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DOCKET NO. FAA-2004-17681, AGING AIRPLANE PROGRAM UPDATE

Dear Sir or Madam,

Airbus thanks the FAA for having accepted to extend the comment deadline on this matter, as was requested in our previous submission dated August 6, 2004. This extension allowed us to thoroughly review the issues involved in the proposed plan, and to prepare comments that we hope will usefully contribute to a satisfactory solution for future aging airplane rulemaking.

While we have no specific comments on the Final Rule extending the date for operators to comply with the special maintenance program requirements for fuel systems, our views on the FAA's aging airplane rulemaking plan are expressed in the attached discussion paper.

Yours sincerely,

(Signature on paper original)

Hermann Ganz
Vice President Airworthiness Standards
Product Integrity Division



Discussion Paper
In Response to
FAA Aging Airplane Program Update
Request for Comments, **Docket No. FAA-2004-17681**

Background:

On July 30, 2004, FAA published (69 FR 45926-45942) the "Fuel Tank Safety Compliance Extension (Final Rule) and Aging Airplane Program Update (Request for Comments)." (Hereinafter, the "proposed rulemaking plan.") Airbus requested and received FAA concurrence for an extension to the deadline initially set to provide comments to the docket on some aspects of the proposed rulemaking plan.

Airbus has no specific comments to offer on the Final Rule extending the date for operators to comply with the special maintenance program requirements for transport airplane fuel systems. Airbus does, however, wish to provide for FAA's consideration, in response to the FAA's discussion of potential forthcoming changes in relation to the Aging Airplane Program, the following points that we hope will be considered in formulating the new policies.

Summary of Airbus comments:

Airbus understands that FAA is considering requiring certificate holders, by a date certain, to provide data that would facilitate operator compliance with new regulations aimed at enhancing safety. Airbus does not believe these change in FAA policy are necessary, or will produce more efficient or effective safety enhancements. Such a new policy would, without any real need, insert FAA directly into what has for decades been considered commercial activity between operators and their aircraft or aircraft modification suppliers. In the case of Airbus the aging aircraft safety enhancements have always been introduced in a voluntary and timely manner without needing a regulation directly applicable to manufacturers.

Airbus believes that, should FAA enact the new policies, they should not be contained in 14 CFR 25, which should be kept as a "static" reference document that can be used both to quickly determine the applicable certification requirements for any product, and as a commercial reference as to what will constitute compliance with 14 CFR 25 on delivery of an aircraft to a customer.

Airbus believes that the FAA will stretch considerably its interpretation of agency authority by requiring this new obligation on the part of manufacturers, since these data are not "necessary for safety." There is not one source, but many sources of these data, the choice among them being one of economics, not safety. FAA has articulated its satisfaction with the existing practice to provide, *inter alia*, operator flexibility using a system that has worked well in past years.

The FAA description of the problems that lead to these proposals outlines a series of issues that Airbus agrees are in need of attention, but they focus almost exclusively on a lack of available FAA guidance to certificate holders and operators, rather than a lack of responsiveness by certificate holders. The solution FAA proposes does not address the issues it presents. In addition, the FAA policy will inevitably create an unmanageable workload in the agency which FAA has not addressed at all. Airbus agrees that there might be a few cases of certificate holder non-cooperation and is willing to work with FAA to develop means to address this possible issue.

Airbus is concerned that FAA thoroughly address harmonization of these proposals, as well as the small business impact of these proposals. There needs to be a way of dealing with small "legacy" fleets of older aircraft for which compliance with the proposals would be unduly costly.

Airbus appreciates the opportunity to provide these thoughts to FAA as it considers these proposals. We look forward to working with FAA in any way we can as FAA sees fit.

The FAA discussion:

FAA indicates that it has recently conducted a comprehensive review of the Aging Airplane Program that included, among other things, a goal of “[ensuring] that design approval holder data supporting operator compliance is available on time...” The proposed rulemaking plan provides an overview of FAA’s findings from that review and discusses additional rulemaking projects it plans related to the review.

In brief, FAA notes that it plans the following:

With regard to the Transport Airplane Fuel Tank System Design Review, Flammability Reduction, and Maintenance and Inspection Requirements, FAA will “...issue guidance to help ensure the design approval holders are fully aware of what is necessary to show compliance with SFAR 88. [FAA] will base this guidance on feedback from both operators and design approval holders. [FAA] intends to contact all design approval holders and provide them with necessary information on [FAA] expectations for determining what maintenance and inspection tasks SFAR 88 requires and when they must provide these tasks. [FAA] will then work with them to ensure their full compliance. This will guarantee that operators have the documents they need to comply with the Fuel Tank Safety Rule's operational rules....”

With regard to the Enhanced Airworthiness Program for Airplane Systems (EAPAS), FAA is “...considering requiring design approval holders for transport category airplanes to make changes to existing Instructions for Continued Airworthiness to improve maintenance information for wiring systems. [FAA is] also considering requiring operators to incorporate these changes into their regular maintenance programs....”

With regard to the Aging Airplane Safety Rule, FAA is “considering proposing a new rule to require design approval holders to develop damage tolerance programs that will support compliance with the rule....”

With regard to a future NPRM on Widespread Fatigue Damage,” FAA is “considering proposing a new rule to require design approval holders to develop ...data and documents [to facilitate incorporation into the FAA –approved maintenance program of a program to preclude widespread fatigue damage]....”

With regard to the general policy changes reflected above, “the FAA is considering proposing new rules to require design approval holders to develop the necessary data and documents to support the operator’s compliance with each of the Aging Airplane Program rulemaking projects....”

“FAA determined that for future operational rules where operators must rely on data or documents from design approval holders, [FAA] will mandate that the design approval holders’ data or documents be developed by a specified date. For the Aging Airplane Program rulemaking projects and other future rulemaking actions related specifically to continued airworthiness, [FAA] decided that the requirements for the design approval holders will be included in a new subpart to Part 25, rather than in an SFAR. This approach will locate all requirements for design approval holders related to the continued airworthiness of transport category airplanes together in one place. [FAA] believe[s] this will be a more efficient organization of those regulations....”

“The FAA plans to create the new subpart and modify the applicability of Part 25 to include requirements for design approval holders as well as applicants for Part 25 design approvals. [FAA] will propose those actions in the individual rulemaking documents.”



Detailed Airbus comments on the policy changes under consideration:

We have a number of issues we hope FAA will consider when developing any new rules as discussed in the proposed rulemaking plan. We would be pleased to discuss these with the agency further at a mutually convenient time.

14 CFR 25 Applicability:

14 CFR 25 has long been a reference document that can be used to define certification requirements, and has been a "static" reference. That is, when application for a type certificate is made, 14 CFR 21 outlines those parts of 14 CFR 25 for which compliance must be shown in order to obtain a type certificate. In other words, knowing the date of application for a type certificate (or a significant change to the type certificate under § 21.101), in normal circumstances one need only review the version of 14 CFR 25 in effect on that date to determine the certification regulations that apply to aircraft built in accordance with that type certificate or amended type certificate. Those regulations in 14 CFR 25 that pertain to airplanes built under that certificate remain unchanged, independent of the individual airplane's delivery date.

For a given type design, this static reference may be complemented by airworthiness directives, in case and only in case of unsafe conditions. General safety enhancements, such as those considered in the proposed rulemaking plan, have so far been promulgated through operational regulations and possibly Special Federal Aviation Regulations (SFAR). The proposed changes would make 14 CFR 25 an evolving set of rules as applied to existing type certificates. No longer would it form a fixed reference to applicable regulations. Retroactive changes would be made to 14 CFR 25 requirements as applied to existing certificate holders.

If FAA is going to have a policy that provides for evolving instructions for continued airworthiness (ICA), we feel strongly that these objectives can be achieved without changing the "static" nature of 14 CFR 25, and urge that FAA consider the use of a new FAR part dedicated to this purpose, or the use of another FAR part, or the continued use of Special Federal Aviation Regulations (SFAR), rather than changing the fundamental nature of 14 CFR 25.

Commercial contracts have long been written that include, as a reference, compliance with 14 CFR 25 at the time of aircraft delivery. This is a common contract reference, based on the long pattern and practice of FAA to have 14 CFR 25 reflect a static requirement whose terms and conditions are known at the time of contract signing. To change this long standing practice is likely to create some substantial difficulties with some existing commercial arrangements, and for future contracts uncertainty about the implications of complying with 14 CFR 25 for the manufacturer. Since it is not necessary to change this long standing practice to achieve the FAA's stated intent to locating all ICA requirements in a single place, we urge FAA to do that outside of 14 CFR 25.

Economic impact of regulatory actions:

The proposed rulemaking plan does not clearly explain whether there would be a general provision in Part 25 to automatically require design approval holders to develop related data whenever an aging aircraft rule is issued, or Part 25 would be amended case by case. The first option is unacceptable, as it would impose on design approval holders undefined future requirements, the cost/benefit impact of which would be unpredictable. We assume that the



FAA intends to assess the impact of each aging aircraft regulatory action, for both operators and type design holders. Anyway, for the reasons explained above, we do not believe that case-by-case changes to Part 25 would be the right solution.

Reach of Legislative Authority; Commercial Considerations:

Airbus acknowledges that FAA has extraordinarily broad and far reaching authority to issue safety regulations. Specifically, in this case, the applicable authority appears to be found in the general provisions of 49 USC 44701(a)(5): "The Administrator of the Federal Aviation Administration shall promote safe flight of civil aircraft in air commerce by prescribing... regulations and minimum standards for other practices, methods, and procedure the Administrator finds necessary for safety in air commerce...."

We note, however, that it does not appear that the development of the kind of data contemplated by the discussion in the proposed rulemaking plan falls into the category of being "necessary for safety in air commerce." By analogy, we make reference to the FAA ICA policy regarding the obligation of certificate holders to provide component maintenance manuals (CMM) to persons "required by this chapter to comply with any of the terms of these instructions...." [14 CFR 21.50(b)] In cases where alternative means are available to maintain an aircraft in airworthy condition, and the CMM provides, e.g., "remove and replace" instructions for those components, the FAA has made it clear that the CMM is not part of the ICA, and therefore need not be furnished by the certificate holder, but should be obtained directly from the supplier to the certificate holder. (See, e.g., FAA Counsel [AGC-210] letter of April 14, 2003, to Alcor Engine Company)

Similarly, the data FAA discusses in the proposed rulemaking plan is not "necessary for safety," since it is clear that such data can be, and often is, obtained from sources other than the certificate holder.

FAA has long recognized the obligation of the operator to maintain aircraft in an airworthy condition. When matters arise that had previously been unknown, and those matters affect safety of flight, FAA places an obligation on the operator to correct the problem in a manner acceptable to the Administrator. As a general rule, the operator then makes a commercial decision to determine the most economical means of implementing the safety enhancement that has been mandated by the agency. In many cases the operator will rely on the manufacturer's data to provide a solution, though this is by no means a universal approach. It is often the case that persons other than the certificate holder develop and obtain FAA approval of data that provides a satisfactory solution.

The data itself is not "necessary for safety," but the solution to the airworthiness problem or the particular safety enhancement is what is "necessary for safety." From whom the operator obtains the data that provides the solution or enhancement is at root a commercial decision. Whether the certificate holder elects to make the substantial investment typically required to develop these data is also a commercial decision. Generally, it is Airbus experience that customer support obligations and other considerations lead to commercial arrangements being developed that provide for the timely development of such data. However, it is also true that sometimes some of the data required to satisfy new FAA rules is developed by others and purchased by operators to satisfy FAA requirements. These commercial factors have historically been dealt with by the industry, without any direct FAA involvement.

To mandate that the certificate holder provide the kinds of data discussed in the proposed rulemaking plan is for the FAA to insert itself directly into commercial decision making. If

FAA is to require that operators use the data to be developed by the certificate holder, then FAA is essentially providing a monopoly market for that data to the certificate holder. If on the other hand the agency mandates that the certificate holder develop the data, but does not require its use by the operator, this provides a dilemma to the certificate holder. FAA in this case would be requiring by rule a substantial expenditure on the part of the certificate holder with no clear understanding of the degree to which that investment would be recoverable. These are new issues that are significant, and involve substantial resource investments. The Airbus experience has been good without FAA intervention in the process. We are concerned that injecting new requirements for the certificate holders would provide a market externality that could result in difficulties. Airbus experience does not indicate a need for these new regulations.

Past Practice:

In the Aging Airplane Safety Rule (67 FR 72726), an airline association comment was summarized by FAA in part as follows: “[I]f necessary, the proposal should be framed as an AD, and ‘manufacturers’ should be required to adapt their maintenance programs. According to the [association], ‘manufacturers’ are in a better position than operators to have the design data and service history required to modify their programs.”

In response, “FAA [did] not agree that ADs should be used to implement the new requirements. The FAA is not issuing this rule to address an unsafe condition. This rule is to ensure the continuing structural airworthiness of air carrier aircraft as they continue in service. Also, this rule will allow operators the flexibility to adjust their maintenance or inspection program based on service history and design review....”

FAA went on to say that “Using operational rules (parts 121, 129, and 135) to mandate inspections, supplemental inspections, and records reviews is compatible with what the FAA has done with other maintenance and inspection programs, such as those specified in the final rule entitled, ‘Repair Assessments for Pressurized Fuselages,’ which was published in the Federal Register on April 25, 2000 (65 FR 24108).”

We concur with the FAA positions cited above, and note that ‘manufacturers’ do not actually have maintenance programs; only operators have approved maintenance programs. The Maintenance Review Board process results in guidelines that, in the US system, are used as a reference to initiate a new maintenance program for a fleet new to a particular operator. As time goes on, however, the individual maintenance programs of each operator are modified to suit their experience and needs, and become quite distinct from one another. In reality, then, there is no ‘manufacturer’s’ maintenance program for a given aircraft, but a collection of different operator maintenance programs approved by FAA for each individual operator.

The FAA practice as reflected in many recent requirements levied on operators is a good one. Airbus has always taken an active part in aging aircraft rulemaking, be it related to structures or systems, and provided its customers with related information and compliance data in advance of actual or even potential regulatory deadlines. Normal commercial relationships between Airbus and operators of Airbus products have resulted in a satisfactory solution to providing data necessary for them to comply with new FAA requirements. Based on our experience, FAA interference in this commercial relationship does not appear to be necessary for safety.

Past Problems:

FAA, in the proposed rulemaking plan, outlines its rationale for the potential future policy change that would require certificate holders to provide specific kinds of analyses and data to, e.g., “support compliance with the rule.” Specifically with reference to SFAR 88, FAA provides the following discussion.

“(1) SFAR 88 requires design approval holders to perform complex analyses and to develop programs from those analyses. These safety analyses identified an unanticipated large number of potential ignition sources and safety features for which the design approval holders must develop associated maintenance and inspection tasks. The design approval holders have not yet fully developed these tasks. Consequently, operators cannot develop their maintenance and inspection instructions without this guidance and information from the design approval holders.”

“(2) When the FAA adopted SFAR 88, we provided guidance on how to perform safety assessments. However, this guidance was not specific enough to help design approval holders comply with the requirement to develop maintenance programs based on these assessments. Because this type of safety assessment had never been performed, we did not fully recognize the complexity of the assessments and their potential outcomes. In some cases, we could not have developed this guidance on maintenance programs until we had the results of the safety assessments.”

“(3) The FAA, the design approval holders and the operators did not share a common understanding of our requirements and expectations for developing these maintenance and inspection instructions.”

FAA then goes on to explain how it intends to address these difficulties.

“[W]e will...issue guidance to help ensure the design approval holders are fully aware of what is necessary to show compliance with SFAR 88. We will base this guidance on feedback from both operators and design approval holders. We intend to contact all design approval holders and provide them with necessary information on our expectations for determining what maintenance and inspection tasks SFAR 88 requires and when they must provide these tasks. We will then work with them to ensure their full compliance. This will guarantee that operators have the documents they need to comply with the Fuel Tank Safety Rule's operational rules.”

“Overall, the FAA's guidance will include developing:

- (1) A compliance plan;
- (2) A means to oversee the progress towards compliance; and
- (3) Possible actions we may take if the design holder does not comply.”

The Airbus experience permits us to agree with the FAA description of the difficulties we all faced during the compliance period for SFAR 88. Airbus notes, however, that despite these difficulties we were able to fulfil our regulatory obligations and submit to the FAA the required compliance documentation in accordance with its originally established schedule, on December 6, 2002. We note, however, that the absence of guidance from FAA prevented the industry (including Airbus) from completing the development of maintenance and inspection tasks that can be used by operators in making changes to their maintenance programs. We also note that we have not yet received a formal acknowledgement from FAA that our submission meets the FAA expectations, or that our recommended solutions to identified unsafe conditions will be adopted by FAA. Despite this absence of guidance from FAA, Airbus is working with the European Aviation Safety Agency (EASA) and has developed (and also provided to FAA) a complete schedule for development and release of ser-



vice bulletins and required service kits to permit all Airbus operators worldwide to incorporate Airbus recommended design changes to effect full compliance with design requirements of SFAR 88 by 2009. This program is well underway.

We agree that the issues raised by FAA are valid concerns. We are at a loss to understand how placing new obligations on certificate holders can resolve them. The SFAR 88 rule as written by FAA was conceptually flawed in its assumption that FAA could develop, outside the AD process using manufacturers' analyses, a series of corrective actions that would then be mandated by FAA and incorporated by operators. FAA has now recognized this, and focused its attention instead on correcting unsafe conditions. But there remain several problems that cannot be addressed by placing new obligations on certificate holders: a lack of FAA guidance on the maintenance and inspection program improvements contemplated by SFAR 88; a lack of FAA guidance on how to perform the FAA mandated safety assessments; a lack of common understanding among affected parties or FAA requirements and expectations for compliance with SFAR 88 maintenance and inspection requirements; and a lack of specific FAA guidance on what constitutes compliance with the new fuel tank design safety requirements of SFAR 88. None of these deficiencies, or similar ones that will be there for aging wiring, aging systems, or aging structures, can be mitigated by placing new requirements on certificate holders. What is needed, instead, is a cooperative working relationship among all parties, aimed at developing agreed requirements for safety improvements and associated compliance guidance *before* establishing new regulations. Absent such clarity of requirements, no amount of new obligations being placed on industry can provide the results sought. These are not problems whose resolution is made easier by placing new obligations on only one party. All three parties—certificate holders, operators, and regulatory authorities—must work together *before rule-making is completed* to provide an effective solution.

FAA workload increases dramatically with the new proposals:

There are perhaps dozens of major variants in the operating fleets of Airbus aircraft. For competitor aircraft, the number of major variants is easily in the hundreds. FAA has discussed concepts for new regulatory requirements in 4 areas: fuel tanks and associated systems; aircraft systems and wiring; aging aircraft structures; and widespread fatigue damage. Thus, we are talking about on the order of a thousand detailed sets of analyses and data packages that would result from a requirement that certificate holders provide for FAA approval (the language of SFAR 88) analyses and data packages that support safety enhancements in these areas. In addition to the aircraft manufacturers, there are other supplemental type certificate holders. For example, we have been informed by informal discussion with FAA specialists that there are over 100 STC holders who are affected by the requirements of SFAR 88. We can imagine similar numbers of STC holders who would be affected by the other 3 rule proposals.

We have detailed experience with the previous work on SFAR 88. We have seen that there is an acute need for agreement on the details of FAA expectations and required methods of compliance *prior* to the rulemaking. This has not been achieved for any of these 4 areas of the proposed rulemaking plan.

Assuming that these technical agreements can be reached and clearly documented to minimize misunderstanding, it is appropriate to consider the workload that would be generated by FAA review and approval of these voluminous data packages. How many FAA specialists have the experience and knowledge to review these packages in the necessary detail? How long will it take for them to complete the tasks?



In fact, we believe FAA must do a thorough estimate of the resources available to provide these reviews and approve these regulatory submissions. From our experience on SFAR 88, when we have not had a formal response to our submission in nearly 2 years, we believe that the workload that would be created by enactment of these new proposals would be overwhelming to the agency.

In addition, it is important to recognize that even if designees were employed to review submissions of certificate holders, there is substantial training and documentation that would need to be developed to bring them up to speed so that they might contribute effectively to the review process.

Finally, when all is said and done, the very act of placing a requirement for review and approval by FAA of certificate holder data and analyses extends substantially the time to achieve compliance by the operators, which is where the safety benefit is to be had. The development of acceptable means of compliance by the certificate holder, submittal of that package to FAA, and review and approval by FAA of the certificate holder data is a time consuming process that only adds to the time required to achieve the safety aim. Past practice has provided a more streamlined way of achieving safety improvements by eliminating the need to independently review compliance by *both* the certificate holder and the operator.

What if the certificate holder does not cooperate?

We are told by various informal communications that, in some cases, certificate holders have refused to cooperate with FAA (and operators) in the development of data on programs such as SFAR 88, reinforced cockpit doors, and repair assessment guidelines. We recognize the frustration that must create inside FAA. We do not believe that problem is widespread, however.

We suggest that transparency of compliance discussions would help avoid future difficulties by making it widely known that certain certificate holders cannot be relied upon to support their products in the event that future safety modifications are required. This would tend to make operators think twice before accepting proposals for future work with these companies. Their decisions in this regard are, as previously noted, economic decisions. They must be willing to face the consequences of those decisions if the selected contractor does not continue to provide the support required to maintain the aircraft in an airworthy condition. In the end, we fully agree with the position FAA outlined in the Aging Airplane Program interim final rule. The existing system as practiced by FAA generally works well, and major changes to it seem to carry more potential for disruption than benefit. We acknowledge, however, that non-cooperation (however rare) is a difficult issue for which we have no immediate solution. We would be happy to work with FAA to try and develop a means of dealing with this difficult issue.

Harmonization:

Airbus products, and those of its competitors, are sold worldwide to operators that use them in a global market. If adopted unilaterally, the contemplated new FAA policies would create obligations for certificate holders to produce very specific kinds of analysis and data packages for use by US operators only. On the other hand, the European Aviation Safety Agency's rulemaking program includes the same subjects as those contemplated in the FAA's proposed rulemaking plan (aging aircraft programs, fuel tank safety, aging systems).

The way those issues would be addressed by the respective Agencies may have a heavy economic and competitive impact on both TC/STC holders and operators.

It is therefore critical that any requirements of the type discussed in the proposed rulemaking plan be considered and possibly developed in a fully harmonized fashion with other aviation authorities, especially the EASA. That is, full discussion with other authorities should precede proposal and adoption of new requirements for safety analyses or changes to the ICA. The alternative is to have a proliferation of requirements that differ in technical detail, requiring multiple compliance packages that add nothing to safety but can add substantially to cost. FAA has the ability to develop this harmonization process, and Airbus will continue to support FAA, EASA and other authorities to facilitate the important task of harmonizing new regulatory requirements. We hope that harmonization will be complete in any rules that result from the areas discussed in the proposed rulemaking plan.

Economic Evaluation; Regulatory Flexibility:

Any rules that apply to “certificate holders” will apply to supplemental type certificate holders, many of whom are small businesses. The Regulatory Flexibility Act of 1980 requires that agencies perform initial and final regulatory impact analyses for rules that have a substantial impact on a significant number of small businesses.

It appears that a change in FAA policy such as that outlined in the proposed rulemaking plan may impact a number of small businesses who are holders of supplemental type certificates. We urge FAA to consider this as one factor in the development of its analysis of alternative approaches to achieving the goal(s) of any future rulemakings on this subject.

Small legacy fleets:

Airbus, like all manufacturers, has the experience of a number of fleets that are approaching (or have reached) retirement age. These fleets of legacy aircraft (for example, the earliest A300 aircraft) do not constitute a significant number of operating aircraft, nor do they log substantial flight time. In the event that FAA made a blanket rule requiring, for example, the development of analyses and data packages that would preclude widespread fatigue damage, the cost of compliance for such fleets on a per-airplane basis would be exorbitant.

The present system places the burden on the operator to make a decision whether or not to have the required analyses and data developed. If the operator and the certificate holder (or another contractor of the operator’s choice) cannot reach agreement on the economic terms of means of compliance with such a rule, then the operator would be forced to retire the aircraft. If taken literally, however, the FAA projects discussed in the proposed rulemaking plan would require the certificate holder to develop such analyses and data regardless of the size of the remaining fleet.

We do not believe this is the intent of FAA, but suggest that it is an area that needs careful consideration. In the past, industry commercial decisions resulted in the resolution of such issues. If FAA changes its policy as outlined in the proposed rulemaking plan, it may result in an extraordinarily costly solution to issues that can otherwise be solved through normal commercial relationship.