



U.S. Department
of Transportation
**Federal Aviation
Administration**

Policy Statement

Subject: Guidance for Combination
(COMBI) Passenger and Cargo 14 CFR
Part 23/CAR 3 Airplanes

Date: 4/4/2014

Policy No:
PS-ACE-23-07

Initiated By:
ACE-111

Summary

This policy statement describes acceptable compliance methods for demonstrating an acceptable type design for a COMBI airplane.

Definition of Key Terms

In the policy statement below, the terms “must,” “should,” or “recommend” have a specific meaning that is explained in Attachment 1.

COMBI: an aircraft where the certified seating capacity is reduced to carry baggage/cargo in the passenger area with or without a bulkhead.

Current Regulatory and Advisory Material

The basis for this policy is Title 14, Code of Federal Regulations (14 CFR) 21.21(b)(2). Section 21.21(b)(2) is applicable to 14 CFR part 23/ Part 3, Civil Air Regulation (CAR 3) COMBI airplanes. Section 21.21(b)(2) states, “For an aircraft, that no feature or characteristic makes it unsafe for the category in which certification is requested.”

The following Advisory Circular (AC) also applies:

AC 23-17C: Systems and Equipment Guide for Certification of Part 23 Airplanes and Airships

Background

Existing part 23/CAR 3 rules and guidance define requirements for passenger and all cargo airplanes with limited specific regulatory section guidance for COMBI airplanes. The guidance does not adequately define requirements necessary to address a COMBI configuration.

Relevant Past Practice

Project level policy has been used for part 23 Type Certificates (TC) for some COMBI configuration airplanes and Supplemental Type Certificates (STC) for modifications of part 23/CAR 3 passenger airplanes to a COMBI configuration. This policy statement will eliminate the need for future COMBI airplane project level policy memorandums.

Policy

For the issuance of a type certificate for part 23 airplanes or the modification by STC of part 23/CAR 3 passenger airplanes, the following guidance is applicable:

- 1 Airplane must be within the approved center of gravity (CG) limits (14 CFR 23.23 (CAR 3.71)) in any combination of passenger and cargo loading configuration, or the applicant must certify the expanded CG limits.
- 2 For floor loading (14 CFR 23.307 (CAR 3.174)), there must be a limitation in the flight manual to not exceed the maximum certified loads or the applicant must certify to an increased maximum floor loading if the existing load limits are exceeded because of the alteration.
- 3 Cargo loads must meet the g load factors in 14 CFR 23.561 (CAR 3.386).
- 4 Cargo nets, if used, can be an acceptable means to restrain cargo if they are properly designed and installed. A properly designed cargo net must ensure the cargo does not block a required emergency exit when subjected to the loads identified in § 23.561.
- 5 A modification of a passenger airplane cannot remove an approved door/emergency exit; although, a door/emergency exit can be blocked by cargo if sufficient exits per the applicable amendment level of 14 CFR 23.807 (CAR 3.387) remain accessible without obstructions.
- 6 The minimum number of required emergency exits (14 CFR 23.807 (CAR 3.387)) must be accessible to all occupants without obstructions.
- 7 If hazardous cargo is to be carried, special conditions will be needed per the guidance in AC 23-17C. If hazardous cargo is not to be carried, then a limitation in the flight manual is required. Hazardous materials are defined in Title 49, Code of Federal Regulations, part 175. This policy statement changes § 23.855 guidance in AC 23-17C for COMBI projects by not requiring special conditions for a COMBI airplane that does not carry hazardous cargo.
- 8 If the applicant installs a bulkhead between the cargo and passenger compartments, then special conditions regarding fire detection or smoke detection systems will be needed. Fire extinguishing system special conditions will be needed unless there is a door through which a cargo compartment fire can be fought with a handheld fire extinguisher.

- 9 Compliance to § 23.831(b) is required for smoke evacuation if the certification basis includes amendment 23-34 or subsequent.
- 10 Compliance to § 23.851 is required for the number of fire extinguishers onboard if the certification basis includes amendment 23-34 or subsequent.
- 11 For oxygen systems required by 14 CFR 91.211, compliance to §§ 23.1441 through 23.1453 at the applicable amendment level is required for each occupant in any configuration.
- 12 Smoke goggles and protective breathing equipment (PBE) are not required, though they are recommended as non-required equipment.
- 13 Carriage of cargo in the COMBI airplane must meet the requirements of § 91.525 or 14 CFR 135.87 as applicable.
- 14 Placarding must meet the requirements of 14 CFR 23.1557(a) (CAR 3.766(a)).

Effect of Policy

The general policy stated in this document does not constitute a new regulation. Agency employees and their designees and delegations must not depart from this policy statement without appropriate justification and concurrence from the FAA management that issued this policy statement. The authority to deviate from this policy statement is delegated to the Small Airplane Standards Office Manager (ACE-110).

Whenever a proposed method of compliance is outside this established policy, the project aircraft certification office (ACO) must coordinate it with the policy-issuing office using an issue paper. Similarly, if the project ACO becomes aware of reasons that an applicant's proposal that meets this policy should not be approved, the ACO must coordinate its response with the policy-issuing office. Applicants should expect that the certificating officials will consider this information when making findings of compliance relevant to new certificate actions. In addition, as with all guidance material, this statement of policy identifies one means, but not the only means, of compliance.

Implementation

This policy discusses compliance methods that should be applied to type certificate, amended type certificate (ATC), supplemental type certificate, and amended supplemental type certification programs. The compliance methods apply to those programs with an application date that is on or after the effective date of the final policy. If the date of application precedes the effective date of the final policy, and the methods of compliance have already been coordinated with and approved by the FAA or its designee, the applicant may choose to either follow the previously acceptable methods of compliance or follow the guidance contained in this policy.

Conclusion

Based on this policy, COMBI configurations can be approved by TC, or STC. Changes to existing COMBI configurations may be approved by Amended TC, STC, Field Approval (337), or Minor Change.

//SIGNED//

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Attachment

Attachment 1

Terms

Table A-1 defines the use of key terms in this policy statement. The table describes the intended functional impact.

Table A-1 Definition of Key Terms

	Regulatory Requirements	Acceptable Methods of Compliance (MOC)	Recommendations
Language	Must	Should	Recommend
Meaning	Refers to a regulatory requirement that is mandatory for design approval	Refers to instructions for a particular MOC	Refers to a recommended practice that is optional
Functional Impact	No Design Approval if not met	Alternative MOC has to be approved by issue paper.	None, because it is optional