Type Acceptance Report

TAR 12302 – Revision 1

Gulfstream Aerospace LP - Astra SPX and G100

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Executive Summary

New Zealand Type Acceptance has been granted to the Gulfstream Astra SPX and Gulstream G100 models based on validation of the Civil Aviation Authority of Israel (CAAI) Type Certificate number A5IL. 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).

As noted on CAAI TCDS number A5IL, the Gulfstream G100 model is identical to the Astra SPX model except for the model designation. Type acceptance includes acceptance of AlliedSignal (now Honeywell) TFE731-40R-200G engines based on validation of FAA Type Certificate E1NM.

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. 12302 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.

The history of type acceptance of the Astra SPX and G100 models in New Zealand under CAAI type certificate A5IL is listed in Appendix 1.

2. Aircraft Certification Details

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

Type Certificate Holder:	Gulfstream Aerospace LP
Manufacturer:	Israel Aerospace Industries (IAI) Ltd
Type Certificate: Issued by:	A5IL Civil Aviation Authority of Israel
Production Approval:	Production Certificate No. PA-30

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

(i) **Model:** Astra SPX, Gulstream G100

MCTOW: 24,650 lb.

Max. No. of Seats: 11 (2 crew, 9 passengers)

Noise Standard: 14 CFR Part 36, effective Dec. 1, 1969, including amendments 36-1 through 36-20.

Engines: 2 AlliedSignal Engines TFE731-40R-200G

Type Certificate: E1NM
Issued by: Federal Aviation Administration

Note: Type Certificate E1NM is now held by Honeywell Aerospace US LLC

3. Application Details and Background Information

The application for New Zealand type acceptance of the Astra SPX and G100 aircraft models was from NZ Jet Ltd. The first-of-type example was serial number 127, registered ZK-AMB.

As noted on CAAI TCDS number A5IL, the Gulfstream G100 model is identifical to the Astra SPX model (hereon the "G100" refers to both models). The G100 is a twin engine, high speed, transport category business jet with a conventional monocoque alumnium fuselage and composite wing construction. It has a maximum operating speed of 0.87 Mach, a maximum cruise altitude of 45,000 ft. The two AlliedSignal (now Honeywell) TFE 731-40R-200G turbofan engines are limited to 4250 lbs maximum continuous and take-off thrust. The cabin is typically configured with 6 seats in a club-and-a-half arrangement with a fwd galley, aft lavatory, and RH overwing emergency exit. The aircraft is equipped with the Rockwell Collins Pro Line 4 avionics suite including 4 EFIS displays, FMS and integrated 3-axis autopilot system.

Type Acceptance Certificate No. 12302 was granted on 19 Nov 2026 to the Astra SPX and G100 aircraft models based on validation of CAAI Type Certificate A5IL, and includes the Honeywell TFE731-40R engine series based on FAA Type Certificate E1NM. Specific applicability is limited to the coverage provided by the operating documentation supplied. There are no special requirements for import into New Zealand.

Revision 1 of this report was raised to recommend that operators comply with applicable applicable airworthiness directives issued by the FAA, in addition to those issued by the CAAI (ref CAR Part 39.51).

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:

Civil Aviation Authority of Israel (CAAI) Type Certificate Data Sheet number A5IL, Revision 12 dated March 20, 2007

– Model Astra SPX approved December 19, 1995
– Model Gulsftream G100 approved June 20, 2002

Federal Aviation Authority (FAA) Type Certificate Data Sheet number E1NM, Revision 13 dated March 27, 2026

– Model TFE731-40R approved July 13, 1995

(2) Airworthiness design requirements:

(i) Airworthiness Design Standards:

The certification basis of the Astra SPX and G100 is 14 CFR Part 25, effective Feb 1, 1965 including amendments 25-1 through 25-54 and a number of airworthiness requirements at amendment 25-80 as listed on the TCDS. Compliance with ditching provisions of FAR 25.801(b) through (e) and 25.807(d) has been established.

The certification basis of the TFE731-40R engine series is 14 CFR Part 33 effective Feb 1, 1965 including amendments 33-1 through 33-15.

14 CFR Part 25 and Part 33 are acceptable as the specific airworthiness design standards called up under CAR Part 21 Appendix C. There are no non-compliances and no additional special conditions have been prescribed by the Director under CAR Part 21.23.

(ii) Special Conditions:

Special condition No. 25-ANM-5 for operation to 45000 feet and for the Automatic Takeoff Thrust Control System (ATTCS). Additional airworthiness requirements regarding pressure vessel integrity, ventilation, air conditioning and oxygen supply were established for operations above 40,000ft. Additional airworthiness requirements for powerplant controls, instrumentation, reliability and performance were established to mitigate risks associated with engine failure during takeoff. Note: Compliance with section 25.904, as promulgated by Amendment 25-62, was required for the ATTCS in lieu of the special condition 25-ANM-5.

Special condition no. 25-ANM-104 for High Intensity Radiated Fields (HIRF). Additional airworthiness requirements were established to ensure the protection of each electrical and electronic system that performs critical functions from HIRF emissions at specified field strengths.

(iii) Equivalent Level of Safety Findings:

Equivalent Safety: FAR 25.1305 Powerplant Instruments for APU (Mod 6425). The digital-only display of engine rotor speed (N_2), oil temperature, and oil pressure

information on the Engine Instrument Display System (which change colours to indicate the correspondine operating range) was shown to provide an equivalent level of safety.

Equivalent Safety: FAR 25.1203(a) Fire Detector in Tail Pipe area of engine. CAAI determined that design features of the thrust reverser assembly, and service experience of similar designs, demonstrated an equivalent level of safety without incorporating fire detection within the tail pipe section.

Equivalent Safety: FAR 25.813(a) and 25.813(e) Emergency Exit Access, Lavatory Door (Mod 6016).

(iv) Airworthiness Limitations:

For the Astra SPX and G100: mandatory replacement times, structural inspection intervals and related structural inspection procedures are presented in the CAAI approved Airworthiness Limitations Sections (ALS) of the Instructions for Continued Airworthiness: P/N G100-1001-1-2

For the TFE731-40R engine series: life limits for certain engine parts are published in the FAA Approved Airworthiness Limitations Section of the Instructions for Continued Airworthiness contained in the Light Maintenance Manual, Chapter 5: Publication Number 72-03-06

(3) Aircraft Noise and Engine Emission Standards:

(i) Environmental Standard:

The Astra SPX and G100 models have been certified in accordance with 14 CFR Part 36 effective Dec 1, 1969 including amendments 36-1 through 36-20.

The certification basis for the TFE-731-40R series engine emissions is Part 34 effective Aug 10, 1990 including amendments 34-1 through 34-3.

These design standards are acceptable as equivalent to those called up in CAR Part 21 Appendix C.

(ii) Compliance data:

Aircraft noise certification information for the Astra SPX and G100 models is published in Section V-8 of the approved Aircraft Fligth Manaul: G100-1001-1

The data published on FAA TCDS E1NM is accepted as suitable engine emission certification information for the TFE-731-40R engine series.

(4) Certification Compliance Listing:

IAI Document 25W000/950561 Revision A, Model Astra SPX – Basis of Certification and Compliance Checklist.

Refer to IAI Document 25W000/830509 Revision F for the Model 1125 Westwind Astra Complaince Checklsit which is referenced therein.

(5) Flight Manual:

CAAI approved Airplane Flight Manual P/N G100-1001-1
CAA accepted as AIR 4010

(6) Operating Data for Aircraft and Engines:

(i) Maintenance Manual:

For the Astra SPX and G100 aircraft:
- Gulfstream 100 AMM, P/N G100-1001-11-1

For the TFE731-40R engine series:
- Light Maintenance Manual, Publication Number 72-03-06
- Heavy Maintenance Manual, Publication Number 72-03-07

(ii) Current service information:

For the Astra SPX and G100 aircraft:
- Service information (Service Bulletins, Service Letters, Maintenance and Operation Letters etc) is provided via the MyGulstream website*. Note: Service data entitled Gulfstream 100 is also applicable to model Astra SPX, subject to the stated model and Serial No. limitations.

For the TFE731-40R engine series:
- Service information is provided via the Honeywell website*.

* refer to the CAA register of "OEM access details" for login details

(iii) Illustrated Parts Catalogue:

For the Astra SPX and G100 aircraft:
- G100 Illustrated Parts Catalog: P/N GAC-AC-G100-IPC-0001

For the TFE731-40R engine series:
- Engine Illustrated Parts Catalog, Publication Number 72-03-09

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

For the Astra SPX and G100 aircraft:
- CAA Form 2171 from Gulfstream, signed by Director of Gulfstream Aerospace LP (David Lawton), 10 Nov 2026

For the TFE731-40R engine series:
- CAA Form 2171 from Honeywell, signed by Honeywell Aerospace, Asia Pacific Customer Support Manager (Nerita Somers), 19 Nov 2026

(8) Other information:

Galaxy Aerospace Company – Astra SPX Aircraft Specification and Description, Revision 2 dated October 1998

The following additional documents for the Astra SPX and G100 aircraft are available via the MyGulfstream website:

- G100 Operational Information Supplements
- Quick Reference Handbook
- Pilot's Checklist
- Cockpit Card

- G100 Operational Planning Manual
- Astra SPX Operational Planning Manual
- Astra SPX Avionics System Manual
- Master Minimum Equipment List
- FAA MMEL Policy Letters
- Maintenance Operational Placarding Procedures
- Part 91 Nonessential Equipment and Furnishings (NEF) Program (RTF: Rich Text File / compatible with MS Word
- Part 91K and 135 Nonessential Equipment and Furnishings (NEF) Program (RTF: Rich Text File / compatible with MS Word
- Cold Weather Operations Manual
- FAA Holdover Time Tables Approved by Gulfstream
- Noise Information Manual

The following additional documents for the Astra SPX and G100 aircraft are available via the MyGulfstream – Maintenance Libary:

- Wiring Diagram Manual
- Nondestructive Testing Procedure Manual
- Engine Run Checklist
- Wire List
- Hookup List
- Equipment List
- Technicians Pocket Guide

The following additional documents for the TFE731-40R engine series are available via the Honeywell Aerospace Online Technical Publications website:

- Inspection/Repair Manual, 72-IR-02
- Engine Installation Manual, IM-8010

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		FAR §25.785	
91.507	Pax Information Signs – Smoking, safety belts fastened		FAR §25.791	
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(c)(2) 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	N/A – Turbojet FAR §25.1305(a)(6) N/A – Turbojet N/A – Turbojet FAR §25.699 FAR §25.729(e) FAR §25.1351 (b)(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		See equipment listed under IFR Communication	
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) 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 §25.1323 FAR §25.1303(b)(3)
91.519	IFR Communication and Navigation Equipment		Collins Pro-Line IV avionics system includes as standard: dual VHF-422C, HF-9000, VIR-432, DME-442, a single ADF-462 and the UNS-IC Flight Management System	
91.523	Emergency Equipment:		N/A – maximum 9 passenger seats	
91.529	ELT – TSO C126 406 MHz after 22/11/2007		***To be determined on an individual aircraft basis*** (optional DM ELT-14.1 noted in AMM §25-61-00)	
91.531	Oxygen Indicators – Volume/Pressure/Delivery		(1)(i) & (2) – FAR §25.1441(c) and §25.1449 (1)(ii) – FAR §25.841(b)(6)	
91.533	Oxygen for non-Pressurised Aircraft:		Not Applicable – pressurised aircraft	
91.535	Oxygen for Pressurised Aircraft: (a)(1) Flight Crew Member On-Demand Mask; (a)(2) Pax mask, Portable oxygen equipment (a)(3) Crew Member – Pax Oxygen Mask and Portable (a)(4) Minimal Supplemental Oxygen Quantity (a)(5) Specified Supp/Therapeutic Oxygen Quantity Above FL250 (c)(1) Quick-Donning Crew On-Demand Mask (c)(2) Supplemental O_2 Masks for Pax/Crew & Toilets (c)(3) 15 Minutes Therapeutic Supply Above FL300 (d)(1) Total Outlets Exceed Pax Seats by 10% (d)(2) Extra Units Uniformly Distributed throughout (d)(3) Auto presented if Cabin Altitude ≥14000 ft. (d)(4) Manual Means of Deploying Pax Masks Available		Refer to the following design standards and notes regarding oxygen equipment requirements: (a)(1) – N/A, no flight attendant (a)(2) – N/A, no flight attendant (a)(3) – FAR §25.1447(c) (a)(4) – see notes below (a)(5) – see notes below (c)(1) – FAR §25.1447(c) and notes below (c)(2) – FAR §25.1447(c) (c)(3) – see notes below (d)(1) – FAR §25.1447(c) (d)(2) – FAR §25.1447(c) (d)(3) – ref AFM Section VII (d)(4) – FAR §25.1447(c) Ref AFM §VII amd AMM §35-00-00: quick-donning EROS mask regulators are provided for each flight crew member. Passenger masks are of the continuous flow type which	

		drop when cabin altitude has exceeded 13,500 ±500 feet. A therapeutic oxygen valve is located in the copilot side console above the passenger oxygen control panel. Oxygen for flightcrew and passengers is supplied by a single 77 ft^3 high-pressure (1850 psig) cylinder, in the right side of the nose compartment. At nominal fill pressure the supply quantity is sufficient to meet 91.535 requiremens assuming decompression event at max operating altitude, 4 minute descent to 14,000ft with maximum number of passengers.
91.541	SSR Transponder and Altitude Reporting Equipment	Dual Mode S Transponders (Collins TDR-94D), ref AFM §VII
91.543	Altitude Alerting Device – Turbojet or Turbofan	Provided by Air Data System (ADC-850C), ref AFM §VII
91.545	Assigned Altitude Indicator	N/A – Altitude alerting device fitted
A.15	ELT Installation Requirements	***To be determined on an individual aircraft basis*** (optional DM ELT-14.1 noted in AMM §25-61-00)

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	Landing light installed at each wing root, cabin and map lights fitted as standard, ref AFM §VII
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))		***To be determined on an individual aircraft basis***
125.364	Protective Breathing Equipment		N/A – less than 20 passenger seats
125.365	Public Address and Crew Member Intercom System		N/A – less than 10 passenger seats
125.367	Cockpit Voice Recorder Appendix B.3 requires TSO C84/C123		Universal CVR-30B (TSO C123a) fitted per Mod.6576
125.369	Flight Data Recorder Appendix B.4 requires TSO C124		N/A – less than 10 passenger seats (Fairchild F800 may be fitted per Mod.5021, optional underwater locator beacon, ref AMM §31-30-00).
125.371	Additional Attitude Indicator		***To be determined on individual aircraft basis***
125.373	Weather Radar Appendix B.6 requires TSO C63		Collins RTA-854 fitted as standard, ref AMM §34-41-00
125.375	Ground Proximity Warning System Appendix B.7 requires TSO C92		N/A – TAWS Class A fitted (ref 125.379)
125.377	AEDRS – Required for SE IFR – Meets Appendix B.8		N/A – not SEIFR
125.379	Terrain Awareness and Warning System (TAWS) Appendix B.9 requires TSO C151a or b		Honeywell Mk V (Class A, C151b) GPWS fitted as standard, ref AFM Supplement No. 4
125.381	Airborne Collision Avoidance System (ACAS II) Appendix B.10 requires TSO C118/119a or C119b/c		Collins TCAS-94 (TSO C119a) fitted as standard, ref AFM Supplement No. 5

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.

In accordance with CAR Part 39.51 each operator must comply with the applicable airworthiness directives issued by the State of Design of the aircraft (CAAI).

FAA Type Certificate A16NM has been issued for the same aircraft (identical to CAAI TC A5IL) and CAA has noted that FAA has published a more comprehensive list of airworthiness directives for the same type design. The CAA strongly recommends that operators comply with all applicable airworthiness directives issued by the FAA, in addition to those issued by CAAI.

Attachments

The following documents form attachments to this report:

Three-view drawing
Copy of CAAI Type Certificate Data Sheet number A5IL
Copy of FAA Type Certificate Data Sheet number E1NM

Sign off

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Chris Thomson
Certification Engineer

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Checked – Rens Molenaar
Certification Engineer

Appendix 1

List of Type Accepted Variants:

Model:	*Applicant:*	*CAA Work Request:*	*Date Granted:*
Astra SPX / G100	NZ Jets Ltd	Job ID 12302	19 Nov 2026

Attachment 1

Three View Drawing

