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Developmental Engineering

**STANDARDS OF AIRWORTHINESS FOR
COMMERCIAL DERIVATIVE HYBRID
AIRCRAFT**

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This directive establishes policies to ensure the Air Force's commercial derivative hybrid aircraft used for operations, surveillance, training, and test and evaluation maintain high levels of safety and to ensure the Air Force does not duplicate activities performed by the Federal Aviation Administration (FAA), such as Type Certification (TC) or Supplemental Type Certification (STC) pertaining to those aircraft. The intent of this Policy Directive is to ensure the highest levels of safety for all commercial derivative hybrid Air Force aircraft.

SUMMARY OF REVISIONS

This revision incorporates Interim Change 2001-1 and modifies the approving authority for aircraft modifications. A bar (|) indicates revision from the previous edition. The entire text of the IC is at the last attachment.

1. To meet military requirements, the Air Force will seek to procure and sustain commercial derivative hybrid fixed and rotary wing aircraft even when the intended use of such aircraft is not consistent with original design or a civil equivalent operation does not exist. This reduces much of the life cycle costs associated with developing, producing, operating, and maintaining government-developed aircraft.
2. To gain the greatest life cycle cost savings, the Air Force will seek to ensure its commercial derivative hybrid aircraft, to the extent practicable, comply with civil airworthiness standards set by the Federal Aviation Regulations (FAR). Commercial aircraft are generally required to comply with FAR requirements and Public law designates the FAA as the regulator of the US national airspace system and enforcer of FAR requirements. However, aircraft owned and operated by the Air Force are public aircraft and the Air Force is the responsible agent for certification of airworthiness. At a minimum, the Air Force will use the FARs to baseline airworthiness wherever practicable. The System Program Director (SPD), who has overall responsibility for airworthiness, will use Air Force modification procedures when the FARs are inappropriate. The Program Manager is responsible for the engineering design, testing and modifications made to commercial derivative hybrid aircraft.

3. The Air Force shall seek to ensure avionics or other equipment developed for use on Air Force commercial derivative hybrid aircraft meet or exceed civil design standards in accordance with the airworthiness and operating FARs that apply to the aircraft being procured. In addition to the FAR requirements or if the item is military off-the-shelf, military design standards will be met when the mission dictates.
4. The Air Force may accept and use FAA evaluations and inspections to reduce duplicative activities.
5. The preferred solution for the Air Force is to obtain and maintain complete FAA Type Certification on Commercial Derivative aircraft. While procuring and sustaining commercial derivative aircraft as closely as possible to their commercial counterparts is preferred, often times it is impractical. Mission requirements can run contrary to FARs making FAA certification extremely costly and nearly impossible. Some missions require the commercial derivative hybrid aircraft to be modified to the extent that FAA Type Certification or Supplemental Type Certification is impractical or impossible. To remedy this, the aircraft may be partitioned (Engines, Avionics, Fuselage) into FAA Type certified (TC'd) and "government approved" portions. Unique mission equipment and modifications that do not affect airworthiness are appropriate examples for government approval procedures versus FAA certification. The cost benefit from obtaining and maintaining TC'd or Supplemental Type certified (STC'd) aircraft or portions of aircraft is the use of the FAA certified parts pool and the FAR sustainment/maintenance baseline for contractor logistic support of the civil derivative hybrid aircraft. This ensures a minimum level of safety and airworthiness equivalent to the aircraft's commercial counterpart.
6. This directive establishes the following responsibilities and authorities:
 - 6.1. The Associate Director for Civil Aviation (AF/XOO-CA) establishes airworthiness policy. AF/XOO-CA also maintains overall program and planning liaison with the FAA, coordinates regulatory and policy documents with the FAA and negotiates interagency support agreements with the FAA.
 - 6.2. AF/IL oversees the US Air Force airworthiness process for commercial derivative hybrid aircraft.
 - 6.3. SAF/AQ develops streamlined acquisition processes, integrates best commercial practices, develops a contracting process for commercial derivative hybrid aircraft, and provides Program Management Directive (PMD) direction to Headquarters Air Force Material Command (HQ AFMC).
 - 6.4. The System Program Director (SPD) has final modification approval authority for commercial derivative hybrid aircraft.
 - 6.5. Deleted.
7. This policy applies to all personnel involved in requirement development, procurement, certification, and maintenance of US Air Force, Air National Guard, and Air Force Reserve commercial derivative hybrid aircraft.
8. Measure of Compliance. By Dec 15 of each year, the SPD of commercial derivative hybrid aircraft programs shall provide to HQ USAF/XOO-CA a survey of the fleet. This survey will identify the Mission Design Series (MDS), the equivalent commercial aircraft, and detail the total number of aircraft in the program by tail number. Reporting will be done through RCS: HAF-XOO(A) 9343, *Annual USAF Civil Derivative Aircraft Assessment*. Discontinue reporting during emergency conditions. Discontinue reporting during minimize.

9. This directive addresses Commercial Derivative Hybrid Aircraft. AFPD 62-4 addresses standards of airworthiness for passenger carrying commercial derivative aircraft.

JAMES G. ROCHE
Secretary of the Air Force

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

Federal Aviation Regulations

AFPD 63-1, Acquisition System (no former publication)

AFPD 64-1, The Contracting System (no former publication)

AFPD 62-4, Standards of Airworthiness for Passenger Carrying Commercial Derivative Transport Aircraft

Terms

Civil Airworthiness Standards—The regulations, rules, policies, and interpretations used by the FAA to substantiate the airworthiness of commercially developed products.

Commercial Derivative Aircraft—Any fixed or rotary-wing aircraft procured as a commercial Type Certificated off-the-shelf non-developmental item.

Commercial Derivative Hybrid Aircraft—Any fixed- or rotary wing aircraft procured as a commercial Type Certificated off-the-shelf developmental or non-developmental item and subsequently modified to meet Air Force mission requirements. These aircraft shall not be used for passenger carrying missions unless the aircraft is in compliance or modified to comply with FAA airworthiness standards.

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

Attachment 2

TEXT OF IC 2001-1 TO AFPD 62-5

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SUMMARY OF REVISIONS

This change modifies the approving authority for aircraft modifications. A bar (|) indicates revision from the previous edition.

6.4. The System Program Director (SPD) has final modification approval authority for commercial derivative hybrid aircraft.

6.5. Deleted.