STATE OF ISRAEL
MINISTRY OF TRANSPORT
CIVIL AVIATION AUTHORITY

A7IL

Revision 9

Gulfstream Aerospace L.P.

GULFSTREAM G280
November 11, 2021

TYPE CERTIFICATION DATA SHEET No. A7IL

This Data Sheet which is part of Type Certificate No. A7IL prescribes conditions and limitations under which the aircraft for which the Type Certificate was issued meets the airworthiness requirements of the Aviation Regulations (Certification Procedures for Aircraft and Parts thereof) 1977 תקנות הטיס – תשל"ז

Type Certificate Holder :

Gulfstream Aerospace LP
P.O. Box 1036
Airport City
7019900, Israel

GULFSTREAM G280 (Transport Category) Approved August 30, 2012

Engines: 2 Honeywell AS907-2-1G (Turbofan) Engines per CAAI Type Certificate IE242.

Auxiliary Power Unit One (1) Honeywell 36-150

Fuel: Fuels conforming to Honeywell International Inc. Specifications EMS53111 (Jet A type), EMS53112 (Jet A-1and JP-8 types) and EMS53116 (JP-5 type).

Oil: Conforming to Honeywell International Inc. Specification EMS53110, Type II.

Fuel Control Computer: Fuel control and power management by a Full Authority Digital Electronic Control (FADEC) system.

Engine Limits: Static Thrust at Sea Level, lbs

- Maximum continuous	7,337 lbs
- Maximum Takeoff	7,765 lbs up to 31.7°C
- Normal Takeoff	7,425 lbs up to 31.7°C

Maximum Continuous Permissible Engine Operating Speeds for the Engine Rotors, % RPM (RPM)

- Low pressure rotor (N1)	96.49% (9,800)
- High pressure rotor (N2)	97.97% (27,530)

Maximum Interstage Turbine Temperature (ITT), °C

- Maximum Continuous	950
- Take-Off (5 minutes)	955
- During starting	Varies with N2 (see AFM)

	Oil Temperature, °C	
	- Maximum Continuous	5 to 138
	- Take-Off	154
	- During starting (minimum)	- 40
	Oil Pressure (PSI)	
	- Pressure limits	Varies with N2 (see AFM)
Airspeed Limits:	**Vmo/Mmo (Maximum Operating Speed):**	
	- Vmo (Max. Operating) S.L. to 10,000 ft	300 KIAS
	- Vmo between 10,000 & 20,000 ft	300 - 330 KIAS
	- Vmo between 20,000 & 28,000 ft	340 KIAS
	- Mmo between 28,000 & 45,000 ft	0.85
	Va (Maneuvering)	
	- Below 20,000 ft	215 - 225 KIAS
	- Between 20,000 ft to 35,000 ft	225 - 264 KIAS
	- Between 35,000 ft to 39,200 ft	264 KIAS
	- Between 39,200 ft to 45,000 ft	0.85
	- Vfe (Flaps 10°)	250 KIAS
	- Vfe (Flaps 20°)	220 KIAS
	- Vfe (Flaps LND)	180 KIAS
	- Vle and Vlo (L/G Extension & Operating Speed)	195 KIAS
	- Vmc air (ISA; sea level)	97 KIAS
	- Vmc landing (ISA; sea level)	95 KIAS
	- Vmc ground (ISA; sea level)	95 KIAS
	- Main landing gear tire ground speed limit	195 KTS
	- Nose landing gear tire ground speed limit	182 KTS

C.G. Range: (Zero Fuel Weight Envelope)

Gross Weight	Forward Limit	Aft Limit
23,000 lbs	30.50 % MAC	45.60 % MAC
28,000 lbs	30.00 % MAC	45.60 % MAC
28,200 lbs	30.00 % MAC	45.40 % MAC

Linear variation between points

Datum: Fuselage Station 0 is located 221.77 inches (5.633 meters) forward of aft frame of main entrance.

Mean Aerodynamic Chord (MAC): 112.92 inches (2.868 meters) with leading edge at Fuselage Station 10305.

Leveling Means:

Longitudinally: Place level on either seat rail at fuselage station 10534 (frame 34) parallel to aircraft centerline

Laterally: Place level on seat rail at cockpit floor fuselage station 4518 (frame 10) 90° to aircraft centerline.

Maximum Weights: (Normal Operating Weight)	
- Ramp Gross Weight	39,750 lbs
- Maximum Take-Off Weight	39,600 lbs
- Maximum Landing Weight	32,700 lbs
- Maximum Zero Fuel Weight	28,200 lbs

Minimum Crew: Two (Pilot and Copilot)

Maximum Passengers: None (See Note 5)

Maximum Baggage: Floor load 120 lb/ft^2

lbs	arm (meters)
1980	544.21 inches (13.82)

Fuel Capacity (lbs): Total Usable Fuel All Tanks (lbs) 14,620
Density: 6.7 lbs/US gallon

	LH WING TANK	LH FEED TANK	CENTER TANK	AFT TANK	FWD TANK	RH FEED TANK	RH WING TANK
Tank Capacity (lbs)	4377	540	2153	1132	1619	540	4377
Tank Usable Fuel (lbs)	4340	530	2140	1130	1610	530	4340
Arm, inches (meters)	441 (11.20)	439 (11.15)	396 (10.05)	541 (13.75)	322 (8.20)	439 (11.15)	441 (11.20)
Unusable Fuel (lbs)	36.8	10.0	12.6	1.6	8.6	10.0	36.8
Arm, inches (meters)	441 (11.20)	439 (11.15)	396 (10.05)	541 (13.75)	322 (8.20)	439 (11.15)	441 (11.20)

Fuel System	lbs
Unusable:	
- Drainable from tanks drain and lines	86.8
- Undrainable (trapped in tanks and lines)	29.6

Oil Capacity: Usable (lbs): 19.2 for both engines combined.
Density: 8.14 lbs/U.S. gallon

Maximum Operating Altitude: 45000 ft

Other Operating Limitations: Aircraft shall be operated according to operating limitations and procedures specified in CAAI approved Airplane Flight Manual.

Control Surface Movements:

Surface		Travel (at trailing edge)	Tolerance
Aileron	Up	15°	± 0.25°
	Down	15°	± 0.25°
Aileron Trim	Up	15°	±1°
	Down	15°	±1°
Aileron Gear Tab	Up	15°	±1°
	Down	15°	±1°
Rudder	Left	30°	±1.5°
	Right	30°	±1.5°
Rudder Trim Tab	Left	9°	+1.1°
	Right	9°	+1.1°
Elevator	Nose Up	27.5°	± 0.5°
	Down	20°	± 0.5°
Stabilizer Trim	Nose Up	12°	± 0.3°
	Nose Down	2.5°	± 0.3°
Roll Spoiler	Up	45°	± 1.65°
Ground Brake		55°	± 1.70°
Flaps	Max. Down	39°	± 1°

Certification Basis:

- 14 CFR Part 25, effective February 1, 1965, including Amendments 25-1 through 25-120 and Amendment 25-122 for §25.1317 and Section L 25.1.
- 14 CFR Part 36, effective February 3, 2006, including Amendments 36-1 through 36-31.
- 14 CFR Part 34, effective June 29, 2009 including Amendment 34-1 through 34 - 4.
- CAAI Special Conditions:

  a) HIRF; Maintenance of Lightning and HIRF Protection
  b) § 25.773(b) Windshield Precipitation Removal by Hydrophobic Coatings
  c) Go-Around Performance Credit for Use of Automatic Power Reserve (ATTCS)
  d) Engine Torque Loads for Sudden Engine Stoppage
  e) Design Roll Maneuver
  f) Operation Without Normal Electrical Power
  g) Interaction of Systems and Structures
  h) Use of Magnesium Alloys for Pedals
  i) Aircraft System Security for the Aircraft Control Domain and Airline Information Services Domain from External Internet and Operator Network Access and Electronic Transmission of Field-Loadable Software Applications and Databases
  j) Aircraft System Isolation or Security Protection of Aircraft Control Domain and Airline Information Services Domain from the Passenger Information Services Domain

- CAAI equivalent safety findings:

  a) a) § 25.812 Emergency Exit Marking and Emergency Lighting floor surfaces and emergency egress assist means
  b) § 25.831(g) Cabin Time-Temperature-Humidity conditions following improbable ECS failure
  c) c) 25.331(c) Checked Pitch Maneuver
  d) Aircraft Pressurization Outflow and Safety Valves
  e) §25.341, 25.343, 25.345, 25.371, 25.373 and 25.391 Design gust Criteria and Continuous turbulence
  f) Emergency Landing/Gear Breakaway
  g) g) § 25.391, 25.395, and 25.415 Ground Gust
  h) h) § 25.1309 Equipment, systems, and installations – GALP elected to comply with ARAC Recommended 25.1309
  i) § 25.671(a-d), § 25.629 Flight Control System
  j) § 25.1203(a) Engine Fire Detection in Tailpipe
  k) § 25.933 Flight Critical Thrust Reverser
  l) § 25.841(b) Cabin Pressurization - High Altitude Airport Take-off and Landing Operations
  m) § 25.901, 25.1305, 25.1321, 25.1549 Digital Display of Engine Rotor Speed N2
  n) External Lights Installation
  o) Position Light System Intensity Exceedances in Overlap Regions
  p) Adoption of Draft Harmonized Rules for APU Certification

- Exemptions:

  a) § 25.901(c) Time-limited Exemption - Uncontrollable High Thrust (see Note 9)
  b) § 25.981(a) (3) Lightning Protection Fuel Tanks.
  c) § 25.901(b)(2) and 25.903(d)(2) Time-limited Exemption - engine installation, limitation, operational and indication requirements for the Gulfstream G280, during certain Wing Anti-Ice System (WAI System) operations (see Note 10).
  d) §25.841(a)(2) Partial grant of exemption from the requirements for pressurized cabins

- Compliance with the following optional requirements has been established:

  Section 25.801 Ditching

  Section 25.1411(d), (e), (f), (g) Safety Equipment – General

  Section 25.1415(a)(b)(c)(d) Ditching Equipment

  Section 25.1419 Ice Protection

Production Basis: Until 31 December 2021 Gulfstream G280 airplanes, all series and models, were produced in Israel under production certificate PA-30 issued by the Civil Aviation Authority of Israel (CAAI).

From 1 January 2022, Gulfstream G280 airplanes, all series and models, are produced in Israel under production certificate PC-1 issued by the Civil Aviation Authority of Israel (CAAI). Effective 1 January 2022, production certificate PC-1 supersedes and replaces PA-30.
(see Note 7)

Manufacturer's Serial Numbers eligible: **Model:** GULFSTREAM G280
S/N 2001 and subsequent (see Note 6).

Equipment: The basic required equipment as prescribed in the applicable airworthiness regulation (see certification basis) must be installed in the aircraft for certification. Refer to Master Equipment List Report No. 30P000/110634 rev A or latest CAAI approved revision.

Airplane Flight Manual: CAAI-approved AFM No. 280-1001-1 for aircraft with avionics software version 3.2.1
CAAI-approved AFM No. G280-1002-1 for aircraft with avionics software version 3.6
CAAI-approved AFM No. G280-1003-1 for aircraft with FADEC software version V2G

NOTES:

NOTE 1: Aircraft definition for Type Certificate is contained in: GALP document 30P000999900 Revision A and report 30P000/120060 Revision New or later CAAI approved revisions

NOTE 2: Current weight and balance report including list of equipment included in certificated empty weight and loading instructions must be provided for each aircraft at the time of original certification.

NOTE 3: All required placards listed in the Limitations Section of the Airplane Flight Manual must be installed in the appropriate locations in the airplane.

NOTE 4: Service Life Limits and required Maintenance/Inspections:
The retirement times of fatigue critical life limited components are listed in the Chapter 5 of the CAAI approved Aircraft Maintenance Manual. The retirement times of these life limited components cannot be altered without CAAI Engineering approval.

NOTE 5: This Aircraft Type Certificate defines a configuration which does not include exterior painting of the aircraft and its cabin interior furnishing and passenger provisions. The Aircraft is eligible for carriage of up to 19 passengers limited by emergency exit requirements. Carriage of passengers is permitted only after an approved seating arrangement is installed, compliance has been demonstrated and approved by the relevant Airworthiness Authority to all applicable passenger-related regulations.

NOTE 6: G280 airplane serial numbers 2003 through 2009 were exported to the U.S. under the provisional TC issued March 1, 2012. These airplanes are eligible for Standard Certificate of Airworthiness under this Type Certificate pending

demonstration of conformity with the approved configuration.

NOTE 7: Israel Aerospace Industries LTD. (IAI) located at Ben Gurion International Airport 70100, Israel, is licensed by Gulfstream Aerospace LP to manufacture and obtain Certificates of Airworthiness for the Model aircraft listed in this Type Certificate Data Sheet except as noted in Note 6 above.

NOTE 8: GALP letter CAAI/11140/BM, dated July 18, 2011 provides notification of a model designation change from G250 to G280. Some CAAI special conditions, exemptions, and equivalent safety finding memorandums issued prior to this date include the G250 model designation but are fully applicable to the Gulfstream G280.

NOTE 9: In accordance with the CAAI IP P-5 regarding the § 25.901(c) Time-limited Exemption - Uncontrollable High Thrust Failure Conditions, production aircraft starting from aircraft Serial Number #2110 with the MOD G25-10054 installed are equipped with the amended type design approved to satisfy the conditions outlined in the exemption CAAI IP P-5

NOTE 10: In accordance with the CAAI decision contained in Time-limited Exemption IP P-14: no aircraft may operate after April 30, 2016 unless production modification G25-10022 or its associated service bulletin 280-30-017, and production modification G25-20061 or its associated service bulletin 280-76-111 are incorporated.

NOTE 11: In accordance with the CAAI Decision contained in the Partial Grant of Exemption IP S-10, relief from certain requirements of 14 CFR Section 25.841(a)(2), allowing access to the baggage compartment up to 44,000 feet, is granted for aircraft incorporating modification G25-10066 or its associated service bulletin 280-11-252.

- END -