes and Recognition of cabin pressure loss; Physiological Effects and time of useful consciousness; Immediate Actions; Altitude and Flight Level requiring the wearing of oxygen masks	X				18
(11) Mechanical and Incident Reporting Procedures		X	X	X	18
(12) Voluntary Safety Program and Participation, including ASAP, FOQA, LOSA, and other government and industry accident prevention programs	X				18
(13) Normal and emergency communications	X	X	X	X	18
(14) General content, control, and maintenance of applicable portions of the certificate holder's operating manual to include the Flightcrew member Operating Manual (FCOM). Relationship of FCOM to the Airplane Flight Manual	X				
(15) Dispatch and flight release procedures. Flight planning as applicable	X	X	X	X*	18
(b) Crew resource management (CRM):					
(1) Task: Authority of the Pilot In Command	X	X			18
(i) The Captain's Authority, including responsibility for the safety of flight in routine and emergency conditions.					
(ii) Leadership and command,					

TABLE 2A—REQUIRED ACADEMIC TRAINING SUBJECTS BY CATEGORY OF TRAINING—Continued

Area of instruction individual subject(s) [1]	New hire	Initial and phase III requalification	Transition	Conversion and phase II requalification	Recurrent (includes phase I requalification)
(iii) Chain of command and importance of chain of command.					
(2) Task: Communication Processes and Decisions ...	X	X	.....	.....	18
(i) Briefing					
(ii) Inquiry, advocacy, and assertiveness					
(iii) Self-critique					
(iv) Communication with available personnel					
(v) Decisionmaking.					
(vi) Conflict resolution					
(3) Task: Building and Maintenance of a Flight Team	X	X	.....	.....	18
(i) Leading and following, including the importance of crewmembers functioning as a team					
(ii) Use of interpersonal skills and leadership styles in a way that fosters crew effectiveness					
(iii) Significance of cultural differences					
(4) Task: Workload Management and Situational Awareness	X	X	.....	.....	18
(i) Preparation and planning					
(ii) Vigilance					
(iii) Workload distribution					
(iv) Distraction avoidance					
(5) Task: Communication and Coordination	X	X	.....	.....	18
(i) Flight deck and cabin chimes and interphone signals for routine situations					
(ii) Flight attendant notification to flight crew that aircraft is ready for movement on the surface					
(iii) Flight crew notification to flight attendant to be seated prior to take-off					
(iv) Flight attendant recognition of critical phases of flight					
(v) Crewmember coordination and notification regarding access to flight deck					
(vi) Notification to flight attendants of turbulent air conditions					
(vii) Notification between flight crew and flight attendants of emergency or unusual situations					
(viii) Notification between flight crew and flight attendants of inoperative equipment that is pertinent to flight attendant duties and responsibilities					
(ix) Normal and emergency communication procedures to be used in the event of inoperative communication equipment					
(6) Task: Crewmember Briefing	X	X	.....	.....	18
(i) Crewmember responsibilities regarding briefings					
(ii) Flight crew briefing					
(iii) Flight crew to flight attendant(s) briefings					
(iv) Flight attendant to flight attendant(s) briefings					
(v) Required information					
(vi) Security procedures					
(vii) Communication procedures					
(viii) Emergency procedures					
(ix) MELs affecting flight operations and cabin safety equipment and procedures					
(x) Flight information					
(7) Task: Communication and Coordination During a Passenger Interference Situation.	X	X	.....	.....	18
(i) Certificate holder's written program regarding the handling of passenger interference, including crewmember communication and coordination					
(ii) Techniques for diffusing a passenger interference situation					
(iii) Importance of crewmembers and other employees working as a team					
(iv) Role of management and crewmember in follow-up					

TABLE 2A—REQUIRED ACADEMIC TRAINING SUBJECTS BY CATEGORY OF TRAINING—Continued

Area of instruction individual subject(s) [1]	New hire	Initial and phase III requalification	Transition	Conversion and phase II requalification	Recurrent (includes phase I requalification)
(v) Actions to report an occurrence of passenger interference					
(8) Task: Communication and Coordination During an Emergency Situation	X	X			18
(i) Actions for each emergency situation					
(ii) Importance of notification and who must be notified					
(iii) Alternate actions if unable to notify					
(iv) Communication during preparation for a planned emergency evacuation, including the time available, type of emergency, signal to brace, and special instructions					
(c) Aircraft type specific:					
(1) Contents of the certificate holder's operating manual to include the FCOM. Use of any FCOM-based quick reference handbook (QRH)		X	X	X	18
(2) Operating limitations		X	X	X	18
(3) Coordination, communication, and methodology for the performance of each normal, abnormal, and emergency procedure contained in the FCOM		X	X	X	18 [2]
(4) Aircraft systems as described in the FCOM		X	X	X	18
(5) Instrument procedures and low visibility operations		X	X	X	18
(6) Airplane performance determinations and flight planning for all phases of flight		X	X	X	18
(7) Operations Specifications authorizations and limitations		X	X	X	18
(8) MMEL, MEL, CDL		X	X	X	18
(9) Emergency communications with passengers and other crewmembers	X	X	X	X	18
(10) Storage of and how to administer medicinal oxygen	X			X	18
(11) The certificate holder's policy and FCOM procedures on the use of command and control automation and criteria for selecting and deselecting appropriate levels of automation (including manual control of flight) must be included in the lateral and vertical modes of takeoff, approach, and landing		X	X	X	18
(d) Special Hazards:					
(1) Preventing controlled flight into terrain (CFIT) and approach and landing accidents		X	X	X	18
(2) Recovery from loss of control due to airplane design, airplane malfunction, human performance, and atmospheric conditions (or combinations thereof)		X	X	X	18
(3) Low altitude windshear		X	X	X	9
(i) Recognition and avoidance					
(ii) Recovery from inadvertent encounter					
(4) Takeoff safety: Decisionmaking and high speed aborts, including propulsion system malfunction analysis, causes, symptoms, recognition, and the effects on aircraft performance and handling		X	X	X	18
(5) Airport surface movement safety and runway incursion prevention		X	X	X	18
(6) Hazards of operating in or near thunderstorms, turbulent air, icing, hail, volcanic ash, and other potentially hazardous conditions		X	X		
(7) Land and hold short operations (LAHSO)		X	X	X	9
(8) Ground anti-icing, deicing		X	X	X	18
(9) Ice accumulation in flight		X	X	X	18
(10) Close simultaneous parallel precision approach operations with Precision Radar Monitor (PRM)		X	X	X	18
(11) Special routes, areas, and airports		X	X	X	18
(f) International Operations:					
(1) Area and route characteristics	X	X	X	X	18
(2) Flight planning, charts, course plotting, and tables	X	X	X	X	18
(3) Class II Navigation	X	X	X	X	18
(4) Communications	X	X	X	X	18
(5) ETOPS or EROS, as applicable	X	X	X	X	18
(6) International rules and regulations	X	X	X	X	18
(7) Abnormal Operations	X	X	X	X	18

TABLE 2A—REQUIRED ACADEMIC TRAINING SUBJECTS BY CATEGORY OF TRAINING—Continued

Area of instruction individual subject(s) [1]	New hire	Initial and phase III re-qualification	Transition	Conversion and phase II requalification	Recurrent (includes phase I re-qualification)
(g) Emergency Equipment Training:					
(1) Emergency communications with passengers and other crewmembers	X	X	X	X	18
(2) Crewmember-specific roles in dealing with crewmember and passenger injury and illness, and disruptive passengers	X				9
(3) Location and familiarization of contents for first aid and medical kits		X	X	X	9
(4) Location and use of defibrillator		X	X	X	
(5) Certificate holders blood-borne pathogen awareness program	X				9
(6) Location and use of emergency exits		X	X	X	18
(7) Location and use of emergency equipment. Equipment must include:		X	X	X	18
(i) For over water operations: life preservers, flotation seat cushions, life rafts, slides, and slide rafts		X	X	X	18
(ii) For ground or water evacuation: escape ropes, megaphones, flashlight, emergency lighting, emergency locator transmitters, first aid kit, slides, slide rafts, fire extinguishers (each type used), smoke and fume protection (such as PBE and smoke goggles), megaphones, oxygen (portable, passenger oxygen system, flight crew masks), supplemental (flight deck key, demonstration equipment, smoke detectors, trash containers, seat belt extensions)		X	X	X	18
(8) Fires-in flight and on the ground					
(i) Procedures and strategies for prevention		X	X		
(ii) Classes of fires and correct methods of extinguishing each		X			
(iii) Flight attendant role in exterior, APU, jetway, and ramp fire		X	X	X	18

[1] If authorized by the FAA, subjects may be adjusted for related aircraft (see §§ 121.1205, 121.1215).
[2] All abnormal and emergency procedures are required. Only selected normal procedures are required.
"X" indicates the subject must be included in the category of training.
"9" indicates the subject must be trained every 9 months.
"18" indicates that the subject must be trained every 18 months.
* (Conversion training only).

Begin QPS Requirement

B. Academic Evaluation. (see §§ 121.1341 and 121.1343)

1. Knowledge and understanding of each subject within each area of instruction must be evaluated by written or computer based testing at the end of academic training, and must provide for the following:

(a) A score of 80% or better on each instructional area is required to be satisfactory.

(b) A minimum of 5 questions must be developed for each subject.

(c) Two questions for each subject must be randomly selected for each test.

(d) The test must be corrected to 100%.

(e) Correction of missed questions must include a discussion or review of which answer is correct and why, and why the person's original answer was incorrect.

(f) Retraining is required for each instructional area in which a score of 80% or better is not achieved.

(g) Examination after retraining of the student is required for each instructional area in which retraining was completed.

2. The following standards are for evaluating the flight engineer performance in limitation, systems, and performance and loading subjects.

(a) Limitations—The flight engineer must know all of the limitations appropriate to the airplane with respect to:

(1) Systems and components
(2) Performance

(b) Systems—The flight engineer must understand and be knowledgeable about the following subjects (systems and components) and be able to explain their operation as described in the FCOM and their applicability, as appropriate, to the Minimum Equipment List (MEL), Configuration Deviation List (CDL), and the operations specifications:

(1) Landing gear: including, as appropriate, extension and retraction system(s), indicators, brakes, anti-skid, tires, nose-wheel steering, and shock absorbers
(2) Engine(s) and Auxiliary Power System(s): including controls and indications, induction system, carburetor and fuel injection, turbo-charging, cooling, fire detection and protection, mounting points, turbine wheels, compressors, deicing, anti-icing, and other related components
(3) Propellers (if appropriate): including type, controls, feathering and unfeathering, auto feather, negative torque sensing, synchronizing, and synchro-phasing
(4) Fuel system: including capacity, drains, pumps, controls, indicators, cross-feeding, transferring, jettison, fuel grade, color and additives, fueling and de-fueling procedures, and allowable fuel substitutions, if applicable
(5) Oil system: including capacity, grade, quantities, and indicators
(6) Hydraulic system: including capacity pumps, pressure, reservoirs, grade, and regulators
(7) Electrical system: including alternators, generators, battery, circuit breakers and protection devices, controls, indicators, and external and auxiliary power sources and ratings
(8) Environmental systems: including heating, cooling, ventilation, oxygen and pressurization, controls, indicators, and regulating devices
(9) Avionics and communications: including autopilot; flight director; Electronic Flight Indicating Systems (EFIS); Flight Management System(s) (FMS); navigation

systems and components (LORAN; Doppler Radar; Inertial Navigation Systems; Global Positioning System such as GPS/DGPS/WGPS; VOR; NDB; ILS/MLS; RNAV); indicating devices; transponder; emergency locator transmitter; electronic flight bags; Aircraft Communications Addressing and Reporting System (ACARS), and others, as may be appropriate

(10) Ice protection (anti-ice and de-ice): including pitot-static system, propeller (if appropriate), windshield, wing and tail surfaces

(11) Crewmember and passenger emergency equipment and procedures: including oxygen system, survival gear, emergency exits, evacuation procedures with crew duties, and quick donning oxygen mask for crewmembers and passengers

(12) Flight controls: including ailerons, elevator(s), rudder(s), control tabs, balance tabs, stabilizer, flaps, spoilers, leading edge flaps and slats, and trim systems

(13) Flightdeck automation: including the certificate holder's written automation policy and written operating procedures for selecting and deselecting appropriate levels of automation. This must include the certificate holder's policy for conducting CAT II and CAT III approaches when authorized.

(14) Pneumatic system

(15) Other systems as may be contained in the FAA-approved Airplane Flight Manual

(c) Performance and Loading—The flight engineer must understand and be proficient in the use of the Certificate Holder's performance charts, tables, graphs, and other data relating to the following areas:

(1) Accelerate—stop distance

(2) Accelerate—go distance

(3) Balanced field

(4) Takeoff performance, all engines and with engine(s) inoperative, as appropriate

(5) Climb performance including segmented climb performance; with all engines operating; with one or more engines inoperative; and with other engine malfunctions as appropriate

(6) Service ceiling, all engines, with engines(s) inoperative, including drift down, if appropriate

(7) Cruise performance

(8) Fuel consumption, range, and endurance

(9) Descent performance

(10) Go-around from rejected landings

(11) The effects of meteorological conditions on performance characteristics with correct application of these factors to a specific chart, table, graph or other performance data

(12) How to determine longitudinal and lateral center-of-gravity location for a specific load condition, including how to add, remove, or shift weight to meet longitudinal (forward and aft), and lateral balance limits for takeoff, cruise, and landing

(13) Planning and application of operational factors affecting aircraft performance such as high altitude airports, cluttered and contaminated runways, ground and in-flight icing and other performance data appropriate to the aircraft

Attachment 3 of Appendix R to Part 121

Job Performance Training Requirements for all Categories of Training

(Tasks, Environments, Drills, and Observations With Instruction, Evaluation, and Simulation Credits)

A. Determining the job performance (flight training) tasks and environments required for instruction and evaluation for each category of training. (see §§ 121.134; 121.136; 121.1221; 121.1223; 121.1225; 121.1331; 121.1339; 121.1341; 121.1343; 121.1345; 121.1347; 121.1349; 121.1351; 121.1353; 121.1361; 121.1363; 121.1365; 121.1367; 121.1377; 121.1379; 121.1381; 121.1383; and 121.1215)

1. *Certificate holder responsibilities with respect to the FCOM and Table 3A.*

(a) The certificate holder must use the FAA-approved FCOM to construct each curriculum category required by this subpart in accordance with an FAA-approved job performance training program. The tasks listed in the FCOM must reflect the tasks included in Table 3A of this Attachment, as amended, and include standard operating procedures, abnormal procedures, non-normal procedures, and emergency procedures, as well as the authorizations contained in the certificate holder's operations specifications.

(b) If the certificate holder adds tasks or environments to those listed in Table 3A of this attachment, those tasks or environments must be further developed to include the requirement and frequency for training and evaluation in each additional task or environment. These changes must be reflected in the FCOM and submitted to the FAA for approval.

(c) If the certificate holder's operation does not permit, or the operation of the aircraft flown by the certificate holder does not require one or more of the tasks listed in Table 3A of this attachment, those tasks must not be included in the FCOM, and, therefore, are not required to be trained or evaluated.

(d) Changes to the FCOM must be submitted to the FAA for approval.

2. *Job Performance Requirements.*

(a) Table 3A of this attachment describes the flight engineer tasks required for initial, transition, conversion, and requalification (phases I, II, and III) training, and the flight engineer tasks required for the proficiency check or test conducted for flightcrew member qualification or certification. Table 3A of this attachment also describes the flight engineer tasks that are required for the recurrent proficiency check as well as the flight engineer training tasks that are described for the LOFT and the FFS course of instruction.

(b) When a task is identified as being required each 9 months during recurrent training (*i.e.,* an "X" is located in the "every 9 months" column of Table 3A of this attachment):

(1) This requirement is satisfied by the task being completed during either the LOFT or the FFS course of instruction during the 9-month period when a proficiency check is not conducted.

(2) This requirement is satisfied by the task being completed during the proficiency check during the 9-month period when a proficiency check is conducted. The task does not need to be repeated again during the accompanying LOFT or FFS course of instruction.

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Table 3A – Job Performance Tasks
TRAINING AND EVALUATION

FLIGHT ENGINEER TASKS	INITIAL, TRANSITION, CONVERSION, AND REQUALIFICATION				RECURRENT		
	TRAINING			EVALUATION	Training In a LOFT, or in an FFS Course of Instruction		EVALUATION
	Initial, Transition, and Phase III Requalification	Conversion and Phase II Requalification	Phase I Requalification	Qualification (or Certification) Proficiency Test	Every 9 months	At least once every 36 months	Proficiency Check
1.0 All Operations							
1.1 Normal Procedures	X	X	X	X	X		X
1.2 Human Factors and CRM (crew item)	X	X	X	X	X		X
1.3 ATC Communications and Procedures (crew item)	X	X	X	X	X		X
1.4 MEL Relief (crew item)	X	X	X			X	
2.0 Preflight Procedures							
2.1 Planning	X	X	X	X	X		X
2.2 Flight deck Inspection	X	X	X	X	X		X
2.3 Cabin Inspection (in briefing)	X	X	X			X	
2.4 Exterior Inspection (in briefing)	X	X	X	X	X		X
3.0 Ground Operations							
3.1 Engine Start							
3.1.1 Normal	X	X	X	Select 1	X		Select 1
3.1.2 Non-normal	X	X	X		X		
3.2 Pushback and Powerback	X	X	X	X	X		X
3.3 Taxi	X	X	X	X	X		X
3.3.1 Appropriate clearance before crossing or entering active runways	X	X	X	X	X		X
3.3.2 Observation of all surface movement guidance control markings and lighting	X	X	X	X	X		X
3.4 Pre-Takeoff Procedures	X	X	X	X	X		X
3.4.1 Receipt of takeoff clearance	X	X	X	X	X		X

Table 3A – Job Performance Tasks
TRAINING AND EVALUATION

FLIGHT ENGINEER TASKS	INITIAL, TRANSITION, CONVERSION, AND REQUALIFICATION				RECURRENT		
	TRAINING			EVALUATION	Training In a LOFT, or in an FFS Course of Instruction		EVALUATION
	Initial, Transition, and Phase III Requalification	Conversion and Phase II Requalification	Phase I Requalification	Qualification (or Certification) Proficiency Test	Every 9 months	At least once every 36 months	Proficiency Check
3.4.2 Confirmation of aircraft location, and FMS entry (if appropriate), for departure runway prior to crossing hold short line for takeoff	X	X	X	X	X		X
3.5 Deicing Before Takeoff	X	X	X			X	
3.6 Anti-Icing	X	X	X	X		X	X
3.7 After Landing	X	X	X		X		X
3.8 Parking and Securing	X	X	X		X		X
4.0 Takeoff							
4.1 Normal and Crosswind – With All Engines Operating	X	X	X	X	X		X
4.2 Instrument with Lowest Authorized RVR	X	X	X	X	X		X
4.3 With Engine Failure -							
4.3.1 Between V1 and VR	X	X	X	Select 1	Alternate		Select 1
4.3.2 Between VR and 500 ft. above field elevation	X	X	X				
4.4 Rejected With Lowest Authorized RVR	X	X	X	X	X		X
4.5 Contaminated Runway Operations	X	X	X		X		
4.6 Takeoff from High Density Altitude Runways	X	X	X			X	
5.0 In Flight Tasks and Aircraft Handling							
5.1 Recognition of, and Recovery from, Approach to Stall (Instruction and Practice must include manual control and autopilot connected entries for each of the configurations indicated. Initial and Transition training must include at least 2 recoveries from stall, either "stall break" or "control limitation," or must go past "stick-pusher release," if stick-pusher equipped). The configuration selected must include a turn with a bank angle between 15 and 30 degrees.							
5.1.1 Clean Configuration	X	X	X	Select 1	Select 1		Select 1
5.1.2 Takeoff or Maneuvering Configuration	X	X	X				
5.1.3 Landing Configuration	X	X	X				
5.2 Asymmetric Thrust							

Table 3A – Job Performance Tasks
TRAINING AND EVALUATION

FLIGHT ENGINEER TASKS	INITIAL, TRANSITION, CONVERSION, AND REQUALIFICATION				RECURRENT		
	TRAINING			EVALUATION	Training In a LOFT, or in an FFS Course of Instruction		EVALUATION
	Initial, Transition, and Phase III Requalification	Conversion and Phase II Requalification	Phase I Requalification	Qualification (or Certification) Proficiency Test	Every 9 months	At least once every 36 months	Proficiency Check
5.2.1 Engine Inflight Shutdown	X		X			X	
5.2.2 Engine Inflight Restart	X		X			X	
5.2.3 One Engine Inoperative En Route	X		X			X	
5.3 Runaway Trim or Stabilizer	X	X	X			X	
5.4 Jammed Trim or Stabilizer	X	X	X			X	
5.5 Upset Recognition and Recovery	X	X	X	X	X		X
5.6 Stability Augmentation Inoperative	X	X	X			X	
5.7 Flight Envelope Protection Demonstration	X	X	X			X	
5.8 Windshear Avoidance and Encounter							
5.8.1 Takeoff	X	X	Select 1	Select 1	Select 1		Select 1
5.8.2 Departure	X	X					
5.8.3 Approach	X	X					
5.9 Traffic Collision Avoidance System (TCAS)	X	X	X	X		X	
5.10 CFIT/Terrain Avoidance (GPWS, EGPWS or TAWS)	X	X	X	X		X	X
5.11 Structural Icing, Airborne	X	X				X	
5.12 Thunderstorm Avoidance	X	X				X	
5.13 ETOPS Procedures	X	X	X			X	
5.14 Anti-Icing prior to descent/approach	X	X	X			X	X
6.0 Approaches							
6.1 Interaction between FE and pilots during approved operator approaches, missed approaches, and landings							
6.2 Visual Approach from initial approach altitude with no vertical guidance	X	X	X				

Table 3A – Job Performance Tasks
TRAINING AND EVALUATION

FLIGHT ENGINEER TASKS	INITIAL, TRANSITION, CONVERSION, AND REQUALIFICATION				RECURRENT		
	TRAINING			EVALUATION	Training In a LOFT, or in an FFS Course of Instruction		EVALUATION
	Initial, Transition, and Phase III Requalification	Conversion and Phase II Requalification	Phase I Requalification	Qualification (or Certification) Proficiency Test	Every 9 months	At least once every 36 months	Proficiency Check
provided							
7.0 Landing							
7.1 All Engines Operating (including crosswind)	X	X	X	X	X		X
7.2 Engine(s) Inoperative							
7.2.1 One Engine Inoperative	X	X	X	X	X		X
7.2.2 Two Engines Inoperative (3 and 4 Engine Aircraft)	X	X	X			X	
7.3 From a Precision Approach	X	X	X	X	X		X
7.4 From a Non-Precision Approach	X	X	X	X	X		X
7.5 From Visual Approach	X	X	X	X		X	X
7.6 From Circle-to-Land	X	X	X		X		X
7.7 Recovery from a Bounced Landing	X	X				X	
7.8 Rejected Landing	X	X	X	X		X	X
7.9 From Zero or Partial Flaps Approach (if appropriate)	X	X	X			X	
7.10 Using Enhanced Flight Vision System-EFVS	X	X	X	X		X	X
7.11 Using Head-up Display-HUD	X	X	X	X		X	X
7.12 Landing on Contaminated Runways	X	X	X			X	
7.13 Landing on High Density Altitude Runways	X	X	X			X	
8.0 Abnormal Procedures (crew items)							
8.1 Un-Annunciated	A	A	A	At least 2 from 7.0		A	At least 2 from 7.0
8.2 Annunciated Systems (ATA code)							
8.2.1. Air Conditioning (21)	A	A	A			A	
8.2.2 Auxiliary Power Unit (49)	A	A	A			A	

Table 3A – Job Performance Tasks
TRAINING AND EVALUATION

FLIGHT ENGINEER TASKS	INITIAL, TRANSITION, CONVERSION, AND REQUALIFICATION				RECURRENT		
	TRAINING			EVALUATION	Training In a LOFT, or in an FFS Course of Instruction		EVALUATION
	Initial, Transition, and Phase III Requalification	Conversion and Phase II Requalification	Phase I Requalification	Qualification (or Certification) Proficiency Test	Every 9 months	At least once every 36 months	Proficiency Check
8.2.3. Autopilot (22)	A	A	A			A	
8.2.4 Brakes (32)	A	A	A			A	
8.2.5 Communications (23)	A	A	A			A	
8.2.6 Doors (52)	A	A	A			A	
8.2.7 Electrical Power (24)	A	A	A			A	
8.2.8 Emergency Equipment (25)	A	A	A			A	
8.2.9 Engine (72)	A	A	A			A	
8.2.10 Fire Protection (26)	A	A	A			A	
8.2.11 Flaps (27)	A	A	A			A	
8.2.12 Flight Controls (27)	A	A	A			A	
8.2.13 Fuel (28)	A	A	A			A	
8.2.14 GPWS/EGPWS or TAWS (34)	A	A	A			A	
8.2.15 Hydraulic Power (29)	A	A	A			A	
8.2.16 Ice and Rain Protection (30)	A	A	A			A	
8.2.17 Instruments (31)	A	A	A			A	
8.2.18 Landing Gear (32)	A	A	A			A	
8.2.19 Oxygen (35)	A	A	A			A	
8.2.20 Pneumatic (36)	A	A	A			A	

Table 3A – Job Performance Tasks
TRAINING AND EVALUATION

FLIGHT ENGINEER TASKS	INITIAL, TRANSITION, CONVERSION, AND REQUALIFICATION				RECURRENT		
	TRAINING			EVALUATION	Training In a LOFT, or in an FFS Course of Instruction		EVALUATION
	Initial, Transition, and Phase III Requalification	Conversion and Phase II Requalification	Phase I Requalification	Qualification (or Certification) Proficiency Test	Every 9 months	At least once every 36 months	Proficiency Check
8.2.21 Propellers (61)	A	A	A			A	
8.2.22 Thrust Reversers (78)	A	A	A			A	
8.2.23 Warning Systems (various)	A	A	A			A	
9.0 Emergency Procedures (crew items)							
9.1 Fire and Smoke in Aircraft	A	A	F	At least 2 from 9.0		F	At least 2 from 9.0
9.2 Un-annunciated Fire in Flight	A	A	A			A	
9.3 Ditching	A	A	A			A	
9.4 Emergency Descent	A	A	A			A	
9.5 Rapid Decompression	A	A	A			A	
9.6 Emergency Evacuation	A	A	A			A	
9.7 Engine Fire, Severe Damage, or Separation	A	A	A			A	
9.8 Landing with Degraded Flight Controls	A	A	A			A	
9.9 Pilot Incapacitation	A	A	A			A	
9.10 All other emergencies in accordance with the FCOM	A	A	A			A	
10.0 Aircraft Emergency Equipment Training Drills							
10.1 Performance Drills - Individual							
10.1.1 Fire Extinguishers	X	X	X			X	
10.1.2 Portable Oxygen Systems	X	X	X			X	
10.1.3 Equipment Mountings	X	X	X				
10.1.4 Flight Deck Oxygen Systems	X	X	X			X	

Table 3A – Job Performance Tasks
TRAINING AND EVALUATION

FLIGHT ENGINEER TASKS	INITIAL, TRANSITION, CONVERSION, AND REQUALIFICATION				RECURRENT		
	TRAINING			EVALUATION	Training In a LOFT, or in an FFS Course of Instruction		EVALUATION
	Initial, Transition, and Phase III Requalification	Conversion and Phase II Requalification	Phase I Requalification	Qualification (or Certification) Proficiency Test	Every 9 months	At least once every 36 months	Proficiency Check
10.1.5 Emergency Exits	X	X	X			X	
10.1.6 Flotation Devices	X	X	X			X	
10.1.7 Emergency Evacuation (with Escape Slide) – One Time Drill	New Hire Only						
10.1.8 Emergency Evacuation (without Escape Slide) – One Time Drill	New Hire Only						
10.1.9 Firefighting (Actual Fire) – One Time Drill	New Hire Only						
10.2 Performance Drills – Group							
10.2.1 Ditching Survival (Dry Training Environment)	X	X	X			X	
10.2.2 Ditching Survival (Wet Training Environment) – One Time Drill	New Hire Only						
10.3 Observation Drills							
10.3.1 Preparation of Emergency Exits in Emergency Mode	X	X	X			X	
10.3.2 Emergency Evacuation Using an Escape Slide	X	X	X			X	
10.3.3 Deployment, Inflation, and Detachment of Slide, Raft, or Slide-Raft	X	X	X			X	

NOTES:
X – Task must be completed.
A – Select as many of the systems and devices necessary, and appropriate to the certificate holder's operation, to ensure pilots receive adequate academic and job performance training.

B. Aircraft Emergency Equipment Training Requirements. Aircraft Emergency Procedures Drills and Observations. (see §§ 121.1205; 121.1215; 121.1233; 121.1255;

BILLING CODE 4910–13–C

121.1333; 121.1337; 121.1351; 121.1365; 121.1367; 121.1381; 121.1383; 121.1387; and 121.1389)

1. All emergency drills and observations must be completed within the time frames specified in Table 3A.

2. In accordance with Table 3A of this attachment, each flightcrew member must perform individual hands on training and evaluation demonstrations through individual performance drills using the specified emergency equipment, or participate as part of a group of persons completing a specific drill through group performance drills.

3. During group performance drills, it is not necessary for each flightcrew member to complete each task in the performance drill; however, each flightcrew member must observe the actions and activities of the other persons who are completing the performance drill tasks.

4. In accordance with Table 3A of this attachment, each flightcrew member must observe a specific procedural drill being conducted by other persons (an observation drill) in a live setting or through an audio-visual medium.

5. Each flightcrew member must operate each exit on each aircraft type on which the flightcrew member is to serve in both the normal and emergency modes, including the actions and forces required in the deployment of emergency evacuation slides.

6. Each flightcrew member must complete the required emergency training drills during the specified training periods, using those items of installed emergency equipment for each aircraft type on which the flightcrew member is to serve.

7. Each piece of emergency equipment and training device must be in its fully secured, pinned, bracketed, or stowed condition, as installed on the aircraft, prior to being operated by each flightcrew member during each performance drill. The removal and stowage of each piece of emergency equipment may be completed separately from the performance drill as part of the equipment mountings drill.

8. Flightcrew members must demonstrate proficiency by completing each performance drill without reference to any guidance material or instruction.

9. Individual evaluations of each flightcrew member's performance by an instructor is required. Flightcrew members who do not complete emergency training drills must be retrained in accordance with the certificate holder's approved training program prior to reevaluation.

C. Determining the level of FSTD that must be used for training, evaluation, and recent experience. (see §§ 121.1345; 121.1349; and 121.1351)

To use an FSTD for training, evaluation, and recent experience the following general requirements must be met. The code shown in Table 3B of this attachment for the task or environment indicates the lowest FSTD qualification level that may be used.

1. *General Requirements.*

In addition to the approval of the FAA required by part 121, to be used for any task or environment, an FSTD must:

(a) Have a qualification level assigned in accordance with part 60 of this chapter.

(b) Be maintained in accordance with part 60 of this chapter.

(c) Have all of the aircraft and FSTD systems installed and operating that are necessary to complete the task or environment.

(d) Be operated in accordance with § 60.25 of this chapter, Operation with Missing, Malfunctioning, or Inoperative Components.

(e) Have the qualification level indicated in Table 3B of this attachment, or a higher qualification level, for the task or environment and the category of training indicated. Certain tasks may be trained in an FSTD at a different level than required for evaluating that specific task. The instructor must observe the flight engineer perform the task to proficiency in the level of FSTD required for the evaluation prior to the evaluation by a check person.

2. *LOFT Requirements.* For Qualification LOFT, or Recurrent LOFT, a FFS at level A, B, C, or D must be used.

3. *Takeoff and Landing 90 Day Recency of Experience.*

For maintaining recency of experience in a FFS, a level B, C, or D must be used. For regaining recency of experience, a level C or D is required.

4. *FFS Requirements for Training and Evaluation.*

(a) The training session immediately preceding the proficiency test or check, as well as the proficiency test or check administered at the conclusion of initial, transition, conversion, upgrade, or requalification training, must be conducted in no more than two levels of FFS.

(b) The recurrent training and evaluation (proficiency test or check) administered as part of the recurrent qualification requirements may only be conducted in one level of FFS. The level of FFS that is required is the lowest level in which all tasks that must be completed can be accomplished in that level of FFS. For recurrent training, this is at least a level A FFS; for the proficiency test or check, this is at least a level B FFS.

TABLE 3B—MINIMUM FSTD REQUIRED FOR CREDIT

Curriculum category	Initial, transition, conversion, upgrade, and requalification		Recurrent	
Flight engineering tasks each task may be performed in the FSTD level specified or any higher level of FSTD.	Training [1]	The training session immediately preceding, and the Proficiency Test or check [2]	Training (LOFT or FFS course of instruction)	Proficiency test or check [3]
1.0 All Operations:				
1.1 Normal Procedures	4	A	A	B
1.2 Operation of Systems and Controls at the Flight Engineer's Panel	4	A	A	B
1.3 Human Factors and CRM	Must be incorporated throughout training and evaluation.			
1.4 Aircraft Handling Standards	As authorized for each task or environment.			
1.5 ATC Communications and Procedures	As authorized for each task or environment.			
1.6 Seat Dependent Training	See Paragraph D3 of This Attachment			
1.7 MEL Relief	Incorporated periodically throughout training.			
2.0 Preflight Procedures:				
2.1 Planning and use of checklists	4	A	A	B
2.2 Flight Deck Inspection	4	A	A	B
2.3 Cabin Inspection	Aircraft or approved pictorial means.			
2.4 Exterior Inspection	Aircraft or approved pictorial means.			

TABLE 3B—MINIMUM FSTD REQUIRED FOR CREDIT—Continued

Curriculum category	Initial, transition, conversion, upgrade, and requalification		Recurrent	
Flight engineering tasks each task may be performed in the FSTD level specified or any higher level of FSTD.	Training [1]	The training session immediately preceding, and the Proficiency Test or check [2]	Training (LOFT or FFS course of instruction)	Proficiency test or check [3]
2.5 Navigation System Setup	4	A	A	B
3.0 Ground Operations:				
3.1 Engine Start	4	A	A	B
3.1.1 Normal	4	A	A	B
3.1.2 Non-Normal	4	A	A	B
3.2 Pushback and Powerback	A	A	A	B
3.3 Taxi	A	[4] D	A	B
3.4 Pre-Takeoff Procedures	4	A	A	B
3.5 Deicing Before Takeoff	4	A	A	B
3.6 Anti-Icing (after start, before takeoff)	4	A	A	B
3.7 High Density Altitude Runway Operations	A	A	A	B
3.8 After Landing	4	A	A	B
3.9 Parking and Securing	A	A	A	B
4.0 Takeoff:				
4.1 Normal and Crosswind—All Engines Operating	A	D	A	B
4.2 Instrument with Lowest Authorized RVR	A	A	A	B
4.3 With Engine Failure				
4.3.1 Between V_1 and V_R	A	A	A	B
4.3.2 Between V_R and 500 ft. above field elevation	A	A	A	B
4.4 Rejected With Lowest Authorized RVR	A	A	A	B
4.5 Contaminated Runway Operations	A	A	A	B
4.6 Takeoff from High Density Altitude Runways	A	A	A	B
5.0 In Flight Tasks and Aircraft Handling:				
5.1 Slow Flight	A	[4] D	A	B
5.2 Recognition of, and Recovery from, Approach to Stall				
5.2.1. Clean configuration	A	[4] D	A	B
5.2.2. Takeoff or maneuvering configuration	A	[4] D	A	B
5.2.3. Landing configuration	A	[4] D	A	B
5.3 Asymmetric Thrust	A	A	A	B
5.3.1 Engine Shutdown	A	A	A	B
5.3.2 Maneuvering with One Engine Inoperative	A	A	A	B
5.3.3 Engine Restart	A	A	A	B
5.3.4 One Engine Inoperative En Route	A	A	A	B
5.4 Runaway Trim or Stabilizer	A	A	A	B
5.5 Jammed Trim or Stabilizer	A	A	A	B
5.6 Upset Recognition and Recovery	A	[4] D	A	B
5.7 Turns with and without Spoilers	A	A	A	B
5.8 Stability Augmentation Inoperative	A	A	A	B
5.9 Mach Tuck and Mach Buffet	A	A	A	B
5.10 Recovery from High Sink Rate inside final approach fix	A	[4] D	A	B
5.11 Flight Envelope Protection Demonstration	A	A	A	B
5.12 Windshear Avoidance and Encounter.				
5.12.1 Takeoff	A	A	A	B
5.12.2 Departure	A	A	A	B
5.12.3 Approach	A	A	A	B
5.13 Traffic Avoidance (TCAS)	[5, 7] 6	A	A	B
5.14 CFIT/Terrain Avoidance (GPWS, EGPWS or TAWS)	[7] 6	A	A	B
5.15 Structural Icing, Airborne	A	A	A	B
5.16 Thunderstorm Avoidance Departure and Arrival	A	A	A	B
5.17 ETOPS Procedures	6	A	A	B
5.18 Anti-Icing prior to descent/approach	A	A	A	B
6.0 Instrument Procedures:				
6.1 Instrument Departure or Arrival	6	A	A	B
6.2 Holding	6	A	A	B
6.3 Approach Transition	6	A	A	B
6.4 Manually Controlled Departure and Arrival	A	A	A	B
7.0 Approaches:				
7.1 Instrument Approaches				
7.1.1 Precision Approach	A	[4] D	A	B
7.1.2 Non-Precision Approach	A	A	A	B
7.2 Visual Approach	A	[4] D	A	B
8.0 Missed Approach:				
8.1 All Engines Operating	A	[4] D	A	B
8.2 One Engine Inoperative	A	A	A	B
8.3 From Circle to Land	A	A	A	B

TABLE 3B—MINIMUM FSTD REQUIRED FOR CREDIT—Continued

Curriculum category	Initial, transition, conversion, upgrade, and requalification		Recurrent	
Flight engineering tasks each task may be performed in the FSTD level specified or any higher level of FSTD.	Training [1]	The training session immediately preceding, and the Proficiency Test or check [2]	Training (LOFT or FFS course of instruction)	Proficiency test or check [3]
8.4 Descending Break-Out Maneuver from PRM Approach	A	A	A	B
9.0 Landing:				
9.1 All Engines Operating (including crosswind)	A	[4] D	A	B
9.2 Engine(s) Inoperative				
9.2.1 One Engine Inoperative	A	[4] D	A	B
9.2.2 Two Engines Inoperative (3 and 4 Engine Aircraft)	A	[4] D	A	B
9.3 From a Precision Approach	A	B	A	B
9.4 From a Non-Precision Approach	A	B	A	B
9.5 From a Visual Approach	A	B	A	B
9.6 From Circle to land (if authorized)	A	B	A	B
9.7 Recovery from a Bounced Landing	A	B	A	B
9.8 Rejected Landing	A	A	A	B
9.9 From Zero or Partial Flaps Approach	A	A	A	B
9.10 Using Enhanced Flight Visual System—EFVS	[6] A	[6] A	[6] A	B
9.11 Using Head-Up Display—HUD	[6] A	[6] A	[6] A	B
9.12 Landing on Contaminated Runways	A	[4] D	A	B
9.13 Landing at High Density Altitude Runways	A	[4] D	A	B
10.0 Abnormal Procedures:				
10.1 Un-annunciated	4	A	A	B
10.2.0 Systems	.....	.....	.....	.....
10.2.1 Air Conditioning	4	A	A	B
10.2.2 APU	4	A	A	B
10.2.3 Autopilot	5	A	A	B
10.2.4 Brakes	4	A	A	B
10.2.5 Communications	4	A	A	B
10.2.6 Doors	4	A	A	B
10.2.7 Electrical Power	4	A	A	B
10.2.8 Emergency Equipment	4	A	A	B
10.2.9 Engine	4	A	A	B
10.2.10 Fire Protection	4	A	A	B
10.2.11 Flaps	4	A	A	B
10.2.12 Flight Controls	5	A	A	B
10.2.13 Fuel	4	A	A	B
10.2.14 EGPWS or TAWS	5	A	A	B
10.2.15 HUD	5	A	A	B
10.2.16 Hydraulic Power	4	A	A	B
10.2.17 Ice and Rain Protection	4	A	A	B
10.2.18 Instruments	5	A	A	B
10.2.19 Landing Gear	4	A	A	B
10.2.20 Navigation	5	A	A	B
10.2.21 Oxygen	4	A	A	B
10.2.22 Pneumatic	4	A	A	B
10.2.23 Propellers	4	A	A	B
10.2.24 Stall Warning	5	A	A	B
10.2.25 Thrust Reversers	4	A	A	B
10.2.26 Warning Systems (various)	4	A	A	B
11.0 Emergency Procedures:				
11.1 Fire or Smoke in Aircraft	4	A	A	B
11.2 Ditching	4	A	A	B
11.3 Emergency Descent	5	A	A	B
11.4 Rapid Decompression	4	A	A	B
11.5 Emergency Evacuation	4	A	A	B
11.6 Engine Fire, Severe Damage, or Separation	A	A	A	B
11.7 Landing with Degraded Flight Controls	[6] A	[6] A	[6] A	[6] B
11.8 Pilot Incapacitation	5	A	A	B
11.9 All other emergencies in accordance with the FCOM	5	[6] A	A	[6] B

Footnotes:

[1] Where Level 4 or 5 FTD is shown, all systems (and systems interoperability) necessary for the task must be installed in the FTD and operating correctly.

[2] A maximum of 2 levels of FFS may be used to complete the proficiency test following initial, transition, conversion, upgrade, or requalification training.

[3] Only one level of FFS may be used to complete the recurrent proficiency test or check. The level of FFS that is required for the recurrent proficiency test or check is the lowest level in which all tasks that must be completed can be accomplished.

[4] See paragraph C.5 of this attachment for requirements to use Level C FFS in place of Level D FFS.

[5] Interactive Computer Based Instruction is an acceptable method for training.

[6] Check for appropriate system installation and for FSTD qualification for this task.
[7] The FTD may be used, but a visual system meeting Level A FFS requirements must be installed and working properly.

D. Persons Authorized to Administer Flight Engineer Training, Evaluation, and Observation Activities Under Subpart BB. (see §§ 121.1347; 121.1349; 121.1251; 121.1253; 121.1255; 121.1257; 121.1271; 121.1281; 121.1341; 121.1377; 121.1379; 121.1381; 121.1383; 121.1385; and 121.1215)

Table 3C of this attachment identifies who must administer certain required training and evaluation for flight engineers, and who must supervise and observe instructors and check flight engineers.

TABLE 3C—PERSONS ELIGIBLE TO BE AUTHORIZED TO ADMINISTER FLIGHT ENGINEER TRAINING, EVALUATION, AND OBSERVATION ACTIVITIES UNDER SUBPART BB *

	Affiliation and position						
	Contractor			The Part 119 certificate holder			
	Other than Part 142 or other Part 119 certificate holder	Part 142 or other Part 119 certificate holder					
Flight Engineer Training, Evaluation, and Observation Activities Under Subpart BB (by aircraft type)	Ground Instructor	Ground Instructor	Flight Instructor	Ground Instructor	Flight Instructor	Check Flight Engineer	Aircrew Program Designee
Academic (Ground School) Training	X	X	X	X	.....	.....	.....
Job Performance (Flight) Training	.....	.....	X	.....	X	.....	.....
Certificate or Rating Examination	.....	.....	.....	.....	.....	.....	X
Proficiency Test/Check (Initial, Transition, Conversion, Recurrent, Requalification)	.....	.....	.....	.....	.....	X[1]	X
LOFT/FFS Course of Instruction	.....	.....	.....	.....	X[2]	X	.....
Supervision of Operating Experience	.....	.....	.....	.....	.....	X[3]	.....
Observation of:							
• Flight Engineer Instructor—Initial	.....	.....	.....	.....	.....	X	.....
• Flight Engineer Instructor—Recurring	.....	.....	.....	.....	.....	X	.....
• Check Flight Engineer—Initial	.....	.....	.....	.....	.....	.....	X[4]
• Check Flight Engineer—Recurring	.....	.....	.....	.....	.....	X	X[4]

* See § 121.1343 for special limited authorizations for Initial Cadre Personnel. When POI authorization is required, the designation will specifically state the authorizations granted to the instructor, check flight engineer, or APD. Part 142 TCEs and other part 119 certificate holders' check flight engineers may be qualified and authorized as check flight engineers or APDs by the part 119 certificate holders' POI in accordance with subpart BB of this part. When qualified and authorized, these check flight engineers and APDs are considered a component of the part 119 certificate holders' training program resources.
[1] When the proficiency test does not involve the issuance of a certificate or rating, a check flight engineer may conduct a Proficiency Test.
[2] With POI authorization, employees of the part 119 certificate holder who are specifically designated flight engineer instructors may conduct Qualification LOFT and Proficiency Reviews.
[3] In addition to the check flight engineer, supervision of flight engineer operating experience may also be conducted by a check pilot, a IOE pilot, or a flight engineer who has been specifically authorized by the POI.
[4] With POI authorization, employees of the part 119 certificate holder who are designated as APDs and specifically designated to do so, may conduct the Initial or Recurring check flight engineer observation.

E. Administering Evaluations. (see §§ 121.1221; 121.1253; 121.1257; 121.1271; 121.1281; 121.1341; 121.1343; 121.1361; 121.1363; 121.1365; 121.1367; 121.1377; 121.1379; 121.1381; 121.1383; and 121.1215)

The following requirements apply to the evaluation activity indicated. Refer to Table 3D of this attachment for who may administer each type of evaluation.

1. *Proficiency Tests or Checks.*

Proficiency tests or checks must be administered for first time qualification in a duty position. Employees of the certificate holder who are used or will be used in the certificate holder's operations and who have completed all of the required training may use the proficiency test to obtain a certificate or rating.

2. *Other Assessments.*

(a) After qualification, the flight engineer's performance in all job performance training

activities (including LOFT) must be assessed for a satisfactory level of task proficiency based upon this QPS.

(b) During a scheduled FSTD course of instruction (other than LOFT), if a task is performed unsatisfactorily the flight engineer may retrain on the unsatisfactory task; however, all scheduled tasks, including any retraining, must be completed within the approved scheduled time period.

3. *Satisfactory or Unsatisfactory Performance.*

(a) No evaluator or instructor may assess the flight engineer's performance as satisfactory unless that flight engineer:

(1) Performs the tasks in accordance with the standards and tolerances established in the QPS.

(2) Demonstrates mastery of the aircraft or simulated aircraft with the successful outcome of each task never in doubt. However, when the flight engineer recognizes that an action taken was not correct, or recognizes that an action should have been taken and was not, and then the flight engineer either corrects the action taken or takes the appropriate action to correct the situation, the task may be assessed as satisfactory and the "error" portion of "threat and error management" may be assessed as satisfactory as well.

(3) Except as described in paragraph 3(a)(2) of this attachment, demonstrates performance such that no corrective or instructive action is required by another flightcrew member to maintain safe flight.

(4) Demonstrates CRM competencies in accordance with duties outlined in the FCOM requiring crew interactions, including in a crew briefing before each takeoff and before each approach.

(5) Demonstrates sound judgment.

(b) The evaluator or instructor must assess a flight engineer's performance as unsatisfactory if the flight engineer fails to take prompt corrective action when tolerances are exceeded.

5. *Recording, Reporting and Correcting Unsatisfactory Performance.*

The certificate holder must report a failure of a test, check, or review to the FAA in accordance with § 121.1331(f)(1). The flight engineer must be retrained and reevaluated to a satisfactory level before the flight engineer may begin or be returned to line operations.

44. Add appendix S to part 121 to read as follows:

Appendix S to Part 121—Flight Attendant Qualification Performance Standards

This appendix supplements the requirements for flight attendants contained in subpart BB of this part (§§ 121.1201–121.1399).

Table of Contents

A. *Crew Resource Management (CRM).*
B. *Continuous analysis process.* (See § 121.1355)
ATTACHMENT 1. Flight Attendant Evaluation Requirements and Programmed Hours (see §§ 121.1301; 121.1331; 121.1335; 121.1341; 121.1343; and 121.1361).
ATTACHMENT 2. Flight Attendant Training—Task Requirements and Performance Standards by Area of Instruction (see §§ 121.1301; 121.1331; 121.1333; 121.1341; and 121.1361).
ATTACHMENT 3. Training and Evaluation Requirements for Flight Attendant Curriculums (Basic Qualification), Curriculum Categories (New Hire, Initial, Transition, Emergency, Recurrent, and Requalification), and Aircraft Operating Experience (see §§ 121.1301; 121.1303; 121.1309; 121.1331; 121.1341; 121.1361; 121.1363; 121.1369; 121.1373; and 121.1375)

A. *Crew Resource Management (CRM).*

The flight attendant must demonstrate knowledge and skills in the technical and CRM competencies for each particular task.

1. Certain CRM-related knowledge and skills must be associated with one or more flight attendant performance tasks and must be evaluated during flight attendant training as shown in Attachment 2 of this appendix.

2. The flight attendant must demonstrate knowledge and skills in both the technical and CRM competencies for each task. A task is not completed unless the evaluator has determined that the flight attendant has demonstrated knowledge and skills in the technical and CRM competencies.

B. *Continuous Analysis Process (See § 121.1355).*

A continuous analysis process is incorporated in this QPS through integration with the qualification and training program. The certificate holder is responsible for designating responsibility for the process. The certificate holder must ensure appropriate and adequate assessment tools which may include testing, checking, critique, inspection, observation, documenting, evaluation, and analysis. The assessment tools are utilized to enable the certificate holder to validate the effectiveness of the qualification and training program, or the need to change that program. The certificate holder must describe the attributes of the continuous analysis process in the certificate holder's FAA approved training program.

Attachment 1 of Appendix S to Part 121

Flight Attendant Evaluation Requirements and Programmed Hours (§ 121.1331)

A. EVALUATION REQUIREMENTS (see §§ 121.1301, 121.1331, 121.1341, 121.1343, 121.1361)

1. *Proficiency Checks.*

If an evaluator conducting proficiency checks provides training, the training must be conducted as follows:

(a) No more than two tasks may be trained and no more than a total of three attempts (including the first unsatisfactory, a rehearsal, and a final assessment) in each of the tasks are permitted.

(b) Three or more unsatisfactory tasks, or failure to demonstrate satisfactory performance in three attempts at any one task, makes the check unsatisfactory.

2. *Proficiency Tests.*

(a) Evaluators who conduct proficiency tests may not provide training to the flight attendant during the test.

(b) If, in the judgment of the evaluator, the flight attendant's performance of any task during a proficiency test is unsatisfactory, the test in that task is failed.

(c) When a flight attendant fails a proficiency test, the flight attendant must be retrained in the task and reevaluated on the schedule specified in the certificate holder's approved training program.

3. *Academic Checks.* Evaluators who conduct academic checks during aircraft operating experience may provide training to the flight attendant during the academic check as follows:

(a) No more than two tasks may be trained, and no more than a total of three attempts to complete a academic check in each of the tasks is allowed.

(b) Three or more unsatisfactory tasks, or failure to satisfactorily complete a academic check in three attempts at any one task, makes the check unsatisfactory.

4. *Qualified Evaluators.* Evaluations may only be conducted by those persons as outlined in Table 3A of this Attachment.

B. PROGRAMMED HOURS (see §§ 121.1335, 121.1361)

1. *Baseline and Minimum Programmed Hours* (see §§ 121.1335, 121.1361). Table 1A of this attachment sets out the baseline and Table 1B of this attachment sets out the minimum programmed hours for each curriculum category. The baseline programmed hours may be reduced after demonstration that the reduction is warranted and approved by the Administrator. The FAA may approve a reduction in baseline programmed hours if the certificate holder demonstrates that the reduction is warranted. The FAA will not approve a reduction in the programmed hours below the minimum programmed hours.

2. *Required hours for requalification* (see §§ 121.1309, 121.1361). The hours established for requalification (§ 121.1309) are for individuals in specific circumstances based on the requirements in § 121.1309. Therefore, there are no programmed hours in Tables 1A and 1B of this attachment for requalification training.

3. *Required hours for differences and special curriculum categories* (see §§ 121.1337, 121.1361). The hours established for differences and special are in addition to the previously approved programmed hours for the approved training program. For differences (§ 121.1215), the programmed hours remain in the differences curriculum category. For special (§ 121.1337(c)), the certificate holder integrates the training into the existing categories in Table 1A of this attachment. Therefore, there are no programmed hours in Table 1A or Table 1B of this attachment for differences and special training.

4. *Security.* Security training and evaluation programmed hours required for crewmembers by the Transportation Security Administration (TSA) may not be included in the required programmed hours contained in Tables 1A and 1B of this attachment.

TABLE 1A—FLIGHT ATTENDANTS
BASELINE PROGRAMMED HOURS* BY CURRICULUM CATEGORY
[See § 121.1335]

Training	Curriculum Category								
	New hire	Initial		Emergency training	Transition (each additional aircraft type)	Recurrent (Turbojet)			Recurrent (Turboprop)
		General topics	Each aircraft type			1 to 5 types aircraft	6 to 9 types aircraft	10 to 13 types aircraft	Any number of aircraft types
Academic	20	8	8	8**	8	8	8	8	3
Job Performance	20	4	4	16**	4	4	6	7	2
Total	40	12	12	24**	12	12	13	14	5

* Programmed hours do not include differences training, as required in § 121.1215.
** Academic and job performance programmed hours are each reducible by 1 hour if the flight attendant is not qualified to serve in extended overwater operations.

TABLE 1B—FLIGHT ATTENDANTS
MINIMUM PROGRAMMED HOURS* BY CURRICULUM CATEGORY
[See § 121.1335]

Training	Curriculum Category								
	New Hire	Initial		Emergency Training	Transition (each additional aircraft type)	Recurrent (Turbojet)			Recurrent (Turboprop)
		General Topics	Each aircraft type			1 to 5 types aircraft	6 to 9 types aircraft	10 to 13 types aircraft	Any number of aircraft types
Academic	16	Not reducible	6	Not reducible	6	Not reducible .			
Job Performance	16		2		2				
Total	32		8		8				

* Programmed hours do not include differences training, as required in § 121.1215.

5. Periods of time when training is not occurring, such as lunch or travel between facilities, do not count toward required programmed hours. Reasonably scheduled breaks will not be subtracted from programmed hours.

Attachment 2 of Appendix S to Part 121

Tasks For Flight Attendant Training Task Requirements and Performance Standards by Area of Instruction

Table of Contents

I. Introduction (see §§ 121.1301, 121.1331, 121.1333, 121.1341, 121.1361)
II. General Task Requirements (see §§ 121.1301, 121.1331, 121.1333, 121.1341, 121.1361, 121.1373)
A. Area of Instruction: Flight Attendant Duties and Responsibilities—Normal Operations (see § 121.1363)
1. Subject: Preflight
2. Subject: Pre-Movement on the surface
3. Subject: Ground Movement
4. Subject: In-Flight
5. Subject: Arrival
6. Subject: During Stops
7. Subject: Federal Aviation Regulations
8. Subject: General Contents, Control and Maintenance of Applicable Portions of the Certificate Holder's Manual
9. Subject: Contents of the Certificate Holder's Operations Specifications
10. Subject: Crew Resource Management
11. Subject: Theory of Flight
B. Area of Instruction: Flight Attendant Duties and Responsibilities—Abnormal Situations (see § 121.1369)
1. Subject: Handling Passengers Whose Conduct May Jeopardize Safety
2. [Reserved]
C. Flight Attendant Duties and Responsibilities—Emergency (see § 121.1373)
1. Subject: Emergency Equipment
2. Subject: Emergency Situations
III. Aircraft Specific Task Requirements (see § 121.1369)
A. For Each Aircraft Type
1. Subject: A General Description of the Aircraft
2. [Reserved]
B. [Reserved]
IV. Emergency Training Drill Requirements (see § 121.1373)
V. Emergency Training Drills—General (see § 121.1373)
A. Subject: Job Performance Drills
B. Subject: One Time Job Performance Drills
C. Subject: Observation Drills
VI. Emergency Training Drills—Aircraft Specific (see § 121.1373)
A. Subject: Exit Device Operation (see § 121.1373)
B. [Reserved]

I. Introduction (see §§ 121.1301, 121.1331, 121.1333, 121.1341, 121.1361)

A. This attachment establishes task requirements and performance standards. Sections *II. General Task Requirements* and *III. Aircraft Specific Task Requirements* of this attachment list the academic requirements to the subtask level. Sections *IV. Emergency Training Drills Requirements, V. Emergency Training Drills—General,* and *VI. Emergency Training Drills—Aircraft Specific* list the performance requirements to the task level. Attachment 3 of this appendix lists the tasks that must be trained and evaluated for each curriculum category. Attachment 3 of this appendix includes tables that contain the various combinations of academic and job performance tasks taken from attachment 2, that, when combined, make up the requirements for training in each of the required training categories. (see

§§ 121.1301, 121.1331, 121.1333, 121.1341, 121.1361)

B. Each certificate holder must have a training program that includes the areas of instruction, subjects, tasks, subtasks, and performance standards in this attachment. The certificate holder must use this Attachment to determine the tasks on which each flight attendant must be trained and evaluated for each curriculum category in accordance with their FAA approved training program. The tasks listed in the FAOM do not have to include the level of detail provided to flight attendants in the approved training program, but must be to a level of detail that ensures flight attendants are able to perform their duties with a high level of safety. The tasks listed in the FAOM must also be consistent with the approved training program, as amended, and include standard operating procedures, abnormal procedures, non-normal procedures, and emergency procedures, as well as the authorizations contained in the certificate holder's operations specifications, as appropriate. (see §§ 121.1301, 121.1331)

C. Training under each task is required except when a particular piece of equipment is not on an aircraft in which the flight attendant is to serve or a procedure is not applicable to operations conducted by the certificate holder for the aircraft on which the flight attendant serves. (see §§ 121.1301, 121.1361)

D. The flight attendant must demonstrate that he or she is able to meet the academic and job performance standards in this QPS. (see §§ 121.1301, 121.1335, 121.1341, 121.1343, 121.1361)

E. In Attachment 3, training is required in all areas for persons who are qualifying for the first time in a flight attendant duty position for a certificate holder, and selected portions are required for persons required to complete requalification, transition, and recurrent training. (see §§ 121.1301, 121.1303, 121.1309, 121.1341, 121.1361, 121.1363, 121.1369, 121.1373, 121.1375)

F. Recurrent job performance training and evaluation must include training and evaluation at the subtask level. Recurrent academic training and evaluation must include training and evaluation at the task level. Recurrent academic subjects are identified on Table 3C of Attachment 3 of this appendix by a "T." (see §§ 121.1303, 121.1361, 121.1375)

G. Each subject in recurrent must be trained and evaluated every year during recurrent and must include all changes made to the subject matter in the curriculum categories in the basic qualification curriculum. Some tasks, as indicated in Table 3C of this appendix, must be trained and evaluated every year. Other tasks, as indicated in Table 3C of this appendix, must be trained and evaluated at least once every 3 years. The certificate holder is not required to use the subtasks for training and evaluation. (see §§ 121.1303, 121.1361, 121.1375)

H. Knowledge and understanding of each subject within each area of instruction must be evaluated by written, oral, or electronic based testing at the end of academic training. When a written, oral, or electronic test is used:

(a) Each certificate holder must develop an examination question repository that includes a minimum number of 2 questions for each task under each subject.

(b) Each test must contain questions, as required by the academic test requirements of Table 3B and Table 3C of this appendix, from the examination question repository.

(c) A score of 80% or better on each instructional area is required to be satisfactory.

(d) The test must be corrected to 100%.

(e) Correction of missed questions must include a discussion of the correct answer and why the person's original answer was incorrect.

(f) Reevaluation is required for each instructional area in which a score of 80% or better is not achieved. (see §§ 121.1341, 121.1343, 121.1361)

(g) The form and content of the reevaluation must be approved by the Administrator. (see §§ 121.1341, 121.1343, 121.1361)

I. The certificate holder must conduct a proficiency test so that the flight attendant physically performs the required task and meets the performance standards in Attachment 2 of the Flight Attendant QPS. (see §§ 121.1341,121.1361)

II. General Task Requirements (see §§ 121.1301, 121.1331, 121.1333, 121.1341, 121.1361, 121.1373)

A. Area of Instruction: Flight Attendant Duties and Responsibilities—Normal Operations (see § 121.1363)

1. Subject: Preflight

(a) Task: General (Preflight)

Subtasks:

(1) Review all certificate holder issued memorandums and orders

(2) Verify currency of FAOM

(3) Ensure presence of certificate holder required items

(4) Attend or provide crewmember briefing

(5) Stow crew baggage and personal carry-on baggage properly

(6) Stow the FAOM properly so it is accessible when performing duties

(7) Identify seats with movable aisle armrests for seating of passengers with disabilities

(8) Adjust cabin lighting in accordance with certificate holder's procedures

(9) Report safety discrepancies to the PIC

(10) Report any discrepancies in the aircraft cabin, systems, and equipment in accordance with certificate holder procedures

(11) Cabin position specific duties as defined in the FAOM

(b) Task: Crewmember Briefing (Preflight)

Subtasks:

(1) Security procedures

(2) Communication procedures

(3) Emergency procedures

(4) MELs with any effect on cabin safety equipment or procedures

(5) Flight information

(6) Review and follow procedures concerning supernumerary personnel

(c) Task: Cabin and Galley Security (Preflight)

Subtask: Implement cabin and galley security procedures in accordance with certificate holder's security program

(d) Task: Check of Emergency Equipment (Preflight)

Subtasks:

(1) Proper preflight techniques

(2) Procedures to be followed if equipment fails to meet preflight requirements

(3) Check the flight attendant jumpseat and restraint system, including automatic seat retraction, proper operation, no missing or broken components on flight attendant jump seat, and presence of jumpseat headrest

(4) Check flight attendant panel to ensure switches, controls, and indicators are working

(5) Verify no abnormal indications are present on any panels or gauges

(6) Check portable oxygen equipment

(7) Check fire extinguishers

(8) Check first aid kits

(9) Check EMK

(10) Check AEDs

(11) Check megaphones

(12) Check PBEs

(13) Check ELTs

(14) Visual check of crash ax

(15) Check emergency lighting system

(16) Check emergency flashlights

(17) Check survival kits

(18) Verify position of circuit breakers

(19) Check communication systems, including passenger address and interphone systems

(20) Ensure chimes, chime indicator lights, and associated annunciator panel indicators are working

(21) Check general condition of emergency exits in the passenger and galley areas

(22) Check assist handles

(23) Check lavatory fire detection system, flapper doors, ashtrays, and placards

(24) Check for flotation equipment, as required

(25) Check that class B cargo compartments are clear for crew fire fighting

(26) Check emergency equipment stowage areas for unapproved items

(e) Task: Check of Safety Equipment (Preflight)

Subtasks:

(1) Check presence of and prepare demonstration equipment

(2) Check audio/visual safety demonstration equipment

(3) Verify that the universal precaution kit and CPR masks, or the kit that contains these items, is onboard

(4) Verify that onboard wheelchair is present and properly secured

(f) Task: Galley Check (Preflight)

Subtasks:

(1) Ensure all latches, locks, and flapper doors work properly

(2) Ensure only approved items are stowed in ovens

(3) Check circuit breakers located in the galley

(4) Ensure lower lobe galley lift works properly

(g) Task: Check of Cabin and Cabin Systems (Preflight)

Subtasks:

(1) Check circuit breakers located in the cabin

(2) Check temperature and ventilation controls

(3) Check lighting systems to ensure proper working condition

(4) Check photo luminescent emergency pathway lighting systems, and preflight and charging procedures

(5) Ensure all lock-out mechanisms are engaged on emergency exit seats

(6) Stow in-flight service and entertainment items

2. Subject: Pre-movement on the surface

(a) Task: General (Pre-movement on the Surface)

Subtasks:

(1) Ensure minimum number of required flight attendants are onboard during the entire boarding process

(2) Assume proper station during passenger boarding

(3) Identify possible able bodied passengers

(4) Provide all required announcements to passengers

(5) Provide all required individual passenger briefings

(b) Task: Passenger Boarding (Pre-movement on the Surface)

Subtasks:

(1) Observe passengers for acceptance according to regulation and certificate holder policy (*e.g.,* intoxicated passengers and unaccompanied minors)

(2) Monitor carry-on baggage for excessive size, quantity, or evidence of hazardous materials

(3) Monitor exit seat occupants according to certificate holder's approved exit seat program

(4) Monitor passenger behavior and maintain situational awareness

(5) Report passengers who appear to be intoxicated or are otherwise disruptive immediately to the PIC and customer service personnel

(6) Ensure certificate holder procedures are followed regarding the passenger use of Portable Oxygen Concentrators (POCs)

(7) Ensure certificate holder procedures are followed regarding child restraint systems

(8) Ensure certificate holder procedures are followed regarding lap held children

(9) Ensure lap held children are distributed with regard to oxygen availability

(10) Comply with certificate holder procedures for child and infant flotation equipment

(11) Ensure certificate holder procedures are followed regarding passenger count

(12) Conduct compliance check to ensure carry-on baggage is properly stowed

(13) Ensure that use of portable electronic devices is in compliance with certificate holder's procedures

(14) Conduct appropriate passenger briefing for exit seat occupants

(15) Verify (must be verified by a required crewmember) that all exit seat occupants meet exit seat criteria, prior to aircraft movement on the surface

(16) Ensure proper handling of passengers with additional needs, such as armed passengers, prisoners, escorts, passengers with personal oxygen, and unaccompanied minors

(17) Ensure any medical oxygen being used by a passenger was supplied by the certificate holder and follow appropriate procedures for use

(18) Ensure the PIC is notified that medical oxygen or POC is in use

(19) Ensure the passenger using medical oxygen or POC is seated per the certificate holder's procedures

(20) Ensure the medical oxygen bottles or POC are properly located and secured when they are being used and before and after use

(21) Ensure no persons are allowed to smoke within 10 feet of any oxygen or POC in use

(22) Apply weight and balance procedures as directed by the PIC

(23) Ensure compartment restraints are secured for compliance with carry-on baggage regulation

(24) Ensure all items carried on by the passenger are properly stowed (*e.g.,* purses and assistive devices)

(25) Ensure unusual items (*e.g.,* organs for transplant) are stowed in accordance with certificate holder's approved carry-on baggage program

(26) Follow approved method for removing carry-on baggage that cannot be stowed

(27) Verify (must be verified by a required crewmember) that all carry-on baggage is stowed prior to closing last passenger entry door

(c) Task: Passengers With Disabilities (Pre-movement on the Surface)

Subtasks:

(1) Review part 382 of 14 CFR, Nondiscrimination on the Basis of Disability in Air Travel

(2) Review certificate holder responsibilities regarding compliance with 14 CFR part 382, including the role of the compliance resolution official (CRO)

(3) Review crewmember responsibilities regarding compliance with 14 CFR part 382

(4) Review cabin accommodations, such as onboard wheelchairs, accessible lavatories, movable armrests, and collapsible armrests

(5) Review types of service animals, including unique service animals, lap-held service animals, and emotional support service animals

(6) Review location and placement of service animals

(7) Review types of assistive devices, including respiratory assistive devices, that are designed for, and used by, people with disabilities

(8) Review location and placement of assistive devices, including specific certificate holder procedures regarding stowage of a passenger's folding wheelchair in the cabin

(9) Review exclusion of assistive devices from the number of carry-on items that each passenger is allowed to bring onboard

(10) Review use of orthotic positioning devices by people with disabilities

(11) Review passenger briefings for people with disabilities

(12) Review procedures for handling passenger disputes regarding compliance with 14 CFR part 382

(d) Task: Galley Security (Pre-movement on the Surface)

Subtasks:

(1) Ensure all catering and galley supplies are stowed properly

(2) Ensure latches and locks are positioned properly

(3) Ensure secondary locking mechanisms are engaged

(4) Ensure carts are secured on permanent tie downs for surface movement and take-off

(5) Ensure curtains and doors are properly secured

(e) Task: Preparation of Exits (Pre-movement on the Surface)

Subtasks:

(1) Ensure doors are closed

(2) Ensure timely arming of exits, including positioning of warning devices and cross check requirements

(3) Ensure passengers are seated with seat belts fastened

(4) Ensure no items are improperly stowed at jumpseats, passenger seats, lavatories or galleys

(5) Signal or communicate with flight crew regarding cabin readiness for aircraft movement

(f) Task: Compliance Check (Pre-movement on the Surface)

Subtasks:

(1) Ensure that a normal or emergency means of egress is available when passengers are on board the aircraft

(2) Ensure proper closure of overhead compartments and closets

(3) Ensure that all carry on baggage is properly stowed

(4) Ensure that all passengers, except those meeting lap child criteria, are seated with seat belts fastened

(5) Ensure that seat belt extensions have been provided to all passengers who need them

3. Subject: Ground Movement

(a) Task: General (Ground Movement)

Subtask:

(1) Flight attendants must occupy assigned jumpseats during taxi unless performing safety related duties

(2) Flight attendants must understand the impact of conducting non-safety related duties during taxi

(b) Task: Passenger Information (Ground Movement)

Subtask:

(1) Use public address system properly

(2) Provide appropriate information:

(i) Compliance with Fasten Seat Belt and No Smoking signs

(ii) Stowage of tray tables

(iii) Positioning seat backs in the upright position (leg rests retracted)

(iv) Location of emergency exits

(v) Proper use of portable electronic devices

(vi) Stowage of carry-on baggage

(vii) Smoking restrictions

(viii) Use of oxygen (if applicable)

(ix) Availability of flotation devices

(3) Use safety video correctly

(4) Ensure safety demonstration is coordinated with announcement

(5) Give safety demonstration from approved location

(6) Assume proper position during the safety demonstration to ensure even distribution of flight attendants

(7) Give safety demonstration at individual seats if passengers' view is obstructed

(8) Ensure additional information regarding extended over water flights is provided

(9) Ensure that any passengers needing the assistance of another to move quickly to an exit during an emergency and any attendants are briefed on the routes to each appropriate exit, the most appropriate time to begin moving to the exit, and inquire as to the most appropriate way to assist that person

(c) Task: Sterile Flight Deck Procedures (Ground Movement)

Subtask:

Comply with sterile flight deck procedures

(d) Task: Compliance Check (Ground Movement)

Subtasks:

(1) Ensure that all exits are accessible

(2) Ensure carry-on baggage is stowed

(3) Ensure that certificate holder procedures are followed regarding child restraint systems

(4) Ensure that portable electronic devices are turned off and stowed

(5) Ensure that overhead bins are closed and latched

(6) Ensure tray tables are stowed and secured

(7) Ensure seat backs are in the upright position (leg rests retracted)

(8) Ensure seat belts are fastened

(9) Ensure lap seated infants or children under two are properly held and that infants and children are properly secured in an approved restraint system.

(10) Ensure all galley service items have been picked up and stowed

(11) Ensure galley equipment is secured

(12) Ensure that all cabin divider systems are secured open

(13) Ensure that all video screens are retracted

(14) Ensure that all lavatories are vacant

(15) Ensure that cabin lighting is adjusted as per certificate holder procedures

(16) Return to flight attendant jumpseat

(17) Secure barrier strap

(18) Don seat belt and shoulder harness

(19) Signal or communicate with flight crew regarding cabin readiness for take-off

(20) Perform silent review

(21) Assume flight attendant protective brace position

4. Subject: In-flight

(a) Task: General (In-flight)

Subtask:

Secure flight attendant restraint system upon leaving jumpseat in accordance with certificate holder procedures

(b) Task: In-flight Procedures (In-flight)

Subtasks:

(1) Review flight deck entry and communication procedures

(2) Review procedures for flight attendants to enter and secure flight deck door, including requesting a briefing on the location, donning and use of the fixed oxygen system available for the flight attendant's emergency use when one flightcrew member has to leave the flight deck

(3) Check cabin and passengers periodically throughout the flight

(4) Check lavatories periodically throughout the flight for potential fire hazards, flapper doors that will not close, evidence of smoking or tampering with smoke detectors

(5) Collect and stow service items properly

(c) Task: Passenger Information (In-flight)

Subtasks:

(1) Provide after take-off announcement(s)

(2) Provide seat belt announcement when seat belt sign is turned on or off as per certificate holder procedures

(3) Coordinate proper timing of passenger removal of shoulder harnesses after take-off

(d) Task: Passenger Handling Procedures (In-flight)

Subtasks:

(1) Follow proper certificate holder's alcohol procedures

(2) Ensure passengers seated in exit seats meet exit seat criteria

(3) Follow proper certificate holder's passenger handling and reporting procedures

(4) Follow the certificate holder's program outlining flight attendant duties regarding the use of portable electronic devices (PED)

(5) Ensure passengers are given information about times, conditions, and limitations on PED use

(6) Understand the regulations regarding PEDs, including the effects of the use of PEDs on aircraft avionics during critical phases of flight

(7) Ensure passengers terminate the use of any devices suspected of causing interference

(8) Coordinate between cabin and flight deck with regard to PED use

(e) Task: Proper Use of Service Carts and Service Equipment (In-flight)

Subtasks:

(1) Secure unattended carts properly

(2) Engage permanent tie-downs or pop-up tie-downs correctly

(3) Secure galley compartments when not in use

(4) Secure food and beverage items when not in use

(5) Comply with galley lift restrictions

(6) Ensure that at least one flight attendant is not more than 10 feet away from service cart when in use

(7) Stow service carts properly

(8) Set brakes properly

(9) Latch cart doors and utilize secondary locks

(10) Report any malfunctioning galley equipment including restraints and brakes

(f) Task: Communication and Coordination Procedures (In-flight)

Subtasks:

(1) Communicate and coordinate with flight crew regarding turbulence

(2) Communicate with flight crew regarding potential security threats or disruptive passengers

(3) Communicate with flight crew regarding any abnormal or emergency situation

(4) Report maintenance discrepancies (airworthiness and non-airworthiness)

(g) Task: Pre-landing (In-flight)

Subtasks:

(1) Provide appropriate pre-landing announcements for initial descent

(2) Perform lavatory vacancy check

(3) Adjust cabin lighting, as appropriate

(4) Collect all service items

(5) Close and secure galley compartments properly

(6) Set primary and secondary locks

(7) Ensure carts are secured on permanent tie downs for landing and surface movement

(8) Ensure curtains and doors are properly secured

(9) Turn off electrical appliances not in use

(10) Comply with Fasten Seat Belt signs

(11) Re-verify that passengers seated in exit seats meet exit seat criteria

(12) Reengage lock out mechanism at exit seats

(13) Ensure only approved child restraint systems are in use and are properly positioned

(14) Ensure lap seated infants or children under two are properly held and that infants and children are properly secured in an approved restraint system

(15) Ensure tray tables are stowed and secured

(16) Place seat backs in the upright position (leg rests retracted)

(17) Discontinue use of PEDs

(18) Ensure carry-on baggage is properly stowed

(h) Task: Sterile Flight Deck Procedures (In-flight)

Subtask: Comply with sterile flight deck procedures

(i) Task: Pre-landing Compliance Check (In-flight)

Subtasks:

(1) Provide appropriate pre-landing announcements for final approach

(2) Verify completion of all of the pre-landing activities required by paragraphs II.A.4.(g)(2) through (18) of this attachment

(3) Verify that all exits are accessible

(4) Verify that overhead bins are closed and latched

(5) Verify that all video screens are retracted in accordance with carrier procedures

(6) Comply with certificate holder's charging procedures for photoluminescent light path

(7) Return to flight attendant jumpseat

(8) Secure barrier strap

(9) Don seat belt and shoulder harness

(10) Signal or communicate with flight crew if the cabin is not prepared for landing

(11) Perform silent review

(12) Assume flight attendant protective brace position

5. Subject: Arrival

(a) Task: General (Arrival)

Subtasks:

(1) Perform all required arrival announcements

(2) Make reminder announcements to any passengers who may stand or place carry on bags in the aisle during taxi

(3) Adjust cabin lighting in accordance with air carrier procedures

(4) Perform only safety related duties during taxi

(b) Task: Preparation of Exits (Arrival)

Subtasks:

(1) Ensure that a normal or emergency means of egress is available when passengers are on board the aircraft

(2) Ensure crew coordination

(3) Ensure exits are disarmed in accordance with applicable regulations and aircraft specific procedures

(4) Verify no cabin pressure warnings or indications are present on the door

(5) Open door and operate stairs

(c) Task: Passenger Handling (Arrival)

Subtasks:

(1) Monitor passenger deplaning to ensure adherence to all regulatory and certificate holder requirements

(2) Coordinate with ramp, ground, and station agents and other crewmembers as necessary

(3) Assume proper position during passenger deplaning to ensure even distribution of flight attendants

(4) Ensure that the minimum required number of flight attendants are onboard during entire passenger deplaning process

(d) Task: Cabin Security (Arrival)

Subtasks:

(1) Ensure all passengers have left the aircraft at flight termination by checking the aircraft, including lavatories

(2) Perform post-flight cabin checks

6. Subject: During Stops

(a) Task: General (During Stops)

Subtasks:

(1) Follow duty assignments for flight attendants at intermediate stops, including passenger supervision

(2) Adhere to permissible reduction in the number of flight attendants to at least half the minimum required number (rounded down to the next lower number, but never fewer than one) when passengers remain onboard and boarding or deplaning is not occurring

(3) Adhere to permissible substitution for the required flight attendants with other persons qualified in emergency evacuation procedures for the airplane when passengers remain onboard and boarding or deplaning is not occurring, if those persons are identified to the passengers

(b) Task: Aircraft Refueling (During Stops)

Subtasks:

(1) Review duties, regulatory requirements, and procedures regarding refueling with passengers onboard

(2) Review identification of potential hazards to occupants associated with aircraft refueling

(3) Review proper steps to be taken should problems develop during refueling, including evacuation

7. Subject: Federal Aviation Regulations

(a) Task: General

Subtasks:

(1) Comply with certificate holder procedures for interaction with officers and agents of various governmental agencies, including FAA, TSA, FBI, CIA, and NTSB

(2) Comply with 14 CFR part 252: Smoking Aboard Aircraft

(b) Task: Federal Aviation Regulations Pertinent to Flight Attendant Performance of Assigned Duties

Subtasks: Understand the regulatory requirements for the following:

(1) Flight attendant duty period limitations and rest requirements

(2) Crewmember protocols regarding drug and alcohol testing programs, including regulatory requirements and certificate holder policy regarding drug and alcohol testing programs

(3) Hazardous material recognition and prohibitions

(4) Admission to the flight deck

(5) Manipulation of controls in the flight deck

(6) Inoperable equipment

(7) Carriage of cargo in passenger compartment

(8) Exit seating

(9) Carry on baggage

(10) Passenger information requirements

(11) Passenger briefings and demonstrations

(12) Manual requirements

(13) Training program requirements

(14) Crewmember qualification requirements

(15) Aviation Safety Inspector's credentials

(16) Oxygen requirements

(17) Restrictions regarding service of alcoholic beverages

(18) Boarding restrictions regarding persons who appear to be intoxicated

(19) Retention of items of mass in passenger and crew compartments

(20) Stowage of passenger service equipment

(21) Closing and locking flightcrew compartment door

(22) Security Requirements

(23) Sterile flight deck requirements

(24) Required number of flight attendants

(25) Crewmember requirements at stops where passengers remain on board

(26) Emergency equipment requirements

(27) Lavatory fire protection

(28) Communication systems

(29) Flotation equipment

(30) Flightcrew compartment access

(31) Taxi requirements

(32) Carriage and briefing of passengers requiring special assistance

(33) Fueling with passengers on board

(34) Portable electronic devices

(35) Flight attendant jumpseat requirements

(36) Child restraint systems

(37) Required placards and signs

(38) Compliance with seat belt and smoking regulations

(39) Use of medical oxygen and portable oxygen concentrators

(40) Any other regulations relevant to flight attendant duties and responsibilities

8. Subject: General Contents, Control and Maintenance of Applicable Portions of the Certificate Holder's Manual

(a) Task: Flight Attendant Operating Manual (FAOM)

Subtasks: Understand the certificate holder's procedures for the following:

(1) Currency requirements

(2) Revision process

(3) Bulletins or notices

(4) List of effective pages

(5) Accessibility during flight

(6) Procedures to ensure manual is current

(b) Task: Scheduling and Station Operations Policies and Procedures

Subtasks: Understand the certificate holder's procedures for the following:

(1) Scheduling policies and procedures

(2) Station operations policies and procedures

9. Subject: Contents of the Certificate Holder's Operations Specifications

(a) Task: General

Subtask: Understand information contained in the certificate holder's operations specifications that is pertinent to the duties and responsibilities of flight attendants:

(b) Task: Exit Seat Program and Procedures

Subtasks: Understand the certificate holder's procedures for the following:

(1) Information regarding the certificate holder's exit seat program

(2) Selection criteria regarding the capabilities and conditions to be applied to determine the suitability of persons to occupy an exit seat

(3) Performance functions which a person seated in an exit seat must be willing and able to perform in the event of an emergency

(4) Seat selection, assessment, and verification process

(5) Exit seat briefings

(6) Certificate holder procedures that ensure the suitability of each person who occupies an exit seat

(7) Assessment and verification of suitability by at least one required crewmember prior to movement on the surface

(8) Re-seating procedures

(9) Dispute resolutions

(10) Required announcements

(11) Definition of an exit seat, including excess flight attendant jumpseats and the location of all exit seats on each aircraft type

(12) Assessment and verification of suitability prior to landing

(c) Task: Carry On Baggage Program and Procedures

Subtasks: Understand the certificate holder's procedures for the following:

(1) The certificate holder's carry-on baggage program as described in the FAOM, including carry on baggage limitations, procedures for baggage scanning, and procedures for handling carry on baggage that does not meet these limitations or cannot be accommodated in the passenger cabin

(2) Person(s) responsible and procedures for scanning for amount and size

(3) Weight and balance procedures and coordination with flight crew

(4) Safety implications of improperly stowed carry on baggage

(5) Types of articles exempt from carry on baggage count

(6) Procedures for handling and stowing carry on items exempt from the carry on baggage count

(7) Definition of "properly stowed," including that carry on baggage may not hinder access to emergency equipment

(8) Methods of removing carry on baggage from aircraft when necessary

(9) Procedures regarding proper stowage of carry on baggage in the passenger cabin, including underseat stowage

(10) Procedures for handling unusual items in the cabin

(11) Procedures for the handling of cargo and in-seat baggage in the passenger compartment, including the types of cargo that may be carried in the passenger cabin and the location of seats in which it may be stowed

(12) Procedures to ensure crewmember verification that each piece of carry on baggage is stowed properly prior to the last passenger entry door being closed, including specific crewmember assignments and responsibilities

(13) Certificate holder procedures regarding the handling of carry on baggage during an aircraft evacuation

(d) Task: Minimum Equipment List (MEL)

Subtasks: Understand the certificate holder's procedures for the following:

(1) Description of the purpose and scope of the MEL as applicable to flight attendant duties

(2) Crew coordination procedures for reporting inoperative equipment

(3) Implications of MEL required procedures due to certain pieces of equipment being inoperative, and their effect on flight attendant duties

(4) Any other information relevant to flight attendant duties and responsibilities

10. Subject: Crew Resource Management

(a) Task: Authority of the Pilot in Command

Subtasks:

(1) The captain's authority, including responsibility for the safety of flight in routine and emergency conditions

(2) Chain of command and importance of chain of command

(3) Chain of command as applicable to specific airplane

(b) Task: Communication Processes and Decisions

Subtasks:

(1) Briefing

(2) Utilize effective questioning and challenging techniques

(3) Self-critique

(4) Communication with available personnel

(5) Decisionmaking

(6) Conflict resolution

(7) Threat and Error Management:

(i) Where threats are events that;

(A) Occur outside the influence of the flight crew (*i.e.,* not caused by the crew)

(B) Increase the operational complexity of a flight; and/or

(C) Require crew attention and management

(ii) Where errors are occurrences that:

(A) Lead to a deviation from crew or organizational intentions or expectations

(B) Reduce safety margins; and

(C) Increase the probability of adverse operational events on the ground or during flight

(c) Task: Building and Maintenance of a Flight Team

Subtasks:

(1) Leading and following, including the importance of crewmembers functioning as a team

(2) Use of interpersonal skills and leadership styles in a way that fosters crew effectiveness.

(3) Significance of cultural differences

(d) Task: Workload Management and Situational Awareness

Subtasks:

(1) Preparation and planning

(2) Vigilance

(3) Workload distribution

(4) Distraction avoidance

(e) Task: Communication and Coordination

Subtasks: Flight attendant must know notification and communication procedures between the cabin and flight deck including:

(1) Flight deck and cabin chimes and interphone signals for routine situations

(2) Flight attendant notification to flight crew that aircraft is ready for movement on the surface

(3) Flight crew notification to flight attendant to be seated prior to take-off

(4) Flight attendant recognition of critical phases of flight

(5) Crewmember coordination and notification regarding access to flight deck

(6) Notification to flight attendants of turbulent air conditions

(7) Notification between flight crew and flight attendants of emergency or unusual situations

(8) Notification between flight crew and flight attendants of inoperative equipment that is pertinent to flight attendant duties and responsibilities

(9) Normal and emergency communication procedures to be used in the event of inoperative communication equipment

(f) Task: Crewmember Briefing

Subtasks:

(1) Crewmember responsibilities regarding briefings

(2) Flight crew to flight attendant(s) briefings

(3) Flight attendant to flight attendant(s) briefings (*e.g.,* when PIC has not briefed the entire crew, or when a flight attendant joins a working crew)

(4) Required information

(5) Security procedures

(6) Communication procedures

(7) Emergency procedures

(8) MELs affecting cabin safety equipment and procedures

(9) Flight information

(10) Content of crew briefing as applicable to specific aircraft

(11) Responsibilities of flight attendants to brief new flight attendant crew during a crew change regarding any unserviceability of equipment, special passengers, and other safety matters pertinent to the flight

(g) Task: Communication and Coordination During a Passenger Interference Situation

Subtasks:

(1) Certificate holder's written program regarding the handling of passenger interference, including crewmember communication and coordination

(2) Importance of crewmembers and other employees working as a team

(3) Role of management and crewmember in follow-up

(h) Task: Communication and Coordination During an Emergency Situation

Subtasks:

(1) Actions for each emergency situation

(2) Importance of notification and who must be notified

(3) Alternate actions if unable to notify

(4) Communication during preparation for a planned emergency evacuation such as time available, type of emergency, signal to brace, and special instructions

11. Subject: Theory of Flight

(a) Task: Components of Aircraft

Subtasks:

(1) Wing-leading edge, trailing edge, wing tip, wing root, winglet

(2) Tail-fixed vertical stabilizer, rudder, elevator

(3) Miscellaneous-fuselage, spoilers, speed brakes, main gear, nose wheel

(4) Flight control surfaces and their functions-ailerons, flaps, rudder, elevator

(b) Task: Principles of Flight

Subtasks:

(1) Forces acting on an aircraft-lift, weight, thrust, drag

(2) Three axes and movement around each-yaw, pitch and roll

(3) Weight and balance-weight distribution and center of gravity and their effect on aircraft controllability and stability

(c) Task: Critical Surfaces and Associated Hazards

Subtasks:

(1) Recognition of critical aircraft surfaces

(2) Recognition of hazards to flight associated with contamination of those surfaces

(3) Awareness of conditions most likely to produce such contamination (such as snow and ice, volcanic ash and dust)

(4) Importance of timely communication of observed hazards to flight deck

(5) Awareness of carrier procedures for decontamination of surfaces

(d) Task: Aviation Terminology

Subtasks:

(1) Identify and define aviation terminology common to the certificate holder, including terms related to airports, ground operations and flight operations

(2) Identify any specific voluntary safety programs used by certificate holder (such as ASRS, ASAP, FOQA) as they relate to flight attendants

(3) Identify standard measurement units used in aviation (such as the 24 hour clock, Greenwich Mean Time, time zone changes)

B. Area of Instruction: Flight Attendant Duties and Responsibilities—Abnormal Situations (see § 121.1369)

1. Subject: Handling Passengers Whose Conduct May Jeopardize Safety

(a) Task: General

Subtasks:

(1) The flight attendant must know the certificate holder's procedures for handling passengers who could threaten the safety of the flight or the passengers, including how to do the following:

(i) Identify and manage potential problem passengers who could threaten safety of the flight, passengers, or crew and monitor passenger conduct

(ii) Monitor and identify potential problem passengers during boarding

(iii) Identify baggage that may be considered suspect on board an aircraft

(iv) Recognize hazardous materials labels

(v) Report hazardous materials to the flight crew

(vi) Monitor lavatories periodically throughout the flight

(vii) Perform cabin checks periodically throughout the flight

(2) The flight attendant must know specific certificate holder procedures for maintaining flight deck security

(b) Task: Passenger Interference

Subtasks:

(1) The flight attendant must know the following requirements, procedures, and all information for handling passengers who

might interfere with crewmembers in the performance of their duties and who could threaten the safety of the flight or the passengers:

(i) Title 14 CFR 121.580, Prohibition on interference with crewmembers

(ii) Title 49 U.S.C. 46318, Interference with cabin or flight crew

(iii) Certificate holder's program regarding the handling of disruptive passengers

(iv) Categories of disturbance and crewmember actions

(v) How to diffuse the situation with difficult passengers

(vi) Recommended crew coordination procedures

(2) The flight attendant must be trained to manage the following:

(i) Address incidents of non-compliance immediately

(ii) Inform passenger of regulatory requirements and certificate holder policies

(iii) Manage disruptive or problem passengers by using a team approach or specific certificate holder techniques designed to defuse such situations

(iv) Maintain crewmember's personal security

(v) Communicate with flight crew immediately to report non-compliant passengers and maintain communications throughout the event

(vi) Coordinate with other flight attendants regarding team concept problem management

(vii) Comply with certificate holder procedures regarding involvement of law enforcement officials

(viii) Obtain assistance from other crewmembers or passengers

(ix) Restrain violent passengers as indicated in certificate holder procedures

(x) Appropriate use of equipment provided by the certificate holder

(xi) Complete all required certificate holder forms

(xii) Be able to use techniques to recognize and diffuse passenger panic situations

(c) Task: Smoking Ban Violations

Subtasks: The flight attendant must know the following for handling of passengers who smoke onboard the aircraft:

(1) Procedures for passengers who smoke while seated

(2) Procedures for passengers who smoke in the lavatory

(3) Procedures for passengers who tamper with a smoke detector

(4) Required crew coordination and communication

(5) Procedures to address a possible fire hazard from the discarded cigarette

(6) Reporting procedures

(d) Task: Intoxication

Subtasks:

(1) The flight attendant must know the following for handling of passengers who appear to be intoxicated:

(i) Required crew coordination, communication, and notification procedures

(ii) Prohibition against boarding passengers who appear to be intoxicated

(iii) Certificate holder procedures regarding the removal of a passenger who has boarded the aircraft and appears to be intoxicated

(iv) Certificate holder procedures regarding the determination that a passenger has reached his or her 21st birthday

(v) Prohibition against serving alcohol to passengers who appear to be intoxicated

(vi) Prohibition against serving alcohol to persons who are escorting a prisoner or who are being escorted

(vii) Prohibition regarding passengers consuming alcohol not served by the certificate holder and associated certificate holder procedures

(viii) Prohibition against serving alcohol to any person carrying a dangerous weapon

(ix) Regulatory requirement to report any alcohol related disturbance onboard an aircraft to the FAA within 5 days

(x) Reporting procedures

(2) The flight attendant must be trained to manage the following:

(i) Passengers appearing to be intoxicated during boarding

(ii) Passengers appearing to be intoxicated during flight

(iii) Reseat passengers from exit seats if they appear to become intoxicated in flight

(iv) Inform passenger of regulatory requirements and certificate holder policies as needed

(v) Communicate with flight crew immediately to report non-compliant passengers

(vi) Follow certificate holder procedures when serving alcohol

(e) Task: Passenger Misconduct

Subtasks:

The flight attendant must know how to diffuse the situation with difficult passengers and recommended crew coordination procedures

(f) Task: Security Procedures

Subtasks:

The certificate holder must develop a security program that meets the standards of the TSA's security training program for flight attendants. The certificate holder must document that the TSA has approved the security training program for flight attendants and the certificate holder must provide security training to each flight attendant in accordance with a security program approved by the TSA.

2. [Reserved]

C. Flight Attendant Duties and Responsibilities—Emergency (see § 121.1373)

1. Subject: Emergency Equipment

The flight attendant must know the preflight (if applicable), location, function, operation, and limitations of the following equipment in Tasks (a) through (e) of this section:

(a) Task: General Emergency Equipment

Subtasks:

(1) Flight attendant jumpseat and restraint system

(2) Portable oxygen equipment

(3) Megaphones

(4) Protective breathing equipment

(5) Communication systems (public address system, chimes, interphone, visual indicators)

(6) Lavatory smoke detector, flapper doors, and placards

(7) Crash ax

(8) Flashlights

(9) Any additional portable emergency equipment or systems pertinent to cabin safety

(b) Task: Equipment Used in Land and Water Evacuation

Subtasks:

(1) Evacuation alarms

(2) Emergency lighting systems

(3) Evacuation slides, slide rafts and rafts

(4) Escape ropes and escape tapes

(5) ELTs

(6) Survival kits

(7) Signaling equipment

(8) Flotation equipment

(9) Adult and child life preservers

(10) Infant flotation equipment

(11) Any specialized survival equipment specific to an aircraft type or operation

(c) Task: Emergency Medical Equipment

Subtasks:

(1) EMKs

(2) First aid kits

(3) Portable first aid and medical oxygen and oxygen systems

(4) CPR equipment

(5) AED

(6) Universal precautions and associated equipment

(7) Biohazard kit contents, use, and proper disposal procedures

(8) Needle disposal kits

(9) Any additional cabin safety equipment used during in-flight medical events

(d) Task: Portable Fire Extinguishers

Subtasks:

(1) Installed fire extinguishers

(2) Range and duration of each extinguisher

(3) Classes of fires with emphasis on proper extinguisher for each class of fire

(e) Task: Emergency Exit Doors, Plugs and Hatches, Including Doors, Window Exits, Floor Level Exits, Tailcone Exits, Ventral Stairs, Flight Deck Exits, and Any Other Exit Designed for Passenger or Crewmember Emergency Egress from the Aircraft

Subtasks:

(1) Each different emergency exit in the normal and emergency modes, including the actions and forces required in the deployment of the emergency slides or slide rafts

(2) Signal and conditions under which door can be opened or closed and locked or unlocked

(3) Procedures to verify door status (open or closed and locked or unlocked

(4) Slide pressure gauge and door pressure gauge

(5) Cabin pressurization indications and warnings, to include that the air conditioning cart can pressurize the aircraft on the ground if all doors are closed and the importance of awareness of pressurization warnings and indicators while on the ground

(6) Exterior and interior obstacles or hazards to persons or the exit during the opening or closing (*e.g.,* jetway, stairs, mobile passenger lounge, barrier straps)

(7) Signal for arming or disarming

(8) Procedures to properly arm and disarm the exit

(9) Procedures to verify girt bar placement for armed and disarmed

(10) Procedures to verify door is in the correct mode

(11) Proper procedures and use of operating mechanism to open exit and secure in locked position

(12) Proper procedures, operation, and use of stair operating mechanism for normal and emergency use
(13) Proper use of safety straps
(14) Proper use of barrier straps
(15) Proper use of locking mechanisms
(16) Proper use of escape ropes and escape tapes at overwing exits
(17) Proper use of control handles to close exits and secure in locked position
(18) Proper use of door locking override systems
(19) Proper use of slide override systems
(20) Understanding of door hazards
(21) Correct body position for door opening
(22) Protective positions during an evacuation
(23) Manual operations if pneumatic operations fail
(24) Functions of door levers, door opening devices, windows, and manual slide inflation systems
(25) Operation of exits on the flight deck
(26) Use of slide, raft, or slide raft as application for other survival needs
(27) Use of following exits in normal and emergency modes:
(i) Exits with slides or slide rafts
(ii) Exits without slides
(iii) Window exits
(iv) Tailcone exits
(v) Ventral stairs
(vi) Flight deck exits

2. Subject: Emergency Situations

(a) Task: Emergency Assignments and Procedures Including Coordination among Crewmembers
Subtask: The flight attendant must know emergency procedures for each type of emergency, including unwarranted evacuations, and planned and unplanned land and water evacuations:
(b) Task: Decompression and Physiological Effects of High Altitude (Required When Flight Operations are Authorized over 10,000 Feet)
Subtasks: The flight attendant must know:
(1) Symptoms associated with hypoxia
(2) Recognition of conditions in the cabin that a slow, rapid, or explosive decompression has occurred
(3) Principles of respiration and Time of Useful Consciousness and why it is different for cabin and flightcrew members
(4) Gas expansion and gas bubble formation and how it could affect the crewmember during a decompression
(5) Incidents of decompression
(6) Post decompression duties
(7) Procedures for crew communication and coordination
(8) Identification of information to be relayed to the flight crew via communication equipment
(9) Procedures for a slow, rapid, or explosive decompression while the flight attendant is in the cabin, crew rest areas, galleys, lower lobe galleys or other areas
(10) Procedures for a slow, rapid, or explosive decompression while the flight attendant is in the flight deck
(11) Awareness of possible flight crew response (*e.g.,* rapid descent) and its effect on the cabin and its occupants
(12) Certificate holder's procedures, including the following actions:
(i) Don the nearest oxygen mask
(ii) Fasten seat belt or hold on to something solid
(iii) Await notification from the flight deck before moving around the cabin
(iv) Follow post decompression duties
(v) Obtain and carry portable oxygen bottle
(vi) Monitor condition of passengers
(vii) Open passenger oxygen compartments that have not deployed if supplemental oxygen is needed
(viii) Administer first aid and first aid oxygen, if necessary
(ix) Communicate with fellow crewmembers
(x) Complete required carrier forms
(c) Task: Fire In-flight or on the Surface
Subtasks:
(1) Classes of fires
(2) Types of extinguishers appropriate to each class of fire
(3) Properties of halon extinguishers, including that the potential harmful effects on passengers and crew are negligible compared to the safety benefits achieved by fighting in-flight fires aggressively
(4) Correct methods for fire fighting, including proper use of PBE
(5) Methods of communication while wearing PBE and using aircraft communication systems
(6) Proper techniques for PBE hood removal
(7) Need for crewmembers to take immediate and aggressive action in response to signs of an in-flight fire
(8) Requirement to notify the flight deck as soon as possible and maintain constant communication and coordination
(9) Procedures to identify smoke in cabin, galleys and lower-lobe galleys, or lavatory
(10) Procedures for handling fire or smoke of undetermined origin
(11) Procedures for smoke removal, including crew communication and coordination, as well as passenger management, including any precautions
(12) Procedures for handling fire hidden behind interior panels or enclosed spaces, including removing or otherwise gaining access to the area behind interior panels (*e.g.,* crash ax or other tools) to effectively apply extinguishing agents to the source of the fire
(13) Procedures to respond to smoke detector activation in lavatory
(14) Recognition of odor of fire (*e.g.,* electrical fire or burning cloth)
(15) Procedures to identify location and source of fire (*e.g.,* in ovens; volatile fuel vapors; light ballast; cabin furnishings; stowage bins and hat racks; trash containers; clothing; APU; jetway; ramp fires)
(16) Procedures to identify class of fire (if possible)
(17) Procedures to assess the intensity of the fire (if possible)
(18) Procedures to communicate with other crewmembers and passengers including:
(i) Fight the fire and call flight crew to inform of fire
(ii) Obtain assistance of other flight attendants
(iii) Passenger handling
(iv) Use of interphone and other communication devices
(v) Use of passenger address system
(vi) Assign a passenger to locate and inform another flight attendant or flightcrew member, obtain back-up equipment and provide support
(19) Response to fire, including:
(i) Locate and retrieve the nearest PBE
(ii) Remove PBE from stowage, including container or pouch
(iii) Don PBE and activate oxygen in proper sequence using proper procedures
(iv) Locate and retrieve the nearest appropriate fire extinguisher
(v) Remove extinguisher from securing device
(vi) Prepare extinguisher for use (*e.g.,* break tamper seal, pull pins, release safety latches, and pressurize bottle)
(vii) Approach source of fire using protective techniques
(viii) Maintain safe distance from fire with PBE activated
(ix) Operate extinguisher discharge mechanism properly
(x) Discharge extinguisher at base of fire using proper discharge pattern, bottle position and flight attendant body position
(xi) Use aircraft communication system with PBE on (as necessary)
(xii) Maintain and ensure ongoing communication with flight crew
(xiii) Direct passengers to relocate away from fire location, as appropriate
(xiv) Instruct passengers to breathe through clothing
(xv) Distribute wet towels, if possible
(xvi) Relocate nearby portable oxygen bottles and canisters
(xvii) Use additional fire extinguishers and other firefighting equipment
(xviii) Coordinate ongoing fire control activity with other flight attendants and flightcrew members
(xix) Accept replacement by another flight attendant with PBE and extinguisher (as necessary) to perform continuous firefighting duties
(xx) Use follow-up procedures once fire appears extinguished
(xxi) Monitor indications that PBE is reaching time limits of operation
(xxii) Remove PBE as usefulness expires or need is eliminated
(xxiii) Position used PBE and extinguishers according to certificate holder procedure
(xxiv) Check conditions of passengers in immediate area
(xxv) Report condition of fire and cabin to the flight crew
(xxvi) Complete required reports
(20) Training must also include:
(i) *Fire Prevention:* flight attendant readiness; cabin checks (including stowage of articles that could contribute to fire); articles that may block air vents in the galley; lavatory checks (including importance of material and condition of trash container, spring-loaded flapper door, smoke detection systems, and fire extinguishers); galley checks (including improper stowage of articles in the oven, safe oven operations, cooking and heating limitations, proper stowage of flammable materials around ovens and heating elements or lights and the importance of keeping areas around vents clear); enforcement of smoking regulations; and proper use of electrical equipment

(including use of circuit breakers). Crewmembers must also be alert to fires that can occur on board the aircraft while the aircraft is on the ground (*e.g.,* during boarding).

(ii) *Characteristics of an aircraft fire:* Flash-over and criticality of time management; toxic fumes and chemical irritants; review of function, use, and limitations of fire fighting equipment; fire fighting techniques; special factors (including cabin material flammability and toxicity); location of highly combustible and flammable items and equipment; confined space; evacuation of personnel from lower lobe galleys and cabin ventilation.

(iii) *Electrical Equipment and Circuit Breakers:* Procedures for circuit breaker use associated with galleys, service centers, lifts, lavatories, movie screens and other electrical equipment must be emphasized as well as location of accessible (in the passenger cabin) circuit breakers for each system.

(iv) *External Fires on Ground:* Crew coordination; role of flight attendants for exterior aircraft fires; APU, jetway, ramp fires; notification of appropriate airport personnel if necessary.

(d) Task: Land and Water Evacuation

Subtasks:

(1) Recognition of the need for evacuation

(2) Crew communication and coordination

(3) Recognition of the importance of maintaining situational awareness and ability to anticipate and adapt as emergency progresses

(4) When airplane is stopped away from the gate after a significant event, ensure exits are armed and actively monitor exit availability in case an emergency evacuation is necessary

(5) Use of evacuation signals

(6) Brace for impact position for self and passengers

(7) Importance of selection and briefing of able bodied passengers

(8) How to assess conditions

(9) Initiation of evacuation

(10) Decision not to evacuate

(11) Use of commands

(12) Use of protective position

(13) Passenger behavior which may hinder an evacuation (*e.g.,* passive, aggressive, negative and positive panic, hysteria)

(14) Passenger flow control management

(15) Evacuation of passengers or crewmembers who need the assistance of others

(16) Toxic smoke and flashover time criticality

(17) Care of passengers following evacuation

(18) Evacuation procedures for each type of evacuation, including passenger preparedness, cabin preparation, and crew coordination procedures in accordance with the certificate holder's procedures

(19) Crew duties and responsibilities for each crew position on each aircraft type on which the flight attendant will serve

(20) Primary and secondary exit responsibilities

(21) Raft responsibilities, including the importance of effective raft management

(22) Launching and boarding of assigned raft

(23) Passenger briefings for each assigned exit and duty position

(e) Task: Illness, Injury or Other Abnormal Situations

Subtasks:

(1) The flight attendant must know the following:

(i) Procedures regarding the proper use of emergency medical equipment

(ii) Unique aircraft cabin conditions that make giving first aid difficult

(iii) Incapacitated crewmember procedures, including maintaining coverage of minimum crew positions and responsibilities, reseating, and briefing passengers who may be used for exit responsibilities

(2) The flight attendant must be trained to do the following:

(i) Respond to request for assistance or identify ill or injured individual in need of first aid

(ii) Communicate and coordinate information with other crewmembers

(iii) Use interphone to communicate with flightcrew members

(iv) Use interphone, public announcement system, or a passenger to locate and inform other flight attendants or other passengers needed to assist

(v) Request assistance from onboard medical personnel

(vi) Use proper techniques to move person to specified place on that configuration of airplane, if needed

(vii) Request assistance, if needed, from other flight attendants, passengers, or flight crew

(viii) Retrieve universal precaution equipment, as needed

(ix) Comply with procedures for taking universal precautions against blood borne pathogens

(x) Use gloves, mask, eye shield and other protective gear as needed

(xi) Properly dispose of biohazard

(xii) Report possible exposure to blood borne pathogens

(xiii) Retrieve and use contents of first aid kit, EMK, and other emergency medical equipment, according to certificate holder procedures

(xiv) Retrieve portable oxygen bottle, if needed

(xv) Request help from ground (airline contact with medical professionals on the ground)

(xvi) Assess condition of person who is ill or injured, including conducting an interview to obtain medical history

(xvii) Follow certificate holder's first response medical event procedures

(xviii) Use CPR equipment

(xix) Perform CPR

(xx) Follow procedures for performing CPR during landing

(xxi) Use of AED

(xxii) Ensure someone is monitoring passenger who requires oxygen

(xxiii) Follow procedures for passenger who requires oxygen during landing

(xxiv) Properly stow, reposition and report the use of portable oxygen bottle(s) and other emergency medical equipment

(xxv) Coordinate with Emergency Medical Personnel once on the ground

(xxvi) Follow procedures to handle other passengers onboard while medical personnel board and care for ill or injured passenger

(xxvii) Inform flightcrew member of equipment used

(xxviii) Complete required reports

(3) The flight attendant must be trained to recognize and respond to the following:

(i) Bleeding

(ii) Chest pain

(iii) Burns

(iv) Injuries to the extremities

(v) Shock

(vi) Unconsciousness

(vii) Allergic reaction

(viii) Hyperventilation

(ix) Stroke

(x) Seizures

(xi) Diabetic emergencies

(xii) Childbirth

(xiii) Abdominal distress

(xiv) Airsickness

(xv) Injuries to the skull, spine, neck and chest

(xvi) Eye injury

(xvii) Ear distress

(xviii) The effects of alcohol or drug impairment

(xix) Infectious diseases and conditions

(f) Task: Turbulence

Subtasks:

(1) Awareness of turbulence hazards, aircraft behavior in turbulence and the need to maintain personal safety

(2) Predeparture briefing regarding forecast turbulence related weather conditions

(3) Announcement requirements

(4) Two way communication and coordination procedures between flightcrew members and flight attendants during all phases of flight, including the use of the Fasten Seat Belt sign

(5) Standardized phraseology and communications regarding anticipated time, intensity and duration of turbulence encounters

(6) Procedures promoting voluntary passenger seat belt use and compliance with the Fasten Seat Belt sign

(7) Review of certificate holder history regarding significant turbulence encounters and injuries, as appropriate

(8) Location and use of emergency handholds available in the cabin, galley and lavatories (such as, handles, grab bars, or interior wall cutouts) by flight attendants and passengers who are not seated and restrained during turbulence

(9) Procedures regarding anticipated and unanticipated turbulence encounters, including:

(i) Flight attendant notification by the flight deck

(ii) Assessing the severity of the turbulence and initiating standard operating procedures based on that assessment

(iii) Prioritization of flight attendant duties

(iv) Securing galley and passenger cabin

(v) Flight attendant's personal safety

(vi) Handling flight attendants who may become incapacitated during a turbulence encounter

(10) Handling passengers who may become injured during a turbulence encounter

(g) Task: Hijacking or Other Unusual Situations

Subtask:

The certificate holder must develop a security program that meets the standards of the TSA security training program for flight attendants. The certificate holder must document that the TSA has approved the security training program for flight attendants and the certificate holder must provide security training to each flight attendant in accordance with a security program approved by the TSA.

(h) Task: Aircraft Occurrences, Accidents, and Incidents

Subtasks:

(1) Importance of crewmember actions

(2) How crewmember actions affect the outcome of accidents and incidents

(3) Review and discuss previous aircraft accidents and incidents

(i) Task: Survival Skills

Subtasks:

(1) Effective survival skills to use in conditions relevant to the certificate holder's route structure (*e.g.,* extreme remote geographical areas)

(2) Appropriate use of specialized survival equipment on the aircraft

III. Aircraft Specific Task Requirements (see § 121.1369)

A. For Each Aircraft Type

1. Subject: A General Description of the Aircraft

Description, location, function, and operation of the following:

(a) Task: Aircraft Characteristics and Description

Subtasks:

(1) Design

(2) Major aircraft components and control surfaces

(3) Principle dimensions

(4) Interior configuration

(5) Powerplant

(6) Range

(7) Speed

(8) Altitude

(9) Passenger seating capacity

(b) Task: Cabin Configuration

Subtasks:

(1) Flight attendant panels

(2) Flight attendant jumpseats and restraint systems

(3) Passenger seating zones

(4) Passenger seats

(5) Galley

(6) Lavatories

(7) Stowage areas

(8) Emergency exits

(9) Oxygen mask compartments

(10) Passenger service units

(11) Passenger convenience panels

(12) Passenger information signs

(13) Required placards

(14) Passenger-cargo configurations

(15) Escape path lighting

(c) Task: Passenger Seats

Subtasks:

(1) Seat belts

(2) Shoulder harnesses

(3) Armrests, footrests and seat recline controls

(4) Tray tables

(5) Passenger service units

(6) Passenger convenience panels on armrests

(7) Passenger information signs

(8) Placards

(9) Passenger entertainment systems

(10) Passenger flotation equipment

(11) Any other passenger seating equipment or systems relevant to flight attendant duties and responsibilities

(d) Task: Air Conditioning, Ventilation, and Pressurization Systems

Subtasks:

(1) Cabin pressurization indicators and systems

(2) Aircraft environmental control systems

(3) Any other air conditioning and pressurization equipment or systems relevant to flight attendant duties and responsibilities

(e) Task: Flight Attendant Jumpseats

Subtasks:

(1) Preflight

(2) Automatic seat retraction

(3) Jumpseat headrest

(4) Restraint system integrity

(5) Function and operation of the restraint system

(6) Securing restraint system when not in use

(7) Flotation equipment

(8) Any other flight attendant station equipment or systems relevant to flight attendant duties and responsibilities

(f) Task: Flight Attendant Panels

Subtasks:

(1) Identification and function of controls, switches and indicators on flight attendant panels

(2) Preflight and use of controls and switches

(3) Any other flight attendant panel equipment or systems relevant to flight attendant duties and responsibilities

(g) Task: Carry On Baggage Stowage

Subtasks:

(1) Overhead compartments

(2) Open overhead racks

(3) Closets

(4) Stowage compartments

(5) Underseat stowage restraint requirements

(6) Weight restrictions

(7) Restraint or latching requirements

(8) Required placards

(9) Location requirements for oversized items in the passenger cabin

(10) Designated areas for the carriage of pet containers in the passenger cabin

(11) Designated areas for the stowage of passenger assistance aids, such as wheelchairs, canes and crutches

(12) Any other carry on baggage stowage equipment or systems relevant to flight attendant duties and responsibilities

(h) Task: Communication Systems

Subtasks:

(1) Call system, including:

(i) Call light switches

(ii) Chime and light indicators when a call is initiated

(iii) Routine and emergency call light identification

(iv) Resetting procedures for call light indicators

(2) Interphone system, including:

(i) Location of handset controls and indicators

(ii) Function and operation of routine and emergency controls and indicators

(iii) Interphone system inoperative procedures

(3) Passenger address system, including:

(i) Location of handset and microphone controls and indicators

(ii) Passenger address system inoperative procedures

(iii) Any other communication equipment or systems relevant to flight attendant duties and responsibilities

(i) Task: Entertainment and Convenience Systems

Subtasks:

(1) Description of aircraft entertainment and convenience systems

(2) Location and operation of controls and switches including system indicators

(3) Problem identification, including probable causes and corrective action procedures

(4) Location of accessible circuit breakers for each system

(5) Any other entertainment and convenience equipment of systems relevant to flight attendant duties and responsibilities

(j) Task: Flight Deck Configuration

Subtasks:

(1) Flightcrew member and observer stations

(2) Portable emergency equipment

(3) Use of oxygen systems

(4) Use of flight deck door securing devices and locking systems

(5) Operation of observer's jumpseat, including function and operation of the restraint system

(6) Operation of flight deck door including emergency opening procedures

(7) Emergency exits and means of egress

(8) Any other flight deck equipment or systems relevant to flight attendant duties and responsibilities

(k) Task: Galleys

Subtasks:

(1) Ovens

(2) Refrigeration units

(3) Stowage compartments and latching devices

(4) Carts and braking mechanisms and restraining devices

(5) Electrical control panels and circuit breakers

(6) Water system and water shutoff valves

(7) Oxygen mask compartments

(8) Lower lobe galleys including operation of escape exits and lifts

(9) Weight restrictions

(10) Any other galley equipment or systems relevant to flight attendant duties and responsibilities

(l) Task: Lavatories

Subtasks:

(1) Washbasins

(2) Supply compartments and latching devices

(3) Oxygen mask compartments

(4) Passenger information signs

(5) Required placards

(6) Automatic fire extinguishers

(7) Fire detection systems

(8) Water shut off valves

(9) Water heater switches and indicators

(10) Interior door locking mechanism and signs

(11) Special lavatory components (*e.g.,* doors that may be removed to facilitate

access to an incapacitated passenger, lavatory walls which retract to allow for stretcher removal around corners and out of certain exits)

(12) Any other lavatory equipment or systems relevant to flight attendant duties and responsibilities

(m) Task: Required Signs and Placards

Subtasks:

(1) Passenger information signs, including:

(i) No Smoking signs

(ii) Fasten Seat Belt signs

(iii) Lavatory Occupied signs

(iv) Return To Seat signs in the lavatory

(v) Exit signs

(2) Aircraft markings, including:

(i) Interior emergency exit markings indicating location of each passenger emergency exit

(ii) Emergency exit handle markings indicating location of operating handle and instructions for opening exit

(iii) Emergency equipment markings to identify equipment location

(3) Aircraft placards, including:

(i) Placards on each forward bulkhead and passenger seat stating Fasten Seat Belt While Seated

(ii) Placards in each lavatory stating Federal law provides for a penalty for tampering with the smoke detector installed in this lavatory

(iii) Weight limit placards

(n) Task: Lighting and Electrical Systems

Subtasks:

(1) Interior and exterior lighting

(2) Cabin lighting systems, including:

(i) Controls

(ii) Switches

(iii) Testing procedures, in accordance with certificate holder procedures

(3) Cabin circuit breakers, including:

(i) Means of access

(ii) Switches

(iii) Indicators

(o) Task: Oxygen Equipment and Systems

Subtasks:

(1) Flightcrew and observer oxygen system, including:

(i) Location of oxygen regulators and quick-donning oxygen masks

(ii) Emergency operation of oxygen regulator switches and indicators

(iii) Distinction between "on demand" and "under pressure" oxygen flow

(iv) Proper use of oxygen masks

(2) Passenger oxygen systems, including:

(i) Description and location of each type of oxygen mask and compartment

(ii) Location of extra masks

(iii) Description and location of oxygen mask compartment door latching indicators

(iv) Method to manually open each type of oxygen mask compartment

(v) Restrictions for repacking oxygen mask compartments

(vi) Automatic and manual means of system activation

(vii) Indicators of oxygen system activation

(viii) Procedure for initiating oxygen flow to the mask(s)

(ix) Procedure for properly donning oxygen mask and testing for oxygen flow

(x) Procedure for resetting oxygen system in the event oxygen system is not designed to shut off automatically

(xi) Procedure for activating aircraft system for first aid oxygen, if available

(xii) Any other fixed oxygen equipment or systems relevant to flight attendant duties and responsibilities

(p) Task: Notification of Inoperative Equipment

Subtasks:

(1) MEL, including specific cabin equipment and systems pertinent to flight attendant duties that may be inoperative, including the importance of requesting this information during the preflight briefing

(2) Impact of inoperative cabin equipment and systems on flight attendant duties and procedures as briefed by PIC

(q) Task: Emergency Equipment Location. Location of emergency equipment, if not included in emergency equipment training (see paragraph II.C.1 (a) through (d) of this attachment)

(r) Task: Emergency Exit Doors, Plugs and Hatches, Including Doors, Window Exits, Floor Level Exits, Tailcone Exits, Ventral Stairs, Flight Deck Exits, and Any Other Exit Designed for Passenger or Crewmember Egress From the Aircraft

Subtasks:

(1) Location, function, normal and emergency operation and limitations of each emergency exit if this information is not included in Emergency Equipment Training (see paragraph II.C.1.(e) of this attachment)

(2) Any other exit designed for passenger or crewmember egress from the aircraft

(i) Procedures for using each exit in the normal mode (if applicable)

(ii) Procedures for using each exit in the emergency mode

(s) Task: Crewmember Rest Facilities

Subtasks:

(1) Operation of emergency systems

(2) Operation of escape exits

(3) Operation of escape lifts

(4) Oxygen systems

(5) Communication systems

(6) Restraint systems

(7) Any additional equipment or systems in the crewmember rest facilities on the aircraft on which the flight attendant serves

2. [Reserved]

B. [Reserved]

IV. Emergency Training Drill Requirements (see § 121.1373)

A. Each flight attendant must operate each exit of each aircraft type on which the flight attendant is to serve in both the normal and emergency modes, including the actions and forces required in the deployment of emergency evacuation slides.

B. Each flight attendant must complete the following emergency training drills during the specified training periods, using those items of installed emergency equipment for each type of aircraft operated by that part 119 certificate holder in which the flight attendant is to serve.

C. Each piece of emergency equipment and training device must be secured using the same bracket or securing device that is used on the aircraft, prior to being operated by each flight attendant during each drill (if the flight attendant does not complete the equipment mountings drill for that piece of equipment) or prior to being operated for each flight attendant during an observation drill.

D. Flight attendants must complete each drill without manual reference or coaching.

E. Successful individual evaluation of each flight attendant's performance by a person authorized to administer proficiency tests is required. Flight attendants who cannot demonstrate the required level of proficiency during testing must be retrained in accordance with the certificate holder's procedures prior to retesting.

F. The operation of the equipment must replicate that installed in the certificate holder's aircraft on which the flight attendant is to be qualified with respect to weight, dimensions, appearance (*e.g.,* color, placards and markings), features, charge (if applicable), controls, types, and operation.

V. Emergency Training Drills—General (see § 121.1373)

A. Subject: Job Performance Drills

1. Task: Operation of Each Type of Installed Hand Fire Extinguisher (Job Performance)

(a) *Environment:* The extinguisher must be charged; however, it may be charged with an environmentally friendly agent and meet the requirements of IV.F of this attachment.

(b) *Task:* This drill is not required for the type of fire extinguisher used in the protective breathing equipment and firefighting drill (Task 8). Flight attendants must fight an actual or simulated fire. The flight attendant must complete the following during the drill, and be evaluated and debriefed on the proper use of equipment and procedures:

(1) Remove fire extinguisher from the brackets (if not completed during the equipment mountings drill)

(2) Prepare extinguisher for use (*e.g.,* rotate handle to pressurize, perform actions to break tamper seals, pull pin, release safety latch)

(3) Operate extinguisher discharge mechanism properly

(4) Aim and discharge extinguisher at the base of the fire (actual or simulated "open flame") or as close to the source as possible ("hidden fire") using proper discharge pattern, bottle position and flight attendant body position.

(c) *Situational Awareness (CRM Markers):* The flight attendant must communicate and coordinate (through discussion or actions) with other crewmembers during the drill, as appropriate.

2. Task: Operation of Each Type of Portable Oxygen Equipment (Job Performance)

(a) *Environment:* The drill does not need to be repeated using each type of portable oxygen bottle installed in the aircraft provided the procedures, oxygen mask tubing, fittings, and the means to activate the oxygen flow are the same from one bottle to the other, regardless of the size of the portable oxygen bottle. Where types differ, the drills must be repeated with the appropriate equipment and meet the requirements of IV.F of this attachment.

(b) *Task:* The flight attendant must complete the following during the drill, and

be evaluated and debriefed on the proper use of equipment and procedures:

(1) Remove the bottle or canister from the bracket or stowage (if not completed during the equipment mountings drill)

(2) Retrieve oxygen mask and hose, attach coupling to outlet as per air carrier's procedures

(3) Use the carrying strap

(4) Prepare the "passenger" for receiving oxygen administration (*e.g.,* no smoking, possibly relocating passenger)

(5) Activate the oxygen and test for flow, position and secure the mask to the passenger's face

(6) Secure the oxygen bottle or canister and position it to monitor the supply

(7) Demonstrate proper handling techniques if using portable solid state units

(8) Demonstrate proper placement of hot generators, as per certificate holder procedures, if using solid state units

(c) *Situational Awareness (CRM Markers):* The flight attendant must communicate and coordinate (through discussion or actions) with other crewmembers during the drill, as appropriate. The flight attendant must also recognize indications regarding duration of oxygen supply.

3. Task: Operation of Each Type of Fixed Oxygen System in the Cabin (Job Performance)

(a) *Environment:* The drill does not need to be repeated using each type of fixed oxygen system installed in the aircraft provided the procedures and the means to activate the oxygen flow, and the method to manually open the compartment, are the same from one system to another. Where types differ, the drills must be repeated with the appropriate equipment and meet the requirements of IV.F of this attachment.

(b) *Task:* The flight attendant must complete the following during the drill, and be evaluated and debriefed on the proper use of equipment and procedures:

(1) Each flight attendant must manually drop oxygen mask and follow the crewmember coordination procedures

(2) The flight attendant must demonstrate the ability to "turn on" the oxygen system, if necessary

(c) *Situational Awareness (CRM Markers):* The flight attendant must communicate and coordinate (through discussion or actions) with other crewmembers during the drill, as appropriate.

4. Task: Operation of Each Type of Protective Breathing Equipment (Job Performance)

(a) *Environment:* PBE consisting of a portable oxygen bottle and full-face mask must be fully operational and charged. Self contained PBE may be substituted with a training smoke hood that is not operational. In addition the equipment must meet the requirements of IV.F. of this attachment.

(b) *Task:* This drill is not required for the type of PBE used in the protective breathing equipment and firefighting drill (Task 8). The flight attendant must complete the following during the drill, and be evaluated and debriefed on the proper use of equipment and procedures:

(1) Remove PBE from stowage including stowage container (if not accomplished during the equipment mountings drill) and pouch, if applicable

(2) Don PBE and activate oxygen in proper sequence and using proper techniques

(3) Verify proper seal

(c) *Situational Awareness (CRM Markers):* The flight attendant must communicate and coordinate (through discussion or actions) with other crewmembers during the drill, as appropriate. The flight attendant must also be trained to recognize indications regarding duration of oxygen supply.

5. Task: Operation of Each Type of Installed Life Preserver and Each Type of Individual Flotation Means (Job Performance)

(a) *Environment:* See paragraph IV.F of this attachment.

(b) *Task:* The flight attendant must complete the following during the drill, and be evaluated and debriefed on the proper use of equipment and procedures:

(1) Remove life preserver from the sealed or closed (actual or simulated) pouch

(2) Don and secure life preserver and inflate using automatic inflation of at least one chamber

(3) Partially inflate or simulate inflation of second chamber of life preserver orally

(4) Practice deflation technique

(5) Locate and review light activation

(6) Demonstrate the procedures to use a life preserver for a child (and infant, if applicable)

(7) Demonstrate proper arm placement and use of seat cushion

(8) Demonstrate use of seat cushion by infant and small child utilizing air carrier's procedures

(c) *Situational Awareness (CRM Markers):* The flight attendant must communicate and coordinate (through discussion or actions) with other crewmembers during the drill, as appropriate. The flight attendant must also:

(1) Recognize removal procedures for seat cushions, and also recognize any equipment or furnishings that may complement or may hinder the removal of the seat cushion or life preserver

(2) Recognize the hazards that can be associated with inflating life preservers in the aircraft

6. Task: Operation of Each Type of Automated External Defibrillator (AED) (Job Performance)

(a) *Environment:* See paragraph IV.F of this attachment

(b) *Task:* The flight attendant must complete the following during the drill, and be evaluated and debriefed on the proper use of equipment and procedures:

(1) Remove the AED from the bracket or stowage (if not completed during the equipment mountings drill)

(2) Prepare the AED for use

(3) Prepare the scene and "passenger" for use of an AED

(4) Follow AED prompts for proper use, including the administration of shocks, rescue breathing and the administration of cardiopulmonary resuscitation (CPR) if so prompted, to include the use of the CPR mask

(5) Detach leads, if required by certificate holder procedures

(c) *Situational Awareness (CRM Markers):* The flight attendant must communicate and coordinate (through discussion or actions) with other crewmembers during the drill, as appropriate. The flight attendant must also recognize the need for defibrillation. The flight attendant must recognize precautions regarding placement and use of AED for adults, children or infants, if applicable.

7. Task: Cardiopulmonary Resuscitation (CPR)—Adult, Child, and Infant (Job Performance)

(a) *Environment:* This drill must be performed using training equipment that meets the requirements of IV. F of this attachment and creates an effective environment for the accomplishment of the performance drill.

(b) *Task:* This CPR drill is not required if the flight attendant performs CPR during the operation of each type of installed automated external defibrillator. The flight attendant must complete the following during the drill, and be evaluated and debriefed on the proper use of equipment and procedures:

(1) Administer CPR, to include the use of the CPR mask, for adult, child or infant CPR. Each must be done within a three year cycle

(2) [Reserved]

(c) *Situational Awareness (CRM Markers):* The flight attendant must communicate and coordinate (through discussion or actions) with other crewmembers during the drill, as appropriate. The flight attendant must also recognize the need for CPR.

8. Task: Protective Breathing Equipment and Firefighting Drill (Job Performance)

(a) *Environment:* This drill must be performed using training equipment that creates an effective environment for the accomplishment of performance drills using at least one type of hand fire extinguisher that replicates the features and operating mechanisms of the installed fire extinguishers, with the exception of the extinguishing agent, and is appropriate for the type of actual fire being fought while using the type of installed PBE required by § 121.337 or an approved PBE simulation device. A self-contained PBE may be substituted with a training smoke hood which is not operational.

(b) *Task:* The flight attendant must complete at least one approved protective breathing equipment and firefighting drill in which the flight attendant combats an actual fire, during basic qualification training.

(1) For recurrent training, the flight attendant must combat an actual or simulated fire using at least one type of installed hand fire extinguisher or approved training device that is appropriate for the type of actual fire or simulated fire to be fought while using the type of installed PBE required by § 121.337 or an approved PBE simulation device

(2) Each 36 months, the flight attendant must combat at least one "hidden fire" that is actual or simulated (*e.g.,* behind a panel, in a lavatory or with an undisclosed source of origin)

(3) The flight attendant must complete the following during the drill, and be evaluated and debriefed on the proper use of equipment and procedures:

(i) Locate source of fire and smoke

(ii) Remove PBE from stowage container and pouch

(iii) Don PBE and activate oxygen in proper sequence (activation of oxygen may be simulated)

(iv) Verify neck seal

(v) Simulate the use of aircraft communication systems

(vi) Select appropriate fire extinguisher

(vii) Remove the fire extinguisher from brackets/secured position (if not accomplished during the equipment mountings drill)

(viii) Prepare extinguisher for use (*e.g.,* rotate handle to pressurize, perform action to break tamper seals, pull pin, release safety latch)

(ix) Approach fire or smoke

(x) Fight fire using proper techniques

(xi) Operate extinguisher discharge mechanism properly

(xii) Demonstrate proper passenger handling/protection techniques

(xiii) Ensure fire is extinguished

(xiv) Use proper techniques for PBE removal

(xv) Properly secure equipment as per certificate holder's procedures

(c) *Situational Awareness (CRM Markers):* The flight attendant must communicate and coordinate (through discussion or actions) with other crewmembers during the drill, as appropriate. The flight attendant must also recognize the problem, be aware of PBE duration, and be aware of signals that PBE is no longer generating oxygen to wearer.

9. Task: Cabin Preparation (Land and Water Evacuation) Drill (Job Performance)

(a) *Environment:* This drill must be performed using training equipment that creates an effective environment for the completion of the performance drill.

(b) *Task:* Each flight attendant must participate as either a flight attendant or a passenger in a full, complete, and uninterrupted cabin preparation as outlined in the "Cabin Preparation for a Planned Land Evacuation" drill. In addition, if the flight attendant is to be qualified in extended overwater operations, that flight attendant must participate as either a flight attendant or a passenger in a full, complete and uninterrupted cabin preparation as outlined in the "Cabin Preparation for a Planned Water Landing (Ditching)" drill.

(c) For the purposes of recurrent training, flight attendants may complete a "Cabin Preparation for a Planned Land Evacuation" drill and a "Cabin Preparation for a Planned Water Landing (Ditching)" drill during alternate recurrent training cycles. If the flight attendant has not participated as a flight attendant in one of the cabin preparation drills, then the flight attendant must participate as a flight attendant in at least a portion of another evacuation drill.

(d) The flight attendant must participate as a crewmember or a passenger in at least one of the following approved cabin preparation drills to include crew coordination procedures, cabin preparation and passenger preparation that is applicable to the certificate holder's operations. The flight attendant must also apply tasks and procedures following the prescribed sequence, as priorities allow.

(e) During the initiation phase of the cabin preparation for the planned land evacuation and the planned water landing (ditching), the flight attendant must:

(1) Receive notification from the flight deck, including:

(i) Use of emergency notification signal

(ii) Confirmation from the flight deck that an emergency landing and evacuation are anticipated

(2) Communicate with PIC to obtain the following essential information:

(i) Find out the amount of time remaining until landing

(ii) Find out what type of landing is anticipated (*e.g.,* aircraft configuration, environmental conditions, which exits can be used)

(iii) Establish and confirm signal to assume brace for impact position

(iv) Confirm signal to evacuate

(v) Coordinate with other flight attendants

(3) Prepare the cabin as follows:

(i) Secure galley ensuring all galley components and supplies are properly restrained

(ii) Adjust cabin lights to full bright

(iii) Deliver emergency announcement or demonstration

(f) The flight attendant must complete the following during the drills, and be evaluated and debriefed on the proper use of equipment and procedures:

(1) Conduct a Cabin Preparation for a Planned Land Evacuation

(i) Conduct initiation phase of the cabin preparation for the Planned Land Evacuation in accordance with paragraph V.A.9.(e) of this attachment

(ii) Instruct passengers to secure seatbelts low and tight and review how to release seat belts

(iii) Instruct passengers on brace for impact position(s) beginning with the position to be assumed by the majority of passengers

(iv) Conduct passenger review of passenger safety information card

(v) Instruct passengers on location of exits (primary and alternate)

(vi) Direct passenger attention to the location of escape path lighting

(vii) Instruct passengers on how to exit down slides or out windows

(viii) Instruct passengers on use of escape ropes or escape tapes at overwing exits

(ix) Direct passengers to leave everything behind

(x) Direct passengers to stay low in a smoke filled cabin

(xi) Reseat passengers as necessary

(xii) Brief able bodied passengers on tasks:

(A) Exit operation

(B) Signals or commands regarding starting the evacuation

(C) Slide operation

(xiii) Conduct compliance check

(xiv) Prepare for landing

(xv) Provide last minute instructions to passengers

(xvi) Check exits to ensure they are ready for evacuation

(xvii) Adjust cabin lighting to dim or off setting, in accordance with air carrier procedures

(xviii) Secure barrier strap

(xix) Use proper techniques to fasten flight attendant restraint system

(xx) Inform PIC of cabin readiness

(xxi) Perform silent review

(xxii) Assume flight attendant protective brace position

(xxiii) Command passengers to assume protective brace position and continue brace commands until the aircraft has come to a complete stop

(2) Conduct a Cabin Preparation for a Planned Water Landing (Ditching)

(i) Conduct initiation phase of the cabin preparation for the Planned Water Landing (Ditching) in accordance with paragraph V.A.9.(e) of this attachment

(A) Direct passengers to don life vests and instruct them on use

(B) Don crew life vest

(C) Instruct passengers to secure seatbelts low and tight and review how to release seat belts

(D) Instruct passengers on brace for impact position(s) beginning with the position to be assumed by the majority of passengers

(E) Conduct passenger review of passenger safety information card

(F) Instruct passengers on location of exits (primary and alternate)

(G) Direct passenger attention to the location of emergency floor level lighting

(H) Instruct passengers on how to exit down slides or out windows

(I) Direct passengers to leave everything behind

(J) Direct passengers to stay low in a smoke filled cabin

(K) Reseat passengers as necessary

(ii) Brief able bodied passengers on tasks:

(A) Exit operation

(B) Signals or commands regarding starting the evacuation

(C) Positioning raft according to carrier procedures

(D) Use of slide raft as raft

(E) Launching raft or slide raft

(iii) Continue with cabin preparation:

(A) Complete compliance check

(B) Prepare for landing

(C) Provide last minute instructions to passengers

(D) Check exits to ensure they are ready for evacuation

(E) Adjust cabin lighting to dim or off setting

(F) Secure barrier strap

(G) Use proper techniques to fasten flight attendant restraint system

(H) Inform PIC of cabin readiness

(I) Perform silent review

(J) Assume flight attendant protective brace position

(K) Command passengers to assume protective brace position and continue to shout brace commands until the aircraft has come to a complete stop

(g) Situational Awareness (CRM Markers): The flight attendant must communicate and coordinate (through discussion or actions) with other crewmembers during the drill, as appropriate. The flight attendant must also:

(1) Demonstrate awareness of his or her duties as a crewmember and duties of other crewmembers during an evacuation

(2) Review procedures for evacuation of passengers or crewmembers needing assistance

10. Task: Evacuation Drills (Job Performance)

(a) *Environment:* This drill must be performed using training equipment that creates an effective environment for the accomplishment of performance drills.

(b) The flight attendant must complete the following during the drill, and be evaluated and debriefed on the proper use of equipment and procedures.

(c) During the initiation phase for evacuation drills, the flight attendant must:

(1) Issue brace for impact commands when directed by PIC or at the first sign a problem exists that could lead to impact and an evacuation

(2) Remain seated until the aircraft comes to a complete stop

(3) Open or release seat belts

(4) Assess conditions

(5) Activate emergency lights

(6) Aggressively initiate evacuation procedures using communication protocols or manage passenger behavior if decision is made not to evacuate

(7) Activate evacuation signal

(8) Shout evacuation commands to passengers

(9) Conduct evacuation at floor level exits

(10) Assess conditions at exit

(11) Apply forces necessary to open door in emergency mode and under possible adverse conditions

(12) Take appropriate precautions for door hazard conditions

(13) Hold onto assist handle

(14) Open the exit in the armed mode

(15) Use manual operation if pneumatic operations fail

(16) Block and redirect if necessary

(17) Secure the exit in the fully open position

(18) Hold passengers back until exit is open and ready for evacuation

(d) Task: Conduct a planned or unplanned land evacuation drill

(1) Conduct initiation phase for evacuation (See paragraph V.A.10(c) of this attachment.)

(2) During the land evacuation drill the flight attendant must perform assigned duties following emergency landing or aborted take-off

(3) Pull the manual inflation handle and verify deployment, inflation (*e.g.,* ramp, slide); in the case of stairs, ensure they are positioned for evacuation

(4) Maintain appropriate protective body and hand positions

(5) Shout evacuation commands to passengers

(6) Use passenger flow management control

(7) Open exits and manage flow control at more than one exit if procedures require responsibility for opening more than one exit

(8) Direct passengers to any usable exit

(9) Give commands to able bodied passengers

(10) Conduct evacuation at over wing exits.

(i) Go to exit (if part of assigned duties)

(ii) Assess conditions at exit

(iii) Remove hatch

(iv) Dispose of hatch

(v) Maintain appropriate protective body and hand positions

(vi) Give commands to passengers at over wing exit

(vii) Control passenger flow at over wing area

(viii) Use escape ropes or escape tapes

(11) Ensure evacuation of passengers needing assistance

(12) Evacuate crewmember through most appropriate exit, if crewmember is incapacitated

(13) Shout commands to helper passengers at the bottom of the slides, stairs or exit

(14) Remove emergency equipment

(15) Check flight deck

(e) Task: Conduct a planned or unplanned water (ditching) evacuation drill

(1) Conduct initiation phase of the unplanned land evacuation (See paragraph V.A.10(c) of this attachment)

(2) During the planned water (ditching) evacuation drill the flight attendant must perform assigned duties following impact

(3) Pull the manual inflation handle(s) and verify deployment, inflation, if applicable

(4) Review deployment procedures for inflated slide and launch rafts if aircraft equipped with life rafts

(5) Evacuate passengers into raft, slide raft, or water

(6) Maintain appropriate protective body and hand positions

(7) Shout door commands to passengers

(8) Use passenger flow management control

(9) Direct passengers to most useable doors

(10) Give commands to able bodied passengers

(11) Ensure evacuation of passengers needing assistance

(12) Inflate crew life vest

(13) Conduct evacuation at over wing exit

(i) Go to exit (if part of assigned duties)

(ii) Remove hatch

(iii) Dispose of hatch as per certificate holder procedures

(iv) Review procedures to launch rafts at over wing exit

(v) Use escape ropes or tapes at overwing area

(vi) Give commands to passengers at over wing exit

(vii) Control passenger flow at over wing area

(viii) Ensure evacuation of passengers needing assistance

(f) Task: Control An Unwarranted (Unneeded) Evacuation

The flight attendant must perform the following:

(1) Take protective position if at door

(2) Coordinate with crew

(3) Stop evacuation; use strong commands

(g) *Situational Awareness (CRM Markers):* The flight attendant must communicate and coordinate (through discussion or action) with other crewmembers during the drill, as appropriate. The flight attendant must also review procedures for evacuation of passengers needing assistance

11. Task: Equipment Mountings Drill (Job Performance)

(a) *Environment:* Each piece of emergency equipment and training device must be secured using the same bracket or securing device that is used on the aircraft, prior to being operated by each flight attendant during each drill or prior to being operated by each flight attendant during the equipment mountings drill.

(b) *Task:* The flight attendant must complete the following during the drill, and be evaluated and debriefed on the proper use of equipment and procedures:

(1) Completely remove each piece of portable emergency equipment from its bracket or securing system

(2) Resecure each piece of portable emergency equipment in its bracket or securing system or properly stow according to certificate holder procedures

(c) *Situational Awareness (CRM Markers):* The flight attendant must communicate and coordinate (through discussion or action) with other crewmembers during the drill, as appropriate. The flight attendant must also recognize the importance of removing equipment as quickly as possible.

12. Task: Ditching Survival Drill (Dry Training Environment) (Job Performance)

(a) *Environment:* The certificate holder may substitute a raft, provided there are no substantive differences with respect to weight, dimensions, appearance, features, and operations and the certificate holder provides differences training approved by the FAA. However, when flight attendants are trained and qualified on multiple aircraft types that are extended overwater equipped, the flight attendant must complete "hands on" drill training on each different raft and slide raft on a training schedule acceptable to the FAA, not to exceed a 5 year recurrent training cycle.

(b) *Task:* The flight attendant must participate in the following approved dry ditching drill as applicable to the certificate holder's procedures and approved extended overwater operations. The flight attendant may complete this drill in conjunction with the one time wet ditching drill to initially qualify to serve on an aircraft that is used for extended overwater operations. In addition, the flight attendant must perform this drill during recurrent or requalification training, as applicable.

(c) The flight attendant must complete the following during the drill, and be evaluated and debriefed on the proper use of equipment and procedures:

(1) Identify boarding station and board raft

(2) Review the need to crawl and stay low

(3) Discuss the importance of distributing the load

(4) Review the need to stay attached to the aircraft as long as possible, and operation of the quick disconnect

(5) Review the need to get clear of fuel-covered water and debris

(6) Locate and deploy the sea anchor

(7) Discuss the importance of upwind and downwind

(8) Retrieve the survival kit and review contents

(9) Identify inflation valve and review operation of inflation pump and raft repair kit

(10) Identify items such as bailing bucket and sponge for bailing raft dry

(11) Erect the canopy and discuss methods for collecting rain water and water purification techniques

(12) Demonstrate how canopy can be used in both hot and cold climates

(13) Review signaling devices located in survival kits or brought to the raft

(14) Discuss the cautions associated with flares and sea dye marker and proper use

(15) Point out raft lights
(16) Review alternate signaling devices (*e.g.* mirrors)
(17) Locate and demonstrate use of heaving line. Review techniques to retrieve survivors
(18) Discuss raft management including distribution of duties to passengers and ongoing physiological effects of the situation
(19) Discuss long term water survival techniques or strategies
(20) Discuss static line breaking strain
(21) Discuss transporting incapacitated persons from the aircraft into the rafts
(d) *Situational Awareness (CRM Markers):* The flight attendant must communicate and coordinate (through discussion or action) with other crewmembers during the drill, as appropriate.

13. Jumpseat Drill (Job Performance)

(a) *Environment:* Each flight attendant must complete a flight attendant jumpseat drill by using at least one type of installed flight attendant jumpseat from an aircraft on which the flight attendant will be qualified to serve.
(b) *Task:* This is an emergency drill requirement that the flight attendant must complete for the certificate holder for which the flight attendant is employed. This drill is not required if the flight attendant has completed any drill using at least one type of installed flight attendant jumpseat from an aircraft on which the flight attendant will be qualified to serve during an exit device operation drill or evacuation drill. During the completion of proficiency drills, the flight attendant must operate at least one exit starting from a seated position on at least one type of installed flight attendant jumpseat from an aircraft on which the flight attendant will be qualified to serve during an exit device operation drill, evacuation drill or flight attendant jumpseat drill.
(c) The flight attendant must complete the following during the drill, and be evaluated and debriefed on the proper use of equipment and procedures:
(1) Preflight check of the flight attendant jumpseat
(2) Properly secure restraint system
(3) Demonstrate brace position appropriate for flight attendant jumpseat location on aircraft, as per certificate holder procedures
(4) Proper methods of releasing restraint device, in accordance with per certificate holder procedures
(5) Proper method of stowing flight attendant jumpseat and restraint system, in accordance with certificate holder procedures
(d) *Situational Awareness (CRM Markers):* The flight attendant must communicate and coordinate (through discussion or action) with other crewmembers during the drill, as appropriate.

B. Subject: One Time Job Performance Drills

1. Ditching Survival Drill (Wet Training Environment) (Job Performance)

(a) *Environment:* The certificate holder may substitute a raft, provided there are no substantive differences with respect to weight, dimension, appearance, features, and operations, and the certificate holder provides differences training approved by the Administrator.
(b) *Task:* This is a one-time emergency drill requirement that the flight attendant must accomplish for the certificate holder for which the flight attendant is employed. This one time drill must be given in basic qualification or transition training, whichever training initially qualifies the flight attendant to serve on an airplane that is used for extended overwater operations.
(c) Activities prior to raft boarding may be done in classroom, airplane, or airplane mockup. Raft boarding and subsequent activities must be done in water.
(d) *Task:* The flight attendant must complete the following during the drill, and be evaluated and debriefed on the proper use of equipment and procedures:
(1) Don and use life vest as a means of flotation
(2) Use flotation seat cushion for adult and child or infant
(3) Board the raft
(4) Demonstrate effective raft management (*e.g.,* distribute passengers and deploy sea anchor)
(5) Use heaving lines and life lines
(6) Erect the raft canopy
(7) Manage passengers, including distribution of duties to passengers
(e) *Situational Awareness (CRM Markers):* The flight attendant must communicate and coordinate (through discussion or action) with other crewmembers during the drill, as appropriate.

2. Emergency Evacuation Egress Slide Drill (Job Performance)

(a) *Environment:* Each flight attendant must complete an emergency evacuation slide drill by egressing the aircraft or approved training device using at least one type of installed emergency evacuation slide from an aircraft on which the flight attendant will be qualified to serve.
(b) *Task:* This drill is required when the flight attendant is qualifying on an aircraft that is equipped with emergency evacuation slides. This drill is not required if the flight attendant egresses the aircraft or approved training device using at least one type of installed emergency evacuation slide from an aircraft on which the flight attendant will be qualified to serve during the evacuation drill. (See paragraph V.A.10 of this attachment.)
(c) This is a one-time emergency drill requirement that the flight attendant must complete for the certificate holder for which the flight attendant is employed. This one time drill must be given in basic qualification, transition training, or recurrent training, whichever training initially qualifies the flight attendant to serve on an aircraft with evacuation slides.
(d) The flight attendant must complete the following during the drill, and be evaluated and debriefed on the proper use of equipment and procedures:
(1) Observe the airplane exits being opened in the emergency mode and the associated exit slide or slide raft pack being deployed and inflated or perform the tasks resulting in the completion of these actions (if not completed during the emergency evacuation including the use of a slide observation drill)
(2) Use the correct method to egress the aircraft and descend the slide
(e) *Situational Awareness (CRM Markers):* The flight attendant must communicate and coordinate (through discussion or action) with other crewmembers during the drill, as appropriate.

3. Emergency Evacuation Egress Drill (Job Performance)

(a) *Environment:* Each flight attendant must complete an emergency evacuation drill by egressing the aircraft or approved training device using at least one type of installed emergency exit, from an aircraft on which the flight attendant will be qualified to serve.
(b) *Task:* This is a one-time emergency drill requirement that the flight attendant must complete for the certificate holder for which the flight attendant is employed. This one time drill must be given in basic qualification or transition, whichever training initially qualifies the flight attendant to serve on an aircraft that is not equipped with evacuation slides. An emergency exit that has stairs may not be used.
(c) The flight attendant must complete the following during the drill, and be evaluated and debriefed on the proper use of equipment and procedures:
(1) Observe the aircraft exits being opened in the emergency mode or perform the tasks resulting in the completion of these actions
(2) Use the correct method to egress the aircraft, or training device that is representative of the aircraft in relation to sill height from the ground or window exit to the wing
(d) *Situational Awareness (CRM Markers):* The flight attendant must communicate and coordinate (through discussion or action) with other crewmembers during the drill, as appropriate.

C. Subject: Observation Drills

1. Task: Removal From the Aircraft or Training Device and Inflation of Each Type of Installed Life Raft (Observation Drill)

(a) *Environment:* See paragraph IV.F. of this attachment.
(b) *Task:* The flight attendant must complete the following during the observation drill, and be evaluated and debriefed on the proper use of equipment and procedures:
(1) Specific attachment points in the aircraft
(2) How and where to attach life raft to aircraft
(3) Safe inflation techniques
(4) Launching points
(5) Righting overturned rafts, if applicable

2. Task: Deployment, Inflation and Detachment From the Aircraft of Each Type of Installed Slide or Slide Raft Pack (Observation Drill)

(a) *Environment:* See paragraph IV.F. of this attachment.
(b) *Task:* The flight attendant must complete the following during the observation drill, and be evaluated and debriefed on the proper use of equipment and procedures:
(1) Proper use of the exit operating handle
(2) Location and color of the inflation handle
(3) Demonstration of forces and actions required to inflate slide or slide raft

(4) Sound of inflating slide or slide raft
(5) Proper inflation and position of the slide or slide raft
(6) Location of the ditching handle or laces
(7) Demonstration of the forces and actions required to use the ditching handle including secondary actions
(8) Lanyard and the removal or cutting of lanyard using the certificate holder's procedures
(9) Righting overturned rafts, if applicable

3. Task: Emergency Evacuation Including the Use of a Slide (Observation Drill)

(a) *Environment:* See paragraph IV.F. of this attachment.
(b) *Task:* The flight attendant must complete the following during the observation drill, and be evaluated and debriefed on the proper use of equipment and procedures:
(1) Correct methods of evacuation
(2) Correct methods of entering the slide
(3) Necessity for helpers at the bottom of slide

4. Task: Non-Floor Level Exits in the Flight Deck Through Which a Crewmember May Egress the Aircraft (Observation Drill)

(a) *Environment:* See paragraph IV.F. of this attachment.
(b) *Task:* Each flight attendant must observe the operation of any additional exits in the flight deck that crewmembers may use to egress the aircraft type for which the flight attendant is qualifying. The flight attendant may receive AOE credit for observing the exit operation on the aircraft or in an approved training device. The flight attendant must complete the following during the observation drill, and be evaluated and debriefed on the proper use of equipment and procedures:
(1) Assesses conditions outside the exit to determine exit usability
(2) Correct use of the exit operating mechanism including hand and body position
(3) Use of proper terms and procedures
(4) Correct positioning of the escape device
(5) Method to secure exit in fully opened position or ensuring correct stowage position
(6) Knows appropriate protective hand and body positions
(7) Access to escape tapes, escape ropes or inertial reels

5. Task: Flight Deck Fixed Oxygen System (Observation Drill)

(a) *Environment:* See paragraph IV.F. of this attachment.
(b) *Task:* The flight attendant must complete the following during the observation drill, and be evaluated and debriefed on the proper use of equipment and procedures:
(1) Access oxygen mask and remove from stowage
(2) Use of proper procedures to don oxygen mask and activate oxygen in proper sequence for an emergency
(3) Re-securing of equipment
(4) Observe the locations of the flight deck fixed oxygen system during AOE flight

VI. Emergency Training Drills—Aircraft Specific (see § 121.1373)

A. Subject: Exit Device Operation (see § 121.1373)

1. Task: Floor Level Door Exit Device Operation (Normal Mode) (Job Performance)

(a) *Environment:* See paragraph IV.F. of this attachment. Equipment may be substituted provided there is no substantive difference with respect to weight, dimensions and appearance and the flight attendant has been provided with training on differences between training equipment and the actual aircraft exit. Equipment may not be substituted if the forces and actions necessary to operate the equipment are different or if the operating mechanism is different.
(b) *Task:* The flight attendant must complete the following during the drill, and be evaluated and debriefed on the proper use of equipment and procedures:
(1) Identify signal and conditions under which each door can be opened and closed
(2) Assess the exterior and interior conditions for obstacles or hazards to persons or the exit during the opening and closing (*e.g.,* jetway, stairs, barrier straps)
(3) Follow procedure to ensure flight attendant awareness at armed boarding door prior to aircraft pushback
(4) Identify signal for arming and disarming
(5) Coordinate and communicate
(6) Properly arm and disarm the exit
(7) Verify girt bar placement for armed and disarmed
(8) Verify door is in the correct mode
(9) Use proper techniques for the operating mechanism (such as door handles to open exit and secure in locked position)
(10) Secure safety strap then unsecure safety strap; release locking mechanism
(11) Properly use control handles to close exit and secure in locked position
(c) *Situational Awareness (CRM Markers):* The flight attendant must communicate and coordinate (through discussion or action) with other crewmembers during the drill, as appropriate.

2. Task: Floor Level Door Exit Device Operation (Emergency Mode) (Job Performance)

(a) *Environment:* See paragraph IV.F. of this attachment. Equipment may be substituted provided there is no substantive difference with respect to weight, dimensions and appearance and the flight attendant has been provided with training on differences between training equipment and the actual aircraft exit. Equipment may not be substituted if the forces and actions necessary to operate the equipment are different or if the operating mechanism is different.
(b) *Task:* The drill and door operations must be performed in a manner that resembles an actual evacuation. The flight attendant's voice commands and actions during the drill must be aggressive and easily understood. The flight attendant must complete the following during the drill, and be evaluated and debriefed on the proper use of equipment and procedures:
(1) Position escape device
(2) Verify the exit is in the correct mode
(3) Recognize the signal for or the conditions under which the exit is to be opened in the emergency mode
(4) Use proper voice commands to passengers
(5) Assess conditions outside the exit to determine the exit usability (*e.g.,* clear of obstruction, fire, aircraft attitude)
(6) Open the exit in the armed mode and secure the exit in the fully open position
(7) Hold onto assist handle
(8) Pull the manual inflation handle(s) and verify deployment, inflation (*e.g.,* ramp, slide)
(9) Maintain appropriate protective body and hand positions
(10) Follow crew coordination procedures
(11) Access release handle(s) (*e.g.,* Slide disconnect, jettison tailcone, ventral stairs)
(12) Recognition of when it is appropriate to exit the aircraft
(c) *Situational Awareness (CRM Markers):* The flight attendant must communicate and coordinate (through discussion or action) with other crewmembers during the drill, as appropriate. In addition, the flight attendant must:
(1) Be aware of passenger flow and traffic to all exits during the evacuation
(2) Be aware of additional exit responsibilities

3. Task: Cabin Window Exit Device and Plug or Hatch Exit Device Operation (Job Performance)

(a) *Environment:* See paragraph IV.F. of this attachment. Equipment may be substituted provided there is no substantive difference with respect to weight, dimensions and appearance and the flight attendant has been provided with training on differences between training equipment and the actual aircraft exit. Equipment may not be substituted if the forces and actions necessary to operate the equipment are different or if the operating mechanism is different.
(b) *Task:* The drill and door operations must be performed in a manner that resembles an actual evacuation. Commands must be aggressive and easily understood. Each flight attendant must operate each cabin window exit device and plug or hatch exit device, which has a different operating mechanism. The flight attendant must complete the following during the drill, and be evaluated and debriefed on the proper use of equipment and procedures:
(1) Recognize the signal for or the conditions under which the exit is to be opened
(2) Assess conditions outside the exit to determine exit usability (*e.g.,* clear of obstruction, fire, aircraft attitude)
(3) Open and correctly stow the exit (if applicable)
(4) Give commands to passengers for exiting exit
(5) Verbally describe correct exit placement following removal (if applicable) if the training procedures differ from the operational procedures
(6) Pull the manual inflation handle (if applicable) and verify deployment (*e.g.,* slide ramp), if applicable

(7) Assume and maintain appropriate protective body and hand positions

(8) Access escape tapes or escape ropes

(c) *Situational Awareness (CRM Markers):* The flight attendant must communicate and coordinate (through discussion or action) with other crewmembers during the drill, as appropriate. In addition, the flight attendant must:

(1) Be aware of passenger flow and traffic to all exits during the evacuation

(2) Be aware of additional exit responsibilities

4. Task: Any Additional Emergency Exits Required for Type Certification (Job Performance)

(a) *Environment:* See paragraph IV.F. of this attachment. Equipment may be substituted provided there is no substantive difference with respect to weight, dimensions and appearance and the flight attendant has been provided with training on differences between training equipment and the actual aircraft exit. Equipment may not be substituted if the forces and actions necessary to operate the equipment are different or if the operating mechanism is different.

(b) *Task:* The drill and door operations must be performed in a manner that resembles an actual evacuation. Commands must be aggressive and easily understood. Each flight attendant must operate any additional emergency exit devices required for type certification through which crewmembers or passengers may egress the aircraft. In the case of some aircraft, an exit required for type certification may be located on the flight deck. In this case, the flight attendant must complete performance drills on that exit. The flight attendant must complete the following during the drill, and be evaluated and debriefed on the proper use of equipment and procedures:

(1) Recognize the signal for or the conditions under which the exit is to be opened

(2) Assess conditions outside the exit to determine exit usability (*e.g.,* clear of obstruction, fire, aircraft attitude)

(3) Open and correctly stow the exit (if applicable)

(4) Give commands to passengers for exiting exit

(5) Verbally describe correct exit placement following removal (if applicable) if the training procedures differ from the operational procedures

(6) Pull the manual inflation handle (if applicable) and verify deployment (*e.g.,* slide ramp), if applicable

(7) Assume and maintain appropriate protective body and hand positions

(8) Access escape tapes or escape ropes and access release handle(s) (*e.g.,* slide disconnect)

(c) *Situational Awareness (CRM Markers):* The flight attendant must communicate and coordinate (through discussion or action) with other crewmembers during the drill, as appropriate. In addition, the flight attendant must:

(1) Be aware of passenger flow and traffic to all exits during the evacuation

(2) Be aware of additional exit responsibilities

B. [Reserved]

Attachment 3 of Appendix S to Part 121

Training and Evaluation Requirements for Flight Attendant Training Curriculums (Basic Qualification), Curriculum Categories (New Hire, Initial, Transition, Emergency, Recurrent, and Requalification), and Aircraft Operating Experience

Training and Evaluation Requirements (see §§ 121.1301, 121.1331, 121.1341, 121.1343, 121.1361)

1. How must the task requirements required for instruction and evaluation in each curriculum category be determined?

(a) To determine the tasks in which each flight attendant must be trained and evaluated, the certificate holder must use the task listings provided in Table 3B and Table 3C of this attachment. The tasks must be specific to the aircraft types (as appropriate), and must be adjusted for and kept current with the certificate holder's operation as reflected in the FAA approved operations specifications and FAOM, as amended.

(b) If the certificate holder adds tasks to those listed in Table 3B and Table 3C, of this attachment it must further develop the tasks to include the requirement and frequency for training and evaluation in each specific curriculum category. These changes must be submitted to the POI for approval.

(c) The recurrent curriculum category requirements in Table 3C of this attachment also include the frequency during which each flight attendant must be trained and evaluated in each task. The table indicates which tasks must be completed by each flight attendant every 12 months. The table also indicates which tasks must be completed by each flight attendant once every 36 months.

2. Individuals authorized to administer flight attendant training, evaluation, and aircraft operating experience.

TABLE 3A—PERSONS AUTHORIZED TO ADMINISTER FLIGHT ATTENDANT TRAINING AND EVALUATION ACTIVITIES UNDER SUBPART BB—SEE § 121.1323 OF THIS PART FOR SPECIAL LIMITED AUTHORIZATIONS FOR INITIAL CADRE PERSONNEL

[See §§ 121.1291,121.1321, 121.1323, 121.1387]

Flight attendant training and evaluation activities under Subpart BB (by aircraft type)	Employer and position						
	Other contractor		Part 142 or other part 119 certificate holder		The part 119 certificate holder		FAA
	Flight attendant instructor [4]	Subject matter expert [3]	Flight attendant instructor [4]	Check flight attendant [1]	Flight attendant instructor [4]	Check flight attendant [1]	Aviation safety inspector (cabin safety)
Academic and Job Performance Training	X	X	X	X	X	X	
Academic Evaluation	X	X	X	X	X	X	
Proficiency Test [2]					X	X	X
Proficiency Check						X	X
Supervision of Aircraft Operating Experience (§ 121.1305(a))						X	
Supervision of Experience (§ 121.1305(b))						X	

[1] Requires authorization by the Administrator for specific duties to be performed.

[2] Persons qualified to administer proficiency tests, with the exception of FAA Aviation Safety Inspectors (Cabin Safety), must meet the requirements of § 121.1387 of this part.

[3] Subject Matter Experts, who meet the requirements of § 121.1291(b) of this part and this QPS, may conduct specific flight attendant training.

[4] Persons qualified to administer flight attendant training must meet the requirements of § 121.1291(a) of this part.

3. The Use of Subject Matter Experts

(a) Under § 121.1291, a subject matter expert, with specific technical knowledge on a subject, may be used to conduct training on specific tasks, in accordance with the following:

(1) Except as provided in paragraph A.3.(a)(2) of this attachment, when flight attendant training is provided by a subject matter expert, a qualified flight attendant instructor must be present

(2) Subject matter experts in certain subject areas may provide flight attendant training on the following specific tasks without a qualified flight attendant instructor present:

(i) Firefighting and firefighting equipment

(ii) Emergency medical events and emergency medical equipment

(iii) Hazardous materials recognition

(b) [Reserved]

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TABLE 3B
BASIC QUALIFICATION CURRICULUM AND TRANSITION CURRICULUM CATEGORY

Task Requirements	New Hire						Emergency						Initial						Aircraft Operating Experience (AOE)						Transition					
	Train		Test				Train		Test				Train		Test				Train				Check		Train		Test			
	Academic	Practice	Academic	Proficiency			Academic	Practice	Academic	Proficiency			Academic	Practice	Academic	Proficiency			Academic	Practice			Academic	Proficiency	Academic	Practice	Academic	Proficiency		
II. General Task Requirements																														
A. Area of Instruction: Flight Attendant Duties and Responsibilities – Normal Operations																														
1. Subject: Preflight																														
Tasks:																														
(a) General	X	X	X																	X			X							
(b) Crewmember Briefing	X	X	X																					X						
(c) Cabin and Galley Security	X																													
(d) Check of Emergency Equipment	X	X	X																	X				X						
(e) Check of Safety Equipment	X	X	X																					X						
(f) Galley Check	X	X	X																					X						
(g) Check of Cabin and Cabin Systems	X	X	X																					X						
2. Subject: Pre-Movement on Surface																														
Tasks:																														
(a) General	X	X	X																					X						
(b) Passenger Boarding	X	X	X																					X						
(c) Passengers with Disabilities	X	X	X																				X							
(d) Galley Security	X	X	X																					X						

TABLE 3B
BASIC QUALIFICATION CURRICULUM AND TRANSITION CURRICULUM CATEGORY

Task Requirements	New Hire						Emergency						Initial						Aircraft Operating Experience (AOE)						Transition					
	Train		Test				Train		Test				Train		Test				Train				Check		Train		Test			
	Academic	Practice	Academic	Proficiency			Academic	Practice	Academic	Proficiency			Academic	Practice	Academic	Proficiency			Academic	Practice			Academic	Proficiency	Academic	Practice	Academic	Proficiency		
(e) Preparation of Exits[1]	X	X	X																	X				X						
(f) Compliance Check	X	X	X																					X						
3. Subject: Ground Movement																														
Tasks:																														
(a) General	X		X																					X						
(b) Passenger Information	X	X	X																	X				X						
(c) Sterile Flight Deck Procedures	X	X	X																					X						
(d) Compliance Check[1]	X	X	X																	X				X						
4. Subject: In-flight																														
Tasks:																														
(a) General[1]	X	X	X																	X										
(b) In-flight Procedures	X	X	X																	X										
(c) Passenger Information	X	X	X																					X						
(d) Passenger Handling Procedures	X	X	X																					X						
(e) Proper Use of Service Carts and Service Equipment	X	X	X																					X						
(f) Communication and Coordination Procedures	X	X	X																				X							
(g) Pre-Landing	X	X	X																					X						
(h) Sterile Flight Deck Procedures	X	X	X																				X							
(i) Compliance Check[1]	X	X	X																					X						
5. Subject: Arrival																														

TABLE 3B
BASIC QUALIFICATION CURRICULUM AND TRANSITION CURRICULUM CATEGORY

Task Requirements	New Hire						Emergency						Initial						Aircraft Operating Experience (AOE)						Transition					
	Train		Test				Train		Test				Train		Test				Train				Check		Train		Test			
	Academic	Practice	Academic	Proficiency			Academic	Practice	Academic	Proficiency			Academic	Practice	Academic	Proficiency			Academic	Practice			Academic	Proficiency	Academic	Practice	Academic	Proficiency		
Tasks:																														
(a) General	X	X	X																				X							
(b) Preparation of Exits[1]	X	X	X																	X				X						
(c) Passenger Handling	X	X	X																					X						
(d) Cabin Security	X	X	X																					X						
6. Subject: During Stops																														
Tasks:																														
(a) General	X	X	X																				X							
(b) Aircraft Refueling	X		X																				X							
7. Subject: Federal Aviation Regulations																														
Tasks:																														
(a) General	X		X																				X							
(b) Pertinent to Flight Attendant Performance of Assigned Duties	X		X																				X							
8. Subject: Certificate Holder's Manual System																														
Tasks:																														
(a) Crew Operating Manual	X	X	X																											
(b) Scheduling and Station Operations Policies and Procedures	X	X	X																											
9. Subject: Contents of Certificate Holder's Operations Specifications																														

TABLE 3B
BASIC QUALIFICATION CURRICULUM AND TRANSITION CURRICULUM CATEGORY

Task Requirements	New Hire						Emergency						Initial						Aircraft Operating Experience (AOE)						Transition					
	Train		Test				Train		Test				Train		Test				Train				Check		Train		Test			
	Academic	Practice	Academic	Proficiency			Academic	Practice	Academic	Proficiency			Academic	Practice	Academic	Proficiency			Academic	Practice			Academic	Proficiency	Academic	Practice	Academic	Proficiency		
Tasks:																														
(a) General	X		X																											
(b) Exit Seat Program and Procedures	X	X	X																					X						
(c) Carry on Baggage Program and Procedures	X	X	X																					X						
(d) Minimum Equipment List	X		X																											
10. Subject: Crew Resource Management																														
Tasks:																														
(a) Authority of Pilot in Command													X	X	X															
(b) Communication Processes and Decisions													X	X	X															
(c) Building and Maintenance of a Flight Team													X	X	X															
(d) Workload Management and Situational Awareness													X	X	X															
(e) Communication and Coordination													X	X	X															
(f) Crewmember Briefing													X	X	X															
(g) Communication and Coordination During a Passenger Interference Situation													X	X	X															
(h) Communication and Coordination During an Emergency Situation													X	X	X															

TABLE 3B
BASIC QUALIFICATION CURRICULUM AND TRANSITION CURRICULUM CATEGORY

Task Requirements	New Hire						Emergency						Initial						Aircraft Operating Experience (AOE)						Transition					
	Train		Test				Train		Test				Train		Test				Train				Check		Train		Test			
	Academic	Practice	Academic	Proficiency			Academic	Practice	Academic	Proficiency			Academic	Practice	Academic	Proficiency			Academic	Practice			Academic	Proficiency	Academic	Practice	Academic	Proficiency		
11. Subject: Theory of Flight																														
Tasks:																														
(a) Components of Aircraft													X		X															
(b) Principles of Flight													X		X															
(c) Critical Surfaces and Associated Hazards													X		X															
(d) Aviation Terminology													X		X															
B. Area of Instruction: Flight Attendant Duties and Responsibilities – Abnormal Situations																														
1. Subject: Handling Passengers Whose Conduct May Jeopardize Safety																														
Tasks:																														
(a) General													X	G	X															
(b) Passenger Interference													X	G	X															
(c) Smoking Ban Violations													X	G	X															
(d) Intoxication													X	G	X															
(e) Passenger Misconduct													X	G	X															
(f) Security Procedures													X																	

TABLE 3B
BASIC QUALIFICATION CURRICULUM AND TRANSITION CURRICULUM CATEGORY

Task Requirements	New Hire						Emergency						Initial						Aircraft Operating Experience (AOE)						Transition					
	Train		Test				Train		Test				Train		Test				Train				Check		Train		Test			
	Academic	Practice	Academic	Proficiency			Academic	Practice	Academic	Proficiency			Academic	Practice	Academic	Proficiency			Academic	Practice			Academic	Proficiency	Academic	Practice	Academic	Proficiency		
C. Area of Instruction: Flight Attendant Duties and Responsibilities – Emergency																														
1. Subject: Emergency Equipment																														
Tasks:																														
(a) General Emergency Equipment							X	X	X																					
(b) Equipment used in Land and Water Evacuation							X		X																					
(c) Emergency Medical Equipment							X		X																					
(d) Portable Fire Extinguishers							X		X																					
(e) All Exits Designed for Passenger or Crewmember Egress from the Aircraft							X		X																					
2. Subject: Emergency Situations																														
Tasks:																														
(a) Emergency Assignments and Procedures including Coordination among Crewmembers							X		X																					

TABLE 3B
BASIC QUALIFICATION CURRICULUM AND TRANSITION CURRICULUM CATEGORY

Task Requirements	New Hire						Emergency						Initial						Aircraft Operating Experience (AOE)						Transition					
	Train		Test				Train		Test				Train		Test				Train				Check		Train		Test			
	Academic	Practice	Academic	Proficiency			Academic	Practice	Academic	Proficiency			Academic	Practice	Academic	Proficiency			Academic	Practice			Academic	Proficiency	Academic	Practice	Academic	Proficiency		
(b) Decompression and physiological effects of high altitude							X	X	X																					
(c) Fire in-flight or on the surface							X		X																					
(d) Land and Water Evacuation							X		X																					
(e) Illness, Injury or other Abnormal Situations							X		X																					
(f) Turbulence							X		X																					
(g) Hijacking or Other Unusual Situations							X																							
(h) Aircraft Occurrences, Accidents, and Incidents							X																							
(i) Survival Skills							X		X																					
III. Aircraft Specific Task Requirements																														
A. Area of Instruction: For Each Aircraft Type																														
1. Subject: General Description of the Aircraft Cabin																														
Tasks:																														
(a) Aircraft Characteristics and Description													X		X										X		X			
(b) Cabin Configuration													X		X										X		X			
(c) Passenger Seats													X		X										X		X			

TABLE 3B
BASIC QUALIFICATION CURRICULUM AND TRANSITION CURRICULUM CATEGORY

Task Requirements	New Hire						Emergency						Initial						Aircraft Operating Experience (AOE)						Transition					
	Train		Test				Train		Test				Train		Test				Train				Check		Train		Test			
	Academic	Practice	Academic	Proficiency			Academic	Practice	Academic	Proficiency			Academic	Practice	Academic	Proficiency			Academic	Practice			Academic	Proficiency	Academic	Practice	Academic	Proficiency		
(d) Air Conditioning, Ventilation, and Pressurization Systems													X		X										X		X			
(e) Flight Attendant Jumpseats[1]													X	X	X					X					X	X	X			
(f) Flight Attendant Panels[1]													X	X	X					X					X	X	X			
(g) Carry On Baggage Stowage[1]													X	X	X					X					X	X	X			
(h) Communication Systems[1]													X	X	X					X					X	X	X			
(i) Entertainment and Convenience Systems[1]													X	X	X					X					X	X	X			
(j) Flight Deck Configuration[1]													X	X	X					X					X	X	X			
(k) Galleys[1]													X	X	X					X					X	X	X			
(l) Lavatories[1]													X	X	X					X					X	X	X			
(m) Required Signs and Placards													X		X										X		X			
(n) Lighting and Electrical Systems[1]													X	X	X					X					X		X			
(o) Oxygen Equipment and Systems													X		X										X		X			
(p) Notification of Inoperative Equipment													X	G	X										X		X			
(q) Emergency Equipment Location													X		X					X					X		X			

TABLE 3B
BASIC QUALIFICATION CURRICULUM AND TRANSITION CURRICULUM CATEGORY

	New Hire						Emergency						Initial						Aircraft Operating Experience (AOE)						Transition					
	Train		Test				Train		Test				Train		Test				Train				Check		Train		Test			
Task Requirements	Academic	Practice	Academic	Proficiency			Academic	Practice	Academic	Proficiency			Academic	Practice	Academic	Proficiency			Academic	Practice			Academic	Proficiency	Academic	Practice	Academic	Proficiency		
(r) Exits through which a Passenger or Crewmember may Egress the Aircraft													X		X										X		X			
(s) Crewmember Rest Facilities													X		X										X		X			
IV. Emergency Training Drill Requirements																														
V. Emergency Training Drills - General																														
A. Subject: Job Performance Drills																														
Tasks:																														
1. Operation of each type of installed hand fire extinguisher								I		X																				
2. Operation of each type of Portable Oxygen Equipment								I		X																				
3. Operation of each type of Fixed Oxygen System in the Cabin								I		X																				
4. Operation of each type of Protective Breathing Equipment								I		X																				

TABLE 3B
BASIC QUALIFICATION CURRICULUM AND TRANSITION CURRICULUM CATEGORY

Task Requirements	New Hire						Emergency						Initial						Aircraft Operating Experience (AOE)						Transition					
	Train		Test				Train		Test				Train		Test				Train				Check		Train		Test			
	Academic	Practice	Academic	Proficiency			Academic	Practice	Academic	Proficiency			Academic	Practice	Academic	Proficiency			Academic	Practice			Academic	Proficiency	Academic	Practice	Academic	Proficiency		
5. Operation of each type of installed life preserver and each type of individual flotation means								I		X																				
6. Operation of each type of Automated External Defibrillator								I		X																				
7. Cardiopulmonary Resuscitation (CPR)								I		X																				
8. Protective Breathing Equipment and Fire Fighting Drill								I		X																				
9 Cabin Preparation and Evacuation Drills (Land and Water Evacuations)								G																						
10. Evacuation Drills								G																						
11. Equipment Mountings Drill								I																						
12. Ditching Survival Drill (Dry Training Environment)								G																						
13. Jumpseat Drill[1]								I												I										
B. Subject: One Time Performance Drills																														
Tasks:																														

TABLE 3B
BASIC QUALIFICATION CURRICULUM AND TRANSITION CURRICULUM CATEGORY

	New Hire						Emergency						Initial						Aircraft Operating Experience (AOE)						Transition					
	Train		Test				Train		Test				Train		Test				Train				Check		Train		Test			
Task Requirements	Academic	Practice	Academic	Proficiency			Academic	Practice	Academic	Proficiency			Academic	Practice	Academic	Proficiency			Academic	Practice			Academic	Proficiency	Academic	Practice	Academic	Proficiency		
1. Ditching Survival Drill (Wet Training Environment)								G																						
2. Emergency Evacuation Egress Slide Drill								I																						
3. Emergency Evacuation Egress Drill								I																						
C. Subject: Observation Drills																														
Tasks:																														
1. Removal from aircraft or training device and inflation of each type of installed life raft.							X																							
2. Deployment, inflation and detachment from the aircraft of each type of installed slide or slide raft pack							X																							
3. Emergency evacuation including the use of a slide (if applicable)							X																							
4. Non-Floor Level Exits in the Flight Deck Through Which a Crewmember May Egress the Aircraft							X		X										X											
5. Flight Deck Fixed Oxygen System							X												X											

TABLE 3B
BASIC QUALIFICATION CURRICULUM AND TRANSITION CURRICULUM CATEGORY

Task Requirements	New Hire						Emergency						Initial						Aircraft Operating Experience (AOE)						Transition					
	Train		Test				Train		Test				Train		Test				Train				Check		Train		Test			
	Academic	Practice	Academic	Proficiency			Academic	Practice	Academic	Proficiency			Academic	Practice	Academic	Proficiency			Academic	Practice			Academic	Proficiency	Academic	Practice	Academic	Proficiency		
VI. Emergency Training Drills - Aircraft Specific																														
A. Subject: Exit Device Operation																														
Tasks:																														
1. Floor Level Door Exit Operation (Normal Mode)								I		X																I		X		
2. Floor Level Door Exit Operation (Emergency Mode)								I		X																I		X		
3. Cabin Window Exit and Plug and Hatch Exit Operation								I		X																I		X		
4. Any Additional Emergency Exits Required for Type Certification								I		X																I		X		

LEGEND:
1 – This footnote indicates that the subtasks within this task may be practiced during either academic training or during AOE.
X – This symbol indicates that each flight attendant must complete the task each time a curriculum category is completed.
I – This symbol indicates that the training practice must be performed as an individual.
G – This symbol indicates that the training practice may be completed as an individual or in a group exercise, where the flight attendant participates or observes and provides feedback

TABLE 3C
RECURRENT AND REQUALIFICATION CURRICULUM CATEGORIES

	Recurrent						Requalification Phase I						Requalification Phase II					
	Train		Test				Train		Test				Train		Test			
Task Requirements And Performance Standards	Academic	Practice	Academic	Proficiency			Academic	Practice	Academic	Proficiency			Academic	Practice	Academic	Proficiency		
General Requirements																		
I. Area of Instruction: Flight Attendant Duties and Responsibilities – Normal Operations																		
A. Subject: Preflight	**T**		**T**															
Tasks:																		
1. General	3		X				R		X				X		X			
2. Crewmember Briefing	3		3				R		X				X	X	X			
3. Cabin and Galley Security	3		3				R		X				X					
4. Check of Emergency Equipment	3		3				R		X				X	X	X			
5. Check of Safety Equipment	3		3				R		X				X		X			
6. Galley Check	3		3				R		X				X		X			
7. Check of Cabin and Cabin Systems	3		3				R		X				X		X			
B. Subject: Pre-Movement on Surface	**T**		**T**															
Tasks:																		
1. General	3		X				R		X				X		X			
2. Passenger Boarding	3		X				R		X				X		X			
3. Passengers with Disabilities	3		3				R		X									
4. Galley Security	3		X				R		X				X		X			
5. Preparation of Exits	3		X				R		X				X	X	X			
6. Compliance Check	3		X				R		X				X		X			
C. Subject: Ground Movement	**T**		**T**															
Tasks:																		
1. General	3		X				R		X				X		X			
2. Passenger Information	3		X				R		X				X	X	X			
3. Sterile Flight Deck Procedures	3		3				R		X				X		X			

TABLE 3C
RECURRENT AND REQUALIFICATION CURRICULUM CATEGORIES

Task Requirements And Performance Standards	Recurrent						Requalification Phase I						Requalification Phase II					
	Train		Test				Train		Test				Train		Test			
	Academic	Practice	Academic	Proficiency			Academic	Practice	Academic	Proficiency			Academic	Practice	Academic	Proficiency		
4. Compliance Check	3		X				R		X				X	X	X			
D. Subject: In-flight	**T**		**T**															
Tasks:																		
1. General	3		3				R		X				X	X	X			
2. In-flight Procedures	3		3				R		X				X		X			
3. Passenger Information	3		3				R		X				X	X	X			
4. Passenger Handling Procedures	3		3				R		X				X		X			
5. Proper Use of Service Carts and Service Equipment	3		3				R		X				X		X			
6. Communication and Coordination Procedures	3		X				R		X				X		X			
7. Pre-Landing	3		3				R		X				X		X			
8. Sterile Flight Deck Procedures	3		3				R		X				X		X			
9. Compliance Check	3		X				R		X				X	X	X			
E. Subject: Arrival	**T**		**T**															
Tasks:																		
1. General	3		3				R		X				X		X			
2. Preparation of Exits	3		3				R		X				X	X	X			
3. Passenger Handling	3		3				R		X				X		X			
4. Cabin Security	3		3				R		X				X		X			
F. Subject: During Stops	**T**		**T**															
Tasks:																		
1. General	3		X				R		X				X		X			
2. Aircraft Refueling	3		3				R		X				X		X			
G. Subject: Federal Aviation Regulations	**T**		**T**															
Tasks:																		
1. General	3		X				R		X				X		X			

	TABLE 3C RECURRENT AND REQUALIFICATION CURRICULUM CATEGORIES																	
	Recurrent						Requalification Phase I						Requalification Phase II					
	Train		Test				Train		Test				Train		Test			
Task Requirements And Performance Standards	Academic	Practice	Academic	Proficiency			Academic	Practice	Academic	Proficiency			Academic	Practice	Academic	Proficiency		
2. Federal Aviation Regulations Pertinent to Flight Attendant Performance of Assigned Duties	3		X				R		X				X		X			
H. Subject: Certificate Holder's Manual System	**T**		**T**															
Tasks:																		
1. Flight Attendant Operating Manual	3		3				R		X				X		X			
2. Scheduling and Station Operations Policies and Procedures	3		3				R		X				X		X			
I. Subject: Contents of Certificate Holder's Operations Specifications	**T**		**T**															
Tasks:																		
1. General	3		3				R		X				X		X			
2. Exit Seating Program and Procedures	3		X				R		X				X		X			
3. Carry on Baggage Program and Procedures	3		X				R		X				X		X			
4. Minimum Equipment List	3		3				R		X				X		X			
J. Subject: Crew Resource Management	**T**		**T**															
Tasks:																		
1. Authority of Pilot in Command	3		3				R		X				X		X			
2. Communication Processes and Decisions	3	3					R	R	X				X		X			
3. Building and Maintenance of a Flight Team	3	3					R	R					X		X			

TABLE 3C
RECURRENT AND REQUALIFICATION CURRICULUM CATEGORIES

Task Requirements And Performance Standards	Recurrent						Requalification Phase I						Requalification Phase II					
	Train		Test				Train		Test				Train		Test			
	Academic	Practice	Academic	Proficiency			Academic	Practice	Academic	Proficiency			Academic	Practice	Academic	Proficiency		
4. Workload Management and Situational Awareness	3	3					R	R					X		X			
5 Communication and Coordination	3	3	X				R	R	X				X		X			
6. Crewmember Briefing	3	3					R	R					X		X			
7. Communication and Coordination During a Passenger Interference Situation	3	3	X				R	R	X				X		X			
8. Communication and Coordination During an Emergency Situation	3		X				R		X				X		X			
K. Subject: Theory of Flight	**T**		**T**															
Tasks:																		
1. Components of Aircraft	3		3				R		X				X		X			
2. Principles of Flight	3						R						X		X			
3. Critical Surfaces and Hazards	3		3				R		X				X		X			
4. Aviation Terminology							R						X		X			
II. Area of Instruction: Flight Attendant Duties and Responsibilities – Abnormal Situations																		
A. Subject: Handling Passengers Whose Conduct May Jeopardize Safety	**T**		**T**															
Tasks:																		
1. General	3		3				R		X				X	G	X			
2. Passenger Interference	3		X				R		X				X	G	X			
3. Smoking Ban Violations	3		3				R		X				X	G	X			
4. Intoxication	3		3				R		X				X	G	X			

TABLE 3C
RECURRENT AND REQUALIFICATION CURRICULUM CATEGORIES

	Recurrent						Requalification Phase I						Requalification Phase II					
	Train		Test				Train		Test				Train		Test			
Task Requirements And Performance Standards	Academic	Practice	Academic	Proficiency			Academic	Practice	Academic	Proficiency			Academic	Practice	Academic	Proficiency		
5. Passenger Misconduct	3		3				R		X				X	G	X			
6. Security Procedures	3						R						X					
III. Area of Instruction: Flight Attendant Duties and Responsibilities – Emergency																		
A. Subject: Emergency Equipment	**T**		**T**															
Tasks:																		
1. Preflight, Function , Location Operation and Limitations of Emergency Equipment	X		X				X		X				X		X			
2. Equipment used in Land and Water Evacuation	X		X				X		X				X		X			
3. Emergency Medical Equipment	X		X				X		X				X		X			
4. Portable Fire Extinguishers	X		X				X		X				X		X			
5. All Exits Designed for Passenger or Crewmember Egress from the Aircraft	X		X				X		X				X		X			
6. Survival Equipment	X		X				X		X				X		X			
B. Subject: Emergency Situations	**T**		**T**															
Tasks:																		
1. Emergency Assignments and Procedures including coordination among crewmembers	X		X				X		X				X		X			
2. Decompression and physiological effects of high altitude	3		X				R		X				X		X			

TABLE 3C
RECURRENT AND REQUALIFICATION CURRICULUM CATEGORIES

Task Requirements And Performance Standards	Recurrent						Requalification Phase I						Requalification Phase II					
	Train		Test				Train		Test				Train		Test			
	Academic	Practice	Academic	Proficiency			Academic	Practice	Academic	Proficiency			Academic	Practice	Academic	Proficiency		
3. Fire In-flight and on the Surface	3		X				R		X				X		X			
4. Land and Water Evacuation	3		X				R		X				X		X			
5. Illness, Injury or other Abnormal Situations	3		X				R		X				X		X			
6. Turbulence	3		X				R		X				X		X			
7. Hijacking or other Unusual Situations	X						X						X					
8. Aircraft Occurrences, Accidents and Incidents	X						X						X					
9. Survival Skills	3		X				R		X				X		X			
Aircraft Specific																		
I. Area of Instruction: For Each Aircraft Type																		
A. Subject: General Description of the Aircraft Cabin	**T**		**T**															
Tasks:																		
1. Aircraft Characteristics and Description													X		X			
2. Cabin Configuration													X		X			
3. Passenger Seats													X		X			
4. Air Conditioning, Ventilation and Pressurization Systems													X		X			
5. Flight Attendant Jumpseats													X	X	X			
6. Flight Attendant Panels													X	X	X			
7. Carry on Baggage Stowage	3		X				R		X				X	X	X			
8. Communication Systems													X	X	X			
9. Entertainment and Convenience													X	X	X			

	TABLE 3C RECURRENT AND REQUALIFICATION CURRICULUM CATEGORIES																	
	Recurrent						Requalification Phase I						Requalification Phase II					
	Train		Test				Train		Test				Train		Test			
Task Requirements And Performance Standards	Academic	Practice	Academic	Proficiency			Academic	Practice	Academic	Proficiency			Academic	Practice	Academic	Proficiency		
Systems																		
10. Flight Deck Configuration													X	X	X			
11. Galleys													X	X	X			
12. Lavatories													X	X	X			
13. Required Signs and Placards													X		X			
14. Lighting and Electrical Systems													X	X	X			
15. Oxygen Equipment and Systems													X		X			
16. Notification of Inoperative Equipment													X	G	X			
17. Emergency Equipment Location													X		X			
18. Exits through which a passenger or crewmember may egress the aircraft													X		X			
19. Crewmember Rest Facilities													X		X			
Emergency Training Drills																		
I. Area of Instruction: General																		
A. Subject: Performance Drills																		
Tasks:																		
1. Operation of each type of installed hand fire extinguisher				X						X				I		X		
2. Operation each type of Portable Oxygen Equipment				X						X				I		X		
3. Operation of each type of Fixed Oxygen System				X						X				I		X		
4. Operation of each type of Protective Breathing Equipment				X						X				I		X		
5. Operation of each type of installed				X						X				I		X		

TABLE 3C
RECURRENT AND REQUALIFICATION CURRICULUM CATEGORIES

Task Requirements And Performance Standards	Recurrent						Requalification Phase I						Requalification Phase II					
	Train		Test				Train		Test				Train		Test			
	Academic	Practice	Academic	Proficiency			Academic	Practice	Academic	Proficiency			Academic	Practice	Academic	Proficiency		
life preserver or individual flotation means																		
6. Operation of each type of Automated External Defibrillator				X						X				I		X		
7. Cardiopulmonary Resuscitation		I						I						I				X
8. Protective Breathing Equipment and Fire Fighting Drill		I						I						I				X
9. Cabin Preparation and Evacuation Drill (Land and Water Evacuation)		G						G						G				
10. Evacuation Drills		G						G						G				
11. Bracket Drill		I						I						I				X
12. Ditching Survival Drill (Dry Training Environment)		G						G						G				
13. Jumpseat Drill		I						I						I				
B. Subject: One Time Performance Drills																		
Tasks:																		
1. Ditching Survival Drill (Wet Training Environment)																		
2. Emergency Evacuation Slide Egress Drill																		
3. Emergency Evacuation Egress Drill																		
C. Subject: Observation Drills																		
Tasks:																		
1. Removal from airplane or training device and inflation of each type of installed life raft.	X						X						X					

	TABLE 3C RECURRENT AND REQUALIFICATION CURRICULUM CATEGORIES																	
	Recurrent						Requalification Phase I						Requalification Phase II					
	Train		Test				Train		Test				Train		Test			
Task Requirements And Performance Standards	Academic	Practice	Academic	Proficiency			Academic	Practice	Academic	Proficiency			Academic	Practice	Academic	Proficiency		
2. Deployment, inflation and detachment from the airplane of each type of installed slide raft pack	X						X						X					
3. Emergency evacuation including the use of a slide (if applicable)	X						X						X					
4. Non-Floor Level exits in the Flight Deck Through Which a Crewmember May egress the Aircraft	X						X						X		X			
5. Flight Deck Oxygen System	X						X						X					
II. Area of Instruction: Aircraft Specific Performance Drills																		
A. Subject: Exit Device Operation																		
Tasks:																		
1. Floor Level Door (Normal Mode)				X						X				I		X		
2. Floor Level Door (Emergency Mode)				X						X				I		X		
3. Cabin Window Exit Device and Plug and Hatch Exit Device Operation				X						X				I		X		
4. Any Additional Exits Required for Type Certification				X						X				I		X		

LEGEND:

X – This symbol indicates that each flight attendant must complete the task each time a curriculum category is completed.
I – This symbol indicates that the training practice must be performed as an individual.
G – This symbol indicates that the training practice may be completed as an individual or in a group exercise, where the flight attendant participates or observes and provides feedback
3 – This symbol indicates that each flight attendant must complete the task at least once during three consecutive recurrent training cycles.
R – This symbol indicates that the flight attendant must receive training on tasks that were missed and all policies, procedures, and security requirements, applicable to flight attendant duties that have been updated, modified, or implemented since the last time the flight attendant completed recurrent training.
T – This symbol indicates that targeted training and evaluation is conducted at the subject level. With targeted training, each subject must be covered every year during recurrent and certain tasks, as indicated in the Flight Attendant QPS, must be trained and evaluated at least once every 3 years.

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46. Add appendix T to part 121 to read as follows:

Appendix T—Aircraft Dispatcher Qualification Performance Standards

This appendix supplements the requirements in subpart CC of this part (§§ 121.1401–121.1499).

Table of Contents

A. *Continuous Analysis Process.*
B. *Dispatch Resource Management (DRM) Training and Evaluation.*
C. *Special Training and Evaluation.*

Table 1, Baseline Programmed Hours for Aircraft Dispatchers: Training Program and Qualification Requirements

Table 2, Minimum Programmed Hours for Aircraft Dispatchers: Training Program and Qualification Requirements

Table 3, Requalification Programmed Hours for Aircraft Dispatchers: Training Program and Qualification Requirements

Table 4, Curriculum Category Evaluation Requirements for Aircraft Dispatchers

Table 5, Personnel Authorized To Administer Aircraft Dispatcher Training and Evaluation, and To Conduct Observation Activities Under Subpart CC

ATTACHMENT 1. General Knowledge and Skills—Academic Training and Evaluation Requirements For Initial, Combined Certification and Initial, Recurrent, and Requalification Curriculum Categories (see §§ 121.1411; 121.1413; 121.1415; 121.1417; 121.1419; 121.1431; 121.1433; 121.1435; 121.1437; 121.1439; 121.1441; 121.1451; 121.1453; 121.1455; and 121.1471)

ATTACHMENT 2. Basic Aircraft and Specific Aircraft Type—Academic Training and Evaluation Requirements For Initial, Combined Certification and Initial, Transition, Recurrent, Requalification, Differences, and Special Curriculum Categories (see §§ 121.1411; 121.1413; 121.1415; 121.1417; 121.1431; 121.1433; 121.1435; 121.1437; 121.1439; 121.1441; 121.1451; 121.1453; 121.1455, and 121.1471)

ATTACHMENT 3. Generic Training and Evaluation Requirements For Certification Under the Combined Certification and Initial Curriculum Category (see §§ 121.1411; 121.1413; 121.1415; 121.1417; 121.1419; 121.1421; 121.1423; 121.1425; 121.1431; 121.1433; 121.1435; 121.1437; 121.1439; 121.1441; 121.1451; 121.1453; and 121.1471)

ATTACHMENT 4. Requirements and Performance Standards For Proficiency Tests and Proficiency Checks For Initial, Combined Certification and Initial, Transition, Recurrent, and Requalification Curriculum Categories (see §§ 121.1411; 121.1413; 121.1415; 121.1417; 121.1419; 121.1421; 121.1423; 121.1425; 121.1431; 121.1433; 121.1435; 121.1437; 121.1439; 121.1441; 121.1451; 121.1453; and 121.1471)

A. *Continuous Analysis Process.*

A continuous analysis process is incorporated in this QPS through integration with the qualification and training program. The certificate holder is responsible for designating responsibility for the process. The certificate holder must ensure appropriate and adequate assessment tools (testing, checking, critique, inspection, observation, documenting, evaluation, and analysis) are utilized to enable the certificate holder to validate the effectiveness of the qualification and training program or the need to change that program. The certificate holder must describe the attributes of the continuous analysis process in the certificate holder's FAA approved training program.

B. *Dispatch Resource Management (DRM) Training and Evaluation.*

1. Training. DRM training is a component of the initial, combined certification and initial, recurrent, and requalification curriculum categories. DRM training must consist of the subjects listed in Attachment 1, B.1.(k).

2. Evaluation. Evaluation of an aircraft dispatcher's practical application of DRM skills must occur as follows:

(a) During the proficiency test (for initial, combined certification and initial, or transition) and during the proficiency check (for recurrent or requalification).

(b) During the supervised operating experience delivered after initial, combined certification and initial, or requalification.

C. *Special Training and Evaluation.*

The programmed hours established for special training and evaluation are in addition to the previously approved programmed hours for the approved training program. For special training and evaluation (§ 121.1437(c)), the certificate holder integrates the training into the existing categories in Tables 1 and 2 of this appendix. There are no programmed hours in Tables 1 and 2 for special training.

TABLE 1—BASELINE PROGRAMMED HOURS FOR AIRCRAFT DISPATCHERS: TRAINING PROGRAM AND QUALIFICATION REQUIREMENTS

[See § 121.1435]

Activity	Training categories			
	Initial for certificated dispatchers	Recurrent	Transition	Combined certification and initial
Generic Training and Evaluation (see attachment 3).	N/A	N/A	N/A	136
General Knowledge and Skills Training and Evaluation (see attachment 1).	48	16	N/A	32

TABLE 1—BASELINE PROGRAMMED HOURS FOR AIRCRAFT DISPATCHERS: TRAINING PROGRAM AND QUALIFICATION REQUIREMENTS—Continued

[See § 121.1435]

Activity	Training categories			
	Initial for certificated dispatchers	Recurrent	Transition	Combined certification and initial
Basic Aircraft Training and Evaluation (see attachment 2).	32	N/A	N/A	32
Practical Test	N/A	N/A	N/A	Required.
Specific Training and Evaluation per Aircraft Type (see attachment 2).	8	3	8	8
General Knowledge Training and Evaluation for Flag Operations. (see attachment 1)	8*	N/A	N/A	8*
General Knowledge Training and Evaluation per Flag Area of Operation (see attachment 1).	2*	1*	N/A	2*
Supervised Operating Experience, Domestic.	8	N/A	N/A	8
Supervised Operating Experience, per Flag Area of Operation.	8*	N/A	N/A	8*
Operating Familiarization	Required	Required	N/A	Required.
Proficiency Test	Required	N/A	Required	Required.
Proficiency Check	N/A	Required	N/A	N/A.

*The Administrator may require additional programmed hours contingent on the level of the training program, operational complexity, and responsibilities of the dispatcher.

TABLE 2—MINIMUM PROGRAMMED HOURS FOR AIRCRAFT DISPATCHERS: TRAINING PROGRAM AND QUALIFICATION REQUIREMENTS

[See § 121.1435]

Activity	Training categories			
	Initial for certificated dispatchers	Recurrent	Transition	Combined certification and initial
Generic Training and Evaluation (see attachment 3).	N/A	N/A	N/A	136
General Knowledge and Skills Training and Evaluation (see attachment 1).	48	8	N/A	32
Basic Aircraft Training and Evaluation (see attachment 2).	24	N/A	N/A	32
Practical Test	N/A	N/A	N/A	Required.
Specific Training and Evaluation per Aircraft Type (see attachment 2).	4	2	4	4
General Knowledge Training and Evaluation for Flag Operations (see attachment 1).	8	N/A	N/A	8
General Knowledge Training and Evaluation per Flag Area of Operation (see attachment 1).	2	2	N/A	2
Supervised Operating Experience, Domestic.	8	N/A	N/A	8
Supervised Operating Experience, per Flag Area of Operation.	8	N/A	N/A	8
Operating Familiarization	Required	Required	N/A	Required.
Proficiency Test	Required	N/A	Required	Required.

TABLE 2—MINIMUM PROGRAMMED HOURS FOR AIRCRAFT DISPATCHERS: TRAINING PROGRAM AND QUALIFICATION REQUIREMENTS—Continued

[See § 121.1435]

Activity	Training categories			
	Initial for certificated dispatchers	Recurrent	Transition	Combined certification and initial
Proficiency Check	N/A	Required	N/A	N/A.

TABLE 3—REQUALIFICATION PROGRAMMED HOURS FOR AIRCRAFT DISPATCHERS—TRAINING PROGRAM AND QUALIFICATION REQUIREMENTS

[See § 121.1419]

Activity	Months lapse in currency		
	Phase I * less than 12 months	Phase II * at least 12 months, but less than 24 months	Phase III 24 months or more
Missed Recurrent Training and Evaluation (see attachments 1 and 2).	Required	Required	N/A.
General Knowledge and Skills Training and Evaluation (see attachment 1).	2	4	Initial.
Specific Training and Evaluation per Aircraft Type (see attachment 2).	1	2	Initial.
General Knowledge Training and Evaluation per Flag Area of Operation (see attachment 1).	2	2	Initial.
Supervised Operating Experience, Domestic.	4	8	Initial.
Supervised Operating Experience, per Flag Area of Operation.	2	2	Initial.
Operating Familiarization	Required if not completed in previous 12 months.	Required	Required.
Proficiency Tests or Checks (see Table 4 and attachment 4).	Proficiency Check Required if not completed in previous 12 months.	Proficiency Check Required	Proficiency Test Required.

* The certificate holder may choose to requalify an aircraft dispatcher by completing the requirements of § 121.1419(b)(1).

TABLE 4—CURRICULUM CATEGORY EVALUATION REQUIREMENTS FOR AIRCRAFT DISPATCHERS

[See Attachment 4]

Area of evaluation Tasks	Proficiency test			Proficiency check
	Initial	Transition	Combined certification and initial *	Recurrent and requalification
I. Area of Evaluation: General:				
A. Equipment Knowledge	X	X	X	X
B. Aircraft Performance and Limitations Knowledge	X	X	X	X
C. Operating Requirements	X	N/A	X	X
D. National Weather System	X	N/A	X	X
E. National NOTAM System	X	N/A	X	X
II. Area of Evaluation: Duty Period Orientation:				
A. Operations Orientation	X	N/A	X	X
B. Dispatcher Shift Turnover	X	N/A	X	X
C. Shift Self Briefing	X	N/A	X	X
D. Certificate Holder Manuals, Procedures, and Operating Information	X	X	X	X
III. Area of Evaluation: Planning and Executing a Dispatch Release:				
A. Obtain Required Information	X	N/A	X	X
B. Flight Planning	X	X	X	X
C. Create and Issue Dispatch Release	X	N/A	X	X
D. Briefing Flight Crews	X	N/A	X	X
IV. Area of Evaluation: Flight Monitoring:				
A. Updating and Gathering Information	X	N/A	X	X

TABLE 4—CURRICULUM CATEGORY EVALUATION REQUIREMENTS FOR AIRCRAFT DISPATCHERS—Continued

[See Attachment 4]

Area of evaluation Tasks	Proficiency test			Proficiency check
	Initial	Transition	Combined certification and initial *	Recurrent and requalification
B. Operational Control Decision-Making	X	N/A	X	X
C. Amend Dispatch Release	X	N/A	X	X
V. Area of Evaluation: Situation Management:				
A. Dispatch and Aircraft Abnormality or Emergency	X	X	X	X
B. Collection and Dissemination of Information on Overdue or Missing Aircraft	X	N/A	X	X
VI. Area of Evaluation: Dispatch Resource Management:				
A. Demonstrate and apply DRM concepts	X	N/A	X	X

* In addition to the Proficiency Test a Practical Test is required as prescribed in Attachment 3.

TABLE 5—PERSONNEL AUTHORIZED TO ADMINISTER AIRCRAFT DISPATCHER TRAINING AND EVALUATION, AND TO CONDUCT OBSERVATION ACTIVITIES UNDER SUBPART CC

[See §§ 121.1421 and 121.1439]

Aircraft Dispatcher Training, Evaluation, and Observation Activities Under Subpart CC	Employer and position								
	Other than Employees of the part 119 certificate holder			The part 119 certificate holder					FAA
	Certificated dispatcher instructor	Non-certificated dispatcher instructor	Certificated check dispatcher	Certificated dispatcher instructor	Non-certificated dispatcher instructor	Certificated dispatcher	Check dispatcher	Dispatch program designee	Aviation safety inspector operations
Training And Evaluation									
Generic Training, General Knowledge and Skills, and Basic Aircraft	X [a]	X [a]	X [c]	X	X [a]		X	X	
DRM, Certificate Holder Computer Systems, Computer Flight Planning, Contingency Operations, Practical Dispatch Applications			X [c]	X			X	X	
Specific Aircraft Type	X [a]	X [a]	X [c]	X	X [a]		X	X	
Flag and Flag Area of Operations	X [a]		X [c]	X			X	X	
Supervised Operating Experience			X [c]	X [b]		X [b]	X	X	

TABLE 5—PERSONNEL AUTHORIZED TO ADMINISTER AIRCRAFT DISPATCHER TRAINING AND EVALUATION, AND TO CONDUCT OBSERVATION ACTIVITIES UNDER SUBPART CC—Continued

[See §§ 121.1421 and 121.1439]

Aircraft Dispatcher Training, Evaluation, and Observation Activities Under Subpart CC	Employer and position								
	Other than Employees of the part 119 certificate holder			The part 119 certificate holder					FAA
	Certificated dispatcher instructor	Non-certificated dispatcher instructor	Certificated check dispatcher	Certificated dispatcher instructor	Non-certificated dispatcher instructor	Certificated dispatcher	Check dispatcher	Dispatch program designee	Aviation safety inspector operations
Proficiency Test (Initial, Transition)			X[c]				X	X	X
Proficiency Check (Recurrent, Requalification)			X[c]				X	X	X
Practical Test for Certificate								X	X
Proficiency Test (Combined Certification and Initial)								X	X
Observation Activities									
Observation of Dispatch Program Designee (DPD)									X

[a] Must be acceptable to the Administrator.
[b] May be conducted by a check dispatcher or a person who meets the experience requirements of § 121.1417.
[c] Applicable to certificate holders that have been issued deviation authority under 14 CFR 121.1411(b).

Attachment 1 of Appendix T to Part 121

General Knowledge and Skills—Academic Training and Evaluation Requirements for Initial, Combined Certification and Initial, Recurrent, and Requalification Curriculum Categories

A. General. (see §§ 121.1411; 121.1413; 121.1415; 121.1417; 121.1431; 121.1433; 121.1435; 121.1437; 121.1439; 121.1441; 121.1451; 121.1453; 121.1455; and 121.1471)

1. The FAA Aircraft Dispatcher Knowledge Test is a requirement for certification and the practical test. The certificate holder's academic evaluations under this attachment are not a substitute for the FAA Aircraft Dispatcher Knowledge Test.

2. Training and academic evaluation are required for all areas of instruction and subjects listed in this attachment that pertain to the certificate holder's operations for persons in initial, combined certification and initial, recurrent, and requalification.

3. The certificate holder must develop a written, oral, or electronic test of the knowledge obtained during academic training that is approved by the Administrator as part of the approved training program. The training program must include development and maintenance of the academic evaluation, methods to establish the validity of the academic evaluation, required student remediation, and adjustment of instruction when required.

The QPS provides job tasks and related areas of required instruction. Each area of instruction contains subjects that must be trained and evaluated if pertinent to the certificate holder's operations. An academic evaluation must include the minimum number of questions indicated in this attachment for each area of instruction. Students must achieve a performance of 80% in each area of instruction. Student performance of at least 80% in an area of instruction must be corrected to 100%. Student performance below 80% in an area of instruction must be corrected to 100% and the student must be reevaluated in that area of instruction.

A test question repository must be developed to include a minimum number of questions for each subject.

4. The academic evaluations for each curriculum category must meet the following requirements:

(a) For initial and combined certification and initial, an academic evaluation must be comprised of the minimum number of questions required for each area of instruction.

(b) For recurrent, an academic evaluation must be comprised of at least 20 questions selected from the applicable areas of instruction.

(c) For requalification that requires missed recurrent training, each recurrent academic evaluation must be comprised of at least 20 questions per missed recurrent training cycle, selected from the applicable areas of instruction. The academic evaluation must

also include five questions from the additional academic training and evaluation activities listed in Table 3 (General Knowledge and Skills and General Knowledge per Flag Area of Operation).

5. The FAA may allow distance learning for subjects in each area of instruction unless otherwise indicated. Initially, distance learning will be limited to 50% of the academic training provided. However, based on the established effectiveness of a certificate holder's approved distance learning methods, the FAA may approve distance learning in excess of 50%.

B. General Knowledge and Skills for Initial or Combined Certification and Initial. (See §§ 121.1413; 121.1431; 121.1433; 121.1435; 121.1439; 121.1451; 121.1453; and 121.1471)

1. General Knowledge required—Areas of Instruction—With Subjects:

(a) *Area of Instruction:* Introduction and Orientation. (5 questions required)

Subjects:

(1) Course contents, schedules, and materials

(2) Key personnel

(3) Recordkeeping requirements

(4) Drug testing and alcohol testing

(5) Identification badges

(6) Certificate holder publications

(7) Schedule

(8) Dispatcher's duties and responsibilities

(9) Joint dispatcher and pilot in command responsibilities

(b) *Area of Instruction:* Applicable Federal Regulations. (10 questions required)

Subjects:

(1) 14 CFR part 1

(2) 14 CFR part 65

(3) 14 CFR part 91

(4) 14 CFR part 119

(5) 14 CFR part 120

(6) 14 CFR part 121

(7) 14 CFR part 139

(8) 49 CFR part 175 (HMR)

(9) 49 CFR part 830 (NTSB)

(10) Special Federal Aviation Regulations (SFARs)

(11) 49 CFR Chapter 12 (TSR)

(c) *Area of Instruction:* Manual overview. (10 questions required) Subjects:

(1) The certificate holder's operations specifications

(2) Manuals containing the following:

(i) Procedures established by FAA authorized exemptions to certain Federal Aviation Regulations (if applicable)

(ii) Procedures established by FAA authorized deviations to certain Federal Aviation Regulations (if applicable)

(iii) Minimum Equipment List (MEL)

(iv) Configuration Deviation List (CDL)

(v) Dispatch Deviation Guide (DDG) procedures

(vi) Maintenance flight logs procedures

(vii) Procedures for maintenance, test, training, and ferry flights

(viii) Deicing and anti-icing procedures

(ix) The process for gathering safety related information such as NOTAMs and weather

(x) The certificate holder's approved training program

(xi) Certificate holder security procedures and directives

(xii) Certificate holder communications and procedures

(xiii) Emergency procedures

(xiv) Procedures for determining whether hazardous materials are on board an aircraft and notification procedures in an emergency

(xv) Dispatch procedures

(xvi) Weight and balance procedures

(xvii) Contents of the Airplane Flight Manual

(xviii) Certificate holder operations (*e.g.,* GOM, FOM)

(xix) Station operations procedures

(xx) Crew operating procedures

(d) *Area of Instruction:* Meteorology. (15 questions required) Subjects:

(1) Upper air meteorology

(2) METAR

(3) TAF

(4) SIGMET–AIRMET

(5) Area forecast

(6) Winds aloft (high and low altitude)

(7) Surface meteorology

(8) Thunderstorms

(9) Tornadoes

(10) Tropical weather (if applicable)

(i) Typhoons

(ii) Tropical storms

(iii) Hurricanes

(11) Atmospheric hazards to aviation:

(i) Low level windshear

(ii) Microburst

(iii) Mountain waves (if applicable)

(iv) Turbulence (all types)

(v) Icing

(vi) Reduced visibility (*e.g.,* fog, ice fog, smog)

(vii) Volcanic ash

(12) FAA approved weather service providers and approved sources

(13) Interpretation and use of weather charts

(14) Enhanced Weather Information System (EWINS), (if applicable)

(e) *Area of Instruction:* Approach plates and charts. (5 questions required)

Subjects:

(1) SIDS and DP

(2) STARS

(f) *Area of Instruction:* Navigation Aids and Publications. (10 questions required)

Subjects:

(1) ILS/Localizer

(2) ILS PRM (if applicable)

(3) VOR and VOR/DME

(4) VOR Classification

(5) NDB

(6) RNAV (*e.g.,* GPS, Inertial)

(7) Class I, Class II, or Performance Based Navigation (as applicable)

(8) Terminal and en route charts and publications

(9) Inoperative navigation aids

(10) RADAR

(g) *Area of Instruction:* Airport characteristics. (5 questions required)

Subjects:

(1) Airports (emphasizing special or unique characteristics)

(2) Runway configurations (*e.g.,* parallel runways, orientation)

(3) Runway surfaces (*e.g.,* grooved, porous friction, runway weight bearing capacity)

(4) Obstacles

(5) Slope

(6) Elevation

(7) Terrain features

(8) Methods of receiving information about airport operations and conditions

(9) Airport lighting and marking

(h) *Area of Instruction:* Air Traffic Control. (15 questions required)

Subjects:

(1) Air Traffic Control communication and coordination

(2) Instrument approach procedures

(3) Terminal departure procedures

(4) Terminal arrival procedures

(5) En route procedures (*e.g.*, strategic and tactical planning tools such as Coded Departure Routes (CDR), National Route Program (NRP), Severe Weather Avoidance Procedures (SWAP))

(6) Flow Control, ARTCC, approach, departure, tower, ground, FSS

(7) National Airspace System

(8) High Altitude Redesign (HAR)

(9) Airspace (Class A–G)

(10) Controlled and uncontrolled airspace and airports

(11) Approved instrument approach procedures (operations specifications)

(12) Information required on ATC Flight Plans (*e.g.,* RNP, RVSM)

(13) Collaborative Decision Making (CDM) (as applicable)

(14) Certificate holder policy on reroutes and deviations and impact on operational control

(i) *Area of Instruction:* NOTAMS (as applicable) (10 questions required)

Subjects:

(1) Distant (D)

(2) FDC

(3) Chart NOTAMs

(4) Chart supplements

(5) FIR boundary NOTAMs

(6) Oceanic NOTAMs

(7) ATC NOTAMs

(8) Military NOTAMs

(9) TFRs and prohibited airspace

(10) Airport Facility Directory (AFD)

(11) Certificate holder

(12) Field conditions

(13) SFARs

(14) Method for gathering and disseminating NOTAMs

(15) Other NOTAM sources

(j) *Area of Instruction:* Crewmember requirement, if applicable per certificate holder procedures. (5 questions required)

Subjects:

(1) Duty time requirements

(2) Qualification

(i) Aircraft

(ii) Airports

(iii) Areas

(iv) Takeoff and landing minimums

(k) *Area of Instruction:* Dispatch Resource Management (DRM) Training. Distance learning not allowed. (5 questions required)

Subjects:

(1) Briefings

(2) Assertiveness

(3) Inquiry

(4) Conflict resolution

(5) Interdepartmental coordination process

(6) Interpersonal relationships

(7) Situational awareness

(8) Preparation, planning, and vigilance

(9) Time management (prioritizing)

(10) Tactical and strategic use of resources

(11) Stress management
(12) Decisionmaking process
(13) Multi-tasking
(14) Risk management
(15) Leadership
(16) Communication

(l) *Area of Instruction:* Ground de-ice and anti-ice program (5 questions required).

Subjects:
(1) Types, purpose, characteristics, and effectiveness of de-ice and anti-ice fluids
(2) De-ice and anti-ice handling and performance implications
(3) Aircraft surface contamination and critical area identification
(4) Use of holdover times
(5) Aircraft de-ice and anti-ice procedures and checks to detect contaminated surfaces

(m) *Area of Instruction:* Computer System, as applicable. (10 questions required)

Subjects:
(1) Weather
(2) Flight planning
(3) Dispatch release
(4) Irregular operations
(5) Takeoff, en route, and landing gross weight calculations
(6) Weight and balance
(7) Flight monitoring, times, and schedule
(8) Airborne and ground based aircraft situation displays (*e.g.,* ASD)
(9) NOTAMs
(10) Computer applications and technology required to perform aircraft dispatcher duties

(n) *Area of Instruction:* Contingency operations for maintaining operational control in the event of single or multiple system failures (*e.g.*, power, communication). Distance learning not allowed. (5 questions required).

(o) *Area of Instruction:* Other required training. The hours for other required training are in addition to approved programmed hours of instruction stated in Table 1 of this appendix.

Subjects:
(1) Awareness training for hazardous materials (part 121, subpart Z)
(2) Drug testing program and alcohol misuse prevention program (part 120)
(3) Security training (49 CFR part 1544)

2. Training and evaluation for a specific type of operation, Domestic or Flag.

(a) *Area of Instruction:* General knowledge training and evaluation for Domestic operations: (15 questions required)

Subjects:
(1) Definition of a domestic operation and what constitutes a domestic operation.
(2) The certificate holder's approved operations specifications related to Domestic operations. Examples:
(i) Special use airspace (*e.g.,* Domestic RVSM)
(ii) Fuel reserves for domestic operations
(iii) Operations specification A012 (Operations to certain foreign airports).
(iv) Exemptions or deviations (if applicable)
(v) Operations specification C070 (Authorized airports)
(3) En route operations over routes and diversions, if applicable, that may expose passengers and crew to extreme environmental conditions. Examples:
(i) Western U.S. terrain clearance and driftdown
(ii) Ozone and hazardous weather
(4) Unique domestic instrument approach and departure procedures. Examples:
(i) Missed approach procedures
(ii) Unique local procedures
(iii) Special instrument approach and departure procedures
(iv) Specific SFAR requirements (if applicable)
(v) Engine out departure procedures
(5) Required Navigation Performance (RNP) or Performance Based Navigation
(6) Domestic communications system; air to ground, radio relay
(7) Procedures for determining alternate airport requirements. Examples:
(i) Alternate airport selection
(ii) Changes to alternates
(8) Crewmember requirement, if applicable per certificate holder procedures
(i) Duty time requirement
(ii) Qualification
(A) Aircraft
(B) Airports
(C) Areas
(D) Takeoff and landing minimums
(9) Dispatch release and its validity time for an intermediate airport
(10) Other issues surrounding operational control of domestic operations.
Examples:
(i) Holding fuel requirements
(ii) Dispatching into congested airspace
(iii) Reanalysis of airborne flights
(iv) Uncontrolled airspace authorizations, en route and terminal

(b) *Area of Instruction:* General knowledge training and evaluation for Flag Operations: (10 questions required)

Subjects:
(1) Definition of a flag operation and what constitutes a flag operation
(2) Flag regulations
(3) Class II navigation (*e.g.,* Inertial, GPS)
(4) Equal Time Point (ETP), if applicable
(5) Extended overwater
(6) Fuel requirements
(7) The practical application of the term "Re-dispatch" and information required to be exchanged between the aircraft dispatcher and the pilot in command, if applicable
(8) International weather. Accessing international weather information (unique problems associated with obtaining international weather information)
(9) ICAO NOTAMS, as applicable
(i) Chart NOTAMS
(ii) Chart supplements
(iii) The certificate holder's procedures for obtaining NOTAM information
(iv) Track messages
(v) International ATC environments. Examples:
(A) Uncontrolled airspace
(B) Airspace restrictions and procedures
(C) Language barriers
(vi) Operations over high terrain. Example: Driftdown considerations (terrain clearance, oxygen, and alternate requirements)
(vii) Procedures for determining alternate airport requirements. Examples:
(A) Alternate airport selection
(B) Changes to alternates
(viii) Crewmember requirement, if applicable per certificate holder procedures
(A) Duty time requirements
(B) Qualification
(*1*) Aircraft
(*2*) Airports
(*3*) Areas
(*4*) Takeoff and landing minimums
(ix) Compliance with foreign regulations and requirements that may be more restrictive than U.S. regulations and requirements
(x) Dispatch release and its validity time for an intermediate airport

(c) *Area of Instruction:* General Knowledge training and evaluation per Flag Area of Operation. The following subjects must be used to build the training and evaluation for each flag area of operation. For training programs that include multiple flag areas of operation, duplicate subjects (*e.g.,* ETOPS, Flag Regulations) need only be trained once. (10 questions required)

(1) Each Flag Area of Operation must contain the minimum number of programmed hours as outlined in Tables 1, 2, or 3, as applicable.

(2) *Flag Areas of Operation:*
(i) Africa. Includes: Continental Africa, Cape Verde, Madagascar, Mauritius, Reunion, Seychelles
(ii) Asia-Eastern. Includes: Mainland China, Mongolia, Siberia
(iii) Commonwealth of Independent States. Includes: Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russian Federation, Tajikistan, Turkmenistan, Ukraine, Uzbekistan
(iv) Europe-Central. Includes: Austria, Belgium, Denmark, Estonia, Faroe Islands, Finland, France, Germany, Gibraltar, Greece, Ireland, Italy, Latvia, Luxembourg, Madeira Islands, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom
(v) Europe-Eastern. Includes: Albania, Boznia-Herzegovinia, Bulgaria, Czech Republic, Hungary, Macedonia, Poland, Romania, Slovakia, Slovenia, Yugoslavia
(vi) Latin America. Includes: Mexico, Central America, Caribbean Islands and Cuba
(vii) Middle East-South Asia. Includes: Afghanistan, Bahrain, Bangladesh, Bhutan, Chagos Archipelago, Cyprus, India, Iran, Iraq, Israel, Jordan, Maldives, Myanmar, Nepal, Oman, Pakistan, Qatar, Saudi Arabia, Sri Lanka, Syria, Thailand, Turkey, Indian Ocean
(viii) North America. Includes: Alaska, Bermuda, Canada, Contiguous United States
(ix) Atlantic Basin. Includes: Special Contingency Routes, MNPS, Greenland, Iceland, South Atlantic Ocean
(x) Pacific Basin. Includes: Australia, New Zealand, New Guinea, Aleutian Islands, Hawaiian Islands, Japan, Korea, Southeast Asia, Indonesia, Malaysia, Philippines, Hong Kong, Taiwan, Pacific Islands
(xi) Polar Routes, Antarctica, Area of Magnetic Unreliability, and any applicable alternates
(xii) South America. Includes: All Continental Countries

(3) The certificate holder's approved operations specifications related to flag operations

(4) Long range navigation and associated special requirements.

Examples:

(i) Number of Long Range Navigation Systems (LRNS) required for a specific airspace

(ii) Contingency procedures

(5) Long range communication and associated special requirements.

Examples:

(i) Number of Long Range Communication Systems (LRCS) required for a specific airspace

(ii) Types required for specific airspace (*e.g.,* VHF, HF, Satellite, data link)

(iii) Contingency procedures

(6) Extended Operations (ETOPS), as applicable. Examples of variables that must be considered:

(i) Fuel

(ii) Weather

(iii) Alternate airport requirements

(iv) Adequate or suitable airports

(v) Required equipment

(vi) Maintenance status

(vii) Entry and exit points

(7) En route operations over routes and diversions, as applicable that may expose passengers and crew to extreme environmental conditions.

Examples:

(i) Greenland

(ii) Himalayas

(iii) Polar

(iv) Russian airspace

(8) Special use airspace (*e.g.,* Reduced Vertical Separation Minimums (RVSM))

(9) Required Navigation Performance (RNP) or Performance Based Navigation

(10) Unique international instrument approach and departure procedures.

Examples:

(i) Limited navigational aids

(ii) Limited ATC facilities

(iii) Missed approach procedures

(iv) Unique local procedures

(v) Special instrument approach procedures

(vi) Specific SFAR requirements, as applicable

(vii) Engine out departure procedures

(11) Approved airports and landing rights

(12) Over-fly permission

(13) Unique characteristics and special conditions in international airspace and at international airports.

Examples:

(i) Performance limitations

(ii) Mountainous terrain

(iii) Navigation aids

(14) Issues unique to flag area of operations into which the certificate holder operates.

Examples:

(i) Air traffic control

(ii) Organized tracks

(iii) Polar operations

(iv) Uncontrolled airspace

C. General Knowledge and Skills for Recurrent and Requalification (See §§ 121.1419; 121.1431; 121.1433; 121.1435; 121.1437; 121.1439; 121.1441; 121.1455; and 121.1471)

1. Training is required for dispatchers in recurrent or requalification programs for a certificate holder. Training must address operational and procedural review of topics deemed necessary by the certificate holder and approved by the Administrator. Curriculums must contain (but are not limited to) selected portions of the following areas of instruction. The academic evaluation that is required for recurrent must contain 20 questions. For requalification, the number of questions required for academic evaluation is based on the number of missed recurrent training cycles. See paragraph A.4.(c) of this attachment for specific requirements for academic evaluations during requalification.

2. General Knowledge training and evaluation required—

Areas of Instruction:

(a) Operations Specifications

(b) General Operating Manual

(c) Air Traffic Control and Instrument Approach Procedures

(d) Reduced Vertical Separation Minimum (RVSM)

(e) Certificate holder communications systems and procedures

(f) Meteorology

(g) NOTAMS

(h) Maintenance procedures

(i) Emergency procedures

(j) Joint dispatcher and pilot in command responsibilities

(k) Characteristics of appropriate airports

(l) Prevailing weather phenomena

(m) Approach plates and charts

(n) Navigational aids and publications

(o) Certificate holder computer systems (distance learning not allowed)

(p) Computer flight planning (distance learning not allowed)

(q) Dispatch Resource Management (DRM) (distance learning not allowed)

(r) Ground de-ice and anti-ice procedures and policies (must be covered each year)

(s) Flag Areas of Operation—Selected subjects from paragraphs B.2.(b) and (c) of this attachment

3. *Area of Instruction:* Other required training—

The hours for other required training are in addition to approved programmed hours of instruction stated in Table 1 of this appendix.

Subjects:

(a) Awareness training for hazardous materials (part 121, subpart Z)

(b) Drug testing program and alcohol misuse prevention program (part 120)

(c) Security training (49 CFR part 1544)

Attachment 2 of Appendix T to Part 121

Basic Aircraft and Specific Aircraft Type—Academic Training and Evaluation Requirements for Initial, Combined Certification and Initial, Transition, Recurrent, Requalification, Differences, and Special Curriculum Categories

A. General. (see §§ 121.1411; 121.1413; 121.1415; 121.1417; 121.1431; 121.1433; 121.1435; 121.1437; 121.1439; 121.1441; 121.1451; 121.1453; 121.1455, and 121.1471)

1. The FAA Aircraft Dispatcher Knowledge Test is a requirement for certification and the practical test. The certificate holder's academic evaluations under this attachment are not a substitute for the FAA Aircraft Dispatcher Knowledge Test.

2. Training and academic evaluation are required for all areas of instruction and subjects listed in this attachment that pertain to the certificate holder's operations for persons in initial, combined certification and initial, recurrent, and requalification.

3. The certificate holder must develop a written, oral, or electronic test of the knowledge obtained during academic training that is approved by the Administrator as part of the approved training program. The training program must include development and maintenance of the academic evaluation, methods to establish the validity of the academic evaluation, required student remediation, and adjustment of instruction when required.

The QPS provides job tasks and related areas of required instruction. Each area of instruction contains subjects that must be trained and evaluated if pertinent to the certificate holder's operations. An academic evaluation must include the minimum number of questions indicated in this attachment for each area of instruction. Students must achieve a performance of 80% in each area of instruction. Student performance of at least 80% in an area of instruction must be corrected to 100%. Student performance below 80% in an area of instruction must be corrected to 100% and the student must be reevaluated in that area of instruction.

A test question repository must be developed to include a minimum number of questions for each subject.

4. The academic evaluation for each curriculum category must meet the following requirements:

(a) For initial and combined certification and initial, an academic evaluation must be comprised of the minimum number of questions required for each area of instruction.

(b) For recurrent, an academic evaluation must be comprised of at least 20 questions selected from the applicable areas of instruction. For certificate holders with more than one aircraft type, aircraft systems for each specific aircraft type may be covered over a 3-year cycle as approved by the Administrator.

(c) For requalification that requires missed recurrent training, each recurrent academic evaluation must be comprised of at least 20 questions per missed recurrent training, selected from the applicable areas of instruction. The academic evaluation must also include five questions from the additional academic training and evaluation activity listed in Table 3 (Specific Training and Evaluation per Aircraft Type).

(d) For differences training at least 5 questions. Training and evaluation is required in specific subject areas specified when differences are required.

5. The FAA may allow distance learning for subjects in each area of instruction unless otherwise indicated. Initially, distance learning will be limited to 50% of the academic training provided. However, based on the established effectiveness of a certificate holder's approved distance learning methods, the FAA may approve distance learning in excess of 50%.

B. Basic Aircraft Training and Evaluation Requirements for Initial or Combined Certification and Initial. (see §§ 121.1431; 121.1433; 121.1435; 121.1437; 121.1439;

121.1441; 121.1451; 121.1453; 121.1455, and 121.1471)

Areas of Instruction—With Subjects:

1. *Area of Instruction:* Basic Aircraft Systems Theory and Performance. (10 questions required)

Subjects:

(a) Air conditioning
(b) Pressurization
(c) Auto flight
(d) Communications
(e) Electrical
(f) Equipment and furnishings
(g) Fire protection
(h) Flight controls
(i) Fuel
(j) Hydraulics
(k) Ice and rain protection
(l) Instrumentation
(m) Landing gear
(n) Lights
(o) Oxygen
(p) Water and waste
(q) Auxiliary power
(r) Doors
(s) Propellers
(t) Engines
(u) Weight and balance theory
(v) Flight planning overview
(w) Aircraft performance

2. *Area of Instruction:* A general description of the aircraft performance characteristics emphasizing the following as applicable: (5 questions required)

Subjects:

(a) Aircraft limitations that may affect the aircraft performance
(b) Navigation equipment and required navigation performance
(c) Communication equipment and required communication performance
(d) Other factors affecting operating and performance characteristics

3. *Area of Instruction:* MEL and CDL specific applications and appropriate operating manual procedures applicable to dispatch for: (10 questions required)

Subjects:

(a) Air conditioning
(b) Pressurization
(c) Auto flight
(d) Communications
(e) Electrical
(f) Equipment and furnishings
(g) Fire protection
(h) Flight controls
(i) Fuel
(j) Hydraulics
(k) Ice and rain protection
(l) Instrumentation
(m) Landing gear
(n) Lights
(o) Oxygen
(p) Water and waste
(q) Auxiliary power
(r) Doors
(s) Propellers
(t) Engines

4. *Area of Instruction:* Additional training and evaluation in the following subjects must be included (as applicable): (10 questions required)

Subjects:

(a) Instrument approach and communication equipment
(b) Aircraft specific deicing procedures
(c) Special considerations and authorizations for international operations
(d) Reduced separation standards
(e) Special maintenance procedures
(f) Flight manual specific emergency procedures and equipment.
(g) Weight and balance considerations
(h) Basic aircraft performance dispatch requirements and procedures
(i) Flight planning including route, track and altitude selection, en route performance, flight time analysis, weather considerations, and fuel analysis
(j) Aircraft specific emergency procedures
(k) Mission capable considerations (*e.g.,* over-water equipped)

C. Aircraft Type Specific Training and Evaluation Requirements for Initial, Combined Certification and Initial, Transition, Recurrent, and Requalification. (see §§ 121.1431; 121.1433; 121.1435; 121.1437; 121.1439; 121.1441; 121.1451; 121.1453; 121.1455, and 121.1471)

1. Aircraft Type Specific Training and Evaluation Requirements—Areas of Instruction—With Subjects:

(a) *Area of Instruction:* Systems Overview: (15 questions required)

Subjects:

(1) Air conditioning
(2) Pressurization
(3) Auto flight
(4) Communications
(5) Electrical
(6) Equipment and furnishings
(7) Fire protection
(8) Flight controls
(9) Fuel
(10) Hydraulics
(11) Ice and rain protection
(12) Instrumentation
(13) Landing gear
(14) Lights
(15) Oxygen
(16) Water and waste
(17) Auxiliary power
(18) Doors
(19) Propellers
(20) Engines

(b) *Area of Instruction:* Performance. (5 questions required)

Subjects:

(1) Take-off performance
(2) En route performance
(3) Landing performance

(c) *Area of Instruction:* Other. (10 questions required)

Subjects:

(1) Aircraft manuals
(2) Aircraft limitations
(3) Weight and balance
(4) Emergency and abnormal procedures

2. *Differences.* (5 questions required)

Each training program must provide differences training and evaluation if the Administrator finds that, due to differences between aircraft of the same type operated by the certificate holder, additional training and evaluation is necessary to ensure that each dispatcher is adequately trained to perform the assigned duties. The programmed hours established for differences training are in addition to the previously approved programmed hours for the approved training program. For differences training and evaluation (§ 121.1471), the hours remain in the differences curriculum category. There are no programmed hours in Tables 1 and 2 of this appendix for differences training and evaluation.

Attachment 3 of Appendix T to Part 121

Generic Training and Evaluation Requirements for Certification Under the Combined Certification and Initial Curriculum Category

A. General (see §§ 121.1411; 121.1413; 121.1415; 121.1417; 121.1419; 121.1421; 121.1423; 121.1425; 121.1431; 121.1433; 121.1435; 121.1437; 121.1439; 121.1441; 121.1451; 121.1453; and 121.1471)

1. The FAA Aircraft Dispatcher Knowledge Test is a requirement for certification and the practical test. The certificate holder's testing under this attachment is not a substitute for the FAA Aircraft Dispatcher Knowledge Test.

2. Training and evaluation is required in all of the subjects listed in this attachment for combined certification and initial.

3. The certificate holder must develop a written, oral, or electronic test of the knowledge obtained during academic training that is approved by the Administrator as part of the approved training program. The training program must include development and maintenance of the academic evaluation, methods to establish the validity of the academic evaluation, required student remediation, and adjustment of instruction when required.

An academic evaluation must include the minimum number of questions indicated in the QPS for each subject. Students must achieve a performance of 80% in each area of instruction. Student performance of at least 80% in an area of instruction must be corrected to 100%. Student performance below 80% in an area of instruction must be corrected to 100% and the student must be reevaluated in that area of instruction.

4. The FAA may allow distance learning for subjects in each area of instruction unless otherwise indicated. Initially, distance learning will be limited to 50% of the academic training provided. However, based on the established effectiveness of a certificate holder's approved distance learning methods, the FAA may approve distance learning in excess of 50%.

B. General Training and Evaluation Requirements Areas of Instruction—With Subjects: (see §§ 121.1411; 121.1413; 121.1415; 121.1417; 121.1419; 121.1421; 121.1423; 121.1425; 121.1431; 121.1433; 121.1435; 121.1437; 121.1439; 121.1441; 121.1451; 121.1453; and 121.1471)

1. *Area of Instruction:* Regulations (10 questions required)

Subjects:

(a) 14 CFR part 65, subparts A and C
(b) 14 CFR parts 1, 25, 61, 71, 91, 121, 139, and 175
(c) 49 CFR part 830 (NTSB)
(d) General Operating Manual (GOM)

2. *Area of Instruction:* Meteorology (15 questions required)

Subjects:

(a) *Basic Weather Studies*

(1) The earth's motion and its effects on weather
(2) Analysis of the following regional weather types, characteristics, and structures, or combinations thereof:
(i) Maritime
(ii) Continental
(iii) Polar
(iv) Tropical
(3) Analysis of the following local weather types, characteristics, and structures or combinations thereof:
(i) Coastal
(ii) Mountainous
(iii) Island
(iv) Plains
(4) The following characteristics of the atmosphere:
(i) Layers
(ii) Composition
(iii) Global wind patterns
(iv) Ozone
(v) Tropopause
(5) Pressure:
(i) Units of measure
(ii) Weather systems characteristics
(iii) Temperature effects on pressure
(iv) Altimeters
(v) Pressure gradient force
(vi) Pressure pattern flying weather
(6) Wind:
(i) Major wind systems and coriolis force
(ii) Jetstreams and their characteristics
(iii) Local wind and related terms
(7) States of matter:
(i) Solids, liquid, and gases
(ii) Causes of change of state
(8) Clouds:
(i) Composition, formation, and dissipation
(ii) Types and associated precipitation
(iii) Use of cloud knowledge in forecasting
(9) Fog:
(i) Causes, formation, and dissipation
(ii) Types
(10) Ice:
(i) Causes, formation, and dissipation
(ii) Types
(11) Stability and instability:
(i) Temperature lapse rate, convection
(ii) Adiabatic processes
(iii) Lifting processes
(iv) Divergence
(v) Convergence
(12) Turbulence:
(i) Jetstream associated
(ii) Pressure pattern recognition
(iii) Low level windshear
(iv) Mountain waves
(v) Thunderstorms
(vi) Clear air turbulence.
(13) Airmasses:
(i) Classification and characteristics
(ii) Source regions
(iii) Use of airmass knowledge in forecasting
(14) Fronts:
(i) Structure and characteristics, both vertical and horizontal
(ii) Frontal types
(iii) Frontal weather flying
(15) Theory of storm systems:
(i) Thunderstorms
(ii) Tornadoes
(iii) Hurricanes and typhoons
(iv) Microbursts
(v) Causes, formation, and dissipation
(b) *Weather, analysis, and forecasts*
(1) Observations:
(i) Surface observations
(A) Observations made by certified weather observer
(B) Automated weather observations
(ii) Terminal forecasts
(iii) Significant en route reports and forecasts
(A) Pilot reports
(B) Area forecasts
(C) Sigmets, airmets
(D) Center weather advisories
(iv) Weather imagery
(A) Surface analysis
(B) Weather depiction
(C) Significant weather prognosis
(D) Winds and temperature aloft
(E) Composite moisture stability chart
(F) Surface weather prognostic chart
(G) Radar meteorology
(H) Satellite meteorology
(I) Other charts as applicable
(v) Meteorological information data collection systems
(2) Data collection, analysis, and forecast facilities
(3) Service outlets providing aviation weather products.
(c) *Weather Related Hazards*
(1) Crosswinds and gusts
(2) Contaminated runways
(3) Restrictions to surface visibility
(4) Turbulence and windshear
(5) Icing
(6) Thunderstorms and microburst
(7) Volcanic ash
3. *Area of Instruction:* Navigation (10 questions required)
Subjects:
(a) *Study of the Earth*
(1) Time reference and location (0 Longitude, UTC)
(2) Definitions
(3) Projections
(4) Charts.
(b) *Chart Reading, Application, and Use*
(c) *National Airspace Plan*
(d) *Navigation Systems*
(e) *Airborne Navigation Instruments*
(f) *Instrument Approach Procedures*
(1) Transition procedures
(2) Precision approach procedures
(3) Non-precision approach procedures
(4) Minimums and the relationship to weather
(g) *Special Navigation and Operations*
(1) North Atlantic
(2) Pacific
(3) Global differences
4. *Area of Instruction:* Communications (5 questions required)
Subjects:
(a) *Regulatory requirements*
(b) *Communication Protocol*
(c) *Voice and Data Communications*
(d) *Notice to Airmen (NOTAMS)*
(e) *Aeronautical Publications*
(f) *Abnormal Procedures*
5. *Area of Instruction:* Air Traffic Control (10 questions required)
Subjects:
(a) *Responsibilities*
(b) *Facilities and Equipment*
(c) *Airspace classification and route structure*
(d) *Flight Plans*
(1) Domestic
(2) International
(e) *Separation Minimums*
(f) *Priority Handling*
(g) *Holding Procedures*
(h) *Traffic Management*
6. *Area of Instruction:* Emergency and Abnormal Procedures. (5 questions required)
Subjects:
(a) *Security measures on the ground*
(b) *Security measures in the air*
(c) *FAA responsibility and services*
(d) *Collection and dissemination of information on overdue or missing aircraft*
(e) *Means of declaring an emergency*
(f) *Responsibility for declaring an emergency*
7. *Area of Instruction:* Practical dispatch applications (distance learning not allowed)
Subjects:
(a) *Human Factors*
(1) Decision-making:
(i) Situation assessment
(ii) Generation and evaluation of alternatives
(A) Tradeoffs and prioritization
(B) Contingency planning
(iii) Support tools and technologies
(2) Human error:
(i) Causes
(A) Individual and organizational factors
(B) Technology-induced error
(ii) Prevention
(iii) Detection and recovery
(3) Teamwork:
(i) Communication and information exchange
(ii) Cooperative and distributed problem-solving
(iii) Resource management
(A) Air Traffic Control (ATC) activities and workload
(B) Flight crew activities and workload
(C) Maintenance activities and workload
(D) Operations control staff activities and workload
(b) *Applied Dispatching*
(1) Briefing techniques, Dispatcher, Pilot.
(2) Preflight:
(i) Safety
(ii) Weather analysis
(A) Satellite imagery
(B) Upper and lower altitude charts
(C) Significant en route reports and forecasts
(D) Surface charts
(E) Surface observations
(iii) NOTAMS and airport conditions
(iv) Crew
(A) Qualifications.
(B) Limitations
(v) Flight planning
(A) Route of flight
(*1*) Standard Instrument Departures and Standard Terminal Arrival Routes
(*2*) En route charts
(*3*) Operational altitude
(*4*) Departure and arrival charts
(B) Minimum departure fuel
(*1*) Climb
(*2*) Cruise
(*3*) Descent
(vi) Decision to operate the flight
(vii) ATC flight plan filing
(viii) Flight documentation

(A) Flight plan
(B) [Reserved]
(3) Authorize flight departure with concurrence of pilot in command
(4) In-flight operational control:
(i) Situational awareness
(ii) Information exchange
(iii) Amend original dispatch release as required
(5) Post-flight:
(i) Arrival verification
(ii) Weather debrief
(iii) Flight irregularity reports as required
8. *Area of Instruction:* Weight and balance subject: (5 questions required)
Subject:
(a) *Theory and application weight and balance*
(b) [Reserved]
9. *Area of Instruction:* Performance for the type of aircraft (5 questions required)

Attachment 4 of Appendix T to Part 121

Requirements and Performance Standards for Proficiency Tests and Proficiency Checks for Initial, Combined Certification and Initial, Transition, Recurrent, and Requalification Curriculum Categories

A. Evaluation Requirements for Proficiency Tests and Checks. (see §§ 121.1411; 121.1413; 121.1415; 121.1417; 121.1419; 121.1421; 121.1423; 121.1425; 121.1431; 121.1433; 121.1435; 121.1437; 121.1439; 121.1441; 121.1451; 121.1453; 121.1455; and 121.1471)

1. Evaluation is required for all tasks and situations listed in each duty area that pertain to the certificate holder's operations for persons in initial, combined certification and initial, transition, recurrent, and requalification curriculum categories. The aircraft dispatcher must understand and, where applicable, satisfactorily complete the tasks required for the areas of evaluation listed in Table 4 of this appendix.

2. The certificate holder must use Table 4 to determine the tasks and situations on which each aircraft dispatcher must be evaluated for each curriculum category. If the certificate holder adds tasks or situations to those listed in Table 4, it must further develop the tasks or situations to include the requirement and frequency for training and evaluation in each specific curriculum category listed in the table. These changes must be approved by the POI.

3. *Evaluation Requirements for Initial, Combined Certification and Initial, and Transition Curriculum Categories.*

(a) Academic evaluation will be accomplished through all phases of the academic training as specified in attachments 1, 2, and 3.

(b) The proficiency test for initial and combined certification and initial is a combination of knowledge evaluation and skills evaluation during which additional training or practice is not allowed. The proficiency test is administered after the completion of SOE in order to dispatch aircraft for the certificate holder in accordance with part 121.

(c) The proficiency test for transition may be a knowledge evaluation, a skills evaluation, or a combination of knowledge evaluation and skills evaluation, during which additional training or practice is not allowed. This test is administered at the end of transition training.

(d) The proficiency test must be administered in either an actual or simulated dispatch work environment and must cover the tasks in each area of instruction as depicted in Table 4. Each proficiency test must include a representative number of questions for each task which demonstrates the aircraft dispatcher's proficiency. Each area of evaluation must be satisfactorily demonstrated to the Check Dispatcher, Dispatch Program Designee, or FAA principal Operations Inspector, as applicable. Retraining is required for each task in each area of evaluation that is not satisfactorily completed. Retraining is followed by reevaluation of the student in each retrained area of instruction. The FAA must also approve the form and content of the reevaluation.

4. *Evaluation Requirements for Recurrent and Requalification Curriculum Categories.*

(a) Academic evaluation will be accomplished through all phases of the academic training as specified in attachments 1 and 2.

(b) For recurrent and requalification, the proficiency check is a combination of knowledge evaluation and skills evaluation of tasks listed in Table 4 and described in this attachment. Additional training or practice is allowed during the proficiency check.

(c) The proficiency check must be administered in either an actual or simulated dispatch work environment. Each proficiency check must include a representative number of questions for each task which demonstrates the aircraft dispatcher's proficiency. Each area of evaluation must be satisfactorily demonstrated to the Check Dispatcher, Dispatch Program Designee, or FAA Principal Operations Inspector, as applicable. Retraining is required for each task in each area of evaluation that is not satisfactorily completed. Retraining is followed by reevaluation of the student in each retrained area of instruction. The FAA must also approve the form and content of the reevaluation.

5. Dispatch Resource Management (DRM) indicators must be evaluated throughout the entire proficiency test or check.

6. The certificate holder must tailor the procedures in this attachment for each aircraft type and approved area of operation. The certificate holder must include these procedures in the manual(s) provided to the aircraft dispatcher.

B. Tasks and Situations by Area of Evaluation (see §§ 121.1411; 121.1413; 121.1415; 121.1417; 121.1419; 121.1421; 121.1423; 121.1425; 121.1431; 121.1433; 121.1435; 121.1437; 121.1439; 121.1441; 121.1451; 121.1453; and 121.1471)

1. Area of Evaluation: General

(a) *Task: Equipment Knowledge.*

The dispatcher must have an understanding and a basic knowledge about the following subjects (systems and components) (as applicable):

(1) Landing gear, including: Extension and retraction systems, brakes, anti-skid, tires, nose-wheel steering, and shock absorbers.

(2) Engine(s), including: Controls and indications, induction system, carburetor and fuel injection, turbo-charging, cooling, fire detection and protection, mounting points, turbine wheels, compressors, de-icing, anti-icing, and other related components.

(3) Propellers, including: Type, controls, feathering and unfeathering, auto feather, negative torque sensing, synchronizing, and synchro-phasing.

(4) Fuel system, including: Capacity, controls; indicators; cross-feeding; transferring; jettison; fuel grade, color and additives; fueling and de-fueling procedures; and allowable fuel substitutions, if applicable.

(5) Oil system, including: Grade and indicators.

(6) Hydraulic system, including: Capacity pumps, pressure, reservoirs, grade, and regulators.

(7) Electrical system, including: Alternators, generators, battery, circuit breakers and protection devices, controls, indicators, and external and auxiliary power sources and ratings.

(8) Environmental systems, including: Heating, cooling, ventilation, oxygen and pressurization, controls, indicators, and regulating devices.

(9) Avionics and communications, including: Autopilot, flight director, and Electronic Flight Indicating Systems (EFIS); Flight Management System(s) (FMS); Long Range Navigation systems; Doppler Radar; Inertial Navigation Systems (INS); Global Positioning System (GPS, DGPS, WGPS); VOR, NDB, ILS, MLS, and RNAV systems and components; indicating devices; transponder; and emergency locator transmitter.

(10) Ice protection (anti-ice and de-ice), including: Pitot-static system, propeller (if appropriate), windshield, wing and tail surfaces.

(11) Flight controls, including: Ailerons, elevator(s), rudder(s), control tabs, balance tabs, stabilizer, flaps, spoilers, leading edge flaps and slats, and trim systems.

(b) *Task: Aircraft Performance and Limitations Knowledge.*

(1) The dispatcher must understand and be proficient in the use of (as appropriate to the aircraft) performance charts, tables, graphs, or other data relating to the certificate holder's approved system for the following:

(i) Accelerate—stop distance.
(ii) Accelerate—go distance.
(iii) Balanced field.
(iv) Takeoff performance, all engines and with engine(s) inoperative, as appropriate.
(v) Climb performance including segmented climb performance; with all engines operating; with one or more engine(s) inoperative, and with other engine malfunctions as may be appropriate.
(vi) Service ceiling, all engines, with engine(s) inoperative, including Drift Down and Terrain Clearance, if appropriate.
(vii) Cruise performance.
(viii) Fuel consumption, range, and endurance.
(ix) Descent performance.
(xi) Go-around from rejected landings
(xii) The effects of meteorological conditions upon performance characteristics

with correct application of these factors to a specific chart, table, graph or other performance data

(xiii) How to determine longitudinal and lateral center-of-gravity location for a specific load condition including how to add, remove, or shift weight to meet longitudinal (forward and aft), and lateral balance limits for takeoff, cruise, and landing

(2) The aircraft dispatcher must know all of the limitations appropriate to each aircraft type and the kind of operation the dispatcher dispatches with respect to:

(i) Systems and components

(ii) Performance

(iii) MEL issues and how they may be different for a flag operation or a domestic operation

(c) *Task: Operating Requirements*

The aircraft dispatcher must understand the certificate holder's operating requirements as provided in:

(1) Operations Specifications

(2) General Operating Manual

(3) 14 CFR part 1

(4) 14 CFR part 91

(5) 14 CFR part 119

(6) 14 CFR part 121

(7) 14 CFR part 139

(8) 49 CFR part 175 (HMR)

(9) 49 CFR part 830 (NTSB)

(10) Special Federal Aviation Regulations (SFARs)

(11) 49 CFR Chapter 12 (TSR)

(12) ATC System

(13) Airport Facility Directory

(d) *Task: National Weather System*

The aircraft dispatcher must know the National weather system (international weather systems, if applicable) and be able to use the system to assess weather conditions at departure, intermediate, en route, destination, and alternate airports.

(e) *Task: National NOTAM System*

The aircraft dispatcher must know the National NOTAM system (international NOTAM systems, if applicable) and be able to determine the impact of these NOTAMs on en route flight planning and at departure, intermediate, en route, destination, and alternate airports.

2. Area of Evaluation: Duty Period Orientation

(a) *Task: Operations Orientation*

The dispatcher must know how to use available information to create an operations orientation that covers, as applicable:

(1) The location of all flights for which the dispatcher is responsible

(2) Planned flights and any special flights for the duty period

(3) Knowledge of issues, such as anticipated ATC problems and delays

(4) NOTAMS, weather, and field conditions for regular and alternate airports

(5) Navigation facilities and any irregularities that may affect the safety of flight

(b) *Task: Dispatcher Shift Turnover*

The dispatcher must:

(1) Determine that his or her duty schedule complies with part 121 dispatcher duty regulations and certificate holder operating procedures

(2) Become thoroughly briefed at the beginning of duty period by the dispatcher who is turning over operational control

(3) Develop situational awareness and prioritize his or her workload

(4) Provide thorough briefing at the end of the duty period to the relieving dispatcher

(c) *Task: Shift Self Briefing*

The aircraft dispatcher must use available information to anticipate and respond to events that may occur during the duty period, including:

(1) The general weather patterns

(2) Weather information system status

(3) EWINS status (if applicable)

(4) Radar imagery

(5) Fuel status of current and planned flights

(6) MEL status of current and planned flights

(7) General airport conditions

(d) *Task: Certificate Holder Manuals, Procedures, and Operating Information*

The aircraft dispatcher must understand and verify the currency of the operational procedures contained in the following:

(1) Certificate holder manual containing Flight Crew Operating Manual (FCOM) information

(2) Airplane Flight Manual (AFM)

(3) Manual containing certificate holder operations procedures

(4) Manual containing the Aircraft Dispatcher Procedures Manual (ADPM)

(5) Aeronautical Information Manual (AIM)

(6) Certificate holder's operations specifications

(7) Maintenance restrictions such as airworthiness directives

(8) MEL

(9) CDL

3. Area of Evaluation: Planning and Executing a Dispatch Release

(a) *Task: Obtain, Evaluate, and Disseminate Required Information*

The aircraft dispatcher must do the following, as applicable:

(1) Obtain, evaluate, and disseminate to the flight crew all pertinent weather information in the aircraft dispatcher's area of responsibility as follows:

(i) Weather reports and forecasts

(ii) Pilot and radar reports

(iii) Surface analysis reports

(iv) Radar summary charts

(v) Significant weather prognostics

(vi) Winds and temperature aloft

(vii) Freezing level charts

(viii) Turbulence reports and forecasts

(ix) Icing reports and forecasts

(x) Stability charts

(xi) Severe weather outlook charts

(xii) Constant pressure charts

(xiii) Constant pressure prognostics

(xiv) Tables and conversion graphs

(xv) SIGMETS, convective SIGMETS, convective outlooks, weather warnings, and AIRMETS

(xvi) ATIS report

(xvii) Satellite imagery

(xviii) NOTAMs

(xix) Field condition reports

(2) Obtain, evaluate, and disseminate to the flight crew other information in the aircraft dispatcher's area of responsibility, such as the following:

(i) Aircraft status

(A) Maintenance and MEL

(B) Loading and fuel

(C) Performance data

(ii) ATC problems such as departure or arrival delays, flow control and en route or altitude problems

(iii) ATC tower closures, curfews, or other information, such as noise abatement requirements at or near the arrival period

(iv) Fuel and ground handling issues

(v) Highlight restrictive MEL and CDL items

(vi) Irregular operations plan of action (*e.g.,* diversion)

(3) Obtain, review, and disseminate to the flight crew the following:

(i) The suitability of runways, including whether closed runways or runways with displaced thresholds are accounted for in the performance computations

(ii) All NOTAMs

(iii) Information about field conditions (contact the station, if the information is not readily available) at airports to determine the validity of the information and the impact on operations

(iv) The fueling restrictions and any station equipment problems (contact the station, if the information is not readily available) for the airports to determine the impact on planned operations

(4) Review the aircraft dispatcher "read file" for updated operational information

(5) Review AIM

(i) Navaids

(ii) Airports and air navigation and lighting

(iii) Airspace

(iv) Air traffic control procedures including clearances

(v) Airport operations

(vi) Departure, en route, and arrival procedures

(6) Review the Flight Crew Qualification for route to be flown

(i) Special Airports

(ii) Special use airspace

(iii) High minimum captains and flight crew minimums

(7) Review the aircraft status

(i) Maintenance and MEL

(ii) Loading and fuel

(iii) Performance data

(iv) Special areas of operation requirements

(b) *Task: Flight Planning.*

The aircraft dispatcher must do the following, as applicable:

(1) Select an alternate airport

(i) Use a flight movement forecast (FMF) under an approved EWINS program

(ii) Determine whether an alternate airport is required for the destination airport in accordance with 14 CFR part 121, any existing exemptions, deviations, operations specification requirements, and procedures, for the certificate holder

(iii) If weather conditions at the departure airport are below landing minimums in the certificate holder's operation specifications for that airport, specify a departure alternate in accordance with 14 CFR part 121, and the approved certificate holder procedures

(iv) Ensure that each alternate airport selected (whether for departure or destination airports) meets the requirements of 14 CFR part 121, and the approved certificate holder procedures

(v) Consider and plan for an unscheduled stop

(vi) Determine the operational suitability of the planned alternate by determining the following:

(A) Field conditions (*e.g.,* wet runways, runway friction reports, braking action reports)

(B) The MEL and CDL status of the aircraft and any potential weather related condition or restriction

(C) Crosswind and tailwind components

(D) Weather reporting service is available

(E) Approach chart does not prohibit its use as an alternate

(F) The appropriate navigational facilities are monitored and operational.

(G) The airport has an instrument approach procedure authorized for use by the certificate holder

(H) Tower closures and alternative procedures

(2) Determine whether holding is anticipated at both the destination and the appropriate alternate(s) by considering the following:

(i) En route conditions

(ii) ATC constraints

(iii) Possible re-routes

(iv) Marginal weather conditions at the arrival airports

(v) MEL and CDL considerations

(3) Determine the MEL and CDL status of the aircraft and its impact on the flight plan

(4) Plan the flight considering the following:

(i) The ATC preferred routing (*e.g.,* High Altitude Redesign, RVSM, RNP)

(ii) The performance requirements of part 121, subpart I

(iii) The MEL or CDL status of the aircraft and any potential weather related considerations of resultant restrictions

(iv) The en route navigational facilities are monitored and operational

(v) Maintenance, test, training, and ferry flights (as applicable)

(5) Determine the fuel load requirements

(i) Ensure that the flight is released with sufficient fuel on board to comply with the requirements of 14 CFR and the certificate holder's requirements for computing minimum fuel supply

(ii) Consider the impact of underfueling or overfueling on the dispatch release

(iii) Comply with the requirements of any deviations or exemptions used

(6) Determine aircraft performance requirements. Ensure that the flight is released at a weight and configuration that complies with the requirements of 14 CFR part 121, subpart I and any additional certificate holder requirements.

(c) *Task: Create and Issue Dispatch Release.*

The aircraft dispatcher must do the following, as applicable:

(1) Create and issue a dispatch release using the certificate holder's approved system for issuing dispatch releases

(2) Create and issue a dispatch release using the certificate holder's approved back-up system for issuing dispatch releases

(3) Ensure that the dispatch release meets the regulatory requirements and contains or has attached to it the available weather reports, weather forecasts (or a combination of these) for the destination airport, any intermediate stops, and any alternate airports

(4) Ensure the dispatch release meets the approved certificate holder requirements

(d) *Task: Briefing Flight Crews*

The aircraft dispatcher must demonstrate the ability to brief the flight crew on the topics listed in paragraph B.3. of this attachment

4. Area of Evaluation: Flight Monitoring

(a) *Task: Updating and Gathering Information.*

During the en route portion of the flight, the dispatcher must:

(1) Track changing weather and operating conditions

(2) Determine the actual time the aircraft departed, progress of flight, and its estimated time of arrival

(3) Provide the PIC with necessary information for the safe conduct of the flight, such as changing meteorological conditions or irregularities of facilities and services. Provide this information using the certificate holder's approved communication system(s).

(4) Advise the PIC of any changes in the operations environment as follows:

(i) ATC constraints

(ii) Updated NOTAMs that may affect the flight

(iii) Change in operations and an alternate plan

(iv) Field conditions and runway availability

(b) *Task: Operational Control Decisionmaking*

The aircraft dispatcher must do the following, as applicable:

(1) Understand the operational function of and interaction with other departments, such as the following:

(i) Maintenance

(ii) Crew scheduling

(iii) Training

(iv) Customer service

(v) Airport and station

(2) Process the operational function of and interaction with these departments into an operational control decision in accordance with approved certificate holder procedures

(c) *Task: Amend Dispatch Release.* The aircraft dispatcher must demonstrate the following:

(1) Determine when an amendment to a dispatch release is required (*e.g.,* mechanical problem, alternate or destination changes)

(2) Amend the dispatch release in accordance with approved certificate holder procedures

(3) Record that amendment in accordance with approved certificate holder procedures

5. *Area of Evaluation: Situation Management*

(a) *Task: Dispatch and Aircraft Abnormality or Emergency*

The dispatcher must demonstrate the ability to do the following:

(1) Manage the following abnormal and emergency situations generated from a source other that the flight crew:

(i) A bomb threat is received

(ii) In-flight medical emergency

(iii) Engine failure in flight

(iv) In-flight fire

(v) Overweight landings

(vi) Low fuel emergencies

(vii) Aircraft diversions

(viii) Hijacking

(ix) Sabotage threats

(x) An aircraft has been involved in a major accident

(xi) An aircraft is overdue or missing

(xii) Actions or alerts issued by military or other security agencies

(xiii) Any other operational situation that affects the safety of flight

(2) Establish communication with the Aircraft through the normal certificate holder air to ground communication system

(3) Immediately notify the PIC of an emergency situation that arises during flight that requires an immediate decision and action by an aircraft dispatcher and record that decision

(4) Determine whether the PIC has declared an emergency

(5) Declare an emergency (if appropriate) in accordance with 14 CFR in the event the aircraft dispatcher cannot communicate with the PIC

(6) Maintain operational control of the flight experiencing the abnormal or emergency situation

(7) Notify certificate holder management of the abnormal or emergency situation

(8) Maintain operational control of all flights in the dispatcher's control

(9) Contact maintenance for mechanical situations

(10) Determine the extent of the situation and attempt to classify the type of situation in order to report it properly to the authorities

(11) Use of the appropriate certificate holder manuals (*e.g.,* QRH, emergency procedures manual)

(b) *Task: Collection and dissemination of information on overdue or missing aircraft*

The aircraft dispatcher must:

(1) Know how to send a written report of any deviation (within 10 days of the emergency) through the certificate holder's operations manager to the POI at the certificate holding district office in accordance with 14 CFR

(2) Know how to notify the nearest National Transportation Safety Board (NTSB) office when an accident or any of the following occur:

(i) Flight control system malfunction or failure

(ii) Inability of any required flightcrew member to perform normal flight duties as a result of injury or illness

(iii) Failure of structural components of a turbine engine excluding compressor and turbine blades and vanes

(iv) In-flight fire

(v) Aircraft collide in flight

(vi) Damage to property, other than the aircraft, estimated to exceed $25,000 for repair (including materials and labor) or fair market value in the event of total loss, whichever is less

(vii) For large multiengine aircraft (more than 12,500 pounds maximum certificated takeoff weight):

(A) In-flight failure of electrical systems which requires the sustained use of an emergency bus powered by a back-up source such as a battery, auxiliary power unit, or air-

driven generator to retain flight control or essential instruments

(B) In-flight failure of hydraulic systems that results in sustained reliance on the sole remaining hydraulic or mechanical system for movement of flight control surfaces

(C) Sustained loss of the power or thrust produced by two or more engines and

(D) An evacuation of an aircraft in which an emergency egress system is utilized

(viii) An aircraft is overdue and is believed to have been involved in an accident

6. *Area of Evaluation: Dispatch Resource Management*

(a) *Evaluation.* Evaluation of an aircraft dispatcher's practical application of DRM skills must occur as follows:

(1) After the aircraft dispatcher has completed initial, combined certification and initial, recurrent, and requalification training. This evaluation must be completed during the proficiency test (for initial and combined certification and initial training) and during the proficiency check (for recurrent or requalification training).

(2) During the supervised operating experience delivered after initial, combined certification and initial, and requalification training.

(b) *Task: Demonstrate and apply DRM concepts.* (Evaluation must be in the form of demonstration)

The aircraft dispatcher must know and be able to apply the following DRM competencies:

(1) Briefings
(2) Assertiveness
(3) Inquiry
(4) Conflict resolution
(5) Interdepartmental coordination process
(6) Interpersonal relationships
(7) Situational awareness
(8) Preparation, planning, and vigilance
(9) Time management (prioritizing)
(10) Tactical and strategic use of resources
(11) Stress management
(12) Decisionmaking process
(13) Multi-tasking
(14) Risk management
(15) Leadership
(16) Communication

PART 135—OPERATING REQUIREMENTS: COMMUTER AND ON-DEMAND OPERATIONS

35. The authority citation for part 135 continues to read as follows:

Authority: 49 U.S.C. 106(g), 44113, 44701–44702, 44705, 44709, 44711–44713, 44715–44717, 44722.

36. Revise § 135.1(a)(4) to read as follows:

§ 135.1 Applicability.

(a) * * *

(4) Each person who applies for initial or provisional approval of an Advanced Qualification Program curriculum, curriculum segment, or portion of a curriculum segment under subpart Y of part 121 of this chapter and each person employed or used by a certificate holder to perform training, qualification, or evaluation functions under an Advanced Qualification Program under subpart Y of part 121 of this chapter.

* * * * *

37. Amend § 135.3 by revising paragraphs (b) and (c) and by adding paragraph (d) to read as follows:

§ 135.3 Rules applicable to operations under this part.

* * * * *

(b) Each certificate holder that conducts commuter operations under this part with airplanes in which two pilots are required by the type certification rules of this chapter must comply with subpart BB of part 121 of this chapter instead of the requirements of subparts E, G, and H of this part.

(c) The rules in subpart BB of part 121 of this chapter are considered a subpart of part 135 of this chapter for certificate holders identified in paragraph (b) of this section.

(d) If authorized by the Administrator upon application, each certificate holder that conducts operations under this part to which paragraph (b) of this section does not apply, may comply with the applicable sections of subpart BB of part 121 of this chapter instead of the requirements of subparts E, G, and H of this part, except that those authorized certificate holders may choose to comply with the operating experience requirements of § 135.244, instead of the requirements of § 121.1225 of this chapter.

PART 142—TRAINING CENTERS

38. The authority citation for part 142 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 40119, 44101, 44701–44703, 44705, 44707, 44709–44711, 45102–45103, 45301–45302.

§ 142.1 [Amended]

39. Remove and reserve § 142.1(b)(2).

40. Revise § 142.63(b) to read as follows:

§ 142.63 Privileges.

* * * * *

(b) Approved under subpart Y, Advanced Qualification Program, of part 121 of this chapter, for meeting recency of experience requirements.

Issued in Washington, DC on April 26, 2011.

John M. Allen,

Director, Flight Standards Service.

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