AIRWORTHINESS NEWSLETTER

No. 6, January 2018

Executive Summary

By David Bushroe, Chief
Airworthiness Office

As promised, here is the next issue of the newsletter delivered in a somewhat timely fashion! As the New Year rolls around, we have a lot of turnover of airworthiness folks. As we all know, Mr. Jorge Gonzalez is retiring. He has been instrumental in pushing us to mature our airworthiness processes throughout the USAF! Dr. Kenneth Barker is temporarily stepping in as the USAF Technical Airworthiness Authority (TAA) until a permanent replacement is announced. Ms. Lisa Glover also retired. She has been invaluable as the Commercial Derivative Aircraft (CDA) Subject Matter Expert (SME); as well as leading development and implementation of processes for Contractor-Owned, Contractor-Operated (COCO) programs. Her deep wealth of knowledge and abilities will be sorely missed. Finally, Mr. Gregory Staley completed his tenure as the F-35 airworthiness lead and was selected to lead Foreign Military Sales (FMS) programs in the T-6 program office.

With the departures come new arrivals! Mr. Brian Roth is now full-time in the office and is running CDA policy and programs. Mr. Andrew Smith is taking over Unmanned Aircraft Systems policy and programs, as Mr. Mark Mueller is transitioning to Special Projects. Ms. Yadira Ayala-Marrero is moving over shortly and will be responsible for COCO programs. Ms. Michelle Edgell recently joined us to assist in configuration management activities. Last, but not least, Ms. Kelly Fischer has arrived to perform office administrative duties – something we have been sorely missing for quite some time. When you have the opportunity please welcome them.

Currently, there are several vacancies at the NH-03 level. Please drop me a note if you are interested.

As always, I am open to suggestions, comments, and complaints on airworthiness policy, processes, and implementation. Until the next issue or when I see you at a TD-TIM or Airworthiness Board – Be Safe!

Thanks for the Memories

By Jorge Gonzalez,
USAF TAA (Retired)

It has been my pleasure and honor to serve as the United States Air Force's TAA over the past 5 years. I would like to express my sincere gratitude to the numerous colleagues, industry partners, international partners, the FAA, and my Department of Defense counterparts. We have accomplished many important milestones over this period and it all has been made possible by the wonderful people serving with me.

As I move into retirement, I will look back fondly on my TAA experience. I will entrust the TAA responsibilities to Dr. Ken Barker effective 4 January 2018. Ken has the technical acumen and integrity to serve admirably in this important role.

I would like to remind the airworthiness national and international community, one last time, that although we understand that the military mission comes first and it entails significant risk, it is our duty as technical experts and airworthiness regulators, to do all we can to protect our sons and daughters flying on our products. We can only accomplish this important role by adhering to process compliance, physics-based analytics and sound engineering principles to ensure our warfighters are not exposed to risks that can be avoided or mitigated.

Thanks again for your service and support. Wishing you all Godspeed!



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AW TOOLS

By Bob FitzHarris

In the last newsletter I told you that our MIS group and the Center IT Office worked with us to develop and beta test/demo the Airworthiness Certification Tool (ACT) an in-house developed and maintained SharePoint-based approach to documenting, communicating, approving, and archiving airworthiness approvals. Information regarding our initial implementation effort which focused solely on Certification Basis approvals is below:

The C-5M Super Galaxy CNS/ATM program (Chief Engineer Andrew Lynch; Airworthiness POC Christopher Mikhak) and the Combat Rescue Helicopter HH-60W program (Chief Engineer Duane Sevey; Airworthiness POC Jennifer Stuckey) were our initial ACT projects.

We provided training for the responsible program office POCs and our AW SMEs, as well as assigning dedicated focal points for the software (Jeff Carson) and the airworthiness facilitator (Calenia Franklin). Then we dove into the demonstration effort headfirst. Jeff and Calenia confirmed that the first two ACT projects went very smoothly, while generating several system improvements.

Based upon these successful demonstrations, the decision was made to implement ACT on all new Certification Basis reviews, where appropriate. If you are concerned about how this will impact you, training, etc., please contact your assigned AW Facilitator.

AW SHAREPOINT

By Mark Mueller

The AW SharePoint pages have migrated to SharePoint 2013 as part of a USAF-wide effort. You likely noticed links to the AW SharePoint homepage and AW Project pages changed in 2017 during the first phase of the migration.

Please use the following link for the AW SharePoint homepage:

https://cs2.eis.af.mil/sites/22105/systems/airworthiness

The second phase of migration is tentatively planned for January/February 2018. This involves changes to the look of the AW SharePoint homepage and one final link change (i.e. new URL). When the second phase is complete, we will send an email with the updated link. The present site will temporarily redirect to the new link for a few weeks.

AW PUBLICATIONS

By Graham Burdette

AW Publications provide requirements, procedures, guidance, and information relating to AW. The following is a summary of recently published and currently in-work AW Publications.

Bulletins Published:

- AWB-150A, Risk - Refreshes instructions for AW risk assessment and acceptance.

- AWB-210A, AW Publications – Updates stakeholders and nomenclature in this bulletin which provides instructions regarding types, development, and issuance of AW publications.

- AWB-330, Propulsion Type Certification – Establishes a propulsion system type certification process to independently assess the airworthiness of a propulsion system during its design validation and permit timely incorporation of changes. It also prescribes required interactions between propulsion system and air system program offices.

Near-Term Publications:

- AWB-325, CNS/ATM – Provides instructions for assessing CNS/ATM performance requirements within the AW process. This bulletin has been finalized and publication is imminent.

- AWB-340, COCO – Updates methodology for assessing AW of, and provides the appropriate airworthiness flight authorization for, Contractor-Owned and Contractor Operated (COCO) aircraft. This bulletin will define categories of COCO aircraft and appropriate scope of AW assessments for each.

- AWB-355, Service Life – Provides supplemental AW process instructions unique to aircraft Service Life Extension Programs.

- AC-18-01, Safe-to-Fly – Provides guidance on the applicability and usage of Safe-to-Fly recommendations within the AW process.

- AWB-215, Change Notices – Updates the development and review process for issuing Change Notices to MIL-HDBK-516, *Airworthiness Certification Criteria.*

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Military Airworthiness Authority (MAA) Recognitions

By Deken Keil

DoD Directive 5030.61, *DoD Airworthiness Policy,* requires airworthiness assessments prior to approving flight in foreign-owned military aircraft by DoD military, civilians, and contractors. This ensures an appropriate level of safety of flight and risk management adapted to DoD-unique mission requirements. The preferred assessment methodology is a joint Army/ Navy/USAF assessment and recognition of the foreign Military Airworthiness Authority (MAA) that oversights the foreign aircraft. These assessments and resultant MAA recognitions establish policy compliance for four years.

Assessments of Foreign MAAs

In 2017, the USAF AW Office, in concert with the National Airworthiness Council (NAC), completed MAA airworthiness system assessments and issued formal recognitions to the MAAs of Taiwan, Slovakia, Croatia, Denmark, and Greece. Assessments of Malaysia and Brazil were also completed, and the recognitions are expected to be issued early 2018.

Assessments of Chile, Belgium, and Saudi Arabia are planned for 2018, along with renewal of expiring recognitions for Australia, Israel, United Kingdom, Czech Republic, New Zealand, and Singapore.

Foreign Assessments of the USAF TAA

Recognitions of the USAF's airworthiness system directly support sale of our air systems through FMS programs. The typical recognition process results in products that demonstrate "due diligence", thus enabling the foreign MAA to accept USAF AW products as evidence when making their sovereign AW determinations. With a recognition in place, the fact that the USAF TAA has issued an airworthiness approval (MFR or MTC) for a particular type aircraft may be all a MAA needs to issue their own equivalent airworthiness approval...no need to redo work already done!

In 2017, the USAF TAA was recognized as a competent Airworthiness Authority by the MAAs of the Netherlands, Norway, Denmark, the Turkish Air Force, Croatia, and France.

Recognition assessments of the USAF TAA by Greece, NATO, United Kingdom (renewal), and Australia (renewal) are planned for 2018.



Captain Kim Bo Meier from the Danish Technical Airworthiness Authority presented USAF AW Office Chief Mr. David Bushroe with Denmark's formal recognition of USAF Technical Airworthiness Authority.

Country	USAF TAA Recognizes?	Recognizes USAF TAA?
Australia	X	X
Israel	X	
UK	X	X
Czech Rep.	X	
New Zealand	X	X
Singapore	X	
Sweden	X	X
Italy	X	X
Canada	X	X
France	X	X
Norway	X	X
Germany	X	X
Netherlands	X	X
South Korea	X	X
Finland	X	
Taiwan	X	
Slovakia	X	
Croatia	X	X
Denmark	X	X
Greece	X	ECD 3Q '18
Turkey		X
Malaysia	ECD 1Q '18	
Brazil	ECD 1Q '18	
Chile	ECD 2Q '18	
Belgium	ECD 2Q '18	
Saudi Arabia	ECD 3Q '18	
NATO		ECD 3Q '18

Items in **RED** were completed in 2017

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AW Training

By Mark Mueller

AFIT SYS 116 (online training)

This course presents an Air Force policy overview and provides introductory knowledge on the importance of applying airworthiness principles and practices, a basic understanding of that process during the acquisition and sustainment lifecycle, nomenclature, and an overview of the responsibilities each functional area has in implementing airworthiness.

Register at:

http://www.afit.edu/LS/courselist.cfm?courseType=SYS

EZS-161 AW Policy and Implementation

This course covers details of the Air Force Directives, Instruction and Airworthiness Bulletins used by AFLCMC and teaches students how the Airworthiness process is executed to assess airworthiness for Air Force platforms and platform modifications to issue airworthiness approvals.

Register at:

https://www.atrrs.army.mil/channels/acqnowcl/

2018 classes: 24 Jan 18, WPAFB
Wk of 23 Apr 18, WPAFB
Wk of 23 Jul 18, WPAFB
Wk of 22 Oct 18, WPAFB

NOTE: Contact the USAF Airworthiness Office to discuss bringing the class to your location.

AFIT SYS 316: Advanced Airworthiness Certification

This course will teaches students to properly assess airworthiness for new and modified weapon systems, determine modification impact to airworthiness and reportability, and assess the technical interrelationships of MIL-HDBK-516 to develop the Certification Basis and Compliance Report. This application-level course will use examples, case studies, and exercises based on actual experiences with the USAF weapon systems to allow the student to develop the skills required to support the Airworthiness process.

Register at:

https://www.afit.edu/LS/courselist.cfm?type=IROS

2018 classes: 6 – 15 Mar 18, WPAFB
10 – 19 Jul 18, WPAFB
30 Oct – 8 Nov 18, WPAFB

Find this and other AW training information on the AW SharePoint site at:

https://cs2.eis.af.mil/sites/22105/Systems/Airworthiness/pages/edandtraining.aspx

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