Type Acceptance Report

TAR 20/21B/6

Bombardier CL-600 “Challenger” Series

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Executive Summary

New Zealand Type Acceptance has been granted to the Bombardier CL-600 "Challenger" Series based on validation of Transport Canada Type Certificate number A-131. 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 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 State-of-Design Type Certificate Data Sheet.

1. Introduction

This report details the basis on which Type Acceptance Certificate No. 20/21B/6 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 models in New Zealand; and

(b) Identify any special conditions for import applicable to any models covered by the Type Acceptance Certificate; and

(c) Identify any additional requirements that 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. The history of the Bombardier CL-600 Challenger Series type acceptance in New Zealand under type certificate A-131 is listed in Appendix 1.

2. Aircraft Certification Details

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

Manufacturer:	Bombardier Inc.
Type Certificate: Issued by:	A-131 Transport Canada
Production Approval:	12-58

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

(i) Model(s): CL-600-2B16 (604 Variant)

MCTOW:	21,591 kg [47,600 lb] 21,863 kg [48,200 lb] – MSN 5640 and up or SB 604-11-001
Max. No. of Seats:	22, including 3 crew members
Noise Standard:	ICAO Annex 16, Vol. I, Chapter 3 at Amendment 4
Engine:	General Electric CF34-3B
	Type Certificate: E15NE Issued by: Federal Aviation Administration

3. Application Details and Background Information

The application for New Zealand type acceptance of the Bombardier CL-600-2B16 (604 Variant) was from GCH Jet Operations Limited, dated 31 October 2019. The first-of-type example was serial number 5304 registered ZK-JCJ. The CL-600-2B16 "Challenger" is a rear-mounted-twin-turbofan swept-wing pressurised Transport Category business jet.

Type Acceptance Certificate No. 20/21B/6 was granted on 30 March 2020 to the Bombardier CL-600-2B16 (604 Variant S/N 5301 to 5699) based on validation of Transport Canada Type Certificate A-131. Specific applicability is limited to the coverage provided by the operating documentation supplied. There are no special requirements for import into New Zealand.

The Canadair Challenger 600 (Model CL-600-1A11), originally known as the Learstar 600, was a new wide-fuselage business jet using a supercritical wing section and ALF502 engines. (Note the Challenger series of aircraft are generally known by their marketing designations.) This became the Challenger 601 (Model CL-600-2A12) with the fitting of General Electric CF34-1A engines, and then the Challenger 601-3A/R (All subsequent versions have the same official Model CL-600-2B16) with the improved CF34-3 Series engine. The 601 was the first challenger to be fitted with the fully integrated Honeywell SPZ-8000 avionics guidance system. It comes standard with left- and right-side primary flight displays and a centre multifunction screen, dual Collins VHF 22B, dual VIR 32, dual ADF 462, dual DME 42, triple Laseref INS, dual FMS 800, and Honeywell WU 870 colour weather radar.

The Challenger 604 (Model CL-600-2B16 [604 Variant]) is the extended range version of the CL-601-3R, using the improved CF34-3B engines and additional fuel tanks. The CF34-3B had lower SFC and increased climb thrust, and was flat rated at take-off to ISA plus 15º C. MTOW and MLW were both increased along with an extended aft c.g., with corresponding changes to the stall protection computer, and new wheels, tyres, brakes, anti-skid system and proximity sensing system. The only external aerodynamic change was a new wing/body fairing. The 604 had the new Collins ProLine IV Electronic Flight Instrumentation System.

Later serial number ranges of the 604 Variant are known by their marketing names of Challenger 605 (MSN 5701 to 5990) and Challenger 650 (MSN 6050 and later). The main development for the 605 was the change to the latest Collins ProLine 21 EFIS display system, while it also had enlarged passenger windows and other cabin improvements. The Challenger 650 was a further evolutionary development with upgrades to the cockpit and cabin.

All Challenger aircraft are produced at the factory as "green" aircraft with no passengers and the interior is fitted later at Completion Centres under an STC.

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:

(1) State-of-Design Type certificate:

Transport Canada Type Certificate Number A-131

Transport Canada TCDS Number A-131 at Issue 60 dated November 22, 2019
–Model CL-600-2B16 (604 Variant) approved September 20, 1995

(2) Airworthiness design requirements:

(i) Airworthiness Design Standards:
The certification basis of the CL-600-2B16 (604 Variant) is FAR Part 25 dated February 1, 1965, including Amendment 25-1 through 25-78, except for the following:

- FAR Part 25 at Amendment 25-37 for paragraphs: 149, 365, 561, 625, 701, 772, 783 (except 783(f)), 785 (except 785(g)), 789, 791, 801, 803, 807, 809, 811, 812, 813, 831, 853, 855, 857, 1307, 1359, 1415 and 1419;
- FAR Part 25 at Amendment 25-37 for existing installations and Amendment 25-78 for new installations for paragraphs: 963, 965, 994, 997, and 1438;
- FAR Part 25 at Amendment 25-38 for paragraphs §25.787 and §25.1439;
- FAR Part 25 at Amendment 25-40 for paragraph §25.973;
- FAR Part 25 at Amendment 25-37 for paragraph §25.109 (see TCDS Note 7);
- FAR Part 25 at Amendment 25-44 for paragraph §25.1413;
- FAR Part 25 at Amendment 25-54 for paragraph §25.851;
- New FAR Part 25 requirements 562, 810, 819, 832, 858, 869(a) & (b), 1421, 1423 and 1450 are not part of the certification basis.

Additional Technical Conditions (Airworthiness Manual Chapter 525 Requirements):

525.105(c)(1)	Takeoff Performance, Unpaved Runways	Change 525-2
525.125(b)	Landing Performance, Unpaved Runways	Change 525-2
525.201(d)	Stall Demonstration	First Edition
525.207(b)	Stall Warning	First Edition
525.697(b)	Lift and Drag Devices	First Edition
525.699(d)	Lift and Drag Devices, Indicator	First Edition
525.1301-1	Aeroplane Operations after Ground Cold Soak	First Edition
525.1557(b)(4)	Miscellaneous Markings and Placards	Change 525-3
525.1581(e),(f)	Airplane Flight Manual	First Edition
525.1581(g)	Wet and Contaminated Runways	Change 525-4

DOT Airworthiness Requirements contained in DOT letter to Canadair Limited, Reference 5050-10-377 (ABP/A) dated October 25, 1982, except paragraph 5. (Challenger Series Special Conditions on Stalls.)

The Certification Basis also includes three Special Conditions and two equivalent safety findings, which have been reviewed and accepted by CAANZ

Compliance has also been established with the requirements of FAR §25.801 Ditching Provisions; and FAR §25.1419 Ice Protection.

This is an acceptable certification basis in accordance with NZCAR Part 21B Paragraph §21.41, as FAR 25 is the basic standard for Transport Category Airplanes called up under Part 21 Appendix C. There are no non-compliances and no additional special conditions have been prescribed by the Director under §21.23.

(ii) Special Conditions:

SCA 94-2 High Intensity Radiated Fields (HIRF) – The CL600 Series incorporates modern electronic systems and new technology to provide functions whose failure would prevent the continued safe flight and landing of the aircraft. Since they may be susceptible to damage or interruption of function due to electronic or magnetic interference from High Intensity Radiated Fields (HIRF), the SC established a means to demonstrate no adverse effect when exposed to a specified HIRF environment.

SCA 94-3 Lightning Protection – To ensure the safety and integrity of fully electronic flight critical/essential systems from the direct and indirect effects of lightning this SC specified the threat definition of a lightning strike for test purposes. Electrical and electronic systems or installations must ensure that the ability to perform critical functions must not be adversely affected by exposure to lightning, and the essential functions must be recovered in a timely manner after exposure to lightning.

SCA 2007-01 Steep Approach and Landing Capability – This SC contained additional airworthiness requirements for the approval of a steep approach landing capability, using a path angle greater than or equal to 4.5^{o} (7.9%). This included considerations with respect to steep approach landing distance, OEI Climb, Safe Operational and Flight Characteristics, and Flight Manual implications.

(iii) Equivalent Level of Safety Findings:

FAR §25.103 & Others: Reduced Minimum Operating Speed Factors (Issue Paper F-1) – Transport Canada had developed a policy governing the approval of aircraft for which credit is taken for use of reduced minimum operating speed factors based on Vs1g. Bombardier requested the use of reduced reference speeds and demonstrated compliance with all parts of this policy.

FAR 25.955(a)(4) Fuel Flow – For testing a fuel flow meter must be blocked and the fuel pass through the meter or a bypass. Bombardier performed the test with the meter unblocked, but equivalent safety was granted based on the type of flowmeter, the minimal pressure drop difference when the transmitter is non-rotating (blocked), and because the flowmeter is located downstream from the FCU in the high pressure line. Similarity was also claimed with the Challenger 601-3R.

(iv) Airworthiness Limitations:

Time Limits / Maintenance Checks – Bombardier Challenger 604 – Publication No. CH 604 TLMC (Model CL-600-2B16 [CL-604], a/c effectivity 5301 to 5665)

(3) Aircraft Noise and Engine Emission Standards:

(i) Environmental Standard:
The Variant 604 certification basis includes AWM Chapter 516 Aircraft Noise and Emission at change 516-04 and ICAO Annex 16 Vol. 1 Chapter 3 at Amendment 4.

Compliance with FAR Part 34, including Amendments 34-1, and FAR Part 36, including Amendments 36-1 through 36-20 was also demonstrated.

(ii) Compliance Listing:
See AFM Supplement 1 Noise Characteristics:

Measured Noise levels (EPNdB)			
MTOW	Takeoff/Flyover	Sideline/Lateral	Approach
21,591 kg/47,600 lb	80.9	84.6	91.3
21,863 kg/48,200 lb	81.2	84.6	91.3

Note: The aircraft has demonstrated compliance to ICAO Annex 16, Chapter 4 and FAR 36, Stage 4, when Service Bulletin 604-11-016 is embodied.

(4) Certification Compliance Listing:

Bombardier Inc., Canadair Group Report RAZ-BA604-100 – Airworthiness Certification Plan – Challenger Model CL 600-2B16 – Variant CL-604

Volume 0 – Basis of Certification Variant CL-604

Volume 1 – General Compliance Plan Main Volume

Volume II – General Compliance Plan Docket Volume

Volume III – General Compliance Plan Reports Volume

Addendum 2 – General Compliance Plan High Altitude Airfield Operation

(5) Flight Manual:

Transport Canada-approved Airplane Flight Manual – Bombardier Challenger 604 – Model CL-600-2B16 (CL-604) 21,591 kg / 47,600 lb MTOW or 21,863 kg / 48,200 lb MTOW – Publication PSP 604-1 – CAA Accepted as AIR 3959

(6) Operating Data for Aircraft:

(i) Maintenance Manual:

AMM Part One (System Description Section) – Bombardier Challenger 604 – Pub. No. CH 604 AMM (Model CL-600-2B16 [CL-604], a/c effectivity 5301 to 5665)

Aircraft Maintenance Manual (Part Two) – Bombardier Challenger 604 – Publication No. CH 604 AMM (Model CL-600-2B16 [CL-604], a/c effectivity 5301 to 5665)

Maintenance Planning Document – Bombardier Challenger 604 – Publication No. CH 604 MPD (Model CL-600-2B16 [CL-604], a/c effectivity 5301 to 5665)

Non-Destructive Testing Manual – Bombardier Challenger 604 – Publication No. CH 604 NDTM (Model CL-600-2B16 [CL-604], a/c effectivity 5301 to 5665)

Ground Handling and Servicing Information – Bombardier Challenger 604 – Pub. No. CH 604 GHSI (Model CL-600-2B16 [CL-604], a/c effectivity 5301 to 5665)

Illustrated Tool and Equipment Manual – Bombardier Challenger 604 – Publication No. CH 604 ITEM (Model CL-600-2B16 [CL-604], a/c effectivity 5301 to 5665)

Structural Repair Manual – Bombardier Challenger 604 – Publication No. CH 604 SRM (Model CL-600-2B16 [CL-604], a/c effectivity 5301 to 5665)

Standard Practices Manual – Challenger 300/350/604/605/650, Global Express/XRS /5000/5000 GVFD/6000/6500/7500 – Publication No. SPM

Supplementary Maintenance Data – Bombardier Challenger – Publication No. CH 604 SMD (Model CL-600-2B16 [CL-604], a/c effectivity 5301 to 5665; [CL-605], a/c effectivity 5701 to 6049; [CL-650], a/c effectivity 6060 and subs.)

(ii) Current service Information:
Service Bulletins

(iii) Illustrated Parts Catalogue:
Aircraft Illustrated Parts Catalogue – Bombardier Challenger 604 – Publication No. CH 604 AIPC (Model CL-600-2B16 [CL-604], a/c effectivity 5301 to 5665)

(7) Agreement from manufacturer to supply updates of data in (5), and (6):
Bombardier provides CAA access through www.my.businessaircraft.bombardier.com

(8) Other information:

Weight and Balance Manual – Bombardier Challenger 604 – Publication No. CH 604 WBM (Model CL-600-2B16 [CL-604], a/c effectivity 5301 to 5665)

Wiring Manual – Bombardier Challenger 604 – Publication No. CH 604 WM (Model CL-600-2B16 [CL-604], a/c effectivity 5301 to 5665)

Dispatch Deviation Guide (Associated with Transport Canada Approved Master Minimum Equipment List) – Bombardier Challenger – Publication No. PSP 621 (TC) (CL-600-1A1 [CL-600] s/n 1004 to 1085; CL-600-2A12 [CL-601] s/n 3001 to 3066; CL-600-2B16 [CL-601-3A] s/n 5001 to 5134; CL-600-2B16 [CL-601-3R] s/n 5135 to 5194; CL-600-2B16 [CL-604] s/n 5301 to 5665; CL-600-2B16 [CL-605] s/n 5701 to 6049; CL-600-2B16 [CL-650] s/n 6050 and subs)

Flight Planning and Cruise Control Manual (Metric Version) – Bombardier Challenger – Publication No. CH 604 FPCCM-M (CL-600-2B16 [CL-604] 21,591 kg MTOW or 21,863 kg MTOW; CL-600-2B16 [CL-605] 21,863 kg MTOW; CL-600-2B16 [CL-650] 21,863 kg MTOW)

Operating Manual (Volumes One and Two) – Bombardier Challenger 604 – Model CL-600-2B16 (CL-604) 21,591 kg / 47,600 lb MTOW or 21,863 kg / 48,200 lb MTOW – Publication PSP 604-6

Quick Reference Handbook (Volumes One and Two) – Bombardier Challenger 604 – Model CL-600-2B16 (CL-604) 21,591 kg / 47,600 lb MTOW or 21,863 kg / 48,200 lb MTOW – Publication PSP 604-15

Document TE-RPT-0065 – Model CL-600-3B16 – Challenger CL604 – Electrical Loads Analysis

Document RAD-604-100 – Canadair Challenger Model CL600-2B16 Variant CL604 – Type Specification – Green Aircraft

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	FAR Part 25 par §25.811(a)(e) and (f) at Amendment 25-32
B.2	Crew Protection Requirements – CAM 8 Appdx. B # .35	Not Applicable – Agricultural Aircraft only

Appendix C – Air Transport Aeroplanes – More than 9 Pax

PARA:	REQUIREMENT:	MEANS OF COMPLIANCE:
C.1	Doors and Exits	FAR Part 25 para §25.809(b) at Amendment 25-34
C.2.1	Additional Emergency Exits – per FAR 23.807(b) @ 10.5.93	Meets FAR Part 25 certification requirements dated 1988
C.2.2	Emergency Exit Evacuation Equipment – Descent means	Not Applicable – Exits less than 6 feet from the ground
C.2.3	Emergency Exit Interior Marking – Size/self-illuminating	FAR Part 25 para §25.811(e) & §25.812(b) at Amendment 25-32
C.3.1	Landing Gear Aural Warning – Automatic Flap Linking	FAR Part 25 §25.729(e) at Amendment 25-75

Compliance with the following additional NZ operating requirements has been reviewed and was 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		FAR Part 25 para §25.785 at Amendment 25-32	
91.507	Pax Information Signs – Smoking, safety belts fastened		FAR Part 25 para §25.785 at Amendment 25-32	
91.509 Min. VFR	(1) ASI (2) Machmeter (3) Altimeter (4) Magnetic Compass (5) Fuel Contents (6) Engine RPM (7) Oil Pressure	FAR §25.1303(b)(1) FAR §25.1303(b)(1) FAR §25.1303(b)(2) FAR §25.1303(a)(3) FAR §25.1305(a)(2) FAR §25.1305(c)(3) FAR §25.1305(a)(4)	(8) Coolant Temp (9) Oil Temperature (10) Manifold Pressure (11) Cylinder Head Temp. (12) Flap Position (13) U/c Position (14) Ammeter/Voltmeter	Not Applicable – Turbofan FAR §25.1305(a)(6) Not Applicable – Turbofan Not Applicable – Turbofan FAR §25.699(a) FAR §25.729(e) FAR §25.1351(6)
91.511 Night	(1)Turn and Slip (2) Position Lights	FAR §25.1303(b)(4) FAR §25.1389	(3) Anti-collision Lights (4) Instrument Lighting	FAR §25.1401 FAR §25.1381
91.513	VFR Communication Equipment		FAR Part 25 para §25.1307(d) at Amendment 25-23	
	The CL604 is fitted with the Proline IV EFIS which includes dual VHF (Rockwell-Collins VHF-422A) as standard; integrated with the radio navigation equipment into a Radio Tuning Unit (RTU). HF equipment is optional.			
91.517 IFR	(1) Gyroscopic AH (2) Gyroscopic DI (3) Gyro Power Supply (4) Sensitive Altimeter	FAR 25.1303(b)(5) FAR 25.1303(b)(6) FAR 25.1331(a)(1) FAR 25.1303(b)(2)	(5) OAT (6) Time in hr/min/sec (7) ASI/Heated Pitot (8) Rate of Climb/Descent	FAR §25.1303(a)(1) FAR §25.1303(a)(2) FAR §25.1303(e) FAR §25.1303(b)(3)
91.519	IFR Communication and Navigation Equipment		FAR Part 25 para §25.1307(e) at Amendment 25-23	
	The CL604 is fitted with the Proline IV EFIS which includes with dual VHF Navigation receivers (Rockwell-Collins P/N 822-0393-001) which provide VOR/Localiser, Glideslope and Marker Beacon navigation functions; dual automatic direction finders (ADF – Rockwell-Collins ADF-462); dual distance measuring equipment (DME – Rockwell-Collins DME-442)			
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		***Operating Rule – Compliance to be shown by Operator*** FAR Part 25 para §25.851 at Amendment 25-54 Crash axe fitted as standard – See FCOM2 Section 8.10 Not Applicable – Less than 61 passengers	
91.529	ELT – TSO C126 406 MHz after 22/11/2007		***Operating Rule – Compliance to be shown by Operator*** ELT fitted as standard – See RAD-604-100 Section 25-62-00	
91.531	Oxygen Indicators – Volume/Pressure/Delivery		FAR Part 25 para §25.1441(d) at Original Amendment	
91.535	Oxygen for Pressurised Aircraft: (1) Flight Crew Member On-Demand Mask;		CL-604 Standard Oxygen System: A gaseous crew oxygen system has as standard two 115.7 cu.ft	

	(2) Pax mask, Portable oxygen equipment (3) Crew Member – Pax Oxygen Mask and Portable (4) Minimal Supplemental Oxygen Quantity (5) Specified Supplemental/Therapeutic Oxygen Quantity Above FL250 (1) Quick-Donning Crew On-Demand Mask (2) Supplemental O_2 Masks for all Pax/Crew and Toilets (3) 15 Minutes Therapeutic Supply Above FL300 (1) Total Outlets Exceed Pax Seats by 10% (2) Extra Units Uniformly Distributed throughout Aircraft (3) Automatically Presented if Cabin Altitude ≥ 14000 ft. (4) Manual Means of Deploying Pax Masks Available	cylinders are located in the nose sized for FAA requirements for three crew members. Passenger and flight attendant oxygen is connected to the aircraft main oxygen system. Oxygen masks are TSO-64c and meet the minimum flow of supplemental oxygen requirement of FAR 25.1443(c). Total passenger outlets exceed pax seats by 30%. (Depending on floorplan and seating layout.) Maximum Operating Altitude is 41,000 ft. Passenger masks drop automatically when cabin altitude exceeds 14,000 ft and may be deployed manually from a switch in the cockpit.
91.541	SSR Transponder and Altitude Reporting Equipment	Dual Transponders fitted as standard – TDR (P/N 622-9210-409) with ADS-B out capability fitted under SB604-34-058
91.543	Altitude Alerting Device – Turbojet or Turbofan	AFCS has Altitude Hold mode with alerts– See FCOM2 § 04-10
91.545	Assigned Altitude Indicator	Not Applicable – see above
A.15	ELT Installation Requirements	Bombardier CL600-RJ installation meets NZCAR Part 91 Appendix A.15 (b)(iii) and (iv) by inspection.

Civil Aviation Rules Part 125

Subpart F – Instrument and Equipment Requirements

PARA:	REQUIREMENT:		MEANS OF COMPLIANCE:
125.355	Seating and Restraints		FAR §25.785
125.357	Additional Instruments (Powerplant and Propeller)		FAR §25.1305
125.359	Night Flight	Landing light, Pax compartment	Fitted as Standard – See FCOM2 Section 16-10 Lighting
125.361	IFR Operations	Speed, Alt, spare bulbs/fuses	Fitted as Standard – See FCOM2 Section 11-10 Flight Instruments
125.361	(a) IFR All Operations – Additional Independent ASI and Altimeter; Spare bulbs and spare fuses		Second independent ASI and Altimeter fitted as standard. Spare bulbs and fuses not required
125.363	Emergency Equipment (Part 91.523 (a) and (b))		***Operating Rule – Compliance to be shown by Operator***
125-364	Protective Breathing Equipment		Not Applicable – Less than 20 passenger seats [One PBE (P/N 4566M37-B-042NM) is located in the forward wardrobe and one is located in the aft wardrobe (large lavatory)]
125.365	Public Address and Crew Member Intercom System		FAR Part 25 §25.1423 at Amendment 25-70 – PA/Interphone is fitted as standard – See RAD-604-100 Section 23-30-00
125.367	Cockpit Voice Recorder Appendix B.3 requires TSO C84/C123		CVR fitted as standard – See RAD-604-100 Section 23-30-00 SB 604-23-005 upgrades to 120-min digital Fairchild 2100A (Part No. 2100-1020-00 TSO-C123a) which meets JAR OPS-1
125.369	Flight Data Recorder Appendix B.4 requires TSO C124		FDR provisions standard – See RAD-604-100 Section 31-31-00 – SB 604-31-002 upgrades to 25-hour digital Fairchild L1000 (Part No. S800-2000-00 TSO-C124 and EUROCAE ED-55) which meets FAR §91.609 and §135.152(b)
125.371	Additional Attitude Indicator		Additional attitude indicator fitted as standard – See Document RAD-604-100 Section 34-00-01
125.373	Weather Radar Appendix B.6 requires TSO C63		Rockwell-Collins RTA-844 X-band colour weather radar fitted as standard – See RAD-604-100 Section 34-41-00
125.375	GPWS – Appendix B.7 requires TSO C92		Superseded by EGPWS
125.377	AEDRS – Required for SE IFR – Meets Appendix B.8		Not Applicable – Not SEIFR
125.379	Terrain Awareness and Warning System (TAWS) Appendix B.9 requires TSO C151a or b		Allied Signal Enhanced GPWS (Class A) fitted under Learjet FAA STC number SA8109NM-D
125.381	Airborne Collision Avoidance System (ACAS II) Appendix B.10 requires TSO C118/119a or C119b/c		Rockwell-Collins TCAS II TTR-921 meeting ARINC 735 Change 7.0, and ACAS II (TCSO C119b) fitted under STC ST00881WI-D

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.

4. The CL-600 Challenger would operate under Part 125 on the basis of a payload of less than 3410 kg. (Minimum Flight Weight is 11794 kg and Maximum Zero Fuel Weight is 14515 kg.)

Attachments

The following documents form attachments to this report:

Three-view drawing Bombardier Model CL-600-2B16 “Challenger 604”
Copy of Transport Canada Type Certificate Data Sheet Number A-131

Sign off

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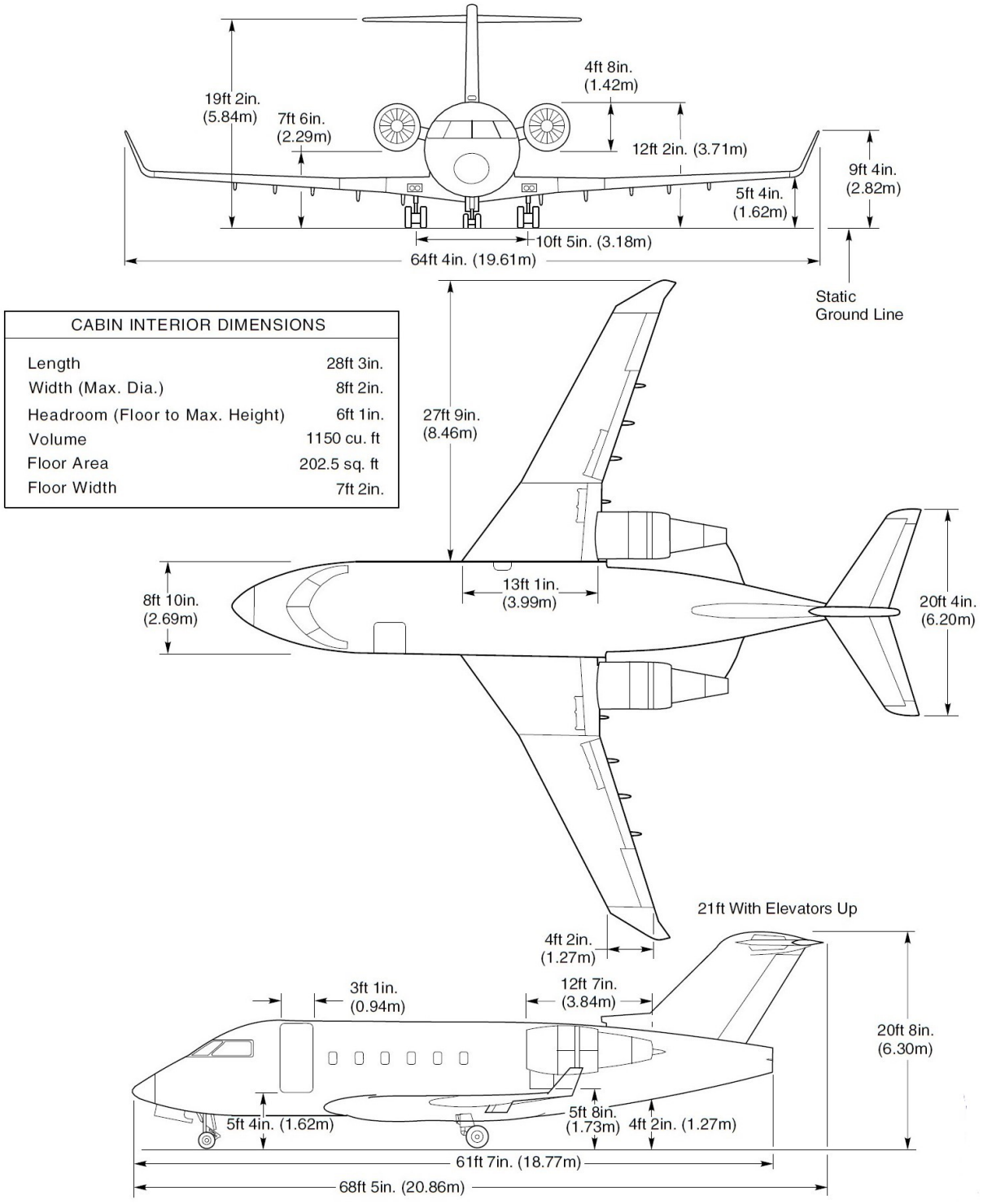
David Gill	Checked – Greg Baum
Team Leader Airworthiness	Acting Team Leader Product Certification

Appendix 1

List of Type Accepted Variants:

Model:	*Applicant:*	*CAA Work Request:*	*Date Granted:*
CL-600-2B16 (604 Variant) (Challenger 604 serial number range 5301 to 5699)	GCH Jet Operations Ltd	20/21B/6	30 March 2020



Airplane Basic Dimensions