

DEPARTMENT OF TRANSPORTATION**Federal Aviation Administration****14 CFR Parts 91, 121, 125, and 129**

[Docket No. FAA-2004-17681; Amendment No. 91-283, 121-305, 125-46, 129-39]

RIN 2120-AI20

Fuel Tank Safety Compliance Extension (Final Rule) and Aging Airplane Program Update (Request for Comments)

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Disposition of comments.

SUMMARY: On July 30, 2004, the FAA extended the date for operators to comply with the special maintenance program requirements for transport airplane fuel tank systems from December 6, 2004 to December 16, 2008. That final rule also included an overview of the findings of the FAA's review of our Aging Airplane Program and the rulemaking actions we plan as part of that program. As part of the final rule, the FAA sought comments on both the fuel tank safety compliance extension and the Aging Airplane Program update. This action is a summary and disposition of those comments received.

ADDRESSES: You can view the complete document for the final rule by going to <http://dms.dot.gov>. You can also go to Room PL-401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

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SUPPLEMENTARY INFORMATION:**Background***General*

The FAA developed the Aging Airplane Program to address structural and non-structural system safety issues that may arise as airplanes age and in response to:

- Airplanes being operated beyond their original design service goals;
- The 1988 Aloha B737 accident; and
- The Aging Airplane Safety Act of 1991.

For purposes of the FAA's review of the Aging Airplane Program, the term "Aging Airplane Program" consists of the following rulemaking projects:

- (1) The Enhanced Airworthiness Program for Airplane Systems;
- (2) The Aging Airplane Safety Rule;
- (3) The Widespread Fatigue Damage Program; and
- (4) The Corrosion Prevention and Control Program.

In addition, the FAA also reviewed the operational rules of the Fuel Tank System Safety Rule (Final Rule), which was issued on April 19, 2001 in response to certain fuel tank system failures, including the 1996 TWA Flight 800 B747 accident. Since there are interactions between the operational rules of the Fuel Tank System Safety Rule and those Aging Airplane Programs being reviewed, we included it in the overall review of the Aging Airplane Program. Therefore, for purposes of the FAA's review of the Aging Airplane Program, the term "Aging Airplane Program" includes the Fuel Tank System Safety Rule.

Aging Airplane Program Update

The FAA recently performed a comprehensive review of the Aging Airplane Program. Based on this review, we decided that:

- (1) We need to realign certain compliance dates in the existing rules and pending proposals to be more consistent; and
- (2) We need to make certain substantive changes to the focus and direction of some of the individual rulemaking projects to ensure that these projects work together.

Therefore, the FAA has decided to revise the Aging Airplane Program accordingly and to align the compliance schedules as nearly as possible. You can find a detailed discussion about our review of the Aging Airplane Program and our conclusions for each of the programs within the Aging Airplane Program in that final rule entitled, "Fuel Tank Safety Compliance Extension (Final Rule) and Aging Airplane Program Update (Request for Comments)" (69 FR 45936, July 30, 2004).

Since the publication of Fuel Tank Safety Compliance Extension and Aging Airplane Program Update, the FAA has completed the following actions with regard to the Aging Airplane Program:

- (1) On August 10, 2004, we issued a withdrawal notice for the Corrosion

Prevention and Control Program Notice of Proposed Rulemaking;

(2) On October 6, 2004, we issued Policy Statement ANM112-05-00 for SFAR 88 (SFAR 88 Policy Statement); and

(3) On January 25, 2005, we issued the Aging Airplane Safety Rule (Final Rule).

Fuel Tank Safety Compliance Extension

During the Aging Airplane Program review, the FAA recognized that the Fuel Tank Safety Rule's compliance date of December 6, 2004 was a problem. The operators needed to start immediate action to meet the Fuel Tank System Safety Rule's requirements by this date but could not do so for several reasons (which we discuss in the Fuel Tank Safety Compliance Extension and Aging Airplane Program Update (Final Rule)). We took action to correct this by extending the compliance date from December 6, 2004 to December 16, 2008 in the Final Rule.

Discussion of Comments

The docket received eleven comments in response to the Final Rule. Air Transport Association filed two separate comments. In addition, Airbus filed one comment and another comment is an FAA summary of telephone conversations between a representative of Airbus and the FAA. Those comments that address the compliance date extension were unanimously supportive. The FAA appreciates the support for its decision to extend the Fuel Tank Safety compliance date, and, after considering the comments, we will take no further rulemaking action with respect to this part of the Final Rule.

As for those comments about the Aging Airplane Program update, they generally support the Aging Airplane Program's safety objectives and alignment plan. They also request clarification on the specifics of the upcoming Aging Airplane Program rulemakings because the Final Rule did not contain details on these projects. For the most part, these comments have already been addressed in the SFAR 88 Policy Statement or will be addressed by the FAA in the context of the specific Aging Airplane Program rulemakings. However, the FAA received several lengthy comments about the proposed Design Approval Holder (DAH) requirements that merit independent discussion.

In the discussion below, the following applies:

(1) *Acronyms:*

- (a) To identify the commenters, we use the following acronyms or abbreviated company names:

- Aerospace Industries Association and General Aviation Manufacturers Association (AIA/GAMA).

- Air Transport Association (ATA).
- The Boeing Company (Boeing).
- Direction Générale de l'Aviation Civile (DGAC) of France.

- General Electric (GE).
- National Air Carrier Association (NACA).

- Transport Aircraft Technical Services Company, Inc. (TATSCI).

(b) Besides the commenter acronyms, we also use the following acronyms:

- Enhanced Airworthiness Program for Airplane Systems (EPAS).

- Design Approval Holder (DAH).

(2) *Section References:* When addressing rule language, all section references will refer to Title 14 of the Code of the Federal Regulations, unless otherwise noted.

(3) *Definitions:*

(a) When referring to the FAA's review of the Aging Airplane Program, "Aging Airplane Program" means those rulemaking projects listed above in the "General" subsection of the "Background" section. When referring to the FAA's future plans for the Aging Airplane Program, "Aging Airplane Program" means the following rulemaking projects (this difference is based on the withdrawal of the Corrosion Prevention and Control Program on August 10, 2004):

- The Enhanced Airworthiness Program for Airplane Systems (Notice of Proposed Rulemaking in development);

- The Aging Airplane Safety Rule (Final Rule issued on January 25, 2005 and Notice of Proposed Rulemaking in development);

- The Widespread Fatigue Damage Program (Notice of Proposed Rulemaking in development); and

- The Fuel Tank System Safety Rule (Final Rule issued on April 19, 2001).

(b) "Aging Airplane Program Update" means that final rule entitled, "Fuel Tank Safety Compliance Extension (Final Rule) and Aging Airplane Program Update (Request for Comments)" (69 FR 45936, July 30, 2004).

(c) "Design Approval Holders" ("DAH") means holders of type and supplemental type-certificates and other FAA design approvals.

(d) "EPAS" means the Enhanced Airworthiness Program for Airplane Systems.

(e) "Fuel Tank Safety Rule" means that final rule entitled, "Transport Airplane Fuel Tank System Design Review, Flammability Reduction, and Maintenance and Inspection Requirements" (66 FR 23086, May 7, 2001).

(f) "DAH Policy Statement" means that policy statement entitled "FAA Policy Statement on New Direction for Addressing Airworthiness Issues for Transport Airplanes" and published in the same **Federal Register** as this Disposition of Comments document.

(g) "SFAR 88" means that part of the Fuel Tank Safety Rule entitled "Fuel Tank System Fault Tolerance Evaluation Requirements."

Response to Comments

Support for DAH Requirements

ATA and NACA support the intent of the new approach to require DAHs to develop data and documents to support operator compliance with the related operational rules.

ATA notes that, historically, rules were adopted with compliance times only applicable to operators. At the time these rules were adopted, there were no compliant data, documents or parts available, and operators absorbed all the schedule risks associated with DAH activities. ATA terms these rules "DCPI" rules because the product must be designed, certificated, produced and installed within the compliance deadline mandated for operators. Operators can only perform installation after they receive a compliant product. ATA identified several examples of DCPI rules: B727 freighter conversion floor airworthiness directives (ADs), metallized Mylar ADs, B737 Rudder Power Control Unit ADs, and the Reinforced Flight Deck Door rule. For Reinforced Flight Deck Door rule, over half of the intended installation period had expired before the FAA approved the first of 22 designs necessary for ATA member airlines. This caused significant airplane availability and economic impacts. ATA believes the FAA's plans for the Aging Airplane Rules would be an appropriate and logical first step to avoid the pitfalls of DCPI rulemaking. ATA states that it is important for the FAA to ensure the compliance periods applicable to operators are planned realistically, effectively supported and reserved solely for the actions of the operators.

NACA also supports requiring DAHs to develop necessary data and continuing airworthiness documents required by operators.

FAA Response: The FAA appreciates the support for its proposed plans for the DAH requirements.

Legal Authority—General

Airbus does not believe the DAH requirements are necessary for safety in air commerce; therefore, Airbus believes the FAA does not have the legal

authority to issue the proposed DAH requirements. Boeing concurs and believes the FAA must show that its regulations are "necessary for safety" to use the authority of 49 U.S.C.

44701(a)(5). Boeing believes there are various methods available for operators to meet their continued operational safety requirements, such as the use of third-party modifiers and engineering centers. Therefore, Boeing states the FAA must show that, in each case, the DAH requirements are "necessary for safety." Boeing also questions if the FAA has the statutory right to add a requirement for DAHs to develop data and documents related to future FAA rulemakings as a condition of initial design approval or the continued holding of a design approval.

FAA Response: The FAA has full legal authority to issue the DAH requirements. This authority is derived from:

(1) 49 U.S.C. 44701(a)(5), which authorizes the Administrator to prescribe "regulations and minimum standards for other practices, methods, and procedures the Administrator finds necessary for safety in air commerce and national security";

(2) 49 U.S.C. 44717, which prescribes regulations that ensure the continuing airworthiness of aging airplanes;

(3) 49 U.S.C. 40113(a), which provides the Administrator with authority to prescribe regulations that she "as appropriate, considers necessary to carry out this part"; and

(4) 49 U.S.C. 40101, which identifies the considerations for determining the public interest in carrying out the statute, including "assigning, maintaining, and enhancing safety and security as the highest priorities in air commerce."

The commenters fail to recognize the broad discretion granted to the Administrator in making a finding that a regulation is "necessary for safety." This finding is not just a factual finding; it is fundamentally a policy finding. In exercising her rulemaking authority, the Administrator must weigh all the options available and decide on the one that she finds most effective in achieving the desired regulatory objective. Her judgment in these matters would be subject to legal challenge only if the decision is "arbitrary and capricious."

We believe the DAH requirements are necessary to ensure proper and timely action to mitigate the identified safety concerns and we are acting under this broad authority in proposing them.

Legal Authority—Source of Data

Boeing and Airbus believe the FAA does not have the authority to specify the source of compliance data for other parties.

FAA Response: As the FAA discussed above in more detail, we have broad statutory authority to impose requirements we find necessary for safety. This includes requirements to ensure that at least one source of data is available to the operators for complying with operational rules that are necessary for safety, even though other sources may be available. The fact that there may be more than one way to fulfill a regulatory objective does not prevent us from adopting one way over another, as long as the method chosen by us is reasonable.

Existing Practice Works Well

Airbus states there is no need to mandate DAH requirements because the existing practice of issuing operational rules works well. Airbus believes that, for the most part, DAHs have always fully cooperated with the operators to develop and make available the necessary data in a timely manner.

Boeing agrees, believing that additional airworthiness requirements for raising the safety level for airplanes in-service belong in operational rules.

AIA/GAMA also agree, stating that the relationship between manufacturers and operators to support the continued airworthiness of airplanes is clearly effective based on the U.S. aviation safety record.

FAA Response: Historically, the FAA has worked with DAHs when safety issues arise to identify solutions and actions that need to be taken. This voluntary cooperative process has addressed some of these safety issues successfully.

However, recent discussions with various operators have confirmed that DAH support of operators for compliance with operational rules has occasionally been lacking. DAHs have not always developed and made available the service information needed for operators to modify airplanes or revise programs to comply with operational rules or airworthiness directives in a timely, efficient manner. This has resulted in delays in adopting corrective action. Some examples of programs in which some DAHs did not develop and make available the necessary information in a timely manner include:

(1) Thrust reversers, where it took 10 years to develop some service information for airworthiness directive related actions;

(2) Operators are still awaiting DAH action to assess repairs in certain Structural Repair Manuals for damage tolerance, even though the DAH committed to completing this activity by 1993;

(3) Class D to Class C Cargo Conversions, where one TC holder did not develop the necessary modifications in time to support operator compliance and where several operators were unable to obtain timely technical support and modification parts from STC holders; and

(4) The Reinforced Flight Deck Door Program, where most operators had substantially less than the 1-year compliance time originally anticipated because of delays in developing and certifying the new designs.

For the Aging Airplane Program rulemaking proposals, clearly operators will not be able to comply with several provisions of the operational rules without data and documents from DAHs. Since the Aging Airplane Program addresses several critical safety issues, the FAA believes that we cannot take the risk that this may be one of the occasions when DAH support is lacking. A regulatory approach will ensure the timely development of necessary service information to allow for the orderly and efficient implementation by operators. This will then result in a more uniform and speedy response to the safety issues covered by the Aging Airplane Program.

Therefore, the FAA believes DAH requirements are necessary to support the safety objectives of the Aging Airplane Program.

Clarification on Use of DAH Requirements

ATA, Boeing and AIA/GAMA ask the FAA to clarify the circumstances under which the FAA will use the DAH requirements and how the FAA will then apply these requirements.

AIA/GAMA believe the DAH requirements should be imposed only when necessary to address an unsafe condition and, then, only on a case-by-case basis. They also suggest the use of ATA's Spec 111, "Airworthiness Concerns Coordination Process," or an equivalent, to ensure the FAA and affected operators and manufacturers work together to define the continued airworthiness issue to be addressed.

FAA Response: The DAH Policy Statement sets forth those factors the FAA will consider when determining if DAH requirements are needed to support a safety objective. We intend to use the DAH requirements to address "airworthiness issues" that are broad, fleet-wide safety issues. These issues would not relate to specific type

designs. This rulemaking approach, when applicable, can provide for a more managed and less burdensome implementation of the safety initiative.

The individual Aging Airplane Program rulemakings will clearly describe the fleet-wide safety concerns and airworthiness issues that each rulemaking addresses. About the use of Spec 111 or an equivalent, the FAA agrees that DAHs should work closely with operators in complying with DAH requirements to ensure they adequately meet the operators' needs. We intend to work closely with industry to ensure compliance with the DAH requirements.

Each DAH Requirement Should Be Issued as a Proposed Rule

AIA/GAMA believe that each new DAH requirement should be issued as a proposed rule. This would ensure the appropriate due process and regulatory assessment necessary to determine the appropriateness and adequacy of the rule.

FAA Response: The DAH Policy Statement sets forth the actions the FAA will take to propose and then implement any DAH requirement.

Approach Is Shift in FAA Regulatory Philosophy

AIA/GAMA state the proposed DAH requirements represent a significant shift in the FAA's philosophy about the regulatory responsibility of manufacturers and operators for the continued airworthiness of airplanes. They also state that DAH requirements would force DAHs to comply with requirements other than those in effect at the time of the original certification of the airplane. This evolving set of requirements would introduce new challenges in production, certification, export, and commercial business relationships.

Boeing agrees, stating the DAH requirements would transfer some of the continued operation regulatory responsibilities from the operators to DAHs. In addition, the DAH requirements would cloud the responsibilities between DAHs and the operators.

FAA Response: Because the commenters do not yet have the specific details of each rulemaking initiative of the Aging Airplane Program, their concerns may be based on a mistaken assumption about the scope of the new DAH requirements. For the most part, these DAH requirements only require DAHs to develop documents that they have already agreed to develop.

The FAA does not believe the DAH requirements are a significant shift in our philosophy about the responsibility

of manufacturers and operators for the continued airworthiness of airplanes. Under current operational rules, operators always have final responsibility for maintaining their airplanes in a condition that allows for their continued safe operation. The DAH requirements do not affect this responsibility.

However, the operators are not solely responsible for the continued airworthiness of airplanes. The DAH requirements simply document in the regulations the existing non-regulatory shared responsibility that DAHs have acknowledged they have for continued airworthiness. DAHs will now be legally required to support their products by making available documents and data to the operators that they need to meet their airworthiness obligation.

Therefore, the complementary DAH and operator requirements of the Aging Airplane Program rulemaking proposals will clarify the airworthiness responsibilities between the operators and DAHs. In most cases, the DAH is required to develop and submit data and documents to the FAA for approval by a certain date. This will allow the operators enough time to use these data and documents to comply with the operational rules. The advantage of this approach over the past approach (that is, adopting only an operational requirement) is that everyone will clearly understand when the DAH data and documents are to be submitted for our approval. The specific rulemaking proposals and associated guidance material will also clarify what content and format these data or documents must be in and to whom the information must be submitted.

While we agree that this approach imposes new challenges on DAHs, they have already agreed to undertake most of these challenges voluntarily. The DAH requirements will simply ensure that they meet those challenges in time to assist the operators. We consider this necessary for safety.

Conflict With Existing Regulations

AIA/GAMA state there is a conflict with 14 CFR 21.99, which clearly states the continued airworthiness safety requirements for DAHs. Paragraph (a) requires the holder to make changes necessary to correct an unsafe condition. Paragraph (b) allows DAHs to make changes that will contribute to the safety of the product where there are no unsafe conditions. AIA/GAMA believe the new approach would require DAHs to make changes where there are no unsafe conditions to correct.

FAA Response: Although 14 CFR 21.99(b) allows design changes by the

DAH to enhance safety, industry advisory committees, of which the commenters were participants, have recommended rule changes to require operators to take actions necessary for safety. For the Aging Airplane Program rulemakings, the FAA is requiring DAHs to develop data and documents to support operators in complying with these requirements. We do not believe this is a conflict with § 21.99. Instead, we believe it is an extension of our prior use of this section. Section 21.99 establishes the obligation for DAHs to develop data necessary to address unsafe conditions. These rules would extend that obligation to other circumstances where their support is necessary for safety.

Non-Regulatory Solutions Should Be Pursued First

Boeing believes the FAA should pursue non-regulatory solutions first. Boeing notes that there have been cases where the FAA has been unhappy with the time it took for DAHs to develop data and documents to assist the operators in meeting regulatory compliance dates. However, Boeing states that some of those problems were a result of unrealistically short compliance dates that did not consider other conflicting priorities. Boeing believes that mandating these unrealistically short dates will not solve the issues the FAA is trying to address. Boeing also states that the FAA does not consider the cumulative burdens of its rulemaking initiatives. Therefore, Boeing suggests the FAA should instead develop a process to more fully understand the time constraints associated with developing data and documents so they can establish more realistic compliance dates.

FAA Response: The FAA infers that Boeing believes the related operational rules are appropriate, but wants non-regulatory solutions for providing the data and documents to the operators so they can comply with the operational rules. The FAA understands Boeing's rationale to be that if the FAA identified realistic compliance times, then there would be no need for rules mandating development of the data and documents to support operator compliance. Therefore, the DAH requirements would be unnecessary.

For the Aging Airplane Program rulemaking proposals, operators will not be able to comply with several provisions of the operational rules without data and documents from DAHs. Since the Aging Airplane Program addresses several critical safety issues, the FAA believes that we cannot take the risk that this may be one of the

occasions when DAH support is lacking. A regulatory approach will result in a more uniform and speedy response to the safety issues covered by the Aging Airplane Program. Therefore, the FAA believes DAH requirements are necessary to support the safety objectives of the Aging Airplane Program. In each of the specific Aging Airplane Program proposals, we will specify why we believe the DAH requirements are necessary.

The FAA does not agree that compliance times for rulemaking proposals have been unrealistic, in general. The FAA strives to identify the best times for compliance that assume sincere efforts from industry to comply with the requirements (for example, assigning satisfactory resources, working with the FAA to clarify compliance methods). When developing compliance times for rulemaking actions, we also consider industry input, both from advisory committees and comments received to rulemaking proposals.

For the Aging Airplane Program, the FAA has assessed the cumulative effect on industry of multiple regulatory actions. As discussed in the Aging Airplane Program Update, one of the goals of the FAA's review of the Aging Airplane Program was to identify how to most effectively align the rulemaking proposals to ensure there was no overlapping or redundant requirements. As a result of that review and in consideration of the cumulative impacts, we have proposed changes to the Aging Airplane Program based on the impact of multiple compliance dates and the demands placed on both DAHs and the operators.

No Precedent for Placing a Regulatory Burden on DAHs

Boeing believes the FAA has not placed an associated regulatory burden on DAHs when it previously issued retroactive safety standards.

FAA Response: When the FAA issued SFAR 88, we did place an associated regulatory burden on DAHs to support the operators' compliance with the fuel tank safety operational rules. Therefore, there is precedent for the proposed DAH requirements.

Section 21.21 Excludes Compliance With Additional Airworthiness Requirements

Boeing states that § 21.21 excludes compliance with any additional airworthiness requirements in the operational rules as a condition for issuance of a type-certificate or changed type-certificate approval.

FAA Response: The FAA does not agree that § 21.21 excludes compliance with additional airworthiness requirements. As stated above, we have the statutory authority to require actions of DAHs to ensure an acceptable safety level is maintained in the fleet. Sections 21.21 and 21.17 also allow for certain later amendments or regulations to be applied to design changes as appropriate.

Reason for DAH Requirements

Airbus and AIA/GAMA question the reasons that led to the development of the DAH requirements.

FAA Response: The DAH Policy Statement sets forth the reasons why the FAA believes the DAH requirements are necessary for the Aging Airplane Program rulemakings.

Part 25—Support for Placement

The FAA received several comments about the placement of the DAH requirements in part 25. While ATA supported this choice, other commenters objected to the use of part 25 and suggested the following alternatives: (1) Part 21 (Boeing, Airbus and AIA/GAMA), (2) a new SFAR (Boeing and AIA/GAMA) and (3) a new part (AIA/GAMA).

FAA Response: The FAA originally believed the proposed location of the DAH requirements in part 25 was a straightforward and effective means of ensuring that the data required to support compliance with the operational rules would be developed and provided to the operators. However, based on the comments received on the Aging Airplane Program Update and our own internal discussions on the subject, we now recognize that part 25 may not be the best location for the DAH requirements. In addition, in conversations with the other regulatory authorities, the FAA has become aware of some procedural difficulties these authorities may experience if certain DAH requirements are in part 25.

Since we have already developed the NPRMs for the Aging Airplane Program rulemakings, these NPRMs will likely identify part 25 as the location for the DAH requirements even though we are now considering other alternatives. As part of the public comment process for these rulemakings, we will seek input about alternative locations for the DAH requirements. We will make any appropriate changes when we develop the final rules. Each of the final individual Aging Airplane Program rulemakings will say where we will place the DAH requirements associated with that rulemaking, along with a justification for this choice.

Part 25—“Retroactive” Requirements

GE is concerned that the FAA intends some future part 25 requirements to be “retroactive.” GE believes this is a major departure from established practice.

FAA Response: “Retroactive” regulations are not a new practice. In fact, we have already used part 25 for such a regulation when, in 1990, we added § 25.2 to part 25. This section contains special retroactive requirements for each applicant for a supplemental type-certificate (STC)(or an amendment to a type-certificate (ATC)), irrespective of the date of application. For example, affected STC or ATC applicants would need to comply with a requirement related to door locking mechanisms (§ 25.783(g)) in effect on October 25, 1967, even if the airplane was certified to earlier regulations. As discussed earlier, GE is correct that, regardless of location, we do intend to adopt requirements applicable to holders of existing design approvals. While these requirements may appear “retroactive,” they would require DAHs to take actions prospectively.

Part 25—Potential Impact on Delivery Contracts

Airbus states that placing the DAH requirements in part 25 could impact airplane delivery contracts because they commit DAHs to compliance with part 25.

FAA Response: Without access to the airplane delivery contract language referred to, the FAA cannot respond to Airbus’ concern specifically. We have tried to structure the DAH requirements to mirror the existing requirements of §§ 21.50 and 21.99 for DAHs to “make available” certain documents. Contractual relationships between DAHs and operators already recognize this type of requirement. Using the same terminology, the DAH requirements will impose an obligation on DAHs to make certain data and documents available to the operators. However, as noted earlier, the placement of the DAH requirements is currently under review.

Compliance—General

Boeing, GE and AIA/GAMA raise several issues about compliance with the DAH requirements.

FAA Response: As stated in the DAH Policy Statement, whenever the FAA proposes and then issues a DAH requirement, we will clearly specify (1) what data, documents or action are required to comply with that DAH requirement, (2) the acceptable methods for attaining compliance, (3) who has the burden of compliance and (4) how

compliance should be demonstrated to us.

Compliance—Enforcement Policy

Boeing, GE and AIA/GAMA ask the FAA to define its enforcement policy should it conclude a DAH has failed to comply with the DAH requirements.

FAA Response: The FAA’s general enforcement policies, which are set forth in 14 CFR part 13 and FAA Order 2150.3, will apply to the DAH requirements. These general policies provide wide discretion for us to impose administrative action, fines (up to \$25,000 per violation per day) or action against a DAH’s certificate (including suspension or revocation). If a DAH is found to be non-compliant, we will consider the circumstances of non-compliance before determining an appropriate course of action. For example, deliberate violations will be treated more severely than inadvertent noncompliance. So, any enforcement action the FAA may choose to take will be in consideration of the circumstances of the violation and defined on a case-by-case basis.

Compliance—Realistic Dates

ATA states that it is important the FAA ensures compliance periods applicable to operators are planned realistically, effectively supported and reserved solely for the actions of the operators. ATA recommends that phased scheduling may be required in cases where the development of a product by a supplemental type-certificate (STC) holder cannot be accomplished or approved until the type-certificate (TC) holder develops a baseline. ATA believes this approach should allow the original DAH or an applicant to develop compliant solutions.

FAA Response: The FAA recognizes that compliance with the operational rules is dependent on FAA approved data being made available to operators in a timely manner. The primary objective of the proposed DAH requirements is to ensure that this data is developed and made available to operators in a timely manner.

The FAA is developing compliance dates that recognize the roles played by the various parties affected by the Aging Airplane Program rulemaking proposals and the fact that compliance can be dependent on the prior action of other parties. For example, for the DAH requirements, we will have separate compliance dates for DAHs and the operators, with reasonable gaps between these dates. We recognize that sometimes STC holder compliance will be dependent on information developed

by TC holders. In those cases, we will provide STC holders a suitable amount of time after TC holder compliance is required.

Applicability—Non-Existent DAHs

Boeing states the DAH requirements set an unbounded precedent to place regulatory burdens on the DAH for as long as a particular model is in operation, even after the DAH has ceased to exist.

Airbus and AIA/GAMA believe that it is inappropriate for the FAA to impose requirements on DAHs to support operators because this approach does not work for DAHs who are out of business or have surrendered their type-certificate.

FAA Response: The FAA expects that existing DAHs will support developing data related to their airplanes no longer in production if that model is still in operation. We do not believe that this obligation is a new precedent, as a continuing operational safety burden on DAHs and the operators already exists. Whether we address this burden via airworthiness directives or new rules is dependent on the urgency and scope of the safety issue and the ability to manage the safety risks. The rulemaking approach, when applicable, can provide for a more managed and less burdensome implementation of the safety initiative.

As for the comments about DAHs that no longer exist, while a technical obligation would be on that DAH to comply with the DAH requirements, there would be no means to enforce this obligation if the DAH no longer exists. In this case, the burden will fall on the operators of these airplanes to develop the data necessary to comply with the operational rules of the Aging Airplane Program rulemakings. To accomplish this, there may be some cases where operators may need to contract with a third party to develop and make this data available.

Applicability—Affected Models

Boeing, Airbus, GE and AIA/GAMA raise several comments about which airplanes the DAH requirements would apply to.

FAA Response: As stated in the DAH Policy Statement, whenever the FAA proposes and issues a DAH requirement, we will clearly specify in the applicable rulemaking which airplanes and the types of operations that the DAH requirement covers.

The commenters raise various issues that they believe we should consider before deciding which airplanes should be affected. These include fleet size, whether an airplane is still in

production, and “as-delivered” versus “in-service” models. The DAH Policy Statement addresses some of these questions generally. We will consider issues like these in a specific context when determining the applicability of any DAH requirement.

Applicability—Burden on Every DAH

Boeing asks the FAA to place an appropriate burden on every DAH. Boeing goes on to state:

(1) The term DAH includes holders of type-certificates (TC), supplemental type-certificates (STC), technical service orders authorizations (TSO) and parts manufacturing authorizations (PMA). Boeing believes that if the approved designs are affected by an operational rule for which the FAA mandates DAH data and documents, the other DAHs should have similar mandates (not just the type-certificate holders).

(2) STC holders have essentially the same design and continued operational safety responsibilities as the TC holder. Furthermore, STC modifications can be very extensive (for example, adding cargo doors, converting airplanes from passenger to all-cargo configurations, upgrading cockpit designs).

(3) TSO holders alone possess the knowledge necessary to develop the data and reports for their FAA-approved products.

FAA Response: The FAA agrees that we must address the “appropriate DAHs” in each of the Aging Airplane Program rulemaking proposals. This is one reason we are using a regulatory approach, rather than relying on voluntary actions. Defining the “appropriate DAHs” is an issue-specific determination. For some of the safety initiatives, we will include STC as well as TC holders. However, since a TSO product becomes part of the TC for a specific airplane design, we do not anticipate addressing TSO holders separately from TC holders unless there are safety issues related to specific TSO articles.

As for PMA holders, they provide replacement or modification parts. For replacement parts, PMA parts would not have different considerations from TC holders’ parts. The specific rulemaking proposals may address PMA modification parts. If the FAA determines it is appropriate to impact these DAHs in future rulemaking initiatives, we will define that in the specific rulemaking proposal.

Applicability—Effect on TSO Holders

Boeing believes the holder of a Technical Service Order Authorization (TSO) is also an equally affected DAH,

and TSO requirements are not in part 25.

FAA Response: The FAA does not agree that a TSO holder is necessarily an equally affected DAH for purposes of DAH requirements. A TSO article becomes part of the type design of the affected product, and a TC applicant for a transport category airplane must show that its product meets all applicable part 25 standards, including those relevant to the TSO article. The issues addressed by the Aging Airplane Program’s rulemaking proposals relate to structural and wiring integrity and do not affect TSOs directly. Therefore, these proposals will not consider TSO holders separately. In the future, if we decide that fleet-wide airworthiness issues do affect TSO articles, we would consider adopting DAH requirements that apply specifically to TSO authorization holders.

Applicability—Impact on Small Businesses

Airbus and AIA/GAMA believe the FAA should consider the impact to small businesses in its analysis of alternative approaches to achieving the rulemaking objectives. They each note that many of the supplemental type-certificate holders are small businesses that must be considered in the regulatory impact analyses, in accordance with the Regulatory Flexibility Act of 1980 (RFA).

FAA Response: The FAA recognizes that the RFA requires us to determine whether a rule will have a significant economic impact on a substantial number of small entities. When there is a significant economic impact on a substantial number of small entities, the RFA then requires us to consider alternative approaches to achieve the rulemaking objectives.

As part of each Aging Airplane Program rulemaking initiative, the FAA will perform a RFA analysis to determine the proposed rule’s impact on small businesses and will proceed accordingly based on the results. Each of the Aging Airplane Program rulemaking proposals will contain a full discussion of this analysis and our findings. In addition, the public will have the opportunity to comment on this analysis and our findings.

Source of Data—DAHs Versus Other Sources of Support

Boeing and AIA/GAMA are concerned that the FAA does not state any intent to require operators to only use the data generated by DAHs. Boeing and Airbus also believe that it would be either inappropriate or unfair to impose requirements on DAHs when other

sources could offer the requisite support.

FAA Response: The FAA recognizes that DAHs may not be the only source of the data needed by the operators to meet their obligations under the Aging Airplane Program. If third parties can develop the required data or documents on their own, the FAA is not precluding their involvement in the process. If we required the use of DAH data only, we would be limiting the flexibility normally allowed operators and establish a monopoly in favor of DAHs. This would be an unacceptable outcome.

Furthermore, we believe DAHs should have an advantage over third parties. We base this on the fact that they have all the original data necessary to evaluate the current design and develop modifications or programs that will enable them to show compliance with the operational rules. Sometimes, only DAHs have the data necessary to develop the information needed for operator compliance. Third parties interested in offering competing solutions would need to get that data from DAHs through licensing agreements (which would likely involve compensation to DAHs). In both ARAC (for WFD) and ATSRAC (for EAPAS), DAHs have acknowledged that only they have the necessary data to develop the required programs (and they have agreed to do so). Therefore, in these areas, DAHs will be the only source of certain data and documents by default.

For DAH requirements that may involve development of design modifications, it is possible that third parties would be competitive with DAHs. But in some cases, these rules would also require that airplanes produced after a certain date incorporate the modification. So, DAHs would have to develop the modification for any model still in production. This would enable DAHs to amortize their development costs over a larger fleet. This would provide another competitive advantage over third parties, who could only amortize their costs over the existing fleet in need of retrofit.

The FAA recognizes there is a potential for third parties to also develop and make available some of the necessary support to the operators. However, we believe it is necessary to adopt DAH requirements to ensure the appropriate data is available in a timely manner for the operators to comply with the operational rules of the Aging Airplane Program.

If a DAH decides that third parties can provide a better market solution for compliance, the DAH requirements would not prohibit it from outsourcing

the development of the data and documents. This is a common practice for DAHs in certification and has been used before to support other operational rules (for example, the reinforced flight deck door program).

Guidance—Material Requested

Boeing recommends that the FAA consider releasing policy and associated guidance material concurrent with, or within three months of, any future rules. Boeing also states that they would expect that any policy, guidance, schedule or penalty proposed by the FAA would include public review before implementation. ATA agrees, suggesting the FAA publish guidance material before, or concurrently with, the publication of the proposed and final rules.

FAA Response: As stated in the DAH Policy Statement, the FAA will publish guidance materials associated with the safety initiatives concurrently with the proposals, or shortly thereafter, so industry can evaluate all of the related materials and provide comprehensive comments to the FAA. For the Aging Airplane Program rulemaking proposals, the FAA intends to draft guidance materials for comment concurrently with the applicable notice of proposed rulemaking or as soon thereafter as possible. In addition, we also intend to publish the final guidance materials concurrently with the applicable final rules or as soon thereafter as possible.

Effect on Business Arrangement Between DAHs and Operators

Airbus, Boeing and AIA/GAMA state that it is inappropriate for the FAA to impose requirements on DAHs to support operators because these requirements have the possibility of changing the business relationship between operators and DAHs.

FAA Response: The FAA does not intend to adversely impact the business relationships between DAHs and the operators and we believe the proposed DAH requirements do not have this effect. In fact, we believe these requirements actually build on the existing relationship between operators and DAHs. However, since the commenters do not provide any justification or rationale for their belief, we cannot address their specific concern.

Effect on the Legal Relationships for Product Liability

AIA/GAMA state the DAH requirements proposal will have a substantial effect on the legal relationships between DAHs, suppliers and operators for product liability.

FAA Response: AIA/GAMA do not provide any justification or rationale for its statements that the DAH requirements will have a substantial effect on the legal relationships between DAHs, suppliers and operators for product liability. The FAA requests that AIA/GAMA provide additional information on this subject as part of its comments to any of the Aging Airplane Program rulemaking proposals so we can respond to AIA/GAMA's concerns.

FAA Will Be Regulating Commercial Air Commerce Financial Interests

Boeing believes the DAH requirements place the government in the position of regulating commercial air commerce financial interests, which was supposedly abandoned with deregulation.

FAA Response: The FAA does not agree that the proposed DAH requirements place the government in the position of regulating commercial air commerce financial interests. These rules will require DAHs to develop data and documents to be made available to the operators to support compliance with operational rules. The requirement for making data and documents available has a precedent in §§ 21.50 and 21.99, which do not regulate financial interests.

As we stated before, we recognize that other parties could offer support for compliance with the operational rules of the Aging Airplane Program. However, we cannot predict whether third parties will choose to participate in those areas where the operators need support to comply with those operational rules. Therefore, it is necessary to ensure there is at least one source of timely support. While third parties could support the operators, because DAHs hold all the underlying type design data, they are the appropriate ones to identify as the ultimate source of support.

Need To Address Intent and Regulatory and Commercial Issues

Boeing believes the FAA avoided any reference to DAHs providing the required data or documents to anyone. If the FAA decides DAHs must provide these items to the operators, Boeing contends the FAA must consider the significant additional regulatory and commercial issues associated with that choice and include them in the Aging Airplane Program rulemakings or guidance material.

FAA Response: It is the FAA's intent to require DAHs to develop the necessary data and documents and to make them available to the operators. In each of the individual Aging Airplane Program rulemaking proposals, we will

provide specifics about all aspects of the DAH requirements, including our reasons for decision to proceed with the DAH requirements and the regulatory and economic impact of our decision.

Need To Address Problem and Safety Benefits

Boeing believes the FAA must be clear about the exact problem it is trying to solve in the specific regulatory proposal and make the case that the proposed solution is necessary. In addition, Boeing believes the FAA must explain what safety benefits are derived from placing an additional regulatory burden on DAHs, separate from the benefits to be derived from placing a regulatory burden on the operators.

FAA Response: Each rulemaking initiative of the Aging Airplane Program will specify the exact safety issue being addressed and explain why the proposed solution is needed.

In addition, the FAA will evaluate the regulatory costs and benefits for each of the Aging Airplane Program's rulemaking proposals. We will present our findings in each proposal. However, without the transfer of the necessary data, analysis and documentation from DAHs to the operators, the safety benefit cannot be achieved. Thus, the anticipated benefit will be assessed for the DAH compliance actions and the operator compliance actions together.

Need for Prior Meetings

NACA recommends the FAA convene a meeting of an appropriate group of stakeholders to thoroughly air the issues associated with the DAH requirements before any final rule is issued.

AIA/GAMA state that industry does not have a clear enough understanding of the problem the FAA is trying to address through the DAH requirements. Therefore, AIA/GAMA propose the FAA hold a public workshop on this topic prior to moving ahead with such a significant and fundamental change to the existing regulations.

ATA also recommends the FAA consult with industry to avoid unintended consequences.

FAA Response: The FAA's intent in providing the Aging Airplane Program Update was twofold: (i) To provide a summary of the findings from our review of the Aging Airplane Program and (ii) to outline the rulemakings that we plan as a result of this review. It was always our intent to provide the specifics about these matters in the individual rulemaking proposals for the Aging Airplane Program. Therefore, we recognize there was not enough information in the Aging Airplane Program Update for industry to fully

assess the impact of the DAH requirements. We believe that any confusion caused by this will be addressed after industry has had the opportunity to read each of the Aging Airplane Program rulemaking proposals. In addition, industry will have the opportunity to comment on each of the rulemaking proposals and we will review, consider and address any comments and/or consequences identified by industry that we have not anticipated.

As for the suggestion that the FAA hold a public meeting, we will determine if a meeting is necessary after the first notice of proposed rulemaking proposing DAH requirements is issued.

Harmonization

Airbus and AIA/GAMA request that the FAA harmonize their proposals with other aviation authorities.

FAA Response: The FAA has already discussed our plan for the Aging Airplane Program with management and specialists from EASA and Transport Canada. We have asked that they identify Aging Airplane Program rulemaking initiative points of contact so we can begin discussions with them about the Aging Airplane Program rulemaking proposals. As most of the technical aspects of the rules are based on recommendations from advisory committees, on which other authorities participated, many of the requirements should already be harmonized. We plan to work with the other authorities so our rulemaking plans for these initiatives will be harmonized to the greatest extent practicable.

Uncertainty About Future Responsibilities of a DAH

Boeing is concerned that if the FAA begins requiring changes to design approvals (certificates) for upgrades in safety, as opposed to declaring an unsafe condition, it creates significant uncertainty about future responsibilities of a DAH.

Boeing also believes the FAA has a long history of mandating changes to a type-certificate only when an unsafe condition exists. This has been done to bring the airworthiness of the airplane up to its certificated safety level and not because it wants to upgrade the safety level for in-service airplanes.

FAA Response: The FAA does not agree that requiring changes to design approvals for upgrades in safety, as opposed to declaring an unsafe condition, creates significant uncertainty about the future responsibilities of a DAH. The uncertainty of future actions necessary to maintain a certain safety level for the

existing fleet is a reality for any regulated industry.

Whether we classify any particular safety issue as an "unsafe condition" and issue ADs on a model-by-model basis, or whether we address fleet-wide problems through general rulemaking, the issues being addressed were not anticipated by either the applicant or the FAA at the time of certification.

As the FAA becomes aware of safety issues in the fleet and determines that additional requirements are necessary to ensure an acceptable safety level, we work with industry to define appropriate actions. We adopt these actions only after we provide full notice and opportunity to comment (except for emergency actions). This situation is the same for the operators as well as DAHs.

Effect on Type-Certificates

Boeing believes that adding new requirements to an existing type-certificate (TC), as a condition of the continued validity of that TC, is the same as saying the old TC is invalid and a new TC must be issued. Boeing states that it appears the FAA wants to change its historical practice for DAHs by placing a continuing burden on them as a condition for continued validity of a design approval. Finally, Boeing maintains that any new requirement placed on a DAH would change the conditions under which that certificate remains valid, not because of an unsafe condition, but because the FAA wishes to raise the general level of safety of airplanes in service.

FAA Response: The FAA does not agree that adding new requirements for existing TC holders affects the validity of the TC. These requirements only mandate new actions by the TC holders. However, while the rule itself does not invalidate the TC, the FAA has the authority to suspend or revoke the TC if the TC holder violates the requirements and the FAA believes the violation warrants such action.

This is comparable to the situation for operators when we adopt an operational rule. In that case, imposing a new requirement on the operators does not "invalidate" their operating certificate. It simply imposes a new requirement on the certificate holder. However, failure to comply with the operational rules may subject an operator to FAA action against its certificate.

Regulatory Analysis Should Separate Operator and DAH Cost/Benefits

AIA/GAMA believe the operator and DAH must be considered independently in the cost/benefit analysis of the DAH requirements.

Boeing agrees, stating the FAA must perform a regulatory analysis each time the FAA places a burden on the DAH and this analysis should separate operator and DAH costs and benefits. Boeing also believes that since the FAA must define the cost burden and expected benefits associated with any particular rule, the FAA could not issue a single rule that automatically imposes a burden for undefined future operational rule changes. Finally, Boeing states the regulatory analysis must also consider alternative regulatory actions.

FAA Response: Each time the FAA proposes to adopt a DAH requirement, the FAA will conduct a regulatory analysis of the specific change. As is the case with all rulemaking proposals, the regulatory evaluations for each of the Aging Airplane Program rulemaking proposals will consider the costs and benefits for all affected parties and will address any alternative regulatory approaches that we considered.

Historically, when the FAA issued operational rules (without associated DAH requirements), we determined the costs the DAH would incur to support the initiative. Without the DAH support, operators may not be able to comply, in which case the anticipated safety benefits would not be achieved. So, this aspect was addressed in regulatory evaluations for operational rules even without the specific requirements for DAHs to develop the data or documents necessary for operator compliance. While we can identify the DAH and operator costs separately, the benefits are dependent on both actions and we will not estimate them separately.

“Overwhelming” Workload for FAA

Airbus believes the workload created by enacting the DAH requirements would be overwhelming to the FAA. Airbus believes there is substantial training and documentation that would need to be developed to prepare the FAA for this activity. Airbus also states the requirement for the FAA to review and approve data submittals extends the time to achieve compliance by the operations.

FAA Response: Regardless of whether the FAA adopts DAH requirements, we would have a similar workload, as the design and program approvals would still be necessary. The DAH requirements provide advantages such as:

- (1) Standardized application of guidance material;
- (2) Compliance planning to streamline the coordination of the actions required of DAHs; and

(3) Specified compliance dates for DAHs.

These advantages reduce our workload and increase our efficiency because we have defined goals and objectives and means to ensure that DAHs are fulfilling them.

In addition, the FAA has tasked ARAC to develop recommendations for addressing certain issues and the necessary data for compliance. This will provide guidance for DAHs to develop standardized data. The associated ARAC/ASTRAC standardized approach should reduce the review time and workload.

As for training, the FAA intends to develop training to provide a better understanding of the technical and administrative requirements and processes associated with the Aging Airplane Program. We will make this training available to FAA employees, other aviation authorities and industry.

Finally, the compliance plan requirements of the proposed rules will address Airbus' concern about the timeliness of FAA approvals. This will ensure both the DAH and the FAA have a good understanding of the DAH's proposed compliance methods and deliverables. It will also provide for a means to monitor the compliance progress and provide a means for correction, if determined necessary before final submittal.

May Force Retirement of Some Airplane Models

Airbus notes the FAA's past approach to airworthiness issues placed the burden on the operator to make a decision whether or not to have the required analyses and data developed. Under the DAH requirement approach, Airbus believes that, if the operator and DAH cannot reach agreement on the economic terms of compliance, the operator would be forced to retire the airplane.

FAA Response: The cost recovery is a commercial issue between DAHs and operators. Each DAH is free to charge whatever the market will bear to recoup its costs associated with developing the data and documents required by the DAH requirements. Based on the amount of this DAH fee and the costs associated with complying with the operational rules, each operator will then have to make an economic decision as to whether these costs are offset by future revenue streams from a fleet of airplanes. The FAA recognizes that this decision may result in an operator deciding to retire certain airplanes rather than incur these costs.

Miscellaneous Comments

Expansion of Aging Program to Non-Structure Related Parts of Airplanes

DGAC would like the FAA to expand its aging activity to all systems that could be involved in hazardous or catastrophic failure. DGAC states that it has found it useful to perform an aging systems analysis on these systems for Airbus airplanes and believes that such an analysis would be of benefit to other transport category airplanes of similar design. DGAC believes the most satisfactory way to put such an activity into force is by updating the regulations by expanding their scope to the non-structure related parts of airplanes.

FAA Response: The FAA shares DGAC's concerns about the aging of all critical systems in airplanes. We will work closely with DGAC and other aviation authorities to develop harmonized approaches to resolving these aging issues.

Generally, we identify and address aging issues through the airworthiness directive process when appropriate. Under EAPAS, the FAA, JAA, Transport Canada and industry successfully identified and addressed the aging issues in airplane wiring interconnection systems. Also, to address specific items, we are proactively working with EASA, Transport Canada and DAHs to study and identify aging issues in mechanical systems. Our Aging Mechanical Systems Program consists of various projects, including:

(1) Testing single-element, dual-load path flight control linkages (a report has been completed and is available on request);

(2) An aging flight controls systems assessment to develop methods to study and assess the safety of mechanical systems (this assessment is in work); and

(3) A new 18-month study of emergency evacuation systems to evaluate current problems with aging operating emergency evacuation slides and doors (this study is expected to be completed in mid-2006).

Future work will focus on other aging mechanical systems including hydraulic lines and oxygen systems.

In addition, application of the new certification requirement for wiring systems will include airplane engine wiring. However, because of the rigorous maintenance requirements and procedures currently in place, we did not consider engines as part of the Aging Airplane Program. Therefore, we welcome any information that DGAC might have about aging issues for propulsion systems.

Instructions for Continued Airworthiness

TATSCI asks for an explanation of how the FAA would mandate operators of in-service aircraft, engines and propellers to comply with the current requirements for Instructions for Continued Airworthiness (ICA). TATSCI points out that most products certified before the ICA requirements existed do not have ICA.

FAA Response: Before the ICA requirements existed, § 25.1529 required type-certificate holders to provide

maintenance manuals containing much of the information currently required in ICA. The primary difference is the current requirement for an airworthiness limitations section (ALS) as part of the ICA (and the corresponding operational rules that mandate compliance with the ALS requirement (for example, § 91.403(c))). In those DAH requirements that mandate revisions of the ALS, the FAA is proposing to require that type-certificate holders establish an ALS if they have not already done so.

Conclusion

After consideration of the comments submitted in response to the Final Rule, the FAA has determined that no further rulemaking action is necessary. Amendment Nos. 91-283, 121-305, 125-46 and 129-39 remain in effect as adopted.

Issued in Washington, DC, on July 6, 2005.

Marion C. Blakey,
Administrator.

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