

Proposed Rules

Federal Register

Vol. 63, No. 204

Thursday, October 22, 1998

This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 90-CE-35-AD]

RIN 2120-AA64

Airworthiness Directives; Cessna Aircraft Company 310, T310, 320, 401, 402, 411, and 421 Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Supplemental notice of proposed rulemaking (NPRM); Reopening of the comment period.

SUMMARY: This document proposes to revise an earlier proposed airworthiness directive (AD) that would have applied to certain Cessna 310, T310, 320, 401, 402, 411, and 421 series airplanes. The previous document would have superseded AD 72-14-08 R1, which currently requires repetitively inspecting the fuel and oil flexible hose lines for leakage or evidence of any damaged or deteriorated hose assembly on the above-referenced airplanes, and replacing any discrepant part. This document would retain from the previous proposed AD the requirement of replacing the fuel and oil flexible hose assemblies in the engine compartment on Cessna 401, 402, and 421 series airplanes with Cessna hose assemblies of improved design, as terminating action for the repetitive inspection requirement of AD 72-14-08-R1; and would provide for the replacement of assemblies of equivalent design to that of the Cessna parts. The proposed AD is the result of the Federal Aviation Administration's policy on commuter class aircraft, which briefly states that, when a modification exists that could eliminate or reduce the number of required critical inspections, the modification should be incorporated. The actions specified by the proposed AD are intended to prevent deterioration of the fuel and oil hose assemblies, which could result in

fuel or oil leakage with consequent engine shutdown. Since sufficient time has passed (more than 12 months) since the issuance of the original proposal, the FAA is reopening the comment period and allowing the public additional time to comment.

DATES: Comments must be received on or before December 22, 1998.

ADDRESSES: Submit comments in triplicate to the FAA, Central Region, Office of the Regional Counsel, Attention: Rules Docket No. 90-CE-35-AD, Room 1558, 601 E. 12th Street, Kansas City, Missouri 64106. Comments may be inspected at this location between 8 a.m. and 4 p.m., Monday through Friday, holidays excepted.

Service information that applies to the proposed AD may be obtained from the Cessna Aircraft Company, P.O. Box 7706, Wichita, Kansas 67277, telephone: (316) 941-7550, facsimile: (316) 942-9008. This information also may be examined at the Rules Docket at the address above.

FOR FURTHER INFORMATION CONTACT: Mr. Paul O. Pendleton, Aerospace Engineer, FAA, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas, 67209, telephone: (316) 946-4143; facsimile: (316) 946-4407.

SUPPLEMENTARY INFORMATION:

Comments Invited

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications should identify the Rules Docket number and be submitted in triplicate to the address specified above. All communications received on or before the closing date for comments, specified above, will be considered before taking action on the proposed rule. The proposals contained in this supplemental notice may be changed in light of the comments received.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the proposed rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report that summarizes each FAA-public contact concerned with the substance of this

proposal will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this supplemental notice must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket No. 90-CE-35-AD." The postcard will be date stamped and returned to the commenter.

Availability of Supplemental NPRM's

Any person may obtain a copy of this supplemental NPRM by submitting a request to the FAA, Central Region, Office of the Regional Counsel, Attention: Rules Docket No. 90-CE-35-AD, Room 1558, 601 E. 12th Street, Kansas City, Missouri 64106.

Discussion

A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an AD that would apply to certain Cessna Models 310, T310, 320, 401, 402, 411, and 421 series airplanes was published in the **Federal Register** as a notice of proposed rulemaking (NPRM) on October 23, 1990 (55 FR 42726). The NPRM proposed to supersede AD 72-14-08 R1, Amendment 39-4215, with a new AD that would:

- initially retain the requirement of repetitively inspecting the fuel and oil flexible hose lines for leakage or evidence of any damaged or deteriorated hose assembly on all of the affected airplanes, and replacing any discrepant part; and
- eventually require, regardless if damage or deterioration was found, replacing the fuel and oil flexible hose assemblies in the engine compartment with Cessna hose assemblies of improved design for the Cessna 401, 402, and 421 series airplanes, as terminating action for the repetitive inspection requirement. The 310, T310, 320, and 411 series airplanes could either be inspected repetitively provided no damage or deterioration was found or have the fuel and oil flexible hose assemblies replaced.

The NPRM was the result of the Federal Aviation Administration's policy on commuter class aircraft, which briefly states that, when a modification exists that could eliminate or reduce the number of required critical inspections, the modification

should be incorporated. For the purposes of the NPRM, the 401, 402, and 421 series airplanes are considered commuter class and would be affected by the proposed mandatory parts replacement.

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the one comment received.

Comment Disposition

The commenter feels that mandatory replacement of the fuel and oil flexible hoses is unjustified if the hoses are showing no signs of damage or deterioration. The commenter states that he has had no problems with his Cessna Model 402B for 5,600 hours time-in-service (TIS) and that he shouldn't be penalized with an expensive hose replacement AD.

The FAA does not concur that mandatory replacement of the fuel and oil flexible hoses is unjustified. The FAA has determined that reliance on critical repetitive inspections on aging commuter-class airplanes carries an unnecessary safety risk when a design change exists that could eliminate or, in certain instances, reduce the number of those critical inspections. In determining what inspections are critical, the FAA considers (1) the safety consequences if the known problem is not detected by the inspection; (2) the reliability of the inspection such as the probability of not detecting the known problem; (3) whether the inspection area is difficult to access; and (4) the possibility of damage to an adjacent structure as a result of the problem.

These factors have led the FAA to establish an aging commuter-class aircraft policy that requires incorporating a known design change when it could replace a critical repetitive inspection. Therefore, the FAA has determined that replacement of the fuel and oil hose assemblies should be mandatory instead of relying on repetitive inspections to detect damage or deterioration.

Events Since Issuance of the NPRM

Since issuance of the NPRM, the FAA has received information about equivalent fuel and oil hose assemblies to that of the improved design Cessna parts. The FAA has determined that the proposed AD should provide the option of installing the Cessna parts or FAA-approved equivalent parts.

The FAA's Determination

After examining all information related to the subject described in this

document, the FAA has determined that:

- the NPRM should be revised to add the option of installing fuel and oil hose assemblies that are equivalent to the improved design Cessna parts on Cessna 401, 402, and 421 series airplanes; and
- AD action should be taken to incorporate these changes to continue to prevent deterioration of the fuel and oil hose assemblies, which could result in fuel or oil leakage with consequent engine shutdown.

The Supplemental NPRM

Since sufficient time has passed (more than 12 months) since the issuance of the original proposal, the FAA is reopening the comment period to provide additional time for public comment.

Cost Impact

The FAA estimates that approximately 2,617 of the 401, 402, and 421 series airplanes and 5,023 of the 310, T310, 320, and 411 series airplanes would be affected by the proposed AD.

The cost of installing the improved hose assemblies (parts and labor) is estimated to be \$3,520 per airplane (7 workhours at \$60 per hour = \$420 plus \$3,100 (average price) for parts). With these figures in mind, the cost impact upon the public for the entire fleet of 401, 402, and 421 series airplanes would be approximately \$9,211,840. The cost impact upon the public if every airplane owner/operator of the entire fleet of 310, T310, 320, and 411 series airplanes were to choose to replace the fuel and oil hose assemblies would be approximately \$17,680,960.

The proposed initial inspection for all affected airplanes would take approximately 2 workhours to accomplish at an average labor rate of \$60 per hour. The cost impact for the proposed initial inspection would be \$314,040 for the 401, 402, and 421 series airplanes; and \$602,760 for the 310, T310, 320, and 411 series airplanes. These figures only take into account the cost of the proposed initial inspection and do not take into account the cost of any repetitive inspections. The FAA has no way of determining the number of repetitive inspections each owner/operator of the 310, T310, 320, and 411 series airplanes would incur over the life of his/her airplane; or how many repetitive inspections each owner/operator of the 401, 402, and 421 series airplanes would incur over the 12 months until the proposed mandatory parts replacement occurs.

In addition, the FAA estimates that around 75 percent of the 401, 402, and 421 series airplanes already have the proposed mandatory parts replacement, and that numerous 310, T310, 320, and 411 series airplanes have the proposed optional parts replacement. This would substantially reduce the cost impact upon the public for both the inspection and parts replacement aspects of this proposed AD.

Compliance Time of This Proposed AD

The compliance time for the proposed fuel and oil flexible hose assembly replacement for the Cessna 401, 402, and 421 series airplanes is 12 calendar months after the effective date of the proposed AD. The FAA has determined that a calendar time for compliance is the most desirable method because yearly operational times vary so greatly throughout the fleet. According to FAA data, yearly operational times vary from a low of approximately 64 hours TIS to a high of approximately 2,824 hours TIS.

Based on this information, the FAA has determined that using a compliance time based upon hours TIS is unrealistic from a safety standpoint since the hoses deteriorate over time. Therefore, to maintain continuity and assure that all flexible fuel and oil hose assemblies are replaced in a timely manner, the FAA is proposing a compliance based upon calendar time.

Regulatory Impact

The regulations proposed herein would not have substantial direct effects 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. Therefore, in accordance with Executive Order 12612, it is determined that this proposal would not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

For the reasons discussed above, I certify that this action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) if promulgated, will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A copy of the draft regulatory evaluation prepared for this action has been placed in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

The Proposed Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration proposes to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by removing Airworthiness Directive (AD)

72-14-08 R1, Amendment 39-4215, and adding a new AD to read as follows:

Cessna Aircraft Company: Docket No. 90-CE-35-AD. Supersedes AD 72-14-08 R1, Amendment 39-4215

Applicability: The following models and serial number airplanes, certificated in any category, that do not have Cessna improved design fuel and oil flexible hose assemblies (or Stratoflex equivalent parts or other FAA-approved equivalent parts) installed in accordance with either Cessna Service Information Letter ME81-17, dated July 10, 1981; Cessna Service Information Letter ME81-17, Revision 1, dated November 5, 1982; or the applicable maintenance manual:

Model(s)	Serial number
310, 310B, 310C, 310D	35000 through 39299.
310F	310-001 through 310-0156.
310G through 310Q	310G0001 through 310Q1160.
310A (U-3A)	38001 through 38160.
310E (U-3B)	310M0001 through 310M0036.
T310P and T310Q	310P0001 through 310Q1160.
320	320-0001 through 320-0110.
320A through 320F	320A0001 through 320F0045.
401	401-0001 through 401-0322.
401A and 401B	401A0001 through 401B0221.
402	402-0001 through 402-0322.
402A and 402B	402A0001 through 402B1384.
411	411-0001 through 411-0250.
411A	411A0251 through 411A0300.
421	421-0001 through 421-0200.
421A and 421B	421A0001 through 421B0970.

Note 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (d) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated in the body of this AD, unless already accomplished.

To prevent deterioration of the fuel and oil hose assemblies, which could result in fuel or oil leakage with consequent engine shutdown, accomplish the following:

(a) Within the next 60 hours time-in-service (TIS) after the effective date of this AD or within the next 60 hours TIS after the last inspection required by AD 72-14-08 R1, whichever occurs first, and thereafter at intervals not to exceed 60 hours TIS, accomplish the following in accordance with the applicable Cessna 300 and 400 Series Service Manuals:

(1) Visually inspect the flexible fuel lines as follows:

(i) Pressurize the fuel lines with the boost pump momentarily operating in the prime

position. When accomplishing this test, assure that the mixture control is in the idle cutoff position. While the lines are pressurized, examine all hose exteriors in the engine compartment for evidence of leakage such as wetness and fuel stains.

(ii) After pressure testing fuel hoses, allow sufficient time for excess fuel to drain overboard from the engine manifold before attempting an engine start.

(iii) Examine externally all fuel hoses in the engine compartment for evidence of deterioration or damage such as cracks, cuts, bulges, discoloration, hardness, chafing, and excessive wear.

(2) Visually inspect flexible oil lines, as follows:

(i) Examine all hose exteriors in the engine compartment for evidence of leakage.

(ii) Examine externally all oil hoses in the engine compartment for evidence of deterioration or damage such as cracks, cuts, bulges, discoloration, hardness, chafing, and excessive wear.

(b) If, during any inspection required by this AD, leakage or other evidence of any deteriorated or damaged hose assembly is found, prior to further flight, replace that particular fuel or oil flexible hose assembly with a Cessna improved design fuel or oil flexible hose assembly (or Stratoflex equivalent parts or other FAA-approved equivalent parts).

(1) Accomplish this replacement in accordance with either Cessna Service Information Letter ME81-17, dated July 10, 1981; Cessna Service Information Letter

ME81-17, Revision 1, dated November 5, 1982; or the applicable maintenance manual.

(2) Repetitive inspections are no longer necessary on any fuel or oil flexible hose assembly replaced with improved design parts, as specified in paragraphs (b) and (b)(1) of this AD.

(c) For the affected Models 401, 401A, 401B, 402, 402B, 421, 421A, and 421B airplanes, within the next 12 calendar months after the effective date of this AD, unless already accomplished in accordance with paragraph (b) of this AD, replace all fuel and oil flexible hose assemblies with Cessna improved design fuel and oil flexible hose assemblies (or Stratoflex equivalent parts or other FAA-approved equivalent parts).

(1) Accomplish these replacements in accordance with either Cessna Service Information Letter ME81-17, dated July 10, 1981; Cessna Service Information Letter ME81-17, Revision 1, dated November 5, 1982; or the applicable maintenance manual.

(2) Repetitive inspections are no longer necessary when these replacements are accomplished.

(d) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

(e) An alternative method of compliance or adjustment of the initial or repetitive compliance times that provides an equivalent level of safety may be approved by the Manager, Wichita Aircraft Certification Office (ACO), 1801 Airport Road, Rm. 100, Mid-

Continent Airport, Wichita, Kansas, 67209. The request shall be forwarded through an appropriate FAA Maintenance Inspector, who may add comments and then send it to the Manager, Wichita ACO.

Note 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from Wichita ACO.

(f) Questions or technical information related to the service information specified in this AD should be directed to the Cessna Aircraft Company, P. O. Box 7706, Wichita, Kansas 67277, telephone: (316) 941-7550, facsimile: (316) 942-9008. This service information may be examined at the FAA, Central Region, Office of the Regional Counsel, Room 1558, 601 E. 12th Street, Kansas City, Missouri 64106.

Issued in Kansas City, Missouri, on October 15, 1998.

Michael Gallagher,

Manager, Small Airplane Directorate, Aircraft Certification Service.

[FR Doc. 98-28300 Filed 10-21-98; 8:45 am]

BILLING CODE 4910-13-U

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 97-CE-10-AD]

RIN 2120-AA64

Airworthiness Directives; de Havilland Inc. Models DHC-6-1, DHC-6-100, DHC-6-200, and DHC-6-300 Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: This document proposes to adopt a new airworthiness directive (AD) that would apply to all de Havilland Inc. Models DHC-6-1, DHC-6-100, DHC-6-200, and DHC-6-300 airplanes. The proposed AD would require amending the Limitations Section of the airplane flight manual (AFM) to prohibit the positioning of the power levers aft of the flight idle stop while the airplane is in flight. This AFM amendment would include a statement of consequences if the limitation is not followed. The proposed AD is a result of numerous incidents and five documented accidents involving airplanes equipped with turboprop engines where the propeller beta was improperly utilized during flight. None of the incidents or accidents involved de Havilland Inc. Models DHC-6-1, DHC-6-100, DHC-6-200, and DHC-6-300 airplanes. The actions specified by the proposed AD are intended to prevent loss of airplane control or

engine overspeed with consequent loss of engine power caused by the power levers being positioned aft of the flight idle stop while the airplane is in flight.

DATES: Comments must be received on or before December 22, 1998.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Central Region, Office of the Regional Counsel, Attention: Rules Docket No. 97-CE-10-AD, Room 1558, 601 E. 12th Street, Kansas City, Missouri 64106. Comments may be inspected at this location between 8 a.m. and 4 p.m., Monday through Friday, holidays excepted.

FOR FURTHER INFORMATION CONTACT: Peter LeVoci, Flight Test Pilot, New York Aircraft Certification Office, FAA, 10 Fifth Street, Third Floor, Valley Stream, New York 11581; telephone: (516) 256-7536; facsimile: (516) 568-2716.

SUPPLEMENTARY INFORMATION:

Comments Invited

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications should identify the Rules Docket number and be submitted in triplicate to the address specified above. All communications received on or before the closing date for comments, specified above, will be considered before taking action on the proposed rule. The proposals contained in this notice may be changed in light of the comments received.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the proposed rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report that summarizes each FAA-public contact concerned with the substance of this proposal will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this notice must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket No. 97-CE-10-AD." The postcard will be date stamped and returned to the commenter.

Availability of NPRMs

Any person may obtain a copy of this NPRM by submitting a request to the FAA, Central Region, Office of the Regional Counsel, Attention: Rules

Docket No. 97-CE-10-AD, Room 1558, 601 E. 12th Street, Kansas City, Missouri 64106.

Discussion

The FAA has received reports of 14 occurrences in recent years of incidents or accidents on airplanes equipped with turboprop engines related to intentional or inadvertent operation of the propellers in the beta range during flight. Beta is the range of propeller operation intended for use during taxi, ground idle, or reverse operations as controlled by the power lever settings aft of the flight idle stop. None of the incidents or accidents involved de Havilland Inc. Models DHC-6-1, DHC-6-100, DHC-6-200, and DHC-6-300 airplanes.

Of the 14 documented in-flight beta occurrences, five were classified as accidents. In-flight beta operation results that preceded the accidents can be classified in one of two categories: (1) Permanent engine damage and total loss of thrust on all engines when the propellers that were operating in the beta range drove their respective engines to overspeed; and (2) loss of airplane control because at least one propeller operated in the beta range during flight.

The most recent accident occurred when both engines of a Saab Model 340B permanently lost power after eight seconds of beta range propeller operation. The propellers consequently drove the engines into overspeed, which resulted in internal engine failure.

Communication between the FAA and the public during a meeting held on June 11-12, 1996, in Seattle, Washington, revealed a lack of consistency of the information on in-flight beta operation contained in the airplane flight manual (AFM) for airplanes not certificated for in-flight operation with the power levers aft of the flight idle stop. Airplanes that are certificated for this type of operation are not affected by the above-referenced conditions.

The FAA's Determination

After examining the circumstances and reviewing all available information related to the incidents and accidents referenced above, the FAA has determined that:

All airplanes equipped with turboprop engines (provided the airplane is not certificated for in-flight operation with the power levers aft of the flight idle stop) should have information in the Limitations Section of the AFM that prohibits positioning of power levers aft of the flight idle stop while the airplane is in flight, including