



**WELLINGTON NEW ZEALAND**

**PURSUANT** to Section 28 of the Civil Aviation Act 1990

**I, MAURICE WILLIAMSON**, Minister of Transport,

**HEREBY MAKE** the following ordinary rules.

**SIGNED AT** Wellington

This *25* day of *March* 1998

by **MAURICE WILLIAMSON**

Minister of Transport

A handwritten signature in black ink, appearing to read "Maurice Williamson".

**Civil Aviation Rules**

**Part 91, Amendment 4**

**General Operating and Flight Rules**

*Docket 98/CAR/1300*

**Civil Aviation Rules**  
**Part 91, Amendment 4**

**General Operating and Flight Rules**

## **RULE OBJECTIVE, EXTENT OF CONSULTATION AND COMMENCEMENT**

The objective of the amendment to Part 91 is to provide the CAA and the New Zealand aviation industry the ability to certify aircraft and operators for operations within RNP designated airspace.

A draft of the proposed BRNAV / RNP amendments to Parts 1, 91, and 119 was developed by the Rules and Standards Group in consultation with members of the CAA and industry most likely to be affected. This culminated in the issue of Notice of Proposed Rulemaking 97-6 under Docket 98/CAR/1300 on 26 November 1997.

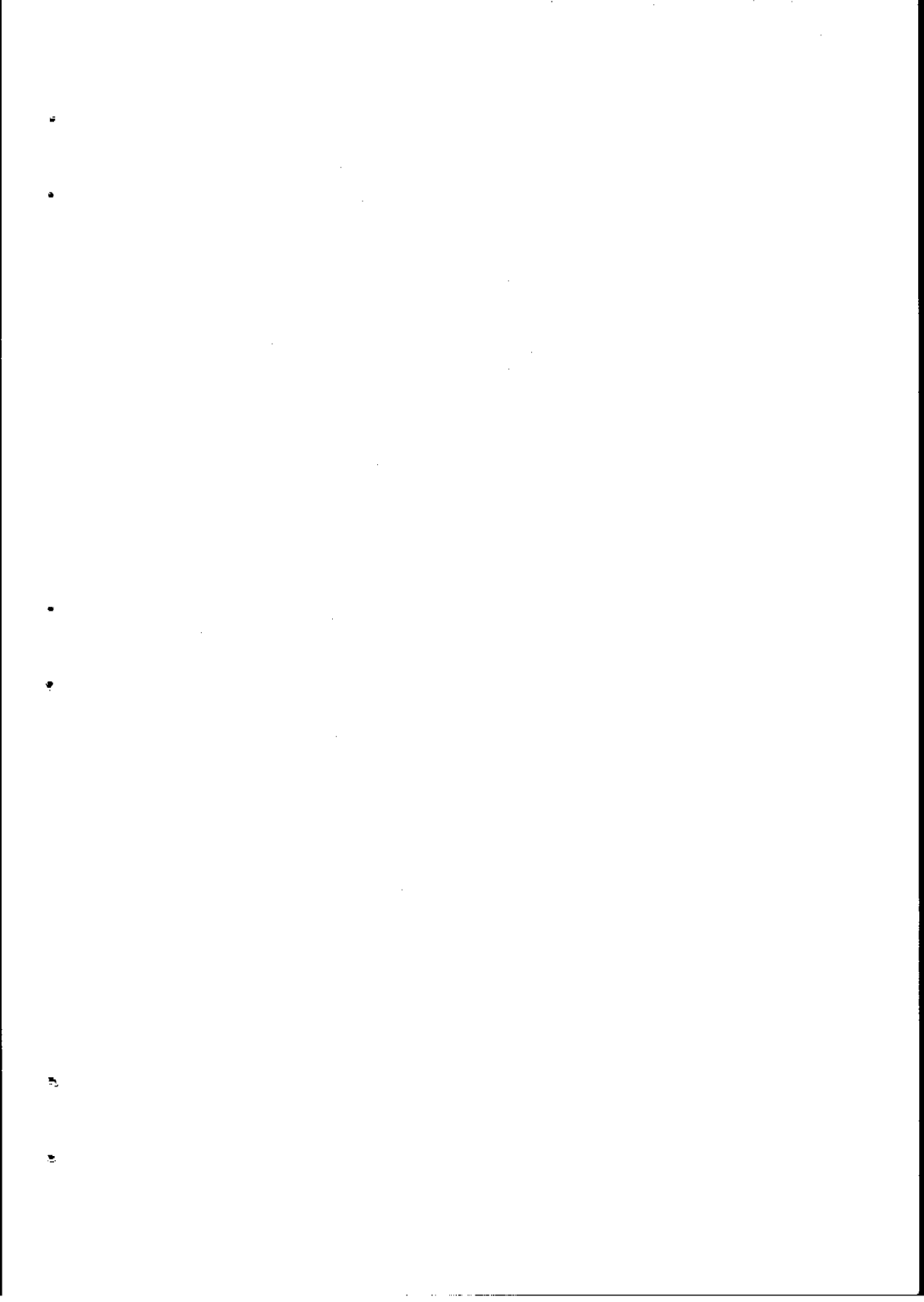
The publication of this notice was advertised in the daily newspapers in the five main provincial centres on 29 November 1997. The notice was mailed to industry members most likely to be affected and to other parties, including overseas Aviation Authorities and organisations, who were considered likely to have an interest in the proposal.

Because of the relatively small number of operators affected, and the time period before RNP certification was required, a period of 25 days was allowed for comment on the proposed rule. The sole submission received was supportive and related to the advisory circular. The comments were considered and appropriate amendments will be made to the advisory circular.

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.

Amendment 4 to Part 91 comes into force on 23 April 1998.



## **List of Rules**

**Part 91 Amendments**

**3**

7

8

9

10

11

12

## Part 91 Amendments

Subpart C is amended by inserting the following new rule:

### ***"91.246 Operations in RNP designated airspace***

(a) No person shall operate an aircraft in RNP designated airspace in a New Zealand registered aircraft unless—

- (1) there is available in the aircraft a RNP operations procedures manual, incorporating all amendments, approved in accordance with this rule for that aircraft and aircraft navigation system; and
- (2) the operations in RNP designated airspace are performed in accordance with the procedures, instructions, and limitations in the approved manual; and
- (3) the instruments and equipment required by 91.519 for a particular RNP operation have been inspected and maintained in accordance with an approved maintenance programme; and
- (4) each flight crew member has adequate knowledge of, and familiarity with—
  - (i) the aircraft; and
  - (ii) the aircraft navigation system; and
  - (iii) the procedures to be used, including the applicable contingency procedures; and
- (5) each pilot-in-command ensures that the aircraft and aircraft navigation system are both approved by the Director for RNP operations and that the RNP performance can be met for the planned route and any alternate routes; and
- (6) a flight plan is submitted to the appropriate ATS unit that includes in item 10 of the ICAO standard flight plan—
  - (i) the letter 'R' when indicating an aircraft approved for RNP operations; and

- (ii) the letter 'G' when indicating an aircraft equipped with an approved GNSS capability.
- (b) Each operator of an aircraft performing RNP operations shall keep a current copy of the RNP operation procedures manual at its principal base of operation and shall make it available for inspection upon request by the Director.
- (c) Each applicant for the approval of a RNP operation procedures manual, or an amendment to an approved RNP operation procedures manual, shall submit the proposed manual or amendment to the Director.
- (d) The Director may approve a RNP operation procedures manual and any amendment to a RNP operation procedures manual.
- (e) Each RNP operation procedures manual shall contain—
- (1) the name of the operator; and
  - (2) the registration, make, and model of the aircraft to which it applies; and
  - (3) the type, manufacturer, and model of the aircraft navigation system to which it applies; and
  - (4) a maintenance programme including procedures for the—
    - (i) test and inspection of each instrument and item of equipment required by 91.519 for RNP operations at intervals that ensure the RNP performance required for the particular operation is maintained; and
    - (ii) recording in the maintenance records the date, departure airport, destination airport, and reasons for each RNP operation discontinued because of instrument or equipment malfunction; and
  - (5) procedures and instructions related to—
    - (i) the mitigation of large navigational errors due to equipment malfunction or operational error; and



- (ii) in-flight drills that include cross checking procedures to identify navigation errors in sufficient time to prevent inadvertent deviation from ATC cleared routes; and
  - (iii) updating the navigation system to ensure that the required RNP performance is maintained during operations in RNP designated airspace; and
  - (iv) the maximum permissible deviations of the RNP system within the RNP designated airspace; and
  - (v) the calculation of time limits to meet RNP criteria; and
  - (vi) instrument and equipment failure warning systems; and
  - (vii) system failure; and
  - (viii) system monitoring and the collection of reliability and performance data; and
  - (ix) other procedures, instructions, and limitations that may be found necessary by the Director.
- (f) The procedures manual required by paragraphs (a), (b), (c), and (e) may be incorporated in the operations procedures required of the holder of an air operator certificate issued under Part 119.
- (g) Each pilot-in-command shall—
- (1) unless authorised by ATC, ensure that two independent LRNS are serviceable and accurate—
    - (i) 30 minutes prior to entry to RNP designated airspace; and
    - (ii) on entry to RNP designated airspace; and

- (2) when operating in, or within 30 minutes prior to entry of, RNP designated airspace—
- (i) notify ATC whenever the aircraft cannot meet RNP criteria; and
  - (ii) notify ATC whenever the aircraft is operating with a single LRNS; and
  - (iii) if unable to communicate with ATC, proceed in accordance with the contingency procedures in ICAO Regional Supplementary Procedures, Document 7030.”

91.407 is amended by revoking subparagraph (a)(3)(iii), inserting the following new subparagraphs, and renumbering subparagraphs (iv) to (x) as (v) to (xi):

- “
- (iii) the radio communications equipment in the aircraft to be used; and
  - (iv) the navigation and approach aid equipment in the aircraft to be used including any applicable GPS and RNP approvals; and”

91.417 is amended by revoking subparagraph (c) and inserting the following new paragraph (c):

“(c) The procedures manual required by paragraphs (a) and (b) may be incorporated in the operations procedures required of the holder of an air operator certificate issued under Part 119.”

91.519 is amended by inserting the following new paragraph (c) before the existing paragraph (c) and renumbering the existing paragraphs (c) to (f) as paragraphs (d) to (g) respectively:

“(c) Each aircraft and aircraft navigation system operating in accordance with RNP performance requirements shall be approved by the Director for operation on the applicable RNP routes and in RNP designated airspace.”

91.519 paragraph (g) is amended by replacing the expression “ and (c)(1)” with the expression “ (c), and (d)(1)”:

91.519 paragraph (g) is amended by replacing the expression “ and (c)” with the expression “ (c), and (d)”:

Appendix A.9 is amended by deleting the expression “Radio communications” from paragraph (a) and inserting the word “Communication”:

Appendix A.9 is amended by revoking subparagraphs (a)(1) and (a)(2) and inserting the following new subparagraphs:

- “ (1) for Level 1—
- (i) communication equipment, one of the following TSO as applicable: C31, C32, C37, or C38; or
  - (ii) navigation equipment, one of the following TSO as applicable: C40, C41, C60, C94, or C129; or
  - (iii) British Civil Aviation Publication (CAP) 208 Class WR, VC, or LA I; or
  - (iv) Australian Airborne Radio Navigation Publication No. 50 (Pub 50) Class I; or
- (2) for Level 2—
- (i) CAP 208 Class LA II; or
  - (ii) Pub 50 Class L or V; or”

Appendix A.10 is amended by inserting the following new paragraph (2) and renumbering the existing paragraph (2) and paragraph (3):

- “(2) for RNP operations, consist of two independent LRNS comprising INS, IRS/FMS, or GPS; and”

## 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.)

### Background to the Rules

The Civil Aviation 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 legislation is being generated where necessary for the areas not presently covered.

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 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 empowers 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 97-6 under Docket 98/CAR/1300 on 26 November 1997. This Notice proposed

the introduction of BRNAV / RNP operating rules to provide a regulatory safety boundary for BRNAV / RNP operations by New Zealand registered aircraft.

### **Supplementary Information**

The comments made on the Notice of Proposed Rule Making are available in the 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 amendments at Aviation House, 1 Market Grove, Lower Hutt or on the CAA Internet page at <http://www.caa.govt.nz>. Printed copies may be obtained from Publishing Solutions Ltd, PO Box 983, Wellington 6015, Telephone 0800 800 359.

### **Summary of Comments on Docket 98/CAR/1300 NPRM**

#### **1. General comments on the NPRM**

From the submission received the commenter raised two points regarding the accompanying advisory circular.

1.1 The commenter suggested that the wording of the advisory circular indicated a mandatory requirement to be RNP certificated and that this was not the case.

**CAA response:** The CAA notes that certification is required if the aircraft is to be operated in accordance with RNP requirements in airspace designated for this purpose. An operator's intended route may be affected without RNP certification. The advisory circular will be amended to explain this more clearly.

1.2 The commenter also noted that military equipment could not achieve civilian certification due to the security levels on the software.

**CAA response:** The CAA intends to accept a military certification that the equipment is equivalent to the TSO C129 requirements. The advisory circular will be amended to reflect this clearly.

**Transitional arrangements**

No transitional arrangements are necessary for these amendments.

**Regulatory activities**

No additional regulatory activities are necessary for these amendments.

**Conclusion**

The CAA concludes from this consultation that the aviation industry participants favour the direction of the amended rules. The rules also meet New Zealand's international obligations under the applicable ICAO Annex. The comments and all the background material used in developing the rules are held on the docket and are available for public scrutiny. Persons wishing to view the docket should call at Aviation House, 1 Market Grove, Lower Hutt and ask for docket 98/CAR/1300.