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# **Type Acceptance Report**

**TAR 22/21B/21**

**LOCKHEED 12-A**

## TABLE OF CONTENTS

<b>EXECUTIVE SUMMARY</b>	<b>1</b>
<b>1. INTRODUCTION</b>	<b>1</b>
<b>2. AIRCRAFT CERTIFICATION DETAILS</b>	<b>2</b>
<b>3. APPLICATION DETAILS AND BACKGROUND INFORMATION</b>	<b>3</b>
<b>4. NZCAR §21.43 DATA REQUIREMENTS</b>	<b>4</b>
<b>5. NEW ZEALAND OPERATIONAL RULE COMPLIANCE</b>	<b>6</b>
<b>ATTACHMENTS</b>	<b>7</b>
<b>APPENDIX 1 – THREE-VIEW DRAWING</b>	<b>8</b>

## Executive Summary

New Zealand Type Acceptance has been granted to the Lockheed 12-A based on validation of FAA Type Certificate number 616. There are no special requirements for import.

Applicability is currently limited to the Models and/or serial numbers detailed in Section 2, 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. 22/21B/21 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.

The report notes the status of all models included under the State-of-Design type certificate which have been granted type acceptance in New Zealand, which are listed in Section 2.

## 2. Aircraft Certification Details

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

Manufacturer: Lockheed Aircraft Corporation  
Type Certificate: 616  
Issued by: Federal Aviation Administration  
Production Approval: Not Applicable

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

(i) **Model:** 12-A  
MCTOW: 9200 lb. [4173 kg]  
Max. No. of Seats: 8  
Noise Standard: Not Applicable  
**Engine:** Pratt & Whitney Wasp Jr (R-985 Series)  
Type Certificate: 5E-1  
Issued by: Federal Aviation Administration  
**Propeller:** Hamilton Standard 2D30/6095A  
Type Certificate: P-206  
Issued by: Federal Aviation Administration

Notes: 1. Refer to FAA TCDS 616 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 importer, Mr Robert Borrius-Broek, dated 27 May 2022. The first-of-type example was serial number 1262, registered ZK-LHE. The Lockheed 12 “Electra Junior” is a twin-radial-engine low-wing all-metal six-to-eight passenger capacity aircraft with retractable tailwheel undercarriage and twin vertical fins.

Type Acceptance Certificate No. 22/21B/21 was granted on 3 February 2023 to the Lockheed 12-A based on validation of FAA Type Certificate 616. Specific applicability is limited to the coverage provided by the operating documentation supplied. There are no special requirements for import into New Zealand.

The Lockheed 12 was essentially a smaller version of the Model 10 Electra. It was designed for a feeder airliner competition, although in service it was mainly used for corporate and government transportation.

#### 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:

FAA Type Certificate Number 616

FAA Aircraft Specification number 616

– Model 12-A approved 14 October 1936

(2) Airworthiness design requirements:

(i) *Airworthiness Design Standards:*

The certification basis of the Lockheed 12-A is Aero Bulletin 7A. This is an acceptable certification basis in accordance with NZCAR Part 21B Para §21.41 and Advisory Circular 21-1A, as Aero Bulletin 7A is the predecessor of CAR 4, which was the basic design standard for Small Airplanes at the time. There are no non-compliances and no additional special conditions have been prescribed by the Director under §21.23.

(ii) *Special Conditions:*

Nil

(iii) *Equivalent Level of Safety Findings:*

Nil

(iv) *Airworthiness Limitations:*

Nil

(3) Aircraft Noise and Engine Emission Standards:

(i) *Environmental Standard:*

Not Applicable

(4) Certification Compliance Listing:

CASA hold the following type data documents in their archives:

- Lockheed Report 706 – Wing, Outer Panel Analysis – Model 12 – 1935
- Lockheed Report 707 – Wing, Center Section – Model 12 – March 20, 1935
- Lockheed Aircraft – Report 710 – Landing Gear – Model 12 – April 27, 1936
- Lockheed Aircraft Corp. – Report 711 – Engine Nacelle Analysis – Model 12
- Lockheed Aircraft Corp. – Drawing List (Australia) Model 12-A

(5) Flight Manual: Flight Instruction Manual – Lockheed Model 12A  
CAA Accepted as AIR 3498

(6) Operating Data for Aircraft:

(i) *Maintenance Manual:*

Lockheed 12 Service Instructions

(ii) *Current service Information:*

Nil (There are no Airworthiness Directives for the Lockheed 12-A)

(iii) *Illustrated Parts Catalogue:*

Lockheed Model-12 Illustrated Parts Catalog

(7) Agreement from manufacturer to supply updates of data in (5), and (6):

Not Applicable.

(8) Other information:

Nil

## 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	<i>To be determined on an individual aircraft basis</i>
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	Not Applicable – Not aerobatic, less than ten pax seats
91.507	Pax Information Signs – Smoking, safety belts fastened	Not Applicable – Less than ten passenger seats
91.509 Min. VFR	(1) ASI (2) Machmeter (3) Altimeter (4) Magnetic Compass (5) Fuel Contents (6) Engine RPM (7) Oil Pressure	Aero Bulletin 7A §72 (A) N/A – No mach limitations Aero Bulletin 7A §72 (B)(4) Aero Bulletin 7A §72 (C) Aero Bulletin 7A §67 (D) Aero Bulletin 7A §72 (B)(1) Aero Bulletin 7A §72 (B)(2)
(8) Coolant Temp (9) Oil Temperature (10) Manifold Pressure (11) Cylinder Head Temp. (12) Flap Position (13) U/c Position (14) Ammeter/Voltmeter	N/A – Air-cooled engine Aero Bulletin 7A §72 (B)(3) <b>Compliance as applicable</b> <b>Compliance as applicable</b> <b>Compliance as applicable</b> Aero Bulletin 7A §41 (C) <b>Compliance as applicable</b>	
91.511 Night	(1) Turn and Slip (2) Position Lights	<b>Compliance as applicable</b> <b>Compliance as applicable</b>
91.513	VFR Communication Equipment	<b>Operating Requirement – Compliance as applicable</b>
91.517	IFR Instruments and Equipment	<b>Operating Requirement – Compliance as applicable</b>
91.519	IFR Communication and Navigation Equipment	<b>Operating Requirement – Compliance as applicable</b>
91.523	Emergency Equipment: (a) More Than 9 pax – First Aid Kits per Table 7 – Fire Extinguishers per Table 8 (b) More than 20 pax – Axe readily accessible to crew (c) More than 61 pax – Portable Megaphones per Table 9	Not Applicable – Less than 10 passenger seats Not Applicable – Less than 10 passenger seats Not Applicable – Less than 20 passenger seats Not Applicable – Less than 61 passenger seats
91.529	ELT – TSO C126 406 MHz after 22/11/2007	<b>Operating Requirement – Compliance as applicable</b>
91.531	Oxygen Indicators – Volume/Pressure/Delivery	<b>Operating Requirement – Compliance as applicable</b>
91.533	Oxygen for non-Pressurised Aircraft:	<b>Operating Requirement – Compliance as applicable</b>
91.541	SSR Transponder and Altitude Reporting Equipment	<b>Operating Requirement – Compliance as applicable</b>
91.543	Altitude Alerting Device – Turbojet or Turbofan	Not Applicable – Not turbojet or turbofan
91.545	Assigned Altitude Indicator	<b>Operating Requirement – Compliance as applicable</b>
A.15	ELT Installation Requirements	<i>To be determined on an individual aircraft basis</i>

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.

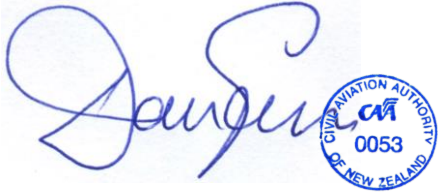


## Attachments

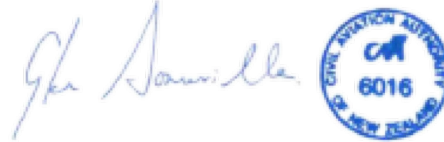
The following documents form attachments to this report:

Copy of FAA Aircraft Specification Number 616

## Sign off

A blue ink signature of David Gill is written over a circular blue stamp. The stamp contains the text "CIVIL AVIATION AUTHORITY OF NEW ZEALAND" around the perimeter, a stylized "CAAN" logo in the center, and the number "0053" below the logo.

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David Gill  
Team Leader Aircraft Inspection

A blue ink signature of Glen Somerville is written over a circular blue stamp. The stamp contains the text "CIVIL AVIATION AUTHORITY OF NEW ZEALAND" around the perimeter, a stylized "CAAN" logo in the center, and the number "6016" below the logo.

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Checked – Glen Somerville  
Certification Engineer

## Appendix 1

### Three-view drawing Lockheed 12

