



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR FORCE TEST CENTER (AFMC)
EDWARDS AIR FORCE BASE CALIFORNIA

AFTCI62-602_AFTCGM2025-01

18 September 2025

MEMORANDUM FOR DISTRIBUTION

FROM: AFTC/CC
1 S Rosamond Blvd.
Edwards AFB CA 93524

SUBJECT: Air Force Guidance Memorandum to Air Force Test Center Instruction
(AFTCI) 62-602, "Airworthiness"

By Order of the Air Force Test Center Commander, this Air Force Test Center Guidance Memorandum immediately implements changes to AFTCI 62-602 as documented in this memorandum. Compliance with this Memorandum is mandatory. To the extent its directions are inconsistent with other Air Force Test Center publications, the information herein prevails, in accordance with DAFI 90-160, *Publications and Forms Management*.

This memorandum recognizes the process changes implemented by the Department of the Air Force Instruction 62-601, *Airworthiness*, published 30 June 2025, as taking precedence over any conflicts with the AFTCI 62-602.

This memorandum implements the ability for AFTC Chief Engineer Delegated Technical Authorities (CE/DTA) to issue Military Flight Releases (MFRs) for MIL-HDBK-516C compliant modifications. The following paragraphs are amended as follows:

- 2.2.1. In accordance with specific conditions of delegation from the AFTC DOE/DTA, determine if a modification is AW related, make reportability recommendations to the AFTC DOE/DTA, develop certification basis, develop compliance reports, prepare MFRs for flight test aircraft as modified for specific flight tests, and issue MFRs IAW AFTC CE/DTA delegation and this instruction.
- 3.1.6.5. The AFTC CE/DTA will evaluate the modification against the current aircraft MFR and determine if a new MFR is required, or if the T-2 modification can be flown under the existing MFR. If a new MFR is required, the AFTC CE/DTA will coordinate the MFR number with the MDS/Platform CE/DTA. For MIL-HDBK-516C compliant modifications that require an MFR, the AFTC CE/DTA will issue the MFR. If any MIL-HDBK-516C section is non-compliant the AFTC CE/DTA will provide the draft MFR to the AFTC DOE/DTA for approval.

This Memorandum becomes void after one year has elapsed from the date of this Memorandum, or upon incorporation by interim change to, or rewrite of AFTCI 62-602, whichever is earlier.

SCOTT A. CAIN
Major General, USAF
Commander

**BY ORDER OF THE COMMANDER
AIR FORCE TEST CENTER**

**AIR FORCE TEST CENTER
INSTRUCTION 62-602**



1 SEPTEMBER 2020

Developmental Engineering

AIRWORTHINESS

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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(Dr. Eileen Bjorkman)

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This publication implements and extends the guidance of Air Force Policy Directive (AFPD) 62-6, USAF Airworthiness; Air Force Instruction (AFI) 62-601, *USAF Airworthiness*; AFI 62-601 AFMC Supplement, *USAF Airworthiness*; MIL-HDBK-516C, *Airworthiness Certification Criteria*, for further instructions and guidance. It applies to aircraft or air systems, manned or unmanned, that are owned, leased, used, or otherwise required to support the Air Force Test Center (AFTC) mission at AFTC test sites, including the 53d Wing, Air National Guard and the U.S. Air Force Reserve air systems. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with (IAW) AFI 33-322, *Records Management and Information Governance Program*, and disposed of IAW the Air Force Records Disposition Schedule (RDS) located in the Air Force Records Information Management System (AFRIMS). Refer recommended changes and questions about this publication to the 412 CS/SCOK using the Air Force (AF) Form 847, Recommendation for Change of Publication; route AF Form 847s through the appropriate chain of command. This instruction requires the collection and maintenance of information protected by the Privacy Act of 1974 authorized by Title 10 United States Code (USC), Section 9013, Secretary of the Air Force. The applicable System of Record Notices (SORNs) F036 AF PC Q, Personnel Data System and F036 AF PC C, Military Personnel Records System, are available at: <https://dpcl.d.defense.gov/Privacy/SORNs/>. This instruction does not require tiers at or below the Wing level. The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force.

SUMMARY OF CHANGES

This document has been substantially revised and must be completely reviewed. Major changes include **paragraph 2.5** (new), **paragraph 3.1, 3.2, 3.3 and 3.4** are significantly modified with the old **paragraphs 3.5 – 3.9** incorporated into 3.1 – 3.4, Section 5 was significantly modified and Section 6 was added for small UAVs.

1. Purpose. The purpose of this Instruction is to establish a common process for making airworthiness (AW) determinations for aircraft where Air Force Test Center (AFTC) has AW responsibility.

2. Responsibilities.

2.1. The AFTC Director of Engineering/Delegated Technical Authority (AFTC DOE/DTA) will:

2.1.1. Manage the AFTC AW process, monitor compliance with Air Force and AFMC policies and training requirements and communicate changes in policy or procedures to AFTC Chief Engineers/Delegated Technical Authorities (CE/DTA).

2.1.2. Comply with all AW regulations, bulletins, requirements for training, data requests and yearly reporting as specified in the DOE/DTA specific conditions of delegation.

2.1.3. Review AW recommendations by AFTC CE/DTAs for AFTC T-2 modifications and make a reportability decision when delegated by the Technical Airworthiness Authority (TAA). At a minimum, annually review non-AW related and AW related, non-reportable without non-compliances decisions made by AFTC CE/DTAs.

2.1.4. Conduct an AW evaluation of aircraft used in AFTC missions in accordance with (IAW) TAA policy.

2.1.5. Issue Military Flight Releases (MFRs) IAW the specific conditions of delegation from the TAA.

2.2. The AFTC Chief Engineer/Delegated Technical Authority (CE/DTA) will:

2.2.1. In accordance with specific conditions of delegation from the AFTC DOE/DTA, determine if a modification is AW related, make reportability recommendations to the AFTC DOE/DTA, develop certification basis (see [paragraph 3.5.2](#)), develop compliance reports (see [paragraph 3.5.3](#)) and prepare MFRs (see [paragraph 3.5.4](#)) for flight test aircraft as modified for specific flight tests.

2.2.2. Comply with all AW regulations, bulletins, requirements for training, data requests and yearly reporting as specified in the AFTC CE/DTA delegation letter.

2.3. The AFTC T-2 Modification Engineering Authority (MEA) will:

2.3.1. Review and approve the AFTC Form 6238, *T-2 Modification Airworthiness Determination and Preliminary Hazards Analysis (MADPHA)*, IAW specific conditions of MEA delegation from the MDS/Platform program office.

2.3.2. Ensure that the *T-2 MADPHA* is used and updated throughout the phases of the T-2 modification process.

2.4. The AFTC T-2 Modification Engineer will:

2.4.1. As needed to document if a modification is airworthiness related, complete the *T-2 MADPHA* during the initial design of the T-2 modification and update as required during the T-2 modification phases IAW local T-2 modification policies.

2.4.2. Ensure any changes related to AW hazards are updated in the *T-2 MADPHA* and reported to the MEA and the AFTC CE and DOE DTAs for AW relatedness determination and reportability assessment considerations.

2.5. The Requiring Activity will:

2.5.1. Contact the appropriate AFTC DTA to begin the AW planning process.

2.5.2. Provide the documentation necessary to conduct the airworthiness assessment.

2.5.3. Ensure the required airworthiness assessment activities are supported by the relevant parties.

2.5.4. Obtain safety risk acceptance, when applicable, from the appropriate risk acceptance authority as defined in AFTC Instruction 91-202, *AFTC Test Safety Review Policy*.

2.5.5. Obtain AW approval, when applicable.

2.5.6. Ensure USAF oversight is provided for the maintenance and operation of the air system, when applicable.

2.5.7. Inform the appropriate AFTC DTA of project changes that could affect the AW assessment such as change in aircraft configuration, intended use or increase in flight hours.

3. T-2 Modification.

3.1. Modifications delegated to the AFTC (accomplished under the AFTC delegated DOE and CE authority). All T-2 modifications will be assessed and classified as either *non-AW related*, *AW related*, *non-reportable*, or *AW related, reportable*. Reference AFI 62-601.

3.1.1. All T-2 modifications that are assessed as *non-AW related* or *AW related, non-reportable* will follow this instruction and the test site documented T-2 modification processes.

3.1.2. All T-2 modifications that are assessed as *AW related, reportable* will follow the process directed by the MDS/Platform CE/DTA.

3.1.3. The *T-2 MADPHA* will be provided to the AFTC CE/DTA early in the design process before the design is finalized, and then updated as required during the T-2 modification phases.

3.1.4. The AFTC CE/DTA may use the *T-2 MADPHA* to assess if the T-2 modification is AW related and will complete the entire form if the modification is AW related. The *T-2 MADPHA* will be updated as required during the T-2 modification phases. In the *T-2 MADPHA*, the CE/DTA will provide a narrative summary of the primary factors that influenced the AW relatedness assessment.

3.1.5. If the T-2 modification is classified as *non-AW related*:

3.1.5.1. When the *T-2 MADPHA* is used to make the AW relatedness assessment, the *non-AW related box* will be checked and the AFTC CE/DTA will sign the *T-2 MADPHA*.

- 3.1.5.2. The T-2 modification will be executed per the test site T-2 modification process.
- 3.1.5.3. Any changes to the assessment that occur during the T-2 modification process will be briefed to the AFTC DOE/DTA for reportability determination.
- 3.1.5.4. The AFTC CE/DTA will maintain records on all non-AW related assessments and provide an annual report to the AFTC DOE/DTA.
- 3.1.6. If the T-2 modification is classified as *AW related, non-reportable*:
- 3.1.6.1. An AFTC Form 6239, *T-2 Modification Airworthiness Compliance (MAC)* is only required if any MIL-HDBK-516C section is non-compliant.
- 3.1.6.2. The AFTC CE/DTA will complete the AFTC Form 6239, columns 1-5 and the overall AW Hazard Index (AWHI) assessment section documenting the initial AWHI that resulted in the *non-reportable* classification. The AWHI is determined considering the mitigations in column 5. Additional required analyses/tests not already captured in the T-2 modification data package may be identified in column 3 and these will be added to the T-2 modification data package and its data package checklist. See AFTC Form 6239, *T-2 MAC*. The *T-2 MAC* will be signed by the AFTC CE/DTA to indicate their recommendation of the certification basis portion of the *T-2 MAC* (columns 1-3), compliance report portion (columns 4 and 5), and reportability determination.
- 3.1.6.3. The AFTC CE/DTA will forward the *T-2 MADPHA* along with the *T-2 MAC* to the AFTC DOE/DTA. The AFTC DOE/DTA will sign the T-2 MAC to indicate approval of the certification basis and compliance report, assuming all certification activities will be accomplished as stated and approval of the reportability recommendation from the AFTC CE/DTA.
- 3.1.6.4. After the certification activities (i.e., installation, analysis and ground tests) for the modification have been completed, the AFTC CE/DTA will update the *T-2 MAC*, as required. If the *T-2 MAC* was updated, it will need to be re-signed by the AFTC CE/DTA and then delivered to the AFTC DOE/DTA for signature to indicate approval of the updated *T-2 MAC*. Any residual safety risk due to the modification must be accepted.
- 3.1.6.5. The AFTC CE/DTA will evaluate the modification against the current aircraft MFR and determine if a new MFR is required, or if the T-2 modification can be flown under the existing MFR. If a new MFR is required, the AFTC CE/DTA will coordinate the MFR number with the MDS/Platform CE/DTA and provide the draft MFR to the AFTC DOE/DTA for approval.
- 3.1.6.6. The *T-2 MAC* (if required) and MFR (if required) must be approved and signed prior to the issuance of any T-2 Modification flight releases.
- 3.1.6.7. The AFTC CE/DTA will collect all data required for the AFTC DOE/DTA's annual report.
- 3.1.7. If the T-2 modification is classified as *AW related, reportable*:

3.1.7.1. The AFTC CE/DTA will forward all documents required by the MDS/Platform CE/DTA for inclusion into their approval process.

3.1.7.2. All AW approval processes will be followed as directed by the MDS/Platform CE/DTA. All other modification processes will be followed as directed in the test site specific T-2 modification process and any additional artifacts required by the MDS/Platform CE/DTA or MDS/Platform DOE/DTA will be included in the T-2 modification package.

3.1.7.3. The MDS/Platform office will provide any required MFR to the AFTC CE/DTA.

3.2. Modifications directed by the MDS/Platform office (not accomplished under the AFTC delegated DOE and CE authority).

3.2.1. The responsible MDS/Platform office will provide all T-2 modification documentation and any required Military Type Certificates (MTCs) or MFRs to the AFTC CE/DTA.

3.2.2. Modifications, software changes and configuration changes directed by the MDS/Platform office will be reviewed by the AFTC CE/DTA and Configuration Control Board (CCB) to eliminate conflicts with existing aircraft modifications.

3.3. Non-AFMC aircraft. Aircraft that belong to other USAF MAJCOMs may be modified by AFTC MEAs per the MEA delegation letter and memorandum of agreement between AFMC and the owning command. When an AFTC MEA performs the modifications, the appropriate AFTC CE/DTA for the MDS will be responsible for accomplishing the applicable portions of this instruction and will coordinate with the operating unit to ensure the modification is approved and documented IAW Air Force policies. See AFI 63-101/20-101, AFI 62-601 and associated AW bulletins.

3.4. Modifications to FAA certified aircraft (manned or unmanned) owned by the Air Force. These modifications will be accomplished IAW FAA certification requirements. Modifications to FAA certified aircraft that cannot be accomplished under FAA oversight will be handled as T-2 modifications and a MFR will be issued IAW this instruction.

4. Aircraft-Store Compatibility and Integration.

4.1. Flight test activities involving stores will follow AFI 63-104 (expected to be rescinded and replaced by AFI 63-101/20-101).

4.2. If the aircraft under test requires an associated test instrumentation modification to support a test, and when the AFTC has been delegated the MEA, a T-2 modification will be accomplished and assessed for AW per this instruction.

4.3. Stores developed and maintained by AFTC to support testing will follow the T-2 modification process. Stores developed and maintained by a weapon system program office will follow the direction of the appropriate MDS/Platform CE.

5. Leased Aircraft.

5.1. Leased or contracted aircraft used in AFTC missions will be assessed for AW by the AFTC DOE/DTA according to Airworthiness Bulletin (AWB) 340. Each leased aircraft operation will be classified as either Civil Aircraft Operations (CAO) or Public Aircraft Operations (PAO).

5.1.1. A contract for contracted air services shall incorporate AW requirements. These requirements shall be sufficient to support AW activities required by USAF policy to obtain an AW approval.

5.2. Leased aircraft operating as CAO are under the AW authority of the FAA and must comply with all FAA regulations for operations, maintenance and aircraft modifications.

5.2.1. The AW assessment of a leased aircraft operating as CAO will be based upon the following:

5.2.1.1. Review of the Aircraft Airworthiness Data Package to include aircraft registration, airworthiness certificate (including all modifications) and any operating limitations. If the aircraft has an FAA Special AW Certificate classified as Experimental or Restricted, then the operating limitations associated with the certificate must also be reviewed.

5.2.1.2. Completion and review of a Maintenance and Operations (M&O) assessment (see AWB-340).

5.2.1.3. Review of the aircraft owner statement which should address aircraft operations, maintenance and modifications anticipated to occur during the performance of this contract are/will be in compliance with all FAA regulations; all maintenance and required inspections are current—provide dates of most recent inspections; all aircrew that will operate the aircraft are certified, trained and current; the owner/operator concurs that the contracted operations are CAO and not PAO; any activity that would require deviation from FAA rules will be announced to the contracting officer prior to flight; the amount of liability insurance carried on the aircraft; all installation of GFE has approved FAA Form 8110/337s (include copies); and explain any FAA or USTRANSCOM violations, suspensions, citations, or sanction in the past 5 years. The aircraft owner must provide copies of the aircraft registration and airworthiness certificate. If the aircraft has an FAA Special AW Certificate classified as Experimental or Restricted, then the operating limitations associated with the certificate must also be provided.

5.2.1.4. Review of the contract performance work statement, or other document, that details how the aircraft will be operated while supporting AFTC.

5.2.1.5. Receipt of the Risk Acceptance Letter, signed by the appropriate authority (see 2.5.4).

5.2.2. Following the AW assessment and risk acceptance, the AFTC DOE/DTA will issue a CAO verification letter to the contract requiring activity.

5.3. Aircraft operations classified as PAO are under the AW authority of the USAF and the aircraft operations, maintenance and modification will be under USAF oversight. The contract requiring activity must provide the aircraft owner/operator with a written PAO declaration to be filed with the FAA.

5.3.1. The AW assessment of a leased aircraft operating as PAO will be based upon the following:

5.3.1.1. Review of the Aircraft Airworthiness Data Package, including the aircraft registration, airworthiness certificate (including all modifications) and any operating limitations. If the aircraft has an FAA Special AW Certificate classified as Experimental or Restricted, then the operating limitations associated with the certificate must also be reviewed.

5.3.1.2. Completion and review of a Maintenance and Operations (M&O) assessment (see AWB-340).

5.3.1.3. Review of a letter from owner/operator that includes statements to the effect that: all maintenance and required inspections are current—provide dates of most recent inspections; all non-government aircrew that will operate the aircraft are certified, trained and current; the amount of liability insurance carried on the aircraft; and explain any FAA or USTRANSCOM violations, suspensions, citations, or sanction in the past 5 years.

5.3.1.4. Review of a written description of planned operations, such as test plan, method of test, or performance work statement.

5.3.1.5. Receipt of the Risk Acceptance Letter, signed by the appropriate authority (see 2.5.4.).

5.3.2. Once the AW assessment is accomplished and the associated risks accepted, an MFR will be issued by the AFTC DOE/DTA. However, if the assessed risk of flying a leased aircraft is Serious or High per AFI 62-601, the MFR will be issued by the TAA, following the more detailed processes in AWB-340, unless specifically delegated to the AFTC DOE/DTA. The MFR will include the requirements for operating and maintaining the aircraft while in PAO status. The MFR will also annotate any aircraft operating limitations. A copy of the MFR will be issued to the owner/operator to be carried onboard the aircraft.

5.3.3. A PAO Declaration Letter will be issued by the contracting officer to the owner/operator to be provided to the Federal Aviation Administration.

5.3.4. Where possible, modifications to PAO aircraft will be conducted under the authority of the owner and comply with FAA requirements. In the event that the modification cannot be approved by the FAA, an MFR covering the modification will be issued by the AFTC DOE/DTA IAW this instruction.

5.4. Safety risk identified during the AW process must be accepted.

6. Unmanned Aerial Vehicle. For unmanned aerial systems eligible per AWB-350 for the Small Unmanned Aircraft Systems airworthiness assessment method specified in Airworthiness Circular (AC) 20-02, a non-design-based AW assessment of these unmanned aerial vehicles (UAVs) will be accomplished when the AFTC DOE/DTA determines that a design-based airworthiness certification cannot reasonably be accomplished but there is a compelling military need to operate the air system.

6.1. Data to support the AW assessment will be provided by the requiring activity to the AFTC DOE/DTA and should include:

6.1.1. Configuration description.

6.1.2. Maintenance and operator technical data (i.e., manuals, COTS documentation).

6.1.3. Plan for USAF oversight of operations and maintenance.

6.1.4. Intended usage (e.g., flight test plan or description of planned operation).

6.1.5. Limitations and restrictions not included in other documentations.

6.1.6. Safety procedures.

6.1.7. Performance and flight history for the UAV type.

6.1.8. Flight history of the specific UAV to be flown.

6.2. A safety risk assessment will be accomplished and the risk must be accepted.

6.3. After risk acceptance, the AFTC DOE/DTA will issue a MFR.

CHRISTOPHER P. AZZANO,
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Commander

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

DoDD 5030.61, *DoD Airworthiness Policy*, 31 Aug 2018

AC-20-02, *Small Unmanned Aircraft Systems Airworthiness Assessments*, 31 Jul 2020

AFI 11-401, *Aviation Management*, 10 Dec 2010 according to AFI 11-401_AFGM2020-01 17 Jan 2020

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AFI 62-601, *USAF Airworthiness*, 11 Jun 2010

AFI 62-601 AFMC Supplement, *USAF Airworthiness*, 28 Mar 2016

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AFTC Form 6238, *T-2 Modification Airworthiness Determination and Preliminary Hazards Analysis*

AFTC Form 6239, *T-2 Modification Airworthiness Compliance*

AFTCI 91-202, *AFTC Test Safety Review Policy*, 13 Nov 2018

AWB-004A, *Development of an Airworthiness Certification Basis*, 17 Jun 2011

AWB-005, *TACC/MACC Document Construction and Format*, 27 Sep 2010

AWB-007, *Determining Reportability of Modifications*, 5 May 2011

AWB-150A, *Airworthiness (AW) Risk Assessment and Acceptance*, 5 Dec 2017

AWB-340, *USAF Airworthiness Requirements for Contractor-Owned and Contractor-Operated Air Systems*, 26 Oct 2018

AWB-350, *Unmanned Aircraft Systems Airworthiness*, 31 Jul 2020

AWB-1009, *Airworthiness Flight Authorizations – Military Type Certificate (MTC)/Military Flight Release (MFR)*, 25 Mar 2016

AC-18-02, *USAF Maintenance & Operations Airworthiness Evaluations of Contractor Owned & Contractor Operated Air Systems*, 26 Oct 2018

MIL-HDBK-516C, *Airworthiness Certification Criteria*, 12 Dec 2014

Adopted Form

AF Form 847, *Recommendation for Change of Publication*

Abbreviations and Acronyms

AC—Airworthiness Circular

AFI—Air Force Instruction

AFMAN—Air Force Manual
AFMC—Air Force Materiel Command
AFPD—Air Force Policy Directive
AFRIMS—Air Force Records Information Management System
AFTC—Air Force Test Center
AW—Airworthiness
AWHI—Airworthiness Hazard Index
AWB—Airworthiness Bulletin
CAO—Civil Aircraft Operations
CCB—Configuration Control Board
CE—Chief Engineer
DOE—Director of Engineering
DTA—Delegated Technical Authority
FAA—Federal Aviation Administration
GFE—Government Furnished Equipment
IAW—In Accordance With
M & O—Maintenance and Operations
MAC—Modification Airworthiness Compliance
MDS—Mission Design Series
MEA—Modification Engineering Authority
MFR—Military Flight Release
MTC—Military Type Certificate
PAO—Public Aircraft Operations
RDS—Records Disposition Schedule
T-2—Temporary, Type 2 (Modification)
T-2 MAC—T-2 Modification Airworthiness Compliance (AFTC Form 6239)
T-2 MADPHA—T-2 Modification Airworthiness Determination and Preliminary Hazard Analysis (AFTC Form 6238)
TAA—Technical Airworthiness Authority
UAV—Unmanned Aerial Vehicle
USAF—US Air Force
USTRANSCOM—United States Transportation Command