



WELLINGTON NEW ZEALAND

PURSUANT to Section 28 of the Civil Aviation Act 1990

I, JENNIFER MARY SHIPLEY, Minister of Transport,

HEREBY MAKE the following ordinary rules.

SIGNED AT Wellington

This

20th

day of

February 1997

by **JENNIFER MARY SHIPLEY**

Jennifer Mary Shipley
Minister of Transport

Civil Aviation Rules

Part 104

Gliders — Operating Rules

Docket Nr. 1028

Civil Aviation Rules
Part 104

Gliders — Operating Rules

RULE OBJECTIVE, EXTENT OF CONSULTATION AND COMMENCEMENT

The objective of Part 104 is to specify the additions, and exceptions, to Parts 43 and 91 for the operation of gliders and powered gliders.

In May 1990 the Air Transport Division of the Ministry of Transport published a notice of intention to carry out a complete review of the aviation regulatory system. This notice, in Civil Aviation Information Circular Air 3, listed the areas in which rules would be made and invited interested parties to register their wish to be part of the consultative process. The Register was identified as the Regulatory Review Consultative Group.

A draft of Part 104 was developed by the rules rewrite team in consultation with members of the consultative group. An informal draft was published and distributed on 8 February 1995 and a period of informal consultation followed. This culminated in the issue of Notice of Proposed Rulemaking 95-11 under Docket 1028 on 20 December 1995.

The publication of this notice was advertised in the daily newspapers in the five main provincial centres on 20 December 1995. The notice was mailed to members of the Regulatory Review Consultative Group and to other parties, including overseas Aviation Authorities and organisations, who were considered likely to have an interest in the proposal.

A period of 65 days was allowed for comment on the proposed rule.

The submissions and verbal comments were considered and where appropriate the proposed rules amended to take account of the comments made.

The rules as amended were then referred to and signed by the Minister of Transport.

Part 104 comes into force on 1 April 1997.

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Subpart A — General

104.1 *Applicability*

This Part prescribes—

- (1) rules, additional to Part 91, for the operation of gliders; and
- (2) rules, additional to Part 43, for the maintenance of gliders; and
- (3) exceptions from Part 91 for the operation of gliders; and
- (4) exceptions from Part 43 for the maintenance of gliders.

104.3 *Definitions and abbreviations*

(a) In this Part—

Certificate, in relation to a personnel qualification required by this Part, means a certificate or rating issued by—

- (1) the holder of a delegation from the Director for that purpose; or
- (2) until 31 March 1999, the New Zealand Gliding Association.

Glider includes powered gliders with the engines not operating; but does not include hang gliders.

104.5 *Pilot requirements*

(a) Subject to paragraph (b), each pilot of a glider shall—

- (1) hold—
 - (i) a current glider pilot certificate; or
 - (ii) a current commercial pilot licence (glider) issued under Part 61; and
- (2) be—
 - (i) at least 16 years of age; or
 - (ii) individually authorised for each flight by an A or B category glider instructor; and
- (3) comply with the privileges and limitations of their licence or certificate, and any applicable ratings; and
- (4) comply with the operational standards and procedures of the gliding organisation.

(b) A person may fly a glider without complying with paragraph (a)(1), (2), and (3) if they are under the direct supervision of the holder of an instructor rating issued by a gliding organisation.

104.7 Test Flights

(a) Notwithstanding 91.101(c)(3), the holder of a glider pilot certificate and an applicable type rating may operate a glider for the purpose of demonstrating the eligibility of that glider for the issue, renewal, or reinstatement of an airworthiness certificate.

(b) Notwithstanding 91.617(b)(1)(i), the holder of a glider pilot certificate and an applicable type rating may carry out an operational flight check of a glider that has undergone maintenance that would appreciably affect its flight characteristics.

104.9 Flight Manuals

Notwithstanding 91.111(a)(2), a person may operate a glider without carrying a flight manual in the aircraft if—

- (1) the flight manual is available to the pilot for pre-flight planning; and
- (2) cockpit decals provide all the reference information necessary for a pilot to safely operate the aircraft.

104.11 Simulated Instrument flight

Notwithstanding 91.125(a)(1), the holder a glider pilot certificate may act as a safety pilot in a glider for the purpose of simulated instrument flight.

104.13 Ground signal

If a ground signal is used to indicate that gliding operations are taking place, that signal shall consist of a large white arrow pointing in the direction of take-off and landing.

Subpart B — Flight Rules

104.51 Right of way rules

(a) Notwithstanding 91.229(b), the pilot of a glider soaring on a ridge, where the ridge is to the right of the glider, is not required to turn right when approaching another glider head on.

(b) Notwithstanding 91.229(d), the pilot of a glider overtaking another glider soaring on a ridge shall pass on the ridge side of the glider being overtaken.

(c) Notwithstanding 91.229(f), where two gliders are on final landing approach, the pilot of the higher performance glider shall give way to the lower performance glider.

104.53 Instrument meteorological conditions

Notwithstanding 91.301, the pilot of a glider may fly in IMC, without complying with Subpart F of Part 91, if the flight is conducted within—

- (1) a GAA designated by the Director for cloud flying; or
- (2) a restricted area designated for cloud flying; or
- (3) Class G airspace, provided there is confirmation, at intervals not exceeding 15 minutes, from the nearest ATS unit that there is no IFR traffic in or near the proposed area of cloud flying.

104.55 Clearance below cloud

Notwithstanding 91.301(a)(2), the pilot of a glider, above an altitude of 3000 feet and above a height of 1000 feet, but below an altitude of 11 000 feet, shall fly no closer than 500 feet below cloud within Class E or G airspace.

104.57 Fuel requirements

The requirements of 91.305(a) shall not apply to the pilot of a glider.

104.59 Minimum height

Notwithstanding 91.311(a)(3), the pilot of a glider may fly below a height of 500 feet—

- (1) for ridge soaring, if it does not hazard persons or property on the ground; or
- (2) when a gliding instructor is conducting launch failure training.

104.61 VFR cruising altitude and flight level

Notwithstanding 91.313, the pilot of a glider is not required to maintain the cruising altitude or flight level for their magnetic track.

Subpart C — Equipment and Maintenance Requirements

104.101 Aircraft equipment

A person shall not operate a glider unless the following instruments and equipment are installed—

- (1) an airspeed indicator; and

- (2) a pressure sensitive altimeter adjustable for barometric pressure; and
- (3) a magnetic compass; and
- (4) a safety harness for each seat; and
- (5) a first aid kit; and
- (6) for powered gliders—
 - (i) a quantity gauge for each main fuel tank; and
 - (ii) an oil pressure gauge or warning device for each engine other than a two-stroke engine; and
 - (iii) a tachometer, RPM indicator, or engine governor light for each engine; and
- (7) for IMC flight—
 - (i) a variometer; and
 - (ii) a turn and slip indicator or artificial horizon; and
 - (iii) a radio transceiver capable of communication with the appropriate ATS unit.

(b) Notwithstanding 91.513, any of the following equipment meets the radio communication equipment requirements for operations in gliders, provided that the transceivers are installed in accordance with an approved modification which includes the fitment of the transceiver antenna to a permanently mounted half-wave antenna mounted in the glider—

- (1) Icom ICA2:
- (2) Icom IC-A20:
- (3) King KX99:
- (4) Narco HT830.

104.103 General maintenance requirements

Each operator of a glider shall ensure that—

- (1) the aircraft is maintained in an airworthy condition; and
- (2) all applicable airworthiness directives required by Part 39 are complied with; and
- (3) mandatory replacement times, inspection intervals, and related procedures specified in the airworthiness limitations of a

manufacturer's maintenance manual or instructions for continued airworthiness issued for the aircraft are complied with; and

- (4) between required inspections, discrepancies are rectified in accordance with Part 43.

104.105 Maintenance inspections

No person shall operate a glider unless, within the immediately preceding 12 calendar months, the glider—

- (1) has been inspected in accordance with a maintenance programme prescribed in 104.107 and has been released to service in accordance with Part 43; or
- (2) has passed an inspection for the issue of an airworthiness certificate in accordance with Part 21.

104.107 Maintenance programmes

Each operator of a glider shall maintain the glider, including the airframe, any engine and propeller, components, survival equipment, and emergency equipment, in accordance with—

- (1) the current maintenance programme recommended by the manufacturer; or
- (2) an alternative maintenance programme established by the owner of the glider, and—
 - (i) authorised by a gliding organisation in accordance with the procedures in its exposition, and in accordance with 104.109; or
 - (ii) approved by the Director in accordance with 104.109.

104.109 Approval of maintenance programme

(a) Each applicant for the approval or authorisation of a maintenance programme specified in 104.107(2) shall submit the programme, in writing, to a gliding organisation, or to the Director.

(b) The programme specified in 104.107(2) shall include the following information—

- (1) a statement as to whether the aircraft is to be used for training operations or not; and
- (2) a schedule for performing the inspections proposed by the programme expressed in terms of the time in service, calendar time, or any combination of these; and

- (3) instructions and procedures for the conduct of maintenance for the particular make and model of aircraft, including necessary tests and checks. The instructions and procedures must detail the parts and areas of the airframe, engine, propeller and components, including survival and emergency equipment, required to be inspected.
- (c) Where the operator amends a maintenance programme they shall apply the time in service, or calendar times accumulated under the previous programme, when determining inspection due times under the new programme.
- (d) Where a gliding organisation, or the Director, determines that the operator of a glider is required to amend a glider maintenance programme required by 104.107(2) for the continued adequacy of the programme, the operator shall make the required amendments.

104.111 Annual review of airworthiness

Notwithstanding 91.619, the first annual review of airworthiness for a glider shall be required after the earlier of—

- (1) 12 months from the date of issue of the maintenance release valid on 1 April 1997; or
- (2) 100 hours time in service from the date of issue of the maintenance release valid on 1 April 1997.

104.113 Technical log

(a) Each operator of a glider shall provide a technical log for the aircraft which has provision for recording—

- (1) the name and address of the operator; and
- (2) the identity of the maintenance programme to which the glider is maintained; and
- (3) a statement of the inspection status of the glider including the identity of the next due inspection and the date of that inspection; and
- (4) the date the last annual review of airworthiness was performed; and
- (5) the daily hours flown including the total time in service; and
- (6) the pilot daily inspection signature; and
- (7) the first and second control check signatures after rigging; and
- (8) any defects found by the pilot during or following a flight; and

- (9) details of rectification of defects occurring between scheduled inspections and the certificate of release to service for that rectification; and
 - (10) details of any deferred rectification including any inoperative equipment allowed to be inoperative under 91.537.
- (b) The operator shall record the information specified in paragraph (a) in the technical log and ensure that the information is current, except that the daily hours flown, and total time in service, may be recorded in daily flying sheets that are of a permanent nature.

104.115 Pilot maintenance

- (a) Notwithstanding 43.51(b), the holder of a glider pilot certificate may perform the maintenance listed in Appendix A to Part 43 on a glider if that person is the owner or operator of the aircraft.
- (b) Notwithstanding 43.101(a)(4), the holder of a glider pilot certificate may certify an aircraft for release to service after performing the maintenance under the conditions prescribed in paragraph (a).

CONSULTATION DETAILS

(This statement does not form part of the rules contained in Part 104.
It provides details of the consultation undertaken in making the rules.)

Background to the Rules

In April 1988 the Swedavia-McGregor Report on civil aviation regulation in New Zealand was completed. Following the recommendations contained in that report, the Civil Aviation Authority (CAA) (formerly the Air Transport Division of the Ministry of Transport) commenced a complete review of all existing civil aviation legislation. The existing legislation that is still appropriate is being rewritten into the new *Rules* format. New legislation is being generated where necessary for the areas not presently covered.

Considerable research was carried out to determine the format for the new legislation. It was decided that the legislative framework should incorporate the advantages of the regulatory system of the Federal Aviation Administration (FAA) of the United States of America and the system being developed by the European Joint Aviation Authorities and published as Joint Aviation Requirements (JAR).

The new rules are structured in a manner similar to the Federal Aviation Regulations (FAR) of the FAA, and aim to achieve maximum harmonisation whilst allowing for national variations. Close co-operation is also being maintained with the Civil Aviation Safety Authority of Australia to ensure maximum harmonisation with their regulatory code.

New Zealand's revised legislation is published as Civil Aviation Rules (CAR) which is divided into Parts. Each Part contains a series of individual rules which relate to a particular aviation activity.

Accompanying most Parts will be at least one associated Advisory Circular (AC) which will expand, in an informative way, specific requirements of the Part and acceptable means of compliance. For instance an AC may contain examples of acceptable practices or procedures which would meet the requirements of a particular rule.

The CAR numbering system is based on the FAR system. As a general principle the subject matter of a rule Part will be the same or similar to the FAR although the title may differ to suit New Zealand terminology. Where a CAR Part does not readily equate with a FAR number code, a number has been selected that does not conflict with any existing FAR Part.

The objective of the new rules system is to strike a balance of responsibility between the State authority and those who provide services and exercise privileges in the civil aviation system. This balance must enable the State

authority to set standards for, and monitor performance of, aviation participants whilst providing the maximum flexibility for the participants to develop their own means of compliance.

Section 12 of the Civil Aviation Act 1990 requires participants in the aviation system to carry out their activities safely and in accordance with the relevant prescribed safety standards and practices. Section 28 of the Act allows the Minister to make ordinary rules.

Notice of Proposed Rule Making

To provide public notice of, and opportunity for comment on the proposed new rules, the Authority issued Notice of Proposed Rule Making 95-11 under Docket Number 1028 on 20 December 1995. This Notice proposed the introduction of Civil Aviation Rules Part 104 to provide a regulatory safety boundary for the operation of gliders.

Supplementary Information

All comments made on the Notice of Proposed Rule Making are available in the rules docket for examination by interested persons. A report summarising each substantive contact with the Civil Aviation Authority contact person concerning this rule making has been filed in the docket.

Availability of the Document

Any person may view a copy of these rules at Aviation House, 1 Market Grove, Lower Hutt. Copies may be obtained from Publishing Solutions Ltd, PO Box 983, Wellington 6015, Telephone 0800 800 359.

Summary of Comments on Docket Number 1028 NPRM

The New Zealand Gliding Association made very extensive submissions throughout the consultative process; and worked very closely within the rules drafting process, culminating in an agreement on the final draft.

Civil Aviation Authority response is to recognise the major contribution made by the NZGA in developing the agreed final draft of this Part 104.

Airways Corporation of New Zealand Limited say "It is noted that these rules become additions to or exceptions from those rules in Part 91 covering the operation of aircraft, and that those persons operating gliders must therefore also consider Part 91. Care must also be taken that those elements that lie within Part 104 that are of interest to those affected by Part 91, are also advised to Part 91 readers. These elements include a reduced separation from cloud criteria that applies to gliders and is an exception to the meteorological criteria specified in Part 91. (Those) readers should therefore be aware of the fact that they may well encounter gliders at less than the normal distance from cloud."

Civil Aviation Authority notes these points and will address them in the AIP.

Airways Corporation of New Zealand Limited pointed out an incorrect reference to Part 91 in the NPRM.

Civil Aviation Authority has corrected this reference.

Airways Corporation of New Zealand Limited said "aerobatic flight" requires a definition including, if necessary a separate definition for gliders.

Civil Aviation Authority has defined this term in Part 1.

Airways Corporation of New Zealand Limited made detailed comments about flight by gliders in controlled airspace.

Civil Aviation Authority response is that this detail no longer appears in Part 104 because it neither adds to, nor excepts from, any requirements in Part 91.

Airways Corporation of New Zealand Limited commented that Part 104 does not require gliders to carry transponders saying "This is an essential piece of equipment required for flight in transponder mandatory airspace" and "This would inhibit gliders from operating in transponder mandatory airspace in New Zealand airspace and should therefore be addressed".

Civil Aviation Authority response is that the carriage of transponders by gliders is already covered by Part 91, and Part 104 is unable to vary this.

Nelson Gliding Club made a detailed submission on flight by gliders in controlled airspace explaining that the equipping of gliders with transponders and radio had been to enhance their use of restricted air spaces. The submission included proposals for conditions to allow gliders to operate as of right within TMAs and UTAs.

Civil Aviation Authority response is that the rights and obligations of gliders are the same as for other aircraft and are therefore already fully covered in Part 91.

Rural Aviation (1963) Ltd said "Part 104.107(2)(iii) [of the NPRM] requires the pilot to make position reports every 30 minutes when within the TMA or UTA. We question whether this rule is required. With transponders in common use it should be left to the ATS to decide what level of position reporting is required".

Civil Aviation Authority has removed this detail which is already covered in Part 91.

Rural Aviation (1963) Ltd said "The requirement for an oil quantity indicator in 104.153(7)(iv) [of the NPRM] appears a little excessive. Most G.A. aircraft would have difficulty meeting this requirement so why should it be required for gliders".

Civil Aviation Authority has removed this requirement.

Rural Aviation (1963) Ltd said "The content of 104.59 and 104.113 [of the NPRM regarding use of aerodromes and minimum height] are both fully supported. Perhaps the same wording could be looked at for helicopter operations".

Civil Aviation Authority has re-examined the exception of 104.59 and removed it as an unnecessary exception. 104.113 is a rule to allow ridge soaring which is not normally practised by helicopters.

Wakatipu Aero Club Inc said "Whilst I applaud the revision pertaining to Ground Signals to only require under the new rule such a signal when winch or auto tow landings is in progress I remain unconvinced as to the effectiveness of ground signals. Unless a pilot is specifically looking for one they just do not see them. As ground signals have become less in use so has the pilots awareness or look-out reduced for such information".

Civil Aviation Authority response has been to recognise this reality by amending the rule to state what the ground signal means, rather than require it to be used.

Wakatipu Aero Club Inc said that in 104.107(2)(l) of the NPRM "It would seem that the word "and" should be deleted and replaced with "or" to permit glider operations in a TMA or UTA. Whilst "and" remains such flight except in a designated GFA would not be permitted".

Civil Aviation Authority response is that this detail has now been removed from Part 104.

An individual commentator made a detailed case for a CPL(G) to hold a Class 2 medical certificate rather than a Class 1 certificate.

Civil Aviation Authority response was that the CPL(G) is issued under Part 61 as a professional licence but the relativity points made by this submission will be considered during the revision of Part 61.

List of Consultants

Airways Corporation of New Zealand Limited

Brent Higgins of Nelson

Nelson Gliding Club

The New Zealand Gliding Association

Rural Aviation (1963) Ltd

Wakatipu Aero Club Inc

Regulatory activities

The following regulations will be affected by this rule Part commencement—

Civil Aviation Safety Order 17:

Regulation 19A of the Civil Aviation Regulations 1953.

Section 14(2) of the Civil Aviation Amendment Act 1991 (as amended by section 34 of 1996 No. 91) deems the Civil Aviation Regulations 1953 that are continued in force by section 8 of that Act to be revoked on the close of 31 March 1997.

Section 14(3) states that any order, notice, requirement, circular, or other publication continued in force by section 8 shall expire on the close of 31 March 1997.

Conclusion

It is concluded from this consultation that the majority of those involved with gliding activities are in agreement with the proposed final rule.

The comments and background material used in developing the rules are held on the docket file and are available for public scrutiny. Persons wishing to view the docket file should call at Aviation House, 1 Market Grove, Lower Hutt and ask for docket file 1028.