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# **Type Acceptance Report**

**TAR 95/04**

**Piper Aircraft Corporation PA-42-1000**



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## Introduction

This report details the basis on which Type Acceptance Certificate No.95/04 was issued in accordance with NZCAR Part 21B.

Specifically the report aims to:

- (a) Record the airworthiness certification standard used for type acceptance of the applicable model(s) in New Zealand;
- (b) Summarise any outstanding requirements which must be complied with for the issue of a NZ Airworthiness Certificate to any models covered by the Type Acceptance Certificate.

## Foreign Type Certificate Details

Type Certificate: A23SO

Issues by: FAA

Manufacturer: Piper Aircraft Corporation

Model: PA-42-1000

Engines: Garrett TPE-331-14A (and TPE-331-14B)

Propellers: Dowty-Rotol R339/4-123-F/8 (and R341/4-123-F/9)

MCTOW 12,050 lb

The certification basis of the PA-42-1000 is:

FAR Part 23 effective Feb 1 1965 as amended by 23-1 through 23-16, and paras 23.45, 23.49, 23.65, 23.67, 23.77 and 23.1581 as amended by amdt 23-21, and para 23.1385(c) as amended by amdt 23.17, and para 23.1145 as amended by amdt 23.18, and para 23.1145(a) as amended by amdt 23-23, and FAR 25.977 as amended by amdt 25-26, and special condition No 23-90-S0-3 amendment 1, Docket No 19591, and SFAR 23, paragraph 55 effective Jan 20 1970, and special condition No 23-ACE-27 Docket No 027CE, and fuel venting section of SFAR 27-1 effective Jan 1 1975, and the FAA Atlanta Aircraft Certification Office letter of Jul 9 1984 showing the equivalent level of safety findings to FAR 23.201, FAR 23.203, FAR 23.205 and FAR 23.207, and FAR Part 36 including amendments 1 thru 12 effective Aug 1 1981, and para 23.1447(c) and (d) as amended by amdt 23-20, and para 23.1111 as amended by amdt 23-17, and para 23.1327 and 23.1547 as amended by amdt 23-20. Compliance with ice protection has been demonstrated in accordance with FAR 23.1419 as amended by amdt 23-14 effective Dec 20 1973.

This is an acceptable certification basis in accordance with NZCAR Part 21B Para 21.41, as equivalent to FAR 23 effective May 10 1993 which is the basic standard for Normal Category Airplanes under 5,700 kg called up under Appendix C. There are no non-compliances and no special conditions have been prescribed by the Director under 21.23.

## **Type Acceptance Application**

The applicant for New Zealand type acceptance was from Christian Aviation by letter dated 20 January 1995 (i.e. Pre Part 21B).

Type Acceptance Certificate No.95/04 was granted on 19 September 1995.

## **Type Data**

The type data requirements of NZCAR Part 21B Para 21.43 have been satisfied by supply of the following documents:

- (1) Type certificate: A23SO and associated type certificate data sheet.
- (2) Airworthiness design requirements: Already held by the CAA.
- (3) Certification compliance listing: Piper Report LK-1356
- (4) Flight manual: PA-42-1000 Airplane Flight Manual, Report LK-1414. CAA Approved as AIR 2537.
- (5) Illustrated Parts Catalogue: PA-42-1000 IPC, as fiche, APIG275 dated 1-6-89
- (6) Maintenance manual and service data for aircraft, engine and propeller:  
PA-42-1000 Maintenance Manual, as fiche, APIG250 dated 31-12-89. (Engine and propeller data already held, as is the same as fitted to some Metro's.)
- (7) Agreement from manufacturer to supply updates of data in (4), (5) and (6):  
CAA 2171 form from FAA/DOA Coordinator dated 6 September 1995.

## Additional New Zealand Certification requirements

The following additional NZ requirements are not covered by the original certification requirements or the basic build standard of the aircraft and require compliance with before issue of an airworthiness certificate:

### NZCAR Section C4

<b>PARA:</b>	<b>REQUIREMENT:</b>	<b>MEANS OF COMPLIANCE:</b>
2.13(a)	ASI shall be marked in knots	To be verified by inspection for each aircraft
2.1.3(b)	Altimeter main scale to be calibrated in feet	To be verified by inspection for each aircraft
2.1.3(c)	Altimeter barometric scale in millibars or hectopascals	To be verified by inspection for each aircraft
2.1.4(a)	Counter/pointer altimeters	To be verified by inspection for each aircraft
2.1.6	Magnetic compass residual deviation as per NZCAR F.8	To be verified by inspection for each aircraft
3.1	Seats, Safety Belts and Harnesses	To be verified by inspection for each aircraft
3.2	Axe	To be verified by inspection for each aircraft
3.3.4	Fire extinguisher operating instructions and types	To be verified by inspection for each aircraft
3.3.5	Fire extinguisher approved types	To be verified by inspection for each aircraft
3.3.6	Fire extinguisher specification	To be verified by inspection for each aircraft
3.4	First aid kits as prescribed in Appendix A	To be verified by inspection for each aircraft
4.1	Independent radio antenna	To be verified by inspection for each aircraft
4.2	Emergency locator beacon	To be verified by inspection for each aircraft
6(d)	Red anti-collision light	To be verified by inspection for each aircraft
7.1	Flight manual container	To be verified by inspection for each aircraft
8.2	Fireproof ID plate	To be verified by inspection for each aircraft
8.3	Passenger smoking notices	To be verified by inspection for each aircraft
8.9	Nationality and registration marks	To be verified by inspection for each aircraft

### NZCAR Volume 2

<b>GEN AD:</b>	<b>TITLE:</b>	<b>REQUIREMENT:</b>	<b>MEANS OF COMPLIANCE:</b>
DCA/GEN/6	Cable end assys proof load	Test before installation	To be checked as applicable for each aircraft.

## **Summary**

The PA-42-1000 has been issued with Type Acceptance Certificate No.95/04 and is eligible for a New Zealand Airworthiness Certificate in the Standard Category in accordance with CAR 21.177, subject to the outstanding requirements noted above being met:

## **Attachments**

The following documents form attachments to this report:

- Three-view drawing PA-42-1000
- Copy of Type Certificate

## **Sign off**

Peter Gill  
Airworthiness Engineer

Date: 19 September 1995