Federal Aviation Administration

Memorandum

Date: July 25, 2006

From: David A. Downey, Manager, Rotorcraft Directorate, Aircraft Certification Service, ASW-100

To: Manager, Los Angeles Aircraft Certification Office, ANM-150L

Subject: INFORMATION: LifePort, Inc. Equivalent Level of Safety Finding to 14 CFR 27.805(a), 14 CFR 27.805(b), 14 CFR 27.807(a)(1), CFR 27.807(b)(1), 14 CFR 27.807 (b)(2)

The following equivalent level of safety finding (ELOS) for the LifePort, Inc. emergency exit access with an Infant Incubator and Oxygen Containment Shroud for the Bell Model 407 helicopter (ref: Supplemental Type Certification Project Number SA11295LA-R) has been reviewed and approved by the Rotorcraft Standards Staff, ASW-110, via the Issue Paper Process outlined in FAA order 8110.4C. This memorandum, in conjunction with the attached memorandum submitted by ANM-150L, provides standardized documentation of the ELOS finding that is non-proprietary and can be made available to the public. The Rotorcraft Directorate has assigned a unique ELOS Memorandum number to facilitate archiving and retrieval of this ELOS finding. This ELOS Memorandum number should be listed in the Supplemental Type Certificate Data Sheet under the Certification Basis Section.

ELOS SA11295LA-R/C-1	14 CFR 27.805(a), 14 CFR 27.805(b), 14 CFR 27.807(a)(1), CFR 27.807(b)(1), 14 CFR 27.807 (b)(2)

If you have any questions regarding this matter, please contact Ms. Sharon Miles, ASW-111 at (817) 222-5122.

Attachment

Federal Aviation Administration

Memorandum

Date:	July 12, 2006
To:	Manager, Rotorcraft Directorate, ASW-100
	THRU: Manager, Rotorcraft Standards Staff, ASW-110
From:	Manager, Los Angeles Aircraft Certification Office, ANM-100L
Prepared by:	Venessa Stiger, Aerospace Engineer, ANM-150L
Subject:	Equivalent Level of Safety (ELOS) Finding for LifePort, Inc.'s project SA11295LA-R on a Bell 407 Rotorcraft
Reg. Ref.:	§§ 27.805 (a), 27.805 (b), 27.807(a)(1), 27.807(b)(1), 27.807(b)(2)

This memorandum request that your office review and provide concurrence with the proposed finding of Equivalent Level of Safety (ELOS) to the emergency exits requirements of Title 14 Code of Federal Regulations (CFR) part 27 §§ 27.805 (a), 27.805 (b), 27.807(a)(1), 27.807(b)(1), 27.807(b)(2) at Amendment 27-30 for LifePort, Inc.

Background

LifePort, Inc. currently holds a Supplemental Type Certificate (STC) for the installation of the AeroSled Stretcher on the Bell 407 Series rotorcraft. LifePort, Inc. initiated a project to amend their STC to allow for a placard that describes an area that would provide provisions for an Infant Incubator and Oxygen Containment Shroud to be mounted on the stretcher. The proposed area would obstruct the left passenger exit when transitioned aft. 14 CFR 27.807(a)(1) requires each emergency exit to be readily accessible. 14 CFR 27.807(b)(1) requires an unobstructed opening that will admit a 19-by-26 ellipse. 14 CFR 27.807(b)(2) requires the passenger emergency have simple and obvious methods for opening and require no exceptional effort for opening. When the stretcher is transitioned forward to allow for egress, the pilot's left door may not be of sufficient size that provides an emergency exit to allow for the pilot's rapid evacuation as required by 14 CFR 27.805(b) such that there would not be a flight crew emergency exit on both sides of the rotorcraft as required by 14 CFR 27.805(a).

Applicable regulation(s)

The certification basis is defined on Type Certification Data Sheet H2SW, Revision 42, dated June 26, 2006, as 14 CFR Part 27 dated October 2, 1964 Amendment 27-1 through Amendment 27-30 for §§ 27.805 (a), 27.805 (b), 27.807(a)(1), 27.807(b)(1), 27.807(b)(2).

Regulation(s) requiring an ELOS finding

§§ 27.805 and 27.807 at Amendment 27-30

Description/ Explanation of compensating features which provides an ELOS intended by the regulations

Since Lifeport, Inc. does not meet the requirements of §§ 27.805(a), 27.805(b), 27.807(a), 27.807(b)(1), 27.807 (b)(2), the LAACO believes that an equivalent level of safety finding can be based on the successful accomplishment of the emergency evacuation test. LifePort, Inc. conducted the emergency evacuation test on April 28, 2006, on a Bell 407 rotorcraft. The rotorcraft represented the actual Infant Incubator and Oxygen Containment Shroud configuration. Two (2) passengers and a simulated infant exited the left side of the aircraft by way of the left passenger compartment door and the pilot exited the left side of the aircraft by way of the left pilot compartment door. The test demonstrated that the flight crew emergency exit are of sufficient size to allow the rapid evacuation of the flight crew. The test also demonstrated that the passenger exit is an acceptable size and is easily accessible for passenger egress and has simple and obvious methods of opening that requires no exceptional effort for rapid passenger evacuation.

ACO recommendation for approving the ELOS:

The LAACO has determined, based on the aforementioned compensating factors, that the design does provide an overall level of safety for the occupant emergency egress and is therefore equivalent to §§ 27.805 (a), 27.805(b), 27.807(a)(1), 27.807(b)(1), 27.807(b)(2).

Concur

for Signature: _____
Manager, Rotorcraft Standards Staff
ASW-110

Date: 7/27/06

Concur

Signature: _____
Manager, Rotorcraft Directorate
ASW-100

Date: 7-27-06