



Federal Aviation Administration

Memorandum

Date: March 25, 2010

To: Manager, New York ACO, ANE 170

From: Manager, Transport Airplane Directorate, Airframe/Cabin Safety, ANM-115

Prepared by: Christopher Alfano, ANE 171, Tel: (516) 228-7340

Subject: **INFORMATION**: Equivalent Level of Safety Finding (ELOS) for CL-600-2D24 (RJ-900) Passenger Emergency Exit Marking, FAA Project number AT2587NY-T

ELOS Memo Number: AT2587NY-T-SE-1

Regulatory Ref: 14 CFR 25.811(d)(1), 25.811(d)(2), 21.21(b)(1), 21.101(a)

The memorandum informs the certificate management aircraft certification office of an evaluation made by the Transport Airplane Directorate on the establishment of an equivalent level of safety finding for the Bombardier Aerospace (BA) model CL-600-2D24 (RJ-900).

Background:

An Equivalent Safety Finding was previously granted for the Bombardier Aerospace models CL-600-2B19 (RJ-100/200) and CL-600-2C10 (RJ-700) to permit a single sign to serve both the locator and marker sign functions of Title 14 Code of Federal Regulations (14 CFR) 25.811(d)(1) and (d)(2), Passenger Emergency Exit marking (Main Entry). Because of similarity in the main entry door areas of these aircraft and the CL-600-2D24 (RJ-900), Bombardier has requested an Equivalent Level of Safety (ELOS) in accordance with 14 CFR 21.21(b)(1) and 21.101(a) to permit a single sign to serve both the locator and marker sign functions of § 25.811(d)(1) and (d)(2), Passenger Emergency Exit marking (Main Entry), for the model CL-600-2D24 (RJ-900) airplane.

Section 25.811(d)(1) specifies that the location of each passenger emergency exit must be indicated by a sign visible to occupants approaching along the main passenger aisle (or aisles). There must be (1) A passenger exit locator sign above the aisle (or aisles) near each passenger emergency exit, or at another overhead location if it is more practical

because of low headroom, except that one sign may serve more than one exit if each exit can be seen readily from the sign; (2) A passenger emergency exit marking sign next to each passenger emergency exit, except that one sign may serve two such exits if they both can be seen readily from the sign.

An ELOS was granted by Issue Paper SE-1 dated January 11, 2002, under FAA project number AT2587NY-T. This ELOS found acceptable that one emergency exit sign can serve the purpose of both the marking and locator sign functions of § 25.811(d)(1) and (d)(2), as was previously demonstrated with the CL-600-2B19 (RJ-100/200) and CL-600-2C10 (RJ-700).

Applicable Regulations:

Section 25.811(d)(1) and 25.811(d)(2)

Regulation Requiring an ELOS:

Section 21.21(b)(1) and 21.101(a)

Description of compensating design features:

The compensating factors used to justify the ELOS for 14 CFR 25.811(d)(2) are based on Bombardier Inc. showing there is no difference in the requirements for the CL-600-2B19 (RJ-100/200), CL-600-2C10 (RJ-700) and CL-600-2D24 (RJ-900) relative to § 25.811(d)(2). The relative location of the passenger emergency exit marking with the first row of seats has not changed from the previously approved type design of the model CL-600-2B19 (RJ-100/200) and CL-600-2C10 (RJ-700). TCCA has granted a finding of equivalent safety via TCCA Issue Paper OS-3.

Explanation of how design features or alternative standards provide an equivalent level of safety of the level of safety intended by the regulation

The compensating design features described in Issue Paper SE-1 dated January 11, 2002, under FAA project number AT2587NY-T provide an equivalent level of safety and meet the intention of the regulation. The FAA accepts the Bombardier application for a finding of equivalent safety against § 25.811(d)(2) contingent on meeting the requirements of the Issue Paper listed under the FAA position.

FAA approval and documentation of the ELOS

The FAA has approved the aforementioned Equivalent Level of Safety Finding addressed in issue paper SE-1 approved by Transport Airplane Directorate on dated January 11, 2002 under FAA project # AT2587NY-T. This memorandum provides standardized documentation of the ELOS that is non-proprietary and can be made available to the public. The Transport Airplane Directorate has assigned a unique ELOS Memorandum

number to facilitate archiving and retrieval of this ELOS. This ELOS Memorandum number should be listed on the Supplemental Type Certificate under the limitations and conditions section of the STC Certificate.

Equivalent safety findings have been made for the following regulation(s):

14 CFR 25.811(d)(2)


 Airframe and Cabin Safety Branch, ANM-115
 Manager, Transport Standards Staff

5-7-10

Date

ELOS Originated by NYACO:	Name Christopher Alfano	Routing Symbol ANE-171
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