



WELLINGTON NEW ZEALAND

PURSUANT to Section 28 of the Civil Aviation Act 1990

I, HARRY JAMES DUYNHOVEN, Associate Minister of Transport,

HEREBY MAKE the following ordinary rules.

SIGNED AT Wellington

This 24th day of June 2003

by HARRY JAMES DUYNHOVEN

Associate Minister of Transport

Civil Aviation Rules

Part 91, Amendment 9

General Operating and Flight Rules

Docket 2/CAR/2

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Consultation Details

Rule objective

The objectives of amendment 8 to Part 91 is to clarify the operating and specification requirements for transponders by—

1. clarifying the requirement that transponders must have Mode C automatic pressure altitude reporting capability; and
2. clarifying requirements regarding Air Traffic Control and operation in transponder mandatory (TM) airspace without an operative transponder; and
3. providing for additional transponder codes; and
4. clarifying specification requirements for transponders.

Extent of consultation

In August 2001 the Civil Aviation Industry Rules Advisory Group (CIRAG) Executive accepted the terms of reference for the establishment of a Technical Study Group (TSG) to participate in a rule making project to introduce New Zealand requirements for airborne collision avoidance systems in accordance with the ICAO standards. The details of this proposal have been developed in consultation with the TSG under the CIRAG consultative process.

Participants on the TSG were drawn from the following sectors of the aviation industry:

- (a) Air traffic services (ATS);
- (b) New Zealand Airline Pilots Association (NZALPA);
- (c) Part 121 operators;
- (d) Part 125 operators;
- (e) Operators of freighter aeroplanes;
- (f) Aircraft Owners and Pilots Association (AOPA);
- (g) Gliding New Zealand (GNZ).

In addition, operators of sightseeing aircraft in the Queenstown area were briefed on the rule proposals and given the opportunity to provide feedback.

A total of four TSG meetings were held from August 2001 to November 2001.

A Notice of Proposed Rulemaking, NPRM 02-02, containing the proposed rule to require Part 121 aeroplanes to be equipped with ACAS II was issued for public consultation under Docket 2/CAR/2 on 14 December 2001.

The publication of this NPRM was notified in the Gazette on 13 December 2001 and advertised in the daily newspapers in the five main provincial centres on 15 December 2001. 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 84 days was provided for comment on the proposed rule.

Summary of comments

Three written submissions were received on the proposed Part 91 amendments contained in the NPRM.

GNZ requested that Part 91 transponder requirements be rewritten to permit the use of transponders without automatic pressure altitude reporting by gliders and balloons in TM airspace.

A submission by Airways Corporation of New Zealand (ACNZ) suggested that the proposed rule 91.541(a), which introduces a cross reference to the existing 91.247(c)(2), could together be interpreted as meaning that operation in transponder mandatory airspace without Mode C automatic pressure altitude reporting was acceptable “as of right.”

As stated in the NPRM the intention of the change to Part 91.247(a)(1) was to clarify that a transponder is required to be operated in both Mode A and Mode C in transponder mandatory airspace. To ensure this intention is preserved the CAA considered the best approach was to delete the existing rule 91.247(c)(2).

The third submission suggested changes to delete the existing rule requirement for a unique Mode S transponder identification code, to allow aircraft to transmit “anonymous” position reports for radar surveillance.

These submissions have been considered and as a result changes have been made to the proposed rules to reflect the ACNZ submission. Changes were not made as a result of the other two submissions.

The amended rule proposal includes the deletion of rule 91.247(c)(2).

The amended rule proposal was then circulated to all commenters and a period of 14 days was provided for commenters to respond.

The Airways Corporation of New Zealand responded to the amended proposal indicating support and suggesting that an advisory circular be produced to provide guidance to pilots on Part 91 changes.

Gliding New Zealand (GNZ) responded with a request for information from the CAA regarding the availability of Mode C altitude encoders with very short warm up times that the CAA research indicates are now available. GNZ also wanted to draw the CAA’s attention to recent tests in France that, in their view, suggested significant limitations on the capability of TCAS equipment when confronted with VFR targets manoeuvring in an unpredictable fashion.

The CAA responded with the information sought by GNZ.

The rule as amended was then referred to Parliament’s Regulations Review Committee before being signed by the Associate Minister of Transport.

Examination of comments

Comments 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 the existing rules and insertion of new rules.

Effective date of rule

Amendment 9 to Part 91 comes into force on 1 August 2003.

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 C — General Flight Rules

Rule 91.247 is revoked and the following new rule is inserted:

91.247 Use of SSR transponder and altitude reporting equipment

(a) Except as provided in paragraph (e), a pilot-in-command of an aircraft operating in transponder-mandatory airspace designated under Part 71 must, unless otherwise authorised or instructed by ATC—

- (1) operate the transponder—
 - (i) in Mode A and Mode C; or
 - (ii) in Mode S if the aircraft is equipped with Mode S equipment and allocated a unique Mode S code referred to in paragraph (b); and
- (2) except where paragraph (3) applies or when operating Mode S equipment, set the transponder—
 - (i) to the code assigned by ATC for the flight; or
 - (ii) if not assigned a code by ATC, in accordance with Table 2; and
- (3) in the event of an in flight emergency, loss of radio communications, or an act of unlawful interference, set the transponder to the appropriate code in accordance with Table 3.

(b) No person may operate an aircraft with Mode S transponder equipment installed unless the Director has assigned that aircraft a unique Mode S address code.

(c) A pilot-in-command of an aircraft intending to operate the aircraft without an operable transponder, in transponder mandatory airspace that is within controlled airspace, must obtain specific authorisation from the

ATC unit having jurisdiction over the relevant airspace as part of the ATC clearance to enter that airspace.

(d) A pilot-in-command of an aircraft operating in transponder mandatory airspace must immediately advise the ATC unit having jurisdiction over the relevant airspace of any failure or partial failure of the transponder equipment.

(e) Unless otherwise required by ATC, only one of the aircraft in a formation flight is required to operate a transponder in accordance with paragraph (a).

Table 2. Airspace SSR Codes

Flight rules	Type of aircraft	SSR Code
VFR	For aircraft involved in fire fighting and reconnaissance duties	0111
IFR	All	2000
VFR	All - in Auckland Oceanic FIR only.	2000
VFR	All - when operating in the aerodrome traffic circuit at controlled aerodromes	2200
VFR	Civil aeroplanes other than gliders	1200
VFR	Gliders or balloons	1300
VFR	Powered aircraft in designated general aviation areas	1400
VFR	Civil Helicopters	1500
VFR	Defence aeroplanes	6000
VFR	Defence helicopters	6077

Table 3. Emergency SSR Codes

Occurrence	SSR Code
Unlawful interference	7500
Loss of radio communication	7600
In flight emergency when no code has been allocated by ATC	7700

Subpart F — Instrument and Equipment Requirements

Rule 91.541 is revoked and the following new rule is inserted:

91.541 SSR transponder and altitude reporting equipment

(a) Except as provided in 91.247(c) and (e), an aircraft operating in transponder mandatory airspace designated under Part 71 must be equipped with a SSR transponder having—

- (1) Mode 3/A 4096 code capability replying to Mode 3/A interrogations with the code specified by ATC; and
- (2) Mode C capability that automatically replies to Mode C interrogations by transmitting pressure altitude information in 100 foot increments.

(b) Where an aircraft is equipped with Mode S transponder equipment, the transponder must be capable of replying to—

- (1) Mode 3/A interrogations with the code specified by ATC; and
- (2) intermode; and
- (3) Mode S interrogations.

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.)

The consultation details relating to amendment 9 to Part 91 are contained in the consultation details of amendment 10 to Part 121. The comments and all the background material used in developing the rules are held on the docket and are available to the public. Persons wishing to view the docket should call at the Civil Aviation Authority and ask for docket 2/CAR/2.