

7. General illumination must be provided so, when measured along the center lines of each tread and landing, the illumination is not less than 0.05 foot-candle. This is in lieu of compliance with § 25.812(c), at Amendment 25–116.

8. Means must be provided to assist passengers in locating the stairway in dense smoke conditions as part of compliance with § 25.811(c), at Amendment 25–88.

9. An emergency exit sign meeting § 25.812(b)(1)(i), at Amendment 25–116, must be provided in the upper deck near the stairway visible to passengers approaching along the main aisle as required by § 25.811(d)(1), at Amendment 25–88.

10. Floor proximity lighting required by § 25.812(e), at Amendment 25–120, must be provided along the stairs.

11. When passengers occupy the upper deck, at least one flight attendant must also be present during taxi, take-off, and landing.

12. The stairway must have a handrail on at least one side to allow occupants to steady themselves during foreseeable conditions, including but not limited to, gear collapse on the ground and moderate turbulence in flight. The handrail(s) must be constructed so there is no obstruction on them that will cause the user to release his/her grip or hinder the continuous movement of the hands along the handrail. Handrail(s) must be terminated in a manner that will not interfere with occupants walking by or create a hazard (such as catching clothing). Boeing must demonstrate that the design can accommodate the stature of a fifth percentile female and a ninety-fifth percentile male.

13. The public address system must be intelligible in the stairway during all flight phases.

14. “No smoking” and “return to seat” signs must be installed and visible in the stairway both going up and down and at the stairway entrances.

Issued in Renton, Washington, on May 25, 2011.

Ali Bahrami,

*Manager, Transport Airplane Directorate,
Aircraft Certification Service.*

[FR Doc. 2011–13433 Filed 5–31–11; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 25

[Docket No. NM439; Special Conditions No. 25–428–SC]

Special Conditions: Gulfstream Model GVI Airplane; Single-Occupant Side-Facing Seats

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final special conditions.

SUMMARY: These special conditions are issued for the Gulfstream GVI airplane. This airplane will have a novel or unusual design feature(s) associated with single-occupant side-facing seats. The applicable airworthiness regulations do not contain adequate or appropriate safety standards for this design feature. These special conditions contain the additional safety standards that the Administrator considers necessary to establish a level of safety equivalent to that established by the existing airworthiness standards.

DATES: *Effective Date:* July 1, 2011.

FOR FURTHER INFORMATION CONTACT: Daniel Jacquet, FAA, Airframe/Cabin Safety Branch, ANM–115, Transport Standards Staff, Transport Airplane Directorate, Aircraft Certification Service, 1601 Lind Avenue, SW., Renton, Washington, 98057–3356; telephone (425) 227–2676; facsimile (425) 227–1320.

SUPPLEMENTARY INFORMATION:

Background

On March 29, 2005, Gulfstream Aerospace Corporation (hereafter referred to as “Gulfstream”) applied for an FAA type certificate for its new Gulfstream Model GVI passenger airplane. Gulfstream later applied for, and was granted, an extension of time for the type certificate, which changed the effective application date to September 28, 2006. The Gulfstream Model GVI airplane will be an all-new, two-engine jet transport airplane. The maximum takeoff weight will be 99,600 pounds, with a maximum passenger count of 19 passengers.

Type Certification Basis

Under provisions of Title 14, Code of Federal Regulations (14 CFR) 21.17, Gulfstream must show that the Gulfstream Model GVI airplane (hereafter referred to as “the GVI”) meets the applicable provisions of 14 CFR part 25, as amended by Amendments 25–1 through 25–119, 25–122, and 25–124. If the Administrator finds that the

applicable airworthiness regulations (i.e., 14 CFR part 25) do not contain adequate or appropriate safety standards for the GVI because of a novel or unusual design feature, special conditions are prescribed under the provisions of § 21.16.

Special conditions are initially applicable to the model for which they are issued. Should the type certificate for that model be amended later to include any other model that incorporates the same novel or unusual design features, the special conditions would also apply to the other model under provisions of § 21.101.

In addition to complying with the applicable airworthiness regulations and special conditions, the GVI must comply with the fuel vent and exhaust emission requirements of 14 CFR part 34 and the noise certification requirements of 14 CFR part 36. The FAA must also issue a finding of regulatory adequacy pursuant to section 611 of Public Law 92–574, the “Noise Control Act of 1972.”

The FAA issues special conditions, as defined in 14 CFR 11.19, in accordance with § 11.38, and they become part of the type certification basis under § 21.17(a)(2).

Novel or Unusual Design Features

The Gulfstream model GVI airplane will incorporate the following novel or unusual design feature: A single-occupant side-facing seat intended to be occupied during takeoff and landing.

Discussion

Section 25.785(b), requires that “each seat * * * at each station designated as occupiable during takeoff and landing must be designed so that a person making proper use of these facilities will not suffer serious injury in an emergency landing as a result of the inertia forces specified in §§ 25.561 and 25.562.” Additionally, § 25.562 requires dynamic testing of all seats occupied during takeoff and landing. The relative forces and injury mechanisms affecting the occupants of side-facing seats during an emergency landing are different from those of standard forward or aft facing seats. Therefore, the FAA has determined that, in addition to the requirements of part 21 and part 25, these special conditions are needed to address this seat installation.

Discussion of Comments

Notice of proposed special conditions No. 25–10–04–SC for Gulfstream GVI airplanes was published in the **Federal Register** on January 4, 2011 (76 FR 291). No comments were received and these

special conditions are adopted as proposed.

Applicability

As discussed above, these special conditions are applicable to the Gulfstream model GVI airplane. Should Gulfstream apply at a later date for a change to the type certificate to include another model incorporating the same novel or unusual design features, these special conditions would apply to that model as well.

Conclusion

This action affects only certain novel or unusual design features of the GVI. It is not a rule of general applicability.

List of Subjects in 14 CFR Part 25

Aircraft, Aviation safety, Reporting and recordkeeping requirements.

The authority citation for these special conditions is as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701, 44702, 44704.

The Special Conditions

Accordingly, pursuant to the authority delegated to me by the Administrator, the following special conditions are issued as part of the type certification basis for Gulfstream GVI airplanes.

In addition to the airworthiness standards in §§ 25.562 and 25.785, the following special conditions provide injury criteria and installation/testing guidelines that represent the minimum acceptable airworthiness standard for single-occupant side-facing seats:

A. The Injury Criteria

1. *Existing Criteria:* All injury protection criteria of § 25.562(c)(1) through (c)(6) apply to the occupant of a side-facing seat. Head injury criterion (HIC) assessments are only required for head contact with the seat and/or adjacent structures.

2. *Body-to-Wall/Furnishing Contact:* The seat must be installed aft of a structure such as an interior wall or furnishing that will support the pelvis, upper arm, chest, and head of an occupant seated next to the structure. A conservative representation of the structure and its stiffness must be included in the tests. It is recommended, but not required, that the contact surface of this structure be covered with at least two inches of energy absorbing protective padding (foam or equivalent), such as Ensolite.

3. *Thoracic Trauma:* Thoracic trauma index (TTI) injury criterion must be substantiated by dynamic test or by rational analysis based on previous test(s) of a similar seat installation.

Testing must be conducted with a side impact dummy (SID), as defined by Title 49, Code of Federal Regulations (49 CFR) part 572, subpart F, or its equivalent. TTI must be less than 85, as defined in 49 CFR part 572, subpart F. SID TTI data must be processed as defined in Federal Motor Vehicle Safety Standard (FMVSS) part 571.214, section S6.13.5.

4. *Pelvis:* Pelvic lateral acceleration must be shown by dynamic test or by rational analysis based on previous test(s) of a similar seat installation not to exceed 130g. Pelvic acceleration data must be processed as defined in FMVSS part 571.214, section S6.13.5.

5. *Shoulder Strap Loads:* Where upper torso straps (shoulder straps) are used for occupants, tension loads in individual straps must not exceed 1,750 pounds. If dual straps are used for restraining the upper torso, the total strap tension loads must not exceed 2,000 pounds.

B. General Test Guidelines

1. One longitudinal test with the SID or its equivalent, undeformed floor, no yaw, with all lateral structural supports (armrests/walls).

Pass/fail injury assessments: TTI and pelvic acceleration.

2. One longitudinal test with the Hybrid II anthropomorphic test dummy (ATD), deformed floor, yaw at 10 degrees, with all lateral structural support (armrests/walls).

Pass/fail injury assessments: HIC; and upper torso restrain load, restraint system retention and pelvic acceleration.

3. Vertical (14g) test with modified Hybrid II ATDs using existing pass/fail criteria.

Issued in Renton, Washington, on May 20, 2011.

Ali Bahrami,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

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BILLING CODE 4910-13-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 25

[Docket No. NM445; Special Conditions No. 25-429-SC]

Special Conditions: Gulfstream Model GVI Airplane; Automatic Speed Protection for Design Dive Speed

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final special conditions.

SUMMARY: These special conditions are issued for the Gulfstream GVI airplane. This airplane will have novel or unusual design features when compared to the state of technology envisioned in the airworthiness standards for transport category airplanes. These design features include a high speed protection system. These special conditions contain the additional safety standards that the Administrator considers necessary to establish a level of safety equivalent to that established by the existing airworthiness standards.

DATES: *Effective Date:* July 1, 2011.

FOR FURTHER INFORMATION CONTACT: Carl Niedermeyer, FAA, Airframe/Cabin Safety Branch, ANM-115, Transport Standards Staff, Transport Airplane Directorate, Aircraft Certification Service, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-2279; electronic mail Carl.Niedermeyer@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

On March 29, 2005, Gulfstream Aerospace Corporation (hereafter referred to as "Gulfstream") applied for an FAA type certificate for its new Gulfstream Model GVI passenger airplane. Gulfstream later applied for, and was granted, an extension of time for the type certificate, which changed the effective application date to September 28, 2006. The Gulfstream Model GVI airplane will be an all-new, two-engine jet transport airplane. The maximum takeoff weight will be 99,600 pounds, with a maximum passenger count of 19 passengers.

Type Certification Basis

Under provisions of Title 14, Code of Federal Regulations (14 CFR) 21.17, Gulfstream must show that the Gulfstream Model GVI airplane (hereafter referred to as "the GVI") meets the applicable provisions of 14 CFR part 25, as amended by Amendments 25-1 through 25-119, 25-122, and 25-124. If the Administrator finds that the applicable airworthiness regulations (i.e., 14 CFR part 25) do not contain adequate or appropriate safety standards for the GVI because of a novel or unusual design feature, special conditions are prescribed under the provisions of § 21.16.

Special conditions are initially applicable to the model for which they are issued. Should the type certificate for that model be amended later to include any other model that incorporates the same novel or unusual design features, the special conditions