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United States Air Force (USAF) Airworthiness Bulletin (AWB)-002A

Subject: Airworthiness Planning

Attachments: (1) Glossary of References and Supporting Information
(2) Sample Request for Proposal (RFP) Language
(3) Sample Contract Data Requirements List (CDRL) Items
(4) Airworthiness Process Timeline

- 1. Purpose:** This bulletin provides instructions to Program Managers (PMs) responsible for executing activities leading to the design-based airworthiness certification of new aircraft programs and modifications to previously certified aircraft (the preferred approach). This bulletin addresses the top level strategic planning for airworthiness certification as well as the critical task of assuring contractual coverage of key airworthiness activities. This instruction is also applicable if seeking a Military Flight Release (MFR) via the non-design based airworthiness assessment process; an approach approved by exception only. PMs should tailor these instructions accordingly for airworthiness activities accomplished without contracted effort.
- 2. Office of Primary Responsibility:** USAF Airworthiness Office (ASC/EN). Comments, suggestions, or questions on this bulletin should be emailed to the USAF Airworthiness Office Mailbox (ASC.ENSI.Mailbox@wpafb.af.mil).
- 3. Background:** Air Force Policy Directive ([AFPD](#)) 62-6, *USAF Airworthiness*, makes PMs responsible for planning and executing airworthiness programs and obtaining Technical Airworthiness Authority (TAA)-issued certifications or flight releases for managed aircraft. Further, Air Force Instruction ([AFI](#)) 62-601, *USAF Airworthiness*, directs that airworthiness planning activities be accomplished early in the acquisition of new aircraft programs and modifications that impact the airworthiness of existing aircraft programs. It also requires airworthiness planning to be part of the overall program strategy, documented in the Life Cycle Management Plan (LCMP) and implemented through the program acquisition strategy the Systems Engineering Plan (SEP) and the Integrated Master Plan (IMP). AFI 62-601 requires that planning for contracted efforts must describe how airworthiness activities will be incorporated into program contractual documents (e.g., work statements, specifications). This is primarily top-level program strategic planning that gets incorporated into program documentation; it is subsequently decomposed into lower level tactical plans as required.
- 4. Preparation:** AFI 62-601 spells out many aspects of airworthiness policy that must be addressed in airworthiness planning. This is not a fill-in-the-blank activity, so it's important for the author of the planning to have a solid understanding of the airworthiness assessment

processes. Familiarity with AFPD 62-6 and AFI 62-601 is a prerequisite. Systems (SYS)-116, an Air Force Institute of Technology (AFIT) on-line course, is an excellent introduction to airworthiness. Additionally, ASC/EN has published the *USAF Airworthiness Processes: A Primer for Acquisition Professionals*, which is an overview of airworthiness implementation that provides linkages to lower-level details in USAF AWBs. The aforementioned AFPD, AFI, and Primer are available on the USAF Airworthiness SharePoint website and Air Force Knowledge Now (AFKN) Community of Practice (CoP) (see Attachment 1).

5. **Airworthiness Planning Elements:** Airworthiness planning must comply with Air Force airworthiness policy and must address the content specified in paragraph 1.5 of AFI-62-601. First and foremost, the program LCMP must include an Airworthiness Plan with the critical aspects of airworthiness as part of the overall program strategy for development of the new aircraft or modification. The plan must be an attachment to the LCMP and referenced within the LCMP section titled “Other Certifications or Independent Assessments”. Other detailed supporting plans and documents such as the SEP and Test and Evaluation Master Plan (TEMP) will derive lower level airworthiness plans from the LCMP and expand them as necessary. Contractor airworthiness plans will further expand down to the lowest details of implementation. The LCMP’s Airworthiness Plan must address the topics in the subparagraphs below.
 - a. **Overall Approach.** Begin this section by describing the policy anchors: the planning complies with USAF policy for airworthiness and implementation instructions published by the TAA in Airworthiness Bulletins. The strategy being pursued and a summary of the rationale for the choice shall be included in the Airworthiness Plan. The strategy must consider a number of fundamental questions that will characterize the airworthiness approach, such as:
 - (1) Is this a new development or modification of an existing system?
 - (2) If it’s a modification of an existing USAF aircraft will it be reportable or non-reportable? (See USAF AWB-007, *Determining Reportability of Modifications* for details on what constitutes a reportable modification.)
 - (3) Is the program seeking a design-based airworthiness certificate or a non-design-based MFR?
 - (4) Is it a new aircraft design or a design based on an existing system certified by the Federal Aviation Administration (FAA), other U.S. Armed Services or foreign country? If yes, how will the existing certification be incorporated into the certification basis?

- (5) If it's a commercial derivative aircraft (CDA), will the program maintain its FAA certification throughout its operational life?
- (6) How will development flight testing be conducted and by whom? Will a First Flight (FF) Assessment be required?

- b. **Certification Basis Development.** The certification basis, as documented in the program's Tailored Airworthiness Certification Criteria (TACC) or Modification Airworthiness Certification Criteria (MACC) Certification Basis document, is at the heart of design-based airworthiness certification. Airworthiness planning must clearly indicate how the certification basis will be created, approved by the certification authority, and used to support first flight release and final airworthiness certification. For aircraft that will use existing FAA certification(s), as part of their USAF certification, airworthiness planning must address and include the certification plan(s) submitted to the FAA. For aircraft certified by other U.S. Armed Services, refer to AFI 62-601 paragraph 1.12 for guidance. See USAF AWB-004, *Development of an Airworthiness Certification Basis*, for establishing and documenting the certification basis, USAF AWB-005, *Tailored Airworthiness Certification Criteria/Modification Airworthiness Certification Criteria (TACC/MACC) Document Construction and Format*, for details of TACC/MACC development and format, and USAF AWB-003, *Tailored Airworthiness Certification Criteria/Modification Airworthiness Certification Criteria (TACC/MACC) Document Approval Process*, for details on approval of TACC/MACC documents. AFI 62-601 mandates that PMs for new programs and reportable modification programs shall obtain TAA approval of the proposed certification basis contained in the TACC or MACC Certification Basis documents no later than completion of Critical Design Review (CDR) or prior to the start of system level design verification ("show compliance") activities. Review of the certification basis as late as CDR may discover that one or more critical airworthiness verification activities were not planned (e.g., outside contract scope), thus unable to produce the required substantiating data (i.e., artifacts). **To avoid this potential pitfall, the TAA is instructing PMs to obtain TAA approval of the certification basis prior to contract award, whether competitive or non-competitive.** For non-design based airworthiness assessments, the discussion should state that an USAF airworthiness certification basis cannot be developed with convincing rationale. Seeking to operate an aircraft under a non-design-based flight release is not an acceptable acquisition strategy for establishing airworthiness certification and should only be pursued as a last resort upon TAA approval.
- c. **First Flight and Development Flight Test.** Summarize the key airworthiness aspects of first flight and flight test that will be addressed in the Test and Evaluation Master Plan (TEMP). This section should describe plans for creating a certification basis for first flight. In addition, the accomplishment of a First Flight Assessment should be addressed


with a description of how the MFR issued by the TAA contributes to the program decision to proceed with first flight. Program plans for flight envelope expansion during flight test, such as, who will issue incremental flight releases and whether the MFR will include expansion criteria needs to be addressed. See USAF AWB-008, *First Flight Assessment*, for requirements and additional information on first flight independent assessments for new aircraft systems and reportable modifications. For aircraft systems seeking a MFR, using the non-design based assessment process; the flight test discussion should focus on identifying all risk areas (hardware, software, and operational risks) that will be addressed as part of the MFR application.

- d. **Airworthiness Planning Schedule.** Planning will include a schedule that provides a snapshot of all major airworthiness activities in a single diagram. This should address the requirements of AFI 62-601 and include appropriate project management reviews and critical deliverables. The *Airworthiness Process Timeline* (see Attachment 4) is a generic schedule template for development of a new aircraft system or modification that illustrates both program office and airworthiness authority activities. PMs need to carefully review USAF AWB-003, which includes step-by-step instructions for required interactions (i.e., exchanges) with the TAA and supporting staff and the specific timing of events for documentation and/or data submittals leading to an executable certification process.
 - e. **Airworthiness Activities in Contract Documents.** Planning will outline the Request for Proposal (RFP) approach to assure key airworthiness activities are included in contract documents such as the Statement of Work (SOW), specifications, and IMP. This includes airworthiness-related entrance and exit criteria in the program IMP for major program reviews. Include Contract Data Requirements List (CDRL) forms (DD Form 1423-1) for documents to be delivered. Sample airworthiness language for an Engineering and Manufacturing Development (EMD) RFP and CDRL items can be found in Attachments 2 and 3, respectively. The specific contractual requirements may vary widely for MFRs, so consult the TAA.
- 6. General Guidance:** This bulletin is focused on two key acquisition documents: the LCMP, and for contracted efforts, the RFP for the EMD phase. These are the most important strategic documents for assuring airworthiness. The PM needs to adapt the documentation requirements for production and sustainment contract efforts. For non-design based programs, specific RFP and LCMP requirements will vary widely depending upon the level of contractor support required to assure continued airworthiness. Consult with the TAA support staff as the planning is conducted. For a contracted airworthiness certification effort, Attachment 2 outlines tailorable RFP content. Tailorable content guidance for an LCMP follows:
- a. **Level of detail.** Paragraph 2.4 of Air Force Pamphlet (AFPAM) 63-128, *Guide to Acquisition and Sustainment Life Cycle Management*, offers general guidance on scoping

LCMP content, emphasizing the strategic nature of the information, and the need to be concise: only “the information required to adequately describe the overall strategy”. As a minimum, address each topic from paragraph 5, briefly summarizing the key elements that can be expanded in the SEP, TEMP, etc. The airworthiness planning schedule can be used to efficiently describe the overall strategy, including development of the certification basis or application for MFR.

- b. **Tailoring.** Modifications that meet AFI 62-601 criteria to be classified as non-reportable will need to tailor the guidance in this bulletin. For example, the RFP guidance is not applicable for modifications that are not contracted. Airworthiness will be assessed by a Delegated Technical Authority (DTA) and planning will need to consider local Center processes such as Configuration Control Boards (CCB) in lieu of the USAF Airworthiness Board. Program or project managers need to evaluate the topics in paragraph 5 to determine how they are addressed by the processes at their Center. Airworthiness planning activities and record keeping for non-reportable modifications are auditable under AFI 62-601.

7. **Review/Coordination:** AFI 62-601 encourages early and frequent engagement with the TAA’s airworthiness Technical Directors and supporting staff during airworthiness planning. The term “early” refers to the planning phase that precedes engineering development. For contracted efforts, planning should be coordinated with the TAA during the Program Office internal editing and review of the LCMP that occurs prior to release of the RFP for EMD. After contract award, the program office is required to review and update certification plans in the Technical Director Forum prior to ASC/EN review of TACC/MACC documents (see USAF AWB-003 for more instructions on timing and preparation for this review).



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Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

DoDI 5000.02, *Operation of the Defense Acquisition System*
 AFPD 62-6, *USAF Airworthiness*
 AFI 62-601, *USAF Airworthiness*
 AFPAM 63-128, *Guide to Acquisition and Sustainment Life Cycle Management*
 USAF AWB – 003, *Tailored Airworthiness Certification Criteria/Modification Airworthiness Certification Criteria (TACC/MACC) Document Submittal and Review Process*
 USAF AWB – 004, *Development of an Airworthiness Certification Basis*
 USAF AWB – 005, *Certification Criteria (TACC/MACC) Document Construction and Format*
 USAF AWB – 006, *Military Flight Release*
 USAF AWB – 007, *Determining Reportability of Modifications*
 USAF AWB – 008, *First Flight Assessment*
 MIL-HDBK-516, *Airworthiness Certification Criteria*
 MIL-HDBK-516B, *ASC/EN Airworthiness Certification Criteria Expanded Version of MIL-HDBK-516B*
USAF Airworthiness Processes: A Primer for Acquisition Professionals
 USAF Airworthiness SharePoint website;
<https://cs.eis.afmc.af.mil/sites/AeroEngDisciplines/Systems/Airworthiness/default.aspx>
 AFKN USAF Airworthiness CoP;
<https://afkm.wpafb.af.mil/community/views/home.aspx?Filter=OO-EN-KO-11>

Abbreviations and Acronyms

AB – Airworthiness Board
CCB – Configuration Control Board
CCP – Contract Change Proposal
CDD – Capabilities Development Document
CDR – Critical Design Review
CDRL – Contract Data Requirements List
DTA – Delegated Technical Authority
ECP – Engineering Change Proposal
EMD – Engineering and Manufacturing Development
FAA – Federal Aviation Administration
FAR – Federal Acquisition Regulation
FCA – Functional Configuration Audit
FF – First Flight
IMP – Integrated Master Plan
ITO – Instructions to Offerors

LCMP – Life Cycle Management Plan
MACC – Modification Airworthiness Certification Criteria
MCA – Military Certificate of Airworthiness
MCO – Military Certification Office
MTC – Military Type Certificate
OT&E – Operational Test & Evaluation
OTRR – Operational Test Readiness Review
PCA – Physical Configuration Audit
PDR – Preliminary Design Review
PM – Program Manager
RFP – Request for Proposal
SEP – Systems Engineering Plan
SME – Subject Matter Expert
SOO – Statement of Objectives
SOW – Statement of Work
SRR – System Requirements Review
SVR – System Verification Review
TAA—Technical Airworthiness Authority
TACC—Tailored Airworthiness Certification Criteria
TD – Technology Development
TEMP—Test & Evaluation Master Plan

Attachment 2

SAMPLE REQUEST FOR PROPOSAL (RFP) LANGUAGE: AIRWORTHINESS FOR ENGINEERING AND MANUFACTURING DEVELOPMENT (EMD)

1. PREFACE.

This attachment addresses an idea that is simple in concept but challenging to apply. Critical airworthiness tasks *must* be clearly specified in the contract, or they won't get done, and if you want it in the contract, you must ask for it in the RFP.

The guidance below is a template for the preparation of airworthiness content in the technical section of EMD RFPs (see the NOTE at the end of this section). The candidate language can be edited to reflect program-specific approaches and incorporated directly into RFPs for competitive contract awards. It can also be used as a "content check" for sole source proposals in non-competitive awards such as system modification efforts. In these cases, provide the candidate language to the contractor to guide preparation of an Engineering Change Proposal (ECP)/Contract Change Proposal (CCP) or model contract and ensure that the basic content of this guidance is reflected in the contractor's approach.

The following items should be included in the RFP Document Reference Library to assist the offerors in creating the airworthiness certification portion of their proposal:

- AFPD 62-6, *USAF Airworthiness*
- AFI 62-601, *USAF Airworthiness*
- MIL-HDBK-516B, *ASC/EN Airworthiness Certification Criteria Expanded Version of MIL-HDBK-516B*
- Government XYZ Airworthiness Planning – This is the airworthiness planning section of the program Life Cycle Management Plan (LCMP) which was created per the instruction in AFI 62-601, *USAF Airworthiness* and USAF AWB-002, *Airworthiness Planning*.
- Sample airworthiness-related Integrated Master Plan (IMP) milestones Tailored Airworthiness Certification Criteria (TACC) or Modification Airworthiness Certification Criteria (MACC) document)
- All applicable USAF AWBs

NOTE: The guidance in this Attachment assumes that development of an airworthy design occurs entirely within the EMD phase of a program. However, some programs will include airworthiness activities in a Technology Development (TD) phase, Production, or Sustainment phase. Regardless of the structure, programs in any phase will need to adapt the guidance below to include airworthiness language in the RFP. Acquisition policy in Department of Defense Instruction (DoDI) 5000.02, *Operation of the Defense Acquisition System*, allows programs to be

structured with Preliminary Design Review (PDR) as part of either the EMD or TD phase. Airworthiness planning should be developed in the TD phase and updated for EMD. The TD phase should produce a TACC or MACC document whose maturity will correspond to the maturity of the system design.

2. SUGGESTED RFP LANGUAGE

Section H, Contract Clauses.

Special Contract Requirements in Section H are contract clauses that implement Federal Acquisition Regulation (FAR) requirements as well as other important program-specific requirements. If the RFP defines the program baselines (functional, allocated, and product) in Section H, include the following language in the definition of the Functional Baseline:

- The airworthiness certification requirements for the XYZ system shall be defined by the approved version of the XYZ Tailored Airworthiness Certification Criteria (TACC) document. This document, which describes the XYZ airworthiness certification basis, will be managed by the contractor through Critical Design Review (CDR) at which time the Government will assume configuration control of the TACC.

This language contractually identifies the certification basis in the TACC as a part of the Functional Baseline. If the contract is for modification of an existing aircraft, the PM will need to change the wording to require a MACC document instead of a TACC document.

Section J, Statement of Objectives (SOO).

The SOO in Section J provides key program objectives that the Offeror will use to create a Statement of Work (SOW). The following SOO language communicates the major elements of the airworthiness certification effort that are required by AF policy (NOTE: Tailor this if a non-design-based Military Flight Release (MFR) is the objective because no certification basis will be developed):

- The Offeror shall develop, implement, and maintain an airworthiness program for the XYZ Program, documented in an XYZ Airworthiness Plan, which successfully achieves airworthiness certification for the XYZ Program. The plan and program shall comply with USAF policy on airworthiness certification and the Government XYZ Airworthiness Planning document. (CDRL xxx, DI-MGMT-80004A/T)
- The Offeror shall develop, implement, and maintain a Tailored Airworthiness Certification Criteria (TACC) document that defines the XYZ Program certification basis and that, when populated with compliance artifacts (Compliance Report), documents compliance to the defined certification basis. This document shall become part of the functional baseline for the XYZ system. (CDRL yyy, DI-SESS-81766)

- The Offeror shall establish provisions for accessing all substantiating data and verification artifacts required to support the determination of airworthiness in accordance with the USAF Policy.

The first SOO task includes a CDRL item (see Attachment 3 of this bulletin) that specifies delivery of the contractor's Airworthiness Plan and prescribes details for adapting DI-MGMT-80004A/T, the generic Data Item. It directs the contractor to address topics in the Government Airworthiness Planning document (provided in the RFP Document Reference Library). It also directs the contractor to submit a draft FAA Certification Plan as an annex to the draft Airworthiness Plan if they intend to use FAA certification for some or all of their planned airworthiness certification.

The second SOO task and CDRL item (see Attachment 3 of this bulletin) specify all of the incremental deliveries of the TACC as the aircraft development progresses. If the contract (or ECP) is for modification of an existing aircraft, the PM will need to change the SOO (or SOW) language to require a MACC instead of a TACC document.

The third SOO task requires a Compliance Report and an approach whereby artifacts can be made accessible for review by the USAF Technical Airworthiness Authority (TAA).

Section L, Instructions to Offerors (ITO).

The ITO provides the offeror with specific direction on the required airworthiness content of the proposal and model contract. As a minimum, the RFP should require the following language in the ITO for a draft airworthiness plan:

- The Offeror shall provide a draft Airworthiness Plan using guidance in CDRL xxx (DI-MGMT-80004A/T). If the proposal includes FAA certification for some or all of the XYZ airworthiness certification, the offeror shall provide a letter from the Military Certification Office as evidence that the draft FAA Certification Plan has been coordinated with the FAA.

The CDRL item is the same one cited in the SOO language.

If the RFP is for a modification to an existing system, offerors will have sufficient technical information to create a TACC/MACC document. Adapt the following language for the ITO:

- The Offeror shall provide a TACC/MACC document derived from MIL-HDBK-516B Expanded CDRL yyy (DI-SESS-81766).

Section M, Evaluation Factors for Award.

Although airworthiness might be significant enough to merit its own subfactor in a source selection, it will more likely be included as part of a subfactor such as systems engineering. Each airworthiness RFP requirement from Section L must have a corresponding evaluation factor in Section M. If the TAA has approved the use of a non-design based MFR for the

program, Section M language will need to be focused on providing substantiating data and continued airworthiness support, etc., as required by the Government's program planning.

The Section M language for a design-based certification program will state that the subfactor is acceptable when the offeror:

- Provides a comprehensive draft Airworthiness Plan, including an FAA Certification Plan if appropriate, that substantiates an adequate approach to airworthiness certification.

Additional Source Selection Notes.

The success of airworthiness certification is strongly influenced by the quality of language in contract documents such as the IMP. Most source selection activities will apply global criteria in Sections L and M for evaluating the offeror's IMP and SOW rather than have specific criteria for each individual topic, such as airworthiness. It is permissible to include IMP guidance in the RFP Document Reference Library. This guidance should address the major elements of the airworthiness process and is required to be aligned with government Airworthiness Planning.

Table I below is a generic outline for IMP guidance that can be tailored to a specific program. The outline includes criteria for commercial-derivative aircraft that require FAA certification as part of overall USAF airworthiness certification; it does not include guidance for a program implementing an MFR effort. For any program, the IMP events should correlate with the planned schedule for airworthiness certification (see a generic timeline in Attachment 4 to this bulletin) or SFR effort. The key events for compliance with USAF airworthiness certification are approval of the certification basis before completion of CDR or equivalent and Military Type Certificate (MTC) or an MFR prior entry into Initial Operational Test & Evaluation (IOT&E) or first operational use.

Event Accomplishment Criteria
EVENT A - System Requirements Review (SRR)
Airworthiness Certification tasks complete
Airworthiness Plan reviewed
TACC/MACC submitted
EVENT B - System Functional Review (SFR)
Airworthiness Certification tasks complete
Airworthiness Plan approved
Certification basis (TACC/MACC) reviewed
Application for FAA Type Certification submitted
Preliminary Type Board Meeting (FAA) completed
EVENT C - Preliminary Design Review (PDR)
Airworthiness Certification tasks complete
Certification basis (TACC/MACC) finalized
** blank**
FAA Certification Plan reviewed
EVENT D - Critical Design Review (CDR)
Airworthiness Certification tasks complete
Certification Basis (TACC/MACC) submitted for Government approval
Technical Directors Forum meeting complete
Certification Basis (TACC/MACC) approved by TAA
Certification Basis (TACC/MACC) for First Flight submitted
FAA Certification Plan approved
EVENT E - First Flight (FF)
Airworthiness Certification tasks complete
Approval of TACC/MACC for First Flight
Military Flight Release (MFR) issued by TAA
EVENT F - System Verification Review (SVR)/Functional Configuration Audit (FCA)
Airworthiness Certification tasks complete
TACC/MACC submitted for Government approval
Military Type Certificate (MTC) approved by TAA
EVENT G - Operational Test Readiness Review (OTRR)
Airworthiness Certification tasks complete
Military Certificate of Airworthiness (MCA) issued by Program Office
EVENT H - Physical Configuration Audit (PCA)
Airworthiness Certification tasks complete
FAA Production Certificate received

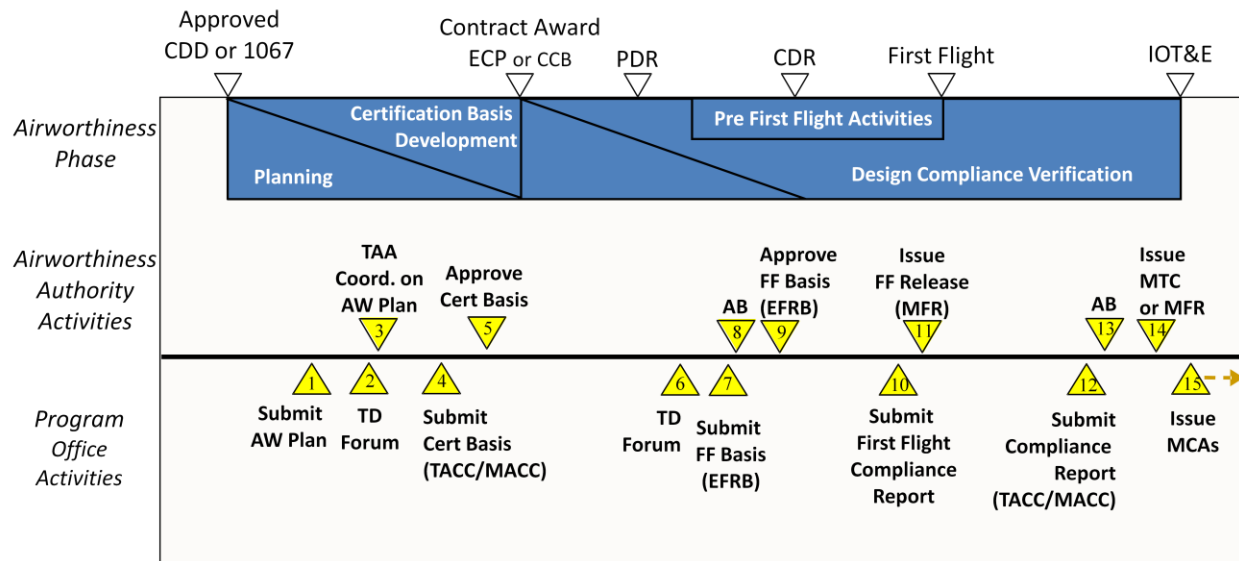
Table I – Generic Integrated Master Plan (IMP) activities for airworthiness.

CONTRACT DATA REQUIREMENTS LIST (7 Data Item)										Form Approved OMB No. 0704-0188				
<p>The public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and reviewing the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to the Department of Defense, Executive Order Directorate (0704-0188). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please do not return your form to the above organization. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block 5.</p>														
A. CONTRACT LINE ITEM NO.		B. EXHIBIT		C. CATEGORY: TOP _____ TM _____ OTHER _____										
D. SYSTEM/ITEM				E. CONTRACT/PR NO.				F. CONTRACTOR						
1. DATA ITEM NO.	2. TITLE OF DATA ITEM Airworthiness Certification Criteria Document (TACC/MACC)					3. SUBTITLE								
4. AUTHORITY (Cite Acquisition Document No.) DI-SESS-81766A/T				5. CONTRACT REFERENCE				6. ISSUING OFFICE						
7. DD FORM NO. LT		8. DIST STATEMENT REQUIRED		10. FREQUENCY BLK 16		12. DATE OF FIRST SUBMISSION BLK 16		14. DISTRIBUTION						
9. APP CODE A		B		11. AS OF DATE		13. DATE OF SUBSEQUENT SUBMISSION BLK 16		a. ADDRESS			b. COMES			
<p>16. REMARKS</p> <p>Blk 8: Approval applies to submissions as described below.</p> <p>Blks 10, 12 & 13: Submittals shall be as follows:</p> <ul style="list-style-type: none"> a. Submit preliminary draft 30 days prior to SRR. b. Submit update 30 days after SRR. c. Submit update 60 days prior to USAF Airworthiness Board for approval of certification basis d. Submit 30 days after Government approval e. Submit draft first flight readiness version 30 days after CDR. f. Submit first flight readiness version 30 days after Government approval g. Submit update 60 days prior to USAF Airworthiness Board for final certification h. Submit 30 days after Government approval <p>[NOTE: Submittal d is a configuration baseline - the approved certification basis. Do we want government control of this baseline? If so, we might want to break this CDRL into two separate items. The first would be subtitled "Certification Basis" and the second "Military Type Certification". Otherwise, we would need to baseline the TACC/MACC twice. I don't know how to do that.]</p>								c. DESK			d. MAIL			
								e. FAX			f. TELETYPE			
								g. TELEPHONE			h. OTHER			
								i. INTERNET			j. OTHER			
								k. OTHER			l. OTHER			
								m. OTHER			n. OTHER			
								o. OTHER			p. OTHER			
								q. OTHER			r. OTHER			
								r. OTHER			s. OTHER			
								s. OTHER			t. OTHER			
16. TOTAL								0		0		0		
O. PREPARED BY				H. DATE		I. APPROVED BY				J. DATE				

Figure 2. – Sample TACC/MACC CDRL.

Attachment 4

AIRWORTHINESS CERTIFICATION PROCESS TIMELINE



1. Program Manager (PM) requests review of airworthiness planning in Life Cycle Management Plan (LCMP), Systems Engineering Plan (SEP), etc.
2. PM/CE meet with Tech Directors to assess readiness and suggest changes to PM's plan for certification basis approval
3. Technical Airworthiness Authority (TAA) coordinates on planning.
4. PM submits TACC/MACC document for approval of certification basis.
5. TAA approves certification basis.
6. PM/CE meet with Tech Directors to review plans for issuance of Military Flight Release (MFR) for First Flight, review certification basis changes, and plan for TACC/MACC Compliance Report approval
7. PM submits TACC/MACC Experimental Flight Release Basis (EFRB) for First Flight
8. Conduct Airworthiness Board for First Flight MFR (PM/CE present findings)
9. TAA approves EFRB
10. PM submits EFRB Compliance Report for First Flight
11. TAA issues MFR for First Flight; equivalent local flight release for non-reportable modifications.
12. PM submits Compliance Report (TACC/MACC document)
13. Conduct Airworthiness Board (PM/CE present findings)
14. TAA issues new Military Type Certificate (MTC); (Delegated Technical Authority (DTA) validates existing MTC for non-reportable modifications. If criteria noncompliances result in serious or high risk hazards, the TAA may issue an MFR.
15. PM begins issuing Military Certificate of Airworthiness (MCA) at acceptance of individual aircraft.