

BY ORDER OF THE SECRETARY OF THE AIR FORCE AIR FORCE POLICY DIRECTIVE 62-6

11 JUNE 2010

**Developmental Engineering** 

**USAF AIRWORTHINESS** 

# COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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The Air Force (AF) is responsible for assuring the airworthiness of the aircraft which it operates. This Directive establishes policies for formal airworthiness assessments to ensure that AF organizationally operated aircraft are airworthy over their entire life cycle and maintain high levels of safety. This policy Directive applies to all aircraft operated by organizational components of the AF, manned or unmanned, including aircraft organizationally operated by the Air Force Reserve Command (AFRC) and Air National Guard (ANG). It does not apply to non-AF aircraft operated by AF aircrew in accordance with AFI 11-401, *Aviation Management*.

This policy Directive is implemented by AFI 62-601, USAF Airworthiness. Refer recommended changes and questions about this publication to SAF/AQRE using the AF Form 847, *Recommendation for Change of Publication*; route AF Form 847s from the field through MAJCOM publications/forms managers. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with AFMAN 33-363, Management of Records, and disposed of in accordance with the Air Force Records Disposition Schedule (RDS) located at <u>https://www.my.af.mil/gcss-af61a/afrims/afrims/</u>.

# SUMMARY OF CHANGES

This document has been substantially revised and must be completely reviewed. It consolidates and supersedes AFPD 62-4, *Standards of Airworthiness for Passenger Carrying Commercial Derivative Transport Aircraft*, and AFPD 62-5, *Standards of Airworthiness for Commercial Derivative Hybrid Aircraft*, thus incorporating all AF airworthiness standards into a single airworthiness policy Directive.





This revision establishes the requirement for ensuring the airworthiness of all AF organizationally operated aircraft. It creates a Technical Airworthiness Authority (TAA) and an AF Airworthiness Board (AB) chaired by the TAA to provide independence in airworthiness determinations. It establishes the requirement for design-based airworthiness certification. It provides an alternative means for flight release of aircraft which do not fully comply with an approved certification basis, and establishes a non-design-based special flight release. It enables AF acceptance of Federal Aviation Administration (FAA) certifications, evaluations, and inspections and disestablishes the Airworthiness Certification Criteria Control Board ( $AC^{3}B$ ).

# 1. Policy.

1.1. Legacy Aircraft Systems. Legacy aircraft systems (as defined in Atch 1) are not required to recertify airworthiness or update existing related documents until making a reportable modification. Legacy systems operating under flight releases may operate under the terms of such releases for no more than two (2) years after the date of this policy revision. Programs receiving Materiel Development Decision (MDD) approval IAW AFI 63-101, Acquisition and Sustainment Life Cycle Management, after the date of issuance of this policy revision, and legacy aircraft systems receiving modification approval two (2) years or more after the date of issuance of this policy revision shall fully comply with the requirements contained herein. Programs that have entered the acquisition framework (including all applicable systems with an Acquisition Category (ACAT) or pre-ACAT designation) or systems undergoing modification as of the date of issuance of this policy revision and legacy systems that approve a modification less than 2 years after the date of issuance of this policy revision shall obtain an agreement from the TAA as to the extent to which they must comply with the requirements herein; the TAA is the airworthiness certification authority for these The TAA can delegate certain authorities to specific Delegated Technical systems. Authorities (DTAs), which will be outlined in lower level instructions.

1.2. **Independent Airworthiness Determination**. An airworthiness determination declares that an air system design is safe for flight and is approved for flight operations. An airworthiness determination is *independent* when it is made by a technical authority outside of the execution chain of the Program Manager responsible for the air system design. The TAA shall be the independent airworthiness authority to make such determinations for the AF.

1.3. **AF AB**. The AF AB shall be established to provide advice and recommendations to the TAA regarding disposition of airworthiness actions.

1.4. **Design Based Determinations**. Program managers shall establish a certification basis for new aircraft and aircraft undergoing modifications. The AF TAA (or delegated DTA) shall approve all certification basis documents and issue Military Type Certificates (MTC). Generally, the TAA may find compliance and issue an MTC for a type design only after the air system program manager (PM) has shown compliance of the type design to the approved certification basis. The TAA may approve an exemption for issuance of an MTC for a type design which does not fully conform to the approved certification basis. The TAA may issue an experimental or restricted flight release for aircraft for which the issuance of a MTC is not appropriate, after risk acceptance by an appropriate authority. After authorization by the TAA, the PM shall issue and maintain Military Certificates of Airworthiness (MCA) for each

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specific tail number aircraft in the type design when the aircraft is in compliance with the MTC and is in a condition considered safe for operation.

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1.5. **Non-Design Based Determinations**. When there is a compelling military need to employ aircraft for which it is infeasible or impractical to demonstrate compliance to a design-based certification basis, the TAA may issue a special flight release. Special flight releases enable operation of specific aircraft within specified limits and levels of operational risk accepted by the MAJCOM. PMs shall obtain TAA approval before employing this process.

1.6. **Commercial Derivative Aircraft**. When a military mission is compatible with a certified civil usage, the AF will utilize FAA type certified commercial derivative aircraft (CDA) to the maximum extent practical. Commercial derivative aircraft whose primary mission is the transport of passengers shall be FAA type certified; FAA certification of these commercial derivative passenger carrying aircraft shall be maintained for the life of the air system. Any items on passenger-carrying CDA which do not comply with applicable Federal Aviation Regulations (FARs) require approval by the TAA. Elements of the certification basis for any CDA which are not met via FAA certification shall be satisfied by compliance with approved military airworthiness requirements derived from MIL-HDBK-516, *Airworthiness Certification Criteria*, and shall be listed in the MTC. The Air Force may accept and use FAA evaluations and inspections for CDA.

1.7. Commander's Prerogative on Mission Capability. This AFPD does not infringe on the MAJCOM commander's prerogative to operate airworthy but less than fully mission capable aircraft systems.

# 2. Responsibilities.

# 2.1. Assistant Secretary of the Air Force for Acquisition (SAF/AQ):

2.1.2. Resolves disputes regarding airworthiness process and procedural issues.

2.1.3. Ensures that airworthiness requirements are included in AF integrated life cycle management directives and policies, including those addressing joint programs.

2.2. Deputy Chief of Staff, Operations, Plans and Requirements (AF/A3/5) ensures that airworthiness requirements are included in AF and joint service program requirements documents.

2.3. Deputy Chief of Staff, Logistics, Installations and Mission Support (AF/A4/7) ensures that logistics implementing direction supports life cycle aircraft airworthiness regardless of location (field or public/private depots) or maintenance source (organic or contracted).

# 2.4. Chief of Safety (AF/SE):

2.4.1. Appoints a representative to the AF AB.

2.4.2. Collects flight safety information related to aircraft airworthiness and makes it available to organizations engaged in airworthiness activities consistent with privilege guidelines in AFI 91-204, *Safety Investigations and Reports*, and as approved by the Air Force Safety Center (AFSC/JA).



# 2.5. Commander, AF Materiel Command (AFMC/CC):

2.5.1. Designates the Technical Airworthiness Authority, TAA.

2.5.2. Provides command-level support to enable airworthiness process compliance and resource allocation in support of airworthiness policy implementation.

# 2.6. Major Commands (MAJCOMs), ANG and AFRC:

2.6.1. Issue statements of operating intent defining the planned usage of the aircraft system for each aircraft type. For fielded aircraft notify the air system PM of any significant proposed operational or mission changes which may impact the airworthiness of the system.

2.6.2. Ensure that assigned aircraft are operated and maintained in accordance with approved technical data.

2.6.3. Operate only those aircraft which have a valid MCA or flight release.

2.6.4. Prohibit unauthorized modifications to aircraft or unapproved mission usage.

2.6.5. Appoint a representative to the AF AB as requested by the TAA.

2.7. **Program Managers (PMs)** plan and execute airworthiness programs and obtain TAA-issued certifications or flight releases for managed aircraft.

# 3. Adopted Form.

AF Form 847, Recommendation for Change of Publication

MICHAEL B. DONLEY Secretary of the Air Force

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### Attachment 1

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#### **GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION**

#### References

DODI 5000.02, Operation of the Defense Acquisition System, 8 December 2008

AFI 11-401, Aviation Management, 18 May 2009

AFI 62-601, USAF Airworthiness, 11 June 2010

AFI 63-101, Acquisition and Sustainment Life Cycle Management, 17 April 2009

AFI 91-204, Safety Investigations and Reports, 24 September 2008

MIL-HDBK-516, Airworthiness Certification Criteria, 29 February 2008

### Terms

**Airworthiness**— The verified and documented capability of an air system configuration to safely attain, sustain, and terminate flight in accordance with approved usage and limits.

**Airworthiness Certification**— A repeatable process which documents compliance with the approved certification basis.

**Certification Basis**— The set of approved airworthiness certification criteria, standards, methods of compliance, and exemptions that apply to a specific air system. It is typically derived from MIL-HDBK-516, *Airworthiness Certification Criteria*.

**Commercial Derivative Aircraft**— Any fixed or rotary-wing aircraft procured as a commercial FAA type certificated off-the-shelf non-development item, and whose serial number is listed on an FAA Type Certificate Data Sheet.

**Commercial Derivative Passenger Carrying Aircraft**— Any CDA used primarily for the transport of passengers.

**Exemption**— Documentation of a permanent non-compliance with an applicable airworthiness certification criterion.

**FAA Evaluations**— The engineering, test planning, ground and flight testing, test reports, flight manual supplements, and procedures for continued airworthiness required and approved by the FAA for granting or amending a Type Certificate or granting a Supplemental Type Certificate.

**Finding of compliance (find compliance)**— TAA concurrence that the "show compliance" data supports the determination of airworthiness.

**Flight Release**— Documentation which authorizes flight of a specific aircraft at specific locations under approved conditions and limitations.

**Legacy Aircraft Systems**— For the purposes of this policy, are defined as those systems having airworthiness certifications or flight releases issued prior to this policy revision.

**Military Certificate of Airworthiness (MCA)**— The document issued by a PM to each individual aircraft that provides evidence of compliance with its approved MTC and its condition relative to safe operation.



**Military Type Certificate (MTC)**— The TAA-issued document which provides evidence that the aircraft system type design is in full compliance with its approved certification basis.

**Passenger**— Any person on board an air vehicle who is not trained regarding the passenger safety/emergency capabilities of that particular air vehicle and mission. For a specific flight, this includes any person who does not have active crewmember duties and is not essential for accomplishing mission tasks. NOTE: Mission training constitutes specialized air vehicle training beyond preflight safety briefings.

**Program Manager (PM)**— The DODI 5000.02 designated individual with responsibility for, and authority to accomplish, program objectives for development, production, and sustainment to meet user's operational needs. PMs for sub-systems support overall system objectives as required by the System Program Manager (SPM). PMs for acquisition programs are accountable for credible cost, schedule, performance, and materiel readiness to the MDA. ACAT I, ACAT IA, and ACAT II PMs are chartered by the SAE and the PEO. Delegated ACAT II and III PMs are chartered by the PEO or DAO. PMs for sustainment programs are accountable for credible cost, schedule, performance, and materiel readiness to AFMC/CC or designee.

**Showing of compliance (show compliance)**— Substantiating data provided by the PM that supports a finding of compliance by the TAA.

**Technical Airworthiness Authority (TAA)**— The AF official authorized to define airworthiness standards, approve the certification basis, issue findings of compliance, and issue Military Type Certificates and other flight releases.

**Type Design**— Description of the physical configuration of similar air systems which are functionally equivalent from an airworthiness perspective.