Type Acceptance Report

TAR 19/21B/24 TECNAM P2008 JC

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Executive Summary

New Zealand Type Acceptance has been granted to the Tecnam Model P2008 JC based on validation of EASA Type Certificate number A.583. There are no special requirements for import.

Applicability is currently limited to the Models and/or serial numbers detailed in Appendix 1, which are now eligible for the issue of an Airworthiness Certificate in the Standard Category in accordance with NZCAR §21.191, subject to any outstanding New Zealand operational requirements being met. (See Section 5 of this report for a review of compliance of the basic type design with the operating Rules.) Additional variants or serial numbers approved under the foreign type certificate can become type accepted after supply of the applicable documentation, in accordance with the provisions of NZCAR §21.43(c).

NOTE: The information in this report was correct as at the date of issue. The report is generally only updated when an application is received to revise the Type Acceptance Certificate. For details on the current type certificate holder and any specific technical data, refer to the latest revision of the State-of-Design Type Certificate Data Sheet referenced herein.

1. Introduction

This report details the basis on which Type Acceptance Certificate No. 19/21B/24 was granted in the Standard Category in accordance with NZCAR Part 21 Subpart B.

Specifically, the report aims to:

- (a) Specify the foreign type certificate and associated airworthiness design standard used for type acceptance of the model(s) in New Zealand; and
- (b) Identify any special conditions for import applicable to any model(s) covered by the Type Acceptance Certificate; and
- (c) Identify any additional requirements which must be complied with prior to the issue of a NZ Airworthiness Certificate or for any subsequent operations.

2. Aircraft Certification Details

(a) State-of-Design Type and Production Certificates:

Manufacturer:	Costruzioni Aeronautiche Tecnam S.p.A. (from March 9, 2018)	
	Costruzioni Aeronautiche Tecnam S.r.l.	
Type Certificate: Issued by:	EASA.A.583 European Aviation Safety Agency	
Production Approval:	IT.21G.0032	

(b) Models Covered by the Part 21B Type Acceptance Certificate:

OD 2008/027 or MOD 2008/04
E.121 in Aviation Safety Agency
R-FW101 SRTC 2.108 an Aviation Safety Agency
4 177C – MOD 2008/029 110/1 an Aviation Safety Agency
170-202 – MOD 2008/086 2.049 an Aviation Safety Agency
2.108 n Aviation Safety Agen 4 177C – MOD 2008/02 110/1 n Aviation Safety Agen 170-202 – MOD 2008/0 2.049 an Aviation Safety Agen

Notes: 1. Refer to TCDS EASA.A.583 for specific applicability of engine and propeller combinations to individual aircraft models.

2. Refer to Advisory Circular 21-1 Appendix 2 for the New Zealand type acceptance status of any engines and propellers listed above.

3. Application Details and Background Information

The application for New Zealand type acceptance was from the manufacturer, dated 2nd April 2019. The first-of-type examples were serial numbers 1146 and 1147, registered as ZK-MBN and ZK-TLT respectively. The P2008 JC is a two-seat single-engined high wing aeroplane equipped with a fixed pitch propeller and fixed tricycle undercarriage.

Type Acceptance Certificate No. 19/21B/24 was granted on 21 June 2019 to the Tecnam P2008 JC based on validation of Type Certificate EASA.A.583. Specific applicability is limited to the coverage provided by the operating documentation supplied. <u>There are no special requirements for import into New Zealand</u>.

The P2008 JC is the latest development of the P2008 airframe, which has previously been available only as an LSA or ultralight aircraft. The P2008 was the first Tecnam model to feature a carbon-fibre fuselage with integrated fin instead of the all-metal construction of all previous models. Tecnam has just introduced the P2008JC MkII, which features a number of significant enhancements. These include a new avionic suite, a new dashboard and glare shield, and the G3X Touch display with MD302 attitude-display instrument.

4. NZCAR §21.43 Data Requirements

The type data requirements of NZCAR Part 21B Para §21.43 have been satisfied by supply of the following documents, or were already held by the CAA:

(1) State-of-Design Type certificate:

EASA Type Certificate Number A.583

EASA Type Certificate Data Sheet no. A.583 at Issue 09 dated 18 December 2017 – Model P2008 JC approved 27 September 2013

- (2) Airworthiness design requirements:
 - (i) Airworthiness Design Standards:
 - The certification basis of the P2008JC is EASA CS-VLA Amendment 1 dated 5 May 2009. (See CRI A-01) This is an acceptable certification basis in accordance with NZCAR Part 21B Para §21.41, as CS-VLA is an accepted standard for this class of Normal Category aircraft called up under Part 21 Appendix C and Advisory Circular 21-1. There are no non-compliances and no additional special conditions have been prescribed by the Director under §21.23.
 - (*ii*) Special Conditions:

SC-VFR Night VLA 01 (CRI O-101) – This Special Condition defined a set of technical requirements to allow Night VFR operations for VLA aircraft.

SC-F-1309-01 Protection from the Effect of HIRF (CRI F-101) – This specified the requirements for assessment of HIRF for VFR VLA aircraft which use integrated avionics as standard equipment.

SC-ELA.2015-01 Lithium battery installations for ELA1 Aeroplanes (CRI F-103) – This specified a detailed compliance matrix for lithium batteries used for storage, which have different failure and operational characteristics and maintenance requirements, compared to conventional Ni-Cad or Lead-Acid batteries.

- (iii) Equivalent Level of Safety Findings: Nil
- (iv) Airworthiness Limitations: Nil
- (3) Aircraft Noise and Engine Emission Standards:
 - (*i*) Environmental Standard:

The Model P2008 JC has been certificated for noise under CS-36 Amendment 2 dated 31 August 2009, subpart C with reference to ICAO Annex 16, Volume 1, Chapter 10, Amendment 9 dated 30 July 2009. (See CRI N01.)

(ii) Compliance Listing: See TCDS for Noise EASA.A.583 (4) Certification Compliance Listing:

Tecnam Report n° 2008/036 P2008 JC Aircraft – EASA CS VLA Compliance Check List – 4^{th} Edition 12th August, 2013; Rev. 0

- (5) Flight Manual: EASA-Approved P2008 JC Aircraft Flight Manual Doc. No. 2008/100 CAA Accepted as AIR 3926
- (6) Operating Data for Aircraft:
 - (i) Maintenance Manual: P2008 JC Aircraft Maintenance Manual – Doc. No. 2008/101
 - *(ii) Current service Information:* Service Bulletins and Service Information Letters
 - (iii) Illustrated Parts Catalogue: P2008 JC Illustrated Parts Catalogue – Doc. No. 2008/102
- (7) Agreement from manufacturer to supply updates of data in (5), and (6):

All Publications are available to the CAA on the Tecnam website <u>www.tecnam.com</u>

(8) Other information:

Tecnam Report n° 2008/052 P2008 JC Aircraft – Electric Load Analysis – VFR Night – 3^{rd} Edition Revision 1, September 2^{nd} 2013

Tecnam Report n° 2008/001 P2008 JC Aircraft – Main Features and Description – 4^{th} Edition, Revision 1, September 2^{nd} 2013

5. New Zealand Operational Rule Compliance

Compliance with the retrospective airworthiness requirements of NZCAR Part 26 has been assessed as they are a prerequisite for the grant of an airworthiness certificate.

Civil Aviation Rules Part 26

Subpart B – Additional Airworthiness Requirements – Appendix B: All Aircraft

PARA:	REQUIREMENT:	MEANS OF COMPLIANCE:
B.1	Marking of Doors and Emergency Exits	To be determined on an individual aircraft basis
B.2	Crew Protection Requirements - CAM 8 Appdx. B # .35	Not Applicable – Agricultural Aircraft only

Compliance with the following additional NZ operating requirements has been reviewed and were found to be covered by either the original certification requirements or the basic build standard of the aircraft, except as noted:

Civil Aviation Rules Part 91

Subpart F – Instrument and Equipment Requirements

PARA:	REQUIREMENT:		MEANS OF COMPLIANCE:		
91.505	Seating and Restraints – Safety belt/Shoulder Harness		CS-VLA 785(e)		
91.507	Pax Information Signs – Smoking, safety belts fastened		Not Applicable – Less than 10 passenger seats		
91.509	(1) ASI	CS-VLA 1303 (a)	(8) Coolant Temp.	CA-VLA 1305 (j) *	
Min.	(2) Machmeter	N/A	(9) Oil Temperature	N/A – Air Cooled engine	
VFR	(3) Altimeter	CS-VLA 1303 (b)	(10) Manifold Pressure	N/A – fixed-pitch propeller	
	(4) Magnetic Compass	CS-VLA 1303 (c)	(11) Cylinder Head Temp.	CS-VLA 1305 (e) *	
	(5) Fuel Contents	CS-VLA 1305 (a)	(12) Flap Position	CS-VLA 699	
	(6) Engine RPM	CS-VLA 1305 (d)	(13) U/c Position	N/A – Fixed undercarriage	
	(7) Oil Pressure	CS-VLA 1305 (b)	(14) Ammeter/Voltmeter	CS-VLA 1351 (d)	
* Tecnam fit a CHT Gauge in lieu of a coolant temperature gauge, as authorised by Rotax when waterless coolant is used. This was					
accepte	d by EASA as meeting the r	equirement, based on the engine lev	el demonstration in the Installa	tion Manual. See CRI E-103.	
91.511	(1)Turn and Slip	SCVLA.1321(a)(1)	(3) Anti-collision Lights	SCVLA.1383	
Night	(2) Position Lights	SCVLA.1383	(4) Instrument Lighting	SCVLA.1381	
	NOTE: Night VFR is permitted when KIT P/N 28-13-1000-000 is installed and operative. See CRI O-101 which references				
	NPA CS-VLA/001 applied	d by Special Condition SC-VFR Ni	ght VLA.01. See also Kinds of	Operation Equipment List	
	(KOEL) in Flight Manual Supplement S1 – VFR Night Equipment Configuration				
91.513	VFR Communication Equipment		Garmin GTX255A and GMA340 fitted as standard		
91.517	IFR Instruments and Equipment		Not Applicable – Approved for VFR operations only		
91.519	IFR Communication and Navigation Equipment		Not Applicable – Approved for VFR operations only		
91.523	Emergency Equipment:				
	(a) More Than 9 pax – Fir	st Aid Kits per Table 7	d Kits per Table 7 <i>Operational Requirement – Compliance as applicable</i>		
	– Fii	re Extinguishers per Table 8	Operational Requirement – Compliance as applicable		
	(b) More than 20 pax – Axe readily accessible to crew		Not Applicable – Less than 20 passenger seats		
	(c) More than 61 pax – Portable Megaphones per Table 9		Not Applicable – Less than 61 passenger seats		
91.529	ELT – TSO C126 406 MHz after 22/11/2007		Operational Requirement – Compliance as applicable		
91.531	Oxygen Indicators – Volume/Pressure/Delivery		Not fitted as standard		
91.533	Oxygen for non-Pressurised Aircraft:		Maximum operating altitude is 13,000 ft.		
91.541	SSR Transponder and Altitude Reporting Equipment		Garmin GTX328 fitted as standard		
91.543	Altitude Alerting Device – Turbojet or Turbofan		Not Applicable – Not turbo jet or turbofan powered		
91.545	Assigned Altitude Indicator		Not Applicable – Approved for VFR operations only		
A.15	ELT Installation Requirements		To be determined on an individual aircraft basis		

Civil Aviation Rules Part 135

Subpart F – Instrument and Equipment Requirements

PARA:	REQUIREMENT:		MEANS OF COMPLIANCE:	
135.355	Seating and Restraints – Shoulder harness flight-crew seats		CS-VLA 785(e)	
135.357	Additional Instruments (Powerplant and Propeller)		(i) CS-VLA 1305 (ii) Not Applicable – fixed pitch prop	
135.359	Night Flight	Landing light, Pax compartment	Operational requirement – Compliance as applicable	
135.361	IFR Operations	Speed, Alt, spare bulbs/fuses	Not Applicable – Approved for VFR operations only	
135.363	Emergency Equipment (Part 91.523 (a) and (b))		Operational requirement – Compliance as applicable	
135.367	Cockpit Voice Recorder		N/A – Only for 2-crew helicopters with more than 10 pax	
135.369	Flight Data Recorder		Not Applicable – Less than 10 passenger seats	
135.371	Additional Attitude Indicator		Not Applicable – Not turbo jet or turbofan powered	

NOTES: 1. A Design Rule reference in the Means of Compliance column indicates the Design Rule was directly equivalent to the CAR requirement, and compliance is achieved for the basic aircraft type design by certification against the original Design Rule.

2. The CAR Compliance Tables above were correct at the time of issue of the Type Acceptance Report. The Rules may have changed since that date and should be checked individually.

3. Some means of compliance above are specific to a particular model/configuration. Compliance with Part 91/119 operating requirements should be checked in each case, particularly oxygen system capacity and emergency equipment.

Attachments

The following documents form attachments to this report:

Three-view drawing Tecnam Model P2008JC Copy of Type Certificate Data Sheet Number EASA.A.583

Sign off

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David Gill Team Leader Airworthiness Checked – Greg Baum Team Leader Product Certification

Appendix 1

List of Type Accepted Variants:

Model:	Applicant:	CAA Work Request:	Date Granted:
P2008JC	Costruzioni Aeronautiche Tecnam S.p.A	. 19/21B/24	21 June 2019