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Approved ARV



FAA-01-10770-14

February 20, 2002

The Honorable Jane F. Garvey  
Administrator  
Federal Aviation Administration  
800 Independence Avenue SW  
Washington, D.C. 20591

EXECUTIVE SECRETARIAT  
2002 FEB 21 10 33 AM  
OFFICE OF THE  
ADMINISTRATOR

**RE: Final Rule Advisory Circulars (AC) 25.795-1 and 25.795-2**

Dear Ms. Garvey:

We are writing to express USDR Aerospace and Raytheon Aircraft Integration System's strong concerns regarding several areas addressed in the above-referenced document.

- a) Door Cost Estimates: On page 2125 of said document, the FAA has established an upper bound estimate of the cost to procure and install an approved door at \$17,000 USD. This upper bound estimate was determined using the Alaska Airlines and JetBlue Airlines reported solutions. Reference was also made to estimated certification costs necessary to prove compliance at approximately \$0.1 million.

Both USDR Aerospace Ltd. and our partner Raytheon AIS have extensive experience with a wide variety of aircraft modification, alteration and retrofit programs. The upper bound estimate of \$17,000 USD is grossly inadequate to cover the actual cost of a fully compliant secure flight deck door. If this is the actual amount approved for reimbursement to the airlines for compliance with this ruling, then the burden of funding will fall on the already cash-strapped airlines. The FAA has certified neither the Alaska Airline's solution nor the JetBlue Airline's solution to the newly released CFAR 313f.

USDRA and Raytheon AIS have enhanced flight deck door designs currently in development for several aircraft types, all of which will be certified via an STC. The average certification cost necessary to prove compliance for a single aircraft type is over \$400,000 USD, an amount far in excess of the \$100,000 USD referenced. Each of the requisite environmental tests alone are in excess of \$15,000 USD.

Regardless of the aircraft type, each door design requires a decompression venting solution. Although the configuration of the solutions vary, complex sensing and release systems are required, each with a reliability requirement of  $10^{-9}$ . Systems of this type are highly specialized and priced accordingly.

Upon your request, we can provide a cost breakdown to substantiate both our actual certification cost and manufacturing cost. We are, however, confident that your upper bound estimate should be adjusted from \$17,000 to \$35,000 USD.

Currently, the airlines have the option of selecting a Low **Cost Concept** and operating under SFAR 92-2 which does not require conformance to the CFAR. Aircraft operated under SFAR 92-2 are inherently unsafe, particularly in regard to rapid decompression. Most of the strengthened cockpit door designs operating under SFAR 92-2 do not meet the decompression requirements. In the event of a rapid decompression, such as a bird striking and breaking a cockpit window, these aircraft are subject to catastrophic failure and crash. The market price of these unsafe solutions is \$17,000 per aircraft, the exact amount presumed to be available by the federal government for this program. Alternatively airlines may select a certified comprehensive solution from one of several industry-recognized suppliers.

In view of the airlines' current financial crisis, many have no option but to place orders for the low-cost concept, accept the risk of yet another avoidable catastrophe, and hope the FAA will intervene by extending the deadline for compliance or by amending the upper bound estimate in time to cancel the first order and purchase a certified solution. In either case, there is little hope of having a conformed product installed prior to the April 3, 2003 deadline.

- b. Installation Time: In the subject "final circular", the FAA has estimated an install time of overnight or extended overnight and for some aircraft this is possible. However, with the additional provisions now outlined on page 2122 under "flight deck access provisions," the time necessary to integrate the electrical systems required will increase substantially. Airbus aircraft installations are especially affected because there is no existing electrical interface between the flight deck and the door. Furthermore, Airbus has refused to provide any technical data to outside suppliers and they have publicly stated that all Airbus aircraft operators will be required to buy their doors from Airbus. This position is certainly contrary to providing a security solution to the flying public in the most expeditious manner.

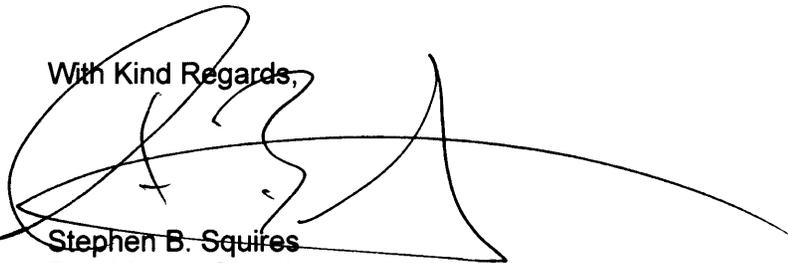
Airbus has informed the airlines that the installation of the Airbus door system will take 160 man-hours. Based on Airbus' history of underestimation, most operators are budgeting in excess of 300 man-hours per installation. If this is the case, the cost to install the door is \$45,000 USD (300 man-hours @ \$150 per man-hour). Given a \$17,000 budget, this leaves a deficit of \$28,000 per aircraft.

If the airlines are not funded to implement fully-approved and certified safe solutions, then they will be forced to accept a compromised solution. In a war where the battlefield has been brought into our commercial air fleet, it would seem imprudent to permit safety to be further compromised.

*The Honorable Jane Garvey*  
*February 20, 2002*  
*Page 3*

In closing, we hope you will accept our sincere appreciation for providing the opportunity to provide our thoughts and comments on this very important topic. We are committed to doing our part in providing a safe, quick and cost-effective solution to this problem. Our team has worked tirelessly towards this goal and we will be more than happy to contribute any additional details that you may require in support of our concerns.

With Kind Regards,



**Stephen B. Squires**  
President, **USDR** Aerospace Ltd.

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