

Airworthiness Quarterly Newsletter, No 1

No. 1, Summer 2014

Executive Summary

This is the first edition of the Airworthiness (AW) Newsletter, an initiative intended to improve communications with the LCMC enterprise and keep you informed of all the efforts underway to execute and improve the airworthiness process. It will be brief, in order to keep the publication task to a minimum workload. The primary purpose is to keep the LCMC engineering enterprise informed and to encourage better communications. Please let us know what you think.

POLICY

DoDD 5030.61 AW Directive, dated May 24, 2013 established new Service responsibilities for AW. Two key attributes: Identification of an Airworthiness Authority (AA) and expansion of AW to "All aircraft and air systems owned, leased, operated, used, designed, or modified by DoD must have completed an airworthiness assessment in accordance with Military Department policy." Consequently, AFD 62-6 and AFI 62-601 are under revision at SAF/AQQ with an ECD by the end of the year. With the AA role, the breadth of AW is expected to expand into production, operational, and sustainment roles in addition to the Technical AA role. Discussions are ongoing.

BULLETINS & ADVISORIES

Six bulletins are in varying stages of development and will soon be distributed as drafts for DoEs and CEs comments.

1. AWB 516 - This bulletin will be used to capture time-critical changes that need to be included in the next update of MIL-HDBK-516. Often, new safety critical changes are identified that should be included immediately into Certification Bases. When a change is identified, the relevant Subject Matter Expert (SME) will prepare the criteria, the standard, and method of compliance for inclusion in the next AWB 516 Change Notice. This will be a living document until tri-service coordination within MIL-HDBK-516.
2. Risk Assessment Methodology - To improve how risk assessments are conducted and resolve concerns with the current approach, the AW Office is defining a new risk assessment methodology. This draft is in review within EZ and will soon be distributed to the DoEs/CEs for comment. It may be appropriate to combine this with the AWB 13A.

Inside this issue:

Policy	1
Bulletins & Advisories	1
Tools	2
Metrics	2
Process Improvement	3
Training	3
Outside Agencies	4
Personnel	4
Programs	5
Contacts	6
Abbreviations	6

BULLETINS & ADVISORIES (Cont.)

3. Contractor Owned Contractor Operated (COCO) Aircraft– Dr. Barker has been working extensively with AFRL, Big Safari and AFTC to develop a bulletin on the AW process for COCO aircraft. As many of you know, the new DoDD 5030.61 makes it clear that if we (USAF) “acquire” the services of a COCO aircraft, we are responsible to complete an airworthiness assessment of that aircraft. But fear not, the USAF leverages existing and valid FAA Standard Airworthiness Certificates, so our AW assessment may be as simple as verifying the COCO aircraft owner/operator carries valid FAA certificates. The simplicity of our AW assessment depends upon several factors, to include modifications to the COCO aircraft beyond its FAA Type Cert, existence of FAA “Experimental Tickets,” purpose of the flight(s), etc. Determining the validity of FAA certificates and whether the COCO aircraft flight(s) meet the definition of Civil Aircraft Operations (CAO) or Public Aircraft Operations (PAO) can be confusing, hence the purpose of the COCO Aircraft bulletin. The draft bulletin is in review now.
4. Air Refueling – This bulletin helps fold the current internationally recognized Technical Compatibility Assessment process into the AW process. An interim bulletin will soon be released to support current efforts across our fleets, while the final draft is completed and distributed for review.
5. Alternate Fuels Certification – A bulletin will be released to address how alternate fuels certification will be addressed for AW and information disseminated to the DTAs to minimize duplication of effort.
6. Airworthiness for Security Assistance (FMS, etc.) Programs – This addresses the AW process for this international work. It has completed DoE review and is in final editing prior to coordination and TAA signature. Thanks for the great inputs during the DoE review!

One advisory is in early draft stages addressing electronic flight bags (EFB). This advisory will include a CB template and will provide guidance and advice relative to the use of EFBs on USAF aircraft.

TOOLS

MIL-HDBK-516X: The next version of MIL-HDBK-516 is in editing for publication. It is anticipated that this will be labeled: MIL-HDBK-516C. Our target publication date is 1 Oct 2014. While this update began as an OSD Tri-Service effort for unmanned aircraft, it was determined by the Tri-Service to be an approved document for application to manned and unmanned aircraft. Identified changes to this version C will be captured in AWB 516, as identified within Bulletins. The next MIL-HDBK-516 update will begin in the 2016-2017 timeframe.

Automated Flight Authorization Tool: AFLCMC has sponsored the creation of an automated tool for the entire AW process, from plan to flight authorization. While it was developed for reportable modifications, it is anticipated that it could easily expand to include non-reportables and new aircraft. The tool will control the workflow and data between the Program Office and the EN-EZ AW organization. Benefits of the tool include: removing administrative overhead, providing standardization, enhancing quality control, offering opportunities for analysis and potential schedule efficiencies. The Tool will be demonstrated for the TAA and AFLCMC/CV on 9 July. With a positive outcome, we hope to launch the tool in late fall, after training is provided.

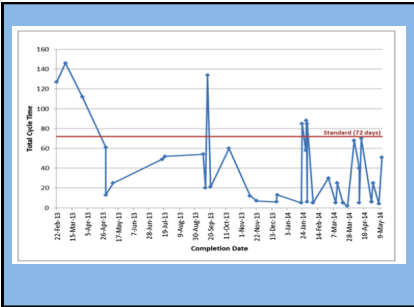
METRICS

For the AFLCMC Flight Authorization Standard Process, metrics are being tracked. They can be found at:

<https://cs4.eis.afmc.af.mil/sites/1749/appV11/MetricReporting.aspx>

Take a look! The entire Center has effectively met this Standard and reduced prior timelines.

PROCESS IMPROVEMENT



EZSA held a hotwash with EZ SMEs & TAs to address issues & process improvements. The major issue is poor communication across the process. The following highlights some adopted changes:

1. Require Kickoff meetings to ensure EZ SMEs understand details of the reportable modifications.
2. Consolidate AW data/artifacts on one server within EZ.
3. Standardize forms for SMEs and TAs.
4. Respect the timelines in the standard flight authorization process.
5. Define meeting content in advance for TD TIMs.
6. Provide clear tasking & perform a thorough QA for content

Note: The next step is to engage DoEs / POs to address their concerns. A briefing for this engagement will be generated to summarize the process improvements and why.

TRAINING

SYS 316, Mil-Hdbk 516

The last 516 course taught by Dayton Aerospace occurred in early June. Future courses will be taught at AFIT as SYS 316 with EZ SMEs and TAs conducting the training. This course was built with AFIT instructors using the Instructional Systems Development process and will involve Case Studies which utilize the Airworthiness Reportability Determinations IAW AFLCMC OI 62-601, as well as preparation of a mock Cert Basis/ Compliance Report IAW MIL-HDBK-516C.

Offerings: at WPAFB:
 8-17 July - Beta test course
 Early Oct (tentative)
 Mid Dec (tentative)
 Sign up will occur thru AFIT, more details to follow

AW Policy and Implementation

500 + individuals have received this training to date
 Upcoming classes:
 28 Jul WPAFB
 19 Aug Edwards AFB
 Mid Sep Hanscom AFB

Future Focus Week Type Classes

Recommended courses in development are: FMECA, Critical Safety Items (CSI), Section 4 of MIL-HDBK-516., System Safety Risk Assessment. Do you have other ideas?

You can find more information on USAF Airworthiness at the Share Point site:
<https://cs.eis.afmc.af.mil/sites/AeroEngDisciplines/Systems/Airworthiness/default.aspx>

OUTSIDE AGENCIES

ADIAG Did you know there is an industry group that was established 2 years ago to discuss AW issues with the USAF to enhance communications, learn best practices and improve understanding amongst ourselves? The group meets quarterly (telecom or in person) with the USAF AW Office. Additionally, the TAA has hosted individual discussions with ADIAG members to facilitate their growth in AW & address issues/concerns with our industry partners.

NAC Did you know there is a National Airworthiness Council, composed of members from the USAF, Army, Navy, FAA, and Coast Guard? This group meets twice yearly in person, and monthly on the phone, to discuss tri-service issues with the intent of finding common ground where the services can save money while still assuring AW. To that end, the NAC facilitates updates to MIL-HDBK-516, approaching common problems, working unmanned aircraft policy for the National Air Space, and is heavily engaged in recognition of other country's AA.

INTERNATIONAL ACTIVITIES DoDD 5030.61 (published in mid-2013 and just now gaining traction) establishes DoD-wide AW policy. The aspect that addresses "use or operated.. by DoD must have completed an AW assessment in accordance with Military Department policy". This applies to the foreign aircraft that USAF personnel fly on or operate. This significantly expands the workload for the DoD AAs.

To execute this DoD policy, the NAC has worked with the Air and Space Interoperability Council (ASIC) AW Working Group to develop a process to assess AW authorities as "competent"; and if successful, results in issuance of a "recognition" that enables compliance to DoDD5030.61. Recognition serves many functions, including making US products more attractive to foreign customers. As an extension, AFLCMC/CC has signed an MOA with the Army and Navy enabling the USAF to accept the other service's foreign AW authority recognitions with no further review. In cases where a timely AW authority assessment cannot be made, direction is provided to the requesting command to conduct operational assessments using a NAC-provided checklist as an input into their risk assessment for operations in foreign owned aircraft.

PERSONNEL

Hails/Farewells Thanks to all who are departing!!!

Significant personnel changes have occurred in AW, with more coming. 1. Commercial Derivative Aircraft Tech Expert, Archie Woods, retired, and Lisa Glover, is inbound this summer. 2. Julio Rodriguez, UAS Tech Expert, has moved to the C-17 program and Mark Mueller from AFRL is joining the team. 3. Tammy Gileza, Config. Manager for AW, is joining C-130J and Rose Mediratta is replacing her. 4. Greg Staley and Jennifer Stuckey will provide full time support to F-35. Candidates are being considered for their Tech Expert/ Specialist positions. If interested, call Dawn McGarvey-Buchwalder asap. This is a great opportunity to view AW across the enterprise.

Endorsements

156 SMEs are endorsed at levels 2 and 3 for AW across

WPAFB. The initial accreditations occurred within EZ. We are now reviewing applications from the directorates and intend to expand to the Geographically Separated Units later this year.



PROGRAMS

Ongoing AW Projects

The following projects are ongoing within the TAA AW Office and are summarized to give you an appreciation of the workload associated with implementing AW policy.

A-10C Persistent Close Air Support (PCAS), AC-130J, F-16 Auto ACAS, C-130J Block 7, C-5M CMC Wx Radar, E-3 Dragon, E-8 JSTARS Recap, EC-130H Avionics Viability Upgrade, F-15SA, F-15 Talon Hate, F-16 Auto GCAS, F-22 Increment 3.2B, F-35 Block 2B, 3i LRIP 6..., HC/MC-130J MCTF, KC-46, LAS A-29, MQ-9 Block 1 Extended Range, PAR, QF-16, & RQ-4 Global Hawk EPS-1.

Audits

We are standing up a team to conduct audits on a regular basis, in accordance with AWB 1007. To comply with this bulletin, the AW office should be conducting a minimum of 50 audits/yr., so we are working to see if that is achievable. In advance of us seeing you, please look at the AW Audits Evaluation Form on the Share Point site, and perform your own self assessment. If you have questions, please call. This will help prepare you. In the last 2 months we have audited QF-16, USAFA and 896th TW.

Mishap Lessons Learned

For a mishap of an operational MDS, the TAA is requiring a briefing of any related AW design issues, particularly Class A mishaps. The objectives of the briefing are to understand the AW design issues for your platform, provide full cognizance of Serious/High risks & potential flight authorization affect, evaluate if changes to MIL-HDBK-516 are needed, and ensure cross platform/enterprise awareness of safety issues (as needed). Proactively plan for these briefings.

CONTACTS



U.S. Air Force Airworthiness Office

Points of Contact:

Kevin Burns, Technical Director EZS
937-255-0060

Dawn McGarvey-Buchwalder, Branch Chief, EZSA
937-656-6615

USAF.Airworthiness.Office@us.af.mil

**Supporting Airmen Through Responsive,
Preeminent Aviation Engineering Expertise**

Thanks for reading. If you have comments or suggestions for the next Newsletter, please let us know.

EZSA Airworthiness Branch

ABBREVIATIONS

AA	Airworthiness Authority	EFB	Electronic Flight Bags
ADIAG	Airworthiness Defense Industry Advisory Group	FAA	Federal Aviation Authority
AW	Airworthiness	FMS	Foreign Military Sale
AWB	Airworthiness Bulletin	LCMC	Life Cycle Management Cen- ter
CB	Certification Basis	MOA	Memorandum of Agree- ment
CE	Chief Engineer	NAC	National Airworthiness Council
COCO	Contractor Owned Contractor Operated	SME	Subject Matter Expert
DoE	Director of Engineering	TA	Technical Advisor
DTA	Delegated Technical Authority	TAA	Technical Airworthiness
ECD	Expected Completion Date		