CIVIL AVIATION AUTHORITY
OF NEW ZEALAND

PURSUANT to Sections 28, 29, 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 22nd day of November 2006

by **HARRY JAMES DUYNHOVEN**

Minister for Transport Safety

Civil Aviation Rules

Part 91, Amendment 15

General Operating and Flight Rules

Docket 1/CAR/1357

Contents

Rule objective

The objective of amendment 15 to Part 91 is primarily to amend and update subpart G which prescribes the operator maintenance requirements for New Zealand register aircraft. In addition various operating and flight rules are amended and various rules prescribing instrument and equipment requirements for aircraft are amended and updated.

Amendment 15 to Part 91 is associated with the following amendments to other Parts:

- amendment 32 to Part 1
- amendment 5 to Part 43
- amendment 7 to Part 145

Extent of consultation

In 1999 the Civil Aviation Industry Rules Advisory Group (CIRAG) Executive established a Technical Study Group (TSG) to participate in a rule making project to amend and update various rules relating to the airworthiness and maintenance requirements for aircraft. A number of the issues to be addressed arose from an investigation carried out by the CAA in 1997 into the concerns about maintenance standards and practices for aircraft less than 5,700 kg maximum certified take-off weight (MCTOW). Other issues to be addressed arose from various petitions for amendments to be made to airworthiness and maintenance rules.

The TSG was made up of representatives from general aviation (fixed wing operators), aircraft maintenance organisations, helicopter operators, and the Aircraft Owners and Pilots Association. The TSG met 4 times and concluded its work in early 2002. The CAA continued to refine the draft rule proposals during 2002 and 2003 and released the draft rules to a representative industry group for comment before they were published for public consultation.

A Notice of Proposed Rulemaking, NPRM 05-04, containing the proposed rule amendments to Parts 1, 43, 91, and 145 was issued for public consultation under Docket 1/CAR/1357 on 5 May 2005.

Two other associated Notices of Proposed Rulemaking, NPRM 05-05 dealing with amendments to Parts 21, 26, 39, 146, and 148, and NPRM 05-06 dealing with amendments to Parts 119, 103, 104, 121, 125, 135, and 137, were also issued for public consultation under Docket 1/CAR/1357 on 5 May 2005.

The publication of these NPRMs was notified in the Gazette on 5 May 2005 and advertised in the daily newspapers in the five main provincial centres on 7 May 2005. The NPRMs were 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 46 days was initially allowed for comment on the proposed amendments to the rules and this was extended upon industry request for a further 10 days.

New Zealand Transport Strategy

The development of the NPRM and the proposed rule changes took into account the objectives of the New Zealand Transport Strategy (NZTS) and the provisions of the Civil Aviation Amendment Act (No 2) 2004.

Amendment 15 to Part 91 has been assessed as follows against the NZTS:

Assisting Economic Development— the rule amendment is unlikely to affect economic development:

Assisting safety and personal security— a number of the rule amendments are aimed at maintaining and enhancing aviation safety requirements. The clarification of various rule requirements is aimed at ensuring that the required safety standard is maintained and other rule amendments such as the fire protection requirements for cargo and baggage compartments are aimed at raising standards:

Improving access and mobility—the rule amendment is unlikely to affect access and mobility issues:

Protecting and promoting public health— the rule amendment is unlikely to affect public health:

Ensuring environmental sustainability—the rule amendment is unlikely to affect environmental sustainability.

Summary of submissions

Eighty written submissions were received on the 3 NPRMs. Sixty eight submissions related to the proposed amendments to Part 91. These submissions and comments have been considered and as a result the following significant changes have been made to the proposed rules in amendment 15 to Part 91:

- provision of an additional maintenance option under 91.605(a) to use a generic maintenance programme that is acceptable to the Director for light piston powered aircraft to replace the options that were in the deleted Appendix C to Part 43.

- delete the proposed requirement in 91.605(e)(1) for all aircraft radios to be inspected and tested and revert to current requirement that only applies to radios required for IFR operations.

- the requirement in 91.605(e)(10) for reweighing aircraft every 5 years is changed to 10 years.

- the requirements in 91.615 regarding annual review of airworthiness amended to provide the equivalent of a 10% inspection planning latitude to be consistent with 91.611 regarding inspection planning latitude.

Some editorial and other minor changes have also been made in the final rules to address other minor issues from the submissions and to clarify the rule requirements.

The rule as amended was then referred to Parliament's Regulations Review Committee before being signed by the Minister for Transport Safety. The Committee raised a concern about the rules that provide the Director with a power of discretion on what might be acceptable to meet a rule requirement but were silent on what the Director should take into consideration when exercising that discretion. The relevant rules were amended to address the Committee's concerns before being signed by the Minister.

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 revocation of existing rules and replacement with new rules, and the insertion of new rules.

Effective date of rule

Amendment 15 to Part 91 comes into force on 1 March 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 91 Amendments

Subpart B — Operating Rules

Rule 91.101 is revoked and replaced by the following new rule:

91.101 Aircraft airworthiness

(a) Except as provided in paragraph (c), Part 103, and Part 106, a person must not operate an aircraft unless—

(1) the aircraft—

(i) has a current airworthiness certificate; and

(ii) is in an airworthy condition; or

(2) the aircraft is operated in accordance with a *special category – special flight permit* airworthiness certificate issued in accordance with subpart H of Part 21.

(b) A person operating an aircraft that is issued with an airworthiness certificate as required in paragraph (a) must comply with—

(1) any operating limitations issued with the airworthiness certificate; and

(2) the markings and placards that are required by the Civil Aviation Rules to be displayed in the aircraft.

(c) A person may operate an aircraft without a current airworthiness certificate for the purpose of demonstrating the eligibility of the aircraft for the issue, renewal, or reinstatement of an airworthiness certificate if—

(1) a type certificate or type acceptance certificate for the aircraft type is in force in accordance with subpart B of Part 21; and

(2) the aircraft complies with the requirements prescribed in rule 21.191; and

(3) a person meeting any of the requirements in rule 43.101(a)(1) to (5) certifies that the aircraft is fit for flight; and

(4) the pilot-in-command is the holder of an appropriate, current pilot licence and type rating or a validation permit issued in accordance with Part 61 for the aircraft; and

(5) no other person is carried unless that person performs an essential function in connection with the operation.

Rule 91.107 is revoked and replaced by the following new rule:

91.107 Aircraft registration

(a) Except as provided in paragraph (b), and Part 106, a person must not operate an aircraft unless it is registered and displays identification markings in accordance with the requirements of—

(1) Part 47; or

(2) the appropriate aeronautical authority of an ICAO Contracting State; or

(3) the appropriate authority of another State that is party to an agreement with the Government of New Zealand or the Civil Aviation Authority of New Zealand, which provides for the acceptance of each other's registrations.

(b) Paragraph (a) does not apply to the holder of a manufacturing organisation certificate issued in accordance with Part 148 if—

(1) the certificate holder holds a *special category – special flight permit – continuing authorisation* airworthiness certificate issued in accordance with Part 21 for the aircraft; and

(2) the aircraft is a new production aircraft undergoing flight testing.

Rule 91.111 is revoked and replaced by the following new rule:

91.111 Documents to be carried

Except as provided in Parts 103, 104, and 106, a person must not operate an aircraft unless the following documents are carried in the aircraft:

(1) except if rule 91.101(c) applies, the current airworthiness certificate or a certified copy of the current airworthiness certificate:

(2) the aircraft flight manual or an equivalent document acceptable to the Director:

(3) for New Zealand registered aircraft:

(i) the technical log required under rule 91.619, unless for aircraft operating under an air operator certificate from a fixed base an alternative means acceptable to the Director is used to inform the pilot of the maintenance status of the aircraft:

(ii) a completed form CAA 2173 Weight and Balance Data or equivalent:

(iii) a completed form CAA 2129 Aircraft Radio Station Equipment Approval Levels:

(4) for New Zealand registered aircraft operating outside of New Zealand:

(i) a copy of the General Radio User's Licence issued by the Ministry of Economic Development:

(ii) the current certificate of registration for the aircraft, or a certified copy of the certificate of registration:

(5) for foreign aircraft operating within New Zealand:

(i) the current certificate of registration for the aircraft, or a certified copy of the certificate of registration:

(ii) written evidence that the aircraft complies with the requirements of rule 91.803(a)(2) regarding aircraft noise level compliance, and rule 91.807(2) regarding engine emission compliance.

Subpart C — General Flight Rules

Rule 91.201 is revoked and replaced by the following new rule:

91.201 Safety of aircraft

A pilot-in-command of an aircraft must—

(1) before operating the aircraft, be satisfied that the aircraft is airworthy and in a condition for safe flight, after—

(i) the documents required under rule 91.111 have been inspected; and

(ii) the aircraft has been inspected; and

(2) during the flight, ensure the safe operation of the aircraft and the safety of its occupants; and

(3) on completion of the inspections required by paragraph (1), and on completion of the flight, record in the technical log or other equivalent document acceptable to the Director any aircraft defects that are identified by the crew during the inspections and during the flight.

The following new rule is inserted after rule 91.249:

91.251 Time-in-service recorder operation

A person must not tamper with the operation of an automatic time-in-service recorder that is required to be installed in the aircraft in accordance with rule 91.509(b).

Subpart F — Instrument and Equipment Requirements

Rule 91.501 is revoked and replaced by the following new rule:

91.501 General requirements

A person must not operate an aircraft unless—

(1) the aircraft is equipped with the type and number of instruments and equipment required by this subpart; and

(2) the instruments and equipment installed in the aircraft comply with—

(i) the applicable specifications and airworthiness design standards listed in the following:

(A) Appendix A to this Part:

(B) Appendix C to Part 21:

(C) Part 26; or

(ii) an alternative specification and design standard approved by the Director; and

(3) the instruments and equipment installed in the aircraft have been installed in accordance with the aircraft manufacturer's instructions or other equivalent instructions acceptable to the Director; and

(4) except as provided in rule 91.537, the instruments and equipment installed in the aircraft are in an operable condition.

Rule 91.509 is revoked and replaced by the following new rule:

91.509 Minimum instruments and equipment

(a) A powered aircraft with an airworthiness certificate, except a powered glider, must be equipped with a means of—

(1) indicating airspeed; and

(2) indicating Mach number, if the speed limitation specified in the aircraft flight manual is expressed in terms of Mach number; and

(3) indicating altitude in feet; and

(4) indicating magnetic heading; and

(5) indicating fuel tank contents, other than auxiliary fuel tank contents; and

(6) indicating engine revolutions of each engine; and

(7) indicating oil pressure of each engine using a pressure lubricating system; and

(8) indicating coolant temperature of each liquid-cooled engine; and

(9) indicating oil temperature of each engine rated at over 250 brake horsepower using a pressure lubricating system; and

(10) indicating manifold pressure of each supercharged or turbocharged piston engine, and each piston engine fitted with a constant speed propeller; and

(11) indicating cylinder head temperature of each air-cooled piston engine rated at over 250 brake horsepower; and

(12) indicating flap position, if flaps are fitted, unless the position of the flaps can be determined visually by the flight crew; and

(13) indicating landing gear position, if the aircraft has retractable undercarriage; and

(14) indicating the correct functioning of electrical power generating equipment; and

(15) from 1 June 2007, indicating the presence of carbon monoxide in the cabin if the aircraft is fitted with an exhaust manifold cabin heater or a combustion cabin heater.

(b) Subject to paragraph (c), the following New Zealand registered aircraft issued with an airworthiness certificate must be equipped with a means of automatically recording and accumulating the time-in-service for the aircraft:

(1) a helicopter that is used for agricultural aircraft operations conducted in accordance with Part 137:

(2) a helicopter that is used for air operations conducted in accordance with Part 135:

(3) a helicopter that is used for any other type of operation:

(4) an aeroplane that is used for agricultural aircraft operations conducted in accordance with Part 137.

(c) Paragraph (b) comes into force on a date (which must not be earlier than 30 June 2007 to be appointed by the Minister by notice in the *Gazette*; and 1 or more notices may be made bringing different provisions of paragraph (b) into force on different dates.

(d) An aircraft equipped with a lockable door leading to any compartment normally accessible to passengers must be equipped with a means for the crew to unlock the door.

Rule 91.523 is revoked and replaced by the following new rule:

91.523 Emergency equipment

(a) An aircraft with a certificated seating capacity of 10 passenger seats or more must be equipped with—

(1) the number of first aid kits specified in Table 7, which must be distributed and readily accessible in each passenger compartment for the treatment of injuries likely to occur in flight or in minor accidents; and

(2) the number of hand-held fire extinguishers specified in Table 8, which must be readily accessible, and distributed in accordance with Table 8.

(b) An aircraft with a certificated seating capacity of 20 passenger seats or more must be equipped with an axe that is readily accessible to the crew.

(c) An aircraft with a certificated seating capacity of 61 passenger seats or more must be equipped with portable battery-powered megaphones—

(1) readily accessible from the flight attendant seat for the crew members who are assigned to direct emergency evacuation; and

(2) distributed in accordance with Table 9.

(d) Each item of equipment that is required under paragraphs (a)(2) and (c) must clearly indicate its method of operation.

(e) Each compartment or container that contains an item of equipment that is required under paragraph (a), must be marked to indicate its contents.

(f) Paragraph (c) does not apply when the aircraft is carrying cargo exclusively in any passenger compartment converted for the carriage of cargo.

Table 7: First aid kit

Certificated passenger seating capacity of—	Total number of kits
1 through 100	1
101 through 200	2
201 through 300	3
301 through 400	4
401 through 500	5
501 through 600	6
601 or more	7

Table 8. Hand-held fire extinguishers

Location	Distribution
Accessible to the crew near the entrance to each Class A, B, and E cargo compartment	1
On or near the flight deck, readily accessible from the flight crew station	1
A galley not in a passenger, crew, or cargo compartment	1
Accessible to each galley in a passenger compartment	1
Passenger Compartment with certificated passenger seating capacity of—	
1 through 30	1
31 through 60	2
61 through 200	3
201 through 300	4
301 through 400	5
401 through 500	6
501 through 600	7
601 or more	8

Table 9. Megaphones

Certificated passenger seating capacity of—	Distribution	
	Forward end	Most rearward location
61 through 99		1
100 or more	1	1

Rule 91.525 is revoked and replaced by the following new rule:

91.525 Flights over water

(a) An aircraft that is operated on a flight over water must be equipped with 1 life preserver for each person on board and stowed in a position that is readily accessible from the seat or berth occupied by the person if—

(1) the aircraft is a single-engine aircraft and the flight distance to shore is more than gliding distance for the aircraft; or

(2) the aircraft is a multi-engine aircraft that is unable to maintain a height of at least 1000 feet AMSL with 1 engine inoperative, and the flight distance to shore is more than gliding distance for the aircraft; or

(3) the aircraft is a multi-engine aircraft that is capable of maintaining a height of at least 1000 feet AMSL with 1 engine inoperative and the flight distance to shore is more than 50 nm.

(b) A single-engine aircraft, or multi-engine aircraft that is unable to maintain a height of at least 1000 feet AMSL with 1 engine inoperative, that is operated on a flight over water that extends to more than 100 nm from shore must be equipped with—

(1) enough life-rafts with buoyancy and rated capacity to accommodate all the occupants of the aircraft; and

(2) a survival locator light on each life-raft; and

(3) a survival kit, appropriately equipped for the route to be flown, attached to each life-raft; and

(4) at least one pyrotechnic signalling device on each life-raft; and

(5) one ELT(S) or one EPIRB.

(c) A multi-engine aircraft that is capable of continuing flight with 1 or more engines inoperative that is operated on a flight over water that

extends to more than 200 nm from shore must be equipped with the equipment specified in paragraph (b).

(d) An aircraft in excess of 5700 kg MCTOW that is operated on a flight over water that extends to more than 200 nm from shore must be equipped with—

(1) the equipment specified in paragraph (b); and

(2) an additional ELT(S) or EPIRB.

(e) A manned balloon must be equipped with 1 life preserver for each person on board stowed in a position that is readily accessible from the position occupied by the person if—

(1) the flight crosses or might cross the shore of any lake or sea; or

(2) the flight takes-off from or intends to land at a site where the takeoff or approach path is so disposed over water that in the event of a mishap there is a likelihood of a ditching; or

(3) the flight takes-off from a site that is located within 1 nm of water at the ordinary high water mark and the wind is offshore or is less than 5 knots onshore.

(f) The life preservers, life-rafts, and signalling devices required under any of paragraphs (a) to (e) must be installed in conspicuously identified locations and must be easily accessible in the event of a ditching of the aircraft.

Rule 91.529 is revoked and replaced by the following new rule:

91.529 Emergency locator transmitter

(a) Except as provided in paragraphs (b) and (e), and rule 121.353(b), a person must not operate an aircraft unless an automatic ELT is installed in the aircraft.

(b) An aircraft may be operated without an automatic ELT installed if—

(1) the operation is to ferry the aircraft from the place where the operator takes possession of the aircraft to a place where the automatic ELT is to be installed; and

(2) the aircraft does not carry any passenger.

(c) Notwithstanding rule 91.501(4), an aircraft may be operated with an inoperative automatic ELT if—

(1) the operation is to ferry the aircraft from a place where repairs or replacement of the ELT cannot be made to a place where the repairs or replacement can be made; and

(2) the aircraft does not carry any passenger.

(d) Notwithstanding rule 91.501(4) and paragraph (c), an aircraft may be operated with an inoperative automatic ELT for a period of not more than 7 days if the aircraft is equipped with a portable ELT that is accessible to the persons on board the aircraft.

(e) Paragraph (a) does not apply to the following aircraft:

(1) an aircraft that is equipped with no more than 1 seat if the pilot is equipped with a portable ELT:

(2) a glider if at least 1 person carried in the glider is equipped with a portable ELT:

(3) a glider, or powered aircraft that is equipped with no more than 1 seat, if the glider or aircraft is operated not more than 10 nm from the aerodrome from which the glider or aircraft took off:

(4) a microlight aircraft:

(5) a manned free balloon.

(f) A holder of a certificate of registration for an aircraft that is equipped with an ELT that transmits on the 406 MHz frequency must not operate the aircraft unless—

(1) the ELT is uniquely coded to identify the aircraft or the ELT; and

(2) the national Search and Rescue organisation has been notified of the code entered in the ELT and the name and emergency contact details of the operator.

Rule 91.533 is revoked and replaced by the following new rule:

91.533 Supplemental oxygen for non-pressurised aircraft

(a) An aircraft with a non-pressurised cabin that is operated at altitudes above 10 000 feet AMSL must—

(1) if operating at altitudes up to and including 13 000 feet AMSL be equipped with—

(i) supplemental oxygen for continuous use by every crew member and 10% of passengers if the aircraft is operated above an altitude of 10 000 feet AMSL for any period in excess of 30 minutes; and

(ii) therapeutic oxygen for continuous use by not less than 3% of the passengers; and

(2) if operating at altitudes above 13 000 feet AMSL and up to and including 25 000 feet AMSL be equipped with—

(i) supplemental oxygen for continuous use by every crew member and passenger; and

(ii) therapeutic oxygen for continuous use by not less than 1% of the passengers; and

(iii) portable oxygen equipment for each flight attendant that is readily accessible for immediate use and containing the greater of 120 litres of oxygen or the quantity of oxygen required for continuous use during the period that the cabin pressure altitude exceeds 10 000 feet.

(b) The requirements in paragraph (a) may be satisfied by substituting an equivalent quantity of supplemental oxygen for therapeutic oxygen or an equivalent quantity of therapeutic oxygen for supplemental oxygen.

Rule 91.535 is revoked and replaced by the following new rule:

91.535 Supplemental oxygen for pressurised aircraft

Flights above 10 000 ft AMSL and up to 25 000 ft AMSL

(a) An aircraft with a pressurised cabin that is to be operated at altitudes above 10 000 feet AMSL and up to and including 25 000 feet AMSL must be equipped with—

(1) an on-demand oxygen mask for each flight crew member, that is readily accessible to the flight crew member at his or her normally-seated position and capable of providing a continuous supply of supplemental oxygen for the period that the cabin pressure altitude exceeds 10 000 feet AMSL if the cabin pressurisation system fails; and

(2) the following equipment that is readily accessible to each flight attendant at his or her normally-seated position:

(i) a passenger oxygen mask:

(ii) portable oxygen equipment that is readily accessible for immediate use and containing the greater of 120 litres of oxygen or the quantity of oxygen required for continuous use for the period that the cabin pressure altitude exceeds 10 000 feet AMSL if the cabin pressurisation system fails; and

(3) sufficient spare oxygen masks, or portable oxygen equipment, distributed to provide immediate availability of oxygen to each crew member regardless of their location; and

(4) subject to paragraph (b), a minimum quantity of supplemental oxygen that must provide—

(i) 45 minutes supply for each flight crew member; and

(ii) 12 minutes supply for each flight attendant, and each passenger; and

(5) subject to paragraph (b), the greater of the quantity of supplemental or therapeutic oxygen that may be required by any one of the following:

(i) if the aircraft is capable of descending from its flight altitude to below 14 000 feet AMSL within 4 minutes—a quantity to provide oxygen for 10% of the passengers for any period that the cabin pressure altitude exceeds 10 000 feet AMSL:

(ii) if the aircraft cannot descend to below 14 000 feet AMSL within 4 minutes—a quantity to provide oxygen for all the passengers for the period that the cabin pressure altitude exceeds 14 000 feet AMSL:

(iii) a quantity to provide oxygen for 10% of the passengers for a period of 30 minutes:

(iv) a quantity to provide oxygen for continuous use by 1% of the passengers.

(b) The calculation of the quantity of oxygen that is required to meet the requirements under paragraphs (a)(4) and (a)(5) in the event of a cabin pressurisation system failure must take into account—

(1) the time that is required for the aircraft to make an emergency descent and recover to level flight at a safe altitude; and

(2) the time that is required for the aircraft to be flown at a pressure altitude above 10 000 feet during any subsequent stage of the flight prior to landing.

Flights above 25 000 ft AMSL and up to 30 000 ft AMSL

(c) An aircraft with a pressurised cabin that is operated at altitudes above 25 000 feet AMSL and up to and including 30 000 feet AMSL

must be equipped with the equipment required under paragraph (a) and—

(1) a quick donning on-demand mask for each flight crew member that is readily accessible to the flight crew member at their normally seated position; and

(2) oxygen masks capable of providing supplemental oxygen—

(i) to every passenger and flight attendant; and

(ii) in each washroom and each separate lavatory; and

(3) therapeutic oxygen capable of providing not less than 15 minutes supply in addition to the oxygen required under paragraph (a)(5)(iii), for 10% of the passengers carried.

Flights above 30 000 ft AMSL

(d) An aircraft with a pressurised cabin that is to be operated at altitudes above 30 000 feet AMSL must be equipped with the equipment required under paragraphs (a) and (c) with the following additional requirements:

(1) the total number of oxygen outlets and masks in the passenger compartments, including those in each washroom and lavatory, must be at least 10% greater than the number of passenger seats:

(2) the extra oxygen units must be uniformly distributed throughout the aircraft:

(3) the oxygen masks must be automatically presented to the passengers and flight attendants in the passenger compartment if the cabin pressure altitude exceeds 14 000 feet AMSL:

(4) the flight crew must be provided with a manual means of making the passenger masks available if the automatic system fails.

Rule 91.537 is revoked and replaced by the following new rule:

91.537 Inoperative instruments and equipment

(a) An aircraft with inoperative instruments or equipment may be operated if—

(1) an MEL has been approved for the aircraft in accordance with rule 91.539; and

(2) the aircraft is certified for release-to-service with the inoperative instruments or equipment in accordance with the requirements of rule 43.107; and

(3) the aircraft is operated in accordance with every applicable condition and limitation contained in the MEL.

(b) An aircraft that does not exceed 5700 kg MCTOW and does not have a MEL approved under rule 91.539 may be operated under this Part with inoperative instruments and equipment if—

(1) the inoperative instruments and equipment are—

(i) not instruments and equipment prescribed for VFR day certification in the applicable airworthiness requirements under which the aircraft was type certificated; and

(ii) not required by this Subpart for specific operations; and

(iii) not required by an airworthiness directive to be in operable condition; and

(2) the aircraft is certified for release-to-service with the inoperative instruments or equipment in accordance with the requirements of rule 43.107.

(c) An aircraft that does not meet the requirements of paragraphs (a) or (b) may be operated with inoperative instruments and equipment if a *special category – special flight permit* airworthiness

certificate has been issued in respect of the aircraft in accordance with subpart H of Part 21.

Rule 91.539 is revoked and replaced by the following new rule:

91.539 Approval of minimum equipment list

(a) An applicant for the approval of a MEL must complete form CAA 24091/01, and submit it to the Director together with a payment of the appropriate application fee prescribed by regulations made under the Act.

(b) A MEL must contain—

(1) the type and model of the aircraft to which it applies; and

(2) a list of instruments and equipment for the aircraft that may be partially or fully inoperative that—

(i) has been approved by the manufacturer of the aircraft; or

(ii) has been approved by the ICAO Contracting State that issued the type certificate for the aircraft; or

(iii) is acceptable to the Director on the grounds that the inoperative instruments and equipment do not affect the safe operation of the aircraft.

(c) A MEL must not contain any instruments or equipment that are—

(1) either specifically or otherwise required by the airworthiness requirements under which the aircraft is type certificated; or

(2) required by this subpart for specific operations; or

(3) required by an AD to be in operable condition.

(d) The Director may specify operating conditions and limitations on the MEL that the Director considers necessary in the interests of aviation safety.

Subpart G is revoked and replaced by the following new Subpart G:

Subpart G — Operator Maintenance Requirements

91.601 Purpose

(a) This subpart prescribes the requirements to maintain New Zealand registered aircraft operating within or outside of New Zealand.

(b) Except for the following rules, this subpart does not apply to a microlight aircraft that is maintained in accordance with Part 103:

(1) rule 91.605(e)(2) (test and inspection of automatic pressure altitude reporting system if the microlight aircraft is equipped with a SSR transponder):

(2) rule 91.605(e)(3) (SSR transponder):

(3) rule 91.605(e)(8) (flotation equipment):

(4) rule 91.616 (maintenance logbook - Class 2 microlight aircraft):

(5) rule 91.617 (maintenance records - Class 2 microlight aircraft):

(6) rule 91.621 (transfer of maintenance records):

(7) rule 91.623 (retention of records).

(c) Except for the following rules, this subpart does not apply to a glider that is maintained in accordance with Part 104:

(1) rule 91.605(e) (maintenance of instruments and equipment):

(2) rule 91.613 (operational flight check):

(3) rule 91.615 (annual review of airworthiness):

(4) rule 91.616 (maintenance logbook):

(5) rule 91.617 (maintenance records):

(6) rule 91.621 (transfer of maintenance records):

(7) rule 91.623 (retention of records).

91.602 Maintenance requirements before flight

(a) Except as provided in paragraph (b) and rule 91.611, a person must not operate an aircraft unless the requirements prescribed in rules 91.603, 91.605, and 91.615 have been complied with.

(b) Paragraph (a) does not apply to a person operating an aircraft if a *special category – special flight permit* airworthiness certificate has been issued in respect of the aircraft in accordance with subpart H of Part 21.

91.603 General maintenance requirements

(a) The operator of an aircraft must ensure that—

(1) the aircraft is maintained in an airworthy condition; and

(2) every applicable airworthiness directive is complied with in accordance with the requirements prescribed in Part 39; and

(3) the aircraft is inspected in accordance with this subpart; and

(4) except for instruments and equipment that are permitted to be inoperative under rule 91.537, every defect is rectified before flight; and

(5) any inoperative instrument or item of equipment that is permitted to be inoperative under rule 91.537, is repaired, replaced, removed, or inspected at the next inspection required by the maintenance programme under which the aircraft is maintained; and

(6) maintenance on the aircraft is performed in accordance with the requirements prescribed in this subpart, Part 43, and any other applicable rule; and

(7) the aircraft is certified for release-to-service in accordance with the requirements prescribed in Part 43 after the performance of any maintenance on the aircraft; and

(8) every system that is required under subpart F for indicating the presence of carbon monoxide in the cabin of the aircraft is serviceable and within any applicable life limit for the system.

(b) The operator of an aircraft must ensure compliance with the airworthiness limitations mandated by the airworthiness authority of the State of Design in the instructions for continued airworthiness issued for the aircraft.

(c) Except as provided in paragraphs (d) to (f), the operator of an aircraft must ensure compliance with the manufacturer's recommended overhaul intervals.

(d) Products and components may be operated beyond the manufacturer's recommended TBO if the operator complies with TBO escalation procedures that are detailed in a maintenance programme that is accepted under Part 119 or approved under rule 91.607.

(e) In spite of paragraph (d), a piston engine fitted to an aircraft that is not used for hire or reward operations may be operated beyond the manufacturer's recommended TBO if the piston engine is maintained in accordance with an engine TBO escalation programme that is acceptable to the Director.

(f) In spite of paragraph (d), a propeller fitted to an aircraft that is not used for air operations may be operated beyond the manufacturer's recommended calendar TBO if the propeller is inspected in accordance with methods acceptable to the Director at 5 yearly intervals, except that propellers must be overhauled at the manufacturer's recommended operating hours TBO.

91.605 Maintenance programmes and schedules

(a) Subject to paragraphs (b), (c), and (d), the operator of an aircraft must maintain the aircraft in accordance with—

(1) a maintenance programme approved under Part 119; or

(2) a maintenance programme approved under rule 91.607; or

(3) the manufacturer's maintenance schedule; or

(4) if the aircraft is powered by a piston engine and has a MCTOW of 2730 kg or less, a maintenance programme that is acceptable to the Director and includes at least the following:

(i) details of the responsibilities and standards for maintenance of the aircraft in accordance with the applicable rule requirements:

(ii) details of pre-flight checks:

(iii) details of scheduled maintenance checks and inspections.

(b) The operator of an aircraft that is—

(1) used for air operations under the authority of an air operator certificate issued in accordance with Part 119 must maintain the aircraft in accordance with the maintenance programme that is required under Part 119 for the issue of the air operator certificate; or

(2) issued with a *special category – experimental* airworthiness certificate must maintain the aircraft in accordance with a maintenance programme approved under rule 91.607.

(c) If the manufacturer's maintenance schedule referred to in paragraph (a)(3) does not provide for an aircraft that operates for less than 100 hours of time in service per year, the operator must ensure that the manufacturer's 100-hour inspection or an equivalent inspection is completed within the preceding 12 months.

(d) If the Director determines that a manufacturer's maintenance schedule referred to in paragraph (a)(3) is deficient, the Director may require the operator to submit a maintenance programme for approval under rule 91.607.

(e) Except as provided in paragraph (f) and rule 91.611, the operator of an aircraft must not operate the aircraft unless—

(1) every aircraft radio station that is required to be installed in the aircraft under subpart F for operations under IFR has been tested and inspected in accordance with Part 43, Appendix B within the preceding 24 months; and

(2) every static pressure system, altimeter instrument, or automatic pressure altitude reporting system that is required to be installed in the aircraft under subpart F, or required for an SSR transponder installed in the aircraft, has been tested and inspected in accordance with Part 43, Appendix D—

(i) within the preceding 24 months; and

(ii) following any opening and closing of the static pressure system, except for the use of system drain and alternate static pressure valves, or where self-sealing disconnect coupling is provided; and

(iii) following installation of, or maintenance on, the automatic pressure altitude reporting system where data correspondence error could be introduced; and

(3) every SSR transponder that is required to be installed in the aircraft under subpart F has been tested and inspected, in accordance with Part 43, Appendix E within the preceding 24 months; and

(4) every emergency locator transmitter that is required to be installed in the aircraft under subpart F—

(i) has been tested and inspected in accordance with Part 43, Appendix F within the preceding 12 months; and

(ii) has had its batteries replaced or recharged after the transmitter has been in use for more than 1 cumulative hour; and

(iii) has had its batteries replaced or recharged when their useful life or, for rechargeable batteries, their useful life of charge, as established by the manufacturer, has expired; and

(5) every compass that is required to be installed in the aircraft under subpart F has been calibrated—

(i) within the preceding 24 months; and

(ii) following any out of phase event that may affect the calibration of the compass unless the aircraft manufacturer specifies otherwise; and

(6) every first aid kit that is required to be installed in the aircraft under subpart F has been inspected—

(i) within the preceding 12 months to ensure that appropriate quantities of items are included and time-expired items are replaced; and

(ii) after every reported use to ensure that appropriate quantities of items are included; and

(7) every portable fire extinguisher that is required to be installed in the aircraft under subpart F has been inspected for condition and tested in accordance with the manufacturer's instructions or other equivalent instructions acceptable to the Director within the preceding 12 months; and

(8) all flotation equipment that is required to be installed in the aircraft under subpart F has been inspected for condition and tested in accordance with the manufacturer's instructions or other equivalent instructions acceptable to the Director within the preceding 12 months; and

(9) the aircraft's empty weight and centre of gravity is re-established if—

(i) changes have been made to the aircraft that could affect the empty weight and centre of gravity; or

(ii) the operator has any reason to suspect that the information in the aircraft's flight manual is no longer accurate; and

(10) for a powered aircraft with a maximum certificated seating capacity of 4 or more seats, the aircraft has been weighed within the preceding 10 years.

(f) The operator of an aircraft that is maintained in accordance with a maintenance programme referred to in paragraphs (a)(1) or (a)(2) is not required to comply with any particular requirement in paragraph (e) if the maintenance programme for the aircraft includes a test, inspection, or other action that is equivalent to the particular requirement in paragraph (e).

(g) The operator of an aircraft must—

(1) identify in the maintenance logbook for the aircraft which maintenance option under paragraph (a) is to be used for the aircraft; and

(2) if the maintenance programme is one that is accepted under Part 119 or approved under rule 91.607, identify in the maintenance programme the person who is responsible for scheduling the maintenance that is required in the programme; and

(3) if changing from the maintenance programme or option identified under paragraph (g)(1) to another programme or option under paragraph (a), schedule the inspections required by the new programme or schedule, as the case may be, to provide for the continued airworthy condition of the aircraft; and

(4) provide a copy of the applicable maintenance programme or schedule to the person who performs maintenance on the aircraft, and upon request to the Director.

91.607 Approval of maintenance programmes

(a) An applicant for the approval of a maintenance programme referred to in rule 91.605(a)(2) must complete form CAA 24091/02, and submit it to the Director together with the document required by paragraph (b) and a payment of the appropriate application fee prescribed by Regulations made under the Act.

(b) The applicant for the approval of a maintenance programme must provide the Director with a document containing—

(1) a description of the maintenance programme; and

(2) procedures for maintenance control; and

(3) procedures for the compilation and retention of records, reports, and technical reference material; and

(4) instructions and procedures for the conduct of the maintenance for the particular aircraft type, including required inspections and tests; and

(5) an inspection schedule that is consistent with—

(i) the manufacturer's recommendations; and

(ii) the operator’s service experience; and

(iii) the type of operation in which the aircraft is engaged; and

(6) procedures for extending inspection intervals in accordance with rule 91.611, if applicable; and

(7) procedures for assessing and controlling engine, propeller and component TBO escalations, if applicable; and

(8) procedures for changing an inspection interval on the basis of service experience, if applicable; and

(9) sample inspection forms, and instructions for their use; and

(10) sample reports and records, and instructions for their use.

(c) The Director may approve a maintenance programme for an applicant if the Director is satisfied that—

(1) the programme meets the requirements of paragraph (b); and

(2) the approval of the maintenance programme is not contrary to the interests of aviation safety.

91.609 Changes to maintenance programmes and schedules

(a) An operator of an aircraft must, upon a written request from the Director, amend a maintenance programme or schedule for an aircraft if the Director considers that an amendment is necessary to satisfy the continuing airworthiness requirements for the aircraft.

(b) If an operator discontinues a maintenance programme that is approved under rule 91.607, the operator must—

(1) notify the Director in writing, within 7 days of the maintenance programme being discontinued; and

(2) reschedule the inspections required by the new maintenance programme from the date or time, as applicable, that the equivalent inspection was last completed for the aircraft.

91.611 Inspection planning latitude

(a) Unless expressly prohibited by these rules, an airworthiness directive, or a manufacturer's mandatory inspection requirement, the inspection intervals required by rule 91.605 may be extended by up to 10% to allow for maintenance planning purposes.

(b) If the extension provisions of paragraph (a) are applied to an aircraft—

(1) the new extended date, or aircraft operating hours or cycles, whichever is applicable, for the inspection must be recorded in the appropriate maintenance logbook or technical log; and

(2) the next required inspection interval must start from the beginning of the extension period to ensure that any

extension that is applied to an inspection interval is not cumulative.

91.613 Operational flight check

(a) A person performing an operational flight check that is required by rule 43.103(a)(4)(i) must—

(1) hold a valid pilot licence and type rating for the aircraft; and

(2) check that the flight characteristics of the aircraft have not appreciably changed as a result of the maintenance; and

(3) record any defects found during the operational flight check in the technical log.

(b) A person performing an operational flight check under paragraph (a) must not carry any other person on the aircraft unless that person is required to perform an essential function that is associated with the flight check.

91.615 Annual review of airworthiness

(a) Except as provided in paragraphs (b) and (c), a person must not operate an aircraft unless—

(1) an annual review of airworthiness for the aircraft has been certified as completed in accordance with subpart D of Part 43 within the preceding 365 days; or

(2) the aircraft has been issued with an airworthiness certificate in accordance with Part 21 within the preceding 365 days.

(b) Paragraph (a) does not apply to an aircraft that is operated in accordance with the following Parts under the authority of an air operator certificate issued in accordance with Part 119:

(1) Part 121:

(2) Part 125:

(3) Part 135 if the aircraft is subject to a maintenance review in accordance with rule 135.415(a).

(c) A person may operate an aircraft after the date at which an annual review of airworthiness is required under paragraph (a)(1)—

(1) for a period of not more than 36 days to allow for maintenance planning purposes if a new extended date, within the 36 day period, for the annual review of airworthiness is recorded in the technical log; or

(2) if the sole purpose of operating the aircraft is to enable the annual review of airworthiness to be completed.

91.616 Maintenance logbooks

An operator of an aircraft, except a Class 1 microlight aeroplane, must—

(1) provide appropriate maintenance logbooks for the aircraft; and

(2) ensure that the maintenance logbooks are not carried in the aircraft.

91.617 Maintenance records

(a) An operator of an aircraft, except a Class 1 microlight aeroplane, must ensure that for each airframe, and each product and component that has a finite life or a TBO recommended by the manufacturer, accurate records are compiled in the appropriate maintenance logbook for the total time-in-service, and if applicable the total cycles.

(b) An operator of an aircraft, except a Class 1 microlight aeroplane, must ensure that for each product and component, the maintenance records required under rule 43.69 are compiled and retained.

(c) An operator of an aircraft that is involved in an accident must ensure that descriptive details of the circumstances of the accident, and descriptive details of the resultant damage to the aircraft are recorded in the appropriate maintenance logbook.

(d) The records required in paragraphs (a), (b), and (c) may be kept in plain language form, or in coded form provided that the coded form provides for the preservation and retrieval of information that is required to be recorded.

91.619 Technical log

(a) Except as provided in paragraph (c), the operator of an aircraft must provide a technical log for the aircraft with provision for recording the following information:

(1) the name of the operator:

(2) the registration mark, type, and model of the aircraft:

(3) the identity of the maintenance programme or schedule required under rule 91.605(a), to which the aircraft is maintained:

(4) a statement of the maintenance status of the aircraft including—

(i) the identity of the next scheduled inspection and the date or hours due; and

(ii) any requirement under rule 43.103(a)(4)(i) for an operational flight check to be carried out:

(5) the date or hours at which any other maintenance is due prior to the next scheduled inspection:

(6) the date at which the next annual review of airworthiness or maintenance review is due:

(7) the daily hours flown:

(8) the total time in service:

(9) if applicable,—

(i) the daily cycles used; and

(ii) the total cycles:

(10) any defects found during the pre-flight inspection, during a flight, or following a flight:

(11) details of the rectification of defects that occur between scheduled inspections and the certification for release-to-service for the rectification:

(12) details of any deferred rectification of defects including any instruments and equipment that are inoperative in accordance with rule 91.537.

(b) The operator of an aircraft must ensure that the information specified in paragraph (a) is accurately recorded in the technical log and that the information is current.

(c) The holder of an air operator certificate issued in accordance with Part 119 may record the following information in a format other than in the technical log, if that format and the associated procedures are acceptable to the Director, and the information is accurate and available to the pilot-in-command on request:

(1) the identity of the next scheduled inspection and the date or hours due:

(2) the date or hours at which any other maintenance is due prior to the next scheduled inspection:

(3) the total time-in-service:

(4) the total cycles.

91.621 Transfer of maintenance records

The holder of a New Zealand certificate of registration for an aircraft who transfers the possession of the aircraft to another person in accordance with Part 47 must, at the time of the transfer of the aircraft, transfer to that person—

(1) the records specified in rule 91.617(b); and

(2) the records specified in rule 91.617(a) if they are not included in the records transferred under paragraph (1).

91.623 Retention of records

(a) Except as provided in paragraphs (b) and (c), the operator of an aircraft must retain the records specified in rule 91.617 for at least 12 months after the product or component is withdrawn from service.

(b) The record of maintenance information required under rule 43.69(a)(1) only needs to be retained until the maintenance is repeated or superseded by other maintenance of equivalent scope and detail, or for a period of at least 5 years after the maintenance is performed, whichever occurs first.

(c) Paragraphs (a) and (b) do not apply to any maintenance record for an airframe, engine, propeller, rotor, or appliance of an aircraft that was required to be compiled under rule 91.627(a)(1) that was in force on 28 February 2007 and has been discarded before 1 March 2007 in accordance with rule 91.631(1) that was in force on 28 February 2007.

(d) The operator of an aircraft must retain the technical log required under rule 91.619 for a period of at least 12 months after the date of the last entry in the technical log.

Appendix A – Instrument and equipment specifications

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

A.1 Markings and placards

(a) A marking or placard that is required to be displayed on or in an aircraft must be displayed in a conspicuous place and in such a manner to minimise the risk of erasure, disfigurement, obscuring, or removal.

(b) Each unit of measure used on a marking or placard must be the same as that on any related instrument or in the related flight manual.

Appendix A.5 is revoked and replaced by the following new appendix A.5:

A.5 Child restraint systems

A child restraint system must—

(1) be secured to the aircraft seat or berth by a safety belt meeting the requirements of TSO C22; and

(2) not be fitted with a tether strap that secures the top of the infant or child seat; and

(3) meet the requirements of—

(i) TSO C100; or

(ii) New Zealand Standard 5411; or

(iii) Australia / New Zealand Standard AS/NZS/1754; or

(iv) United States Standard FMVSS 213; or

(v) European Standard ECE 44.

Appendix A.7 is revoked and replaced by the following new appendix A.7:

A.7 Aircraft time-in-service recorders

An aircraft time-in-service recorder must meet the requirements of NZTSO 2001.

Appendix A.9 is revoked and replaced by the following new appendix A.9:

A.9 Communication and navigation equipment

(a) Except as provided in paragraph (c), radio communication and navigation equipment must meet the requirements of—

(1) for Level 1—

(i) communication equipment, one of the following TSO as applicable: C31, C32, C37, C38, or C50; or

(ii) navigation equipment, one of the following TSO as applicable: C34, C35, C36, C40, C41, C60, C94, or C129; or

(iii) United Kingdom Civil Aviation Authority approval for Category WR, VC, or LA Class I; or

(iv) Australian Airborne Radio Navigation Publication No. 50 (Pub 50) Class I; or

(2) for Level 2—

(i) United Kingdom Civil Aviation Authority approval for Category LA Class II; or

(ii) Pub 50 V or L; or

(3) for Level 3, United Kingdom Civil Aviation Authority approval for Category LA Class III or Category G; or

(4) for Level 4—

(i) the requirements of the Radiocommunications Regulations 2001; and

(ii) compass safe distances determined in accordance with British Standard 3G,100: Part 2, Section 2.

(b) If 2 independent radio communication systems are required—

(1) each system must have an independent antenna; or

(2) the two systems may use a single rigidly supported non-wire antenna.

(c) The following equipment may be used to meet the radio communication equipment requirements for operations in gliders,

amateur built aircraft, and microlight aircraft, if the equipment installation conforms to acceptable technical data, and the transceiver is connected to a quarter-wave antenna permanently mounted on the aircraft—

(1) equipment listed in United Kingdom Civil Aviation Authority approval for Category G(a); or

(2) any other equipment shown by a test programme and accepted by the Director as capable of meeting the applicable requirements of the United Kingdom Civil Aviation Authority approval referred to in paragraph(c)(1).

Appendix A.14 is revoked and replaced by the following new appendix A.14:

A.14 Emergency equipment

(a) A life preserver must have a survival locator light that meets the requirements of TSO C85 and—

(1) for inflatable life preservers—

(i) a minimum inflated buoyancy of 150 newtons; and

(ii) a manually operated CO_2 inflation with oral top up; and

(2) for constant wear anti-exposure coveralls, a minimum inherent buoyancy of 75 newtons provided by non-flammable closed cell buoyancy foam.

(b) A life preserver must meet the requirements of—

(1) for inflatable life preservers—

(i) TSO C13; or

(ii) European Norm EN 396; or

(iii) New Zealand Standard NZ 5823; and

(2) for constant wear anti-exposure coveralls, US Coastguard Type V PFD.

(c) A life-raft must meet the requirements of TSO C70 and contain a survival kit.

(d) The survival kit required in paragraph (c) must include—

(1) one canopy; and

(2) one radar reflector or flare kit; and

(3) one life-raft repair kit; and

(4) one bailing bucket; and

(5) one signalling mirror; and

(6) one whistle; and

(7) one raft knife; and

(8) one compressed gas bottle for emergency inflation; and

(9) one inflation pump; and

(10) one 25 m retaining line; and

(11) one magnetic compass; and

(12) one dye marker; and

(13) one flashlight having at least 2 ‘D’ cells or equivalent; and

(14) one fishing kit; and

(15) two oars or 2 glove paddles; and

(16) a 2 day supply of food rations supplying at least 1000 calories per day for every person that the raft is rated to carry; and

(17) 1200 mls of water for every 2 persons that the raft is rated to carry, or 1 sea water desalting kit; and

(18) one first aid kit suitable for treatment of minor injuries; and

(19) one book on survival appropriate for the area over which the aircraft is operated; and

(20) a sea anchor; and

(21) a water collection bag or cups.

(e) A survival locator light must meet the requirements of TSO C85.

Appendix A.15 is revoked and replaced by the following new appendix A.15:

A.15 Emergency locator transmitters

(a) Except as provided in paragraph (f), an automatic ELT must meet the requirements of—

(1) TSO C91a for transmitting on 121.5 MHz; or

(2) TSO C126 for transmitting on 406 MHz.

(b) an automatic ELT must—

(1) be attached to the aircraft in such a manner that—

(i) the probability of damage to the ELT in the event of an accident or impact is minimised; and

(ii) the ELT mounting is to a primary load-carrying structure provided the attachment does not degrade the structural capability of the aircraft; and

(iii) a force of 450 newtons applied to the ELT mounting in the most flexible direction does not cause a static deflection greater than 2.5 mm relative to a section of

adjacent structure located between 0.3 m and 1.0 m from the attachment site; and

(iv) the ELT and any external antenna can support a 100 g load in the plus and minus directions of the 3 principal axes of the aircraft; and

(v) the ELT and any external antenna are as close to each other as possible; and

(vi) for a fixed or a deployable automatic ELT, the ELT is attached as far aft as possible; and

(2) have its crash activation sensor—

(i) located so as to prevent inadvertent operation; and

(ii) axis orientated to sense a primary crash pulse along the longitudinal axis of the aircraft; and

(3) have its antenna—

(i) mounted to provide vertical polarisation with the aircraft in normal flight; and

(ii) for an external antenna, mounted not less than 0.6 m from any other VHF antenna unless the manufacturer specifies that a closer mounting may be used; and

(iii) for an internal antenna, insulated from metal parts and exposed to a window of at least 0.3 m square; and

(4) be fitted with vibration proof RF connectors on each end of the ELT-antenna coaxial cable; and

(5) have its location identified near the point of access.

(c) An ELT(S) and EPIRB must—

(1) be self buoyant; and

(2) be water resistant; and

(3) be portable.

(d) An ELT(S) must meet the requirements of—

(1) TSO C91a; or

(2) TSO C126.

(e) An EPIRB must meet the requirements of—

(1) Australian/New Zealand Standard AS/NZS 4330:2000; or

(2) Australian Ministerial Standard MS241.

(f) An automatic ELT or ELT(S) installed prior to 1 April 1997 must—

(1) meet the requirements of TSO C91 or TSO C91a; and

(2) if the automatic ELT or ELT(S) becomes unserviceable, be replaced with an automatic ELT meeting the requirements of TSO C91a or TSO C126

(g) For the purposes of paragraph (f)(2), an automatic ELT or ELT(S) is not considered unserviceable when maintenance required by 91.605 is performed.

(h) An ELT or ELT(S) that meets the requirements of TSO-C126 must be uniquely coded with the International Telecommunication Union (ITU) country code for New Zealand and the—

(1) ELT serial number; or

(2) aircraft operating agency ICAO designator and serial number from 0001 to 4096; or

(3) 24 bit aircraft address for the aircraft to which the ELT or ELT(S) is installed; or

(4) aircraft nationality and registration marks for the aircraft to which the ELT or ELT(S) is installed.

(i) A portable ELT must be stowed in the aircraft in a manner that allows it to be readily available to any person on the aircraft if there is an emergency.

(j) A portable ELT must meet the requirements of—

(1) TSO C91a for ELT(S) equipment; or

(2) TSO C126 for ELT(S) equipment; or

(3) Australian/New Zealand Standard AS/NZS 4330:2000; or

(4) Australian Ministerial Standard MS241.

Appendix A.19 is revoked and replaced by the following new appendix A.19:

A.19 Oxygen equipment

(a) Flight crew member oxygen equipment must provide an oxygen flow rate—

(1) for continuous flow equipment, that is the greater of—

(i) 2 litres per minute STPD; or

(ii) that required to maintain a MTOPP of 149 mm Hg when breathing 15 litres per minute BTPS with a tidal volume of 700 millilitres; and

(2) for on-demand equipment—

(i) for flights up to 35 000 feet AMSL, not less than that required to maintain a MTOPP of 122 mm Hg; and

(ii) for flights above 35 000 feet AMSL, not less than 20 litres per minute BTPS; and

(iii) for flights above 41 000 feet AMSL, that progressively increases until not less than 15 mm Hg above ambient pressure and 30 litres per minute BTPS is achieved at 45 000 feet AMSL; and

(3) for protective equipment, of 30 litres per minute BTPD at a pressure altitude of 8 000 feet AMSL.

(b) Crew member and passenger oxygen equipment must provide an oxygen flow rate—

(1) for flights from 10 000 feet to 18 500 feet AMSL, not less than that required to maintain a MTOPP of 100 mm Hg when breathing 15 litres per minute BTPS with a tidal volume of 700 millilitres; and

(2) for flights from 18 500 feet to 40 000 feet AMSL, not less than that required to maintain a MTOPP of 83.8 mm Hg when breathing 30 litres per minute BTPS with a tidal volume of 1100 millilitres; and

(3) for flights from 40 000 feet to 45 000 feet AMSL, not less than that required to maintain a MTOPP of 55 mm Hg when breathing 30 litres per minute BTPS with a tidal volume of 1100 millilitres.

(c) Portable oxygen equipment must provide an oxygen flow rate of not less than—

(1) 2 litres per minute STPD on a low setting; and

(2) 4 litres per minute STPD on a high setting.

(d) On-demand oxygen regulators must meet the requirements of TSO C89.

The following new Appendix B is inserted after Appendix A:

Appendix B – Transitional arrangements

(a) An operator of an aircraft—

(1) that was required by rule 91.607 that was in force immediately before 1 March 2007 to have an annual or 100 hour inspection performed within the prescribed periods; and

(2) that is to be maintained in accordance with rule 91.605(a)(3) or (a)(4) that came into force on 1 March 2007;

is not required to comply with—

(i) the requirement under rule 91.605(a)(3) or (a)(4), as the case may be, regarding equivalent annual and 100 hour inspections contained in the aircraft manufacturer's maintenance schedule, or the maintenance programme acceptable to the Director, until 1 September 2007 if the aircraft continues to be subject to the annual and 100 hour inspection requirements in rules 91.607, 43.57, and Appendix C of Part 43 that were in force immediately before 1 March 2007; and

(ii) the requirement for a 100 hour inspection under rule 91.605(a)(3), (a)(4), or (c), as the case may be, until 12 months or 100 hours time in service, whichever occurs first, after the last corresponding inspection that was carried out under rule 91.607 that was in force immediately before 1 March 2007.

(b) An operator of an aircraft is not required to comply with the requirements in rules 91.605(e)(5) and 91.605(e)(8) until 1 March 2008.

(c) An operator of an aircraft that is not used for air operations may continue to operate a component of the aircraft, except an engine or a propeller, beyond the manufacturer's recommended calendar TBO for the component until 1 September 2007 without complying with the requirement in rule 91.603(c) regarding compliance with the manufacturer's recommended overhaul intervals.

(d) Not withstanding paragraph (d), an operator of an aircraft that is fitted with a piston engine and is used for hire or reward operations may continue to operate the engine beyond the manufacturer's recommended overhaul intervals until 1 March 2009 without complying with the requirement in rule 91.603(d) for the engine to be maintained in accordance with a TBO escalation procedure that is detailed in a maintenance programme that is accepted under Part 119 or approved under rule 91.607 if—

(1) immediately before 1 March 2007 the engine is being maintained in accordance with established procedures for operation beyond the manufacturer's recommended overhaul intervals; and

(2) the engine continues to be maintained in accordance with the established procedures referred to in paragraph (ed)(1); and

(3) the aircraft is not used for air operations.

Consultation Details

(This statement does not form part of the rules contained in Part 91. It provides details of the consultation undertaken in making the rules.)

A review of the continuing airworthiness and maintenance requirements for New Zealand aircraft has been under development since 1998 following a review of the state of aircraft maintenance that was carried out in 1997. The changes to Part 43 are the central part of a package of changes that update rules relating to the maintenance of aircraft. The package was developed under docket 1/CAR/1357 and published in May 2005 as 3 separate Notices of Proposed Rule Making, NPRM 05-04 dealing with Part 43 and related rule Parts 91, and 145, NPRM 05-05 dealing with Part 21 and related Parts 26, 39,146, and 148, and NPRM 05-06 dealing with Part 119 and related Parts 103, 104, 121, 125, 135, and 137. The changes to the various rules are based on the 1997 review of aircraft maintenance and proposals arising from a CAA-Industry Technical Study Group set up in 1999.

The 3 Notices of Proposed Rulemaking, NPRM 05-04 Part 43 General Maintenance Rules, NPRM 05-05 Part 21 Certification of Products and Parts, and NPRM 05-06 Part 119 Air Operator – Certification, containing the proposed rules were issued for public consultation under Docket 1/CAR/1357 on 5 May 2005.

Comments arising from the NPRM

A total of 80 written submissions were received on the 3 NPRMs, mostly in relation to the Part 43 and 91 changes. The CAA has worked through these submissions and as a result has amended the rules where appropriate.

The structure of some rules has been amended and editorial changes have been made to provide clarity and, in some cases, to maintain consistency in the terminology used.

The consultation details relating to amendment 15 to Part 91 are contained in the consultation details of amendment 5 to Part 43. 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 +64 560 9603 and ask for docket 1/CAR/1357.