DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

A53NM
Revision 8
Gulfstream Aerospace LP
GALAXY
GULFSTREAM 200

July 12, 2005

TYPE CERTIFICATE DATA SHEET NO. A53NM

This data sheet which is a part of Type Certificate No. A53NM prescribes conditions and limitations under which the aircraft for which the Type Certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder.	Gulfstream Aerospace LP C/o Israel Aircraft Industries, LTD., Department 4199 Ben Gurion International Airport 70100, Israel
Type Certificate Holder Record.	Israel Aircraft Industries, LTD. transferred ownership of Type Certificate A53NM to Gulfstream Aerospace LP on March 26, 2002

I. Model GALAXY (Transport Category), Approved December 16, 1998.

Manufacturer's Serial Numbers:	Model Galaxy S/N 004 through 056. For S/N 003 See NOTE 5.

II. Model GULFSTREAM 200 (Transport Category), Approved January 16, 2002.

The Model GULFSTREAM 200 is identical to the IAI Model GALAXY except for the model designation. The only difference is the model designation (name) used on the data plate and associated manuals.

Manufacturer's Serial Numbers:	Model GULFSTEAM 200 S/N 057 and Subsequent.

DATA PERTINENT TO ALL MODELS

Engines:	2 Pratt & Whitney Canada PW306A (Turbofan) Engines per FAA Type Certificate Data Sheet E35NE.
Fuel:	Conforming to Pratt & Whitney Company Specifications CPW 204 as per LIMITATIONS SECTION of the approved Airplane Flight Manual.
Oil:	Conforming to Pratt & Whitney Company Specification PWA 521.
Fuel Control Computer:	Two Hamilton Standard fuel computers

Engine Limits: Static thrust at sea level, LBS

- Maximum continuous	6,040
- Take-off (with and without APR)	6,040

Maximum continuous permissible engine operating speeds for the engine rotors, % RPM (RPM)

- Low Pressure Rotor (N1)	105% (11138)
- High Pressure Rotor (N2)	105% (28277)

Maximum Interstage Turbine Temperature (ITT), ºC

- Maximum Continuous	920
- Take-Off	920
- During Starting	950

Oil Temperature, ºC

- Maximum Continuous	16 to 135
- Take-off	16 to 135
- During starting (minimum)	- 40

Oil Pressure, PSIG

- Maximum Continuous	36 to 107
- Take-off	36 to 107
- During starting (maximum)	217

Airspeed Limits:

(Normal Operating Weight) Vmo/Mmo (Maximum Operating Speed)

Normal Operation autopilot engaged or Mach trim operative:

- Vmo Sea Level to 15,000 ft	310 KIAS
- Vmo between 15,000 & 24,500 ft	360 KIAS
- Mmo Above 24,500 ft	0.85 M

With Autopilot disengaged AND Mach trim inoperative:

- Vmo Sea Level to 15,000 ft	310 KIAS
- Vmo above 15,000 ft	360 KIAS
- Mmo above 22,100 ft	0.81 M

Va (Maneuvering)

- Below 20,000 ft	254 KIAS
- between 20,000 ft & 40,000 ft	260 KIAS
- Above 40,000 ft	0.85 M

(Increased Operating Weight MOD 7166 and MOD 10082) Vmo/Mmo (Maximum Operating Speed)

Normal Operation autopilot engaged or Mach trim operative:

- Vmo Sea Level to 10,000 ft	310 KIAS
- Vmo 10,000 to 20,000 ft (linear variation)	310-330 KIAS
- Vmo/Mmo Above 20,000 ft	360 KIAS/0.85 M

With Autopilot disengaged AND Mach trim inoperative:

- Vmo Sea Level to 10,000 ft	310 KIAS
- Vmo 10,000 to 20,000 ft (linear variation)	310-330 KIAS
- Vmo/Mmo above 20,000 ft	360KIAS/0.81 M

Va (Maneuvering)

- Below 10,000 ft.	275 KIAS
- 10,000 ft to 30,000 ft (linear variation)	275-300 KIAS
- Above 30,000 ft	300 KIAS/ 0.85 M

(Normal and Increased Operating Weight MOD 7166)

- Vfe Kruger / Slats	250 KIAS
- Vfe (Flaps 12°)	250 KIAS
- Vfe (Flaps 20°)	225 KIAS
- Vfe (Flaps 40°)	195 KIAS
- Vsb (Airbrakes Operation)	Vmo/Mmo
- Vle and Vlo (L/G Extension & Operating Speed)	195 KIAS
- Vmca (Flaps 0°)	122 KIAS
- Vmca (Flaps 12° and 20°)	118 KIAS
- Vmcg (Flaps 0° , 12° and 20°)	108 KIAS
- Tire Limit Ground Speed: (MPH)	182 KTS (210)

C.G. Range:
(Normal Operating Weight)

Gross Weight:	Forward Limit (MAC)	Aft limit (MAC)
16950 LBS	35.00%	40.00 %
20000 LBS	22.00%	40.00 %
32000 LBS	22.00%	40.00 %
35000 LBS	24.00%	40.00 %

Linear variation between points
Gear extension and retraction moment is negligible

(Increased Operating Weight MOD 7166)

Gross Weight:	Forward Limit (MAC)	Aft limit (MAC)
16950 LBS	35.00%	40.00 %
20000 LBS	22.00%	40.00 %
32000 LBS	22.00%	40.00 %
35600 LBS	24.40%	40.00 %

(Increased Operating Weight MOD 10082)

Gross Weight:	Forward Limit (MAC)	Aft limit (MAC)
16950 LBS	35.00%	40.00 %
20000 LBS	22.00%	40.00 %
32000 LBS	22.00%	40.00 %
35800 LBS	24.53%	40.00 %

Linear variation between points
Gear extension and retraction moment is negligible

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

Mean Aerodynamic Chord (MAC): 96.34 inches (2.447 meters) with leading edge at Fuselage Station 10100.

Leveling Means:

Longitudinally: Place level on either seat rail at fuselage station 8302 parallel to aircraft centerline.

Laterally: Place level on seat rails at fuselage station 8302 at 90° to aircraft centerline.

Maximum Weight:

(Normal Operating Weight)

- Ramp Gross Weight	35000 LBS
- Max Take-off Weight	34850 LBS
- Max Landing Weight	28000 LBS
- Max Zero Fuel Weight	24000 LBS

(Increased Operating Weight MOD 7166)

- Ramp Gross Weight	35600 LBS
- Max Take-off Weight	35450 LBS
- Max Landing Weight	30000 LBS
- Max Zero Fuel Weight	24000 LBS

(Increased Operating Weight MOD 10082)

- Ramp Gross Weight	35800 LBS
- Max Take-off Weight	35650 LBS
- Max Landing Weight	30000 LBS
- Max Zero Fuel Weight	24000 LBS

Minimum Crew: Two (Pilot and Copilot)

Maximum Passengers: 19 (See Note 4)

Maximum Baggage: Floor load 126 Lb/ft^2

LBS	ARM, (Meters)
1980	547.24 inches (13.90)

Fuel Capacity:

Total Usable Fuel All Tanks (LBS): 15010
Density: 6.7 LBS/U.S. Gallon

	LH WING TANK	LH FEED TANK	CENTER TANK	FUSELAGE TANK	FWD TANK	RH FEED TANK	RH WING TANK
Tank Capacity (LBS)	2362	180	2711	5515	1792	180	2362
Tank Usable Fuel (LBS)	2355	165	2666	5515	1789	165	2355
Arm, inches (Meters)	427.95 (10.87)	436.61 (11.09)	398.03 (10.11)	501.57 (12.74)	327.95 (8.33)	436.61 (11.09)	427.95 (10.87)
Unusable Fuel (LBS)	7.1	15.0	45.0	0.0	3.0	15.0	7.1
Arm, inches (Meters)	413.39 (10.50)	436.61 (11.09)	404.72 (10.28)	501.57 (12.74)	337.40 (8.57)	436.61 (11.09)	411.02 (10.44)

See Note 1 for data on Fuel System.

Oil Capacity:

*TOTAL (LBS)	*USABLE (LBS)	ARM (Meters)
34.6	21.7	581.89 inches (14.78)

*For Both Engines Combined
Density: 8.2 LBS/U.S. Gallon
See Note 1 for data on Oil System

Maximum Operating Altitude: 45,000 ft.

Other Operating Limitations.

Aircraft shall be operated according to operating limitations and procedures specified in CAAI approved Airplane Flight Manual marked Galaxy-1001-1 or G200-1001-1 for GULFSTREAM Model GALAXY airplanes, or marked G200-1001-1 for GULFSTREAM 200 airplanes.

Control Surface Movements.

Surface	Travel (at trailing edge)		Tolerance
Aileron	Up	15º	± 0.25º
	Down	15º	± 0.25º
Aileron Trim	Up	5º	+0º,-1º
	Down	5º	+0º,-1º
Rudder	Left	20º	± .0.25º
	Right	20º	± .0.25º
Rudder Trim Tab	Left	10º	+ 1.5º-0.75º
	Right	10º	+ 1.5º-0.75º
Elevator	Up	27.5º	± 0.25º
	Down	20º	± 0.25º
Stabilizer Trim	Up	2.5º	± 0.33º
(Leading Edge)	Down	9.5º	± 0.33º
Airbrakes	Up	45º	± 1º
Slats	Down	25º	± 1º
Flaps	Max Down	40º	+1º,-1.5º
Kruger Flaps	Down	110º	± 3º

Import Requirements,

A U.S. Airworthiness Certificate may be issued on the basis of an Israeli Certificate of Airworthiness for Export signed by a representative of the Civil Aviation Administration of Israel (CAAI) containing the following statement: "The airplane covered by this certificate has been examined, tested and found to conform to the type design approved under FAA Type Certificate No. A53NM, and to be in condition for safe operation".

Certification Basis:

- 14 CFR Part 25, effective February 1, 1965, including Amendments 25-1 through 25-82.

- 14 CFR Part 36, effective December 1, 1969, including Amendments 36-1 through 36-21.

- 14 CFR Part 34, effective September 10, 1990, including Amendment 34-1 through 34-2.

- FAA Special Conditions:
  No. 25-ANM-106 for High Altitude Operations
  No. 25-ANM-112 for High Intensity Radiated Fields (HIRF)

- FAA equivalent safety findings:
  * Section 25.1203(a) for Turbine Engine Tailpipe Fire Detection
  * Section 25.1305 and 25.1501(b) for Auxiliary Power Unit (APU) Instrumentation and Monitoring Requirements
  * Section 25.901, 25.1305, 25.1309, 25.1321, and 25.1549 for Digital Only Display of Turbine Engine high/intermediate Pressure Rotor Speed (N2)
  * All Part 25 sections, except structural, dealing with stall speeds/related factors for use of 1-g Stall Speed instead of Minimum Speed in Stall
  * Sections 1.1, 1.2, 25.101, 25.105, 25.109, 25.113, 25.115, 25.735, and 25.1587 for Rejected Takeoff and Landing Performance Criteria
  * Section 25.933(a)(1)(ii) for Flight Critical Thrust Reverser

- Compliance with the following optional requirements has been established:

  Section 25.801 for ditching
  Section 25.1419 for icing

Production Basis: None

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. 4AS034/980439.

Service Information: Service bulletins, structural repair manuals, vendor manuals, aircraft flight manuals, and overhaul and maintenance manuals, which contain a statement that the document is Civil Aviation Administration of Israel (CAAI) approved, are accepted by the FAA and are considered FAA approved. These approvals pertain to the type design only.

NOTES:

NOTE 1: (a) 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.

(b) The airplane must be loaded so that the C.G. is within the specified limits at all times.

(c) The weight of fuel and oil systems fluid as defined below must be included in the empty weight of the airplane.

FUEL SYSTEM	LBS	ARM (Meters)
Unusable:		
- drainable from tanks drain and lines	70.8	414.96 inches (10.54)
- undrainable (trapped in tanks and lines)	21.4	409.45 inches (10.40)

OIL SYSTEM	LBS	ARM (Meters)
- Unusable Drainable (systems) - Total	12.0	581.89 inches (14.78)

NOTE 2: All required placards listed in the Limitations Section of the Airplane Flight Manual must be installed in the appropriate locations in the airplane.

NOTE 3: Information essential to the proper servicing and maintenance of the aircraft is contained in the Maintenance Manual Section of the Instructions for Continued Airworthiness Manual marked Galaxy-1001-6 or G200-1001-6 for GULFSTREAM Model Galaxy airplanes, and marked G200-1001-6 for Gulfstream 200 airplanes. Mandatory replacement times, structural inspection intervals and related structural inspection procedures, and Certification Maintenance Requirements are presented in the approved Airworthiness Limitations Section of the Instructions for Continued Airworthiness Manual marked Galaxy-1001-9 or G200-1001-9 for GULFSTREAM Model Galaxy airplanes, and marked G200-1001-9 for Gulfstream 200 airplanes.

NOTE 4: 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 provided approved seating arrangement and related required passenger provisions are incorporated in accordance with the Basis of Certification.

NOTE 5: Airplane S/N 003 eligibility pending demonstration of conformity with the approved Type Design.

NOTE 6: DELETED.

NOTE 7: Modification MOD7231 introduces the “GULFSTREAM 200” Model designation and makes the requisite changes to identification plates and manuals. The “GULFSTREAM 200” is only a name change from former “GALAXY”.

NOTE 8: Israel Aircraft Industries LTD. (IAI) located at Ben Gurion International Airport 70100, Israel, is licensed by Gulfstream Aerospace LP to manufacture and obtain Airworthiness Certificates for the Model aircraft listed in this Type Certificate Data Sheet for serial number 063 and subsequent.

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