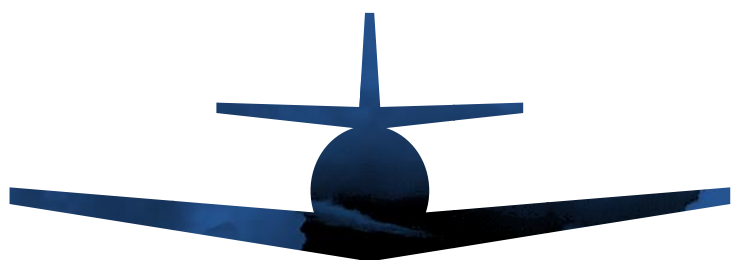




**GUERNSEY
AVIATION
REQUIREMENTS
(GARs)**



PART 43

**GENERAL
MAINTENANCE
REQUIREMENTS**

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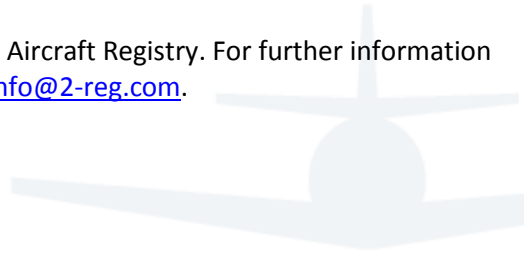
ICAO compliance:

This second issue incorporates ICAO standards of:

- Annex 6, Part I at amendment 42;
- Annex 6, Part II at amendment 35;
- Annex 6, Part III at amendment 21.

The definitive version of GARs is on the States of Guernsey website www.cidca.aero which should be viewed to establish the latest issue of each Part.

Processing of applications will be done by the Guernsey Aircraft Registry. For further information consult <http://www.2-reg.com/> or send a message to info@2-reg.com.



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Revisions

GAR Issue	Subject
Issue 1	First issue
Issue 2	<ul style="list-style-type: none">• 43.1 – scope expanded to include permit to fly aircraft;• 43.A.7 - addition of field loadable databases• Changes to ensure consistency with other GAR Parts;• Editorial changes

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Subpart A — General

43.1 Purpose

- (a) The requirements of this Part cover:
- (1) the maintenance of aircraft which have a certificate of airworthiness issued under GAR Part 21 Subpart E; or
 - (2) the maintenance of aircraft which have a permit-to-fly issued under GAR Part 21 Subpart P; and
 - (3) the release to service after maintenance of aircraft referenced in (1) and (2).
- (b) These Requirements are not in themselves Law. Failure to comply may not constitute an offence. However, the Requirements repeat or reproduce many of the provisions of the Air Navigation (Bailiwick of Guernsey) Law 2012 (“the Law”). Therefore, failure to comply with these Requirements may:
- (1) constitute a breach of the Law; and
 - (2) result in proceedings for breaches of the Law; or
 - (3) result in the refusal of an application for renewal of a certificate; or
 - (4) result in action to suspend or revoke a certificate.
- (c) The Law details the legal obligations governing general maintenance requirements for Guernsey registered aircraft. The Law specifies these obligations in rather general terms, therefore there is a provision in Article 135 to the Law which requires the Director to publish Requirements to augment, amplify and detail more precisely the manner in which these obligations shall be met. The Requirements are the means by which the operator will be able to satisfy the Director as to the fulfilment of the obligations in respect of maintenance of an aircraft on Guernsey’s register or their entitlement to hold a certificate.
- (d) The issue of a certificate indicates only that the holder is considered competent to secure the safe maintenance of aircraft. The possession of such a document does not relieve the operator of an aircraft, or the pilot-in-command, from the responsibility for compliance with the Law and any other legislation in force. Neither does it relieve them of their responsibility for the safe conduct of any particular flight, as the ultimate responsibility for the safety of flight operations always rests with the operator and the pilot-in-command.

43.3 Definitions

Definitions, in the context of this Part of the GARs shall have the meanings listed in GAR Part 1 (Definitions, Abbreviations and Units of Measurement).

Subpart B — Maintenance

43.51 Persons or organisations to perform maintenance

- (a) A person or organisation shall not perform maintenance on an aircraft or aircraft component unless:
- (1) the person holds a current aircraft maintenance engineer licence and an appropriate type rating issued or validated under GAR Part 66; or
 - (2) the person is authorised by a maintenance organisation approved under GAR Part 145 to perform maintenance and within the scope of that approval; or
 - (3) the person performs maintenance under the direct supervision of a person authorised to certify the release to service in accordance with the requirements of paragraph 43.101; or
 - (4) a person or maintenance organisation whose approval has been authorised by the Director in a particular case.
- (b) Notwithstanding the requirements of paragraph 43.51(a) the holder of a valid pilot's licence or validation may perform maintenance on an aircraft not exceeding 2,700 kg MTOM authorised and not operated for the purpose of aerial work as detailed in Appendix A.

43.53 Recording of overhaul

A person shall not state in any maintenance record document entry that an aircraft, airframe, engine, propeller or other aircraft component has been overhauled unless it has been:

- (a) released to service by an appropriately approved organisation or by a person referred to in 43.51(b); and
- (b) for aircraft components, supported by a release document in compliance with GAR Part 21 Subpart K.

43.55 Non-destructive testing (NDT)

- (a) NDT inspections shall only be undertaken by authorised, trained and qualified personnel to standards accepted by an Authority identified in GAR Part 21.25(a)(1); and
- (b) All NDT inspections shall be undertaken to techniques approved or accepted by the applicable type design authority for the aircraft.
- (c) Primary inspections shall not include the use of Dye Penetrant inspection techniques. Dye Penetrant techniques shall only be used in confirming visual indicators, unless:
 - (1) approved maintenance data require such an inspection technique; and

- (2) maintenance personnel undertaking the inspection have been suitably trained and authorised.

43.57 Maintenance records

- (a) Each person or organisation performing maintenance on an aircraft or component shall on completion of the maintenance task record:
 - (1) details of the maintenance activity including, where applicable, the identity of the inspection, any maintenance data used and the date of completion; and
 - (2) details of measurements or test results obtained, including the results of any ground or air tests; and
 - (3) for a component removal or installation:
 - (i) its description;
 - (ii) its part number and serial number, if any; and
 - (iii) the references to the applicable release documentation; and
 - (4) where applicable the location and the name of the facility where the maintenance was carried out; and
 - (5) the details of certification, including the name of the person making the record and reference of the authorisation granted to him.
- (b) The person or organisation performing the maintenance shall:
 - (1) record the details required by paragraph 43.57(a):
 - (i) legibly and by permanent means in the appropriate aircraft record acceptable to the Director; or
 - (ii) in electronic coded form provided that this form allows for the preservation and retrieval of information in a manner acceptable to the Director; and
 - (2) where worksheets or other associated maintenance records are used to document the detail of the maintenance task, make reference to those records in:
 - (i) the appropriate log book; or
 - (ii) a maintenance record acceptable to the Director.
- (c) Records shall be retained in a manner that protects them from environmental damage and hazards such as fire, floods and sabotage. Additionally in the case of electronic coded records, suitable and verifiable back up storage arrangements, acceptable to the Director, shall be made.

43.59 Maintenance data

- (a) The maintenance organisation or person performing aircraft maintenance shall hold and use applicable and current maintenance data in the performance of maintenance including modifications and repairs.
- (b) Maintenance data acquired from an operator shall be verified against primary data control listings to establish its status of revision including that of any required supplements.



Subpart C — Release to Service

43.101 Persons to issue a release to service

A person shall not certify an aircraft or aircraft component for release to service after maintenance unless he:

- (a) is authorised by the Director in a particular case in relation to the specific aircraft maintenance task; or
- (b) holds a licence issued or validated in accordance with GAR Part 66 in the appropriate category and is authorised by the Director for limited aircraft scheduled maintenance tasks identified in the approved maintenance programme and the rectification of defects that have been recorded in accordance with the approved aircraft MEL; or
- (c) holds an authorisation issued by a maintenance organisation appropriately validated under GAR Part 145 'option 1 or option 2' and is certifying maintenance within the scope of that approval; or
- (d) holds a GAR Part 66 licence or validation in the appropriate category and holds an authorisation issued by a maintenance organisation appropriately approved under a GAR Part 145 'option 3' and is certifying maintenance within the scope of that approval; or
- (e) holds a valid licence in the appropriate category acceptable to the Director supported by a course of training, examination and practical experience acceptable to the Director and has therefore qualified for and holds an authorisation issued by a maintenance organisation appropriately approved under a GAR Part 145 'option 3' and is certifying maintenance within the scope of that approval; or
- (f) in the case of piston engine aircraft below 2,700 kg MTOM, holds an appropriately rated GAR Part 66 licence or validation.

43.103 Certifying requirements

- (a) A person authorised by the Director under paragraph 43.101 shall not certify an aircraft for release to service after maintenance unless that maintenance has been performed in accordance with this Part and, in respect of that maintenance, the aircraft is fit for release to service.
- (b) A GAR Part 145 approved or validated maintenance organisation shall not certify an aircraft for release to service after the embodiment of a design change or a repair unless that design change or repair has been approved in accordance with GAR Part 21 Subpart C or M, as appropriate.
- (c) Where the acceptable technical data for a design change or repair to an aircraft or component includes changes to the Flight Manual, the GAR Part 145 approved maintenance organisation shall not certify the release to service until these changes have been incorporated into the Aircraft Flight Manual.

- (d) Each person issuing a Release to Service under an authorisation granted by the Director as specified in paragraph 43.101 shall after performing maintenance on an aircraft:
- (1) ensure maintenance is only conducted within the scope of the authorisation granted under paragraph 43.101(a) and (b) and any limitations identified in the approved maintenance programme; and
 - (2) be familiar with the maintenance actions required for the continuing airworthiness of that aircraft or component; and
 - (3) use adequate environmentally protected housing, lighting, access equipment and facilities for the necessary disassembly, proper inspection, and reassembly of the aircraft or component; and
 - (4) perform the maintenance in accordance with the manufacturer's instructions using methods, techniques, and practices that:
 - (i) are prescribed in the current manufacturer's maintenance manual or Instructions for Continuing Airworthiness; or
 - (ii) are acceptable to the Director; and
 - (5) use materials, parts, and appliances approved in accordance with GAR Part 21 Subpart K; and
 - (6) use the tools, equipment, and test apparatus necessary to ensure completion of the work in accordance with paragraph 43.103(d)(4); and
 - (7) ensure that any special tools or test equipment recommended by the manufacturer are used as specified and have been tested and calibrated to standards accepted by an Authority identified in GAR Part 21.25(a)(1) ; and
 - (8) perform the maintenance taking into consideration human factors so as to ensure that the aircraft or component meets all applicable airworthiness requirements.

43.105 Certificate of Release to Service

Each person authorised to certify an aircraft or component for release to service after maintenance shall:

- (a) enter in the log book or other record required by paragraph 43.57(b)(1) a statement of release to service that states that:

“the work recorded has been carried out in accordance with the Air Navigation (Bailiwick of Guernsey) Law 2012 and in respect of that work the aircraft or component is fit for release to service”; and
- (b) in all cases enter beside the statement of release to service:
 - (1) their signature; and

- (2) their GAR Part 66 or pilot's licence number and where applicable the Director's authorisation reference; or,
- (3) approved Maintenance Organisation approval and authorisation number, where applicable; and
- (4) basic details of the maintenance carried out; and
- (5) the date of entry.

43.107 Inoperative equipment

Each person authorised to certify an aircraft for release to service that includes equipment permitted to be inoperative in accordance with Section 14 of the Law and provided for in an approved MEL, CDL or as otherwise approved by the Director shall:

- (a) provide the owner or operator with a list of the inoperative equipment including details of any associated aircraft performance limitations; and
- (b) place a placard on each inoperative instrument and cockpit control for each item of inoperative equipment, marking each item inoperative; and
- (c) make reference to the approved data permitting inoperative equipment in the aircraft technical log book; and
- (d) record limitations for the rectification interval.

43.109 Defects

- (a) Details of any known defect shall be recorded in the appropriate aircraft technical log book referred to in GAR Part 39.79 or appropriate aircraft record and be supplied to the owner or operator of the aircraft.
- (b) Any defect that materially affects the performance of a specific approval or system reliability monitored by a reliability centred aircraft maintenance programme shall be rectified in manner consistent with an established programme acceptable to the Director.
- (c) All defects shall be rectified and released to service in accordance with this GAR Part.

43.111 Independent inspection

- (a) A person shall not certify an aircraft or component for release to service after the initial assembly, subsequent disturbance or adjustment of:
 - (1) an engine control system; or
 - (2) a flight control system; or
 - (3) a critical component; or

(4) any task identified in the aircraft maintenance programme requiring such inspections,
unless an independent maintenance inspection has been performed.

(b) The independent maintenance inspection required by paragraph 43.111(a) shall include:

(1) an inspection first made by an authorized person signing the maintenance release who assumes full responsibility for the satisfactory completion of the work; and

(2) a subsequent inspection by a second, independent, competent person who attest to the satisfactory completion of the work recorded and that no deficiencies have been found.

Note: The second independent competent person is not issuing a maintenance release and therefore is not required to hold certification privileges, but shall be suitably qualified to carry out the inspection.

(c) When work is being done under the control of an approved maintenance organisation, that organisation shall have procedures to demonstrate that the signatories have been trained and have gained experience on the specific control systems being inspected. It is not acceptable for the certifying staff signing the release to show the person performing the independent inspection how to perform the inspection at the time the work is completed.

(d) The authorised person who certifies an independent maintenance inspection required by paragraph 43.111(a) shall enter in the aircraft logbook or other maintenance record required by paragraph 43.57(b)(1):

(1) a statement that indicates that the disturbed aircraft control system or critical task performed is in compliance with the approved maintenance data including, where appropriate, safety locking and the system has full and free movement and operates in the correct sense; and

(2) beside that statement:

(i) their signature; and

(ii) their GAR Part 66 licence and/or authorisation number; and

(iii) the date and time of entry.

43.115 Specialised checks

Where the maintenance manual prescribes specialised functional checks such as an engine run following powerplant or system maintenance, pressurisation, avionics, and any other critical functional check, the person undertaking such a check shall:

(a) be an authorised person acceptable to the Director; and

(b) have undergone a recurrent programme of continuation training; and

- (c) ensure comprehensive and detailed records are maintained, in a manner acceptable to the Director, of the specified functional check completed, including any parameters required to be recorded in compliance with specifications.

43.117 Technical Log completion

- (a) A person shall not certify an aircraft or aircraft component for release to service in an aircraft technical log unless authorised in accordance with paragraph 43.101.
- (b) The operator's instructions on the completion of the technical log shall be adhered to including the retention and promulgation of completed pages.
- (c) The requirements for an aircraft technical log are prescribed in GAR Part 39.79.



Subpart D — Aircraft operating under a Permit to Fly

43.151 Purpose

This Subpart details the requirements for airworthiness, maintenance and arrangements for the release of aircraft for flight operating under a Permit to Fly.

43.153 Airworthiness and maintenance

Arrangements for the airworthiness management and maintenance for aircraft operating in the following circumstances shall be as follows:

- (a) an aircraft granted a Permit to Fly as prescribed in GAR Part 21.703(a) because the Certificate of Airworthiness is not in force shall have maintenance arrangements in accordance with GAR Part 145 and in compliance with this Subpart or as otherwise approved by the Director and airworthiness management arrangements in compliance with GAR Part 39.
- (b) [reserved]

43.155 Permit Flight Release Authorisation

- (a) Where the Permit to Fly specifies a requirement for a Permit Flight Release, only a person authorised by the Director shall issue such a release.
- (b) For an aircraft referred to in paragraph 43.153(a) the person issuing a Permit Flight Release shall first be satisfied that:
 - (1) any maintenance disturbance has been carried out in conformance with requirements of GAR Part 145; and
 - (2) any specific maintenance and configuration instructions required by the Director are complied with; and
 - (3) the aircraft is reported as airworthy following a review undertaken by an organisation approved under GAR Part 39.
- (c) [reserved]
- (d) When an aircraft is released for flight test after the incorporation of an unapproved modification the responsible design organisation shall have produced an appropriate flight test schedule and declare the design approved for release to flight test. In addition the GAR Part 145 organisation shall release the aircraft as fit to fly in accordance with any specific configuration defined in the approved modification and flight test programme instructions.

43.157 Permit Airworthiness Release Authorisation

- (a) When the Permit to Fly specifies that a Permit Airworthiness Release is required, such a release shall be issued only by a person or a GAR Part 39 approved organisation authorised by the Director to do so.
- (b) A Permit Airworthiness Release declares that the aircraft is considered airworthy in respect of required scheduled maintenance and defect rectification.



Appendix A – Pilot maintenance prescribed repairs, replacements and adjustments

43.A.1 Applicability

This Appendix describes the privileges of the holder of a valid pilot's licence rendered valid by the Director who is also the owner or operator of an aircraft to perform maintenance tasks on that aircraft in accordance with paragraph 43.51(b).

43.A.3 Records

A pilot carrying out repairs or replacements shall keep in the aircraft logbook a record which identifies the repairs or replacement and shall sign and date the entries.

43.A.5 Materials and Parts

Any materials and parts used in performing maintenance shall be acceptable to the Director as specified in GAR Part 21 Subpart K.

43.A.7 Prescribed repairs or replacements

The following repairs or replacements are specified:

- (1) replacement of landing gear tyres, landing skids or skid shoes;
- (2) replacement of elastic shock absorber cord units on landing gear where special tools are not required;
- (3) replacement of defective safety wiring or split pins excluding those in engine, transmission, flight control and rotor systems;
- (4) patch repairs to fabric not requiring rib stitching or the removal of structural parts or control surfaces, if the repairs do not cover up structural damage and do not include repairs to rotor blades;
- (5) repairs to upholstery and decorative furnishing of the cabin or cockpit interior when the repair does not require dismantling of any structure or operating system or interfere with an operating system or affect the structure of the aircraft;
- (6) repairs, not requiring welding, to fairings, non-structural cover plates and cowlings;
- (7) replacement of side windows where that work does not interfere with the structure or with any operating system;
- (8) replacement of safety belts or safety harness;
- (9) replacement of seat parts not involving dismantling of any structure or of any operating system;
- (10) replacement of bulbs, reflectors, glasses, lenses or lights;

- (11) replacement of any cowling not requiring removal of the propeller, rotors, or disconnection of engine or flight controls;
- (12) replacement of unserviceable sparking plugs;
- (13) replacement of batteries;
- (14) replacement of wings and tail surfaces and controls, the attachment of which are designed to provide for assembly immediately before each flight and dismantling after each flight;
- (15) replacement of generator and fan belts designed for removal where special tools are not required;
- (16) replacement of VHF communication equipment, being equipment which is not combined with navigation equipment;
- (17) replacement of field loadable databases.

END

