



PURSUANT to Sections 28 and 30 of the Civil Aviation Act 1990

I, HARRY JAMES DUYNHOVEN, Minister for Transport Safety,

HEREBY MAKE the following ordinary rules.

SIGNED AT Wellington

This *23rd* day of *October* 2007

by **HARRY JAMES DUYNHOVEN**

A handwritten signature in black ink, appearing to read 'Harry James Duynhoven'. The signature is stylized and cursive, with a large, sweeping flourish at the end.

Minister for Transport Safety

Civil Aviation Rules

Part 43, Amendment 6

General Maintenance Rules

Docket 4/CAR/8

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Rule objective

The objective of amendment 6 to Part 43 is to amend the maintenance rules associated with the change to the 406 MHz emergency locator transmitter (ELT), and is consequential to amendment 18 to Part 91.

Extent of consultation

Satellite monitoring of ELT signals is carried out by the international COSPAS-SARSAT system. This search and rescue satellite-aided distress alert and location system currently processes signals on the international civil and military distress frequencies of 121.5 MHz, 243 MHz and 406 MHz. Most of the current ELTs used in civil aviation operate on 121.5 MHz only.

Due to the limitations of the 121.5 and 243 MHz signal characteristics together with a high number of false alerts from 121.5 MHz ELTs, the international agencies involved in search and rescue – the International Maritime Organisation (IMO), International Civil Aviation Organisation (ICAO), and the providers of the COSPAS-SARSAT system – have agreed that satellite monitoring and processing of 121.5 MHz and 243 MHz signals will cease from 1 February 2009. The ICAO standard now requires ELTs to operate on 406 MHz and 121.5 MHz, with the 406 MHz signal providing the initial alert and location via the COSPAS-SARSAT system and the 121.5 MHz signal used for final homing by search aircraft.

In March 2005 the CAA issued a Rule Project Scope Statement to address the change to the carriage of the 406 MHz ELT. This Project Scope Statement identified the issues that would require amendments to various rules to reflect the technical characteristics, carriage requirements, coding and registration, and maintenance aspects associated with the change to the 406 MHz ELT.

Following the publication of the Rule Project Scope Statement considerable discussion took place between the CAA and a number of airline operators, aviation industry representatives, New Zealand distributors of ELT equipment, overseas regulatory authorities, and the Rescue Coordination Centre New Zealand (RCCNZ) regarding various matters associated with the change to the 406 MHz ELT. These informal discussions formed the basis for the development of the proposed rule amendments.

A Notice of Proposed Rulemaking, NPRM 06-03, containing the proposed amendments to Parts 1, 43, 91, 121 and 129 was issued for public consultation under Docket 4/CAR/8 on 22 June 2006.

The publication of this NPRM was notified in the Gazette on 22 June 2006 and advertised in the daily newspapers in the five main provincial centres on 24 June 2006. The NPRM was published on the CAA web site and mailed to identified stakeholders including representative organisations who were considered likely to have an interest in the proposal.

A period of 39 days was allowed for comment on the proposed rule.

Summary of submissions

Twenty-four written submissions were received on the NPRM. These submissions and comments have been considered and as a result the reference to VSWR in Appendix F has been deleted

The rule as amended was then referred to Parliament's Regulations Review Committee before being signed by the Minister for Transport Safety.

Examination of submissions

Submissions may be examined by application to the Docket Clerk at the Civil Aviation Authority between 8:30 am and 4:30 pm on weekdays, except statutory holidays.

Insertion of Amendments

The amendments to the rules in this Part are reflected by the revocation of an existing rule and replacing it with a new rule, the revocation of some existing appendices and replacing them with new appendices.

Effective date of rule

Amendment 6 to Part 43 comes into force on 22 November 2007.

Availability of rules

Civil Aviation Rules are available from–

CAA web site: <http://www.caa.govt.nz/>

Freephone: 0800 GET RULES (0800 438 785)

Part 43 Amendments

Subpart B—Maintenance

Rule 43.65 is revoked and replaced with the following new rule

43.65 Emergency locator transmitter tests and inspections

A person performing a test and inspection of an emergency locator transmitter as required under subpart G of Part 91 must perform the applicable tests and inspections specified in Appendix F.

Appendix A—Maintenance performed by a person under rule 43.51(b)

Appendix A.1 is revoked and replaced with the following new appendix

A.1 Aircraft used to perform air operations

The following maintenance may be performed by a person under rule 43.51(b) on an aircraft that is used to perform air operations under the authority of an air operator certificate issued in accordance with Part 119:

- (1) greasing and lubrication that does not require disassembly other than removal of access panels, fairings, or cowls:
- (2) replacing the aircraft battery:
- (3) replacing fuses and lights:
- (4) GPS equipment maintenance including—
 - (i) the installation and removal of GPS receivers if the receiver has quick disconnect capabilities, and any subsequent test requirements are built in to the receiver, and the applicable information for the installation and removal of the receiver is immediately available; and

- (ii) the routine updating of GPS receiver database information:
- (5) compressor washing if—
 - (i) the installation of the wash equipment does not require the disassembly of any primary engine control system; and
 - (ii) the applicable information for the washing is immediately available and includes procedures for the installation and removal of any wash equipment and the safe operation of the engine during the wash runs and any necessary drying runs:
- (6) installation and removal of seats, doors, and role equipment if—
 - (i) the configuration of the aircraft with the particular equipment installed or removed has been approved; and
 - (ii) the flight manual incorporates the necessary information for the safe operation of the aircraft with the equipment installed or removed, including weight and balance data for each configuration; and
 - (iii) the applicable information for the installation and removal of the equipment is immediately available; and
 - (iv) no special tooling, special equipment, or subsequent inspection is required:
- (7) the completion of repetitive airworthiness directive inspections between scheduled maintenance inspections if—
 - (i) the airworthiness directive states that a pilot may complete the inspection; and
 - (ii) any conditions stated in the airworthiness directive are complied with; and

- (iii) no special tooling or special equipment is required:
- (8) replenishment of engine oil:
- (9) deferral of defects relating to inoperative instruments and equipment if the aircraft can be operated with inoperative instruments and equipment in accordance with rule 91.537:
- (10) the performance of routine maintenance that is intended by the aircraft manufacturer to be performed by a pilot provided no special tooling or equipment is required:
- (11) operating the self-test function on a 406 MHz ELT.

Appendix B is revoked and replaced with the following new appendix

Appendix B—Aircraft Radio Station Inspection

A person referred to in rule 43.59 must—

- (1) examine the maintenance records for service history and compliance with the applicable maintenance rules; and
- (2) inspect and test the bonding of mounting racks and shock mounts for a maximum resistance of 0.05 ohms; and
- (3) inspect and test the complete radio station for interference between items of equipment; and
- (4) inspect and test the audio integration and intercom systems to ensure that—
 - (i) the residual noise level is below -30 dB in the absence of an audio input signal; and
 - (ii) with input signals of the normal magnitude, the ratio of wanted to unwanted output is not less than 45 dB; and
- (5) check that the VSWR of the transmission lines and aerials is less than 3:1 for the following:

- (i) VHF Communications:
 - (ii) HF Communications (T/R to antenna coupler):
 - (iii) DME; and
- (6) check that the system channelling is correct for the following:
- (i) VHF Communications:
 - (ii) HF Communications (T/R to antenna coupler):
 - (iii) ILS:
 - (iv) VOR:
 - (v) DME; and
- (7) inspect and test the VHF Communications system to ensure that the performance of the system is acceptable during normal operation; and
- (8) inspect and test the HF Communications system to ensure that—
- (i) the antenna integrity and insulation resistance is acceptable; and
 - (ii) the performance of the system is acceptable during normal operation; and
- (9) inspect and test the operation of ADF including—
- (i) testing the sense antenna for integrity and insulation resistance; and
 - (ii) testing the audio function; and
- (10) inspect and test the operation of ILS receivers with a field test set, including—

- (i) testing flag warnings for modulation failure, centre line and glide path accuracies, sense, and course widths; and
 - (ii) testing the audio function; and
- (11) inspect and test the operation of VOR with a field test set, including—
- (i) testing flag warnings for modulation failure; and
 - (ii) omni-radial resolving, and radio magnetic indicators, accuracy at 30° intervals; and
 - (iii) carrying out $\pm 1^\circ$ test for freedom of meter movement, sense, and course width; and
 - (iv) testing the audio function; and
- (12) inspect and test the operation of the marker receiver with a field test set including—
- (i) testing operations of 400, 1300 and 3000 Hz tones and associated lamps; and
 - (ii) where fitted, operation of hi/lo sensitivity; and
- (13) inspect and test the operation of DME with a field test set, including—
- (i) testing range accuracy and ground speed readings; and
 - (ii) testing the audio function.

Appendix F is revoked and replaced with the following new appendix

Appendix F—Emergency Locator Transmitter Inspections and Tests

The following inspection and tests must be carried out by the person referred to in rule 43.65 to ensure compliance with the requirements

prescribed in subpart G of Part 91 for the inspection and testing of emergency locator transmitters:

- (1) inspect the emergency locator transmitter and its mountings and aerial connection for general condition particularly for corrosion or corrosion deposits:
- (2) for a 406 MHz emergency locator transmitter, operate the self test function of the emergency locator transmitter and check for satisfactory performance in accordance with the manufacturer's instructions:
- (3) for a 121.5/243 MHz emergency locator transmitter:
 - (i) test the impact switch of the emergency locator transmitter for correct operation:
 - (ii) test the RF output of the emergency locator transmitter, using an appropriate test set, to ensure that the output meets the manufacturer's specification:
 - (iii) check the aerial system for satisfactory performance of the emergency locator transmitter installation.

Consultation Details

(This statement does not form part of the rules contained in Part 43. It provides details of the consultation undertaken in making the rules.)

A Notice of Proposed Rulemaking, NPRM 06-03, containing the proposed rules was issued for public consultation under Docket 4/CAR/8 on 22 June 2006. A period of 39 days was allowed for comment on the proposed rule.

A total of 24 written submissions were received. Of these, 14 submissions were from organisations and 10 from individuals. The CAA has worked through these submissions and as a result has amended the rules where appropriate.

The consultation details relating to amendment 6 to Part 43 are contained in the consultation details of amendment 18 to Part 91. The submissions and all background material used in developing the rules are held on the docket file and are available for public inspection at Aviation House, 10 Hutt Road, Petone. Persons wishing to view the docket should contact the Docket Clerk on Phone (04) 560 9603 and ask for docket 4/CAR/8.