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Docket Management System
U.S. Department of Transportation
Dockets
Room Plaza 401
400 Seventh St., SW
Washington, DC 20590-0001

Subject: Comments to Docket No. FAA-2001-10428 -4

Dear Sir/Madam:

Airbus is pleased to submit these comments in regard to SFAR 89, concerning digital flight data recorder resolution requirements.

The Federal Aviation Administration (FAA) has been notified by The Boeing Company (see Docket FAA-2001-9818) and Dassault Aviation (in memos dated June 25 and 27, 2001, not yet made publicly available) that both manufacturers cannot comply with all of the required resolution requirements required by 14 CFR 25.1459 as detailed in the relevant operating rules of 14 CFR 121, 14 CFR 125, and 14 CFR 135. Airlines who were obligated to comply with these operating rules, and the manufacturers themselves whose aircraft are required to comply with these specified parameters prior to receiving individual certificates of airworthiness, need appropriate relief in order to continue to operate (and certificate) aircraft that otherwise would be in non-compliance with the regulations cited. Airbus concurs in the action taken by FAA to grant relief in the form of suspension of the resolution requirements in question in this matter, and will be pleased to work with the FAA to assist it in determining how best to deal with resolution of the issues involved.

As noted in the preamble to SFAR 89, immediately after publication of the final rule (62 FR 38362, July 17, 1997) Airbus called to the attention of the agency difficulties that it foresaw in complying with certain digital flight data recorder (DFDR) parameters. Airbus had performed a comprehensive audit of all of the DFDR recording requirements applicable to airplanes manufactured by the company and presently in worldwide operation, and noted that certain new (at that time) FAA requirements differed in small measure from those incorporated in Airbus aircraft. Using the normal public rulemaking procedures, Airbus successfully sought to have a number of minor modifications made to the detailed parameter recording requirements so that it, and its customers, could avoid compliance problems at the time of implementation of the rule. Not having been granted membership on the Aviation Rulemaking Advisory Committee working group that drafted the original detailed parameter specifications, Airbus comments about those compliance problems had not been clearly understood by the decision makers prior to final rule publication, and the changes referenced by FAA in the preamble to SFAR 89 rectified those errors.

We note that the FAA has not, by publication of SFAR 89, actually addressed the substance of the compliance requirements with 14 CFR 25.1459 as detailed in the relevant operating rules of 14 CFR 121, 14 CFR 125, and 14 CFR 135, or the technicalities of the specifications themselves that are contained therein. Specifically, there are a number of issues raised in docket FAA-2001-9818 that are, as FAA notes, complex, and the means for their immediate resolution is not clear. In addition to the fundamental question of what specification has been applied to the parameters that are actually being recorded on the airplanes which are subject to the certification and operating rules as codified in 1991 (when resolution requirements were introduced) and modified in 1997, there are even more fundamental questions raised in that docket. The recorded parameters might be at a maximum as good (in terms of range, accuracy, update rate, resolution, etc.) as those which are used as inputs to or outputs from the airplane systems, and sufficiently good to accurately define any other inputs/outputs used for piloting the aircraft, including parameters used for guidance and display. The relationships between resolution, accuracy, and precision of recorded parameters as presented in docket FAA-200-9818 may in fact be useful for one particular manufacturer, but they do not necessarily represent an industry standard or consensus that can be applied to all DFDR systems or specifications. Before FAA adopts such working definitions, if indeed it chooses to do so, we urge that an internationally harmonized approach be sought. It is important to work to converge on a single global specification for DFDR parameter-recording requirements to help obviate problems such as addressed by SFAR 89.

Finally, we urge that FAA consider developing a policy of specifying less detail, rather than more, in equipment requirements that are specified when equipment is required by the operating rules. In this case, the certification regulations and policy of FAA as set forth in 14 CFR 25.1301 and Advisory Circular 20-141 require that the manufacturer (the "applicant") "provide a list of all parameters that the DFDR will record and their specifications (range, accuracy, sampling rate, sampling interval, and resolution). The applicant must demonstrate, by tests, that the [DFDR] meets these specifications." While we concur in the intent of these regulations and policy, the operating rules (as in the instant case) often provide exceedingly detailed specifications with no provisions for deviation even if it is agreed that such deviations are minor and have no substantial affect on safety. We recognize that this specific suggestion is outside the scope of the present deliberations on SFAR 89 but urge that, in its deliberations aimed at resolving the issues presented here, the FAA consider developing a means to deal with minor, non-safety related deviations for additional equipment required by the operating rules without burdening itself with the kinds of rulemaking workload that this regulation has engendered. We will be pleased to cooperate in developing that policy.

Very truly yours,

A handwritten signature in black ink, appearing to read 'H. Ganz', with a large, sweeping flourish underneath.

Hermann Ganz
Director Airworthiness Standards
Product Integrity