



**U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION**

National Policy

**ORDER  
8110.56A**

Sept. 30, 2008

**SUBJ: Restricted Category Type Certification**

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This order prescribes how to certificate aircraft in restricted category under Title 14 of the Code of Federal Regulations. This order applies to Aircraft Certification Service personnel, Flight Standards Service personnel, persons designated by the Administrator, and organizations associated with the aircraft certification process. Because it is impractical to cover all situations that might arise, supplement these instructions with good judgment.

If you find any deficiencies, need clarification, or want to suggest improvements to this order, send a copy of FAA Form 1320-19, Directive Feedback Information (written or electronically), to the Aircraft Certification Service, Planning and Financial Resources Management Branch, AIR-530, Attention: Directives Management Officer. Form 1320-19 is on the last page of this order. You may also send a copy to the Aircraft Engineering Division, AIR-100, Attention: Comments to Order 8110.56A. If you urgently need an interpretation, contact AIR-110 at (202) 267-9588. Always use Form 1320-19 to follow up each verbal conversation.

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## Chapter 1. General Information

**1-1. Purpose of This Order.** This order prescribes how the Federal Aviation Administration (FAA) issues aircraft type certificates (TC) in restricted category. This order applies to Aircraft Certification Service (AIR) personnel, Flight Standards Service (AFS) personnel, anyone designated by the Administrator, and organizations associated with the aircraft certification process. This order supplements Order 8110.4, Type Certification, and details the responsibilities and procedures for type certification of restricted category aircraft under Title 14 of the Code of Federal Regulations (14 CFR) § 21.25. When a conflict exists between Order 8110.4 and this document about the type certification of aircraft in the restricted category, follow this document.

**1-2. Audience.** Washington headquarters branch levels of the Aircraft Certification Service, Flight Standards Service, and Office of Environment and Energy; branch levels of the regional Aircraft Certification directorates and regional Flight Standards divisions; all aircraft certification offices (ACO); the International Policy Office; all aircraft evaluation groups (AEG); and all FAA designees.

**1-3. Where Can I Find This Order?** You can get copies of this order from the FAA's Regulatory and Guidance Library (RGL) at <http://www.airweb.faa.gov/rgl>.

**1-4. Cancellation.** This order cancels Order 8110.56, Restricted Category Type Certification, dated February 26, 2006.

**1-5. Deviations.** Adherence to the procedures in this order is essential for uniform administration of this directive material. All deviations from this directive must be approved by AIR-100. To request a deviation, the FAA employee involved submits a deviation request to AIR-100 for review. The request contains the arguments and recommendation of the submitting office, and must be concurred with by the manager of the submitting office. AIR-100 coordinates and dispositions the request. If a deviation is approved, the FAA employee involved must ensure that the deviation is substantiated and documented in the certification project files.

**1-6. Explanation Of Changes.** This Revision contains the following changes:

**a.** Add a new paragraph 1-5, Deviations, that details the process to obtain approval to deviate from the directives in this order.

**b.** Add a new paragraph 1-6, Explanation of Changes.

**c.** Paragraph 1-9, Definitions: Add "Civil Counterpart." Delete "Level of Certitude." Clarify "Standard Category."

**d.** Paragraphs 2-2 and 2-3: Add requirement to reference either 21.25(a)(1) or 21.25(a)(2), and the special purpose operation, in the certification basis.

**e.** Paragraph 2-4a: Change "AIR-110" to "AIR-100".

**f.** Paragraph 2-10, Public Aircraft: Redraft and clarify that we do not reduce the level of safety for certification of aircraft because of their intended use as public aircraft.

**g.** Paragraph 3-3, Inappropriate Airworthiness Requirements: Reorder the subparagraphs to clarify the process. Add a new paragraph 3-3d, to include the rationale for the determination.

**h.** Delete paragraph 3-8. Redraft paragraph 3-9, Type Certification of Foreign-Certificated Restricted Category Aircraft, and renumber to 3-8.

**i.** Paragraph 4-2d, Type Certification Requirements (for Military-Derived Aircraft): Clarify the 10-year satisfactory service history.

**j.** Paragraphs 4-4, ACO Coordination, and 4-5, Focal Point ACOs: Clarify ACO coordination with AIR-110 and with the focal point ACO.

**k.** Paragraph 4-10: Clarify the information to be included on civil data plates.

**l.** Paragraph 4-11: Clarify the requirements for modifications to the engines on military-derived aircraft, to include engines previously qualified by the armed forces on the same military aircraft model. Add paragraph 4-11d on the acceptability of newer replacement parts from civil counterparts.

**m.** Paragraph 4-13b: Clarify coordination required with focal point ACO and accountable directorate.

**n.** Paragraph 4-14, Continued Airworthiness: Clarify the process for determining the applicability of ADs for civil counterpart aircraft and engines.

**o.** Paragraph 5-5, Forest & Wildlife Conservation: Expand "oil spill eradication" to include "oil spill dispersant".

**p.** Paragraph 5-10b, Carriage of Cargo: Delete the definition of carriage of cargo.

**q.** Appendix 4: Update references for FAA Orders and ACs.

**r.** Miscellaneous corrections to grammar, spelling and revised paragraph numbering.

## **1-7. Background on Certification Procedures.**

**a. Title 49 of the United States Code (49 U.S.C.).** Title 49 U.S.C. § 44701 requires the Administrator to promote safe flight of civil aircraft in air commerce. To do this, the FAA prescribes minimum standards on the design, material, construction, quality of work, and performance of aircraft, aircraft engines, and propellers. Under 49 U.S.C. § 44704, the Administrator issues TCs, supplemental type certificates (STC), production certificates, and

airworthiness certificates when a product or appliance is properly designed and manufactured, and meets the regulations and minimum standards prescribed under 49 U.S.C. § 44701(a).

**b. Title 14 of the Code of Federal Regulations (14 CFR).** Title 14 CFR part 21 provides general certification procedures for products (aircraft, aircraft engines, and propellers) and parts. For restricted category aircraft, 14 CFR § 21.25 provides for issuing TCs and 14 CFR § 21.185 provides for issuing airworthiness certificates. Also, 14 CFR §§ 91.313 and 133.45 contain the operating limitations for restricted category aircraft and rotorcraft performing external load operations, respectively.

**c. Aircraft Certification Policy.** Find general policy on certification of aircraft, aircraft engines, and propellers in Order 8110.4, Type Certification; Order 8120.2, Production Approval and Certificate Management Procedures; and Order 8130.2, Airworthiness Certification of Aircraft and Related Products.

**1-8. Office of Primary Responsibility.** The office of primary responsibility for this order is the Certification Procedures Branch (AIR-110) of the Engineering Division (AIR-100).

#### **1-9. Definitions.**

**a. Standard Category.** For the purposes of this order, *standard category* means the category of aircraft eligible to receive standard airworthiness certificates under 14 CFR § 21.183.

**NOTE:** *Standard category aircraft* are therefore type-certificated in the normal, utility, acrobatic, commuter, and transport categories.

**b. Civil-Derived Aircraft** are special-purpose aircraft type-certificated in restricted category under 14 CFR § 21.25(a)(1).

**c. Military-Derived Aircraft** are special-purpose aircraft type-certificated in restricted category under 14 CFR § 21.25(a)(2).

**d. Civil Counterpart.** For the purposes of this order, *civil counterpart* means the model of an aircraft that has been type-certificated in a standard category, and that is the same or similar to a military model aircraft.

#### **1-10. Abbreviations.**

14 CFR      Title 14 of the Code of Federal Regulations

49 U.S.C.   Title 49 of the United States Code

ACO          aircraft certification office

AD            airworthiness directive

AEG          aircraft evaluation group

AFM	airplane flight manual
AFMS	airplane flight manual supplement
AFS	Flights Standards Service
AIR	Aircraft Certification Service
CMACO	certificate managing ACO
CPN	certification project notification
DOD	Department of Defense
FAA	Federal Aviation Administration
FONSI	finding of no significant impact
ICA	instructions for continued airworthiness
MDS	U.S. military aircraft type ( <u>m</u> ission, <u>d</u> esign number, and <u>s</u> eries)
STC	supplemental type certificate
TC	type certificate
TCDS	type certificate data sheet

**1-11. Records Management.** Refer to FAA Orders 0000.1, FAA Standard Subject Classification System, 1350.14, Records Management; and 1350.15, Records, Organization, Transfer, and Destruction Standards, or see your office Records Management Officer/Directives Management Officer for guidance regarding retention or disposition of records.



## **CHAPTER 2. Type Certification in Restricted Category, 14 CFR § 21.25**

**2-1. General.** The FAA issues TCs to restricted category aircraft under 14 CFR § 21.25(a) for use only in those special-purpose operations defined in 14 CFR § 21.25(b). Restricted category aircraft include both civil-derived and military-derived aircraft. Each aircraft must meet its respective restricted category requirements before we issue a TC for one or more special-purpose operations. We derive the type certification procedures in this document from the procedures in Order 8110.4.

**2-2. Civil-Derived Aircraft.** Title 14 CFR § 21.25(a)(1) addresses civil-derived aircraft that meet the airworthiness requirements of a standard category except those requirements that the Administrator finds inappropriate for the special purpose for which the aircraft is to be used. The certification basis for these aircraft must reference 14 CFR § 21.25(a)(1) and the special purpose operation(s) for which it is being approved. See chapter 3 of this order for more details on type certification requirements and procedures for civil-derived aircraft.

**2-3. Military-Derived Aircraft.** Title 14 CFR § 21.25(a)(2) addresses military-derived aircraft of a type that has been manufactured under the requirements of and accepted for use by an Armed Force of the United States. The certification basis for these aircraft must reference 14 CFR § 21.25(a)(2) and the special purpose operation(s) for which it is being approved. See chapter 4 of this order for more details on type certification requirements and procedures for military-derived aircraft.

**2-4. Special-Purpose Operations.** An aircraft type-certificated in restricted category may only perform the special-purpose operations for which it has been approved.

**NOTE:** A special-purpose operation includes the specific mission and the special purpose that an aircraft is approved to perform. Note that this approves the aircraft for the specific function but does not approve the performing of the operation itself.

**a. Approved Special-Purpose Operations.** The FAA has approved the special-purpose operations identified in 14 CFR §§ 21.25(b)(1) through (b)(6) and those specified under 14 CFR § 21.25(b)(7) by AIR-100, acting on the Administrator's behalf. Chapter 5 of this order identifies the special-purpose operations approved when we issued this order. Contact AIR-110 for the current list of approved special-purpose operations.

**b. Type Certification for the Special-Purpose Operation.** Before approving a special-purpose operation on the TC or STC, that special-purpose operation must have been approved under 14 CFR § 21.25(b). Include the approved special-purpose operation (the mission and the special purpose) in the certification basis section of the type certificate data sheet (TCDS) or STC. Do not approve an aircraft for a special-purpose operation until it has been evaluated and modified (if a modification is needed) for that special-purpose operation.

**c. Airworthiness Certification for the Special-Purpose Operation.** Before approving a special-purpose operation for an aircraft (by its restricted category airworthiness certificate),

the special-purpose operation must have been approved on the TCDS or STC. (For aircraft previously type-certificated in standard category and issued an “equivalent” restricted category TC, see paragraphs 3-5 and 3-6 of this order.)

**d. Noise Requirements.** With certain operational exceptions, approval of a special-purpose operation requires compliance with the noise requirements in 14 CFR part 36. See paragraph 2-8 of this order for more details.

**e. Adding Special-Purpose Operations.** The FAA approves additional special-purpose operations for an aircraft using an amended TC or STC. (For aircraft previously type-certificated in standard category and issued an “equivalent” restricted category TC, see paragraphs 3-5 and 3-6 of this order.) Adding another special-purpose operation requires the applicant to assess the safety of the aircraft operating in its new intended use, as detailed in paragraph 2-6 of this order.

## **2-5. Level of Safety and Level of Certitude.**

**a.** The level of safety for restricted category aircraft may be lower than the level of safety for standard category aircraft. Note that this policy does not eliminate any type certification procedural requirements, such as the need to comply with continued airworthiness requirements. To maintain an equivalent level of safety for the public, we impose certain operating restrictions on the aircraft under 14 CFR § 91.313. (For rotorcraft performing external load operations under 14 CFR part 133, see 14 CFR § 133.45.)

**b.** *Level of certitude* is the degree of certainty that the product complies with the applicable airworthiness standards. As defined in this order, the level of certitude for restricted category aircraft must be equivalent to the level of certitude for standard category aircraft. This requires that any TC or STC issued for restricted category be substantiated to the same rigorousness as a standard category certification (for the airworthiness regulations that have been determined applicable).

## **2-6. Safe for Its Intended Use.**

**a.** To comply with 14 CFR § 21.25(a), we require applicants to show that no feature or characteristic of the aircraft makes it unsafe when it is operated under the limitations prescribed for its intended use. *Intended use* means any operation that supports the approved special-purpose operation.

**b.** In addition to any other requirements necessary to make the aircraft safe for its intended use, we expect the applicant to complete an assessment of the aircraft in the special-purpose mission operating environment (see 14 CFR § 21.25(a)). This might require a fatigue and loads analysis of the aircraft in the mission operating environment to establish the limitations for safe operation, including life limits of fatigue-critical and fatigue-sensitive components. Applicants first define the operating environment of the special-purpose operation for which they are seeking approval. Factors that are important for this evaluation are:

- (1) Areas and types of operation conducted,
- (2) Surface conditions of the airports used,

- (3) Nature of any cargo carried,
- (4) Mission operating environment, which includes the aircraft use, mission profile, and loads and fatigue spectrum, and
- (5) Identification of parts not previously life-limited that become life-limited in the special-purpose operation. For all such parts, assign new part numbers and mark the parts as required by 14 CFR § 45.16.

**c. Applying ‘Safe for Its Intended Use.’** The following are examples of when we do or do not require an evaluation (or re-evaluation) of “safe for its intended use.” For example:

- (1) We require an applicant to perform this evaluation before we issue:
  - (a) A *new TC*.
  - (b) An *amended TC* that approves:
    - A new military aircraft type (a military aircraft’s mission, design number, and series, or MDS),
    - An additional special-purpose operation,
    - A new mission operating environment,
    - A change to the airworthiness limitations, or
    - A change to the operating limitations.
  - (c) An *STC* that approves:
    - An additional special-purpose operation,
    - A new mission operating environment,
    - A change to the airworthiness limitations, or
    - A change to the operating limitations.
- (2) We do ***not*** require an applicant to perform this evaluation when applying only to add a new aircraft serial number to an existing TC without adding a new military aircraft MDS and without changing the special-purpose operation, the mission operating environment, the airworthiness limitations, or the operating limitations.
- (3) If an applicant applies for an amended TC without adding a new military aircraft MDS and without changing the special-purpose operation, the mission operating environment, the airworthiness limitations, or the operating limitations, we determine on a case-by-case basis

whether the applicant needs to perform this evaluation. Confer with the accountable directorate and AIR-110 for a determination.

(4) If an applicant applies for an STC without changing the special-purpose operation, the mission operating environment, the airworthiness limitations, or the operating limitations, we determine on a case-by-case basis whether the applicant needs to perform this evaluation. Confer with the accountable directorate and AIR-110 for a determination.

d. Applicants may base their fatigue and loads assessment for military-derived aircraft on a comparison of the proposed special-purpose mission operating environment with the aircraft's previous military operating environment. This assessment might result in additional airworthiness inspection requirements or operating limitations, or both, that are more restrictive than those used by the U.S. Armed Forces. The aircraft still must comply with any other requirements necessary to ensure it is safe for its intended use.

**NOTE:** For military-derived aircraft, we require applicants to maintain all airworthiness and operating limitations used by the military, unless otherwise substantiated.

e. We require applicants to consider past service history of an individual aircraft in their assessment of "safe for its intended use." For example, we can certificate in restricted category an aircraft used as a public aircraft or an aircraft that conducted special Armed Forces missions (perhaps under an alternate MDS). However, it might require additional substantiation (and additional airworthiness limitations or additional operating limitations, or both) before we issue the TC (or before we add its serial number to an existing TC).

f. Ensure applicants place limitations for the intended use on placards or in the airplane flight manual (AFM), airplane flight manual supplement (AFMS), airworthiness certificate operating limitations, TCDS, STC, maintenance manual airworthiness limitations section, or other instructions for continued airworthiness (ICA).

## **2-7. Type Certification Notes.**

a. In addition to the notes specified in Order 8110.4, include the restricted category notes below, and any other notes as necessary, in the TC or STC:

**"NOTE:** Restricted category aircraft may not be operated in a foreign country without the express written approval of that country."

**"NOTE:** This aircraft has not been shown to meet the requirements of the applicable comprehensive and detailed airworthiness code as provided by Annex 8 of the Convention on International Civil Aviation."

**"NOTE:** The aircraft noise [was/was not] shown to comply with the noise requirements in 14 CFR part 36." Include this note with either "was shown" or "was not shown."

**b.** Repeat these notes in the AFM (or AFMS) limitations section, as necessary. For aircraft previously type-certificated in standard category and issued an “equivalent” restricted category TC (see paragraphs 3-5 and 3-6 of this order), include these notes in the aircraft operating limitations attached to the airworthiness certificate. On the TCDS, under “Number of Passengers,” insert “None.” Also, include “Number of Seats” in the TCDS.

## **2-8. Noise Compliance.**

**a.** Restricted category aircraft must comply with the applicable noise requirements of 14 CFR part 36.

**b.** The rule, 14 CFR part 36, does not apply explicitly to large, subsonic, propeller-driven, restricted category aircraft. However, before issuing a TC or STC for these aircraft, the FAA makes an environmental finding under Order 1050.1, Policies and Procedures for Considering Environmental Impacts. New TCs require a finding of no significant impact (FONSI) and an environmental finding under Public Law 103-272 § 44715. STCs require only a FONSI.

### **c. Exceptions.**

**(1)** The following aircraft are excepted from showing compliance to 14 CFR part 36 noise requirements:

- Small, propeller-driven airplanes and rotorcraft used for certain agricultural aircraft operations (as defined in 14 CFR § 137.3) and for dispensing firefighting materials, and
- Rotorcraft carrying external loads (as defined in 14 CFR § 133.1).

**(2)** Agricultural aircraft operations include dispensing of economic poisons and dispensing of other substances intended for plant nourishment, soil treatment, propagation of plant life, or pest control. Agricultural aircraft operations also include dispensing activities directly affecting agriculture, horticulture, or forest preservation, but do not include dispensing of live insects. See 14 CFR part 36 for more details.

**d.** On the TCDS or STC, note whether the applicant showed or did not show compliance with 14 CFR part 36, as appropriate (see figure 2-1 of this order).

**e.** The FAA requires applicants to show their aircraft complies with the noise requirements in 14 CFR part 36 when the following happens:

**(1)** The aircraft has been previously approved for an operation that is excepted from showing compliance in 14 CFR part 36, and

**(2)** The applicant applies for an additional special-purpose operation that is not excepted.

**2-9. Coordination with AIR-110.** Coordinate all military-derived TC and STC projects (in other words, those to be issued a TC or STC under 14 CFR § 21.25(a)(2)) with AIR-110, the accountable directorate, and, if applicable, the focal point ACO (see paragraph 4-5 of this order). When coordinating with AIR-110:

- a. Provide a copy of certification project notifications (CPN) to AIR-110.
- b. Include AIR-110 in the review and concurrence on issue papers.
- c. Provide a copy of TCDSs to AIR-110 for review and concurrence before issuing the approval.

**2-10. Public Aircraft.** Many restricted category aircraft operate as public aircraft. Public aircraft are those aircraft meeting the definition in 49 U.S.C. §§ 40102 and 40125. We don't require a public aircraft to have an FAA TC, although FAA-certificated aircraft can operate as public aircraft. We encourage those who operate public aircraft to obtain the proper FAA certifications, if possible. Do not reduce the level of safety (or relax any airworthiness certification requirements) during the certification of an aircraft because of its intended use as a public aircraft.

## **CHAPTER 3. Type Certification of Civil-Derived Aircraft in Restricted Category, 14 CFR § 21.25(a)(1)**

**3-1. General.** See Order 8110.4, Type Certification, for general type certification procedures. This chapter provides additional policy for type certification of civil-derived aircraft in restricted category.

### **3-2. Type Certification Requirements.**

**a.** Title 14 CFR § 21.25(a)(1) addresses civil-derived aircraft that meet the airworthiness requirements of a standard category except those requirements that the Administrator finds inappropriate for the special-purpose operation for which the aircraft is to be used. We can waive or modify the basic airworthiness requirements that are found inappropriate, provided the level of safety for the public is maintained.

**b.** Approval of the aircraft for a special-purpose operation or approval of the special-purpose equipment could require special conditions, through 14 CFR § 21.16. These conditions supplement the airworthiness requirements to maintain an appropriate level of safety.

**c.** Expect the applicant also to comply with the type certification requirements in paragraphs 2-4, 2-5, 2-6, 2-7, and 2-8 of this order.

### **3-3. Inappropriate Airworthiness Requirements.**

**a.** It is the responsibility of the accountable directorate to make the final determination on which regulations are inappropriate for the special purpose operation.

**b.** When waiving or modifying the basic airworthiness requirements, we base it on one of the following:

**(1)** Airworthiness requirements that are inappropriate for the special-purpose operation (this includes requirements that are acceptable to be waived due to the nature of the special-purpose operation),

**(2)** Airworthiness requirements that are inadequate, but not entirely inappropriate, and that must be modified,

**(3)** An operating environment less stringent than specified in the standard category type certification requirements, or

**(4)** The additional operating restrictions we impose on restricted category aircraft through 14 CFR § 91.313.

**c.** We do not waive a rule merely because the applicant cannot show compliance.

**d.** The rationale for determining the inappropriateness of airworthiness requirements should be documented in the applicant's certification plan, or if applicable, G-1 issue paper.

**3-4. Civil Air Regulations, Part 8 (CAR 8).** We no longer use CAR 8 (and Civil Aeronautics Manual 8) as an airworthiness standard for new type certification programs.

**3-5. Aircraft Previously Type-Certificated In A Standard Category.**

**a. General.** Aircraft previously type-certificated in a standard category can be issued restricted category certification for a special-purpose operation. We don't issue these aircraft a stand-alone restricted category TC. Instead we issue an "equivalent" restricted category TC (see paragraph 3-5b below) to satisfy the regulatory requirement for a restricted category TC before issuing an airworthiness certificate under 14 CFR § 21.185(b).

**b. 'Equivalent' Restricted Category TCs.** An "equivalent" restricted category TC consists of the existing standard category TC and a "restricted" STC. This satisfies the regulatory requirement for a restricted category TC before we issue an airworthiness certificate under 14 CFR § 21.185(b).

(1) We issue a "restricted" STC under 14 CFR § 21.25(a)(1). A restricted STC approves the aircraft for operation in the special-purpose operating environment (see paragraph 3-5e below). It also approves the modification made for that special-purpose operation. Effectively, incorporation of a restricted STC moves a previously standard category aircraft into restricted category. The restricted STC enables the FAA to issue a restricted category airworthiness certificate for that operation.

(2) When the modification is not a major design change, other FAA-approved data may take the place of the restricted STC. In this case, an AFS inspector can issue the restricted category certification. However, we still require the applicant to substantiate that the aircraft is safe for its intended use (see paragraphs 2-6 and 3-5e of this order).

**NOTE:** Recertification of the aircraft in a standard category requires further type certification approval, which might or might not be possible. See paragraph 3-6 of this order for multiple airworthiness certification.

**c. Level of Safety.** Use of restricted category provides a basis for waiving or modifying the original standard type certification requirements that we find inappropriate for the special-purpose operation, as discussed in paragraphs 3-2 and 3-3 above.

**d. Special-Purpose Operations.** The special-purpose operation approved for an aircraft must be one that we approved under 14 CFR § 21.25(b).

**e. Safe for its Intended Use.**

(1) To ensure the aircraft is safe for its intended use, we require applicants to comply with paragraph 2-6 of this order. Compliance includes accounting for effects of the special-purpose operation on the following:

- Continued airworthiness of the aircraft (structure, components, systems, and their functions),



- Life limits of critical parts,
- Adequacy of airworthiness directives (AD), and
- Any corrosion or prior structural damage to the aircraft.

(2) We require applicants to develop airworthiness limitations, operating limitations, and continued airworthiness requirements accordingly, for use when operating in restricted category. Operational factors to consider are:

- Areas and types of operation conducted,
- Surface conditions of the airports used,
- Nature of any cargo carried,
- Mission operating environment, which includes aircraft use, the mission profile, and loads and fatigue spectrum, and
- Identification of parts not previously life-limited that become life-limited because of the special-purpose operation. For those parts, assign new part numbers and mark the parts under 14 CFR § 45.16.

**f. Overweight Operations.** In the past, the FAA approved, in limited cases, the operation of aircraft in restricted category at gross weights that exceeded the maximum certificated weights of the aircraft in standard category. We no longer approve these overweight operations in restricted category.

### **3-6. Multiple Airworthiness Certificates.**

**a. General.** Under 14 CFR § 21.187, aircraft previously type-certificated in a standard category can be issued multiple airworthiness certificates, in both a standard category and restricted category for a special-purpose operation. These aircraft may operate in either category but must meet the requirements of the category in which they are operating at the time. We do not issue these aircraft a stand-alone restricted category TC. Instead we issue an “equivalent” restricted category TC (see paragraph 3-6b below) to satisfy the regulatory requirement for a restricted category TC before we issue the restricted category airworthiness certificate.

**b. ‘Equivalent’ Restricted Category TCs.** As in paragraph 3-5b above, an “equivalent” restricted category TC consists of the existing standard category TC and a “restricted” STC. This satisfies the regulatory requirement for a restricted category TC before we issue an aircraft multiple airworthiness certificates under 14 CFR § 21.187.

(1) We issue a “restricted” STC under 14 CFR § 21.25(a)(1). A restricted STC approves the aircraft for operation in the special-purpose operating environment (see paragraph 3-6c below). It also approves the modification made for that special-purpose

operation. Effectively, incorporation of a restricted STC moves a previously standard category aircraft into restricted category. The restricted STC enables the FAA to issue the aircraft a restricted category airworthiness certificate for that operation.

(2) When the modification is not a major design change, other FAA-approved data may take the place of the restricted STC. In this case, an AFS inspector can issue the restricted category certification. However, we still require the applicant to substantiate that the aircraft is safe for its intended use (see paragraphs 2-6 and 3-6c of this order).

**c. Operation Must Not Degrade the Aircraft.**

(1) Before multiple airworthiness certification, applicants address the effects that the special-purpose operation will have on the aircraft and its continued airworthiness. To ensure the aircraft is safe for its intended use, we require applicants to comply with paragraph 2-6 of this order. Compliance includes accounting for effects of the special-purpose operation on the following:

- Continued airworthiness of the aircraft (structure, components, systems, and their functions),
- Life-limits of critical parts,
- Adequacy of ADs, and
- Any corrosion or prior structural damage to the aircraft.

(2) For multiple airworthiness certification, operating an aircraft in the special-purpose operation must not degrade the aircraft (structure, components, systems and their functions) such that it would not meet the requirements for the standard category airworthiness certificate. We require applicants to develop airworthiness limitations, operating limitations, and continued airworthiness requirements, for use when operating in restricted category. Operational factors that might be important for this evaluation are:

- Areas and types of operation conducted,
- Surface conditions of the airports used,
- Nature of any cargo carried, and
- Mission operating environment, which includes aircraft use, the mission profile, and loads and fatigue spectrum.

**d. Conversion Instructions.** Under 14 CFR § 21.187, the conversion from one category to the other must be possible by removing or adding equipment using simple mechanical means. The applicant provides conversion instructions for approval during the certification process.

**e.** See Order 8130.2 for more guidance on multiple airworthiness certification.

**3-7. Aircraft Modifications.** Modifications may be made to civil-derived aircraft approved by an amended TC or STC. An amended TC or STC that approves a modification for a special-purpose operation also should include approval for that special-purpose operation. If the modification is not a major design change, we allow applicants to use other FAA-approved data instead. In either case, expect applicants to comply with the requirements of paragraph 2-4, Special-Purpose Operations, and paragraph 2-6, Safe for Its Intended Use, of this order. We derive the certification basis for the modification from the original certification basis:

- *Less* the airworthiness requirements found inappropriate for the special purpose,
- *Plus* any additional airworthiness requirements necessary to comply with 14 CFR § 21.101 and Order 8110.48, How to Establish the Certification Basis for Changed Aeronautical Products.

**3-8. Type Validation of Foreign-Certificated Restricted Category Aircraft.** Aircraft type-certificated by a foreign authority state of design in their restricted category might be eligible for type validation in the U.S. restricted category under 14 CFR §§ 21.29 and 21.25, subject to the scope and provisions of the applicable bilateral agreement. We require an FAA validation and a special arrangement for the aircraft's airworthiness certification. It is the responsibility of AIR-40, AIR-100, and the accountable directorate for the class of aircraft to work together to develop these special arrangements.



## **CHAPTER 4. Type Certification of Military-Derived Aircraft in Restricted Category, 14 CFR § 21.25(a)(2)**

**4-1. General.** See Order 8110.4, Type Certification, for general type certification procedures. This chapter provides additional policy for type certification of military-derived aircraft in restricted category.

### **4-2. Type Certification Requirements – All Aircraft.**

**a. Title 14 CFR § 21.25(a)(2)** addresses military-derived aircraft of a type manufactured following the requirements of, and accepted for use by, the Armed Forces of the United States. We base this approval on continued operation and maintenance of the aircraft in a similar manner as the U.S. Armed Forces.

**b. Military-derived aircraft** that are either surplus of the U.S. Armed Forces, or new-production aircraft manufactured by the original manufacturer (or its licensee) under an FAA production approval, can be eligible for restricted category type certification. See paragraph 4-7 of this order for more details.

**c. Military Aircraft Type.** We issue TCs based on an aircraft's military aircraft type (in other words, MDS). See paragraph 4-8 of this order.

**d. Satisfactory Service History.** A military aircraft type must have a satisfactory service history with the U.S. Armed Forces (as determined by AIR-110 in coordination with the accountable directorate) to be considered for civil restricted category certification. A minimum of 10 years in service with the U.S. Armed Forces (in regular operational service, not including developmental operations) is necessary for the aircraft type to show a satisfactory service history. However, consideration can be given to a like aircraft with an alternate MDS that is similar to a previously type-certificated military-derived aircraft.

**e. Combat Aircraft.** The Department of Defense (DOD) policy does not usually allow the surplus of combat aircraft for civilian use. Therefore, we only allow type certification of U.S. Armed Forces combat aircraft on a case-by-case basis, determined by AIR-110 in coordination with the accountable directorate, and after coordination with DOD.

**f. Location of Manufacture.** U.S. Armed Forces aircraft manufactured in the United States or in a foreign country can be eligible for restricted category type certification, if they meet the requirements of 14 CFR § 21.25(a)(2).

**g. Engines and Propellers.** FAA type certification of a military-derived aircraft includes the airframe, engines, and propellers. We do not award military engines and propellers stand-alone TCs.

**h. Modifications to Military Configurations.** Military-derived aircraft may be modified for a special-purpose operation. We also allow modifications other than those required for the special purpose. The FAA approves the modifications as part of the TC or by STC (or, if

the modification is not a major design change, using other FAA-approved data). See paragraph 4-11 of this order for more details.

**i. Flight Manuals.** Expect applicants to develop an AFM or an AFMS for FAA acceptance and approval. They base the AFM or AFMS on the U.S. Armed Forces operating procedures and limitations in the military flight manual. In it, they incorporate any other procedures and limitations developed for the modification or the special-purpose mission operating environment, including the limitations for its intended use and any applicable ADs. The AFM or AFMS must maintain all operating procedures and limitations used by the military, unless otherwise substantiated and approved by the FAA.

**j. Instructions for Continued Airworthiness (ICA).** Applicants develop ICA for FAA acceptance and approval, as required by 14 CFR § 21.50. They base the ICA on continuing the maintenance and inspections previously performed by the U.S. Armed Forces. In it, they incorporate any other maintenance and inspections determined to be necessary for the modification or the special-purpose mission operating environment, including the limitations for its intended use and any applicable ADs. See paragraph 4-13 of this order for more details.

**k.** We also require applicants to comply with the type certification requirements contained in paragraphs 2-4, 2-5, 2-6, 2-7, and 2-8 of this order.

#### **4-3. Additional Requirements for Military Surplus Aircraft.**

**a. Surplus of the U.S. Armed Forces.** A military surplus aircraft must be a surplus aircraft of the U.S. Armed Forces, as required by 14 CFR § 21.185(b). An aircraft surplus of a foreign military, foreign government, or foreign paramilitary entity is not eligible for a restricted category certificate. However, as an exception to the preceding restriction, an aircraft operated by a foreign entity can become eligible if:

(1) The aircraft was brought back into the U.S. Armed Forces inventory, and the U.S. Armed Forces operated and maintained it after its foreign service, or

(2) It was previously surplus of the U.S. Armed Forces and the aircraft's original manufacturer inspects the aircraft and attests in writing that it conforms to applicable design requirements and is in a condition for safe operation.

**b. DOD Category B.** Military aircraft in DOD surplus Category B (those aircraft not intended for further flight or intended for scrap or ground use only) are not eligible for restricted category certification. For details on DOD surplus categories, see the DOD's Defense Materiel Disposition Manual (DOD 4160.21-M). We recognize that aircraft transfer documents from the government might not fully explain the condition of an aircraft. However, our intent is not to allow an aircraft into the civil arena that, when surplus by the U.S. Armed Forces, was not intended for further flight. Also, an aircraft without its U.S. Armed Forces identification plate is not eligible for civil certification.

**c. Multiple TCs.** Any person, including the original manufacturer, who owns a military surplus aircraft may apply for a restricted TC for that aircraft type. As a result, there might be more than one TC issued for a particular military aircraft MDS. Even so, we issue each aircraft

its airworthiness certificate based on compliance with only one TC, which is identified on the application for an airworthiness certificate.

**d. Aircraft Completeness.** When applying for a restricted category certificate for their military surplus aircraft, we require applicants to provide documentation provided by the military that either identifies the aircraft as a complete aircraft or identifies all major components that are missing.

(1) For this order, a “complete aircraft” is one with no missing major components. A “major component” is any component that might appreciably affect weight, balance, structural strength, performance, power plant operation, flight characteristics, or other qualities affecting airworthiness.

(2) We don’t issue the TC, or add a serial number of follow-on aircraft to the TCDS, until an applicant replaces all missing parts on the aircraft. All replacement parts must be acceptable replacement parts (such as an identical part or a part approved as a replacement part under an STC).

(3) For aircraft acquired before the original issue date of this order, applicants may prepare the list of components that were missing when they received the aircraft from the U.S. Armed Forces. Transfer documentation showing the aircraft to be flyable when the U.S. Armed Forces delivered it could satisfy this requirement.

**e. Type Certification Inspection.** Each military surplus aircraft must conform to the data submitted with the TC application. We must complete the aircraft’s type certification inspection before certification (see paragraph 4-15 of this order for more details). Also, before airworthiness certification, under 14 CFR § 21.185(b), we inspect each military surplus aircraft to ensure it is in a good state of preservation and repair, and in a condition for safe operation.

**4-4. ACO Coordination.** Before issuing a restricted category TC, amended TC, or STC for a military-derived aircraft, the geographic ACO coordinates, in addition to any other coordination with the accountable directorate or another ACO that would normally take place in the type certification process (see Orders 8100.5 and 8110.4):

- Operational and maintenance issues with the proper AEG,
- All significant technical issues with the focal point ACO (see paragraph 4-5 of this order), and
- CPNs, issue papers, and TCDSs with AIR-110.

**4-5. Focal Point ACOs.** Focal point ACOs have been designated for military-derived aircraft to standardize our approach to technical issues in certification. Significant technical issues in type certification are addressed with the focal point ACO. This is in addition to any other coordination with the accountable directorate that would normally take place in the type certification process (see Orders 8100.5 and 8110.4).

a. If there is a standard category civil counterpart aircraft to the military aircraft MDS, the focal point ACO is the ACO with primary certificate management responsibility (CMACO) for the civil counterpart aircraft. If there is no civil counterpart aircraft, AIR-110, in coordination with the accountable directorate, designates a focal point ACO, based on the type, category, and class of aircraft and ACO workload. Contact AIR-110 for a list of current designations. The following are the focal point ACO assignments when we issued this order:

- Atlanta ACO for Lockheed C-130A aircraft,
- Los Angeles ACO for Lockheed Neptune P2V aircraft,
- New York ACO for Fairchild C-123K aircraft, and
- Boston ACO for Sikorsky CH-53D and UH-60 (S-70) aircraft.

b. If a civil counterpart to the military engine or propeller exists, the geographic ACO coordinates with the CMACO for the civil counterpart engine or propeller.

#### **4-6. TC Holder Responsibilities.**

a. The holder of a TC for a military surplus aircraft issued under 14 CFR § 21.25(a)(2) has the responsibilities of a manufacturer. These responsibilities include, but are not necessarily limited to, the following:

- Overseeing the continued operational safety of the aircraft, including maintaining the ICA,
- Complying with the reporting requirements under 14 CFR § 21.3 for failures, malfunctions, and defects, and
- Responding to required design changes under 14 CFR § 21.99.

b. TC holders are responsible for the entire aircraft, not just for the modifications they make.

c. TC holders are responsible for all aircraft issued an airworthiness certificate based on their TC, regardless of ownership of the aircraft.

d. After completing certification, insert the TC holder's name on the type, airworthiness, and registration certificates in place of the manufacturer's name or builder's name, as appropriate.

**NOTE:** We recognize that initial registration (before airworthiness certification) might be made under the name of the original manufacturer of the aircraft. However, after completing certification, the applicant (now the TC holder) updates the registration to include their name in place of the manufacturer.



#### 4-7. Production Limitations.

**a. Military Surplus Aircraft.** TCs issued based on military surplus aircraft do not give the TC holder production rights. To issue a restricted category TC for military surplus aircraft, we require only limited data that do not meet the requirements for a full type design in 14 CFR § 21.31 (see paragraph 4-12 of this order). Also, 49 U.S.C. 44704(a)(3) requires an applicant to hold written permission from the holder of the design data before we approve production of new aircraft. In the TCDS production basis, include “None” instead of production approval numbers, followed by limitations such as “No aircraft may be manufactured under this approval.” A TC holder who is also the original manufacturer (or its licensee) may apply to have the production limitation removed to allow for a production approval (see paragraph 4-7b of this order).

**b. New-Production Aircraft.** New-production military-derived aircraft, type-certificated in restricted category and produced under an FAA production approval, are directly eligible for civil airworthiness certification in restricted category without passing through the military acquisition system. To comply with 49 U.S.C. 44704(a)(3), we limit production of new military-derived aircraft to the original manufacturer of the aircraft type for the U.S. Armed Forces, or the original manufacturer’s licensee. For TCs issued for new-production military-derived aircraft, include in the TCDS production basis section the associated FAA production approval number (such as the PC number). New-production military-derived aircraft also must meet all eligibility requirements in paragraph 4-2 of this order.

#### 4-8. Military Aircraft Types.

**a. Mission/Design/Series.** We issue TCs for a military aircraft’s MDS. MDS is the military aircraft’s mission, design number, and series. In P-3A, the mission is Patrol, the design number is 3, and the series is A. For example, we would issue a TC for a P-3A, not for a P-3; or for a C-130A, not for a C-130. For rotorcraft, an H is after the mission identifier (MHDS), for example, CH-53D.

(1) Sometimes the military aircraft type includes mission modifiers ahead of the MDS, such as KC for variants of aerial refueling tankers. In these cases, MDS becomes MMDS and identifies different aircraft types. Do not certificate these aircraft under the same configuration. Confer with AIR-110 and the applicable directorate on the proper MDS for unusual cases.

(2) If two aircraft of the same military mission and design number have differing design series (such as CH-53D and CH-53E), we can certify them as two separate or individual configurations under the same TC number.

(3) If two aircraft have different mission modifiers and identical MDS, we might be able to certify them as configuration variants under the same TC, such as the VC-137 and RC-137 (both variants of the fixed-wing Boeing 707).

**NOTE:** Past service history of one variant (such as the RC-137) might require additional substantiation, and additional airworthiness

limitations or operating limitations (or both), before we approve it as a configuration variant on a TC initially approved for the other variant (such as the VC-137).

(4) If an aircraft was used for special armed forces missions with an alternate MDS (such as the HSS-2 variant of the SH-3A), we can certify it as a configuration variation under the same TC number.

**NOTE:** Past service history of such aircraft might require additional substantiation (and additional airworthiness limitations or operating limitations, or both) before we approve the alternate configuration on an existing TC.

(5) Confer with AIR-110 and the applicable directorate on the proper procedure and MDS for unusual cases.

**b. Military Surplus Aircraft.**

(1) Use the as-surplused military aircraft MDS on the registration certificate, the TC, the civil data plate, the airworthiness certificate, and in the title block on the TCDS (and in any configuration descriptions).

(2) We only issue TCs to military surplus aircraft under their as-surplused military aircraft MDS.

**NOTE:** The as-surplused military aircraft's MDS might not be the same as its MDS when manufactured and delivered to the U.S. Armed Forces. We still certificate the aircraft under its as-surplused MDS.

(3) To prevent the possibility of confusing or misleading industry, the public, or the FAA, we do not allow an applicant to use its own model designation for military surplus aircraft.

**c. New-Production Aircraft.** New-production military-derived aircraft, manufactured under an FAA production approval, should use a manufacturer's model designation. This distinguishes new-production aircraft from military surplus aircraft that have gone through the military acquisition system. Include the manufacturer's model designation on the registration, the TC, the civil data plate, the airworthiness certificate, and in the title block on the TCDS (and in any configuration descriptions). Also, include the military aircraft MDS in parentheses in the TCDS title block.

**4-9. Serial Numbers – Military Surplus Aircraft.**

**a. Military Serial Numbers.** Identify military surplus aircraft using the military serial numbers rather than the manufacturer's serial or production numbers.

**b. Listing 'Approved' Serial Numbers on the TCDS.** The TCDS format for military surplus aircraft now includes "approved" serial numbers instead of the "eligible" serial numbers typically used for aircraft manufactured under a production approval. Add an aircraft serial

number to the list of approved serial numbers on a new or existing TCDS after the individual aircraft complies with the type certification inspection (see paragraph 4-15 of this order for more details).

**c. ‘Eligible’ Serial Numbers.** In the past, we listed eligible serial numbers on TCDSs for military surplus aircraft. Sometimes the list of eligible serial numbers included “all aircraft produced” or an extensive list of serial numbers of aircraft. This sometimes resulted in aircraft listed in a configuration in which they no longer exist. We issue airworthiness certificates after the aircraft complies with the type certification inspection for the configuration on the TCDS under which it is being approved. See paragraph 4-15 of this order for more details. On older TCDSs, we might list an aircraft as eligible under one or more TCDS, even though we issued airworthiness certificates based on compliance with only one TC. Expect applicants to record the applicable TC on the application for the airworthiness certificate and on the civil data plate installed beside the military identification plate.

**d. Switching Aircraft from One TC to Another.**

(1) An aircraft can be switched from one TC to another, when the FAA, the aircraft owner, and the holder of the second TC agree. Also, the aircraft must comply with the type certification requirements of the second TCDS and the requirements for type certification inspection (see paragraph 4-15 of this order for more details) before we add its serial number to the second TCDS and remove it from the first TCDS. We inform the first TC holder of the serial number switch, although we do not require the first TC holder’s agreement. After switching TCs, the aircraft owner applies for a new airworthiness certificate under the second TC. The owner also installs a new civil data plate beside the data plate for the first TC.

(2) When switching an aircraft to an older TCDS that already lists the aircraft serial number as eligible, it is not necessary to get agreement from the holder of the second TC before switching the aircraft. However, we require the owner of the aircraft to notify the second TC holder in writing that the aircraft is being certificated under the TC. This requires the TC holder to provide continued operational safety information.

**e. Removing Serial Numbers from a TCDS.** Confer with the accountable directorate and AIR-110 before removing serial numbers from TCDSs. Do not remove serial numbers from the list of serial numbers on a TCDS unless there are special circumstances (such as a destroyed aircraft) or unless removed following paragraph 4-9d above.

**f. List of Serial Numbers.** An applicant may include the list of eligible or approved serial numbers in the TCDS itself, or in a separate FAA-approved report referenced in the TCDS. This serial number report should contain only the list of eligible or approved serial numbers.

**4-10. Civil Data Plates – Military Surplus Aircraft.** Each aircraft must have a civil data plate installed on the aircraft (preferably located beside the military identification plate). The civil data plate or military identification plates may only be removed or altered under 14 CFR part 43 or part 45. The civil data plate must include the information below:

- TC holder’s name;

- Military aircraft MDS;
- Military serial number;
- Engine and propeller models (if appropriate); and
- TC number.

#### **4-11. Modifications to Military Configurations.**

**a. FAA Approval of Modifications.** Military-derived aircraft may be modified for the special-purpose operation for which they are approved. However, an aircraft does not need to be modified if the special-purpose operation does not require a modification. We do allow modifications other than those required for the special purpose. Modifications must comply with the appropriate civil airworthiness requirements (see paragraph 4-11b below). Modifications must maintain the integrity of the original acceptance of the aircraft for type certification.

**b. Establishing a Certification Basis.** Because military-derived aircraft are not shown to meet civil airworthiness requirements, we use the correlation table in 14 CFR § 21.27(f) to determine a certification basis appropriate for modifications to military aircraft. If these regulations do not include design standards applicable to the change, we may apply later regulations appropriate to the product category or special conditions, or both, necessary to maintain a level of safety appropriate for the aircraft's intended use. See 14 CFR § 21.101 and Order 8110.48 for additional details.

**c. Engine Modifications.** All modifications involving a different engine or propeller model must be approved by an STC. If the modification installs a turbine engine of a model different from the model removed, the replacement turbine engine must be an FAA type-certificated engine. However, this requirement for a TC'd engine can be waived, provided that (1) the replacement engine is of a model that has been previously qualified for use by the U.S. military on the same military aircraft model and (2) the engine and engine installation have an acceptable service history in the U.S. military. The waiver requires the written (i.e., non-verbal) approval of the accountable directorate and AIR-100. The U.S. military modification instructions should be used to accomplish the installation, along with the inclusion of any additional limitations.

**NOTE:** It is acceptable to install a replacement engine or propeller of the same model as that removed. The replacement engine or propeller must have its data plate or equivalent markings installed and its complete historical records available.

**d. Replacement Parts.** Certain military surplus/restricted category aircraft models have parts with the same part numbers as their civil counterpart models. These parts are acceptable replacement parts on military surplus aircraft TC'd in restricted category. However, design improvements by the aircraft manufacturer might have led to replacement parts for the civil counterpart that have "newer version" part numbers, and the manufacturer might have discontinued production of

the "older version" part numbers. In many of these instances, the aircraft manufacturer obtained FAA approval of the "newer version" part numbers for the civil counterpart model but did not substantiate the design of the "newer version" part numbers for the military model. The installation of the "newer version" part numbers is not permitted on the military surplus/restricted category model unless the "newer version" part numbers are shown to be acceptable replacement parts, either by amending the TC, by STC, or other FAA approved data.

#### **4-12. Required Data.**

**a. New-Production Aircraft.** For production approval of new military-derived aircraft type-certificated under 14 CFR § 21.25(a)(2), the TC holder must possess the full type design data specified in 14 CFR § 21.31 as prescribed by 49 U.S.C. § 44701(a), to satisfy the FAA. Further, if the TC holder is not the original manufacturer of the aircraft, the applicant must have written evidence, in a form acceptable to the FAA, of the agreement with the original manufacturer (or its licensee) to use the design data for the manufacture of new aircraft (see 49 U.S.C. § 44704(a)(3)). We also require applicants to provide all manuals and information required for safe operation of the aircraft, in a similar manner as required for production aircraft certificated under 14 CFR § 21.25(a)(1).

#### **b. Military Surplus Aircraft.**

**(1)** For military surplus aircraft, we require the applicant to present the following data and information:

**(a)** Data that show a satisfactory service life of the military aircraft MDS with the U.S. Armed Forces. We require this only for the first issue of an FAA TC for a particular military aircraft MDS.

**(b)** The U.S. Armed Forces bill of sale

**(c)** Transfer documentation from the U.S. government showing the U.S. Armed Forces intended the aircraft for further flight and not for scrap or ground use only (see DOD 4160.21-M). Aircraft designated by the DOD as surplus category B are not eligible for restricted category type certification.

**(d)** Military historical and modification records for the individual aircraft, and all its components, in its configuration as surplus by the U.S. Armed Forces. These records should include hours or cycles, or both, on all life-limited components installed on the aircraft. We don't require records for components or modifications that were removed from the aircraft before surplus. We also don't require records for components that the applicant will remove before airworthiness certification.

**(e)** Military flight manuals.

**(f)** Military technical orders, maintenance manuals, overhaul manuals, structural repair manuals, illustrated parts catalogs, a list of life-limited parts and their military life limits, and a list of applicable ADs or their military equivalents (see paragraph 4-13b of this order).

(g) If necessary, as determined by the assessment required in paragraph 2-6b of this order, all test and analysis data used to evaluate and substantiate the safety of the aircraft operating in its intended use (in other words, the special-purpose mission operating environment). This might include:

- An analysis of fatigue and loads, and life limits of critical components, and
- Data necessary to establish a baseline fatigue state for the aircraft using engineering assessments with detailed inspections, including teardown inspections as necessary.
- **NOTE:** Applicants may develop their own substantiation data or may use data obtained from the U.S. Armed Forces, the original manufacturer, or other sources.

(h) All design, test, and analysis data required to substantiate any modifications made to the aircraft by the applicant, including detail and installation drawings as appropriate.

(2) This data requirement does not meet the requirements of 14 CFR § 21.31 for a type design. Therefore, TCs issued based on military surplus aircraft restrict production of new aircraft (see paragraph 4-7 of this order for more details).

(3) The aircraft type on all documents and manuals must match the military aircraft MDS on the TCDS and other FAA documentation.

#### **4-13. Special Requirements for Preparing ICA.**

**a. Title 14 CFR § 21.50.** Expect the applicant to prepare the ICA under 14 CFR § 21.50.

**b. Airworthiness Directives.** We require the applicant to list all applicable ADs and all equivalent military documents on a master document identified on the TCDS. Applicable ADs include those issued for a civil counterpart aircraft that are determined to be applicable, and those issued for other TCs for the same or similar military aircraft MDS. Applicants determine the list of applicable ADs, subject to FAA concurrence. The ACO must coordinate this list with the focal point ACO and the accountable directorate for concurrence. Also, applicable ADs include those issued for parts that are common to a civil counterpart aircraft and determined to be applicable. The focal point ACO should maintain a master list of these ADs and documents.

**c. Airworthiness Limitations.** List the airworthiness limitations, limits of life-limited parts, airframes, engines and propellers, and any other inspections on the TCDS, or identify those limits through a document identified on the TCDS. The geographic ACO must coordinate those life limits with the focal point ACO and the proper AEG.

**d. Life-Limits and Mandatory Inspections.** We require applicants to determine and include all life limits and mandatory inspections in the FAA-approved airworthiness limitations section of the maintenance manuals. They can use existing military limitations, associated with the military use, if they show that the special-purpose operation is equivalent to the military use

of the aircraft. Applicants show that the special-purpose use conforms to the military loads and fatigue design objectives. See paragraph 2-6 of this order for more details on “safe for its intended use.”

(1) If the aircraft or aircraft engine load and fatigue spectrum in the special-purpose operating environment is more severe than in the military operation, applicants must substantiate the life limits and inspection intervals. When this happens, we might require applicants to develop fatigue or damage tolerance methods.

(2) We require the applicant to account for previous service history of the aircraft, such as accumulated fatigue damage for each individual life-limited component, when determining fatigue lives, inspection requirements, or any other limitation for the special-purpose operation.

(3) Appropriate data may include data from the military, the original equipment manufacturer, and other sources.

**e. Military Documents.** Applicants may use military documents, where appropriate, and ICA developed for the civil counterpart aircraft as a basis for developing their ICA.

**4-14. Continued Airworthiness.** When issuing ADs for a restricted category military-derived aircraft, consider including in the applicability any civil counterpart aircraft and any other TCs of the same or similar military aircraft MDS. Notify the focal point ACO, the accountable directorate, and the Certificate Management ACOs of any same or similar military aircraft, about any AD activity. Also, evaluate any ADs issued for civil counterpart aircraft (and/or civil counterpart engines and propellers) for applicability to military surplus restricted category TCs.

#### **4-15. Type Certification Inspections – Military Surplus Aircraft.**

**a. Aircraft Eligibility.** Before issuing the TC (or before adding a serial number to an existing TC), the ACO must verify the aircraft complies with the type certification requirements identified in this order. This includes verifying that the focal point ACO or accountable directorate has confirmed the individual aircraft is eligible for type certification.

**b. Type Certification Inspection.** The type certification inspection can be completed in two parts (see appendixes 1 and 2 of this order). In the first part of the inspection, we evaluate the aircraft in the condition as it was surplus by the U.S. Armed Forces. In the second part, we evaluate the aircraft after it has been modified, repaired, and prepared for airworthiness certification.

**c. Inspection Requests.** Use the sample procedures in appendixes 1 and 2 of this order as aids in creating inspection requests to verify these requirements are met. The ACO engineer should prepare inspection requests for the FAA manufacturing inspector to perform. Prepare these requests following the procedures in Chapter 5 of FAA Order 8110.4.

**d.** The intent of this process is to provide documentation of the aircraft’s “as surplus” configuration. The ACO should keep this documentation in the certification project file.

e. After satisfactory completion of the inspection, the ACO issues the TC or adds the aircraft serial number to the list of approved serial numbers on the existing TCDS.

f. **Conformity Inspections of Aircraft Modifications.** We included a third sample procedure as an aid for the conformity inspection of modifications to an aircraft (see appendix 3 of this order). This inspection can be performed separately or at the same time as the procedures in part 2 of the type certification inspection.



## CHAPTER 5. Special-Purpose Operations

**5-1. General.** An aircraft issued a TC in restricted category may be used only for the special-purpose operations for which it is specifically approved. Under 14 CFR § 91.313 restricted category aircraft may not carry passengers or carry cargo for compensation or hire. However, an operator may carry persons or material necessary to accomplish the special-purpose operation to the location of that operation. Also, unless waived, restricted category aircraft may not operate over densely populated areas, in congested airways, or near busy airports with passenger transport operations.

**5-2. Special-Purpose Approvals.** See paragraph 2-4 of this order.

**5-3. Special-Purpose Operations.**

**a.** The FAA approves an aircraft to perform the special-purpose operations identified in 14 CFR §§ 21.25(b)(1) through (b)(6), and those specified by AIR-110 on the Administrator's behalf under 14 CFR § 21.25(b)(7). Paragraphs 5-4 through 5-10 below list the special-purpose operations, and appropriate notes, that were in effect when we issued this order. For a current list of special purposes and missions, contact AIR-110.

**b.** A special-purpose operation includes the specific mission and the special purpose that an aircraft is approved to perform. Note that this approves the aircraft for the specific function but does not approve the performing of the operation itself.

**5-4. Agricultural Use, 14 CFR § 21.25(b)(1).**

**a. Agricultural use** includes spraying, dusting, seeding, livestock control, predatory animal control, dust control, and protection of crops (frost control, fruit drying, and insect control).

(1) For dust control, we approved the use of a liquid solution of magnesium chloride. Other liquid solutions are acceptable without further approval if they are equally benign.

(2) Frost control and fruit drying involve the use of a rotorcraft or fixed-wing aircraft to circulate air over a field or orchard to prevent frost from forming on the crops or to dry the fruit on the orchard trees.

**b. Noise Requirements.** Small propeller-driven airplanes and rotorcraft performing *certain* agricultural aircraft operations (specifically, those defined in 14 CFR part 137) are excepted from 14 CFR part 36 noise requirements. Aircraft approved for other agricultural operations must comply with 14 CFR part 36 noise requirements. See paragraph 2-8 of this order for more details.

**5-5. Forest and Wildlife Conservation, 14 CFR § 21.25(b)(2).**

**a. Forest and wildlife conservation** includes oil spill eradication/dispersant, fish spotting, wild animal population survey, aerial dispensing of liquids, and heli-logging. Note that rotorcraft are also able to perform heli-logging and aerial dispensing of forest conservation

materials under the special purpose of rotorcraft external load operations (see paragraph 5-10a below).

**b. “Aerial dispensing of liquids”** is for forest conservation purposes only.

**c. Noise Requirements.** Aircraft for forest and wildlife conservation must comply with 14 CFR part 36 noise requirements. However, small propeller-driven airplanes and rotorcraft dispensing firefighting materials are excepted from the 14 CFR part 36 noise requirements (see paragraph 2-8 of this order for more details).

**5-6. Aerial Surveying, 14 CFR § 21.25(b)(3).**

**a. Aerial surveying** includes photography, mapping, oil and mineral exploration, airborne remote sensing (atmospheric research), geophysical survey, electromagnetic survey, oceanic survey, airborne atmospheric survey, airborne geological survey, and airborne measurement of navigation signals in the airspace.

**NOTE:** Aerial surveying (photography) does not include “air-to-air photography” or “aerial photography,” other than for aerial surveying purposes.

**b.** A key component in aerial surveying is the requirement for specialized airborne sensing equipment on the aircraft to perform the special-purpose operation.

**c.** The FAA approved the special purpose of aerial surveying to survey geological or atmospheric conditions, not to observe persons or property for police surveillance or law enforcement purposes.

**d. Noise Requirements.** Aircraft for aerial surveying must comply with 14 CFR part 36 noise requirements.

**5-7. Patrolling, 14 CFR § 21.25(b)(4).**

**a. Patrolling** includes patrolling of pipelines, power lines, and canals.

**b. Noise Requirements.** Aircraft for patrolling must comply with 14 CFR part 36 noise requirements.

**5-8. Weather Control, 14 CFR § 21.25(b)(5).**

**a. Weather control** includes cloud seeding.

**b. Noise Requirements.** Aircraft for weather control must comply with 14 CFR part 36 noise requirements.

**5-9. Aerial Advertising, 14 CFR § 21.25(b)(6).**

**a. Aerial advertising** includes skywriting, banner towing, airborne signs, and public address systems.

**b. Noise Requirements.** Aircraft for aerial advertising must comply with 14 CFR part 36 noise requirements.

**5-10. Other Special-Purpose Operations, 14 CFR § 21.25(b)(7).**

**a. Rotorcraft External Load Operations.**

(1) An external load operation is the carriage of loads (in other words, cargo) external to the fuselage. Note that rotorcraft are also able to perform certain external load operations, such as heli-logging and aerial dispensing of liquids, under the special purpose of forest and wildlife conservation (see paragraph 5-5 above).

(2) See 14 CFR part 133, Rotorcraft External Load Operations, for more operating limitations.

(3) **Noise Requirements.** Rotorcraft operated in 14 CFR part 133 external load operations are excepted from compliance with 14 CFR part 36 noise requirements (see paragraph 2-8 of this order for more details).

**b. Carriage of Cargo – incidental to the operator’s business.**

(1) This approval is only for the carriage of cargo incidental to the operator’s business. “Incidental to the operator’s business” means the cargo being carried is the property of the operator or a crewmember and it is not being carried for compensation or hire. Carriage of cargo for compensation or hire is not permitted under 14 CFR § 91.313(c).

(2) It is not necessary for the cargo to be “outsize” cargo. Nor is it necessary for a standard category aircraft to be unavailable to carry the cargo.

(3) **Noise Requirements.** Aircraft for carriage of cargo must comply with 14 CFR part 36 noise requirements.

**c. Target Towing.** Aircraft for target towing must comply with 14 CFR part 36 noise requirements.

**d. Search and Rescue – non-transport purposes only.**

(1) The FAA approved this special purpose for non-transport purposes only. In other words, we prohibit carriage of any persons other than required crewmembers.

(2) **Noise Requirements.** Aircraft for search and rescue must comply with 14 CFR part 36 noise requirements.

**e. Space Vehicle Launch.** Aircraft for space vehicle launch must comply with 14 CFR part 36 noise requirements, unless waived by the FAA’s Office of Environment and Energy.

**f. Glider Towing** – civil-derived aircraft only.

(1) This operation is approved only for civil-derived aircraft type-certificated under 14 CFR § 21.25(a)(1) and those issued an equivalent restricted category TC (see paragraphs 3-5 and 3-6 of this order). Do not approve this operation for military-derived aircraft type-certificated under 14 CFR § 21.25(a)(2).

(2) **Noise Requirements.** Aircraft for glider towing must comply with 14 CFR part 36 noise requirements.

**5-11. Proposing Other Special-Purpose Operations.**

**a.** Applicants may petition the FAA to consider other special purposes under 14 CFR § 21.25(b)(7). They send a proposal to the ACO containing information, views, and arguments to support the proposed special-purpose operation. The ACO then includes its comments and arguments about the proposal and sends them to the accountable directorate and AIR-110. AIR-110 then:

(1) Evaluates the proposal, in coordination with the accountable directorate and AFS.

(2) Seeks public comments by publishing a notice in the Federal Register.

(3) Makes a determination on the proposed special purpose operation. Protecting the public is a primary consideration in making a determination for a new special-purpose operation. Restricted category allows a reduced level of safety for the aircraft. However, an equivalent level of safety for the public must be maintained. To do this, operations are restricted from densely populated areas, congested airways, and busy airports with passenger transport operations. Other operating restrictions are the prohibitions on carrying passengers and carrying cargo for compensation or hire.

(4) Determines if the aircraft must comply with 14 CFR part 36 noise requirements for the special purpose operation.

(5) Notifies the ACO, AFS, and the accountable directorate of the results.

**b. Special-Purpose Operations Not Approved under 14 CFR § 21.25(b).** We have determined the following are not approved special-purpose operations:

(1) Law enforcement, police aerial surveillance, and other police activities;

(2) Medical evacuation (medevac) and emergency medical services (EMS) type operations;

(3) Aerial refueling;

(4) Aerial photography or air-to-air photography (see paragraph 5-6 of this order);  
and

(5) TV or motion picture filming.

**Appendix 1. Sample Checklist for  
TC Inspection of Military Surplus Aircraft  
Part 1 – Configuration ‘as Surplused’  
(Evaluation of aircraft as received from the U.S. Armed Forces)**

Use the following procedure for part 1 of the type certification inspection of a military surplus aircraft. Perform this procedure for both applications for new aircraft TCs and for applications to add aircraft to an existing TC. The steps below provide the FAA certification engineer with the inspection requirements to verify the “as surplused” configuration of the aircraft. The steps listed here may not be all-inclusive. Add any items that are particular to an individual aircraft serial number or aircraft type as needed. The ACO sends the completed request to the local MIDO office as prescribed in Chapter 5 of FAA Order 8110.4.

1. Review the original U.S. Armed Forces bill of sale and transfer documentation.
2. Verify the bill of sale is for the aircraft presented for certification.
3. Verify the transfer documentation identifies the aircraft as a complete aircraft or identifies all major components that are missing. A “complete aircraft” is one that is not missing any major components. A “major component” is any component that might appreciably affect weight, balance, structural strength, performance, power plant operation, flight characteristics, or other qualities affecting airworthiness. If such documentation is not available, ask the ACO or accountable directorate to verify the aircraft’s eligibility.
4. Verify that DOD did not classify the aircraft in surplus category B (see DOD 4160.21-M for aircraft surplus categories). If it is a combat aircraft, contact AIR-110 and the accountable directorate to determine the aircraft’s eligibility.
5. Verify the aircraft, engines, or propellers do not have any history of ownership or operation by a foreign government entity (such as an armed force, government or paramilitary entity). If there is any such history, ask the ACO or accountable directorate to verify the aircraft’s eligibility.
6. Verify the military identification plate is installed. Record all information contained on the identification plate.
7. Verify the historical records of the aircraft are complete and current. Figure 1 of this appendix lists examples of the U.S. Armed Forces forms that make up the military historical records.
8. Verify the components for the aircraft are the components described in the aircraft records. All parts installed on the aircraft should be either traceable back to the aircraft at the time of surplus, or replacement parts for those parts identified as missing at the time of surplus. If the aircraft has life-limited parts with no time remaining, the applicant replaces those parts with acceptable replacements before part 2 of the type certification inspection. DOD usually notes the missing components, if any, on the Disposal Turn in Document form (DD Form 1348-1A or

**Appendix 1. Sample Checklist for  
TC Inspection of Military Surplus Aircraft  
Part 1 – Configuration ‘as Surplused’  
(Continued)**

DD Form 1348-2). Sometimes for federal and donation screening, the missing components are listed on the Standard Form (SF) 120, Report of Excess Personal Property.

**NOTE:** After satisfactory completion of the inspections in this appendix, applicants proceed with the aircraft modifications and configure the aircraft into an airworthy condition.

**Appendix 1. Sample Checklist for  
TC Inspection of Military Surplus Aircraft  
Part 1 – Configuration ‘as Surplused’  
(Continued)**

**Figure 1. Examples of U.S. Armed Forces Historical Records**

<b>U.S. Armed Forces Service</b>	<b>Form Numbers and Titles</b>
U.S. Army forms:	DA Form 2408-5, Equipment Modification DA Form 2408-13, Flight Log DA Form 2408-15, Aircraft Historical Records DA Form 2408-16, Aircraft Component Historical Records DA Form 2408-19, Engine Records
U.S. Air Force forms:	AFTO 781A, Maintenance Records AFTO 781K, Aircraft Scheduled Maintenance & TCTOs AFTO 95, Engine Historical Records AFTON 95, Equipment Mods, Comp. Historical Records AFTO 781J, Engine Operating Time CEMS, Comprehensive Engine Management System
U.S. Navy forms: (or Marines)	OPNAV 4790/19, Aircraft Logbook (Binder) OPNAV 4790/22A, Inspection Record OPNAV 4790/23A, Repair/Rework Record OPNAV 4790/24A, Technical Directives OPNAV 4790/25A, Miscellaneous / History OPNAV 4790/26A, Installed Explosive Device Record OPNAV 4790/27A, Inventory Record OPNAV 4790/28A, Scheduled Removal Component Card OPNAV 4790/29, Aeronautical Equipment Service Record OPNAV 4790/31A, Equipment Operating Record OPNAV 4790/104, Aircraft Inventory Record OPNAV 4790/106A, Assembly Service Record OPNAV 4790/111, Aircraft Inventory Record OPNAV 4790/113, Equipment History Record (EHR) OPNAV 4790/135, Module Service Record OPNAV 4790/136A, Preservation/Depreservation Record OPNAV 4790/142, Structural Life Limits

**NOTE:** For surplus aircraft from the U.S. Coast Guard, the Aviation Computerized Maintenance System (ACMS) reports contain either U.S. Navy or Air Force forms, depending on the type of aircraft. See COMDTINST M13020.1F, Aeronautical Engineering Maintenance Management Manual, for a list of specific form numbers.





**Appendix 2. Sample Checklist for  
TC Inspection of Military Surplus Aircraft  
Part 2 – Configuration ‘as Modified’  
(Evaluation of aircraft as presented for airworthiness certification)**

Use the following procedure for part 2 of the type certification inspection of a military surplus aircraft. These steps may be performed separately from or concurrently with the conformity inspection of modifications made by the applicant (see appendix 3 of this order). The ACO sends the completed request to the local MIDO office as prescribed in Chapter 5 of FAA Order 8110.4.

- 1.** Obtain a completed statement of conformity (FAA Form 8130-9) from the applicant, under 14 CFR § 21.53. In the statement of conformity, applicants state they completed the requirements of 14 CFR § 21.33(a).
- 2.** Verify the records required by 14 CFR § 91.417(b)(2) (such as maintenance records of overhauls and inspections, and so on) are complete.
- 3.** Verify the applicant has modified the aircraft for the special-purpose operations approved in the TCDS or on an installed STC. Record and identify all modifications installed on the aircraft, including equipment installed by the U.S. Armed Forces.
- 4.** Verify the aircraft conforms to the TCDS.
- 5.** Review the records and determine if there is any history of foreign armed forces, foreign government, or foreign paramilitary time-in-service for the engines, propellers, or any parts replaced after part 1 of the type certification inspection. If there is any such history, ask the ACO or accountable directorate to verify eligibility of the parts.
- 6.** Verify the basic aircraft parts installed are specified in the appropriate military illustrated parts catalog, other acceptable military documents, FAA documents approved for this aircraft, or in the certification documents.
- 7.** Verify and record that the aircraft complies with all applicable airworthiness directives.
- 8.** Record any military safety of flight messages whose requirements have been completed for the aircraft, engines, or propellers.
- 9.** Verify installations of military modifications or modification work orders.
- 10.** Verify all placards in the TCDS are installed and displayed in their proper locations.
- 11.** Verify all modifications made after sale of the aircraft by the U.S. Armed Forces have been FAA-approved. Note that aircraft may have gone directly to government agencies and operated as public aircraft. Modifications or repairs installed on these aircraft may not have been FAA-approved. We cannot complete certification until we approve the modifications and repairs.

**Appendix 2. Sample Checklist for  
TC Inspection of Military Surplus Aircraft  
Part 2 – Configuration ‘as Modified’ (Continued)**

- 12.** Verify the ACO flight test pilot has approved the aircraft flight manual and any flight manual supplements.
- 13.** Verify the aircraft ICA is the most current version and the AEG has accepted it. Also, verify that a copy of the ICA is with the aircraft. Review the requirements in the ICA and verify the component names, part numbers, and serial numbers are correct and that the overhaul or retirement hours and calendar times have not been exceeded. Also, verify all the relevant documents have the correct titles, numbers, dates, change levels, and change dates. Verify these documents are with the aircraft.
- 14.** Witness or verify the applicant has a current aircraft weight and balance report. Include a copy of the weight and balance report in the inspection records, including the make and model of the weighing scales and its calibration status.
- 15.** Verify the pitot static system has been checked for leaks, following the procedures in 14 CFR part 43 Appendix E, and the transponders are certified under 14 CFR part 43, Appendix F.
- 16.** Verify the baseline-level inspection zonal analysis was performed in the areas of principle structural elements following the data submitted for certification, if applicable.
- 17.** Verify that a complete flight controls rigging has been performed, and it complies with the applicable military maintenance manual, the applicant’s ICA, or approved drawings. Document the compliance, and list the drawings and documents, revisions, and dates of the data used for compliance.
- 18.** Inspect and verify all cockpit systems, including navigation instruments, work properly.
- 19.** Ensure the applicant’s functional flight tests, such as engine power assurance runs, have been completed satisfactorily as described in the ICA or other data. Note that any flight testing required under this step also requires the aircraft be issued an appropriate experimental airworthiness certificate.
- 20.** Conduct any other inspections or tests deemed necessary.
- 21.** Verify the AEG’s evaluation is completed as necessary.
- 22.** Verify installation of the civil data plate, and record the information on the data plate. Note that the information on the civil data plate should match the TCDS, the airworthiness certificate, and the aircraft registration certificate. If the registration information is not correct, record the discrepancies on the inspection record and inform the applicant to submit a change to the aircraft registration.

**Appendix 3. Sample Checklist for Conformity of Aircraft Modifications**

Use the following steps for approval of each aircraft modification that was not part of the original military configuration. During this inspection, check the conformity of the detail parts and installation of any equipment. Also, check the conformity of all modifications to the aircraft that are not a part of the standard military configuration. Complete these steps separately or include them in part 2 of the type certification inspection. We show it here separately for clarity.

1. Obtain from the applicant a statement of conformity (FAA Form 8130-9), under 14 CFR § 21.53. In the statement of conformity, the applicant describes the detail parts and installation performed. Applicants also state that the aircraft complies with 14 CFR § 21.33(a).
2. Inspect the aircraft's detail parts and installation of the modification, to ensure they conform to the master drawing list. Record the list of detail parts inspected and drawings conformed.
3. Review the aircraft weight and balance record and verify it is current and accurate.
4. Conduct any other inspections deemed necessary.



#### **Appendix 4. Related Documents and How To Get Them**

**1. Code of Federal Regulations (CFR).** Get copies of 14 CFR sections from the Superintendent of Documents, Government Printing Office, P.O. Box 37154, Pittsburgh, PA 15250-7954. Telephone (202) 512-1800; fax (202) 512-2250. You can also get copies on-line at [www.gpoaccess.gov/cfr/](http://www.gpoaccess.gov/cfr/).

**2. Title 49 of the United States Code (49 U.S.C.).** Get copies of 49 U.S.C. sections from the Superintendent of Documents (see paragraph 1 in this appendix). These sections are also available online at <http://www.gpoaccess.gov/uscode/>.

**3. FAA Orders and Advisory Circulars (AC).** Get copies of Order 1050.1, Environmental Impacts: Policies and Procedures, from the FAA's website at [www.faa.gov](http://www.faa.gov). From there, click the "Regulations & Policies" tab. Get the following orders and AC from the FAA's Regulatory and Guidance Library (RGL) at <http://www.airweb.faa.gov/rgl>:

- Order 8100.5, Aircraft Certification Service Mission, Responsibilities, Relationships, and Programs,
- Order 8110.4, Type Certification,
- Order 8120.2, Production Approval and Certificate Management Procedures, and
- Order 8130.2, Airworthiness Certification of Aircraft and Related Products.





U.S. Department  
of Transportation

**Federal Aviation  
Administration**

**Directive Feedback Information**

Please submit any written comments or recommendations for improving this directive, or suggest new items or subjects to be added to it. Also, if you find an error, please tell us about it.

Subject: Order 8110.56A

To: Directive Management Officer, AIR-530

*(Please check all appropriate line items)*

☐ An error (procedural or typographical) has been noted in paragraph \_\_\_\_\_ on page \_\_\_\_\_.

☐ Recommend paragraph \_\_\_\_\_ on page \_\_\_\_\_ be changed as follows:  
*(attach separate sheet if necessary)*

☐ In a future change to this directive, please include coverage on the following subject  
*(briefly describe what you want added):*

☐ Other comments:

☐ I would like to discuss the above. Please contact me.

Submitted by: \_\_\_\_\_ Date: \_\_\_\_\_

FTS Telephone Number: \_\_\_\_\_ Routing Symbol: \_\_\_\_\_