Federal Aviation Administration

Memorandum

Date: May 31, 2016

To: Manager, Seattle Aircraft Certification Office, ANM-100S

From: Acting Manager, Small Airplane Directorate, ACE-100

Prepared by: Jeffrey A. Morfitt, Small Airplanes Program Manager, Seattle Aircraft Certification Office, ANM-100S

Subject: INFORMATION: Equivalent Level of Safety (ELOS) Finding for Cub Crafters Inc., Model CC19 Airplane, Deviation from Emergency Exit Shape Requirement, FAA Project # TC10279SE-A

ELOS Memo#: TC10279SE-A-C-1

Regulatory Ref: 14 CFR 23.807

This memorandum informs the certificate management aircraft certification office of an evaluation made by the Accountable Directorate on the establishment of an equivalent level of safety finding for the Cub Crafters model CC19 airplane.

Background:

The CC19 is a two-passenger, tandem seat, high wing airplane. The design incorporates a main cabin door under the wing on the right side and push-out window used as an emergency exit on the left side. This window is hinged on the upper edge and opens towards the outside. This design complies with all aspects of § 23.807 with the exception that the shape of the left side emergency exit approximates a 17 by 36 inch rectangle. The ellipse required by § 23.807(b) overlaps this rectangle by approximately 0.81 inches on the top and bottom (see figure 1).

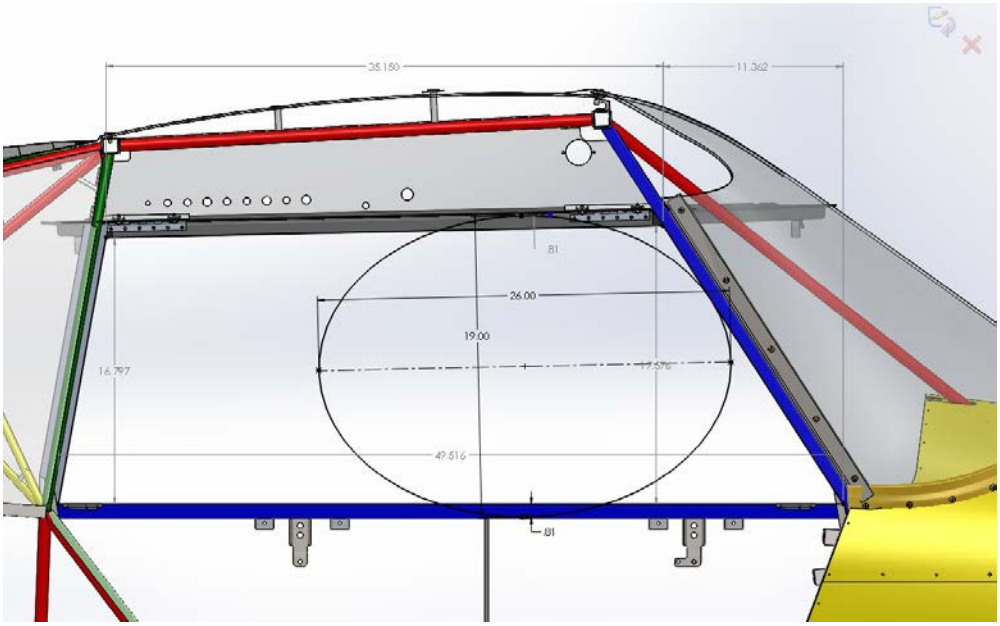

Figure 1 – Emergency Exit shown with 19”x26” ellipse

Applicable regulation:

14 CFR 23.807

Regulations requiring an ELOS finding:

14 CFR 23.807

Description of compensating design features or alternative Methods of Compliance (MoC) which allow the granting of the ELOS (including changes, limitations, or equipment needed for equivalency)

The compensating features include a larger than required area of the left side emergency exit in conjunction with the small amount of deviation from the regulation and a large exit to occupant ratio (two exits and two occupants). Additionally, all exits are useable in all attitudes (upright through inverted).

Explanation of how design features or alternative Methods of Compliance (MoC) provide an equivalent level of safety intended by the regulation:

The CC19 airplane provides two large exits for a two passenger airplane. Also, the exit, which this ELOS applies to, provides a larger area than the 19 by 26 inch ellipse required by regulation. These design features compensate for the small deviation from the 19 by 26 inch ellipse requirement and provides a level of safety greater than the minimum requirement of the regulation.

FAA approval and documentation of the ELOS finding:

The FAA has approved the aforementioned equivalent level of safety finding in project issue paper C-1 for FAA Project Number TC10279SE-A. This memorandum provides standardized documentation of the ELOS finding that is non-proprietary and can be made available to the public. The Accountable Directorate has assigned a unique ELOS Memorandum number (see front page) to facilitate archiving and retrieval of this ELOS. This ELOS Memorandum number must be listed in the Type Certificate Data Sheet under the Certification Basis section (TCs & ATCs) or in the Limitations and Conditions section of the STC. An example of an appropriate statement is provided below.

Equivalent Level of Safety Findings have been made for the following regulation(s):

14 CFR 23.807, Emergency Exits

//SIGNED// May 31, 2016

Pat Mullen, Acting Manager, Small Airplane Directorate, Aircraft Certification Service — Date

ELOS Originated by: Seattle ACO	Manager, Seattle ACO: Ross Landes	Routing Symbol: ANM-100S

Project Officer: Raymond Johnston
ACE-111:TTompkins:05/27/16
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