

CERTIFIED NEWS

Intelligence for Independent Aircraft Modifiers



IAMA CERTIFIED NEWS – JUNE 2020

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STCS AND AGING AIRCRAFT

Many aircraft flying today are being operated well beyond their original Design Service Life limits for flight cycles and flight hours. They are able to operate in this manner because aircraft OEMs recognize the benefits of continued operation of these aircraft to their extended service limit. Through approved data defining operational limits, service bulletins and changes to maintenance programs, aircraft OEMS allow aircraft to safely operate beyond these initial service limits. Maintaining the airworthiness of the aircraft and keeping up with passenger, crew and pilot requirements means new modifications may be on the horizon.

Whether for passenger comfort, in-flight entertainment, connectivity solutions or safety aspects, operators are continuously upgrading their fleet to their required standards. While modifying a new aircraft may present concerns, modifying an aging aircraft raises uncertainty regarding the potential impact on the aircraft life limit, approved and published by the OEM. Notably the anticipated challenge can be elevated when a modification is completed with an approved Supplemental Type Certificate (STC), through an independent modifier.

Seeking to address the concerns associated with retrofit modifications on aging aircraft, IAMA, the Independent Aircraft Modifier Alliance, has taken a deep dive into this issue with its new whitepaper, "Structural Modifications and the Effects to Aging Aircraft Through the Supplemental Type Certificate Process". Based on extensive expertise and its IAMA Rulebook, the white paper provides a detailed examination of whether endorsed IAMA member-modifier retrofit solutions have any impact on aircraft operability and continuing airworthiness when exceeding original design limits. It explains why approved design and substantiation modifications are independent of original design limits or extended service limits for aging aircraft. Additionally, it details the measures independent modifiers, particularly those endorsed by IAMA, take to ensure safe aircraft operation

beyond the original design limits towards extended service limits, exploring in-service and continuing airworthiness.

A key point comes out of IAMA's work. When considering a modification to an aging aircraft, irrespective of the approval process, regulatory airworthiness requirements are consistent across aviation certification authorities. It is no secret that approval timelines and processes vary across jurisdictions, but IAMA has carefully and thoroughly considered the various processes. This exercise has helped clarify the situation and although an independent aircraft modifier is unlikely to extend aircraft life, the approved modifications they complete are accepted by aviation authorities. In general, such modifications will not have a negative effect on the ODSL or ESL of the aircraft. Additional inspections may be required, but the results are approved and accepted.

The white paper is a relevant source of information for aircraft operators, owners and maintainers, available only to IAMA members. Airlines and lessors are encouraged to obtain a free subscription to IAMA's resources. To join the alliance, obtain a copy of the white paper and gain access to the Rulebook visit iamalliance.aero.

CHAIRMAN'S MESSAGE

When the pandemic closed down the aviation industry in March, the IAMA team jumped into action to develop new ways of supporting the aviation industry. Here we are in June, hopeful that the recovery will be quicker than expected. With this second edition of "IAMA Certified News," I'd like to welcome you to this new and unprecedented era for all of us—aircraft owners, modifiers, suppliers, and lessors alike. The intent of our newsletter is to be a voice of encouragement in the midst of these extremely challenging times. We have a selection of stories that we hope you'll appreciate. You'll get to know Erik Geertsema, a recently elected Executive Board Member, and you'll learn some interesting points about Supplemental Type Certificates (STC) and "Right to Use." And in our top story, you'll discover some important ideas regarding STCs and aging aircraft.



Not one part of the aviation industry has been unscathed by the pandemic, but as we move forward, IAMA's goal is to help airlines, aircraft modifiers and owners emerge from this situation in the best shape possible. This is why when the COVID-19 pandemic drove airlines to park their fleets, we took swift action to create the IAMA Virtual Think Tank (IVTT) and our COVID-19 [Crisis Catalogue](#). Since we announced these initiatives in April, we've hosted seven bi-weekly online events. These highly successful sessions, where aircraft owners and operators have the opportunity to present critical needs during the crisis, have been wide ranging. They have covered: back to service issues, PAX-to-freighter solutions, customized recovery planning and local authority requirements, on-ground, inflight disinfection solutions with UV light & Bipolar Ionization and presentations of solutions our IAMA members propose.

The IAMA team and I are proud that this partner ecosystem of trusted international experts and innovative thinkers continues to come together to address these critical issues. Our COVID-19 catalog makes available to airlines and lessors crisis related products and services offered by both IAMA members and non-members, and access to this resource is free. As we start the slow process of moving out of the crisis, we continue to seek crisis topics and issues—so I encourage you to send us an email with your own ideas and topics: info@iamalliance.aero.

While we recognize that the crisis is important, we also have our eyes on the future. IAMA recently signed a [Letter of Intent](#) with LISA GIGA Hub to collaborate on Artificial Intelligence (AI) in aircraft design and certification. A new, but increasingly important consideration for the aviation industry, AI is emerging as a resource used in predictive maintenance and intelligent cabin applications. Design and certification engineering are currently areas that have not been explored, but also fields where AI may provide new and augmented capabilities. Our objective is to explore use-cases focused on AI support of these areas of expertise. We anticipate our collaboration with LISA will also enhance our efforts to support EASA's AI initiative. IAMA's aim is to contribute to the objectives published in the report, "[Artificial Intelligence Roadmap A human-centric approach to AI in aviation](#)," published this past February. Our intention is to help master the challenges of AI in aviation for the good of the ecosystem as a whole.

As always, be well and stay safe.

—Marc Pinault

Chairman



RIGHT TO USE – STREAMLINING AIRCRAFT END-OF-LEASE TRANSFERS

It has been going on for 40 or more years, and it is a serious problem for aircraft owners, lessors and airlines. When a lessor or an airline operator decides they want to transfer an aircraft at the end of their lease, the new lessee or operator may find themselves in the position of having to ask a Supplemental Type Certificate (STC) owner for the right to continue to use the STC for any modification, inflight entertainment, for example. This frustrating situation leads to the aircraft's owner/lessor and new lessee potentially being trapped—forced to pay thousands in fees for the rights to use the aircraft's previously installed modifications.

While it is not entirely clear how these circumstances arose, somewhere along the way, aviation authority rules were interpreted somewhat differently than intended. The result of which was that owners/lessors and new lessees started to be held hostage. Despite this state of affairs, there is a path forward to eliminate these situations. IAMA, the Independent Aircraft Modifier Alliance, has developed a Rulebook with a section that addresses these unfortunate and frustrating predicaments. The rules, which provide guidance to IAMA approved members, aim to make an aircraft transfer smooth and successful, while addressing modifications completed through STCs.

It is no secret that transferring an aircraft to a new operator is a major undertaking. Dimitrios Tsirangelos, an aerospace business development executive and IAMA technical affairs manager, has seen the process in action. “The volume of paper work associated with an aircraft transfer is astounding. Every modification and every aspect of the operation of the aircraft must be documented and provided to the new lessee. But the one of the major hurdles to overcome in these transactions is how to assure the new lessee that existing, already installed modifications can be further used and operated when the primary contracting partner was the former lessee.”

The work related to such transactions can be tricky. Lindsey Sander, a certification engineer at Envoy Aerospace—an IAMA founding member company and certification expert—understands the STC challenge all too well. “A modification is usually sold to the operator who holds the contract, and the right to use the modification with its related data is held by the current operator. When, typically in a leasing situation, the aircraft is transferred to a new lessee, there are several pain points that make the transaction incredibly difficult. All of which are primarily related to ensuring ongoing airworthiness and support.”

The key challenges include but are not limited to ensuring:

- The new lessee and other future operators have access to gather all the data needed to update their own manuals
- A clear contractual status between the future operator and the STC provider (the Design Organization) e.g. in case of in-service problems
- A clear contractual ownership of the STC, especially in the FAA-related context where the current operator might be the STC holder.
- All the above usage rights are also guaranteed to the aircraft owner, so transfer planning can be done in advance, without a future operator having yet been assigned.

The “Right to Use” rules in the IAMA Rulebook are applicable to the legal Intellectual Property (IP) aspects related to authorizing the commercial right to use data. IAMA member organizations commit to following the rules to help aircraft owners and operators avoid these situations. By regulation, the STC holder is required to provide all installation data and maintenance documents required to modify and maintain the aircraft. The rules are not intended to duplicate FAA 14 CFR Part 21.120 which requires an STC holder to provide written permission that authorizes use of an STC to alter an aircraft. Rather they are designed to ensure future legal operators and owners have the rights to use the data required to maintain, modify and operate their aircraft.

Want to learn more about how the rules enable a seamless transfer? Visit iamalliance.aero to become a member and gain access to the IAMA Rulebook.

MEET ERIC GEERTSEMA, IAMA'S NEWLY ELECTED EXECUTIVE BOARD MEMBER

Erik Geertsema, Vice President Business & Strategy Development at Fokker Services, is now a member of the Independent Aircraft Modifier Alliance (IAMA) Executive Board of Directors. Elected in March during the alliance's first (and virtual) Annual General Meeting, he will serve a 3-year term with the organization.

"As we continue to build the Independent Aircraft Modifier Alliance, we are thankful to attract outstanding industry leaders," said Marc Pinault, IAMA board chair and CEO of Eclipse Global Connectivity. "Erik comes to us with the backing of Fokker Services. Their combined OEM heritage and position as an established Supplemental Type Certificate provider and Type Certificate holder brings sound capabilities to IAMA's board, important as we work towards accomplishing our goals."

Currently, Geertsema is responsible for growing Fokker Services' business in new areas. Originally joining Fokker in 1992 Erik has spent his career in several business areas ranging from operational, financial and commercial functions.

"We are very pleased to welcome Erik, to the board," said Nicole Noack, managing director of IAMA. "With his wide-ranging experience in the aerospace industry and broad understanding of many key aspects of aircraft modification including component purchases, sales and repairs, Erik brings different perspectives to the board room."

"IAMA's mission to create a harmonized and regulated process around the creation of STCs is an important step in normalizing the use of these certifications," Geertsema said. "Achieving this goal will democratize the market, and open the door for operators to find the affordable, customized and quality-driven solutions that they are looking for. Throughout my career I have been on both the OEM and service provider sides of this discussion, and have seen firsthand how to bridge that gap. I am confident that we can reposition STCs and bring renewed energy to this important area of the aviation industry."

Learn more about IAMA, the team and the executive board [here](#). And find out more about how to become a member [here](#).



ENGAGE WITH US

Want to learn more about IAMA or meet us? We look forward to connecting with you during the following events:

- RedCabin Webinar Series - Episode 4 | 07 July 2020 | 17:00 CEST
- IAMA Virtual Think Tank 8 | 15 July 2020 | 15:00 CEST
- IAMA Virtual Think Tank 9 | 12 August 2020 | 15:00 CEST

For questions, if you would like to meet us, or an invitation to our virtual think tank, get in touch with us via info@iamalliance.aero.

BECOME AN IAMA MEMBER

IAMA is open to all aviation market participants including aircraft manufacturers, airlines, suppliers and lessors. The alliance offers three types of paid memberships: Full, Advisory and Basic.

Members have access to specific benefits depending upon their role in the aviation ecosystem, and their membership level. Full and Basic memberships are for organisations with STC capabilities, while Advisory memberships are for airframe and system OEMs (Original Equipment Manufacturers). Airlines, banks and lessors may join for free.

Find out more about our membership possibilities [here!](#)