



Federal Aviation Administration

Memorandum

Date: November 6, 2012

To: Manager, Project Support Branch, ACE-112

From: Manager, Small Airplane Directorate, ACE-100

Prepared by: Karl Schletzbaum, Project Support Branch, ACE-112

Subject: Equivalent Level of Safety (ELOS) Finding for Extra Flugzeugproduktions- und Vertriebs- GmbH Model 400-500 Airplane to the Provisions of 14 CFR, part 23, § 23.807(b)(2): Emergency Exits, FAA Project TC00413CE-A

ELOS Memo#: ACE-00-07A

Regulatory Ref: 14 CFR, part 23, § 23.807(b)(2)

This memorandum informs the Project Support Office of an evaluation made by the Small Airplane Directorate on the establishment of an ELOS finding for the Extra Aircraft (EA) Model EA 400-500 Airplane.

The proposed ELOS is an extension of ELOS ACE-00-07, originally issued June 27, 2000.

Background:

The EA 400-500 is a single-engine, six-place turbo-propeller aircraft that features a high wing and a T-tail configuration with an extended vertical fin and a retractable tricycle landing gear and nose wheel. The EA 400-500 is a direct development of the EA 400 aircraft with significant structural commonality. This project involves the conversion of the model EA 400 from a reciprocating engine to a turboprop-powered version and incorporation of a major flight deck upgrade. Validation of this model, identified as EA 400-500 (sales designation EA 500) will result in the modification of existing FAA type certificate number A43CE.

The applicant has requested, through concurrence with European Aviation Safety Agency (EASA), that the previously issued ELOS be extended to this new model. The original ELOS is attached which contains the background and discussions concerning the original ELOS.

Applicable Regulation:

14 CFR part 23, § 23.807(b)(2) at *Amendment 23-36*.

The basic Amendment level of the EA-400 is 14 CFR part 23 at Amendment 45. The requirements of this paragraph are now at Amendment 62, however, the requirements of § 23.807(b)(2) were changed to an extent that would invalidate or negate the need for the ELOS. The amendment level of 14 CFR, part 23, § 23.807, for the new model EA 400-500 remains at Amendment 36, as the design change does not affect this area of the airplane.

Regulations Requiring an ELOS Finding:

14 CFR, part 23, § 23.807(b)(2) at *Amendment 23-36*.

Description of Compensating Design Features:

The compensating design features are described in the attached original issue of ELOS ACE-00-07.

Federal Aviation Administration Approval:

The Small Airplane Directorate concurs that the previously evaluated compensating features justify an extension of the original grant of ELOS to § 23.807(b)(2), which the FAA has evaluated in the project issue paper G-5. No design or regulatory changes have been implemented that would negate the reason for, and effect of, the ELOS.

Earl Lawrence

11/6/2012

Earl Lawrence
Manager, Small Airplane Directorate
Aircraft Certification Service

Date

ELOS Originated by: Project Support Office	Project Support Office Manager: William Timberlake	Routing Symbol: ACE-112
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