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VOLUME 6. AIRCRAFT & EQUIPMENT - CERTIFICATION

CHAPTER 1. TYPE CERTIFICATE OF PRODUCTS & DESIGN CHANGES

Section 1. Type Certificate Procedures

NOTE: This guidance to be developed at a later date.

VOLUME 6. AIRCRAFT & EQUIPMENT - CERTIFICATION

CHAPTER 1. TYPE CERTIFICATE OF PRODUCTS & DESIGN CHANGES

Section 2. Supplemental Type Certification Procedures

NOTE: This guidance to be developed at a later date.

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VOLUME 6. AIRCRAFT & EQUIPMENT - CERTIFICATION

CHAPTER 2. AIRWORTHINESS CERTIFICATION OF AIRCRAFT & ARTICLES

Section 1. Issue Airworthiness Certificate for an Aircraft

6.2.1.1. GACA ACTIVITY REPORT (GAR).

A. 3402 (AW) (Standard Airworthiness Certificate – Initial Issue)

B. (TBD) (AW) (Standard Airworthiness Certificate – Renewal)

C. 3406 (AW) (Special Airworthiness Certificate – Initial Issue)

D. (TBD) (AW) (Special Airworthiness Certificate – Renewal)

E. (TBD) (AW) (Experimental Certificate – Issue/Renew)

F. 3412 (AW) (Airworthiness Certificate – Replacement/Amendment)

6.2.1.3. OBJECTIVE. This section provides guidance to General Authority of Civil Aviation (GACA) aviation safety inspectors (Inspectors) on the policies, objectives, procedures and general practices concerning the issuance of an airworthiness certificate for an aircraft.

6.2.1.5. GENERAL.

A. Background. There are two types of airworthiness certificates issued under General Authority of Civil Aviation Regulation (GACAR) Part 21: Standard and Special. Standard airworthiness certificates are airworthiness certificates issued for aircraft type certificated in the normal, utility, acrobatic, commuter, or transport category; for manned balloons; and for aircraft designated by the President under GACAR Part 21 as special classes of aircraft. Special airworthiness certificates are airworthiness certificates issued for aircraft type certificated in the primary or restricted category, light-sport aircraft, and for experimental aircraft. Article 31 of the Convention on International Civil Aviation (ICAO), to which the Kingdom of Saudi Arabia (KSA) is a signatory, requires every aircraft engaged in international navigation to be provided with an airworthiness certificate (often called a Certificate of Airworthiness) issued or rendered valid by the state in which the aircraft is registered. In the development of procedures and directives concerning airworthiness certificates, the GACA considered two basic situations according to ICAO Annex 8 and related ICAO guidance material:

- The issuance of a new airworthiness certificate when an aircraft is first registered in the KSA (this can be a newly manufactured aircraft or a used aircraft being imported from a foreign State)
- The renewal of an airworthiness certificate issued by the GACA

Note: The GACA does not validate an airworthiness certificate issued by a foreign State.

Note. The airworthiness certificate for aircraft registered in the KSA also includes provisions to indicate if the aircraft is in compliance with applicable noise emission standards in accordance with GACAR Part 36 and ICAO Annex 16, Volume I.

B. References. The following regulatory references are related to issuance of airworthiness certificates:

- GACAR § 21.165(a), (b), and (c) provides the basis for the issuance of *initial* and *renewal* standard airworthiness certificate

• GACAR § 21.167 provides the basis for the issuance of special airworthiness certificate

• GACAR § 21.179 provides the basis for the issuance of Special Flight Permit, when an aircraft does not meet the requirements for the issuance of a standard airworthiness certificate that conforms to Article 31 of the ICAO Convention. The GACA imposes operating conditions on special flight permits where the conditions are required to ensure the safety of the aircraft, other aircraft, persons, animals or property. See Section 6.2.4 for additional guidance on Special Flight Permits.

6.2.1.7. CLASSIFICATION AND CATEFORY OF AIRWORTHINESS CERTIFICATE. An airworthiness certificate issued to a Saudi Arabian-registered aircraft will be either a standard airworthiness certificate or a special airworthiness certificate. See Appendix C to this section, “Airworthiness Certificate Mapping ” for an illustration of the applications for these two types of certificates.

A. Standard Classification. A standard airworthiness certificate may be issued for an aircraft that fully complies with all of the requirements applicable to the normal, utility, acrobatic, commuter, or transport category, manned balloons or any other special class of aircraft designated by the President.

B. Special Classification. A special airworthiness certificate may be issued for an aircraft that does not meet the requirements for a standard airworthiness certificate. The special airworthiness certificate may be issued for an aircraft that meets the following:

1) *Restricted.* Aircraft that satisfy the requirements of GACAR § 21.169.

2) *Light Sport.* Aircraft that satisfy the requirements of GACAR § 21.170.

3) *Experimental*. For any category of aircraft that meets the requirements of GACAR §§ 21.173, 21.175, and 21.177. See Section 3 for additional guidance on the issuance of a Special Airworthiness Certificate for an Unmanned Aircraft System (UAS) an experimental aircraft.

4) *Special Flight Permits.* An operating limitations letter attached to the GACA special airworthiness certificate may be issued for an aircraft that does not currently meet applicable airworthiness requirements; however, is capable of safe flight and meets the requirements of GACAR § 21.179. In certain cases, the special flight permit is authorized through issuance of an OpSpec. See Section 4 for guidance on issues relating to special flight permits.

6.2.1.9. STANDARD AIRWORTHINESS CERTIFICATE - INITIAL ISSUANCE.

A. Basic Eligibility Requirements. The standard airworthiness certificate is used for all original and recurrent airworthiness certification of aircraft that are eligible for a standard airworthiness certificate. A standard airworthiness certificate remains valid for the validity period prescribed on the certificate (generally one Hegira year), as long as maintenance, preventive maintenance, and alterations are performed in accordance with GACAR Part 21, 43 and 91. Before a standard airworthiness certificate can be issued, the applicant must show the following:

1) The aircraft was type certificated under GACAR Part 21 in the balloon, normal, utility, acrobatic, commuter, or transport category or in the special class.

2) The aircraft conforms to its approved type design and is in a condition for safe operation.

3) Any major alterations were accomplished in accordance with an approved STC or other GACA-approved data. (See GACA AC 021-03 for a listing of types of approved data).

4) All applicable ADs have been complied with.

5) If altered while in another category, the aircraft continues to meet or has been returned to its approved type design

configuration and is in a condition for safe operation.

6) The aircraft meets any additional airworthiness requirements required under the GACAR part for which the aircraft will be operated.

7) The aircraft is properly equipped according to the minimum prescribed requirements under the GACAR part for which the aircraft will be operated.

8) Any other additional item required by the President.

B. Application for Airworthiness Certificate. An applicant must submit an Application for Airworthiness Certificate and a Data Sheet for Airworthiness Certification whenever an airworthiness certificate is to be issued or amended. The application for an airworthiness certificate must be made by the registered owner or an agent who has a letter of authorization from the registered owner. The applicant must complete the appropriate sections of the application before submitting it to the GACA. Use of Appendix B of this section, “Aircraft Airworthiness Certificate Checklist,” may also assist the applicant during the application phase.

C. Documentation and Records Review.

1) Inspectors should confirm the eligibility of make, model, and serial number of the aircraft for airworthiness certification by ensuring that the aircraft has been type certificated by the Federal Aviation Administration (FAA) (reference the FAA TCDS) or otherwise validated by the GACA under GACAR Part 21 (consult GACA Airworthiness Engineers for further guidance in this area).

2) Obtain a properly executed Application for Airworthiness Certificate and Data Sheet for Airworthiness Certification from the applicant, and any other forms or documents required by the GACA to process the certification, such as:

a) Selection of Inspection Program Form.

b) Certification of Inspection Form.

c) Certification of Altimeter System and Altitude Reporting Equipment Test and Inspections Form.

d) Certification of ATS Transponder Tests and Inspection Form.

e) Certification of Battery Replacement of ELT Form.

f) In addition, the Inspector should request the following information from the applicant if they are not listed on the Data Sheet for Airworthiness Certification:

- Aircraft flight manual (AFM) revision status
- Mass and balance report (including aircraft equipment list)
- Electrical load analysis
- Layout of Passenger Accommodations (LOPA)

NOTE: The applicant must have the forms completed before submitting the application to the GACA.

3) Coordinate with the Director of Airworthiness to determine that a previously submitted Application for Airworthiness

Certificate has not been denied. If it was denied, the reasons stated in the denial letter must be rectified before issuing an airworthiness certificate.

4) Arrange with the applicant to make the aircraft, aircraft records, and any other data necessary to establish conformity to its type design available for inspection and review.

5) Determine that the aircraft is properly registered under GACAR Part 47.

NOTE: Certification & Licensing Division (C&LD) should be contacted to ensure that the HZ registration has been properly issued, or whether it is a temporary or reserved registration that has not been permanently issued.

6) When all of the required records and documentation have been provided for the aircraft, review records and documentation to the extent necessary to establish the following:

a) The aircraft flight manual is up-to-date.

b) A mass and balance report is up-to-date and the aircraft empty mass has been established by periodic weighed within the time intervals prescribed by GACAR § 91.11.

c) The aircraft is properly equipped for the applicable operating rules (i.e. Part 91, 121, 125, 133, 135, as applicable). Inspectors should use Appendix A, “Determining Required Instruments and Equipment Job Aid,” to assist them in establishing the applicable equipment and instrument requirements.

d) The maintenance records are complete and accurate.

e) The Instructions for Continued Airworthiness (ICAW) are available, complete and current.

f) For aircraft operated under GACAR Part 121 or 125 all additional airworthiness requirements prescribed in these parts have been complied with.

g) The inspection records and technical data reflect that the aircraft conforms to the type design accepted/validated under GACAR Part 21, that all required inspections and tests have been satisfactorily completed, and that the records are complete and reflect no unapproved design changes.

h) Statement of alteration and repair status: Completed. This includes the Manufacturers Service Documents Form, Major Alteration Status Form, and Major Repair Status Form, as applicable. These forms must reflect the actual status of the aircraft and all alterations and repairs have been performed in accordance with approved data.

i) Airworthiness Directives status: Completed. The Airworthiness Directive Compliance Record Form must reflects the actual status of the aircraft and all applicable airworthiness directives have been complied with.

j) Statement of Life Limited component/part status: Completed. The applicable GACA forms must reflect the actual status of the aircraft and all components/parts are within time limits.

k) Airplanes with a maximum takeoff mass greater than 5700 kg, turbine powered multi engine airplanes, and turbine powered rotorcraft that were certificated in other than the transport or commuter categories, comply with the aircraft inspection program requirements of GACAR§ 91.449(e).

D. Aircraft Inspection. Inspectors must arrange with the applicant to make the aircraft available and ready for the initial inspection. Before the GACA inspection, the person responsible to present the aircraft for inspection shall remove or open all necessary inspection plates, access doors, fairing, and cowling to allow the Inspector to carry out the required inspection. The

aircraft should be available with a Ground Power Unit. He shall also thoroughly clean the aircraft and aircraft engine as required. The Inspector should inspect the aircraft to determine, among other things, the following:

1) The ID plate meets the requirements of GACAR Part 45, as applicable.

2) The information on the ID plate is correct and matches the information on the Data Sheet for Airworthiness Certification.

3) The aircraft registration marks are in accordance with GACAR Part 45.

4) The aircraft is properly equipped for the intended operations.

5) The instruments are marked in accordance with the aircraft flight manual.

6) The aircraft is in a condition for safe operation.

Inspectors should carry out the airworthiness certificate inspection in a comprehensive manner according to the type of operation. The goal is to confirm that the general airworthiness of the aircraft, records, and technical data reflect that the aircraft conforms to the type design, the type of operation, that all required inspections and tests have been satisfactorily completed, and that the records are complete and reflect no unapproved design changes.

E. Certificate Issuance. If the aircraft meets the requirements for the initial airworthiness certification requested, the Inspector should:

1) Complete the applicable sections of the Application for Airworthiness Certificate, as appropriate.

2) Complete the Aircraft Airworthiness Certificate Checklist (see Appendix B).

3) *Issue the airworthiness certificate.* For all normal, utility, commuter and transport category airplanes and rotorcraft including it will also be necessary to add the applicable “Chapter” reference from ICAO Annex 16 in the noise certification statement block on the airworthiness certificate. The following guidance can be used to determine the applicable “Chapter”.

Selected “Chapter 3” for the following situations:

• Subsonic jet airplanes — Application for Type Certificate submitted on or after 6 October 1977 and before 1 January 2006

• Propeller-driven airplanes over 5 700 kg — Application for Type Certificate submitted on or after 1 January 1985 and before 17 November 1988

• Propeller-driven airplanes over 8 618 kg — Application for Type Certificate submitted on or after 17 November 1988 and before 1 January 2006

Selected “Chapter 4” for the following situations:

• Subsonic jet airplanes — Application for Type Certificate submitted on or after 1 January 2006

• Propeller-driven airplanes over 8 618 kg — Application for Type Certificate submitted on or after 1 January 2006

Selected “Chapter 5” for the following situations:

• Propeller-driven airplanes over 5 700 kg — Application for Type Certificate submitted before 1 January 1985

Selected “Chapter 6” for the following situations:

• Propeller-driven airplanes not exceeding 8 618 kg — Application for Type Certificate submitted before 17 November 1988

Selected “Chapter 7” for the following situations:

• Propeller-driven STOL airplanes

Selected “Chapter 8” for the following situations:

• Transport Category Rotorcraft

Selected “Chapter 10” for the following situations:

• Propeller-driven airplanes not exceeding 8 618 kg — Application for Type Certificate or derived version submitted on or after 17 November 1988

Selected “Chapter 11” for the following situations:

• Normal Category Rotorcraft

Selected “Chapter 13” for the following situations:

• Tilt-rotor aircraft

EXAMPLE FOR A TRANSPORT CATEGORY ROTORCRAFT:

This aircraft complies with the aircraft noise requirements of GACAR Part 36 which is considered to be equivalent to the noise requirements of ICAO Annex 16, Volume I, Chapter 8. [Consult the Aircraft Flight Manual for Certificated Noise Levels].

4) Place all relevant documents in the aircraft file. For initial certifications a new aircraft file must be created. The aircraft file should contain the following documents:

a) A copy of the Application for Airworthiness Certificate and Data Sheet for Airworthiness Certification and all related GACA forms.

b) A copy of the Aircraft Airworthiness Certificate Checklist.

c) A copy of the FAA Type Certificate Data Sheet (TCDS), or acceptable equivalent documents.

d) A copy of the export airworthiness certificate, and when issued, a copy of the current airworthiness certificate.

e) A copy of the mass and balance report (including equipment list).

f) An electrical load analysis covering all services.

F. Certificate Denial. Should the aircraft not meet the requirements for the certification requested and the airworthiness certificate is denied, the Inspector should write a letter to the applicant stating the reason(s) for denying the certificate. The Inspector should also attach a copy of the denial letter to the application and include that documentation in the aircraft file.

6.2.1.11. STANDARD AIRWORTHINESS CERTIFICATE – RENEWAL.

A. General. The requirements that must be satisfied for renewal of an airworthiness certificate are as follows:

1) The aircraft must continue to conform to its approved type design and is in a condition for safe operation.

2) Any major alterations installed since last airworthiness certification (initial or most recent renewal) were accomplished in accordance with approved as per GACAR Part 21. (See Volume 6, Chapter 1, Sections 2 3).

3) All applicable ADs have been complied with (See Volume 6, Chapter 6, Sections 6.6.3 and 6.6.4).

4) If altered while in another category, the aircraft continues to meet or has been returned to its approved type design configuration and is in a condition for safe operation.

5) The aircraft continues to meets any additional airworthiness requirements required under the GACAR part for which the aircraft will be operated.

6) The aircraft continues to be properly equipped according to the minimum prescribed requirements under the GACAR part for which the aircraft will be operated.

7) Any other additional item required by the President.

B. Application. Application for the renewal of a standard airworthiness certificate shall be made by the registered owner (or an agent of the owner) using Application for Airworthiness Certificate and Data Sheet for Airworthiness Certification, and using the applicable GACA forms, as described below. The GACA also requires operators to submit the following documents in support of all airworthiness certificate renewals:

1) *Logbooks and Maintenance Records*. Current logbooks and maintenance records must be provided.

2) *Mass & Balance Report*. The aircraft must be accompanied by a current mass and balance report including the aircraft equipment list.

3) Additional documents that may be required are; but not limited to, the following:

- Selection of Inspection Program Form
- Certification of Inspection Form
- Certification of Altimeter System and Altitude Reporting Equipment Test and Inspections Form
- Certification of ATS Transponder Tests and Inspection Form
- Certification of Battery Replacement of ELT

NOTE: The applicant must have the forms completed and the appropriate sections signed before submitting it to the GACA.

C. Document and Records Review. Obtain a properly executed Application for Airworthiness Certificate and Data Sheet for Airworthiness Certification from the applicant, as well as any other documents the President may require for certification.

1) When all of the required records and documentation have been provided for the aircraft, review records and documentation to the extent necessary to establish the following:

- The aircraft flight manual is up-to-date

• The mass and balance report is current

• An equipment list is current and shows that the operator meets the applicable operating rules (i.e. Part 91, 121, 125, 135)

• The maintenance records are complete and current

2) Inspectors should check all the updated documentation to ensure the inspection records and technical data reflect that the aircraft conforms to the type design, that all required inspections and tests have been satisfactorily completed, and that the records are complete and reflect no unapproved design changes.

D. Aircraft Inspection for Certificate Renewal. The Inspector should arrange with the applicant to make the aircraft available and ready for the renewal inspection.

NOTE: The GACA airworthiness certificate renewal is not usually carried out for an aircraft located outside the KSA unless the GACA finds no undue burden in administering the applicable regulations.

Before the GACA renewal inspection, the person responsible to present the aircraft for inspection shall remove or open all necessary inspection plates, access doors, fairing, and cowling to allow the Inspector to carry out the required renewal inspection. The aircraft should be available with a Ground Power Unit. He shall also thoroughly clean the aircraft and aircraft engine as required. The Inspector should inspect the aircraft to determine, among other things, the following:

1) That the aircraft has been maintained according to the requirements prescribed under GACAR Part 91, 121, 125, 133 and 135, as applicable. The owner/operator must retain a record identifying the current inspection status of the aircraft. This record must show the time-in-service since the last inspection required by the inspection program under which the aircraft and its appliances are maintained. Inspectors should verify that the aircraft inspection intervals are respected.

2) The ID plate still meets the requirements of GACAR Part 45.

3) The information on the ID plate is still correct and matches the information on the Data Sheet for Airworthiness Certification.

4) The aircraft nationality and registration marks are still in accordance with GACAR Part 45.

5) The instruments are still marked in accordance with the aircraft flight manual.

6) All modifications have been inspected and recorded, and are in a condition for safe operation.

7) Inspectors should carry out the airworthiness certificate renewal inspection in a comprehensive manner according to the type of operation. The goal is to confirm that the general airworthiness of the aircraft, records, and technical data reflect that the aircraft conforms to the type design, the type of operation, that all required inspections and tests have been satisfactorily completed, and that the records are complete and reflect no unapproved design changes.

E. Issuance or Denial of Renewal Airworthiness Certificate.

1) If it is determined that the aircraft meets the requirements for the renewal certification requested, the Inspector should:

a) Renew the standard airworthiness certificate with appropriate information.

b) Complete applicable sections the Application for Certificate of Airworthiness.

c) After reviewing for consistency and completeness, place all relevant certification documents in the aircraft file.

d) The following documentation in the aircraft file should be replaced, as applicable, by the latest ones in order to keep a clear/unambiguous aircraft file status:

1. Selection of Inspection Program Form.

2. Certification of Inspection Form.

3. Certification of Altimeter System and Altitude Reporting Equipment Test and Inspections Form.

4. Certification of ATS Transponder Tests and Inspection Form.

5. Certification of Battery Replacement of ELT Form.

6. Completed statements of modification and repair status: GACA Manufacturers Service Documents Form, GACA Major Alteration Status Form, and GACA Major Repair Status Form.

7. Airworthiness Directives: Completed GACA Airworthiness Directive Compliance Record Form.

8. Statement of Life Limited component/part status: Completed Life Limited Component/Part Status Form.

2) If the aircraft does not meet the requirements for the certification requested and the airworthiness certificate is denied, the Inspector should issue a letter to the applicant stating the reason(s) for denying the certificate. The Inspector should also attach a copy of the letter, to the application and include that documentation in the aircraft file.

6.2.1.13. STANDARD AIRWORTHINESS CERTIFICATE - REPLACEMENT OR AMENDMENT.

A. Certificate Replacement.

1) The GACA may issue a replacement airworthiness certificate when a certificate is declared lost, has been mutilated, or is no longer legible. Replacement certificates may also be issued when the aircraft registration marks has been changed. In these cases, a new Application for Airworthiness Certificate is not required.

2) Request for a replacement certificate will be made to the President by the registered owner or certificate operator, who will certify the loss by submitting a signed statement containing the registration information, serial number, make, and model of the aircraft, and a reason the replacement certificate is needed. Replacement of airworthiness certificates must not be accomplished by verbal agreement with the assigned Inspectors or through procedures contained in air carriers' manuals that allow the continued operation of an aircraft without an airworthiness certificate. Such actions are contrary to GACAR §§ 91.301(b), 121.189(a) (1), and § 135.109(a) (1).

3) A replacement airworthiness certificate may be issued without supporting documentation if the date of issuance and the airworthiness classification and/or category of the lost or mutilated certificate can be positively established from the aircraft records, or from the remains of the certificate. If there is insufficient data on which to base issuance of the replacement certificate, the Inspector must review the aircraft records and, if necessary, inspect the aircraft to ensure that the applicant's request is justified and the aircraft remains eligible for the airworthiness certificate requested.

B. Certificate Amendment. A standard or special airworthiness certificate may be amended when there is a change to any of the following data contained in the original certificate:

• A modification to the aircraft, such as one that has been approved by an STC or amended TC, that changes the category of the

aircraft specified in the standard airworthiness certificate

• A change to the exceptions specified in the standard airworthiness certificate

• A change in the aircraft model specified in the standard airworthiness certificate

1) When a certificate is amended, the issuance date will be the current date.

2) Any amendment of an airworthiness certificate will require the submission of a new Application for Airworthiness Certificate. An appropriate record entry will be made in the aircraft records documenting the issuance of the amended certificate.

3) Operating limitations letters that were issued initially may be updated to include limitations contained elsewhere in this chapter. The GACA does not require a new aircraft certification inspection for this type of administrative paperwork amendment.

6.2.1.15. SURRENDERED AIRWORTHINESS CERTIFICATE.

A. Voluntarily. Airworthiness certificates voluntarily surrendered by written authorization from an aircraft owner or authorized representative must state why the certificate is being surrendered. The authorization and the certificate must be forwarded to GACA Airworthiness Division for retention in the permanent airworthiness files for that aircraft.

B. Sold Aircraft. When a Saudi Arabian-registered aircraft is sold to a purchaser in another country or is leased for operations and registered in another country and is removed from the Saudi Arabian register, the airworthiness certificate is no longer effective. Therefore, the airworthiness certificate must be surrendered to the GACA by the aircraft owner or operator as specified in GACAR § 21.251(e).

6.2.1.17. MODEL CHANGES.

A. Modification. When an aircraft has been modified to conform to another model of the same make, the aircraft registration, airworthiness certificate, and aircraft Identification Plate (ID) must reflect the new model designation. In addition to the existing ID plate, a new fireproof plate with the new model designation must be attached as close as physically possible to the original ID plate without obscuring it.

B. Identification (ID) Plate. To maintain an accurate and continuous operating history for the aircraft, the original ID plate must not be altered in any manner. The normal procedures, including any applicable inspections, apply when processing Application for Airworthiness Certificate. If ownership of the aircraft has not changed, an application for aircraft registration reflecting the new model designation need not be submitted. The GACA will issue an amended registration certificate.

C. Identification (ID) Plates.

1) *Original ID Plate.* Each aircraft presented for airworthiness certification must meet the requirements of GACAR § 21.163. Each aircraft must be identified with the information specified in GACAR Part 45.

2) *Replacement ID Plate.* Inspectors should respond in writing when they receive inquiries regarding replacement, removal, or destruction of ID plates. When a new ID plate is required, the owner or the owner’s authorized representative must contact the GACA. The GACA determines whether the request is valid and provides a letter to the applicant with the GACA’s finding. If the GACA determines that the request is valid, the applicant includes the GACA letter with his request for the replacement data plate from the appropriate manufacturer. Upon notification by the applicant, which must include the GACA’s letter, the product manufacturer may then issue the replacement ID plate. The old ID plate, when available, must be voluntarily

surrendered by the owner with a written statement to the GACA. The GACA must make a copy of the plate and then physically destroy it. The GACA must then add a letter in the permanent aircraft records file stating that the surrendered plate has been destroyed.

3) *Removal of ID Plate.* GACAR § 45.27 permits persons performing maintenance operations under GACAR Part 43, to remove an aircraft data plate. The removal must be done in accordance with the methods, techniques, and practices acceptable to the GACA. The ID plate removed may be reinstalled only on the product from which it was removed.

4) *Misuse of ID Plate.* Inspectors should be on alert for any indication of ID plate misuse, alteration, or suspicious activity, such as the building of a complete aircraft by a person performing work under GACAR Part 43. Installation of an ID plate by a person performing work under GACAR Part 43, where the ID plate has been purchased or salvaged from another aircraft, is not approved unless written approval is obtained from the GACA.

a) Before issuing an Airworthiness Certificate for an aircraft that appears to be a repair or restoration of an aircraft that previously has been destroyed or demolished, the Inspector should seek the assistance of the Director of Airworthiness. He can assist the Inspector in determining whether the serial number of the aircraft on which certification is sought is the serial number of an aircraft previously classified as destroyed or demolished by the GACA or the Aviation Investigation Bureau (AIB).

b) If the Inspector determines that the ID plate comes from a previously destroyed or demolished aircraft, the Inspector must initiate an investigation to determine whether a violation of the GACARs has occurred before the airworthiness certificate may be issued. If a violation of GACAR § 45.27(c) or (e) is found, the Inspector should deny the airworthiness certificate and initiate a compliance enforcement action.

NOTE: When the ID plate is surrendered, the ID plate is no longer considered personal property.

6.2.1.19. SPECIAL AIRWORTHINESS CERTIFICATE – ISSUANCE.

A. General. Special airworthiness certificates are airworthiness certificates issued for aircraft type certificated in the primary or restricted category, for light-sport category aircraft, and for experimental aircraft. The procedures in this sub-paragraph provide guidance for the issuance of a special airworthiness certificate for aircraft type-certificated in the restricted category (GACAR § 21.169), light sport aircraft (GACAR § 21.170), and experimental aircraft (GACAR § 21.173).

B. Restricted Category, Primary Category or Light Sport Category Aircraft - Application. Application for a special airworthiness certificate for a restricted category, primary category or light sport category aircraft is the same as for a standard airworthiness certificate described earlier in sub-paragraph 6.2.1.9.

C. Restricted Category, Primary Category or Light Sport Category Aircraft - Certification Procedures. Inspectors should follow the appropriate procedures described in sub-paragraph 6.2.1.9 of this section for issuance of a standard airworthiness certificate to issue a special airworthiness certificate for a restricted category, primary category or light sport category aircraft with the following exceptions:

- All restricted category aircraft must only be operated for the same special purpose(s) for which it was type certificated

- Experimental aircraft will not be type certificated under GACAR Part 21 but they must meet the eligibility requirements prescribed in GACAR § 21.173

- Instead of requiring a type certificate under GACAR Part 21, all light sport category aircraft must meet eligibility requirements of GACAR § 21.170(b)

NOTE: The definition of light sport category aircraft can be found in GACAR Part 1.

D. Special Purpose Operations – Restricted Category. As authorized under the provisions of GACAR § 21.41(g), special purpose operations for restricted category aircraft include the following:

• Agricultural (spraying, dusting, seeding, and livestock and predatory animal control),

• Forest and wildlife conservation

• Aerial surveying (photography, mapping, and oil and mineral exploration)

• Patrolling (pipelines, power lines, and canals)

• Weather control (cloud seeding)

• Aerial advertising (skywriting, banner towing, airborne signs, and public address systems), and

• Any other operation specified by the President. When an applicant wishes to obtain approval for a new special purpose operation previously not approved, application with supporting justification should be made by letter to the President.

1) *Operating Limitations.* All aircraft type-certificated in the restricted category must be operated in compliance with GACAR § 91.261. In addition, for turbine-powered aircraft, piston-powered aircraft over 800 horsepower, rotorcraft, large aircraft, and any other aircraft as deemed necessary, a limitation concerning pilot qualifications should be prescribed. The President also may prescribe additional operating limitations as deemed necessary for the special purpose involved. The additional limitations will be enumerated on a separate sheet, and then dated, signed, and attached to the GACA special airworthiness certificate.

2) *Special Airworthiness Certificate.* When an application is made for a restricted category special airworthiness certificate requesting one of the special purposes listed in GACAR § 21.41(g)(1) through (6), the purpose will be entered in the special airworthiness certificate. If the requested purpose is to include the carriage of cargo that is incidental to the owner/operator's business, the special airworthiness certificate must have the following words entered as the purpose:

• "GACAR § 21.41(g)(7) (other), SEE ATTACHED LIMITATIONS"

• For all purposes listed in GACAR § 21.41(g)(1) through (7), the following words must be entered in Block E "SEE ATTACHED OPERATING LIMITATIONS"

NOTE: In no case will "Carriage of Cargo" (or similar language) be entered as a purpose.

a) When the carriage of cargo is incidental to the aircraft owner/operator's business, the prescribed limitations will then identify the authorized cargo that may be carried.

b) The additional limitations attached to the special airworthiness certificate will specify the aircraft model, HZ-registration, and serial number. All restricted category special airworthiness certificates issued for aircraft whose special purpose operation includes the carriage of cargo will include the following limitations:

1. This aircraft is prohibited from carrying cargo for compensation or hire. Carriage of cargo is limited to such cargo that is incidental to the aircraft owner/operator's business, which is other than air transportation. The authorized cargo that may be carried on this aircraft is _____. (Applicability: All)

2. This rotorcraft is prohibited from carrying cargo for compensation or hire unless it is engaged in GACAR Part

133 external load operations. (Applicability: Rotorcraft conducting GACAR Part 133 external load operations)

3. This aircraft may not be operated over any foreign country without the special permission of that country. Evidence of that permission must be carried aboard the aircraft along with the KSA airworthiness certificate, and made available to the GACA or CAA in the country of operation upon request. (Applicability: All)

4. This aircraft has not been shown to meet the requirements of the applicable comprehensive and detailed airworthiness code as provided by ICAO Annex 8. (Applicability: All)

5. Additional operating limitations may be prescribed by the President for special purposes of restricted category aircraft operations and become part of additional limitations attached to the airworthiness certificate.

6. Inspectors should ensure that the owner/operator is briefed and clearly understands that the restricted aircraft is prohibited from the carriage of cargo for compensation or hire. A record of this briefing should remain with the certification file.

E. Display of Marks (Restricted). Inspectors should determine that the aircraft displays nationality and registration marks in accordance with GACAR § 45.41 and that the word “RESTRICTED” is displayed in accordance with GACAR § 45.45.

F. Multiple Airworthiness Certificate – Standard Airworthiness Certificate and Special Airworthiness Certificate (Restricted Category). The primary requirements for issuance of a standard airworthiness certificate are that the aircraft is found to be in conformity with its type design and in a condition for safe operation. Special airworthiness certificates for restricted category aircraft are issued in order to permit special purpose operations that do not fully comply with the type certification requirements for primary, normal, utility, acrobatic, commuter or transport categories. In order to retain eligibility for return to the standard airworthiness classification after being operated in the restricted category, the following applies:

1) While being operated under restricted category operating limitations, any changes made to the aircraft that are to be retained when returned to y operation under a standard airworthiness certificate, must be approved in accordance with the regulations and procedures applicable to an aircraft having a standard airworthiness certificate.

2) If the TCDS for an aircraft includes both the normal and restricted categories, and the maximum gross and/or operating limitations for the restricted category are higher than that for the normal category, the aircraft is NOT eligible for operation under a standard airworthiness certificate after having been operated in the restricted category unless:

a) The TCDS specifically states that the aircraft is eligible for operation in the normal category after having been operated at the limitations applicable to the restricted category; or

b) If the TCDS does not have such a note or any other reference, the operations outside of the normal category operating limitations, including increased gross mass, must be approved by the President.

G. Special Airworthiness Certificate – Experimental. Under the provisions of GACAR § 21.173(a), Research and Development (R&D) aircraft are defined as aircraft that test new design concepts, aircraft equipment, installations, operating techniques, or new uses for aircraft. Under the provisions of GACAR § 21.173(b), Show Compliance aircraft are defined as aircraft that conduct flight tests and other operations to show compliance with the regulations. This includes flights to show compliance for the issuance of STCs. Under the provisions of GACAR § 21.173(c), Crew Training aircraft are defined as aircraft involved in the training of the applicant’s flight crews. Under the provisions of GACAR § 21.173(f), Market Survey aircraft are defined as aircraft that are used for conducting market surveys, sales demonstrations, and customer crew training as provided for in GACAR § 21.177.

1) *Research and Development.* Most aircraft would be eligible for an experimental certificate under this purpose. In addition to the operations specified in GACAR § 21.173(a), the operation of a chase plane, a tanker used for in-flight icing tests, or

other aircraft not otherwise eligible for a standard or an experimental certificate (R&D), but necessary for use in direct connection with the R&D project, is considered to be within the scope of this purpose. Aircraft currently certificated in the experimental category for the purposes of exhibition or air racing also may be eligible for a special airworthiness certificate for the experimental purpose of R&D. Also, former military aircraft are often used in R&D projects, and it is appropriate to use the guidance in this chapter when performing R&D certification of former military aircraft.

2) *Showing Compliance with Regulations*. This purpose may be considered valid when the applicant for a TC or an aircraft modifier has revised the TC design data or has applied for an STC approval. The purpose is to show compliance to the GACARs after the applicant has completed testing under R&D, if applicable, and has completed flight testing by the GACA. In addition to the operations specified in §21.173(b), the operation of a chase plane or other aircraft not otherwise eligible for a standard or experimental certificate, but necessary for use in direct connection with a type certification project, is considered to be within the scope of this purpose.

3) *Crew Training*. Under GACAR § 21.173(c), this purpose is limited only to the applicant's flight crews, which normally would be the manufacturer's or aircraft modifier employees necessary to be trained in experimental aircraft. These flight crews operate aircraft being flight tested in type certification programs or for production flight testing.

4) *Market Surveys*. A person that alters aircraft may apply for a special airworthiness certificate in the experimental category for the purpose of market surveys, sales demonstrations, and customer crew training under GACAR § 21.177. The applicant must provide the GACA representative with the estimated time or number of flights required for the market survey operation as well as the area or itinerary over which the operations are to be conducted under GACAR § 21.175(d)(2) and (3). The duration of the certificate should be limited to the time needed for the described operations, normally not to exceed 90 days. The President has the option to extend the duration for other situations.

H. Operating Limitations – Experimental Certificates.

1) Issuance of an experimental certificate operating limitations for Research and Development (R&D), Showing Compliance with Regulations, Crew Training and Market Surveys must be designed to fit the specific situation encountered. The President may impose any additional limitations deemed necessary in the interest of safety. Inspectors should review each imposed operating limitation with the applicant to ensure that the operating limitations are understood by the applicant.

2) The following operating limitations should be prescribed, as applicable, in the special airworthiness certificate:

NOTE: The applicability is identified in parentheses at the end of each limitation.

a) No person may operate this aircraft unless this special airworthiness certificate is displayed at the cabin or cockpit entrance and visible to passengers or flight crew members. (Applicability: All)

b) No person may operate this aircraft for other than the purpose of R&D, showing compliance with regulations, crew training, or market surveys, to accomplish the flight operation outlined in the program letter dated _____, which describes compliance with GACAR § 21.175(d), and has been made available to the pilot in command of the aircraft. In addition, this aircraft must be operated in accordance with applicable air traffic and general operating rules of GACAR Part 91, and all additional limitations herein prescribed under the provisions of GACAR § 91.421(e). (Applicability: All)

c) All flights must be conducted within the geographical area described as follows: The area must be described by radius, coordinates, and/or landmarks. The designated area must be over open water or sparsely populated areas having light air traffic. The size of the area must be that required to safely conduct the anticipated manoeuvres and tests. Multiple-purpose certificates may require individually prescribed geographical areas. (Applicability: All)

NOTE: This applies to all certificates issued to show compliance with GACAR § 91.421(b). When the GACA finds compliance, the operating limitations will be revised to remove the limitation. The aircraft will not be allowed to operate over densely populated areas or in congested airways in accordance with GACAR § 91.421(c). The GACA may permit takeoffs and landings to be conducted over densely populated areas or in congested airways. If this operating limitation is issued, it should say, "Except for takeoffs and landings, this aircraft must not be operated over densely populated areas or in congested airways."

d) All flights of this aircraft must be conducted within the geographic area indicated on the chart as follows: (list description of area) (Applicability: All)

NOTE: This limitation will be prescribed to expand the area after the GACA finds compliance with GACAR § 91.421(b). This limitation applies to the following purposes: R&D, showing compliance, crew training, and market surveys.

e) All flights must be conducted in accordance with [describe the aircraft modifier approved operating procedure. For example, ABC Aircraft Co. Experimental Operating Procedure No. 12 (dated)]. (Applicability: All)

f) When changing between operating purposes of a multiple-purpose certificate, the operator must determine that the aircraft is in a condition for safe operation and appropriate for the purpose intended. A record entry will be made by an appropriately rated person to document that finding in the aircraft logbook. (Applicability: All)

g) This aircraft must not be operated unless it is inspected and maintained in accordance with appropriate technical publications and/or manufacturer's recommendations. The owner/operator must select, establish, identify, and use an inspection program as set forth in GACAR §§ 91.449(e), (f), (g), and (h). This inspection program must be recorded in the aircraft maintenance records. (Applicability: All)

h) The pilot in command of this aircraft must hold an appropriate category/class rating. If required for the type of aircraft to be flown, the pilot in command also must hold either an appropriate type rating or a letter of authorization issued by a GACA Inspector (Operations). (Applicability: All)

NOTE: A letter of authorization is issued in accordance with the procedures described in Volume 9, Chapter 6, and Section 2 for all training and eligibility requirements.

NOTE: This limitation is applicable to any turbine-powered or reciprocating engine-powered aircraft with a total power greater than 800 horsepower, rotorcraft, aircraft with a maximum takeoff mass exceeding 5700 kg, or any other aircraft when deemed necessary by the President.

i) This aircraft is to be operated under VFR, day only. (Applicability: All)

NOTE: GACAR § 91.421(d)(2) provides for VFR, day only. If other operations are requested, the authorization will be prescribed by the President as a specific operating limitation in the Operating Limitations letter and by deleting this limitation.

j) This aircraft may be operated under VFR, day and/or night. (Applicability: All)

NOTE: GACAR § 91.421(d)(2) provides for VFR, day only, unless otherwise specifically authorized by the GACA. This limitation gives that authorization. If other operations are requested, the aircraft must be equipped in accordance with GACAR § 91.303.

k) This aircraft may be operated under IFR and must be properly equipped for instrument flight in accordance with GACAR § 91.303. (Applicability: All)

l) No person may operate this aircraft for carrying persons or property for compensation or hire. (Applicability: All)

m) No person may be carried in this aircraft during flight unless that person is essential to the purpose of the flight. (Applicability: R&D and Show Compliance only)

n) The pilot in command of this aircraft must advise each passenger of the experimental nature of this aircraft, and explain that it does not meet the certification requirements of a standard certificated aircraft. (Applicability: All)

o) This aircraft must contain the placards, markings, etc., (or other operating instructions developed for an STC modification) required by GACAR § 91.13. (Applicability: All)

NOTE: Inspectors should also identify the flight manual, flight manual supplements, markings, drawings, etc., as required.

p) This aircraft is prohibited from aerobatic flight, that is, an intentional maneuver involving an abrupt change in the aircraft's attitude, an abnormal attitude, or abnormal acceleration not necessary for normal flight. (Applicability: All)

NOTE: Aerobatic flights may be permitted in an assigned test area. The applicant should be advised that aerobatics or violent maneuvers should not be attempted until sufficient flight experience has been gained to establish that the aircraft is satisfactorily controllable under such conditions. These operating limitations may be modified to include only those aerobatics/maneuvers that have been satisfactorily accomplished and recorded in the aircraft records during the flight test period. These aerobatics/maneuvers may be permitted upon leaving that assigned test area. Appropriate limitations identifying the aerobatics/maneuvers and conditions under which they may be performed should be prescribed. The GACA may witness aerobatics/maneuvers when deemed necessary.

q) This aircraft may conduct aerobatic flight in accordance with GACAR § 91.417. Aerobatics must not be attempted until sufficient flight experience has been gained to establish that the aircraft is satisfactorily controllable and in compliance with GACAR § 91.421(b). Aerobatic maneuvers intended to be performed must be satisfactorily accomplished and recorded in the aircraft records during the flight test period. (Applicability: All)

r) The GACA must be notified and its response received in writing prior to flying this aircraft after incorporation of a major change. (Applicability: All except for R&D and Show Compliance)

s) This aircraft must not be used for glider towing, banner towing, or intentional parachute jumping. (Applicability: All)

t) No person must operate this aircraft unless, within the preceding 12 calendar months, it has had a condition inspection performed in accordance with Appendix C to GACAR Part 43, or other GACA-approved programs, and was found to be in a condition for safe operation. This inspection will be recorded in the aircraft maintenance records. (Applicability: All)

u) GACA-certificated repair stations and GACA-certificated mechanics, with appropriate ratings as authorized by GACAR § 43.5, may perform inspections required by these operating limitations. (Applicability: All)

v) Inspections must be recorded in the aircraft maintenance records showing the following or a similarly worded statement: "I certify that this aircraft has been inspected on [insert date] in accordance with the scope and detail of Appendix C to GACAR Part 43, or other GACA-approved programs, and was found to be in a condition for safe operation." The entry will include the aircraft's total time-in-service and the name, signature, certificate number, and type of certificate held by the person performing the inspection. (Applicability: All)

w) If aircraft, engine, or propeller operating limitations are exceeded, an appropriate entry will be made in the aircraft records. (Applicability: All)

NOTE: This limitation applies only when an aircraft is temporarily placed in the experimental category and will be returned to the original Standard Airworthiness Certificate status. For example, an STC project.

x) This aircraft must not be operated unless it is maintained and inspected in accordance with the requirements of GACAR Part 43. (Applicability: All)

NOTE: This operating limitation is applicable to any aircraft that previously had been issued a different type of airworthiness certificate prior to applying for a Special Airworthiness Certificate (See GACAR § 43.1(b)).

y) This aircraft must display the word “EXPERIMENTAL” in accordance with GACAR § 45.45(b). (Applicability: All)

z) The pilot in command of this aircraft must notify Air Traffic Service (ATS) of the experimental nature of this aircraft when operating into or out of aerodromes with operating control towers. The pilot in command must plan routing that will avoid densely populated areas and congested airways when operating VFR. (Applicability: All)

aa) This aircraft does not meet the requirements of the applicable, comprehensive, and detailed airworthiness code as provided by ICAO Annex 8. The owner/operator of this aircraft must obtain written permission from another country’s CAA prior to operating this aircraft in or over that country. That written permission must be carried aboard the aircraft together with the Saudi Arabian airworthiness certificate and, upon request, be made available to a GACA Inspector or the CAA in the country of operation. (Applicability: All)

bb) Aircraft instruments and equipment installed and used under GACAR § 91.303 must be inspected and maintained in accordance with the requirements of GACAR Part 43 and 91. Any maintenance or inspection of this equipment must be recorded in the aircraft maintenance records. (Applicability: All)

cc) Application must be made to the GACA for any revision to these operating limitations. (Applicability: All)

dd) GACAR § 47.45 requires that the GACA must be notified within 30 days of any change in the registered owner’s address. (Applicability: All)

I. Display of Marks (Experimental). The GACA should determine whether a method has been provided for displaying the word “Experimental”. The applicant should be advised that it is the owner/operator’s responsibility to display the word “EXPERIMENTAL “when the aircraft is in that corresponding configuration (GACAR § 45.45(b)).

6.2.1.21. PREREQUISITES AND COORDINATION REQUIREMENTS.

A. Prerequisites. Familiarity with the type of aircraft being airworthiness certificated.

B. Coordination. This task requires coordination with the operator/applicant and may require coordination with the GACA Airworthiness Engineering Section, and Inspectors from the Flight Operations Division and the Certification and Licensing Division.

6.2.1.23. REFERENCES, FORMS, AND JOB AIDS.

A. References.

- Part 21, 39, 43 , 45, 47, 91, 121, 125, 133, 135 and 141

B. Forms.

- Application for Airworthiness Certificate

• Data Sheet for Airworthiness Certificate

• Miscellaneous GACA forms related to airworthiness

C. Job Aids.

• Appendix A, Determining Required Instruments and Equipment Job Aid

• Appendix B, Aircraft Airworthiness Certificate Checklists

• Appendix C, Airworthiness Certificate Mapping Diagram

6.2.1.25. PROCEDURES. Inspectors should accomplish the following general tasks in their process of issuing or denying a Certificate of Airworthiness for an aircraft:

• Review application

• Establish eligibility

• Review aircraft records

• Inspect Aircraft

• Issue/deny

NOTE. Inspectors should refer to sub-paragraphs 6.2.1.9 and 6.2.1.19 of this section, as appropriate, for additional detail in accomplishing these tasks.

6.2.1.27. TASK OUTCOMES.

A. GAR. Complete the GAR.

B. Task Completion. Successful completion of this task will result in the issuance or denial of an airworthiness certificate.

C. Task Documentation. File all supporting paperwork in the aircraft file.

6.2.1.29. FUTURE ACTIVITIES. None.

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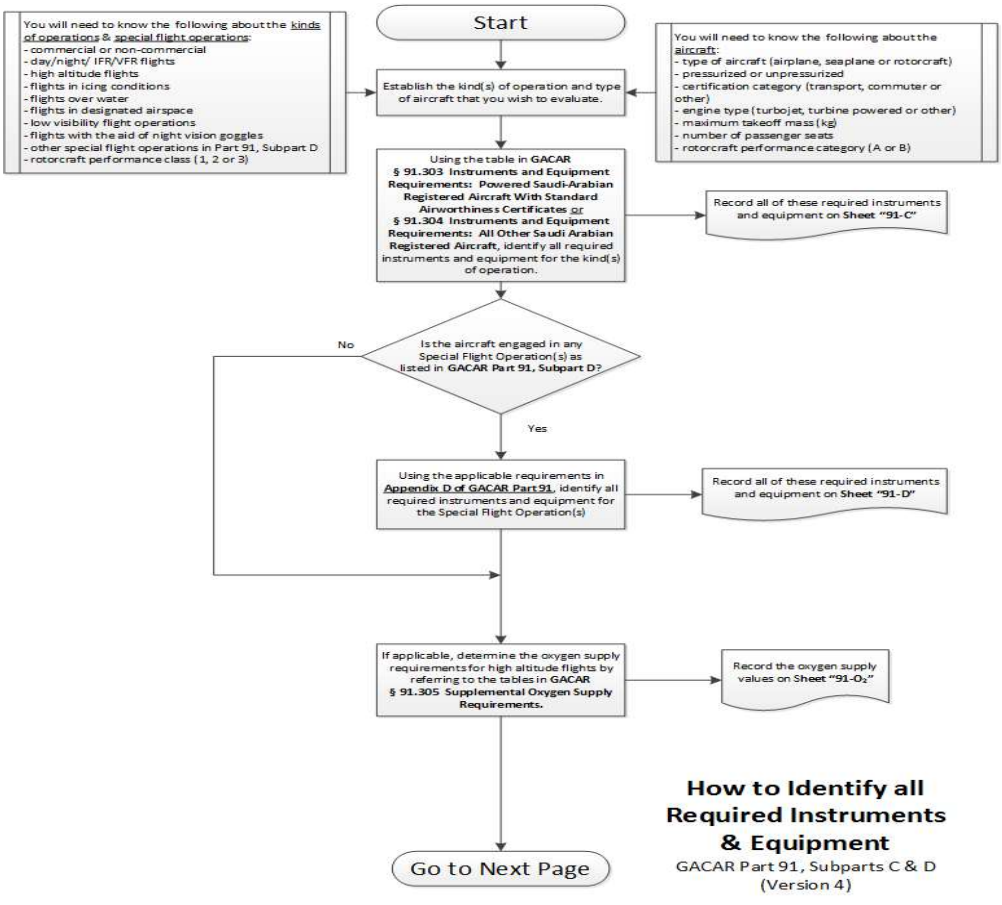
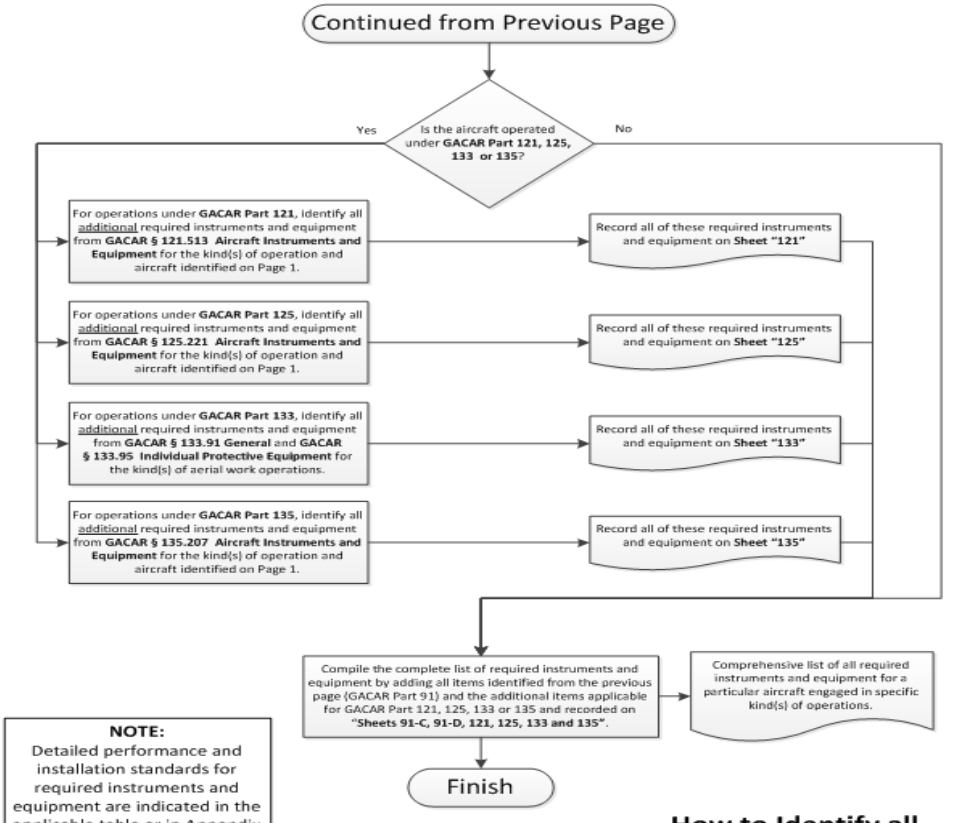
CHAPTER 2. AIRWORTHINESS CERTIFICATION OF AIRCRAFT & ARTICLES

Appendix A. Determining Required Instruments and Equipment Job Aid




Continued from Previous Page
Is the aircraft operated under GACAR Part 121, 125, 133 or 135?
Yes
No
For operations under GACAR Part 121, identify all additional required instruments and equipment from GACAR § 121.513 Aircraft Instruments and Equipment for the kind(s) of operation and aircraft identified on Page 1.
Record all of these required instruments and equipment on Sheet "121"
For operations under GACAR Part 125, identify all additional required instruments and equipment from GACAR § 125.221 Aircraft Instruments and Equipment for the kind(s) of operation and aircraft identified on Page 1.
Record all of these required instruments and equipment on Sheet "125"
For operations under GACAR Part 133, identify all additional required instruments and equipment from GACAR § 133.91 General and GACAR § 133.95 Individual Protective Equipment for the kind(s) of aerial work operations.
Record all of these required instruments and equipment on Sheet "133"
For operations under GACAR Part 135, identify all additional required instruments and equipment from GACAR § 135.207 Aircraft Instruments and Equipment for the kind(s) of operation and aircraft identified on Page 1.
Record all of these required instruments and equipment on Sheet "135"
Compile the complete list of required instruments and equipment by adding all items identified from the previous page (GACAR Part 91) and the additional items applicable for GACAR Part 121, 125, 133 or 135 and recorded on "Sheets 91-C, 91-D, 121, 125, 133 and 135".
Comprehensive list of all required instruments and equipment for a particular aircraft engaged in specific kind(s) of operations.
Finish
NOTE:
Detailed performance and installation standards for required instruments and equipment are indicated in the applicable table or in Appendix C of GACAR Part 91.
NOTE:
Certain items of required equipment have associated "Use of" rules in GACAR Part 91, Subpart B.
How to Identify all Required Instruments & Equipment
GACAR Parts 91, 121, 125, 133 and 135
(Version 1)

VOLUME 6. AIRCRAFT & EQUIPMENT - CERTIFICATION

CHAPTER 2. AIRWORTHINESS CERTIFICATION OF AIRCRAFT & ARTICLES

Appendix B. Aircraft Airworthiness Certificate Checklist

1. GENERAL.

A. Purpose. This checklist provides a structured process for use by aviation safety inspectors (Inspectors) concerning the issuance of a standard airworthiness certificate for type certificated aircraft.

B. Background. This checklist provides a process that can be followed when processing an application for an aircraft airworthiness certificate, regardless of whether it is being imported to the Kingdom of Saudi Arabia (KSA) or the applicant is only seeking to obtain an airworthiness certificate for an aircraft already registered in the KSA. There are many variables that must be considered for persons wishing to obtain an airworthiness certificate or to import an aircraft. This series of checklists serves to detail the steps involved in determining eligibility for the issuance of an airworthiness certificate and/or eligibility for importation. The following checklists also include information for the addition of aircraft to various operating certificates. This information is over and above that needed for the issuance of an airworthiness certificate and is included here to provide a comprehensive document outlining all the steps involved to acquire an airworthiness certificate for an aircraft, whether imported or not and to have it added to operations specification (OpSpec) D85 which is the operations specification listing all aircraft eligible for operation under GACAR Part 121, 125, 133 or 135.

NOTE: This series of checklists is not intended to cover the eligibility for issuance of a special airworthiness certificates in any category. Refer to paragraphs 6.2.1.19 and 6.2.3.7 of this chapter which address the issuance of special airworthiness certificates for restricted and experimental category aircraft.

2. CHECKLIST LAY-OUT.

Part 1 - Establishing Eligibility. This part of the checklist serves to help confirm the eligibility for airworthiness certification and document keys steps in the application and importation process.

Part 2 – Conformity Determination. This part of the checklist serves to help document the means by which conformance to approved type design is established and to ensure that all required instrument and equipment required under GACAR Part 91 are installed. This part consists of two additional checklists that are to be completed by the Inspector. Complete only the checklist that is applicable to the method of certification and/or importation.

1) *Checklist 2-1*. This checklist will be used when:

a) Conformity to an approved type design is shown by means of an export airworthiness certificate and if the aircraft has a U.S. type certificate is accompanied by an export airworthiness certificate (or equivalent) certifying statement issued by the Federal Aviation Administration (FAA) or the Civil Aviation Authority (CAA) of the country of manufacture, or by the exporting CAA of a “third country”, in accordance with the provisions of a bilateral agreement between the United States (US) and that “third country”; or

b) Conformity to an approved type design is shown by means of an export airworthiness certificate issued by the CAA of a country with which U.S. does not have an agreement, where a General Authority of Civil Aviation (GACA) accepted/validated type certificate has been issued and the product is being exported from the country of manufacture.

2) *Checklist 2-2*. This checklist will be used when conformity to an approved type design is shown by means of an airworthiness inspection to procedures detailed elsewhere in this chapter for an aircraft which will be certificated and/or

imported without an export airworthiness certificate.

Part 3 – Requirements for Operation under GACAR Part 91. This part of the checklist serves to help ensure that all required instrument and equipment required for operations under GACAR Part 91 are installed and to ensure that additional airworthiness requirements prescribed in General Authority of Civil Aviation Regulation (GACAR) Part 91 have been complied with. This checklist should normally be completed by the applicant and submitted to the Inspector as part of the process for airworthiness certification and to add aircraft to the operator's OpSpec D85 or otherwise permit the aircraft for operation under the applicable GACAR part.

Part 4 – Additional Requirements for Operation under GACAR Parts 121, 125, 133, 135 or 141. This part of the checklist serves to help ensure that all required instrument and equipment required for operations under GACAR Part 121, 125, 133, 135 or 141 are installed and to ensure that additional airworthiness requirements for aircraft operated under GACAR Part 121 or 125 have been complied with. It is important to note that not all sections are applicable therefore it is imperative the Inspector review each area of inspection for applicability against the referenced regulations. This checklist should normally be completed by the applicant and submitted to the Principal Maintenance Inspector as part of the process to add aircraft to the operator's OpSpec D85 or otherwise permitted for operation under the applicable GACAR part.

Part 1 - Establishing Eligibility.

1.1 Based on the Inspector's review of the submitted Application for Airworthiness Certificate and Data Sheet for Airworthiness Certification:		
(a) Does the airframe model and serial number agree with the type certificate accepted /validated under GACAR Part 21 (normally FAA TC)?	Yes: ▯ No: ▯	
(b) Does the engine(s) model number agree with the type certificate accepted /validated under GACAR Part 21 (normally FAA TC)?	Yes: ▯ No: ▯	
(c) Does the propeller(s) model number agree with the type certificate accepted /validated under GACAR Part 21 (normally FAA TC)?	Yes: ▯ No: ▯	
(d) Does the APU model number agree with the TSO or foreign type certificate accepted /validated under GACAR Part 21 (normally FAA TSO)?	Yes: ▯ No: ▯	
(e) Is the aircraft eligible for importation under GACAR Part 21?	Yes: ▯ No: ▯	
Note: *If the aircraft is not eligible for importation, identify why in the information section below. Contact the aircraft owner / applicant / representative to discuss the details preventing the aircraft importation. Provide guidance to rectify the situation.*		
1.2 Has the applicant been advised concerning the eligibility of the aircraft for importation?	Eligible ▯ Not Eligible ▯	Date **applicant** contacted:
1.3 Has the applicant advised GACA in writing it intends to proceed with the import once it has been acknowledged that the aircraft is eligible for importation?	Yes: ▯ No: ▯	Date:
NOTE: **Blocks 1.4 through 1.7 should be completed when it is determined that the aircraft meets eligibility requirements.**		
1.4 For aircraft already in Saudi Arabia, identify location of aircraft: _____		
1.5 Means of importation for aircraft not already in the KSA: **(a)** Surface Transportation: _____ **(b)** Importation flight route and customs clearance. From: _____(departure point in foreign country) To: _____(final destination in Saudi Arabia) Customs Clearance Point: _____(first landing point in Saudi Arabia)		

new code applied for? Yes: ▯ No: ▯
1.7 For importation flight (if applicable):
(a) Has a special flight permit been issued or validated? Yes: ▯ No: ▯
(b) Have Saudi Arabian registration marks been allocated? Yes: ▯ No: ▯
(c) Have applicable fees been submitted? Yes: ▯ No: ▯
(d) Has the State of Design been advised that Saudi Arabia has entered such an aircraft on its register, when it first enters on its register an aircraft of a particular type for which it is not the State of Design? Yes: ▯ No: ▯

Part 2 - Conformity Determination. This part of the checklist is used to ensure the standardization of the importation process and assure that all data necessary to validate conformance to the approved type design are requested and received from the applicant. The Inspector will ensure compliance with the requirements stated herein. Coordination with the GACA Airworthiness Engineers is recommended. It will be the responsibility of the applicant to ensure that all certification and/or import requirements identified in the applicable GACARs have been complied with and validated prior to making application for a Saudi Arabian airworthiness certificate. Any false claims identified by Inspector during their subsequent review will be forwarded directly for compliance enforcement under GACAR Part 13.

There are two checklists in Part 2 as follows:

- o Checklist 2-1: Aircraft Imported With Export Airworthiness Certificate.
- o Checklist 2-2: Aircraft Imported Without Export Airworthiness Certificate

Checklist 2-1 - Aircraft Imported With Export Airworthiness Certificate.	**Comment and initials (acceptable, accomplished, N/A)**
2-1.1 (a) Was the export airworthiness certificate issued by the FAA?	
(b) Was the export airworthiness certificate issued by the CAA of a country with which U.S. has a Bilateral Airworthiness Agreement or a similar arrangement that provides for such acceptance of such certificates?	
(c) Was the export airworthiness certificate issued by the CAA of a country with which U.S. DOES NOT have a Bilateral Airworthiness Agreement or a similar arrangement that provides for such acceptance of such certificates?	
(d) Was the aircraft designed and manufactured in the country of export?	
2-1.2 (a) Is the export airworthiness certificate properly signed	
by an authorized representative of the CAA of the country of export?	
(b) Does the export airworthiness certificate identify a certification of conformity to the type design specified in the U.S. type certificate?	
(c) Does the export airworthiness certificate include a list of any major modifications and major repairs approved by the country of export and embodied in the product? **NOTE 1.** Confirm if major alterations or major repairs have been embodied. **NOTE 2.** The services of GACA Airworthiness Engineering Section may be required to familiarize any major alterations and major repairs. All major repair and major alteration documentation must be available for review.	
(d) Does the export airworthiness certificate (make reference to) list applicable airworthiness directives or equivalent notices, issued by the country of export, indicating which have been complied with?	
(e) Have all applicable airworthiness directives (or foreign equivalents) been complied with?	

NOTE. The applicant must verify that all applicable Airworthiness directives (ADs) have been complied with. If a list identifying all applicable ADs was not supplied by the exporter please provide a list of ADs that were researched and complied with by the applicant.	
2-1.3 Is the aircraft cabin in an approved configuration? **NOTE.** Review against the LOPA or other type design and approved drawings.	
2-1.4 Is the airframe, engine(s) and propeller(s) free of corrosion or within the limits prescribed by the applicable maintenance manuals? **NOTE.** If corrosion is within limits provide complete details of location and identify the maintenance manual standards.	
2-1.5 Are all aircraft systems, engines, propellers, appliances, and controls functioning properly?	
2-1.6 Have the engines, propellers, rotors, life limited components, appliances, balloon basket and burner assemblies been identified?	

NOTE. Aeronautical products imported from a country not requiring certain identification data will require the identification data be installed prior to acceptance.	
2-1.7 Is the approved aircraft flight manual (or equivalent) available for the aircraft? Is it current?	
2-1.8 Is a mass and balance report together with an equipment list which includes the mass and moment arm of each item of equipment not forming part of the type design available? **NOTE.** The aircraft must have a current mass and balance including an equipment list that meets the requirements.	
2-1.9 Have all life-limited parts been researched to determine that the time in service of each life-limited part has not exceeded its maximum permitted life? **NOTE 1.** Each life-limited component, or any product containing a life-limited component, which has seen prior service shall be accompanied by its technical record containing details of all repairs and alterations carried out during its service life, and a record of accumulated time in flying hours or cycles, as may be applicable.	

NOTE 2. For installation of Life Limited Parts refer to the GACAR § 43.13, Disposition of life-limited aircraft parts.		
2-1.10 Has the aircraft records and other technical records been established for the aircraft as required by GACAR § 21.165 (d) (1), (2), and (3)?		
To the best of my knowledge the information contained in the checklists is true and accurate. Print name of applicant / representative: _____ Signature of applicant / representative: _____		
Name of the GACA Inspector who verified (sampled) the above requirements. _____		
2-1.11(a) Will the airworthiness certificate be issued?	Yes: ▯ No: ▯	Date of Issue:
(b) If no, has the importer been informed in writing identifying why the aircraft did not conform to an approved type design and was not in a condition for safe operation and issuance of a flight authority?	Yes: ▯ No: ▯	
2-1.12 Has the importer / GACA rescheduled the inspection if necessary?	Yes: ▯ No: ▯	Date Rescheduled:
Remarks:		

Checklist 2-2 - Aircraft Imported Without Export Airworthiness Certificate.	**Comment and initials (acceptable, accomplished, N/A)**
2-2.1 Is the technical history of the aircraft sufficient? A 100 hour inspection or equivalent shall be carried out. **NOTE 1.** "Sufficient" in relation to technical history means, as a minimum, an approval for return to service (maintenance release) or equivalent certification for each maintenance task completed within the preceding year, and technical records in sufficient detail to enable a determination of the following: - the identity of the aircraft; - the identity of each installed engine; - the identity of each installed propeller / rotor; - the identity and airworthiness status of each installed serialized component; - the time remaining before the next scheduled task on the applicable maintenance schedule; - the permissible time in service remaining for each life-limited part installed; See GACAR § 43.13 Disposition of life-limited aircraft parts. **NOTE 2.** The aircraft owner shall submit a report to the GACA clearly detailing the inspection conducted and all additional details of the work required to bring the aircraft to a condition of conformity to the certified type design and of safe operation. The GACA Inspector will evaluate the report and inspect the aircraft to determine if the work proposed will bring the aircraft to a condition of conformity and to a condition of safe operation.	
2-2.2 Is the technical history of the aircraft continuous? **NOTE 1.** If the technical history of the aircraft lacks continuity, or does not, in the opinion of the "authorized person", contain sufficient data regarding the maintenance of the aircraft, engines, or other aeronautical products, disassembly and inspection are required	
NOTE 2. The aircraft owner shall submit a report to the GACA detailing what portions of the aircraft, engines, aeronautical products lack continuity and will require disassembly and inspection **NOTE 3.** A GACA Inspector will evaluate the report and inspect the aircraft to determine if the work proposed will bring the aircraft to a condition of conformity and to a condition of safe operation.	
2-2.3 Is the technical history sufficient to determine the	

conformity and condition of the aircraft? **NOTE 1**. If the technical history of the aircraft is not sufficient to determine the conformity and condition of the aircraft, a complete overhaul is required, except those aeronautical products for which there is documentary evidence that the product has been overhauled within one year prior to the aircraft being imported. **NOTE 2**. The aircraft owner shall submit a report to the GACA detailing what portions of the technical history are not sufficient to determine the aeronautical product's conformity and condition and will be overhauled. **NOTE 3.** A GACA Inspector will evaluate the report and inspect the aircraft to determine if the work proposed will bring the aircraft to a condition of conformity and to a condition of safe operation.	
2-2.4 Are the aircraft, engine(s), propeller(s) and appliances in compliance with the applicable FAA type certificate data sheets?	
2-2.5 Is the aircraft cabin in an approved configuration? **NOTE.** Review against the LOPA or other type design and approved drawings.	
2-2.6 Have all applicable airworthiness directives been complied with? **NOTE.** The applicant must verify that all applicable airworthiness directives (or foreign equivalents) have been complied with. A list identifying all ADs researched and complied with must accompany the import application.	
2-2.7 Have all major repairs and major alterations been carried out in accordance with approved data?	
NOTE 2. The services of the GACA Airworthiness Engineering Section may be required to validate any major repairs and major alteration. All documentation supporting a major repair or major alteration must be available for review.	
2-2.8 Is the airframe, engine(s) and propeller(s) free of corrosion or within the limits prescribed by the applicable maintenance	

standards? **NOTE.** If corrosion is within limits, provide complete details of location and indicate the maintenance manual standards.	
2-2.9 Are all aircraft systems, engines, propellers and controls functioning properly and to manufacturer's specifications?	
2-2.10 Have the engines, propellers, rotors, life limited components, appliances, balloon basket and burner assemblies been identified? **NOTE.** Aeronautical products imported from a country not requiring certain identification data will require the identification data be installed prior to acceptance.	
2-2.11 Is the approved aircraft flight manual (or equivalent) available for the aircraft? Is it current?	
2-2.12 Is a mass and balance report together with an equipment list which includes the mass and moment arm of each item of equipment not forming part of the type design available? **NOTE.** The aircraft must have a current mass and balance including an equipment list that meets the requirements.	
2-2.13 Have all life-limited parts been researched to determine that the time in service of each life limited part has not exceeded its maximum permitted life? **NOTE 1.**Each life limited component, or any product containing a life limited component, which has seen prior service shall be accompanied by its technical record containing details of all repairs and modifications carried out during its service life, and a record of accumulated time in flying hours or cycles, as may be applicable.	
NOTE 2. For installation of Life Limited Parts refer to the GACAR § 43.13 Disposition of life-limited aircraft parts.	
2-2.14 If the aircraft is eligible for an airworthiness certificate, has it been brought to the required standards through the use of applicable maintenance manuals? **NOTE.** Reference to "required standards" is intended to ensure that any maintenance accomplished on the aircraft is done in accordance with GACAR Part 43 with respect to performance of work.	
2-2.15 Has the aircraft records and other technical records been	

established for the aircraft as required by GACAR § 21.165 (d) (1), (2), and (3). **NOTE.** Has an approval for return to service been provided by a person authorized pursuant to GACAR § 43.9?		
To the best of my knowledge the information contained in the checklists is true and accurate. Print name of applicant / representative: _____ Signature of applicant / representative: _____		
Name of GACA Inspector who verified (sampled) the above requirements. _____		
2-2.16 (a) After evaluation of the report (survey) provided by the applicant and after inspection of the aircraft, has the GACA Inspector determined that the work proposed was adequate to bring the aircraft to a condition of conformity to the certified type design and of safe operation?	Yes: ▯ No: ▯	Comments:
(b) If no, has the importer been informed in writing identifying why the aircraft did not conform to an approved type design and was not in a condition for safe operation and issuance of a flight authority?	Yes: ▯ No: ▯	
2-2.18 Have items not corrected in the proposed work report been entered in the aircraft records?	Yes: ▯ No: ▯	Date of Issue:
NOTE. It is not absolutely essential that all defects found during the import inspection be corrected before the airworthiness certificate is issued. Items not corrected must be entered in the aircraft records. Defects and an assessment shall be made by the pilot in command to determine if the defect will adversely affect the safe flight of the aircraft. This assessment is the same for any operational aircraft.		
2-2.19 Will the airworthiness certificate be issued?	Yes: ▯ No: ▯	Date of Issue:
2-2.20 Has the importer / GACA rescheduled the inspection if necessary?	Yes: ▯ No: ▯	Date Rescheduled:
Remarks:		

Part 3 – Requirements for Operation under GACAR Part 91. This checklist should normally be completed by the applicant and submitted to the Inspector as part of the process for airworthiness certification and to add aircraft to the operator's OpSpec D85 or otherwise permit the aircraft for operation under the applicable GACAR part. Any false claims identified by Inspector during their subsequent review will be forwarded directly for compliance enforcement under GACAR Part 13. NOTE: Item 3-1.5 in the checklist has an incorrect reference - it should be GACAR § 91.453 (not § 91.543).

3-1.1 Is the aircraft properly equipped for the kinds of operation as prescribed under GACAR § 91.303? **NOTE:** Use job-aid in Appendix A to this section to document all kinds of operation considered and all associated required equipment and instruments.	Yes: ☐ No: ☐
3-1.2 If the aircraft is equipped with exterior break-in point markings do they comply with the specific criteria prescribed in GACAR § 91.307?	Yes: ☐ No: ☐
3-1.3 Is the aircraft properly equipped for all special flight operations under GACAR Part 91, Subpart D for which authority is requested? **NOTE:** Use job-aid to document all special flight operations considered and all associated required equipment and instruments.	Yes: ☐ No: ☐
3-1.4 Have all altimeter system and altitude reporting equipment tests and inspections been carried out as prescribed in GACAR § 91.451?	Yes: ☐ No: ☐
3-1.5 Have all ATC transponder tests and inspections been carried out as prescribed in GACAR § 91.543?	Yes: ☐ No: ☐

Part 4 – Additional Requirements for Operation under GACAR Part 121, 125, 133, 135 or 141. This part serves to help ensure that all required instrument and equipment required for operations under GACAR Part 121, 125, 133, 135 or 141 are installed and to ensure that additional airworthiness requirements for aircraft operated under GACAR Part 121 or 125 have been complied with. It is important to note that not all sections are applicable therefore it is imperative the Inspector review each area of inspection for applicability against the referenced regulations. This checklist should normally be completed by the applicant and submitted to the Principal Maintenance Inspector as part of the process to add aircraft to the operator's OpSpec D85 or otherwise permitted for operation under the applicable GACAR part. Any false claims identified by Inspector during their subsequent review will be forwarded directly for compliance enforcement under GACAR Part 13. NOTE: Items 4.121.3, 4.125.3 and 4.135.3 in the checklist have an incorrect reference - it should be GACAR § 91.452 (not § 91.542).

NOTE: The topical sections of the following checklist are defined by using the GACAR Part number in the section heading.

GACAR Part 121	
4.121.1 Is the aircraft properly equipped for the kinds of operation as prescribed under GACAR § 121.513? **NOTE:** Use job-aid in Appendix A of this section to document all kinds of operation considered and all associated required equipment and instruments.	Yes: ▯ No: ▯
4.121.2 Is the aircraft properly equipped with emergency and medical equipment as prescribed under GACAR §§ 121.505 and 121.509?	Yes: ▯ No: ▯
4.121.3 Have all required flight recorders been inspected and recalibrated as prescribed in GACAR § 91.542?	Yes: ▯ No: ▯
4.121.4 Do all seat cushions and thermal and acoustic insulation comply with the additional flammability requirements of prescribed in GACAR § 121.433?	Yes: ▯ No: ▯
4.121.5 Is the aircraft equipped with bilingual safety information as required by GACAR § 121.435?	Yes: ▯ No: ▯
4.121.6 Do the aircraft fuel tank access covers comply with GACAR § 121.437?	Yes: ▯ No: ▯
4.121.7 Does the emergency lighting system in the passenger cabin comply with GACAR § 121.441?	Yes: ▯ No: ▯
4.121. Does the emergency exit access comply with GACAR § 121.445?	Yes: ▯ No: ▯
4.121.9 Do the emergency exit features comply with GACAR § 121.449?	Yes: ▯ No: ▯
4.121.10 Does the passenger and crew member seats with GACAR § 121.453?	Yes: ▯ No: ▯
4.121.11 Is the seat back break over force at least 110 Newtons (25 pound-force)?	Yes: ▯ No: ▯
4.121.12 Do the baggage and cargo compartments comply with GACAR § 121.457?	Yes: ▯ No: ▯

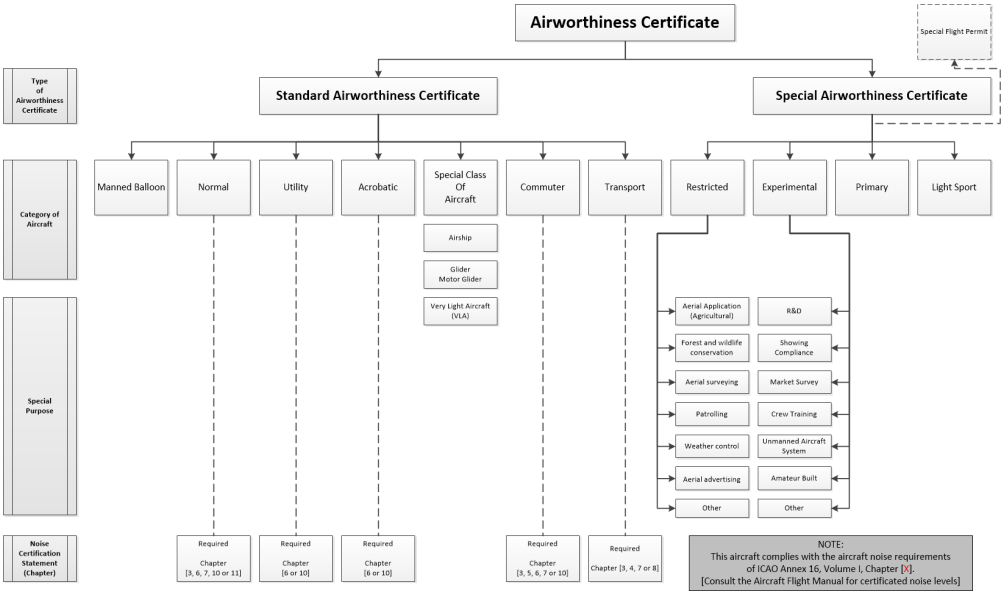
4.121.13 Is there an identified location for a suspect device as required by GACAR § 121.461?	Yes: ☐ No: ☐
4.121.14 Does the aircraft comply with GACAR § 121.465 Repair Assessment for Pressurized Fuselages?	Yes: ☐ No: ☐
4.121.15 Does the aircraft comply with GACAR § 121.469 Supplemental Inspections?	Yes: ☐ No: ☐
4.121.16 Does the aircraft comply with the GACAR § 121.473 Electrical Wiring Interconnection Systems Maintenance Program?	Yes: ☐ No: ☐
4.121.17 Does the aircraft comply with the GACAR § 121.477 Fuel Tank System Maintenance Program?	Yes: ☐ No: ☐
4.121.18 Does the aircraft comply with the GACAR § 121.481 Flammability Reduction Means?	Yes: ☐ No: ☐
4.121.19 Does the aircraft comply with the GACAR § 121.483 Limit of Validity?	Yes: ☐ No: ☐
GACAR Part 125	
4.125.1 Is the aircraft properly equipped for the kinds of operation as prescribed under GACAR § 125.223?	Yes: ☐ No: ☐
NOTE: Use job-aid in Appendix A of this section to document all kinds of operation considered and all associated required equipment and instruments.	
4.125.2 Is the aircraft properly equipped with emergency and medical equipment as prescribed under GACAR §§ 125.219 and 125.220?	Yes: ☐ No: ☐
4.125.3 Have all required flight recorders been inspected and recalibrated as prescribed in GACAR § 91.542?	Yes: ☐ No: ☐
4.125.4 Do all seat cushions and thermal and acoustic insulation comply with the additional flammability requirements of prescribed in GACAR § 125.187?	Yes: ☐ No: ☐
4.125.5 Is the aircraft equipped with bilingual safety information as required by GACAR § 125.185?	Yes: ☐ No: ☐
4.125.6 Does the aircraft comply with GACAR § 125.191 Repair Assessment for Pressurized Fuselages?	Yes: ☐ No: ☐
4.125.7 Does the aircraft comply with the GACAR § 125.193 Fuel Tank System Maintenance Program?	Yes: ☐ No: ☐
4.125.8 Does the aircraft comply with the GACAR § 125.195 Flammability Reduction Means?	Yes: ☐ No: ☐
GACAR Part 133	
4.133.1 Is the aircraft properly equipped for the kinds of operation as prescribed under GACAR § 133.91?	Yes: ☐ No: ☐
4.133.2 Is the aircraft properly equipped with individual protective	Yes: ☐ No: ☐

equipment as prescribed under GACAR § 133.95?	
4.133.3 If the aircraft is equipped with tow hooks or external load hooks have they been approved under GACAR Part 21?	Yes: ☐ No: ☐
4.133.4 If the aircraft is equipped for operation with one or more doors removed, has the configuration been approved under GACAR Part 21?	Yes: ☐ No: ☐
GACAR Part 135	
4.135.1 Is the aircraft properly equipped for the kinds of operation as prescribed under GACAR § 135.207? **NOTE:** Use job-aid in Appendix A of this section to document all kinds of operation considered and all associated required equipment and instruments.	Yes: ☐ No: ☐
4.135.2 Is the aircraft properly equipped with emergency and medical equipment as prescribed under GACAR §§ 135.205 and 135.206?	Yes: ☐ No: ☐
4.135.3 Have all required flight recorders been inspected and recalibrated as prescribed in GACAR § 91.542?	Yes: ☐ No: ☐
4.135.4 Is the aircraft equipped with bilingual safety information as required by GACAR § 135.187?	Yes: ☐ No: ☐
GACAR Part 141	
4.141.1 Is the aircraft equipped with two pilot stations, with engine controls that can be easily reached and operated in a normal manner from both stations?	Yes: ☐ No: ☐

VOLUME 6. AIRCRAFT & EQUIPMENT - CERTIFICATION

CHAPTER 2. AIRWORTHINESS CERTIFICATION OF AIRCRAFT & ARTICLES

Appendix C. Airworthiness Certificate Mapping



VOLUME 6. AIRCRAFT & EQUIPMENT - CERTIFICATION

CHAPTER 2. AIRWORTHINESS CERTIFICATION OF AIRCRAFT & ARTICLES

Section 2. Issue Aircraft Condition Notice

6.2.2.1. GACA ACTIVITY REPORT (GAR).

A. 3410 (AW)

6.2.2.3. OBJECTIVE. This section provides guidance to General Authority of Civil Aviation (GACA) aviation safety inspectors (Inspectors) for issuing an Aircraft Condition Notice to an aircraft operated under General Authority of Civil Aviation Regulation (GACAR) Part 91.

6.2.2.5. GENERAL.

A. Aircraft Condition Notices are issued to aircraft when, during the normal conduct of duties, the Inspector finds possible unsafe conditions that will require immediate action by the operator prior to operation. When authorization from the operator cannot be obtained the Inspector is limited to an external inspection. Inspectors should not interfere with the normal conduct of the operator's business unless a definite possibility of an unsafe condition exists. The Inspector will usually issue an Aircraft Condition Notice during one of the following activities:

- Performing a scheduled aircraft inspection
- Responding to a complaint
- Investigating an aircraft noticed while performing other duties

1) When a possible unsafe condition is noted, the Aircraft Condition Notice will be completed and the hard copy attached to the aircraft as near as possible to the aircraft entrance.

2) If the Inspector finds a general discrepancy that should be brought to the attention of the operator, the Inspector has the option of using this form as a means of notification.

6.2.2.7. PREREQUISITES AND COORDINATION REQUIREMENTS.

A. Prerequisites. Familiarity with the type aircraft being inspected.

B. Coordination. This task may require coordination between the issuing Inspector and the operator.

6.2.2.9. REFERENCES, FORMS, AND JOB AIDS.

A. References.

- GACAR Parts 21, 43, 91

B. Forms.

- Aircraft Condition Notice
- GAR

C. Job Aids. None.

6.2.2.11. PROCEDURES.

A. Determine the Status of the Aircraft. Determine if the aircraft is capable of continued operations in a safe condition.

B. Fill Out the Form.

1) Complete the form, fully describing the problem areas.

2) Attach the hard copy of the form to the aircraft at or near the entrance, or, if possible, give the form to the pilot/owner /operator.

C. Process the Form. After issuing the Aircraft Condition Notice, accomplish the following:

1) Determine the registered owner of the aircraft.

2) Mail the original to the registered owner.

3) Retain the final copy in the aircraft file.

6.2.2.13. TASK OUTCOMES.

A. Complete the GAR.

B. Complete the Task. Completion of this task may result in the following:

- Compliance enforcement, as applicable
- Letter to the registered owner

C. Document Task. File all supporting paperwork in the GACA aircraft file.

6.2.2.15. FUTURE ACTIVITIES. None.

VOLUME 6. AIRCRAFT & EQUIPMENT - CERTIFICATION

CHAPTER 2. AIRWORTHINESS CERTIFICATION OF AIRCRAFT & ARTICLES

Section 3. Issue a Special Airworthiness Certificate for Unmanned Aircraft Systems

6.2.3.1. GACA ACTIVITY REPORT (GAR).

A. 3460 (AW)

6.2.3.3. OBJECTIVE. This section provides guidance to General Authority of Civil Aviation (GACA) aviation safety inspectors (Inspectors) (Airworthiness) for issuance of a special airworthiness certificate in the experimental category for an Unmanned Aircraft Systems (UAS).

6.2.3.5. GENERAL. The proliferation and use of Unmanned Aircraft Systems is relatively recent and should develop and continue to expand over time. UAS are aircraft that have no onboard pilot and are controllable in three dimensions, thus excluding traditional balloons and unpowered gliders. The UAS includes the unmanned aircraft and its associated elements related to safe operation, which may include control stations, data links, support equipment, payloads, flight termination systems, and launch/recovery equipment.

A. Regulatory Basis. Regulation pertaining to the operation of UAS should grow as the technology and use of UAS advances. General Authority of Civil Aviation Regulation (GACAR) § 101.91, “Unmanned Aircraft Systems,” provides a regulatory basis for the operation of UAS in the Kingdom of Saudi Arabia (KSA). GACAR §101.91(a) requires all UASs to have an experimental airworthiness certificate issued under GACAR Part 21.

B. Guidance. Inspectors should evaluate the inspection and maintenance programs developed by the UAS owner/operator in order to determine their acceptability and whether the UAS should be issued an experimental airworthiness certificate. Once accepted, the applicant’s inspection and maintenance programs will be used in its process of reviewing and issuing a special airworthiness certificate in the experimental category to the UAS applicant. Additionally, Inspectors should ensure that a UAS is properly registered per the requirements of GACAR Part 47.

6.2.3.7. ISSUANCE OF A SPECIAL AIRWORTHINESS CERTIFICATE FOR A UAS.

A. Special Airworthiness Certificate. At this time all USA are considered experimental aircraft. A special airworthiness certificate is the only airworthiness certificate that can be issued to a UAS. A special airworthiness certificate will be referred to as being a special classification of airworthiness certificate. Within the special classification, an experimental certificate may be issued to a UAS for research and development purposes only (see GACAR § 21.173, Experimental Certificates). Changes to any component of a UAS may affect the operating limitations imposed by the experimental certificate issued to the UAS. The resulting change in the operating limitations of the UAS may require an amendment to the special airworthiness certificate.

B. Considerations. As a minimum, the applicant must provide documentation acceptable to the President which identifies the aircraft, the purpose of the certificate, the area over which the operations are to be conducted, the duration of the UAS program, and other required information. The documentation should also contain information on the following specific areas:

1) *Containment.* The GACA is particularly concerned with the ability of the aircraft to be contained in the proposed flight area. The applicant’s ability to provide information that satisfies this requirement will help determine and define the operational area.

2) *Lost link.* The applicant must provide a detailed process in the safety checklist describing the sequence the unmanned aircraft will follow in the event command and control is lost. This process will result in safely returning the UAS to home base or to a safe conclusion of the flight.

3) *Flight conclusion.* In the event command and control of the UAS is lost, an independent means to safely conclude the flight must be provided.

C. Safety Information. As part of its application package, the applicant should provide sufficient safety information as identified by the President, which will permit the expeditious review and processing of the Special Airworthiness Application Form. Figure 6.2.3.1, "Sample Unmanned Aircraft Systems Safety Information Checklist" can assist the applicant in providing all the required information that should be provided during the UAS safety evaluation.

D. Required items. The following items should be submitted by the applicant and accepted by the GACA before issuance of the requested special airworthiness certificate:

1) *Proposed operating area depicted on aeronautical chart.* The proposed operating area must be plotted on an aeronautical chart with the coordinates that identify the area boundary. The proposed altitudes of operation also must be included. Other types of charts and maps may be included in addition to the aeronautical charts.

2) *Operations manuals and checklists.* All appropriate operating manuals, including limitations and checklists (normal, abnormal, and emergency procedures), must be included.

3) *Training program.* Applicants must provide an appropriate training curriculum for pilots, observers, chase operations, and ground personnel. Applicants must also provide documentation verifying that personnel have successfully completed all necessary training.

E. Safety Evaluation. A GACA team, typically consisting of personnel from the Flight Operations and Airworthiness Divisions and the Inspectors involved in the certification process will conduct a review of the information in the applicant's Application for Airworthiness Certificate and the accompanying Safety Information Checklist.

F. Onsite meeting and schedule. At the completion of the safety evaluation, an onsite meeting and inspection will be scheduled by the certification team. However, scheduling the onsite meeting is dependent on completion by the applicant of any additional requirements stipulated by the President.

6.2.3.7. PREREQUISITES AND COORDINATION REQUIREMENTS.

A. Prerequisites:

- Knowledge of Part 21, 43, 45, 47, 91 and 101
- Knowledge in reviewing and approving inspection and maintenance programs

B. Coordination. This task requires coordination with the owner/operator and Inspectors and Engineers from the GACA Flight Operations and Airworthiness Divisions. Additional coordination with ANS Safety Inspectors may also be warranted.

6.2.3.9. REFERENCES, FORMS, AND JOB AIDS.

A. References:

- GACAR Part 21, 43, 45, 47, 91 and 101
- FAA Order 8130.34, Airworthiness Certification of Unmanned Aircraft Systems.

B. Forms:

• Application for Airworthiness Certificate.

• GAR

C. Job Aids.

Figure 6.2.3.1, Sample Unmanned Aircraft Systems Safety Information Checklist

6.2.3.11. PROCEDURES. UAS owner/operator applicants are required by GACAR § 21.177(b)(1) to develop an inspection and maintenance program for the continued airworthiness of their UAS. These programs must be reviewed and subsequently accepted by airworthiness Inspectors before the AED may proceed with its issuance process of a special airworthiness certificate for the UAS. Inspectors may refer to the guidelines contained in FAA Order 8130.34 as supplementary information on the process of certifying a UAS.

A. Accept Maintenance Program. Maintenance programs describe what and how maintenance is to be performed on an aircraft. For most UAS, this will simply be how discrepancies are recorded and how logbook entries are made (for example, how often, what is included, etc.). The specifics of what is required for the operator's maintenance program are defined in the operating limitations developed for the UAS.

B. Accept Inspection Program. GACAR Part 43, Appendix C, "Scope and Detail of Items (as Applicable to the Particular Aircraft) to be Included in Annual and 100-Hour Inspections", should be used as a guideline to develop the inspection program for a UAS. The inspection needs to include the aircraft and its systems, the control station, and launch and recovery equipment if used. If an altimeter or transponder are installed, the requirements of GACAR §§ 91.451 and 91.453 must be included in the inspection program.

C. UAS inspection. The applicant should arrange with the GACA to make the aircraft and related support systems available for inspection to determine the following:

1) The aircraft nationality and registration marks are in accordance with GACAR Part 45 or an alternate marking approval acceptable to the President.

Note: The UA is not required to be identified as described in GACAR § 45.25(a as related to fireproof identification plates, but it must be marked with a unique identifying number.

2) The flight control system operates properly.

3) The engine(s), propeller(s), and associated instruments operate in accordance with the manufacturer's instructions.

4) The pitot-static and transponder inspections have been certified in accordance with GACAR §§ 91.451, "Altimeter system and altitude reporting equipment tests and inspections", and 91.453, "ATS transponder tests and inspections." In addition, associated instruments must operate properly, if applicable.

5) All elements of the control station operate properly as demonstrated by normal preflight operational checks of the UAS.

6) Records Inspection.

7) Maintenance program compliance.

8) Additional requirements established by the President.

D. Issuance of Special Airworthiness Certificate.

1) If the UAS meets the requirements for the certification requested, the Inspector should:

a) Place the following or a similarly worded statement in the maintenance records:

The GACA finds this Unmanned Aircraft System meets the requirements for the certification requested, and has issued a special airworthiness certificate dated (DD/MM/YYYY). The operation of this Unmanned Aircraft System is contingent upon (applicant's name) compliance with (title of the submitted program letter and documentation) and the operating limitations of this airworthiness certificate. A new condition inspection is required prior to issuance of another special airworthiness certificate.

b) Issue Special Airworthiness Certificate. When completing the Category Designation in the special airworthiness certificate, the Inspector should include the words Experimental (Unmanned Aircraft System) under the Purpose section. The Inspector should also enter Research & Development to indicate the purpose for the UAS operation.

c) Complete the appropriate sections of the Application for Airworthiness Certificate and identify in the appropriate sections that the aircraft is an Unmanned Aircraft System.

d) Examine, review, and route the certification file in the same manner as a standard airworthiness certification file.

2) If the UAS does not meet the requirements for the certification requested and the special airworthiness certificate is denied, the GACA will:

a) Write a letter to the applicant stating the reason(s) for denying the special airworthiness certificate, and

b) Attach a copy of the denial letter to the Application for Airworthiness Certificate and retain a copy to be made part of the office aircraft record.

6.2.3.13. TASK OUTCOMES.

A. Complete the GAR Record.

Complete the Task. Successful completion of this task will lead to the issuance of an experimental airworthiness certificate.

Document the Task. File all supporting paperwork in the aircraft file.

6.2.3.15. FUTURE ACTIVITIES. None.

Figure 6.2.3.1. Sample Unmanned Aircraft Systems Safety Information Checklist

1. General Information. The following sample safety information should be provided to the GACA in support of an application for a Special Airworthiness Certificate for a UAS. This checklist is designed to help the GACA evaluate those hazards unique to unmanned aircraft in support of issuing a Special Airworthiness Certificate. Applicants should note that some safety items require only brief responses and others may not be applicable to a specific program. Additional questions and supporting documentation may be required by the President during the evaluation process.

2. Airborne Segment.

a. UA Structure. Describe in detail the physical characteristics of the UAS. At a minimum, address the following items/questions:

(1) Composition. Describe the various materials and where they are used in the construction of the UAS.

(2) Measurements.

(a) Wingspan.

(b) Fuselage length.

(c) Body diameter.

(3) Mass.

(a) Empty.

(b) Maximum gross takeoff mass.

(4) System unique design characteristics (for example, hydraulic system, parachute, and brakes).

(5) If applicable, details on any loads or stress analysis that demonstrates positive structural margins of safety during flight.

b. UAS Performance Characteristics.

(1) Maximum altitude.

(2) Maximum endurance.

(3) Maximum range.

(4) Airspeed.

(a) Cruise.

(b) Maximum.

(5) Rate of climb.

(6) Rate of descent.

(7) Performance limitations due to environmental and meteorological conditions.

(a) Wind.

i. Constant wind shear.

ii. Gusts.

(b) Visibility.

(c) Lighting.

(d) Icing.

i. Does the UAS intend to operate in known icing conditions?

ii. If so, what indications, if any, does the system provide the UAS pilot concerning the existence of icing conditions?

iii. If needed, describe any icing protection capability of the UAS.

c. Propulsion System.

(1) Fuel-powered propulsion systems.

(a) Type (make and model) of engine being used.

(b) Type and capacity of fuel if applicable.

(c) Description of failure modes and abnormal conditions. How does the system respond, and what safeguards are in place to lower risk of loss of engine power for each of the following?

i. Fuel starvation.

ii. Fuel contamination.

iii. Failed signal input from the control station.

(d) Can the pilot restart the engine in flight?

(2) Electric-powered propulsion systems.

(a) What type of motor is used?

(b) What is the power output of the motor?

(c) What current draw range does the motor have?

(d) Does the system have a separate electrical source? If not, how is UAS power managed?

d. Avionics. Provide an overall system diagram of the avionics architecture, including detailed descriptions of the following:

(1) UAS architecture, including functional flow and subsystem performance.

(2) Control station architecture, including functional flow and subsystem performance.

(3) Communication system architecture, including functional flow and subsystem performance.

e. Navigation.

(1) How does the UAS determine where it is? How does it navigate to its intended destination?

(2) How does the UAS respond to the following directions from ATS?

(a) Change of heading.

(b) Change of altitude.

(3) What are the causes and effects of loss of heading or altitude?

(4) Describe the procedures to test the altimeter system (GACAR § 91.451, Altimeter system and altitude reporting equipment tests and inspections).

f. Payloads.

(1) Describe the payload equipment that will fly onboard the aircraft.

(2) Describe all payload configurations that significantly change mass and balance, electrical loads, or flight dynamics.

(a) Internal.

(b) External.

3. Command, Control, Communications Segment.

a. Control Station.

(1) Describe or diagram the control station configuration.

(2) How is the control station powered?

(3) What procedures are in place should the control station lose primary and secondary power?

(4) Does the pilot have a standardized screen set up at the initiation of each phase of flight?

(5) Are any other programs running on the ground control computer?

(6) What are the possible conditions that would cause a control position lock-up? What software operating system are any of the primary flight controls based upon?

(7) What alarms or warnings does the system provide to the pilot (for example, low fuel or battery, failure of critical systems, departure from operational boundary)?

(8) How accurately can the pilot determine the attitude and position of the UAS?

(9) What kind of inadvertent input could the pilot enter to cause an undesirable outcome (for example, accidentally engaging

the kill engine command in flight)?

b. UAS Controls.

(1) Control surfaces. This section is intended to provide an understanding of the control surfaces and should include the following at a minimum:

(a) A diagram showing the location of the servos and control surfaces, and power to the servos.

(b) A description of failure modes and conditions.

i. Describe the failure modes and mitigations.

ii. How does the system respond to a servo failure?

iii. What indications alert the pilot that a servo is stuck?

(c) A description of how the control surfaces respond to commands from the flight control computer. Describe how the pilot provides input to the control surfaces (for example, through an external box, waypoint, stick and rudder pedals).

(d) A description of the procedures in place to prevent failures due to weather or icing?

(2) Flight control computer.

(a) Does the flight control computer interface with auxiliary controls that might cause unintended action?

(b) Describe the systems the flight control computer interfaces with to determine flight status and to issue appropriate commands.

c. Autopilot.

(1) If an autopilot is installed, is the autopilot a commercial off-the-shelf product? If so, name the type/manufacturer.

(2) Describe the procedures you use to install the autopilot. How is correct installation verified? Reference any documents or procedures provided by the manufacturer and/or developed by your company.

(3) Does the autopilot employ input parameters to keep the aircraft within structural limits? If so, provide a table of these limits. How were these limits validated?

(4) Where do the autopilot commands reside once they are input by the pilot?

(5) What type of software-in-the-loop (SIL) and hardware-in-the-loop (HIL) simulations have been performed? What was the outcome of the simulations?

d. Communications.

(1) How do you limit the likelihood of unplanned loss of communication between the pilot and the UAS due to:

(a) Radio frequency or other interference?

(b) Flight beyond communications range?

(c) Antenna masking during turns and pitch angles?

(d) Loss of control station functionality?

(e) Loss of UAS functionality?

(f) Atmospheric attenuation?

(g) Loss of link?

(h) Loss of visual contact with the UAS?

(2) What are the potential sources of radio frequency interference within the proposed operating area and how are they monitored, managed, and/or mitigated?

(3) What spectrum will be used for the communications? How has the use of this spectrum been coordinated? If not required, under what regulation is the use of the frequency authorized?

(4) What type of signal processing and/or link security is employed?

(5) For satellite links, estimate the system communications latencies associated with using the satellite link for aircraft control and for ATS communications.

(6) What is the data link margin in terms of the overall link budget at the maximum anticipated distance from the control station? How was it determined?

(7) Does the system employ redundant communications links? If so, how dissimilar are they?

(8) Is there a radio signal strength and/or health indicator or similar display to the pilot? How are the signal strength and health value determined, and what are the threshold values that represent a critically degraded signal?

(9) Is there an intercommunication system that allows for communication between the pilots(s), ground support personnel, and observers?

(10) What procedures have been established in the event of intercommunication system failure?

e. Emergencies and Flight Recovery.

(1) Describe the emergency recovery systems, if any.

(2) How do you know the emergency recovery system is operational?

(3) Under what conditions is the return home mode both manually and automatically activated?

(4) What is the return home point? How is this point selected? How is this point entered?

(5) How does the UAS navigate when in the return home mode?

(6) Describe the flight recovery systems (FRS), if any?

(7) Under what conditions is an FRS manually and automatically activated?

(8) What happens to the aircraft when the FRS is activated? For example, does the engine run temporarily? Does the UAS glide or become unstable?

(9) How do you know the FRS is operational?

(10) Provide a fault tree diagram, starting with the initial condition of normal flight that shows the conditions which will trigger the FRS.

(11) If activated, can the FRS be turned off/shut down if no longer needed?

(12) If FRS fails, is there a backup or secondary FRS to ensure no additional hazards are introduced to the operational area?

(13) Describe how the aircraft will react during takeoff, climb, cruise, descent, and landing in the event of a lost link.

(14) Describe the operational procedures in the event of a lost link.

f. Ground Support Equipment. Describe all the support equipment used on the ground. Include any launch or recovery systems, ground data terminals, generators, and power supplies.

4. Operations.

a. Integration and Interaction With KSA Airspace.

(1) Surveillance and aircraft visibility.

(a) Is the UAS equipped with an operable Mode-C or Mode-S transponder?

(b) Can the transponder be operated by the pilot?

(c) Describe the transponder test procedures.

(d) Does the UAS have a high visibility paint scheme that enables other pilots to see and avoid the UAS and enables the observer(s) to obtain and track the UAS?

(e) Does the UAS have anti-collision lights? What are the procedures if the lights are inoperative?

(f) Does the UAS have position lights? What are the procedures if the lights are inoperative?

b. Flight Envelope and Test Plans.

(1) Describe the conditions under which flight envelopes will be tested. What is the proximity of flight operations to populated areas, major highways, etc.?

(2) Describe how you plan to meet test objectives under the proposed flight envelop and operating area. Include test plans, if possible.

c. Operating History. Describe the operational history of the UAS. Include details of the following items:

(1) Total number of flights and flight hours on the UAS.

(2) Any system failures, incidents, accidents, or emergencies, and the resultant system modifications or corrective actions.

d. Manuals.

(1) Is there an operating manual for the aircraft?

(2) Does the manual have a section with all the aircraft limitations in one location?

(3) Does the operating manual have bolded or underlined procedures for emergencies for memory item steps?

(4) Is there an operational checklist for all phases of the operation?

(5) Are there separate checklist items for normal, abnormal, and emergency procedures?

5. Organizational Considerations.

a. Maintenance.

(1) Provide an inspection and maintenance program (see GACAR Part 43).

(2) Provide information on unique system maintenance activities, such as maintenance of a pneumatic launcher system.

b. Configuration Management.

(1) What procedures are in place to manage change configuration? Are they documented?

(2) Describe the procedures used for controlling drawings, test procedures, and engineering changes.

(3) Describe the quality assurance system, including methods and procedures used and structure within the organization.

c. Software Management.

(1) In high level terms, how much of the software was designed by the applicant? Identify which areas of the system contain vendor software.

(2) What software development processes has/have been used in the development of software components for the aircraft and the control station, and what software lifecycle data is available for review?

(3) How will updates to system software (including commercial off-the-shelf software) be implemented?

(4) Provide a description of the software requirements and the functional allocation between hardware and software.

(5) How is software verified, validated, and tested for the system?

(6) How is vendor software development overseen?

(7) How is software load control implemented for the system to ensure the correct software components are loaded onto the system?

(8) What software quality assurance processes are used in the development of the system software? If software is vendor-provided, vendor control must be addressed.

VOLUME 6. AIRCRAFT & EQUIPMENT - CERTIFICATION

CHAPTER 2. AIRWORTHINESS CERTIFICATION OF AIRCRAFT & ARTICLES

Section 4. Issue Special Flight Permit

6.2.4.1. GACA ACTIVITY REPORT (GAR).

A. GAR. 3404 (AW)

6.2.4.3. SPECIAL FLIGHT PERMIT.

A. General. A special flight permit letter is issued for aircraft that currently do not meet applicable airworthiness requirements but are capable of safe flight. A special flight permit letter is not an authorization to deviate from the requirements of General Authority of Civil Aviation Regulation (GACAR) Part 91.

B. Applicability.

1) GACAR §21.179(a) applies to aircraft that may not meet applicable airworthiness requirements and that will be operated for one or more of the purposes specified in GACAR § 21.179(a) (1) through (5) as follows:

- Flying the aircraft to a base where repairs, alterations, or maintenance are to be performed, or to a point of storage
- Delivering or exporting the aircraft
- Production flight testing new production aircraft
- Evacuating aircraft from areas of impending danger
- Conducting customer demonstration flights in new production aircraft that have satisfactorily completed production flight tests

2) GACAR § 21.179(b) applies to those aircraft that meet all of the applicable airworthiness requirements except those that cannot be met because of an over-mass condition on a flight beyond the normal range over water or over land areas where adequate landing facilities or appropriate fuel is not available.

3) GACAR § 21.179(c) applies only to certificate holders authorized to conduct operations under GACAR Part 121 that have an approved program for special flight permit with a continuing authorization. A special flight permit may be issued for aircraft that do not meet applicable airworthiness requirements, but are capable of safe flight for the purpose of flying aircraft to a base where maintenance or alterations are to be performed. The applicant must apply for a special flight permit with continuing authorization, which is granted through the issuance of operations specification (OpSpec) D84. See Volume 5, Chapter 8, Section 1, “Evaluating a Special Flight Permit with Continuing Authorization to Conduct a Ferry Flight Program” for further guidance.

4) Special flight permits are effective for operations within the borders for the Kingdom of Saudi Arabia (KSA) as long as it is operated under the specifications of the President. However, the special flight permit does not authorize flight over countries other than the KSA without permission of that country.

5) OpSpec D84 may include a provision that allow them to fly their aircraft to a repair facility to do the work required by an airworthiness directive (AD). In situations without this authority, the General Authority of Civil Aviation (GACA) may

issue a special flight permit, unless the AD states otherwise. To ensure aviation safety, the GACA may add special requirements for operating the aircraft to a place where the repairs or modifications can be accomplished. The GACA may also decline to issue a special flight permit in particular cases if it determines that the aircraft cannot be moved safely.

6) If an AD requires compliance before further flight and does not have a provision for issuance of a special flight permit, the operation of the aircraft to which it applies would not be appropriate, and a special flight permit cannot be issued.

C. Additional Purposes. GACAR § 21.179 prescribes the general purposes for which a special flight permit may be issued. The following specific operations are also considered to be within the scope of the general provisions:

1) Any flight of a Saudi Arabian-registered aircraft covered by GACAR § 21.179, if the aircraft is capable of safe flight.

2) The delivery of an aircraft of either United States (US) or non-US manufacture to the base of the purchaser or to a storage point in the KSA.

3) Flying an aircraft whose annual inspection has expired to a base where an annual inspection can be accomplished.

NOTE: The operation of a multi-engine aircraft with one inoperative engine is prohibited.

6.2.4.5. SPECIAL FLIGHT PERMIT ISSUANCE.

A. Procedures. When the Application for Special Flight Permit is found in compliance with all requirements, the GACA should issue a special flight permit letter, including any operating limitations deemed necessary for safe operation. This letter should address at least the following:

1) The aircraft registration marks and serial number of the aircraft.

2) All special operating conditions and limitations

3) The name and signature of issuing authority

4) Validity period.

The applicant should be advised that the operating limitations letter must be displayed in the aircraft in accordance with GACAR § 91.301(b). Aviation safety inspectors (Inspectors) may assist the applicant by completing Application for Special Flight Permit based on information furnished by telephone, letter, or fax. The name of the applicant should be entered in the space provided for the applicant's signature. A notation as to how the information was received should be entered above the name, for example, "Received by letter dated." If the information provided is adequate and all requirements for issuance are satisfied, the Inspector may issue a telegraphic or faxed Special Flight Permit letter with appropriate limitations (except GACAR § 21.179(b) for over-mass operations). These limitations will include inspection requirements as deemed necessary. The telegraphic or faxed copy of the Special Flight Permit letter and prescribed operating limitations must be displayed in the aircraft in accordance with GACAR § 91.301(b) prior to conducting the special flight. The faxed copy of the permit will be considered the original permit. A copy of each certification document should be retained in the aircraft files.

B. Aircraft Inspection. The GACA determines which inspections or tests are necessary to ensure that the aircraft is capable of safe flight for the intended purpose.

1) The GACA must make, or require the applicant to make, appropriate inspections or tests considered necessary for safe flight.

2) Inspectors should personally inspect damaged aircraft or an aircraft for which the airworthiness is questionable in any

respect. The GACA is authorized, at its discretion, to allow a properly certificated mechanic or a repair station to conduct the necessary aircraft inspection(s) in support of the issuance of a Special Flight Permit letter.

NOTE: If a technical determination cannot be made that a particular aircraft is capable of safe operation because of insufficient design, inspection, or maintenance data that normally is available for a type-certificated aircraft, the Special Flight Permit letter should not be issued.

3) When the GACA requires the applicant to make the inspection, the applicant must be advised that such inspections must be:

a) Accomplished by an appropriately certificated mechanic or repair station familiar with all of the procedures and requirements contained in this chapter.

b) Documented in the aircraft logbook by the authorized person who conducted the inspection.

C. Special Operating Limitations. The GACA should establish limitations for the special flight permit as deemed necessary for safe operation. Because individual circumstances may vary greatly, a list of limitations applicable in every case cannot be provided. The ultimate objective is to ensure safe operation of the aircraft. If necessary, Inspectors should solicit the assistance of other GACA's Inspectors or technical resources. All limitations should be clear and concise so they can be easily understood. In addition to the limitations deemed necessary for the particular flight, the following items should be considered when establishing operating limitations:

1) Conformity to the aircraft's technical data.

2) Operational equipment necessary for safe operation of the aircraft.

3) Special qualifications required of the pilot and crew members. For flights that involve long distances over which various weather conditions may be encountered, the pilot in command also must be appropriately instrument-rated.

4) Aircraft mass limits.

5) Fuel and fuel distribution limits.

6) CG limits.

7) Manoeuvres to which the aircraft is limited.

8) Limits on use of flight equipment, such as autopilots, etc.

9) Meteorological conditions to be avoided and the inspections required if inadvertently encountered.

10) Airspeed limits.

11) Operation in the over-mass condition must be conducted so as to avoid municipalities, governorates, provinces, and congested areas, or any other areas where the flights might create hazardous exposure to persons or property.

12) Runway selections, if considered necessary for safety.

13) Communications required with aerodrome control tower personnel to inform them prior to takeoff or landing of the nonstandard condition of the aircraft.

14) When flight over another country is planned, Inspectors should emphasize to the applicant that special permission must be obtained from the country over which the aircraft will be operated.

NOTE: When required to fly over an International Civil Aviation Organization (ICAO) country, the operating limitations issued with the Special Flight Permit letter should include, when appropriate, the following statement: "This aircraft does not comply with the international standards of ICAO Annex 8: [describe here the item(s) which do not comply with the airworthiness requirements for standard aircraft]."

15) Any other limitation that should be prescribed for the particular flight.

D. Special Flight Permit for Aircraft Exceeding Maximum Mass Limitations. Under certain conditions and purposes, GACAR § 21.179(b) may authorize the issuance of a special flight permit for the operation of an aircraft at a mass in excess of its certificated mass limits.

1) The GACA has two primary concerns when issuing a special flight permit letter for the temporary operation of an aircraft exceeding the maximum certificated mass limits:

a) That the public will be guarded in the event of an accident; and

b) That when the aircraft is returned to a standard configuration, it has not been rendered un-airworthy due to the excessive mass operations.

2) Applications for which the proposed maximum mass does not exceed 110 percent of the maximum certificated mass, and for which the certificated CG limits are not exceeded, may be processed without obtaining an engineering evaluation (except for rotorcraft).

3) Applications for which the proposed maximum mass exceeds 110 percent of the maximum certificated mass, or the CG limits exceed the certificated limits, must be coordinated with the GACA Engineering Division for an engineering evaluation of the structural integrity and for any other provisions deemed necessary.

4) All applications for rotorcraft must be coordinated with engineering for evaluation of the structural integrity, the flight integrity, and for any other provisions deemed necessary.

5) The processing of an application must encompass a review of the airworthiness status of the basic aircraft, an evaluation of the added installations that constitute the excess mass, required flight crew member qualifications, and proposed operating limitations.

E. Added Installations.

1) *Technical Data*. When the submitted application falls under the provisions of 6.2.4.5 D 2), 3), and 4) of this section, any drawings and reports submitted with the application that substantiate structural integrity must be sufficiently detailed to show that the added installations are structurally and functionally safe and to allow for a conformity inspection of the added installations. The structural report should reference the drawings used for the installation(s).

2) *Record of Installation(s).* The installation(s) added to the aircraft for the intended over-mass flight must be recorded in accordance with the requirements of GACAR § 43.11.

3) *Auxiliary Fuel System Installations.* In the evaluation of auxiliary fuel system installations, the following items will be considered:

a) The aircraft and auxiliary fuel system must meet all applicable airworthiness requirements, except for those the aircraft cannot meet because of its over-mass condition. The aircraft and auxiliary fuel system must be found safe for the intended flight.

b) Fuel tank(s) installed in a pressurized area should be tested for the maximum pressure differential existing between cabin pressurization and aircraft maximum operating altitude with fuel tank(s) empty.

c) Adequate ventilation must be provided for the fuel tank(s) and the area in which the fuel tank(s) are located to prevent the accumulation of fumes that would be detrimental to the flight crew or could present a fire or explosion hazard.

d) A means must be provided to readily determine the quantity of fuel in the auxiliary tank(s) prior to takeoff. In addition, a means must be provided to indicate the quantity of fuel in tanks that have a vapour/excess fuel return line, both prior to takeoff and during flight.

e) The location of the fuel tank(s) in the aircraft is a major factor in determining that the aircraft is safe for flight because the added fuel and fuel facilities have the greatest effect on the aircraft's CG. In addition, the fuel system installation must not restrict entrance to or exit from the aircraft as provided by the applicable section of GACAR. If required under GACAR § 23.1001, the aircraft should have an adequate fuel jettison system installed. Auxiliary fuel systems that are not complete, that is, not connected to the basic aircraft fuel system, may not be considered for issuance of a Special Flight Permit.

4) *Engine Oil Quantity.* The applicant will show that the oil supply provided for each engine is sufficient to ensure satisfactory cooling and system circulation for the duration of the flight. If deemed necessary, an oil transfer system for replenishing the engine oil while the aircraft is in flight must be provided.

5) *Maximum Mass and Center of Gravity Limits.*

a) GACAR § 21.179(b) limits any excess mass over the certificated maximum mass to additional fuel, fuel carrying facilities, and navigational equipment added for the intended flight. Inspectors should determine that this part of the maximum mass complies with this requirement.

b) When numerous alterations are performed, it may be necessary to weigh the aircraft to establish the aircraft mass and the CG limits. The computations should be evaluated for accuracy. It also may be necessary to require flight testing at the new maximum mass and CG limits to determine that the aircraft is safe for operation. Computed mass and balance information should be reflected on the GACA Major Repair and Alteration Form.

c) Operation of rotorcraft over the certificated maximum mass presents some unique conditions over and above those encountered with fixed-wing aircraft. Special attention should be given to this type of aircraft. A careful evaluation should be made to determine what effect the over-mass operation may have on the retirement times of critical parts.

6) *Operating limitations.* Operating limitations must be prescribed as deemed necessary and should include:

a) Operation in the over-mass condition must be conducted to avoid municipalities, governorates, provinces, and congested areas, or any other areas where the flights might create hazards to persons or property.

b) A specific runway to be used for the over-mass takeoff (and landing) when appropriate. If an en route stop is scheduled, the following must be added to this limitation: Contact GACA ANS Sector for runway to be used for over-mass takeoff and landing at [municipality].

c) A copy of the GACA Major Repair and Alteration Form, covering the additional fuel-carrying facilities and equipment

must be in the aircraft.

d) Special entries to note the required inspection of the aircraft for possible damage due to over-mass operation upon completion of over-mass flight(s).

7) *Temporary Installations*. All temporary installations must be installed in accordance with approved data. Examples are: a long-range fuel system or navigational equipment. With safety being the primary concern, it is essential that the processing Inspector uses all available technical resources as well as the assistance of other Inspectors with expertise in this area to ensure the highest degree of safety possible.

F. Fees. Applicants for a Special Flight Permit letter must pay the required fees in accordance with the Implementing Regulations of the Civil Aviation Tariff Act.

6.2.4.7. TASK OUTCOMES.

A. GAR. Complete the GAR record.

B. Task Completion. Successful completion of this task will result in the issuance or denial of a special flight permit.

C. Task Documentation. File all supporting paperwork in the GACA operator's aircraft file.

6.2.4.9. FUTURE ACTIVITIES. None.

VOLUME 6. AIRCRAFT & EQUIPMENT - CERTIFICATION

CHAPTER 2. AIRWORTHINESS CERTIFICATION OF AIRCRAFT & ARTICLES

Section 5. Parts Accepted for Use on Saudi Arabian-Registered Aircraft

6.2.5.1 GENERAL. This section presents in table format, a tool for General Authority of Civil Aviation (GACA) aviation safety inspectors (Inspectors) to determine the acceptability of aircraft parts and articles for use on Saudi Arabian-registered aircraft. (See Table 6.2.5.1)

Table 6.2.5.1. Parts Acceptable for Use on Saudi Arabian-Registered Aircraft

Kind of Part	Source Country	Authorized Release Certificate	GACAR Reference	Remarks
New parts [1, 3]	USA	FAA Form 8130-3 (Block 13 Completed)	§ 21.261 § 21.263	
	EU	EASA Form 1 (Block 13 Completed)	§ 21.261 § 21.263	
	Other	(1) Must be covered under the scope of the BASA agreement between the US or KSA and the exporting country (2) Must be accompanied by a completed airworthiness approval document (for example, FAA 8130-3, EASA Form 1 or UK CAA Form 1); and, (3) Must have an airworthiness document that certifies that the materials, parts, or appliances are eligible for installation on the bilateral country's product exported to the United States or KSA.	§ 21.261 § 21.263	
	Any	Type certificate holder written authorization and declaration that it was approved under the production certificate issued by the State of Design.	§ 21.261 § 21.263	Direct ship.
Used parts [2]	USA	FAA Form 8130-3 (Block 14 Completed)	§ 21.261 § 21.263	Complete engines and propellers excluded.*
	EU	EASA Form 1 (Block 14 Completed)	§ 21.261 § 21.263	Complete engines and propellers excluded.*
	KSA	GACA Form 8130-3 (Block 14 Completed)		This is the only acceptable certification for complete engines and propellers.*

	Other	(1) Must be covered under the scope of the BASA agreement between the US or KSA and the exporting country (2) Must be accompanied by a completed airworthiness approval document (for example FAA 8130-3, EASA Form 1 or UK CAA Form 1) and, (3) Must have an airworthiness document that certifies that the materials, parts, or appliances are eligible for installation on the bilateral country's product exported to the United States or KSA.	§ 21.263	Complete engines and propellers excluded.*
Owner produced parts	KSA	Certificate of Conformance	§ 21.15	Only for installation on owner's aircraft.Must be produced in accordance with approved data.
PMA parts	USA	FAA Form 8130-3 (Block 13 Completed)	§ 21.13 § 21.263	
	EU	EASA Form 1 (Block 13 Completed)	§ 21.13 § 21.263	
	KSA	GACA Form 8130-3 (Block 13 Completed)	§ 21.13	
	Other	(1) Must be covered under the scope of the BASA agreement between the US or KSA and the exporting country (2) Must be accompanied by a completed airworthiness approval document (for example FAA 8130-3, EASA Form 1 or UK CAA Form 1); and (3) Must have an airworthiness document that certifies that the materials, parts, or appliances are eligible for installation on the bilateral country's product exported to the United States or KSA.	§ 21.13 § 21.263	
TSO' d articles +	USA	FAA Form 8130-3 (Block 13 Completed)	§ 21.13 § 21.263	TSOA articles
	EU	EASA Form 1 (Block 13 Completed)	§ 21.13 § 21.263	ETSOA articles
	KSA	GACA Form 8130-3 (Block 13 Completed)	§ 21.13	SATSOA articles

	Other	(1) Must be covered under the scope of the BASA agreement between the US or KSA and the exporting country;(2) Must be accompanied by a completed airworthiness approval document (for example FAA 8130-3 or EASA Form 1or UK CAA Form 1); and, (3) Must have an airworthiness document that certifies that the materials, parts, or appliances are eligible for installation on the bilateral country's product exported to the United States or KSA.	§ 21.13 § 21.263	
Standard parts	Any	Certificate of Conformance from manufacturer.		See Appendix 2, FAA AC 20-154
Commercial parts	Any	Packing slip.	§ 21.9	Must be listed in an approved Commercial Parts List (CPL) issued by the type certificate holder and included in the ICAs.

Notes:
1 = New parts includes rebuilt parts.
2 = Used parts means Repaired, Overhauled, Inspected or Tested parts.
3 = Parts sourced from countries on the Saudi Arabian Importation Ban list are not accepted for use on Saudi Arabian registered aircraft.
4 = APU is not included in the Engine and Propeller.
+ = TSO'd articles complied with. For SATSOA articles require an installation approval under GACAR Part 21 before they may be installed.
* = A complete engine or propeller may not be disassembled to represent several components unless authorized by the Aircraft Maintenance Manual. An example is a modular engine. In this case, the release to service must indicate that the module was tested with a test bed certified engine and the performance parameters were within the manufacturer's standards and technical data and a record of that test accompanies the approval for return to service. The Manufacturer may rebuild or alter aircraft engine or propeller and may approve for return to service. Ref GAGAR part 43.5 (j) & 43.9 (d).

6.2.5.2 SPECIAL CASES.

ONE-TIME APPROVAL for installation of a part that does not meet the above criteria may be authorized by the president in extraordinary situations. Request for one-time approval shall be made in writing to the president.

VOLUME 6. AIRCRAFT & EQUIPMENT - CERTIFICATION

CHAPTER 2. AIRWORTHINESS CERTIFICATION OF AIRCRAFT & ARTICLES

Section 6. Issue a Special Airworthiness Certificate for Light-Sport Aircraft (LSA)

6.2.6.1. GACA ACTIVITY REPORT (GAR).

A. TBD (AW)

6.2.6.3. OBJECTIVE. This section provides guidance to General Authority of Civil Aviation (GACA) aviation safety inspectors (Inspectors) (Airworthiness) for issuance of a special airworthiness certificate for light-sport aircraft (LSA) in either the light-sport category (SLSA) or the experimental category (ELSA).

6.2.6.5. GENERAL. In this section, the Special Light-Sport Aircraft (SLSA) is an aircraft issued a special airworthiness certificate in the light-sport category under § 21.170. The Experimental Operating Light-Sport Aircraft (ELSA) is an LSA issued an experimental certificate under GACAR § 21.173(h). In this section, when references are made to "kit aircraft" the reference means an aircraft that has been partially or completely fabricated, but not completely assembled by a manufacturer that builds aircraft to an industry consensus standard. The ELSA are issued to kit aircraft that are based upon an aircraft make and model that has been issued an SLSA in the light-sport category.

6.2.6.7. ISSUANCE OF A SPECIAL AIRWORTHINESS CERTIFICATE IN THE LIGHT-SPORT CATEGORY (SLSA).

6.2.6.7.1 Procedures for Issuing an SLSA.

A. General. A special airworthiness certificate in the light-sport category is issued to an aircraft that meets the definition of LSA, is manufactured to the applicable consensus standards, and is one of the following five classes of the LSA category: airplanes, gliders, powered parachutes, weight-shift-control aircraft (commonly called trikes), and lighter-than-air aircraft (balloons and airships). When the aircraft meets all the eligibility requirements of the LSA definition in GACAR §§ 1.1 and 21.170, it may be issued a special airworthiness certificate in the LSA category. Excluded from obtaining a special airworthiness certificate in the LSA category are gyroplane aircraft and light-sport kit aircraft, which may receive an special airworthiness certificate in the experimental category.

B. Definition. As defined in GACAR § 1.1, an LSA is an aircraft other than a helicopter or powered-lift that since its original certification has continued to meet the following:

(1) A maximum takeoff weight of not more than 1,320 pounds (600 kilograms) for aircraft not intended for operation on water; or 1,430 pounds (650 kilograms) for aircraft intended for operation on water.

(2) A maximum airspeed in level flight with maximum continuous power (VH) of not more than 120 knots calibrated airspeed under standard atmospheric conditions at sea level.

(3) A maximum never-exceed speed (VNE) of not more than 120 knots calibrated airspeed for a glider.

(4) A maximum stalling speed or minimum steady flight speed without the use of lift-enhancing devices (VS1) of not more than 45 knots calibrated airspeed at the aircraft’s maximum certificated takeoff weight and most critical CG.

(5) A maximum seating capacity of no more than two persons, including the pilot.

(6) A single, reciprocating engine, if powered.

(7) A fixed or ground-adjustable propeller, if a powered aircraft other than a powered glider.

(8) A fixed or feathering propeller system, if a powered glider.

(9) A fixed-pitch, semi-rigid, teetering, two-blade rotor system, if a gyroplane.

(10) A nonpressurized cabin, if equipped with a cabin.

(11) Fixed landing gear, except for an aircraft intended for operation on water or a glider.

(12) Fixed or retractable landing gear, or a hull, for an aircraft intended for operation on water.

(13) Fixed or retractable landing gear for a glider.

NOTE: Although gyroplane aircraft (commonly known as gyrocopters) are identified in the LSA definition of GACAR § 1.1, gyroplane aircraft, even when meeting the LSA definition, may only be issued an experimental certificate for the purpose of R&D, in accordance with GACAR § 21.173(h)(1). Gyroplanes may be eligible in other categories and for purposes other than LSA.

C. Eligibility. LSA are eligible for a special airworthiness certificate in the LSA category in accordance with GACAR § 21.170 when the aircraft has not been previously issued a standard, primary, or restricted airworthiness certificate, or an equivalent airworthiness certificate issued by a CAA outside the KSA, and the applicant provides a copy of the aircraft manufacturer's—

(1) Written operating instructions for the aircraft in the English language.

(2) Written maintenance and inspection procedures for the entire aircraft in the English language.

(3) Flight training supplement in the English language.

(4) Statement of Compliance (SOC) as described in GACAR § 21.170(c). The SOC is made using GACA Form 8130-15. The SOC must contain:

(a) The identity of the aircraft by make (the manufacturer's name) and model, serial number, class, date of manufacture, and consensus standard used;

(b) A statement that the aircraft meets the provisions of the identified GACA/FAA-accepted consensus standard;

(c) A statement that the aircraft conforms to the manufacturer's design data, using the manufacturer's quality assurance system that meets the identified GACA/FAA-accepted consensus standard;

(d) A statement that the manufacturer will make available to any interested person the following documents that meet the identified GACA/FAA-accepted consensus standard:

(i) The aircraft operating instructions (AOI), commonly known as the pilot's operating handbook (POH);

(ii) The aircraft's maintenance and inspection procedures for the entire aircraft; and

(iii) The aircraft's flight training supplement.

(e) A statement that the manufacturer will monitor and correct safety-of-flight issues through the issuance of safety directives and a continued airworthiness system that meets the identified GACA/FAA-accepted consensus standard;

(f) A statement that at the request of the GACA/FAA, the manufacturer will provide unrestricted access to its facilities; and

(g) A statement that the manufacturer, in accordance with a production acceptance test procedure that meets the applicable GACA/FAA-accepted consensus standards, has—

(i) Ground and flight-tested the aircraft;

(ii) Found the aircraft performance acceptable; and

(iii) Determined the aircraft is in a condition for safe operation.

D. Eligible Light-Sport Aircraft Manufactured Outside the United States. For an aircraft that has been manufactured outside the United States to be eligible for a special airworthiness certificate in the LSA category, an applicant must provide evidence to the GACA that the aircraft meets the definition of LSA according to GACAR § 1.1 and the requirements of GACAR § 21.170(b). In addition, in accordance with GACAR § 21.170(d), an applicant must provide proof of the following:

(1) The aircraft was manufactured in a country with which the United States has a bilateral agreement concerning airplanes. To verify bilateral agreements, see the listing of current bilateral agreements located on the FAA website.

(2) The aircraft manufactured outside the United States is eligible for an airworthiness certificate, flight authorization, or other similar certification in its State of manufacture. Verification of this eligibility is through a statement from the manufacturer in the aircraft documentation that had the aircraft remained in the country of export, the aircraft would have been eligible for an airworthiness certificate, flight authorization, or other similar certification.

(3) When an aircraft manufactured outside the United States meets the definition of LSA in accordance with GACAR § 1.1 and is not eligible per GACAR § 21.190(b), the aircraft may be eligible for an experimental LSA certificate in accordance with GACAR §§ 21.173(h) and 21.175(e). Guidance on ELSA certification is given in paragraph 6.2.6.9.

E. Light-Sport Aircraft Construction and Manufacturer Requirements. The manufacturer of an aircraft for airworthiness certification in the light-sport category must manufacture the aircraft to the design requirements and quality system of the applicable GACA/FAA-accepted consensus standards. The acceptance of consensus standards will be published in GACA Advisory Circular AC 021-05. To meet the intent of GACAR § 21.170 and to be eligible for a special airworthiness certificate in the special LSA category, the applicant must present satisfactory evidence that the aircraft was manufactured and found acceptable to the provisions of the applicable consensus standard. Evidence of acceptability is provided by the LSA manufacturer's Statement of Compliance, attesting to compliance with the requirements of GACAR § 21.170. A list of accepted consensus standards can be found in GACA Advisory Circular AC 021-05. When an inspection of either the documentation or aircraft demonstrates that the statement of compliance is incorrect, the aircraft is ineligible for certification. The following are clarifications of GACA/FAA-accepted consensus standards and requirements for construction of LSA as it relates to certification in this category:

(1) The manufacturer of LSA must use those articles, components, and equipment that are in accordance with the applicable GACA/FAA-accepted consensus standard design requirements. The use of used, overhauled, or reconditioned articles and assemblies will be provided for in the LSA manufacturer's maintenance and inspection procedures in accordance with the GACA/FAA-accepted consensus standards.

(2) The manufacturer is not required to be an approved manufacturer for LSA, and LSA do not receive a type certificate. For an aircraft to be eligible within the light-sport category, the aircraft manufactured cannot be type certificated, but may have type-certificated components, equipment, and products incorporated in the LSA. Light-sport category aircraft are constructed to regulatory requirements and applicable GACA/FAA-accepted consensus standards. Aircraft that are constructed in whole

or of component parts that do not meet and/or are not within the FAA-accepted consensus standards are not eligible for certification in special light-sport category.

(3) In accordance with GACAR § 21.170(b) and (c), the manufacturer must provide the aircraft's maintenance and inspection procedures that meet the applicable GACA/FAA-accepted consensus standards for LSA to be eligible for certification.

(4) In accordance with GACAR § 21.170(c), the manufacturer must perform an acceptance test of the aircraft with the requirements necessary to prove the aircraft's reliability and functionality. The manufacturer verifies the aircraft's proper function on the ground and in flight according to the applicable GACA/FAA-accepted consensus standard. The manufacturer must document the acceptance test results in accordance with their quality system and determine whether the aircraft is in a condition for safe operation.

(5) A manufacturer that issues the SOC is responsible for the quality of the LSA end product. The manufacturer's quality assurance responsibility includes material supplied and assembly work performed by other persons, including dealers, and distributors when acting on behalf of a manufacturer. Parties who perform pre-certification work must be authorized by the manufacturer and addressed in the manufacturer's quality system text denoting specifics of name(s) and title(s) who are authorized to perform, and identifying the specific conditions and process controls. A precertification LSA for which the manufacturer has not maintained oversight through to issuance of the special airworthiness certificate is not eligible for special light-sport category certification. However, the aircraft may be eligible for an experimental light-sport certificate in accordance with GACAR §§ 21.173(i) and 21.175(e). Guidance on experimental LSA certification is given in paragraph 6.2.6.9.

(6) Before any flight testing in the KSA, the aircraft must be registered in accordance with GACAR Part 47 and be issued an appropriate flight permit.

(7) An LSA manufactured in a country outside the United States must be from a country with which the United States has a bilateral agreement allowing airplanes, and must have been eligible for an airworthiness certification or similar flight authorization had it remained in that country.

F. Advising Applicants.

(1) GACA inspection of an aircraft will be limited to a general airworthiness inspection when the aircraft is submitted for airworthiness certification. The GACA will not perform any of the fabrication, construction, assembly, testing, manufacturer's quality inspections, and closing work on or to the aircraft.

(2) When the prospective applicant contacts the appropriate GACA office to inquire about the certification process for a LSA category, the GACA Inspector should provide the applicant with the applicable forms and any guidance necessary to ensure a thorough understanding of applicable regulations.

NOTE: When applicable, advise the applicant of the ability to use the GACA website to obtain requested forms and information.

(3) The applicant, when applying for a special airworthiness certificate, should be advised on how and where to submit the appropriate application(s) and documentation to the GACA.

(4) At the time of airworthiness certification—

(a) The aircraft must be complete in every respect, and

(b) The applicant must submit all required documentation and correct any deficient items noted during inspection. If the applicant cannot or will not provide the necessary documentation and cannot or will not have corrected noted

deficiencies, the applicant should be advised that the aircraft cannot be certificated as an LSA until satisfactory evidence is provided to substantiate that the aircraft complies with GACAR § 21.170, and all applicable regulatory requirements.

(5) Advise the applicant to provide the LSA manufacturer's documented accurate weight of the aircraft in accordance with established mass and balance or weight and loading procedures to determine the aircraft's empty, gross, and most forward and aft CG location, including the mass and balance or weight and loading calculations from the initial flight. The completed weight and balance report, including load limits for flight personnel, oil, fuel, and any cargo-carrying capabilities, must be available in the aircraft, along with the other applicable placards, listings, and markings required by GACAR § 91.13.

(6) Advise the applicant that although this LSA is designed and constructed to GACA/FAA-accepted consensus standards, it also must be certificated and operated to the applicable regulations contained in the GACAR.

(7) Advise the applicant that if the manufacturer's continued airworthiness operations/continued airworthiness system is not maintained or no longer exists, this causes a condition of special LSA category certification ineligibility and a reduction in continued operational safety that may cause this special airworthiness certificate to no longer be in effect. This aircraft may be eligible in another category or purpose and conditions of operation.

(8) Advise the applicant that should a special airworthiness certificate in the light-sport category be granted for this aircraft and the applicant later elects to obtain an experimental certificate under GACAR § 21.173(i)(2), the LSA may not be eligible for return to special light-sport category certification.

(9) Advise the applicant that if the LSA is manufactured in a country outside the United States it must be from a country with which the United States has a bilateral agreement allowing airplanes, and must have been eligible for an airworthiness certification or similar flight authorization had it remained in that country.

6.2.6.7.3. Certification Procedures. The procedures in this section provide guidance material associated with airworthiness certification and the issuance of a special airworthiness certificate for the light-sport category.

A. General. The airworthiness certification process consists of a general airworthiness inspection to determine the aircraft is in a condition of safe operation, in accordance with GACAR § 21.170(b)(3), and a verification that the applicant's documentation supplied with the aircraft agrees with the identification, description, and applicable regulations. The inspection is accomplished only after the aircraft is completed and before the issuance of the airworthiness certificate. The GACA will not perform any of the fabrication, construction, assembly, testing, manufacturer's quality inspections, or closing work on or to the aircraft.

(1) During the airworthiness inspection process, omissions, errors and other discrepancies may be found. It is the responsibility of the Inspector to inform the applicant of those discrepant items. When the applicant is not the LSA manufacturer, the corrections of discrepancies to the aircraft and the aircraft's documentation must be authorized by the manufacturer. Only when the required corrections have been made can an airworthiness certificate be issued. When any of the regulatory requirements for an LSA cannot be substantiated by an applicant, then the LSA is not eligible for airworthiness certification under GACAR § 21.170.

(2) Reserved.

B. Inspection and Document Review. The Inspector must—

(1) Obtain from the applicant a properly executed SOC and any other documents required for the certification.

(2) Obtain for inspection the AOI/POH, maintenance and inspection procedures, and flight training supplement, and the LSA manufacturer's SOC. Also, obtain for inspection supporting documentation; the production ground and flight test report acceptance record, the final inspection acceptance record(s), aircraft registration information, and aircraft logbook(s).

NOTE: The aircraft documentation will be used in conjunction with the performance of the physical examination of the aircraft. Return the documentation to the applicant upon completion of inspection or certificate issuance.

(a) Inspect the AOI/POH, and the flight training supplement contents that may be incorporated into the AOI, ensuring these are physically present with and for each aircraft. These are regulatory required items for certification eligibility (GACAR § 21.170(b)(1)).

(i) Check that the AOI/POH and flight training supplement are for the aircraft being inspected. Verify the information contained in these documents is the corresponding and appropriate information for that aircraft as identified by the registration information and inspection of the aircraft.

(ii) Verify that the aircraft's installed equipment is in accordance with the AOI. Verify that the flight test report reflects the testing of the AOI-installed equipment. Verify that the aircraft configuration matches the flight test report. Inspection of flight test records is located in subparagraph (d) below.

(iii) When inspecting an airplane, check that the AOI/POH data matches the regulatory requirements of GACAR § 1.1 Light-sport aircraft (2), (3), and (4). Ensure that the airspeed indicator markings match the requirements of the AOI/POH-calculated limitations.

(iv) Check for inclusion of mass and balance or weight and loading data for this aircraft as equipped. This is part of the (as designed and manufactured) permanent record for the aircraft, and is a basis for the associated operating and performance data located in this documentation.

(v) Verify that there is a reporting system for maintenance, service, and safety documented in the AOI, the maintenance and inspection procedures (manual), or both in accordance with GACAR § 21.170(c)(5). The report may be in hard copy form, electronic media, or both. In either form of media, there must be instructions on how to provide the report to the manufacturer and retain a copy of the report in the aircraft records. If the only means given is to use electronic media, the Inspector must verify the electronic media and instructions are operational.

(b) Ensure each aircraft has its appropriate maintenance and inspection procedures in accordance with GACAR § 21.170(b)(1). The following procedures may be in the form of a manual(s).

(i) Verify the aircraft has the correct model maintenance manual.

(ii) Verify the engine/powerplant maintenance and (optional) overhaul text is included in the maintenance manual. If the engine/powerplant maintenance and (optional) overhaul text is deferred to another manual (such as the engine original equipment manufacturer's manual, for example, ROTAX), then within the light-sport manufacturer's aircraft maintenance manual the text must identify to the reader that specific manual's identification with revision and date. Ensure all manuals and procedures are marked with the specific aircraft's unique serial number. It is the same for all other parts, articles, or appliances, type certificated equipment or not, when the manufacturer's maintenance and inspection procedures (manual's) information is deferred to an external manual or procedure. The external manuals or procedures must be physically present with and for each aircraft.

(iii) Verify the maintenance and inspection procedures identify critical components that require a replacement time, inspection interval, or related procedure. Those critical components identified in the maintenance and inspection procedures will be used to verify these components are permanently and legibly marked with a serial number (or equivalent) unique to that part (GACAR § 45.51(c)) when inspecting the aircraft.

(iv) Verify the maintenance and inspection procedures state who can perform each task. The LSA manufacturer is responsible for assigning the level of training and certification required.

(v) When the maintenance and inspection procedures are used for pre-certification tasks, verify that the person performing those tasks is authorized to do so. The authorization must be in writing by the manufacturer and included in the quality assurance manual. When the maintenance and inspection procedures defer to an external manual or procedure, the person must be authorized to perform those tasks as stated above.

(vi) Verify the data contained in the documentation (such as the maintenance manuals, AOI, placards, and other manuals incorporated by reference) is consistent. An example of consistency is the AOI, maintenance manual, and the aircraft's fuel tank placard all identify the same fuel requirements (with conversion noted).

(vii) Verify all applicable manufacturer's safety directives are entered into the aircraft's records. Verify the person making the entry into the logbook has the appropriate level of authorization to perform the task in accordance with the safety directive.

(viii) Check the aircraft's records for compliance to all applicable ADs. This requirement applies to LSA with type certificated products or equipment incorporated into the design and/or as equipped. If an AD is issued against a type-certificated product installed in a light-sport category aircraft, the manufacturer of the aircraft is required in accordance with the GACA/FAA-accepted consensus standard to issue a safety directive providing instructions on how to address the safety of flight issue on the specific aircraft. Compliance also applies to LSA make and model-specific ADs.

(c) Review the aircraft manufacturer's Light-Sport Aircraft Statement of Compliance, for accuracy and completeness in accordance with GACAR § 21.170(b)(1)). Place a photocopy of the completed and inspected SOC in the aircraft file. Return the original to the applicant for retention in the aircraft's records. Any changes or additions to the information on the SOC must be made by the person authorized by the manufacturer in their quality assurance system.

(i) Examine the contents of the SOC contained in section I, Aircraft Identification. Verify that the information is correct and appropriate for the aircraft identified by the registration information, the required documentation, and the physical inspection of the aircraft and the aircraft's data plate.

(ii) Verify the applicant is using the correct form. Check the lower left-hand corner of the SOC for the correct number and revision.

(iii) If the manufacturer's address is outside the United States (block 2) as identified in GACAR § 21.170(d), verify the aircraft was manufactured in a country with which the United States has a bilateral agreement concerning airplanes. To check for bilateral agreements, see the listing of current bilateral agreements located on the FAA website. The country of manufacture and data must match the SOC. If the country of manufacture does not match or does not have a bilateral agreement, then the aircraft cannot be certificated in LSA.

(iv) Examine the contents of the SOC contained in section II, Applicable Users Manuals, and section III, Manufacturer's Process Documents. Verify the consensus standards and user manual information (standard number, revision number, and title) is correct and for the proper aircraft.

(v) Manufacturers must use the current consensus standard. However, manufacturers may use the previously accepted consensus standard until the any prescribed "may not be used" date. Compare the date of manufacture located in section I, block 4, of the SOC with the consensus standards listed in sections II and III.

(vi) Examine the contents of the SOC contained in section IV, Manufacturer's Certification. This section of the form (affidavit) contains certifying statements and the name(s) with title(s), and signature(s) of those who attest to the construction, testing, quality assurance system, design, condition for safe operation, and GACA/FAA access to the

manufacturer's facility. Verify the serial number entered in block 3 and in the certification statement are the same and the serial number of the aircraft's data plate and the aircraft's registration match. Check to ensure at a minimum, that the certification statements are worded correctly and fully contained in this portion of the SOC.

(vii) Examine the contents of the SOC section IV. Verify the name, signature, title, and date areas are filled in (minimum of one name is required). The person signing the form must be designated in the manufacturer's quality assurance system. Verify the authorization process documentation in the manufacturer's quality assurance system is to the same revision level as noted in section III. If this process documentation does not specifically identify the person authorized to sign the SOC, the form cannot be accepted for certification. The SOC cannot be accepted if it is signed by a person not authorized in the manufacturer's quality assurance system.

(d) Review the aircraft records to determine whether the required production flight test(s) and inspections have been accomplished in accordance with the eligibility requirements of GACAR § 21.170(c)(7). Photocopy(s) of the completed flight test acceptance records and aircraft configuration will be placed in the aircraft file, and the original is retained by the applicant.

(i) Check the manufacturer's flight testing acceptance record documentation. Verify that the record and data are in the English language and use standard accepted aeronautical abbreviations. Verify that the report indicates flight testing acceptance, the person responsible, the qualification and title of the production flight test pilot, and the location where the production flight testing was performed. Verify that the data contents of the as-tested acceptance record are within the requirements of the AOI operating limitation ranges and parameters.

(ii) When LSA manufacturers delegate flight testing, check for the written authorization. Check that the flight test process is documented within the manufacturer's quality assurance system along with the approved flight test procedure. Verify the revision level as called out in section III of the SOC matches the manufacturer's quality assurance system revision level. When this documentation cannot be shown or is not in compliance to the authorized processes, the production flight test acceptance report cannot be accepted to validate the SOC for certification of the LSA.

NOTE: All special LSA pre-certification flight operations must be conducted with the appropriate special flight permit and appropriate operating limitations. Any and all testing, inspections, or qualifications affecting the eligibility and determination of the airworthiness of the aircraft must be accomplished prior to issuing the special light-sport category airworthiness certificate.

(e) Review final inspection/acceptance record(s). All production ground- and flight-tested aircraft that have subsequent work performed (such as installations, assembly, or reassembly operations) must have a final inspection record showing acceptance.

(i) Check the final inspection and acceptance record for the person's name(s), signature, and title. When applicable, check the certificate number and type of certificate held by the person performing the work and inspections.

(ii) Check that the work performed on the aircraft is covered within the manufacturer's quality system documentation. This could be in the form of an authorization or instruction. When any of the requirements for an LSA cannot be substantiated by an applicant, then the LSA is not eligible for airworthiness certification in light-sport. When a flight test is required, check the final inspection acceptance record and logbook for entries.

(iii) If any work has been done after flight test, the weight and balance or load and balance data sheet must be recalculated/completed.

(3) Review the documentation provided by the applicant to determine that the registration requirements of GACAR Part 47 have been met, and ensure the aircraft registration marks match the registration documentation.

(4) Reserved.

(5) Compare the aircraft's mass and balance or weight and loading data to the data listed in the AOI for accuracy. If a discrepancy is found, the aircraft must be reweighed. The weight scales used must meet the aircraft manufacturer's quality assurance system for calibration and be within the limits of the calibration interval. The aircraft presented must match the AOI, the aircraft equipment listing, and the regulations or it will not be certificated.

C. General Aircraft Inspection. The Inspector must arrange with the applicant to make the aircraft available for inspection to—

(1) Verify the ID plate meets the requirements of GACAR § 45.25, as applicable.

(2) Verify the information on the ID plate is correct, matches the information on the airworthiness certificate application form, and is in accordance with GACAR § 45.27, as applicable. Identification data required by GACAR § 45.27(a)(1), (2), and (3) are mandatory. GACAR § 45.27(a)(4) and (5) cannot be assigned to LSA, and are therefore not applicable. If there are spaces provided with headings for (4) and (5), those spaces will be marked with "NONE." When only spaces are provided only for (4) and/or (5), no marking is required. Identification data (6) is optional for the manufacturer/builder. Any other optional data that the manufacturer/builder includes on the data plate must be in such a manner as not to confuse the mandatory data contents.

(3) Verify the aircraft nationality and registration marks are in accordance GACAR Part 45 and, as applicable, with GACAR §§ 45.41, 45.45, 45.47, and 45.51.

(a) Check both exterior sides of the aircraft to ensure that the nationality registration marking is the same on both sides and matches that of the registration documentation, and that both nationality registration numbers are displayed at a 12-inch minimum for airplanes and a 3-inch minimum for powered parachute, weight-shift-control, and gliders, in accordance with GACAR § 45.51.

(b) Check both exterior sides of the aircraft to ensure that marking is the same on both sides when marked for multiple entry points, and that the aircraft has the word "LIGHT-SPORT" (hyphen optional) displayed in 2-inch minimum and 6-inch maximum letters.

(c) Inspect the aircraft to identify critical components for which a replacement time, inspection interval, or related procedure is specified in the maintenance and inspection procedures. Verify the aircraft's parts, articles, and components are permanently and legibly marked with the identified part numbers (or equivalent) and serial numbers (or equivalent) for compliance with GACAR § 45.29.

(4) Verify the flight control systems and associated instruments operate properly.

(5) Verify the instruments are appropriately marked and required placards are installed with placement for easy reference. When checking airplanes give particular attention to the airspeed indicator. Verify that the AOI/POH data matches the regulatory requirements of GACAR § 1.1 Light-sport aircraft (2), (3) and (4), and that the markings within the airspeed indicator match the AOI/POH-calculated data for indicated airspeed limitations (such as VNE, red line; caution range, yellow arc; normal operating range, green arc; when equipped, flap operating range, white arc with lower limit of VSO at maximum weight).

(6) Verify the system controls when equipped (for example, fuel selector(s) and electrical switches/breakers) are appropriately placed, clearly marked, provide easy access and operation, and function in accordance with the manufacturer's specifications and applicable consensus standard.

(7) Verify an ELT is installed on airplanes, in accordance with GACAR § 91.303 and Appendix C, Section V of GACAR Part

91, before issuance of special LSA airworthiness certification.

(8) Verify airframe emergency parachutes that are ballistic, assisted, or deployable are properly marked, identified, and within their service dates. The aircraft must have provisions that provide for clear marking and identification of all explosive devices used in conjunction with ballistic parachutes. Markings indicating the aircraft is equipped with explosive devices must be applied externally and able to be read while standing on the ground. A special airworthiness certificate in light-sport category will not be issued before meeting this requirement.

D. Certificate Issuance. Upon satisfactory completion of the records inspection, document review, and aircraft inspection, the GACA will issue the special airworthiness certificate and the operating limitations for that aircraft. The operating limitations will be attached to the special airworthiness certificate. The Inspector must review the operating limitations with the applicant to ensure a clear understanding of the limitations. Operating limitations under GACAR § 21.170 may be prescribed as follows:

(1) The manufacturer of the LSA is required to certify within the SOC that the aircraft was ground and flight tested successfully, and is in condition for safe operation. The manufacturer must endorse the aircraft logbook with a statement certifying the applicable flight testing has been completed, therefore, the GACA will not issue operating limitations to further demonstrate flight testing.

(2) The GACA will prescribe operating limitations for the operation of an LSA for an unlimited duration, as appropriate.

(3) The GACA may prescribe any additional limitations deemed necessary in the interest of safety.

(4) If the aircraft meets the requirements for the requested certification, the GACA must—

(a) Make an aircraft logbook entry.

(b) Issue the special airworthiness certificate, with appropriate operating limitations.

(c) Reserved.

(d) Examine, review, and route the certification file in accordance with the instructions contained in chapter 8 of this order.

(e) A photocopy of the completed and inspected SOC and the production flight test acceptance records will be placed in the aircraft file.

(5) If the aircraft does not meet the requirements for the certification requested and the airworthiness certificate is denied, the Inspector must—

(a) Write a letter to the applicant stating the reason(s) for denying the airworthiness certificate.

(b) Attach a copy of the denial letter and when applicable, copies of the substantiating documentation to made part of the aircraft record.

E. Change of Special Airworthiness Certificates from an Experimental Category to Special LSA Category. An LSA that has been previously issued an experimental airworthiness certificate may be eligible for certification in the light-sport category under the following conditions:

(1) Reserved.

(2) If the LSA was converted from a special light-sport category airworthiness certificate to an experimental LSA certificate

(GACAR § 21.173(i)(2)), the applicant seeking to return to the light-sport category must provide the following:

(a) All original documentation required in accordance with GACAR § 21.170.

(b) The manufacturer's SOC for the aircraft that was used for the original issuance of the light-sport category airworthiness certificate.

(c) Proof of compliance with applicable safety directives, repairs, and safety modifications published by the manufacturer and documented in the aircraft's records in accordance with GACAR Part 43.

(d) A finding and statement that the aircraft was not altered and/or modified without manufacturer approval. When the manufacturer's approval is given, it will be in written form and be serial number(s)-specific. The manufacturer's approval must also specify the current applicable revision of GACA/FAA-accepted consensus standards in effect at the time the approval was given for the alteration and/or modification. All manufacturer's alteration and/or modification approvals will be made a part of the aircraft's permanent record and documented in the aircraft's records in accordance with GACAR Part 43. If this is not done, the aircraft is not eligible for return to the special light-sport category.

NOTE: An aircraft is not eligible for certification in LSA if there are any modifications, additions, or changes, approved by the manufacturer or not, that conflict with the definition of an LSA in GACAR § 1.1, the eligibility requirements of GACAR Part 21, or the operating requirements of GACAR Part 91. If the aircraft is found ineligible, issue a denial letter.

(e) Evidence that the required maintenance and inspections were accomplished and documented in the aircraft's records in accordance with GACAR Part 43, and, if not accomplished and documented, then the aircraft is not eligible for return to the special light-sport category configuration.

(f) Proof the aircraft was inspected and is in a condition for safe operation.

F. Transfer of Light-Sport Category Airworthiness Certificates. An airworthiness certificate is transferred with the aircraft (per GACAR § 21.159); for example, if there is a change of ownership or transfer of registration. There is no GACA inspection required after transfer of an aircraft with its airworthiness certificate unless it is determined that revised operating limitations are necessary. In this case, a new special airworthiness certificate must be issued to reflect the new date of the revised operating limitations. Aircraft records also must be transferred with change of ownership (per GACAR § 91.459).

6.2.6.7.5. Special Flight Permit for Flight Testing LSA Category Operating Limitations.

A. General. Operating limitations must be designed to fit the specific situation encountered. The GACA may impose any additional limitations deemed necessary in the interest of safety. The GACA must review each imposed operating limitation with the applicant to ensure the applicant understands the operating limitation.

B. Operating Limitations. The following operating limitations must be prescribed for flight testing LSA:

(1) No person may operate this aircraft for other than the purpose of meeting the requirements of GACAR § 21.170(c)(7) or GACAR § 21.179 during flight. In addition, this aircraft must be operated in accordance with applicable air traffic and general operating rules of GACAR Part 91 and all additional limitations herein prescribed. These operating limitations are a part of a special flight permit and are to be carried in the aircraft at all times and be available to the pilot in command of the aircraft.

(2) All flights must be conducted within the geographical area described as follows. The area must be described by radius, coordinates, and/or landmarks. The designated area must be over open water or sparsely populated areas having light air traffic. The size of the area must be that required to safely conduct the anticipated maneuvers and tests.

(3) All flight tests must be conducted and recorded in accordance with an acceptance test procedure that meets the applicable GACA/FAA-accepted consensus standard.

(4) This aircraft is to be operated under VFR, day only.

(5) The test pilot in command of this aircraft must hold at least a private pilot certificate, have the appropriate category and class ratings to act as pilot in command, and have a minimum of 100 hours as pilot in command in that category and class.

(6) The production test pilot is to be the sole occupant.

6.2.6.7.7. Issuance of LSA Category Aircraft Operating Limitations.

A. General. Operating limitations must be designed to fit the specific situation encountered. The GACA may impose any additional limitations deemed necessary in the interest of safety. The GACA must review each imposed operating limitation with the applicant to ensure the applicant understands the operating limitations.

B. Operating Limitations. The following operating limitations, as applicable, will be issued as shown below; any deviation must be coordinated in accordance with this order:

(1) No person may operate this aircraft for any other purpose than that for which the aircraft was certificated. This aircraft must be operated in accordance with applicable air traffic and general operating rules of GACAR Part 91 and all additional limitations prescribed herein. These operating limitations are a part of special airworthiness certificate and are to be carried in the aircraft at all times and to be available to the pilot in command of the aircraft.

(2) The pilot in command of this aircraft must advise the passenger of the special nature of this aircraft and that the aircraft does not meet the certification requirements of a standard certificated aircraft.

(3) This aircraft must display the word “LIGHT-SPORT” (hyphen optional) near the entrance to the cabin, cockpit, or pilot station in 2-inch minimum or a maximum of 6-inch block letters in accordance with GACAR § 45.45(d).

(4) This aircraft must contain the placards and markings as required by GACAR § 91.13. In addition, the placards and markings must be inspected for legibility and clarity, and the associated systems inspected for easy access and operation, to ensure they function in accordance with the manufacturer’s specifications and the GACA/FAA-accepted consensus standards during each condition inspection.

(5) This aircraft is to be operated under VFR, day only, unless appropriately equipped for night and/or instrument flight in accordance with GACAR § 91.303, and when allowed by the manufacturer’s operating instructions.

(6) Noncompliance with these operating limitations will render the airworthiness certificate invalid. Any change, alteration, or repair not in accordance with the manufacturer’s written instructions and authorizations will render the airworthiness certificate invalid, and the owner of the aircraft must apply for a new airworthiness certificate under the provisions of GACAR § 21.173 with appropriate operating limitations before further flight.

(7) Application to amend these operating limitations must be made to the GACA.

(8) This aircraft 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. The owner/operator of this aircraft must obtain written permission from another CAA before operating this aircraft in or over that country. That written permission must be carried aboard the aircraft together with the special airworthiness certificate and, upon request, be made available to an ASI or the CAA in the country of operation.

(9) The pilot in command of this aircraft must hold at least the appropriate category and class privileges, rating, or endorsements required by GACAR Part 61.

(10) No person may operate this aircraft in the light-sport category for compensation or hire except to tow a light-sport glider or an unpowered ultralight vehicle in accordance with GACAR § 91.425(a) or to conduct flight training.

(11) This aircraft may only be operated in accordance with the manufacturer's AOI, including any provisions for necessary operating equipment specified in the aircraft's equipment list.

(12) No person may operate this aircraft in the light-sport category for compensation or hire unless within the preceding 100 hours of time in service the aircraft has—

(a) Been inspected by a certificated LSA repairman with a maintenance rating, or an appropriately rated mechanic, or an appropriately rated repair station in accordance with inspection procedures developed by the aircraft manufacturer or a person acceptable to the GACA, and has been returned to service in accordance with the applicable provisions of GACAR Part 43;

(b) Received an annual condition inspection in accordance with number (14) of these operating limitations; or

(c) Received an inspection for the issuance of a special airworthiness certificate in accordance with GACAR Part 21.

(13) Aircraft instruments and equipment installed and used under GACAR § 91.303 must be inspected and maintained in accordance with the requirements of GACAR Part 91. Any maintenance or inspection of this equipment must be recorded in the aircraft maintenance records.

(14) No person will operate this aircraft unless within the preceding 12 calendar months it has had a condition inspection performed in accordance with the manufacturer's maintenance and inspection procedures, and was found to be in a condition for safe operation. As part of the condition inspection, cockpit instruments must be appropriately marked and needed placards installed in accordance with GACAR § 91.13. This inspection will be recorded in the aircraft maintenance records.

(15) Condition inspections must be recorded in the aircraft maintenance records showing the following, or a similarly worded, statement: "I certify that this aircraft has been inspected on [insert date] in accordance with the manufacturer's maintenance and inspection procedures, and was found to be in a condition for safe operation." The entry will include the aircraft's total time-in-service, and the name, signature, certificate number, and type of certificate held by the person performing the inspection.

(16) No person may operate this aircraft in the light-sport category unless it is continuously maintained in compliance with GACAR § 91.429(b).

6.2.6.9. ISSUANCE OF A SPECIAL AIRWORTHINESS CERTIFICATE IN THE EXPERIMENTAL CATEGORY (ELSA).

To be developed at a later date.

6.2.6.11. PREREQUISITES AND COORDINATION REQUIREMENTS.

A. Prerequisites:

- Knowledge of Parts 1, 21, 45, and 91

B. Coordination. None.

6.2.6.13. REFERENCES, FORMS, AND JOB AIDS.

A. References:

- GACAR Parts 1, 21, 45, and 91
- GACA Advisory Circular AC 021-05, Light-Sport Aircraft
- FAA Advisory Circular AC 65-32A, Certification of Repairmen (Light-Sport Aircraft)
- FAA Advisory Circular AC 45-4, Identification, marking, and placarding of aircraft issued special airworthiness certificates in the light-sport category (SLSA) and aircraft issued experimental certificates for the purpose of operating light-sport aircraft (ELSA)

B. Forms:

- Application for Airworthiness Certificate.
- LSA Statement of Compliance (SOC)

C. Job Aids.

LSA Airworthiness Certification Checklist

6.2.6.15. TASK OUTCOMES.

A. Complete the GAR Record.

B. Complete the Task. Successful completion of this task will lead to the issuance of a special airworthiness certificate (SLSA or ELSA).

C. Document the Task. File all supporting paperwork in the aircraft file.

6.2.6.17. FUTURE ACTIVITIES. None.

VOLUME 6. AIRCRAFT & EQUIPMENT - CERTIFICATION

CHAPTER 3. AIRCRAFT REGISTRATION

Section 1. Entering an Aircraft on the Saudi National Aircraft Register

NOTE: This guidance to be developed at a later date.

VOLUME 6. AIRCRAFT & EQUIPMENT - CERTIFICATION

CHAPTER 3. AIRCRAFT REGISTRATION

Section 2. Removing an Aircraft on the Saudi National Aircraft Register

NOTE: This guidance to be developed at a later date.

VOLUME 6. AIRCRAFT & EQUIPMENT - CERTIFICATION

CHAPTER 3. AIRCRAFT REGISTRATION

Section 3. Recording of Aircraft Titles and Security Documents under GACAR Part 49

NOTE: This guidance to be developed at a later date.

VOLUME 6. AIRCRAFT & EQUIPMENT - CERTIFICATION

CHAPTER 3. AIRCRAFT REGISTRATION

Section 4. Change in Ownership or Owner Particulars

NOTE: This guidance to be developed at a later date.

VOLUME 6. AIRCRAFT & EQUIPMENT - CERTIFICATION

CHAPTER 4. SAUDI ARABIAN PARTS MANUFACTURER APPROVALS (SAPMA)

Section 1. Issue a SAPMA

6.4.1.1. GACA ACTIVITY REPORT (GAR).

A. TBD (AW) (Issue SAPMA)

B. TBD (AW) (Revise SAPMA)

6.4.1.3. OBJECTIVE. This section provides guidance to General Authority of Civil Aviation (GACA) aviation safety inspectors (Inspectors) on the policies, objectives, procedures and general practices concerning the issuance of a Saudi Arabian Parts Manufacturer Approval (SAPMA) to organizations producing replacement or modification parts under the provisions of GACAR Part 21, Subpart G.

6.4.1.5. GENERAL.

A. Background. The Saudi Arabian Parts Manufacturer Approval (SAPMA) regulations in GACAR Part 21, Subpart G have been implemented to permit Saudi Arabian aerospace industries to produce replacement and modification parts for use on Saudi Arabian-registered aircraft. The SAPMA regulatory requirements are based entirely on similar requirements used in the United States of America (Ref. 14 CFR Part 21, Subpart K).

B. Interim Measures. Until such time as detailed SAPMA guidance has been published by the GACA, aviation safety inspectors (Inspectors) are to use the relevant guidance in FAA Advisory Circular 21.303-4 (as amended), Application For Parts Manufacturer Approval Via Tests And Computations Or Identicality, FAA Order 8110.42D (as amended), Parts Manufacturer Approval Procedures and FAA Order 8110.119 (as amended), Streamlined Process for Parts Manufacturer Approval as the relevant guidance for processing any application for a SAPMA. Inspectors must consult with the Director, Airworthiness Department prior to formally accepting any application for SAPMA. As necessary, the Director, Airworthiness Department will provide additional guidance necessary for the processing of each SAPMA application in order to ensure the applicant fully complies with the applicable GACAR requirements.

6.4.1.7. PREREQUISITES AND COORDINATION REQUIREMENTS.

A. Prerequisites. Familiarity with the SAPMA process.

B. Coordination. This task requires coordination among the applicant, airworthiness inspectors and the GACA Airworthiness Engineering Section. It may also require coordination with GACA authorized DERs and/or DARs..

6.4.1.9. REFERENCES, FORMS, AND JOB AIDS.

A. References:

- GACAR Part 21, Subpart G, Saudi Arabian Parts Manufacturer Approval (SAPMA)
- FAA Order 8110.119 (as amended), Streamlined Process for Parts Manufacturer Approval
- FAA Advisory Circular 21.303-4 (as amended), Application for Parts Manufacturer Approval Via Tests and Computations or Identicality

• FAA Order 8110.42D (as amended), Parts Manufacturer Approval Procedures

B. Forms.

• Application for Saudi Arabian Parts Manufacturer Approval

C. Job Aids. None.

6.4.1.11. TASK OUTCOMES.

A. Complete the GAR Record.

B. Complete the Task. Successful completion of this task will result in the issuance (or revision) or denial of a SAPMA.

C. Document the Task. File all supporting paperwork in the SAPMA holder's file.

6.4.1.13. FUTURE ACTIVITIES. Normal surveillance of the SAPMA holder.

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CHAPTER 5. SAUDI ARABIAN TECHNICAL STANDARD ORDER AUTHORIZATIONS (SATSOA)

Section 1. Issue a SATSOA

6.5.1.1. GACA ACTIVITY REPORT (GAR).

A. TBD (AW) (Issue SATSOA)

B. TBD (AW) (Revise SATSOA)

6.5.1.3. OBJECTIVE. This section provides guidance to General Authority of Civil Aviation (GACA) aviation safety inspectors (Inspectors) on the policies, objectives, procedures and general practices concerning the issuance of a Saudi Arabian Technical Standard Order Authorizations (SATSOA) to organizations producing articles under the provisions of GACAR Part 21, Subpart J.

6.5.1.5. GENERAL.

A. Background. The Saudi Arabian Technical Standard Order Authorization regulations in GACAR Part 21, Subpart J have been implemented to permit Saudi Arabian aerospace industries to produce articles that are approved for use on Saudi Arabian-registered aircraft. The SATSOA regulatory requirements are based entirely on similar requirements used in the United States of America (Ref. 14 CFR Part 21, Subpart O).

B. Interim Measures. Until such time as detailed SATSOA guidance has been published by the GACA, aviation safety inspectors (Inspectors) are to use the relevant guidance in FAA Advisory Circular 21-46 (as amended), Technical Standard Order Program, as the relevant guidance for processing any application for a SATSOA. Inspectors must consult with the Director, Airworthiness Department prior to formally accepting any application for SATSOA. As necessary, the Director, Airworthiness Department will provide additional guidance necessary for the processing of each SATSOA application in order to ensure the applicant fully complies with the applicable GACAR requirements.

6.5.1.7. PREREQUISITES AND COORDINATION REQUIREMENTS.

A. Prerequisites. Familiarity with the SATSOA process.

B. Coordination. This task requires coordination among the applicant, airworthiness inspectors and the GACA Airworthiness Engineering Section. It may also require coordination with GACA authorized DERs and/or DARs..

6.5.1.9. REFERENCES, FORMS, AND JOB AIDS.

A. References:

- GACAR Part 21, Subpart J, Saudi Arabian Technical Standard Order Authorizations (SATSOA)
- FAA Advisory Circular 20-110 (as amended), Index of Aviation Technical Standard Orders
- FAA Advisory Circular 21-46 (as amended), Technical Standard Order Program

B. Forms.

- Application for Saudi Arabian Technical Standard Order Authorization

C. Job Aids. Sample letter of SATSO (Fig. 6.5.1.1).

6.5.1.11. TASK OUTCOMES.

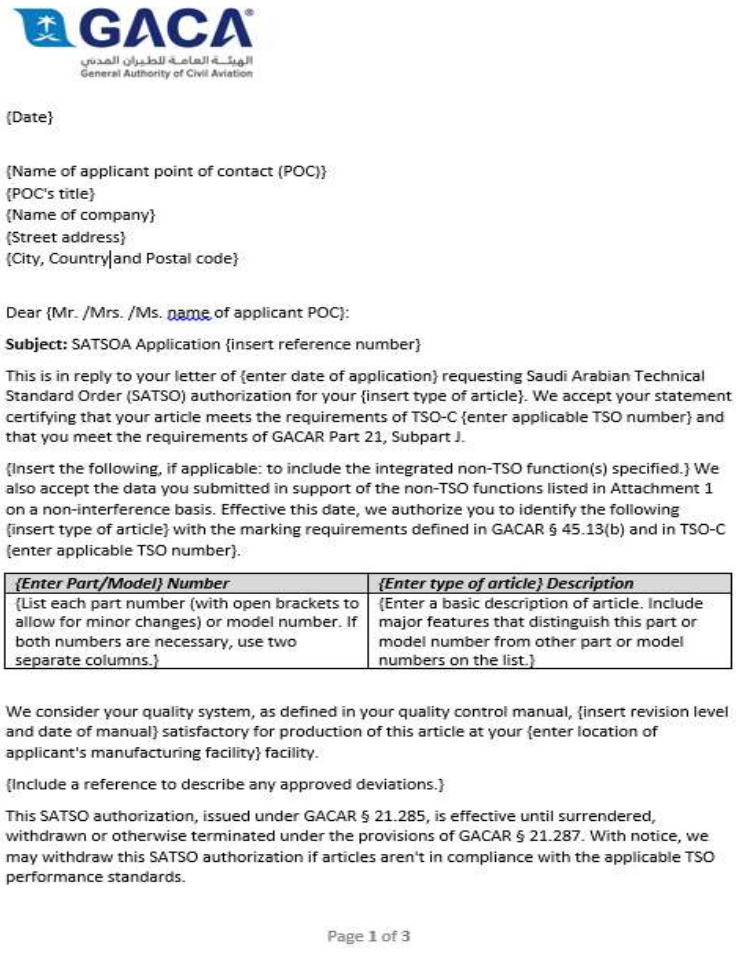
A. Complete the GAR Record.

B. Complete the Task. Successful completion of this task will result in the issuance (or revision) or denial of a SATSOA. The SATSOA is conveyed to the applicant by way of a letter of authorization. See sample letter of authorization in Figure 6.5.1.1 below).

C. Document the Task. File all supporting paperwork in the SATSOA holder's file.

6.5.1.13. FUTURE ACTIVITIES. Normal surveillance of the SATSOA holder.

Fig. 6.5.1.1 - Sample Letter of SATSO Authorization



{Date}

{Name of applicant point of contact (POC)}
{POC's title}
{Name of company}
{Street address}
{City, Country and Postal code}

Dear {Mr. /Mrs. /Ms. name of applicant POC}:

Subject: SATSOA Application {insert reference number}

This is in reply to your letter of {enter date of application} requesting Saudi Arabian Technical Standard Order (SATSO) authorization for your {insert type of article}. We accept your statement certifying that your article meets the requirements of TSO-C {enter applicable TSO number} and that you meet the requirements of GACAR Part 21, Subpart J.

{Insert the following, if applicable: to include the integrated non-TSO function(s) specified.} We also accept the data you submitted in support of the non-TSO functions listed in Attachment 1 on a non-interference basis. Effective this date, we authorize you to identify the following {insert type of article} with the marking requirements defined in GACAR § 45.13(b) and in TSO-C {enter applicable TSO number}.

{Enter Part/Model} Number	*{Enter type of article} Description*
{List each part number (with open brackets to allow for minor changes) or model number. If both numbers are necessary, use two separate columns.}	{Enter a basic description of article. Include major features that distinguish this part or model number from other part or model numbers on the list.}

We consider your quality system, as defined in your quality control manual, {insert revision level and date of manual} satisfactory for production of this article at your {enter location of applicant's manufacturing facility} facility.

{Include a reference to describe any approved deviations.}

This SATSO authorization, issued under GACAR § 21.285, is effective until surrendered, withdrawn or otherwise terminated under the provisions of GACAR § 21.287. With notice, we may withdraw this SATSO authorization if articles aren't in compliance with the applicable TSO performance standards.

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You must obtain GACA approval prior to making any changes to the location of your manufacturing facilities pursuant to GACAR § 21.281.

Without further GACA approval, we don't allow manufacturers to mark articles after they change their company's name, address, or ownership. You must notify the GACA of name, address, or proposed ownership changes.

Per GACAR § 21.289, a holder of a SATSOA may not transfer it. If you wish to transfer it, you must request a transfer from the GACA.

Send to the office below any design change(s) for this SATSO article as outlined in 14 GACAR § 21.285(a). You should notify us of minor design changes within {enter agreed timeframe}. Also, as recipient of this authorization, we require you to report any failure, malfunction, or defect relating to articles produced under this authorization in accordance with the provisions of GACAR § 21.5.

If you have any questions regarding this SATSO authorization, contact {enter GACA Project certification manager contact and phone number.}

Sincerely,

{Name of GACA Director, Airworthiness}
Director, Airworthiness
General Authority of Civil Aviation
Safety, Security and Air Transport Sector

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Accepted Non-TSO Functions

Attachment 1 to {enter reference number}

We accept, as valid data, the data supporting the non-TSO functions listed below. This SATSO authorization is not an approval for the non-TSO function(s) or for installation. You must apply for a separate installation approval so we can determine if the data are applicable and sufficient to show compliance to the airworthiness regulations for the product(s) where the article is installed.

{Enter the appropriate information into the table below.}

Non-TSO Function	*Performance Standard*	*Documentation*
P/NABCD001 Function #1 Function #2 Function #3	 SAE ASXXXB, Para 4 NAS XXXX, Rev xx XXXXX Revx	 Report # 12xx45 Rev X Report # 34xxx67 Rev X Doc # 56xx78xx Rev Y

We accept the data supporting the non-TSO functions listed in the above table with the following conditions:

1. The non-TSO functions do not interfere with the article's compliance with the TSO.

2. {Enter name of applicant} controls the design and quality of the article, including the validity of the non-TSO functions' data listed in the above table.

3. {Enter name of applicant} evaluates design changes in accordance with GACAR § 21.295 to ensure the article continues to comply with the TSO.

4. {Enter name of applicant} evaluates design changes to confirm the continued validity of the accepted non-TSO functions' data. If the design change affects the accepted non-TSO function, you must obtain approval from the GACA before incorporating the change into your approved design. If the design change does not affect the accepted non-TSO function, you must report it when you report other minor design changes.

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CHAPTER 6. SERVICE DIFFICULTIES

Section 1. Process Service Difficulty Report

6.6.1.1. GACA ACTIVITY REPORT (GAR).

A. 3325 (AW) (SDR-Routine)

B. 3326 (AW) (SDR-Significant)

6.6.1.3. OBJECTIVE. This section provides guidance to General Authority of Civil Aviation (GACA) aviation safety inspectors (Inspectors) on how to process a GACA Service Difficulty Report (SDR) required to be submitted under General Authority of Civil Aviation Regulation (GACAR) Part 121, 125, 135 and 145.

A. The purpose of the GACA's Service Difficulty Reporting System (SDRS) is to ensure that aircraft already in service remain in an airworthy state. Any safety problems that appear in service are reported to the appropriate Civil Aviation Authorities (CAA) of the State of Design for corrective action.

B. The collection, organization, analysis, and dissemination of aircraft service information is carried out to improve service reliability of aeronautical products. The primary sources of this information are aircraft maintenance facilities, owners, and operators. The incentive for early detection is to expedite corrective actions and ultimate solutions, thereby minimizing the effect of equipment failure on safety.

C. Each problem reported contributes to the improvement of aviation safety through the identification of a potential problem area and the alerting of other persons to it. This focusing of attention on a problem has led to improvements in the design and maintainability of aircraft and aircraft products.

D. Service difficulty reports are generated by certificate holders and used to alert the GACA and other CAAs of occurrences and conditions that adversely affect the safe operation of an aeronautical product. These reports identify a specific failure, malfunction, or defect of any product, part, process, or article that could cause an unsafe condition. SDRs provide input into statistical analysis and risk management processes so that the Authority can improve the continued operational safety of the civil aviation fleet. SDRs help the GACA and other CAAs monitor and evaluate the frequency of certain failures, malfunctions, or defects so that we, with manufacturers and operators, can take remedial action.

6.6.1.5. GENERAL. The completion of an SDR requires careful review of the reported discrepancy and all supporting data. An effective evaluation of the extent of the problem and its causes is essential for determining corrective action. The format of reporting an SDR and the reporting process must be acceptable to the President.

A. Submission of Operator Report. The air operator, as the certificate holder of the aircraft involved, or a GACR Part 145 repair station on behalf of the air operator, must submit a copy of an SDR to the GACA and to the organization responsible for the type design of the subject product or article. Air operators that desire to submit an SDR on aircraft and/or an article whose type design was certified by the Federal Aviation Administration (FAA) may use the FAA online SDR reporting system. This system may be used to satisfy the requirement for submitting the SDR to the organization responsible for the type design. Discrepancies reportable in an SDR and reporting processes for SDRs are prescribed in GACAR §§ 121.1553, 125.539, 135.695, and 145.103.

B. Evaluation of the Data. Principal Inspectors (PIs) should review the SDR data for their air operators and for the aircraft types operated by their air operators. Additionally, the GACA should monitor SDR information to be aware of trends specific to air operators, aircraft types, systems, articles, vendor problems, manufacturer equipment problems, training, and/or procedural

problems. When the review indicates a serious airworthiness problem, the GACA should contact the organization responsible for the type design. Once a significant service difficulty has been identified by the GACA the resolution of the situation shall, as a general rule, be given priority over all other work.

1) In conducting research of service difficulty reports, GACA airworthiness inspectors and engineers work closely with the aircraft maintenance facilities, owners/operators, aircraft manufacturer and State of Design Authority personnel. Some of the factors which must be considered are:

- Are there maintenance or operational issues involved?
- Is it an engineering and/or design problem?
- Is it a manufacturing problem or related to a breakdown in the manufacturer's quality control procedures?
- What is the rate of occurrence? What are the trends?
- What is the impact on safety?

2) For aircraft first type certificated in the United States, the FAA's Aircraft Certification Office (ACO) and Aircraft Evaluation Group (AEG) responsible for the product should be informed of the service difficulty and any recommendations for corrective actions. Equivalent offices should be contacted for other certifying authorities. Corrective action recommendations may include, but should not be limited to, the following:

- Airworthiness Directives (AD)
- Product modifications
- Revised inspection techniques
- Increased inspection intervals
- Directed safety investigations
- Increased surveillance

NOTE: The FAA website provides searchable SDR data for aircraft and articles certified by the FAA. Transport Canada and other major civil aviation authorities have similar internet-based systems that can be accessed.

6.6.1.7. PREREQUISITES AND COORDINATION REQUIREMENTS.

A. Prerequisites. Knowledge of the aircraft and the equipment involved.

B. Coordination. This task may require coordination with operations inspectors, GACA airworthiness engineers, appropriate foreign aircraft certification agencies, and equipment manufacturers.

6.6.1.9. REFERENCES, FORMS, AND JOB AIDS.

A. References:

- GACAR Part 21, 39, 121, 125, 135 and 145

• Manufacturer’s and operator’s manuals

B. Forms.

• GACA Service Difficulty Report

• GACA Activity Report (GAR)

C. Job Aids. None.

6.6.1.11. PROCEDURES.

A. Conduct a Review. If the review indicates that follow-up action is required to determine the cause of the discrepancy, inspect the following areas, as applicable:

• Aircraft, engine, propeller, components, and accessories

• Appropriate maintenance records

• Maintenance procedures

• Training procedures and records

• Vendor sources

B. Identify and Correct Discrepancies.

1) If the review reveals inadequacies in the operator’s maintenance or inspection procedures, ensure that procedures are changed to prevent a recurrence of the discrepancy.

2) If the review reveals a lack of training and/or inadequate training, evaluate the training program and incorporate procedural changes to correct the deficient areas.

3) If the review reveals a serious design or manufacturing defect, contact the following immediately:

• The Director, Airworthiness Division

• The appropriate foreign certifying authority (if applicable)

6.6.1.13. TASK OUTCOMES.

A. Complete the GAR Record.

B. Complete the Task. Completion of this task may result in the following:

• Follow-up action for discrepancies

• Issuance of an Airworthiness Directive under GACAR Part 39

• Enforcement action for regulatory noncompliance

C. Review Operator Data in the SDR data reports.

D. Review the SDR report. Review the SDR report to ensure that all related information is complete, including all recommendations and the operator's data.

E. Document the Task. Retain SDR record in the operator's office file in case any type of follow-up action is needed.

6.6.1.15. FUTURE ACTIVITIES. None.

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CHAPTER 6. SERVICE DIFFICULTIES

Section 2. Process Malfunction or Defect Report

6.6.2.1. GACA ACTIVITY REPORTING (GAR).

A. GAR. 3323 (AW)

6.6.2.3. OBJECTIVE. This section provides guidance to General Authority of Civil Aviation (GACA) aviation safety inspectors (Inspectors) in processing a Malfunction or Defect (M or D) report required to be submitted under General Authority of Civil Aviation Regulation (GACAR) § 21.5 for reporting failures, malfunctions, and defects of aeronautical products and articles or for reports submitted voluntarily by other concerned persons.

6.6.2.5. GENERAL. Aircraft owners, operators, air agencies, mechanics, and pilots may use an M or D Report to report potential or existing aircraft, powerplant, or appliance problem areas that might affect the airworthiness of an aircraft. The information in an M or D Report should be used to supplement the information accumulated in the repository of Service Difficulty Reports (SDRs). M or D Reports submitted under GACAR § 21.5 must comply with the prescribed requirements in terms of content and timeliness. All voluntarily submitted reports should be submitted to the GACA in a format and timely manner acceptable to the President.

A. Whenever a system component or part of an aircraft, powerplant, propeller, or appliance functions improperly or fails to operate in the approved type-certificated manner, it has malfunctioned and is reportable. Additionally, if a system or component has a flaw that impairs or may impair its future function or it has a part installed improperly; it is defective and should be reported.

NOTE: Repeat problems affecting the same aircraft, powerplant, propeller, appliance, or system must be reported to enable the GACA to detect possible trend items.

B. Reporting operators and air agencies are not bound to any specific reporting format as long as the format is acceptable to the President and the following information is included:

- Make
- Model
- Part number
- Name
- Serial number, as applicable
- The specific problem and condition
- Corrective action, as applicable
- Diagram or photograph, as applicable

NOTE: Reports may be submitted to the GACA by letter, e-mail, the GACA Malfunction or Defect Report form, or any other means to encourage timely and accurate reporting.

C. Data provided for and included in M or D Reports will be used by the GACA for the following:

• Determining maintenance trends that may affect aviation safety

• Revealing other trends, such as problems with vendors, manufacturers, training, and/or procedures

• Evaluating the overall effectiveness of an inspection and maintenance program

• Determining the need to issue an Airworthiness Directive to correct an unsafe condition

6.6.2.7. PREREQUISITES AND COORDINATION REQUIREMENTS.

A. Prerequisites. Knowledge of the aircraft and equipment involved.

B. Coordination. This task may require coordination with other principal inspectors (PIs), GACA airworthiness engineers, appropriate foreign aircraft certification agencies, and equipment manufacturers.

6.6.2.9. REFERENCES, FORMS, AND JOB AIDS.

A. References.

• Part 21, 39, 43, 91, 121, 125, 135, 141 or 145

B. Forms.

• Malfunction or Defect Report Form

C. Job Aids. None.

6.6.2.11. PROCEDURES.

A. Review the Submitted M or D Report. Inspectors should ensure that the data in the report is as complete as possible. Contact the submitter for clarification, as applicable. Any attachments to the report, such as photographs or sketches, can be useful.

B. Determine if an M or D Report is Required. When a system component or part of an aircraft (powerplants, propellers, or appliances) fails to operate in the normal or usual manner, it has malfunctioned and should be reported. Also, if a system, component or part has a flaw or imperfection that impairs its intended function or that may impair future function, it is defective and should be reported. A singular M or D Report may appear to be insignificant. However, the Service Difficulty Program is designed to detect trends and the more information that can be provided to the Program via M or D Reports and SDR reports will enhance the Program's ability to indicate safety trends. Any report can be constructive in evaluating design or maintenance reliability.

C. Submit an M or D Report. Serious airworthiness problems should be reported to the air operator and to the GACA immediately. Additionally, the Aircraft Certification Office (ACO) and Aircraft Evaluation Group (AEG) responsible for the certification of the aircraft or article should be immediately informed of the equipment service difficulty along with any recommendations for corrective actions.

1) If the airworthiness problem is critical to safe flight, it should be reported immediately by phone and followed with a written report within 24 hours.

2) If the airworthiness problem is determined to be serious but not critical to safe flight, it should be reported within 72 hours by the air operator and within 96 hours for a GACAR Part 145 repair station. If the information available within that time is incomplete, all known conditions must be reported. The report must indicate whether follow-up action is required.

D. Conduct a Review. As a result of a safety review, if adverse safety trends are identified for a specific air operator, determine if there is a need for a change in the air operator's policies or procedures.

6.6.2.13. TASK OUTCOMES.

A. Complete the GAR record.

B. Complete the Task. Submit a completed report to the Director, Airworthiness Division.

C. Document the Task. File a copy of the report and all supporting paperwork in the operator's office file.

6.6.2.15. FUTURE ACTIVITIES. If necessary, take the appropriate action to resolve deficiencies in the operator's policies or procedures.

VOLUME 6. AIRCRAFT & EQUIPMENT - CERTIFICATION

CHAPTER 7. EXPORT AIRWORTHINESS APPROVALS

Section 1. Issue Export Airworthiness Approval

6.7.1.1. GACA ACTIVITY REPORT (GAR).

A. 3421 (AW) (Export Aircraft)

B. 3450 (AW) (Export Product (other than complete aircraft) or Article)

6.7.1.3. OBJECTIVE. This section provides guidance to General Authority of Civil Aviation (GACA) aviation safety inspectors (Inspectors) about the policies, objectives, procedures and general practices concerning the processing of an export airworthiness approval under the provisions of General Authority of Civil Aviation Regulation (GACAR) Part 21, Subpart H.

6.7.1.5. GENERAL.

A. Export Airworthiness Approvals. In order to facilitate the import and export of aeronautical products and articles, the International Civil Aviation Organization (ICAO) encourages the use of formal export airworthiness approvals. Many States have adopted various titles for the export document for complete aircraft, e.g. “Export Certificate of Airworthiness” or “Certificate of Airworthiness for Export”. While differing in title, all such certifications are intended to achieve the same goal, which is a statement by the exporting State confirming to the importing State the acceptable airworthiness status of the aircraft or other product. Under GACAR Part 21, the GACA uses the term Export Airworthiness Certificate for these purposes. In the case of a complete aircraft, the Export Airworthiness Certificate either confirms the aircraft’s conformity with the approved design data and its acceptable airworthiness status, stating in effect that if the aircraft were to remain on the registry of the Kingdom of Saudi Arabia (KSA), it would continue to qualify for the continuance of its airworthiness certificate (Certificate of Airworthiness), or that the aircraft standard complies with the requirements of the importing State and is in a condition for safe operation. It should be noted that some States have no provision for export certification or do not have any requirement for such certificates from States from which they receive exported products.

NOTE: An Export Airworthiness Certificate is not a flight authority and does not entitle the aircraft to be flown.

For the exportation of products and articles other than complete aircraft, the GACA uses the Authorized Release Certificate (formerly called the Airworthiness Approval Tag) for this purpose. This certificate is similar in format and use to the Federal Aviation Administration (FAA) Authorized Release Certificate (FAA Form 8130-3), the European Aviation Safety Agency (EASA) Authorized Release Certificate (Form 1), or other similar forms used by other civil aviation authorities.

6.7.1.7. EXPORT AIRWORTHINESS CERTIFICATE.

A. General. This sub-section provides policy and procedures for the issuance of an Export Airworthiness Certificate (EAC).

1) A number of countries have identified special requirements and conditions with which the exporting country must comply. Compliance by the exporter with these identified requirements is required before the importing country/jurisdiction will validate the GACA export approval. The requirements for a specific country or jurisdiction may be found in one or both of the following:

a) FAA Advisory Circular (AC) 21-2 (as amended), which contains a listing of special requirements for many importing States that have been communicated to the FAA, or

b) A document submitted to the GACA by the Civil Aviation Authority (CAA) of the importing country or jurisdiction that contains importing requirements.

2) “Special requirements” are those administrative requirements that must be satisfied as a condition of shipment at the time of export. Examples are: the requirement for an EAC to be issued in more than two copies, copies of logbooks, flight manuals, etc. When a product does not meet the special requirements of an importing country or jurisdiction, the exporter must obtain a written statement from the CAA of that country/jurisdiction indicating acceptance of the deviation. This statement must accompany each application for an EAC.

3) When any requirements, including the special requirements determined necessary by the importing country/jurisdiction for its certification basis (for example, changes to meet environmental conditions), cannot or will not be satisfied, the exporter must obtain a written statement from the CAA of the importing country/jurisdiction indicating acceptance of the deviation. Exporters are encouraged to obtain information on additional requirements directly from the CAA of the importing country/jurisdiction.

4) In addition to a letter of acceptance from the importing CAA, the items not complied with must be identified in the “Exceptions” block of the EAC.

B. Eligibility for Export Approval. Any person may apply for an export airworthiness approval. Aircraft are eligible for an EAC if they meet the requirements of GACAR § 21.247. Aircraft engines, propellers, and articles are eligible for an export airworthiness approval if they meet the requirements of GACAR § 21.247.

1) *Aircraft Located in Countries Other Than the KSA.* GACAR § 21.243(c) permits the issuance of export approvals for used aircraft located in other countries/jurisdictions. The GACA is responsible for determining whether the acceptance of these aircraft, any necessary GACA inspections, and the issuance of this approval would create any undue burden on the GACA.

2) *The Date of Issuance of an Export Airworthiness Approval*. The date of issuance of an export airworthiness approval is the date the product was inspected by the GACA, found to comply with the applicable requirements, and determined to be airworthy.

C. Application. The owner or applicant must complete the applicable sections of the Application for Export Airworthiness Approval and submit it to the GACA.

D. Aircraft Inspection. An aircraft inspection is carried out to verify whether the aircraft’s configuration provides for the following:

1) Conforms to a GACA/FAA-approved type design, as stated on the aircraft’s FAA Type Certificate Data Sheet (TCDS) or a type certificate validated under GACAR Part 21.

2) The aircraft was determined to be in a condition for safe operation.

3) The aircraft configuration conforms to any incorporated GACA-approved design changes under a GACA Supplemental Type Certificate (STC).

4) The aircraft configuration conforms to any incorporated FAA-approved design changes under an FAA Supplemental Type Certificate (STC) accepted under GACAR Part 21.

5) The aircraft configuration conforms to any incorporated EASA-approved design changes under an EASA STC accepted under GACAR Part 21.

6) The aircraft is in compliance with all applicable Airworthiness Directives (AD) issued by GACA, the FAA and the State of Design as prescribed under GACAR Part 39.

E. Approval of a Complete Aircraft for Export.

1) Approval of a complete aircraft for export through the issuance of an EAC may be processed only for a complete aircraft shown by the applicant to meet the applicable requirements specified under GACAR § 21.247. Aircraft that are exported in a disassembled condition are considered to be complete aircraft.

2) Under the provisions of this section, used U.S.-manufactured aircraft do not require a standard airworthiness certificate or a special airworthiness certificate in the restricted category to be issued prior to export; but are required to meet the requirements for such a certificate. Aircraft manufactured in another country/jurisdiction are required to possess a valid KSA standard airworthiness certificate issued under the provisions of GACAR § 21.165, or a special airworthiness certificate in the restricted category issued under the provisions of GACAR § 21.169. Any other aircraft not meeting the requirements for a standard airworthiness certificate or a special airworthiness certificate in the restricted category are not eligible to receive an EAC unless the importing country/ jurisdiction accepts the aircraft in accordance with GACAR § 21.247.

F. Approval of a Modified Aircraft for Export. In many instances, an aircraft that conforms to the type design may be modified prior to export in accordance with the purchaser's requirements. The responsibility for approval and recording of such modifications would primarily be dependent upon the registration status of the aircraft. The following guidelines should be used in issuing an EAC for modified aircraft:

1) If the aircraft is modified while under KSA registry, the applicable rules in GACAR Part 21 or 43 apply. Depending on whether any airworthiness certificate had been issued, any necessary test flying would require the issuance of an experimental certificate. The EAC would not require any listing of exceptions because the aircraft would meet the appropriate GACA standards, whether the EAC is issued before or after the GACA-approved modifications.

2) If the aircraft is modified after it has been removed from the KSA registry, approval of the modifications becomes the responsibility of the CAA of the country/jurisdiction of registry or intended registry. In this case, the applicant or exporter is responsible for obtaining the approval. Any test flying that may be necessary would require the issuance of a Special Flight Authorization (see paragraph 6.7.1.9). The EAC would require no listing of exceptions if the aircraft conformed to the type design before the modifications. However, if the EAC is issued after the aircraft is modified, reference to the documentary evidence of non-GACA approval should be shown as Exceptions.

G. Approval of an Aircraft in Multiple Categories for Export. To retain eligibility for issuance of an EAC as a standard aircraft after having been operated in the restricted category, the following items apply:

1) While being operated in the restricted category, any changes made to the aircraft that are to be retained when in normal category operation, or in any operations that are outside of the standard category operating limitations, must be approved in accordance with the regulations and procedures applicable to an aircraft having a standard airworthiness certificate.

2) If the TCDS for an aircraft includes both standard and restricted category and the maximum takeoff mass and/or other operating limitations for the restricted category are higher than that for standard category, the aircraft is not eligible for issuance of an EAC as a standard aircraft after having been operated in the restricted category, unless:

a) The TCDS specifically states that the aircraft is eligible for operation in the standard category after having been operated at the limitations applicable to the restricted category; or

b) If the TCDS does not have such a note or other reference, the operations outside of the standard category operating limitations, including increased gross mass, had been approved as appropriate for an aircraft having a standard

airworthiness certificate.

H. Approval of a Restricted Category Aircraft for Export. When issuing export approval for a restricted category aircraft, the following comment should be included under Exceptions: "The above is a restricted category aircraft. This aircraft has not been determined to meet the international standards concerning the airworthiness of aircraft as provided for in Annex 8 to the Convention on International Civil Aviation."

I. Responsibilities of Exporters. Under GACAR § 21.251, each exporter receiving an EAC must:

1) Forward to the importing country or jurisdiction all documents and information specified by that country/jurisdiction.

2) Remove, or cause to be removed, any temporary installation incorporated on an aircraft for the purpose of export delivery and restore the aircraft to the approved configuration upon completion of the delivery flight.

3) Ensure that the following regulatory responsibilities under GACAR § 21.251 (when the title to an aircraft passes or has passed to a foreign purchaser) are fulfilled. The GACA should remind the exporter of these responsibilities:

a) Request cancellation of the KSA registration and airworthiness certificate from the GACA, giving the date of the transfer of title and the name and address of the new owner.

b) Return the registration and airworthiness certificates to GACA.

c) Submit a statement to the GACA certifying that the KSA identification and registration have been removed from the aircraft in compliance with GACAR § 45.53.

J. Preparation of Export Airworthiness Certificate. The EAC is an official KSA government document issued to the CAA of importing country/jurisdiction. All entries must be typewritten and no erasures or strikeovers are permitted. The original and duplicate copy of the certificate must be signed in dark (preferably black) permanent ink above the typed name of the processing Inspector. The original will be given to the applicant or applicant's representative, together with those documents required to be with the aircraft. Provisions should be made to preclude the EAC from becoming mutilated in transit. Upon determining that the product is satisfactory, the EAC should be prepared in duplicate. The make, model, and serial number of all installed engines and propellers should be included on the form. Additionally, the following items should be addressed in each EAC, where applicable:

1) *Non-conforming*. If the aircraft has been examined and found to be nonconforming with the original type design or with the import type design, or the special import requirements have not been met, the EAC should not be issued until either:

a) The applicant corrects the nonconformities, *or*

b) The GACA obtains a written statement from the CAA of the importing country/jurisdiction signifying its acceptance of the product with the nonconformities as listed. Requests for acceptance of nonconformities to the importing country CAA should be transmitted to and received from authority to authority. The KSA exporter should first prepare a technical description of the nonconformities to the type design or specific nonconformities related to other special importing requirements. The GACA should then prepare an accompanying cover letter for direct transmittal to the importing CAA requesting the CAA's acceptance of the nonconformities and a return reply to the GACA before export. If a written statement of acceptance is received by the GACA from the importing CAA, the nonconformities should be listed on the EAC under "Exceptions," with a reference to the importing country's written statement of acceptance (for example, letter by subject and date, facsimile). Other items not related to the type design but failing to meet the importing countries/jurisdiction's requirements should be attached to the EAC. The completed EAC and a copy of the importing authority's letter, facsimile, or other such document, should be provided to the exporter, and the product may then be released for export. The original statement of acceptance (for example, letter or facsimile) from the importing authority

should be submitted to GACA with the appropriate export certification documentation.

2) *Temporary Installations*. The following instructions apply to preparation of the EAC when temporary installations, such as provisions for extra fuel or navigational equipment, have been made for the purpose of export delivery:

a) If the EAC is issued after the installation has been made, the following statement or equivalent should be inserted under Exceptions: “A temporary [insert type of installation] has been installed in this aircraft in conformity with [insert drawing numbers, or other data to which conformity was shown] to facilitate its delivery flight. This certificate becomes valid when the temporary installation is removed.” Copies of all referenced drawings and data should accompany the original EAC when it is submitted to the applicant or the applicant’s representative.

b) If the EAC is issued before making the temporary installation, such as at the manufacturer’s plant, and the aircraft is then flown to another location for installation of the temporary equipment, the EAC should reflect the configuration of the aircraft at the time the certificate is issued. It then becomes the responsibility of the exporter and importer to secure the installation documents or data required by the CAA of the country/jurisdiction of import. The GACA EAC may not be amended, reissued, or revalidated after its original issuance.

3) *Exceptions*. If there are no exceptions, insert the word “None” in the Exceptions block. If additional information is to be provided, it is permissible to insert in the words “Additional Information” under the Exceptions block.

4) *Signature and Date*. The entries at the bottom of the form must be completed as follows:

a) In the Signature of Authorized Representative block, the name and GACA authority of the person signing the form should be inserted adjacent to or under the signature with the signature signed in black ink on the original and copy(s).

b) In the Date block, enter the date the inspection of the aircraft was completed.

K. Controversial Information. If, for any reason, the previously listed information results in a controversy or is contrary to existing requirements, the exporter should be advised that the issue is to be settled between the exporter, the importer, and the CAA of the importing country/jurisdiction.

6.7.1.9 SPECIAL FLIGHT PERMIT. To export an aircraft, a Special Flight Permit may be issued for Saudi Arabian-registered aircraft that currently may not meet applicable airworthiness requirements; but are capable of safe flight. A Special Flight Permit is not an authorization to deviate from the requirements of GACAR Part 91. GACAR § 21.179(a) applies to aircraft that may not meet applicable airworthiness requirements and that will be operated for a purpose specified in GACAR § 21.179(a).

6.7.1.11. PREREQUISITES AND COORDINATION REQUIREMENTS.

A. Prerequisites. This task requires familiarity with the type of equipment for export, the foreign Civil Aviation Authority’s (CAA) import/export requirements, and knowledge of GACA exporting processes, procedures, and requirements.

B. Coordination. This task requires coordination with the operator/applicant, other GACA airworthiness Inspectors, and the importing CAA.

6.7.1.13. REFERENCES, FORMS, AND JOB AIDS.

A. References:

- GACAR Part 21, 39, 45, and 47
- ICAO Doc. 9760, Chapter 3 (Airworthiness Manual), Appendices C and D

B. Forms:

- Application for Export Airworthiness Approval
- Export Airworthiness Certificate
- Authorized Release Certificate

C. Job Aids. None.

6.7.1.15. PROCEDURES.

A. Application Review. Review the application for:

- Eligibility
- Completeness
- Whether the product is “new/original” or “used/recurrent”

B. Inspection.

1) Coordinate with operator/applicant to schedule the inspection of the product or article.

2) Ensure that the product or article conforms to the requirements of the importing/exporting country or jurisdiction.

C. Issue Export Airworthiness Approval.

6.7.1.17. TASK OUTCOMES.

A. Complete the Task. Successful completion of this task will result in one of the following:

1) Approval of the export of the aircraft with the subsequent issuance of an export airworthiness certificate.

2) Approval of the export of the product (other than complete aircraft) or article with the subsequent issuance of an Authorized Release Certificate.

3) The operator/applicant (exporter only) may accomplish the following:

- Requesting cancellation of the KSA registration and airworthiness certificate(s)
- Returning the certificate(s) to the GACA

B. Complete the GAR Record.

C. Document the Task. File all supporting paperwork and a copy of the export airworthiness approval in the GACA office file for operator/applicant and the aircraft.

6.7.1.19. FUTURE ACTIVITIES. None.