



SUPPLEMENTAL TYPE CERTIFICATE DATA SHEET No. 3/21E/1

This data sheet is applicable to the models FU24-950, FU24-954, FU24-950M, FU24A-950, FU24A-954, and FU24A-950M aircraft when fitted with a Pratt & Whitney Canada PT6A-11AG engine and Hartzell HC-B3TN-3(D)/T10282N propeller, and stretched fuselage in accordance with Top Drawings TCL-00-101 dated 17 Dec 03 and TCL-00-201 dated 13 Nov 03 and the PT6 Fletcher-EX Installation Instructions dated 22 April 2004, or later CAA Approved revisions.

This data sheet is part of Supplemental Type Certificate No. 3/21E/1 and should be read in conjunction with Certificate of Type Approval A-3 Part 2 or Supplemental Certificate No. SA-3.

Supplemental Type Certificate Holder: **Super Air Limited**
 Ingram Road, R.D.2
 Hamilton, New Zealand

STC Holder History: Originally issued on 4th June 2004 to Turbine Conversions Ltd.
 Transferred on 15th October 2007 to Super Air Ltd.
 Reissued on 8th May 2009 to include the Normal Category.

Engine: Pratt & Whitney Canada PT6A-11AG

Fuel: Type - Kerosene Jet A (ASTM D1655-83)
 Jet A-1 (ASTM D1655-83)

Engine Limits:

Engine Speed (N _G) -	Maximum Continuous	101.5 %
	Maximum Takeoff	101.5 %
Engine Torque -	Maximum Continuous	33.3 psi (430 shp)
	Maximum Takeoff	42.6 psi (550 shp)
Inter-turbine Temperature (ITT) -	Maximum Starting	1090 °C (Maximum 2 Seconds)
	Transient	825 °C (Maximum 2 Seconds)
	Maximum Takeoff	700 °C
	Maximum Continuous	700 °C
Engine Oil Pressure -	Minimum	40 psig
	Maximum	100 psig

Engine Oil Temperature -

Maximum	104 °C (5 minutes)
Maximum Continuous	99 °C
Minimum	-40 °C

Propeller: Hartzell HC-B3TN-3(D)/T10282N

Propeller Limits:

Propeller Speed (N _P) -	Maximum Continuous	2200 RPM
	Maximum Takeoff	2200 RPM
	Maximum Reverse	2100 RPM

Propeller Diameter -	Maximum	102 inch
	Minimum	102 inch

Propeller Fine Pitch (low blade angle) - +16 degrees

Number of Seats: 2 at -0.513 m (-20.2 in.)

Fuel Capacity: Total Capacity: 480 litres (105.7 imp.gal.) at 0.249 m (9.8 in.)
410 litres (90.2 imp. gal.) usable level flight
170 litres (37.4 imp. gal.) unusable all manoeuvres

Oil Capacity: 8.71 litres (1.92 imp. gal.)

Maximum Operating Altitude: 10,000 feet (Restricted Category)
17,000 feet (Normal Category)

Equipment: Items of equipment approved for the basic FU-24-950 series are not eligible with this STC unless such items are also listed in the Supplements Section 9 of the Flight Manual or unless it is determined that the interrelationship between those items and the modifications covered by this STC will introduce no adverse effect on the airworthiness of the aircraft.

In addition the following document is required:

PT6 Fletcher-EX Flight Manual CAA Approved as AIR 2817.

Certification Basis: CAR 3 amended to 16 May 1953; and FAR 23, effective February 1, 1965, including Amendments 23-1 through 23-55 effective 1 March 2002, only as applicable to the changes introduced by the STC. (See Certification Review Item G-1.)

The following requirements were not complied with but are compensated for by factors that provide an equivalent level of safety:

FAR §23.973(f)

FAR §23.1093(b) – Restricted Category only

FAR §23.1303(e)

(See Certification Review Items G-2 through G-4 for details.)

- NOTE 1: Because of the extensive changes to the original design it is a requirement of the STC that pilots flying this aircraft must have completed a comprehensive type rating course that is acceptable to the New Zealand Civil Aviation Authority, or the applicable National Airworthiness Authority of the State of Registry.
- NOTE 2: The certificated empty weight and corresponding centre of gravity location must include full oil and unusable fuel.
- NOTE 3: Placards called up in Section 2 of the Flight Manual must be displayed in clear view of the pilot. The fuel filler caution placard must be prominent white lettering on an orange background.
- NOTE 4: Airworthiness Limitations are contained in the CAA-Approved PT6 Fletcher-EX Instructions for Continued Airworthiness, Section 3.
- NOTE 5: The aircraft is approved for Day VFR operations only.
- NOTE 6: In-flight use of beta control is prohibited with flap settings greater than 20°.
- NOTE 5: For installation of this STC the aircraft must have the strengthened nose leg P/N 245120 fitted and the additional main undercarriage enhancements as detailed in Section 4.1 of the CAA Approved PT6 Fletcher-EX Installation Instructions.
- NOTE 7: When operating in the Restricted Category for the purpose of agricultural operations only, flight into conditions of visible moisture below 5°C is prohibited.
- NOTE 8: When operating in the Normal Category flight is prohibited in known or forecast icing conditions, or in falling or blowing snow (including any ground running or taxiing operations).

The aircraft must be equipped with the following items of equipment:

- A fuel drain collector installation in accordance with Drawing TCL-07-114; and
- An engine alternate air induction system installation in accordance with Drawings TCL-07-115 and TCL-08-102; and
- Rudder travel must be limited to $\pm 25^\circ$ and Flap travel limited to 30°. (See Installation Instructions for details.)

No interior cabin configuration has been approved under the STC for Normal Category operations.

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