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 18 day of May 1997

by **JENNIFER MARY SHIPLEY**

Minister of Transport

Civil Aviation Rules

Part 148, Amendment 1

Docket Nr. 1259 & 1253

Civil Aviation Rules

Part 148, Amendment 1

RULE OBJECTIVE, EXTENT OF CONSULTATION AND COMMENCEMENT

The objective of Part 148, Amendment 1 is to bring into force the necessary changes that result from the coming into force of Parts 21, Amendment 5, 43, Amendment 3, and 145, Amendment 6, of the Civil Aviation Rules. Consultation regarding this amendment was conducted as part of the consultation process under those Parts and the consultation details are contained in the summary of consultation details attached to Part 21, Amendment 5 that was signed by the Minister.

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. As of 1 April 1997 the reviewed rules, the Civil Aviation Rules, came into force. Due to the application of some transitional provisions not all of these new rules were immediately applicable.

Prior to 1 April 1997 the Rules and Standards Group of the Civil Aviation Authority identified a requirement to continue to monitor the effectiveness and adequacy of the regulatory boundary and to amend the rules defining this boundary where necessary.

The general airworthiness amendments were developed by the Rules and Standards Group from comments received since the associated rules came into force, consultation with industry representatives, and a petition for rulemaking submitted in accordance with Part 11. The information received by the Rules and Standards Group culminating in the issue of two Notices of Proposed Rulemaking; NPRM 97–2 under Docket 1259 on 5 March 1997 that addressed the general amendments and NPRM 97–5 under Docket 1253 on 9 July 1997 that addressed the petition for rulemaking.

The publication of these notices was advertised in the daily newspapers in the five main provincial centres on 5 March 1997 and 9 July 1997 respectively. The notice was mailed to interested parties, including overseas Aviation Authorities and organisations, who were considered likely to have an interest in the proposal.

A period of 37 days was allowed for comment on the proposed amendments. Thirty written responses were received in response to this notice. There were 16 specific issues raised but no significant disagreements

with the rule. The majority of the changes requested by the commenters were included.

A period of 51 days was allowed for comment on the petition for rulemaking Part 21 proposal. Eight written responses were received in response to this notice. There were no significant disagreements with the rule.

The submissions and verbal comments were considered and the specific issues discussed with the commenters during a series of meetings around New Zealand, where appropriate amending the proposed rules to take account of the comments made.

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

Part 148, Amendment 1 comes into force 28 days after its notification in the *Gazette*.

Part 148 Amendments

148.3 is amended by deleting the definition of **Product** and inserting the following definition:

"**Product** means—

(1) an aircraft, aircraft engine, or propeller, and their components; or

(2) a material, part, or appliance approved under a NZTSO authorisation:"

148.5 to 148.9 are revoked and the following new rules inserted:

"148.5 Requirement for certificate

(a) No person shall exercise the privileges in 148.11 except under the authority of and in accordance with the provisions of a manufacturing organisation certificate issued under this Part.

(b) Paragraph (a) does not apply to amateur built aircraft.

148.7 Application for certificate

Each applicant for the grant of a manufacturing organisation certificate shall complete form CAA 24148/01, which shall require—

(1) the name and address for service in New Zealand of the applicant; and

(2) the exposition required by 148.71; and

(3) such further particulars relating to the applicant as may be required by the Director as indicated on the form—

and submit it to the Director with a payment of the appropriate application fee prescribed by regulations made under the Act.

148.9 Issue of certificate

An applicant is entitled to a manufacturing organisation certificate if the Director is satisfied that—

(1) the applicant meets the requirements of Subpart B; and

(2) the applicant's senior persons required by 148.51(a) are fit and proper persons; and

(3) the granting of the certificate is not contrary to the interests of aviation safety."

148.11 is amended by deleting paragraph (b) and inserting the following new paragraph (b):

"(b) The holder of a manufacturing organisation certificate may manufacture any product authorised by the manufacturing rating specified on the certificate."

148.17 is revoked and the following new rule inserted:

"148.17 Renewal of certificate

(a) An application for the renewal of a manufacturing organisation certificate shall be made by the holder of a manufacturing organisation certificate on form CAA 24148/01.

(b) The application shall be submitted to the Director by the application renewal date specified on the certificate or, if no such date is specified, not less than 30 days before the certificate expires."

148.19 and 148.21 are revoked.

Subpart B of Part 148 is revoked and the following new subpart inserted:

"Subpart B — Certification Requirements

148.51 Personnel requirements

(a) Each applicant for the grant of a manufacturing organisation certificate shall engage, employ, or contract—

(1) a senior person identified as the Chief Executive who has the authority within the applicant's organisation to ensure that all activities undertaken by the organisation can be financed and carried out in accordance with the requirements prescribed by this Part; and

(2) a senior person or group of senior persons who is or are responsible for ensuring that the applicant's organisation complies with the requirements of this Part. Such nominated person or persons shall be ultimately responsible to the Chief Executive for the following functions:

(i) supply:

(ii) production:

(iii) inspection and test:

(iv) internal quality assurance; and

(3) sufficient personnel to plan, perform, supervise, inspect, and certify the manufacturing activities listed in the applicant's exposition.

(b) The applicant shall—

(1) establish a procedure to initially assess, and a procedure for maintaining, the competence of those personnel involved in planning, performing, supervising, inspecting, or certifying the manufacturing activities listed in the applicant's exposition; and

(2) provide those personnel with written evidence of the scope of their authorisation.

148.53 Facility requirements

(a) Each applicant for the grant of a manufacturing organisation certificate shall provide facilities appropriate to each product manufacturing activity performed by the applicant's organisation.

(b) The applicant shall provide—

(1) office accommodation for the administration of its manufacturing activities; and

(2) manufacturing facilities that include—

(i) where applicable, protection from weather elements; and

(ii) appropriate segregation of specialised work areas to prevent environmental and work area contamination; and

(3) storage facilities for products, equipment, and tools that include—

(i) security for serviceable items; and

(ii) segregation of serviceable from unserviceable items; and

(iii) controls to prevent deterioration of, and damage to, stored items.

(c) The applicant shall ensure that the environment it provides is appropriate for the tasks to be performed and, in particular, meets any special requirements specified by applicable process specifications.

148.55 Equipment, tools, and material

Each applicant for the grant of a manufacturing organisation certificate shall—

(1) have access to the equipment, tools, and material necessary for all manufacturing activities performed by the applicant's organisation; and

(2) establish a procedure to control the equipment, tools, and material including the calibration of tools, jigs, process equipment, and test equipment.

148.57 Type certificates and design approvals

(a) Each applicant for the grant of a manufacturing organisation certificate shall, for each aircraft, aircraft engine, or propeller to be manufactured—

(1) hold, or have applied for, a type certificate issued under Part 21, Subpart B for the product; or

(2) hold, or have applied for, a supplemental type certificate issued under Part 21, Subpart E for the product; or

(3) have an arrangement acceptable to the Director, with the holder of, or applicant for—

(i) a type certificate for the product issued under Part 21, Subpart B; or

(ii) a supplemental type certificate for the product issued under Part 21, Subpart E.

(b) Each applicant for the grant of a manufacturing organisation certificate shall, for each product to be manufactured that is not an aircraft, aircraft engine, or propeller—

(1) hold, or have applied for, the design approval for the product; or

(2) have an arrangement acceptable to the Director, with the holder of, or applicant for, a design approval for the product.

148.59 Production control procedures

(a) Each applicant for the grant of a manufacturing organisation certificate shall hold copies of manufacturing procedures manuals, facility manuals, engineering drawings, specifications, technical standards and practices, and any other documentation that is necessary for the provision of the manufacturing activities listed in its exposition.

(b) Each applicant for the grant of a manufacturing organisation certificate shall establish procedures for—

(1) the inspection of raw materials, parts, and assemblies, purchased or produced by subsidiary manufacturers, including methods to ensure the acceptable quality of parts and assemblies that cannot be completely inspected upon delivery to the organisation; and

(2) the inspection of individual parts and complete assemblies during manufacture, including the identification of any special manufacturing processes involved, and the means used to control the processes; and

(3) ensuring that each manufacturing activity to be performed on behalf of the applicant's organisation by a subcontractor—

(i) is identified in the applicant's exposition; and

(ii) complies with the systems, procedures, and specifications detailed in the applicant's exposition; and

(4) dealing with materials, parts, and assemblies not conforming to the type design or specifications, including the recording of decisions and the disposing of rejected materials, parts, and assemblies; and

(5) the final test of complete products including—

(i) for aircraft, the production flight test procedures and check list; and

(ii) for engines, the engine test cell procedures and check list; and

(iii) for controllable propellers, the propeller functional test procedures; and

(6) the identification, handling, storage, and packing of products; and

(7) the issue of authorised release certificates and statements of compliance, and the maintenance of the list of staff with authority to certify an authorised release certificate or statement of compliance; and

(8) controlling the documentation required by paragraph (a) to ensure—

(i) the documentation is reviewed and authorised by appropriate personnel before issue; and

(ii) current issues of relevant documentation are available to personnel at all locations where they need access to such documentation for the provision of the manufacturing activities listed in the applicant's exposition; and

(iii) obsolete documentation is promptly removed from all points of issue or use; and

(iv) changes to documentation are reviewed and authorised by appropriate personnel; and

(v) the current version of each item of documentation can be identified to ensure out-of-date documentation is not used; and

(9) making manufacturing information, engineering drawings, test reports, and inspection records available to the Director, upon the Director's request.

148.61 Continued airworthiness

(a) Each applicant for the grant of a design organisation certificate shall establish procedures for—

(1) collecting, investigating, and analysing information relating to defects in the product manufactured by the applicant and distributing that information to—

(i) each purchaser of a product to that design; and

(ii) the applicable type certificate holder; and

(2) providing defect incident information to the Authority in accordance with Part 12.

(b) Each applicant for the grant of a manufacturing organisation certificate shall establish procedures for any type certificated product that it manufactures to—

(1) assist the type certificate holder with any continuing airworthiness actions that are related to the manufacture of the product; and

(2) provide at least one set of Instructions for Continued Airworthiness, prepared in accordance with the applicable airworthiness design standards specified in Part 21 Appendix C, to each purchaser of the product, upon its delivery; and

(3) make those Instructions, and any changes to the Instructions, available to any other person required by any CAR to comply with those Instructions; and

(4) inform each owner of a product of the same type of the details of the procedures required in paragraph (a).

148.63 Records

(a) Each applicant for the grant of a manufacturing organisation certificate shall establish procedures to identify, collect, index, store, maintain, and dispose of the records that are necessary to ensure that each manufactured product conforms to the applicable design data and is in a condition for safe operation.

(b) Each applicant for the grant of a manufacturing organisation certificate shall establish procedures to—

(1) record details of the experience, qualifications, training, and current authorisations of each person who exercises certification privileges on the certificate holder's behalf; and

(2) record all products that are manufactured by the certificate holder including a description of the work performed; and

(3) record the date, and person certifying, that each product conforms to the applicable design data and is in a condition for safe operation; and

(4) record all calibrations on equipment, tools, and materials specified in 148.55 and the standards used; and

(5) ensure that—

(i) all records are legible and of a permanent nature; and

(ii) except as provided in paragraph (c), the records required by paragraphs (b)(1) to (4) are retained for a period of two years from the date the last example of the product type is permanently withdrawn from service; and

(6) make records required by paragraphs (b)(1) to (4) available to the Director, upon the Director's request.

(c) The Director may permit records to be retained for a lesser period than that required by paragraph (b)(5)(ii).

148.65 Internal quality assurance

(a) Each applicant for the grant of a manufacturing organisation certificate shall establish an internal quality assurance system to ensure compliance with, and the adequacy of, the procedures required by this Part.

(b) The internal quality assurance system shall include—

(1) a safety policy and safety policy procedures that are relevant to the applicant's organisational goals and the expectations and needs of its customers; and

(2) a procedure to ensure quality indicators, including defect and incident reports, and personnel and customer feedback, are monitored to identify existing problems or potential causes of problems within the system; and

(3) a procedure for corrective action to ensure that existing problems that have been identified within the system are corrected; and

(4) a procedure for preventive action to ensure that potential causes of problems that have been identified within the system are remedied; and

(5) an internal audit programme to audit the applicant's organisation for conformity with its safety policy; and

(6) management review procedures to ensure the continuing suitability and effectiveness of the internal quality assurance system in satisfying the requirements of this Part.

(c) The safety policy procedures shall ensure that the safety policy is understood, implemented, and maintained at all levels of the organisation.

(d) The procedure for corrective action shall specify how—

(1) existing problems are corrected; and

(2) corrective action is followed up to ensure the action is effective; and

(3) any procedure required for this Part is amended as a result of corrective action; and

(4) management will review the effectiveness of any corrective action taken.

(e) The procedure for preventive action shall specify how—

(1) potential problems are corrected; and

(2) preventive action is followed up to ensure the action is effective; and

(3) any procedure required for this Part is amended as a result of preventive action; and

(4) management will review the effectiveness of any preventive action taken.

(f) The internal quality audit programme shall—

(1) specify the frequency and location of the audits taking into account the nature of the activity to be audited; and

(2) ensure audits are performed by trained auditing personnel who are independent of those having direct responsibility for the activity being audited; and

(3) ensure the results of audits are reported to the personnel responsible for the activity being audited and the manager responsible for internal audits; and

(4) require preventive or corrective action to be taken by the personnel responsible for the activity being audited if problems are found by the audit; and

(5) ensure follow up audits to review the effectiveness of any preventive or corrective action taken.

(g) The procedure for management review shall—

(1) specify the frequency of management reviews of the quality assurance system taking into account the need for the continuing effectiveness of the system; and

(2) identify the responsible manager who shall review the quality assurance system; and

(3) ensure the results of the review are evaluated and recorded.

(h) The senior person who has the responsibility for internal quality assurance shall have direct access to the Chief Executive on matters affecting safety.

148.67 Manufacturing organisation exposition

(a) An applicant for the grant of a manufacturing organisation certificate shall provide the Director with an exposition that shall contain—

(1) a statement signed by the Chief Executive on behalf of the applicant's organisation confirming that the exposition and any included manuals—

(i) define the manufacturing organisation and demonstrate its means and methods for ensuring ongoing compliance with this Part; and

(ii) are required to be complied with by its personnel at all times; and

(2) the titles and names of the senior person or persons required by 148.51(a)(1) and (2); and

(3) the duties and responsibilities of the senior person or persons specified in paragraph (a)(2), including matters for which they have the responsibility to deal directly with the Director on behalf of the manufacturing organisation; and

(4) an organisation chart showing lines of responsibility of the senior persons specified in paragraph (a)(2); and

(5) details of all locations where the applicant manufactures products and the facilities at those locations; and

(6) details of the applicant's staffing structure at each of the locations listed under paragraph (a)(5); and

(7) a detailed description of the scope of work undertaken by the applicant; and

(8) evidence that the organisation holds or has applied for a type certificate or design approval or has entered an arrangement, required by 148.53; and

(9) details of any authorisations made by the organisation to subsidiary manufacturers; and

(10) details of the applicant's procedures required by—

(i) 148.51(b) regarding the competence of personnel; and

(ii) 148.51(b) regarding the on-going training of personnel; and

(iii) 148.53(b)(2) regarding the provision of satisfactory storage and segregation of parts; and

(iv) 148.53(c) regarding the provision of satisfactory environmental conditions; and

(v) 148.55(2) regarding the control and calibration of tools, jigs, process equipment, and test equipment; and

(vi) 148.59(b)(1) regarding inspections of raw materials, parts, and assemblies; and

(vii) 148.59(b)(2) regarding inspection of individual parts and complete assemblies during manufacture; and

(viii) 148.59(b)(3) regarding the subcontracting of manufacturing activities; and

(ix) 148.59(b)(4) regarding non-conforming materials and parts; and

(x) 148.59(b)(5) regarding final tests including, if applicable, the procedures required for the application of a special flight permit with a continuing authorisation granted under 21.197; and

(xi) 148.59(b)(6) regarding the identification, handling, storage, and packing of products; and

(xii) 148.59(b)(7) regarding airworthiness release documents; and

(xiii) 148.59(b)(8) regarding control and distribution of documentation; and

(xiv) 148.61 regarding the continued airworthiness of the products that it manufactures; and

(xv) 148.63 regarding the identification, collection, indexing, storage, maintenance, and disposal of records; and

(xvi) 148.65 regarding the internal quality assurance of the applicant's organisation; and

(11) procedures to control, amend, and distribute the exposition.

(b) The Director shall not issue the applicant with a manufacturing organisation certificate unless the applicant's exposition is acceptable to the Director."

148.101 is amended by deleting paragraph (5) and inserting the following new paragraph (5):

" (5) determine that each product released by it conforms to the applicable design data, has no unsafe features, and is in a condition for safe operation."

148.105 is revoked and the following new rule inserted:

"148.105 Changes to certificate holder's organisation

(a) Each holder of a manufacturing organisation certificate shall ensure that its exposition is amended so as to remain a current description of the organisation.

(b) The certificate holder shall—

(1) ensure any amendment to its exposition meets the applicable requirements of this Part; and

(2) comply with the amendment procedures contained in its exposition.

(c) The certificate holder shall provide the Director with a copy of each amendment to its exposition as soon as practicable after it has incorporated the amendment into the exposition.

(d) Where the certificate holder proposes to make a change to any of the following, prior application to, and acceptance by, the Director is required:

(1) the Chief Executive:

(2) the listed senior persons:

(3) the manufacturing activities the holder undertakes:

(4) the final testing activities for which the holder utilises a special flight permit with a continuing authorisation:

(5) the locations at which work is carried out.

(e) The Director may prescribe conditions under which a certificate holder may operate during or following any of the changes specified in paragraph (d).

(f) A certificate holder shall comply with the conditions prescribed under paragraph (e).

(g) Where any change referred to in this rule requires an amendment to the certificate, the certificate holder shall forward the certificate to the Director as soon as practicable.

(h) The certificate holder shall make such amendments to its exposition as the Director may consider necessary in the interests of aviation safety."

148.107 is revoked.

Insert the following rule after Appendix A:

"Appendix B Transitional Arrangements

Each organisation that holds a manufacturing organisation certificate on the date Part 148, Amendment 1 comes into effect may continue to operate in accordance with their existing exposition for a period of 12 months. At the expiry of 12 months from the date that Part 148, Amendment 1 comes into effect, those organisations shall ensure their exposition complies with Part 148, Amendment 1."