

to § 25.562 focused primarily on fore/aft-facing seats. Side-facing seating installations were not adequately addressed for transport category airplanes in this Amendment.

These special conditions are applicable to single-occupant side-facing seats only. They are not intended to be used for multiple-occupant side-facing divans or sofas, as they do not account for possible interaction among the occupants.

#### Type Certification Basis

Under the provisions of 14 CFR 21.17, the Cessna Aircraft Company must show that the Model 680 Sovereign airplane meets the applicable provisions of 14 CFR part 25, effective February 1, 1965, as amended by Amendments 25–1 through 25–98; 14 CFR part 34, effective September 10, 1990, as amended by any amendment in effect on the date of certification.

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 Cessna Model 680 Sovereign airplane because of a novel or unusual design feature, special conditions are prescribed under the provisions of § 21.16.

In addition to the applicable airworthiness regulations and special conditions, the Cessna Model 680 Sovereign 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, and the FAA must issue a finding of regulatory adequacy pursuant to § 611 of Public Law 92–574, the “Noise Control Act of 1972.”

Special conditions, as defined in 14 CFR 11.19, are issued in accordance with § 11.38 and become part of the type certification basis in accordance with § 21.17(a)(2).

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 feature, the special conditions would also apply to the other model.

#### Novel or Unusual Design Features

The Cessna Model 680 offers interior arrangements, which include single-occupant side-facing seat installations. These seats are installed on the LH and RH side of the cabin’s forward section, forward and opposite to the entry door respectively. Dynamic testing of all seats approved for occupancy during takeoff and landing is required by § 25.562. The pass/fail criteria for the testing

developed in Amendment 25–64 to § 25.562 focused primarily on fore/aft-facing seats. Side-facing seating installations were not adequately addressed for transport category airplanes in this Amendment.

#### Discussion

The following injury criteria and testing represent the minimum acceptable standards for certification of the Model 680 single-occupant side-facing seats, and are to be included as requirements in these special conditions. However, the existing requirements call for a “no yaw” test condition. Cessna will demonstrate values of thoracic trauma index (TTI) and lateral pelvic acceleration (LPA) for a “10 degree yaw” for which it has some test data. In this case, Cessna must show the “10 degree yaw” yields results that will only differ slightly from the “no yaw” condition and that these differences would not be of such magnitude as to exceed the maximum allowable.

#### Proposed Injury Criteria

(a) Existing Criteria. As referenced by § 25.785(b), all injury protection criteria of §§ 25.562(c)(1) through (c)(6) apply to the occupants of the single-occupant side-facing seats. Head injury criteria (HIC) assessments are only required for head contact with the seat and/or adjacent structures.

(b) Body-to-wall/furnishing contact. The seat must be installed aft of a structure such as an interior wall or furnishing that will contact the pelvis, upper arm, chest, or 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.

(c) Thoracic Trauma. Testing with a Side Impact Dummy (SID), as defined by 49 CFR Part 572, Subpart F, or its equivalent, must be conducted and TTI injury criteria acquired with the SID must be less than 85, as defined in 49 CFR Part 572, Subpart F. Side Impact Dummy TTI must be processed as defined in Federal Motor Vehicle Safety Standard (FMVSS) Part 571.214, section S6.13.5. Rational analysis, comparing an installation with another installation where TTI data were acquired and found acceptable, may also be viable.

(d) Pelvis. Pelvic lateral acceleration must not exceed 130g, pelvic acceleration data must be processed as

defined in FMVSS Part 571.214, section S6.13.5

(f) Shoulder Strap Loads. Where upper torso straps (shoulder straps) are used for sofa 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.

#### Discussion of Comments

Notice of Proposed Special Conditions No. 25–03–03–SC for the Cessna Model 680 Sovereign airplane was published in the **Federal Register** on May 15, 2003 (68 FR 26237). No comments were received.

#### Applicability

As discussed above, these special conditions are applicable to the Cessna Model 680 Sovereign airplane. Should Cessna Aircraft Company apply at a later date for a change to the type certificate to include another model incorporating the same novel or unusual design feature, these special conditions would apply to that model as well.

#### Conclusion

This action affects only certain novel or unusual design features on the Cessna Model 680 Sovereign airplane. It is not a rule of general applicability, and it affects only the applicant who applied to the FAA for approval of these features on the airplane.

#### 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 the Cessna Aircraft Company Model 680 Sovereign airplane.

The minimum acceptable standards of injury criteria and testing requirements for dynamic certification of the Model 680 side-facing single-occupant seats are as follows:

(a) Existing Criteria. As referenced by § 25.785(b), all injury protection criteria of §§ 25.562(c)(1) through (c)(6) apply to the occupants of the side-facing seats. Head injury criteria (HIC) assessments are only required for head contact with the seat and/or adjacent structures.

(b) Body-to-wall/furnishing contact. The seat must be installed aft of a structure such as an interior wall or