



U.S. Department
of Transportation
**Federal Aviation
Administration**

Advisory Circular

Subject: Experimental Airworthiness
Certification of Certain Former Military Aircraft

Date: 02/15/2015
Initiated By: AIR-100

AC No: 21-54

1 PURPOSE.

- 1.1 This advisory circular (AC) provides information and guidance concerning special airworthiness certification in the experimental category of certain former military aircraft under Title 14 of the Code of Federal Regulations (14 CFR) part 21, Certification Procedures for Products and Parts, §§ 21.191(a), (c), (d), (e); and 21.193.
- 1.2 This AC is not mandatory and does not constitute a regulation. It describes information and guidance for obtaining an experimental airworthiness certificate. However, it may not provide all necessary information.

2 AUDIENCE.

This AC affects any person applying for a Federal Aviation Administration (FAA) Form 8130-7, Special Airworthiness Certificate, in the experimental category for certain former military aircraft.

3 EFFECTIVE DATE.

This AC is effective 02/15/2015.

4 CANCELLATION.

This AC cancels AC 20-96, Surplus Military Aircraft, which is not dated.

5 RELATED REGULATIONS.

14 CFR part 21; part 43, Maintenance, Preventative Maintenance, Rebuilding, and Alteration; and part 91, General Operating and Flight Rules.

6 APPLICABILITY.

This AC applies to special airworthiness certification in the experimental category of former U.S and foreign military turbine-powered aircraft, including helicopters, with a maximum takeoff weight of more than 9,000 lb, and with more than 3,000 lb total engine thrust of all engines or 1,000-shaft horsepower of one engine. In addition, this AC applies to any former military aircraft that was originally equipped with an ejection seat system.

7 BACKGROUND.

7.1 The U.S. military normally retires aircraft to Davis-Monthan Air Force Base in Tucson, Arizona to be stored indefinitely, cannibalized, scrapped, or restored to service at a later date. Surplus U.S. military aircraft are generally not sold directly to private U.S. operators without congressional approval. However, U.S. military aircraft may be exported via foreign military sales programs or other agreements.

7.2 Foreign government entities are the typical source of former military aircraft for U.S. operators. Rather than disposing of aircraft no longer in use by recycling or scrapping, those entities often choose to sell their aircraft to help recover costs. For example, a foreign air force stored and maintained a number of Douglas A-4 Skyhawk aircraft, spare engines, and other parts for years until a U.S. entity purchased and imported them. Since the end of the Cold War era, high-performance former military aircraft have become more readily available. After the Soviet Union was dissolved in 1991, countries that were aligned under the Warsaw Pact found themselves no longer in need of expensive air forces left over from the Cold War. Again, some countries choose to sell their military aircraft rather than scrap them. In many cases, these aircraft have reached their operational life limits and necessary documentation (for example, maintenance and operational manuals) is lacking.

7.3 Examples of high-performance former military aircraft models currently on the FAA Registry include the Douglas A-4 Skyhawk; Cessna A-37 Dragonfly; Dassault/Dornier Alpha Jet; BAC 167 Strikemaster; Northrop F-5; North American F-100 Super Sabre; Lockheed F-104 Starfighter; Hawker Siddeley/BAE Harrier; SEPECAT Jaguar; Israel Aircraft Industries Kfir; Aero L-29 Delfin; Aero L-39 Albatros; Mikoyan-Gurevich (MiG)-15, MiG-17, MiG-19, and MiG-21; MiG-29; Mk.58 Hawker Hunter, and Sukhoi Su-27.

8 CAUTIONS.

8.1 Former military aircraft may not be properly stored/maintained in accordance with the original equipment manufacturer or military requirements before sale to civil customers. Accordingly, the cost to bring them into a safe operating condition may be significant.

8.2 Potential owners should understand the risks, responsibilities, and potential costs of owning and operating a high-performance former military aircraft. Certificating,

maintaining, and operating these complex aircraft is costly. Aircraft not found to be in condition for safe operation will not be eligible for airworthiness certification. Before purchasing a former military aircraft, prospective owners should carefully inspect the condition of the aircraft and consider the costs to certificate, maintain, and operate the aircraft.

- 8.3 Former military aircraft contain complex systems. For example, ejection seats may require training and maintenance not readily available at most airports. Potential owners should be aware that they may be required to implement a maintenance program for former military aircraft.

9 DEMILITARIZATION.

- 9.1 Unless the aircraft are used for an approved civil research and development (R&D) project, former military aircraft owners/operators must permanently demilitarize their aircraft before FAA certification. Safe operation of guns, cannons, targeting radars, electronic jammers, jettisonable stores, or explosive devices are not feasible under nonapproved R&D experimental purposes. Potential safety hazards related to these systems include accidental firing of guns, accidental release of stores, accidental operation of radars on the ground, compartment fires, and damage to the airframe. These hazards may pose risks to your aircraft, other aircraft, and persons and property on the ground, and operating limitations may not adequately mitigate these risks. Although some of these systems may be required to support a valid civil R&D project, aircraft owners/operators need to understand the corresponding safety risks and work closely with the FAA to determine the feasibility of mitigating these risks via additional operating limitations.
- 9.2 Refer to aircraft maintenance manuals and related weapons delivery manuals to help identify the aircraft's components and weapon systems. For example, "-34" technical order manuals provide detailed information on the weapon systems in U.S. Air Force aircraft. Some aircraft manufacturers may offer guidance on aircraft demilitarization. Refer also to U.S. Air Force Technical Order 00-80G-1, Make Safe Procedures for Public Static Display, dated November 30, 2002.
- 9.3 The importation of former military aircraft typically requires an import permit issued by the Department of Justice, Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF). The ATF grants this permit using ATF Form 6, Application and Permit for Importation of Firearms, Ammunition and Implements of War. In addition, these former military aircraft are required to be demilitarized to clear U.S. Customs and Border Protection. Compliance with demilitarization is evidenced by a completed ATF Form 6A, Release and Receipt of Imported Firearms, Ammunition and Implements of War. Proof of demilitarization will be verified if the applicant presents copies of ATF Form 6 and ATF Form 6A that have been completed by appropriate Department of Justice officials. If the applicant is unable to produce ATF Form 6 or ATF Form 6A for original certification of the aircraft, the application will be denied.

Note 1: For any questions regarding ATF Form 6 or ATF Form 6A requirements, contact the ATF Firearms and Explosives Imports Branch at the Department of Justice. The ATF website is: www.atf.gov.

Note 2: For an aircraft imported from another country to be eligible for an airworthiness certificate, it must be imported as an aircraft. For example, an aircraft imported as scrap or a museum piece for static display is typically not able to meet the eligibility requirements for the issuance of an airworthiness certificate.

Note 3: ATF permits are not normally required for transport aircraft unless they contain weapons or weapon systems.

10 OTHER U.S. GOVERNMENT ENTITIES WITH JURISDICTION OVER FORMER MILITARY AIRCRAFT.

- 10.1 Under Title 49 of the United States Code (49 U.S.C.), the FAA is responsible for the safety of civil aircraft as it relates to the airworthiness of aircraft. Other U.S. Government entities may have jurisdiction over matters that may apply to former military aircraft. Examples of these entities include the Department of Homeland Security, Department of Defense, Department of State, and State or local governments. These entities' regulations, policies, and procedures may affect the following areas pertaining to former military aircraft: importing, firearms permits, demilitarization, hazardous materials, homeland security, and national defense.
- 10.2 Other U.S. Government entities may establish requirements that preclude the issuance of an FAA airworthiness certificate for a former military aircraft. For example, another U.S. Government entity may ask the FAA not to certificate an aircraft in the interest of national defense. In such an instance, the FAA would not certificate that aircraft. Similarly, if another U.S. Government entity allows a former military aircraft to be imported into the United States for the purpose of scrap or static display, the aircraft is typically not able to obtain airworthiness certification.
- 10.3 Issuance of an FAA airworthiness certificate signifies the aircraft has met applicable FAA requirements concerning airworthiness. It does not signify compliance with requirements of other U.S. Government entities that may apply to the aircraft. An applicant is responsible for understanding and complying with applicable requirements of other U.S. Government entities.

11 HOW TO APPLY FOR A SPECIAL AIRWORTHINESS CERTIFICATE IN THE EXPERIMENTAL CATEGORY.

- 11.1 Registration of an aircraft with the FAA is a prerequisite for submitting an application for U.S. airworthiness certification. The procedures for aircraft registration and issuance of registration numbers are included in 14 CFR part 47, Aircraft Registration. Contact information for the FAA Registry can be found at the following website: http://www.faa.gov/licenses_certificates/aircraft_certification/aircraft_registry/. For guidance in the airworthiness certification of an aircraft, contact your local

FAA Manufacturing Inspection District Office (MIDO) or Flight Standards District Office (FSDO) immediately after registering the aircraft.

- 11.2 For each aircraft to be certified, submit a properly completed FAA Form 8130-6, Application for U.S. Airworthiness Certificate, to your local MIDO or FSDO. Detailed instructions for completing this form may be found in AC 21-12, Application for U.S. Airworthiness Certificate, FAA Form 8130-6. Your local MIDO or FSDO can provide direct guidance and information to assist you. Contact information for your local MIDO or FSDO can be found at http://www.faa.gov/about/office_org/.

12 PROGRAM LETTERS.

- 12.1 Pursuant to § 21.193, Experimental certificates: general, applicants are required to submit certain information with an application for airworthiness certification. The FAA refers to this information in national policy and guidance as the “program letter.” It is important that the information provided in the program letter include sufficient detail to permit the FAA to prescribe the limitations necessary to ensure safe operation of the aircraft. If the program letter does not contain sufficient detail, the certificating office will request additional information which may delay certification. Section 21.193(a) through (d) specifies minimum requirements for a program letter applicable to former military aircraft: intended purpose, estimated time or number of flights, areas of operations, and three-view drawings or three-view dimensioned photographs of the aircraft except for aircraft converted from a previously certificated type without appreciable change in the external configuration. Refer to appendixes A and B to this AC for sample program letters. Refer to paragraph 12.8 of this AC for multiple purpose certificates and programs.

12.2 Purpose.

Pursuant to § 21.193(d)(1), an applicant must state the purpose of its experiment. The following guidance includes the kinds of information that should be included in describing each of the purposes for which the FAA may issue an experimental certificate under § 21.191 for former military aircraft.

12.2.1 Research and Development, § 21.191(a).

For each R&D project, the program letter should describe the project in sufficient detail to demonstrate it meets regulatory requirements. Include the registration numbers of other aircraft supporting this project if applicable, the duration (approximate beginning/ending dates for conducting the R&D), and the contact information for the customer if this project will be performed under contract. Applicants should be aware that persons or property cannot be carried for compensation or hire pursuant to § 91.319(a)2, Aircraft having experimental certificates: Operating limitations.

Note 1: An applicant may be seeking a project with another company, but not yet have a specific contract to conduct the R&D. The applicant may still submit an application that includes information about the project it intends to conduct. The operating limitations issued should be specific and only valid for that project.

Note 2: The conditions and limitations will reflect only those projects for which information was submitted at the time of application. To add new projects to an existing certificate, submit a new or amended program letter. This may necessitate a revision to the issued operating limitations.

12.2.2 Crew Training, § 21.191(c).

This purpose is limited to the applicant's flight crews, including flight crews an applicant may hire under contract to operate an aircraft. This would normally allow a manufacturer to train its employees during type certification. However, this purpose may also be used by a company that operates an experimental former military aircraft and needs to obtain an appropriate type rating or authorization for its employed pilots. The FAA does not issue a special airworthiness certificate for crew training when an aircraft of the same model with a standard airworthiness certificate is available. The program letter should describe the training plan as follows:

12.2.2.1 For pilot transition training that leads to a pilot authorization, include—

12.2.2.1.1 The person within the company who will provide the training and that person's qualifications (for example, instructor pilot training received);

12.2.2.1.2 A training syllabus;

12.2.2.1.3 The estimated number of pilots to be trained; and

12.2.2.1.4 The performance standards to complete the training.

12.2.2.2 For recurrent training, in addition to the information described above in paragraph 12.2.2.1 of this AC, include the frequency of pilot training (for example, every 6 months, annually, or after a specified period of inactivity).

Note 1: Crew training under § 21.191(c) does not apply to flight crew not employed by the company/applicant. For a company to conduct crew training for flight crew it does not employ, it must obtain a letter of deviation authority from its local FSDO pursuant to § 91.319(h).

Note 2: Refer to FAA-S-8081-5, Airline Transport Pilot and Aircraft Type Rating Practical Test Standards for Airplane, date as amended, or most current version, as a guide for flight crew performance standards.

Note 3: For training in a former military aircraft, the training syllabus for instructor pilots and line pilots should follow an appropriate military training standard (for example, Naval Air Training and Operating Procedures Standardization) or other appropriate training standard.

Note 4: Operating limitations will only permit training flights necessary to complete the training plan.

Note 5: Operating limitations will also state that the occupants of the aircraft must be flight crew employees of the company/applicant.

12.2.3 Exhibition, § 21.191(d).

The program letter should provide the names and dates of events at which the aircraft will be exhibited for the 12-month period following certification. Verify the proposed events are consistent with the applicable operating limitations (for example, avoiding densely populated areas) and do not pose a safety hazard (for example, insufficient runway length).

Note: The conditions and limitations will reflect only those events for which information was submitted at the time of application. To add events, the applicant should submit a new or amended program letter. This should not necessitate a revision to the issued operating limitations to reflect the added event(s).

12.2.4 Air Racing, § 21.191(e).

The program letter should provide event names and dates for the applicable air races.

12.3 **Time or Number of Flights.**

Pursuant to § 21.193(d)(2), the applicant must submit the estimated time or number of flights required for the experiment. Include the estimated time or number of flights for proficiency flights and maintenance flights. The FAA will evaluate your request to establish an appropriate time duration, if applicable, for the special airworthiness certificate.

12.4 **Areas of Operation.**

Pursuant to § 21.193(d)(3), the applicant must submit descriptions of the areas over which the experiment will be conducted. This should include airports to be used, flight test areas, areas for maintenance and proficiency flights, and routes to/from exhibits or races, as applicable. This includes areas of operation within and outside U.S. airspace. A written description or annotated map is acceptable. In proposing areas of operation for flight tests, comply with § 91.305, Flight test areas, that specifies no person may flight test an aircraft except over open water, or sparsely populated areas, having light air traffic. The FAA may establish boundaries of the flight test area, including takeoff, departure, and landing approach routing to minimize hazards to persons, property, and other air traffic. The FAA cannot authorize operations outside the United States.

12.5 **Aircraft Configuration.**

Pursuant § 21.193(d)(4), the applicant must submit three-view drawings or three-view dimensioned photographs of the aircraft, except for aircraft converted from a previously certificated type without appreciable change in the external configuration. Submit a new program letter when making significant changes to the aircraft configuration to describe those modifications.

Note: Major modifications will require phase 1 flight testing. Phase 1 flight testing requires an aircraft be flown in its assigned area until it is shown to be controllable throughout its normal range of speeds, and throughout all the maneuvers to be executed and there are no hazardous operating characteristics or design features.

12.6 Safeguard the General Public.

The program letter should contain any pertinent information found necessary by the FAA to safeguard the general public. For example, it should include any exemptions that may apply to the aircraft, such as nonstandard markings or using an experimental aircraft to carry persons or property for compensation or hire.

12.7 Non-Civil Aircraft Operations.

An applicant should understand that an FAA airworthiness certificate is not in effect during non-civil operations. Operations and configurations in the non-civil arena may impact the operating limitations for the civil airworthiness certificate and the civil airworthiness of the aircraft following non-civil operations. An applicant for an experimental certificate that also intends to engage in non-civil operations for a domestic or foreign government or military entity should include additional information listed in paragraphs 12.7.1 through 12.7.8 of this AC in its program letter for the FAA to understand all operations to be conducted.

Note: AC 00-1.1A, Public Aircraft Operations, provides guidance for determining whether government or government-contracted aircraft operations conducted within the territory of the United States constitute public aircraft operations (PAO) under the statutory definition of “public aircraft,” embodied in 49 U.S.C. 40102(a)(41), Definitions, and 40125, Qualifications for public aircraft status.

- 12.7.1 Identify the government/military customer. Provide the name of the government/military entity and contact information. Include the duration of the contract.
- 12.7.2 Indicate whether the contract under which these non-civil operations are conducted includes a requirement for an FAA airworthiness certificate, operating capability requirements, and any other pertinent information concerning how the aircraft will be operated.
- 12.7.3 For operations in the United States, indicate whether you have or intend to obtain a declaration of PAO from your government contracting entity. Provide a copy of the declaration, if available.
- 12.7.4 For international operations, specify the applicable authorization for operations—a permit to fly from the applicable civil aviation authority (CAA) and/or a diplomatic clearance from the applicable foreign government entity.
- 12.7.5 Estimate the percentage of flight time in civil and non-civil operations.
- 12.7.6 Describe the types of non-civil operations/intended use of the aircraft (for example, “Aircraft will be used to tow targets”). Provide general information on the type of aerial work to be conducted. Do not include classified or proprietary information. Include the number of aircraft intended for operations under the government/military contract. Describe the area and airports in which the aircraft will be operated.

- 12.7.7 Describe any configuration or operating changes in non-civil use that may affect the airworthiness of the aircraft on return to civil status. For example, under civil status, no external pylons, stores, or pods may be releasable during aircraft operations.
- 12.7.8 Describe how/when the aircraft would return to operations under its FAA-issued special airworthiness certificate. Describe any configuration changes. Describe any operations that may cause a flight to be operated outside of the normal flight envelope. Describe the method to re-establish airworthiness, including inspections, etc.

Note 1: An airworthiness certificate is not required for PAO. The applicable contracting U.S. Government entity assumes full responsibility for the aircraft and those operations.

Note 2: An FAA special airworthiness certificate does not authorize operations outside the United States, and the FAA does not provide oversight of those operations. The applicable foreign entity that granted permission to operate in its country assumes oversight responsibility for the aircraft operations.

Note 3: The FAA will use information gathered concerning public/state/military operations to determine appropriate operating limitations. For example, if a military operation will require the aircraft to exceed a g-load limit in the operating limitations, an additional limitation may need to be added that requires an over-g inspection and logbook entry before operations under the FAA certificate.

12.8 **Multiple Purposes and Programs.**

- 12.8.1 Using the same aircraft for overlapping programs is permissible. In such cases, include descriptions of each program in your program letter. On showing compliance with § 91.319(b), the aircraft may be used to support other aircraft in the program or other experimental programs, for example, to support flight crew movements, carry spare engines, or function as a chase plane. This support should be described in the program letter.
- 12.8.2 Experimental certificates may also be issued for multiple purposes. For example, a certificate can be issued for exhibition and air racing, or air racing and R&D. Multipurpose certificate durations should be issued for the most restrictive purpose.
- 12.8.3 If the applicant intends to use the aircraft for multiple purposes the program letter should document that information in separate sections for each purpose. For example, an aircraft may be eligible for an experimental airworthiness certificate for the purposes of R&D and exhibition. The same aircraft may also conduct PAO for the Department of Defense. In this example, the program letter should separately describe each operation (that is, R&D, exhibition, and PAO) with the same level of detail. Describe any configuration changes that will occur between each purpose to include adding or removing external stores and enabling or disabling systems. Refer to appendixes A and B to this AC for sample program letters involving multiple purposes.

12.9 **Amendments or Changes.**

- 12.9.1 The FAA recognizes that the current program letter reflects planned activity and actual exhibits may change. Coordinate amendments with your geographic FSDO. At a minimum, resubmit your program letter on an annual basis to provide the names and dates of the events where you will exhibit the aircraft during the upcoming year.
- 12.9.2 Program letters must be resubmitted if the operational purpose changes after the initial issue. For example, an experimental certificate is issued for exhibition and the certificate holder decides to use the aircraft for R&D. In this case, a new certificate must be requested from the FAA. If there are any other changes to the aircraft's operation from what is described in the program letter, submit a revised program letter describing those changes. Program letters should be submitted in a timely manner so the FAA can amend your certificate or issue a new certificate without interrupting your operations. Applicants should not assume all operations described will be approved.

13 **OPERATING LIMITATIONS.**

- 13.1 All experimental aircraft must be operated in accordance with part 91. For example, § 91.319 contains operating limitations applicable to all aircraft with experimental certificates. Section 91.319(a) prohibits a person from operating an aircraft that has an experimental certificate for any purpose other than the purpose for which the certificate was issued or for carrying persons or property for compensation or hire. Aircraft may be used for compensation or hire when not carrying persons or property of another. Per this section, an experimental certificate may not be used to carry government personnel or government-furnished equipment. Furthermore, pursuant to § 91.319(i), the FAA may prescribe additional limitations it considers necessary. Applicants should anticipate that, given the unique safety risks associated with these aircraft, the FAA will commonly prescribe additional operating limitations to mitigate those risks.
- 13.2 Refer to FAA Order 8130.2, Airworthiness Certification of Aircraft and Related Products, for a complete listing of operating limitations.
- 13.3 Operating limitations will be listed on a separate sheet of paper and attached to FAA Form 8130-7. The issuance date of the operating limitations is shown on the face side of FAA Form 8130-7.
- 13.4 Failure to operate an aircraft in accordance with an operating limitation on a certificate or any other operational requirement of part 91 may be cause for enforcement or certificate action. To safely inspect, maintain, and operate an aircraft and to comply with applicable regulations, an operator of an experimental category aircraft should thoroughly understand and comply with all applicable operating limitations.

14 OPERATIONS OUTSIDE THE UNITED STATES.

- 14.1 As indicated on FAA Form 8130-7, an aircraft holding a special airworthiness certificate does not meet the requirements of the applicable comprehensive and detailed airworthiness code as provided by Annex 8 to the Convention on International Civil Aviation, Airworthiness of Aircraft. A special airworthiness certificate does not authorize operations outside the United States. Accordingly, no person may operate that aircraft over any foreign country without the special permission of that country. For civil operations outside the United States, that permission normally takes the form of a permit to fly from a foreign CAA. For non-civil operations, that permission normally takes the form of a diplomatic clearance from some other foreign government entity. Accordingly, operators should understand that such operations outside the United States may only occur under the authority of the permission issued by the foreign country, not under the FAA special airworthiness certificate.
- 14.2 Although a special airworthiness certificate does not authorize operations outside the United States, foreign CAAs and other foreign government entities typically require issuance of this certificate to support issuance of their permission. In issuing this certificate under these circumstances, the FAA typically coordinates with the applicable CAA to identify appropriate operating limitations. Permissions to fly from other countries may include operating limitations not included with the special airworthiness certificate.

14 LOCATION OF THIS AC.

You can find this AC at http://www.faa.gov/regulations_policies/advisory_circulars.

15 SUGGESTIONS FOR IMPROVEMENT.

Please forward all comments on deficiencies, clarifications, or improvements regarding this order to the following address:

Aircraft Certification Service
Administrative Services Branch, AIR-510
ATTN: Directives Management Officer
800 Independence Avenue SW.
Washington, D.C. 20591

Advisory Circular Feedback Information is located as appendix D to this AC for your convenience. If you require an immediate interpretation, please contact AIR -100 at (202) 385-6346; however, you should also complete Advisory Circular Feedback Information as a follow-up to the conversation.

If you have any suggestions for improvements or changes, you may use the template provided at the end of this AC.



David W. Hempe
Manager, Design, Manufacturing, & Airworthiness Division
Aircraft Certification Service

Appendix A. Sample Program Letter for a Special Airworthiness Certificate

1. Registered Owner (as shown on Certificate of Aircraft registration)

*NAME: Brand X Support Services, Inc.
ADDRESS: 123 Airport Street
Any Town, USA 00010-0001*

2. Aircraft Description

- a. Aircraft Registration: *N12345*
- b. Aircraft Yr. Mfg.: *1972*
- c. Aircraft Serial No.: *52*
- d. Manufacturer Make and Model: *Aero Vodochody, L-39 Albatros*

For aircraft seeking certification for experimental R&D.

- 3. Describe program purpose for which the aircraft is to be used (14 CFR 21.193(d)(1)).
R&D providing chase for Major Airplane Manufacturer for certification testing of their next bizjet. Aircraft Certification Office X is the project office. The assigned project number is ACOXzzz.
- 4. Provide the following information as it pertains to your Program Letter.
 - a. List estimated flight hours required for the R&D program, proficiency flights, and maintenance flights: *100, 10, and 10 hours, respectively.*
 - b. List estimated number of flights required for the R&D program, proficiency flights, and maintenance flights: *50, 5, and 5 flights, respectively.*
 - c. List estimated duration for programs (14 CFR 21.193(d)(2)). *150 days*
- 5. Describe the areas over which the flights are to be conducted, and address of base operation (14 CFR 21.193(d)(3)).
All flights will take place within 150nm of airport KAAA, excluding the airspace over City-X. The maximum altitude is FL240. The base of operations is Major Airplane Manufacturer Hangar, 12345 Tower Drive, City-X, 00025.
- 6. Describe the aircraft configuration (attach three-view drawings or three-view dimensioned photographs of the aircraft (14 CFR 21.193(d)(4)) and include a description of how the configuration is different from the other purposes listed). *See attached.*

For aircraft seeking certification for experimental exhibition.

- 3a. Describe program purpose for which the aircraft is to be used (14 CFR 21.193(d)(1)).
*Exhibition at the following events over the next 8 months:
AirVenture - KOSH, August 1, 2013
Billy Bob's Air Event - KAAA, June 30, 2013*

- 4a. Provide the following information as it pertains to your Program Letter.
 - a. List estimated flight hours required for the exhibits, proficiency flights, and maintenance flights: *13 hours exhibition, including the flights to and from the events, 8 hours for proficiency, and 4 hours for maintenance.*
 - b. List estimated number of flights required for the exhibits, proficiency flights, and maintenance flights: *6, 4, and 2 flights, respectively.*
 - c. List estimated duration for programs (14 CFR 21.193(d)(2)). *8 months*

- 5a. Describe the areas over which the flights are to be conducted, and address of base operation (14 CFR 21.193(d)(3)).
Proficiency flights will take place within 125nm of AnyTown, USA airport with a maximum altitude of 10,000 feet. The base of operations is the address listed above. Proposed routes to/from the above events are annotated on attached map.

- 6a. Describe the aircraft configuration (attach three-view drawings or three-view dimensioned photographs of the aircraft (14 CFR 21.193(d)(4) and include a description of how the configuration is different from the other purposes listed). *See attached.*

7. Date, Name and Title (Print or Type), and Signature.

**Appendix B. Sample Program Letter for a Special Airworthiness Certificate With
Military/State/Public Aircraft Operations**

1. Registered Owner (as shown on Certificate of Aircraft registration)

*NAME: Brand Y Support Services, Inc.
ADDRESS: 123 Airport Street
Any Town, USA 00010-0001*

2. Aircraft Description

- a. Registration Marks: *N12345*
- b. Aircraft Yr. Mfg.: *1972*
- c. Aircraft Serial No.: *52*
- d. Aircraft Model Designation: *Aero Vodochody, L-39 Albatros*

R&D

3. Describe program purpose for which the aircraft is to be used (14 CFR 21.193(d)(1)).

R&D providing chase for Major Airplane Manufacturer for certification testing of their next bizjet. Aircraft Certification Office X is the project office. The assigned project number is ACOXzzz.

4. Provide the following information as it pertains to your Program Letter.

- a. List estimated flight hours required for the R&D program, proficiency flights, and maintenance flights: *90 hours*
- b. List estimated number of flights required for the R&D program, proficiency flights, and maintenance flights: *50, 5, and 5 flights, respectively.*
- c. List estimated duration for programs (14 CFR 21.193(d)(2)). *150 days*

5. Describe the areas over which the flights are to be conducted, and address of base operation (14 CFR 21.193(d)(3)).

The flights will take place within 150nm of airport KAAA, excluding the airspace over City-X. The maximum altitude is FL240. The base of operations is Major Airplane Manufacturer Hangar, 12345 Tower Drive, City-X, 00025.

6. Describe the aircraft configuration (attach three-view drawings or three-view dimensioned photographs of the aircraft (14 CFR 21.193(d)(4)) and include a description of how the configuration is different from the other purposes listed). *See attached.*

Exhibition

3a. Describe program purpose for which the aircraft is to be used (14 CFR 21.193(d)(1)).

*Exhibition at the following events over the next 8 months:
AirVenture - KOSH, August 1, 2013
Billy Bob's Air Event - KAAA, June 30, 2013*

- 4a. Provide the following information as it pertains to your Program Letter.
- List estimated flight hours required for the exhibits, proficiency flights, and maintenance flights: *13 hours exhibition, including the flights to and from the events, 8 hours for proficiency, and 4 hours for maintenance.*
 - List estimated number of flights required for the exhibits, proficiency flights, and maintenance flights: *6, 4, and 2 flights, respectively.*
 - List estimated duration for programs (14 CFR 21.193(d)(2)). *8 months*
- 5a. Describe the areas over which the flights are to be conducted, and address of base operation (14 CFR 21.193(d)(3)).
Proficiency flights will take place within 125nm of AnyTown, USA airport with a maximum altitude of 10,000 feet. The base of operations is the address listed above. Proposed routes to/from the above events are annotated on attached map.
- 6a. Describe the aircraft configuration (attach three-view drawings or three-view dimensioned photographs of the aircraft (14 CFR 21.193(d)(4) and include a description of how the configuration is different from the other purposes listed). *See attached.*

Military / State / Public Aircraft Operations

The aircraft will provide contract support for the U.S. Department of Defense and Country X Army Air Force. The contract calls for towing targets, aerial survey, operating as aggressor for pilot training, aerial gunnery, missile launch, and dropping bombs.

The flight area extends from the Somewhere Province to Greenland. The maximum altitude is FL410. The flight profiles call for a maximum g-force of 10.

A picture of the aircraft as configured for PAO is attached. Note the addition of an external store. We also will enable the ability to release external stores during these operations.

7. Date, Name and Title (Print or Type), and Signature

Appendix C. Related Publications

C.1 **FAA ORDERS.**

- C.1.1 FAA Order 8130.2, Airworthiness Certification of Aircraft and Related Products.
- C.1.2 FAA Order 8900.1, Flight Standards Information Management System (FSIMS).

C.2 **FAA ADVISORY CIRCULARS (AC).**

- C.2.1 AC 00-1.1, Public Aircraft Operations.
- C.2.2 AC 20-65, U.S. Airworthiness Certificates and Authorizations for Operation of Domestic and Foreign Aircraft.
- C.2.3 AC 21-4, Special Flight Permits for Operation of Overweight Aircraft.
- C.2.4 AC 21-12, Application for U.S. Airworthiness Certificate, FAA Form 8130-6.
- C.2.5 AC 43-9, Maintenance Records.
- C.2.6 AC 43-209, Recommended Inspection Procedures for Former Military Aircraft.
- C.2.7 AC 45-2, Identification and Registration Marking.
- C.2.8 AC 150/5220-9, Aircraft Arresting Systems for Joint Civil/Military Airports.

C.3 **OTHER DOCUMENTS.**

- C.3.1 Title 14 of the Code of Federal Regulations parts 21, 43, 45, 47, 91, and 375 set forth the requirements for certification procedures of products and parts; maintenance, preventive maintenance, rebuilding, and alteration; identification and registration marking of aircraft; aircraft registration; general flight and operating rules; and the navigation requirements of foreign civil aircraft within the United States.
- C.3.2 We also encourage you to use the FAA website at http://www.faa.gov/aircraft/air_cert/ for additional information and guidance.

Appendix D. Advisory Circular Feedback Information

If you have comments or recommendations for improving this advisory circular (AC), or suggestions for new items or subjects to be added, or if you find an error, you may let us know by using this page as a template and 1) emailing it to 9-AWA-AVS-AIR500-Coord@faa.gov or 2) faxing it to the attention of the AIR Directives Management Officer at 202-267-3983.

Subject: (insert AC number and title)

Date: (insert date)

Comment/Recommendation/Error: (Please fill out all that apply)

An error has been noted:

Paragraph _____

Page _____

Type of error (check all that apply): Editorial:----- Procedural:-----

Conceptual_____

Description/Comments: _____

Recommend paragraph _____ on page _____ be changed as follows:
(attach separate sheets if necessary)

In a future change to this advisory circular, please include coverage on the following subject:
(briefly describe what you want added attaching separate sheets if necessary)

Name: _____