



TYPE-CERTIFICATE DATA SHEET

NO. EASA.IM.A.381

for
GA7

Type Certificate Holder
COUGAR AIRCRAFT CORPORATION

28 Glendale Road
Boxford, MA 01921
USA

For models: GA7



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SECTION A: MODEL GA7

A.I. General

| | |
|---|---|
| 1. Type/ Model/ Variant | |
| 1.1 Type | GA7 |
| 1.2 Model | GA7 "COUGAR" |
| 2. Airworthiness Category | FAR 23 Normal Category |
| 3. Manufacturer | Gulfstream Aerospace Corporation (see General notes B.II) |
| 4. EASA Type Certification Application Date | Product accepted in EU prior 28 September 2003 |
| 5. State of Design Authority | FAA |
| 6. State of Design Authority Type Certificate Date | 22 September 1977 |
| 7. EASA Type Certification Date | 14 August 1997 |
| 8. Other information | The EASA Type Certificate replaces DGAC-France Type Certificate No. 190 |

A.II. EASA Certification Basis

| | |
|--|--|
| 1. Reference Date for determining the applicable requirements | Application date at FAA: August 9, 1974 |
| 2. Airworthiness Requirements | FAR 23 effective February 1, 1965, and amendments 23-1 through 23-14; and FAR 36 effective December 1, 1969, and amendments 36-1 through 36-4. |
| 3. Special Conditions | None |
| 4. Exemptions | None |
| 5. (Reserved) Deviations | None |
| 6. Equivalent Safety Findings | 23.807 Emergency exit 23.1545(a) Airspeed marking |
| 7. Environmental Protection | N/A |



A.III. Technical Characteristics and Operational Limitations

| | |
|----------------------------------|---|
| 1. Type Design Definition | List of main drawings (7XXXXX) |
| 2. Description | Two engine, four-seated low wing monoplane, all-metal construction, retractable tricycle landing gear |
| 3. Equipment | (see Note 1) |

4. Dimensions

| | |
|-----------|---------------------------------|
| Span | 11.24 m (36.88 ft) |
| Length | 9.04 m (29.66 ft) |
| Height | 3.16 m (10.37 ft) |
| Wing Area | 17 m ² (182.99 sqft) |

5. Engines

| | |
|----------------------|---|
| 5.1. Models | 2 Textron Lycoming O-320-D1D Carburettor MARVEL SCHEBLER HA-6 (setting 10-5189 or 10-5224) |
| 5.2 Type Certificate | FAA TC E-274 |
| 5.3 Limitations | For all operations, 2700 RPM (160 HP) |

6. Load factors (Limit at maximum permissible weight)

Normal Category

Flaps retracted: $n = + 3.8 - 1.5$
Flaps extended: $n = + 2 - 0$

7. Propellers

| | |
|--|--|
| 7.1 Models | 2 HARTZELL HC-F2YL-2UF/FC 7663 D-3 |
| 7.2 Type Certificate | FAA TC P27EA |
| 7.3 Number of blades | 2 each propeller |
| 7.4 Diameter Maximum diameter: Minimum diameter: | 1.85 m (73 in.) 1.83 m (72 in.) |
| 7.5 Setting at 0.762 m (30 inches) | Feather: $81.0^\circ \pm 1.0^\circ$ Low pitch setting: $11.5^\circ \pm 0.1^\circ$ High pitch setting: $17.0^\circ \pm 1.5^\circ$ |
| 7.6 Governors | HARTZELL Type F6-40 |
| 7.7 Propeller spinners | 7P10608 |



8. Fluids

| | |
|-------------|-------------------------------------|
| 8.1 Fuel | 100 minimum aviation grade gasoline |
| 8.2 Oil | For more details see AFM, Section 1 |
| 8.3 Coolant | N/A |

9. Fluid capacities

| | |
|-----------------------------|--|
| 9.1 Fuel | Two wing Tanks: Total: 446 liters (118 US Gal) [2 x 223 l (59 US Gal)] Usable: 430 liters (114 US Gal) [2 x 215 l (57 US Gal)] |
| 9.2 Oil | Per engine (Engine built-in tank): Maximum: 7.6 liters (8 qts) [at 1.635 m (64.37 in.)] Usable: 5.7 liters (6 qts) [at 1.635m (64.37 in.)] |
| 9.3 Coolant system capacity | N/A |

10. Air Speeds

| | |
|---|--|
| V _{NE} (Never exceed speed): | 354 km/h (191 KCAS) |
| V _{NO} (Maximum cruising speed): | 300 km/h (162 KCAS) |
| V _A (Manoeuvring Speed): At 1724 kg (3800 lbs) At 1270 kg (2800 lbs) | 224 km/h (121 KTAS) 195 km/h (105 KCAS) |
| V _{FE} (Flap Extended Speed): | 204 km/h (110 KCAS) |
| V _{LO} (Maximum landing gear operating speed) Retraction Extension | 213 km/h (115 KCAS) 271 km/h (146 KCAS) |
| V _{LE} (Maximum landing gear extended speed) | 271 km/h (146 KCAS) |
| V _{MC} (Minimum Control speed) | 109 km/h (59 KCAS) |

| | |
|---|--|
| 11. Flight Envelope | Refer to Aircraft Flight Manual |
| 12. Approved Operations Capability | Day & Night VFR Flight into icing conditions is prohibited (see General notes B.I) |



13. Maximum Masses

| | |
|---------------|------------------------------------|
| Take-off: | 1724 kg (3800 lbs) |
| Landing: | 1724 kg (3800 lbs) |
| Empty weight: | 1165 kg (2569 lbs) (see Note 2) |

14. Centre of Gravity Range (landing gear down and flaps retracted)

| | |
|-------------|--|
| 14.1 Limits | 2.370 m to 2.581 m (93.31 in. to 101.61 in.) aft of datum at 1315 kg (2900 lbs) and less |
| | 2.484 m to 2.581 m (98 in. to 101.61 in.) aft of datum at 1724 kg (3800 lbs) and less |
| | Straight line variation between points given. |

| | |
|------------------|--|
| 15. Datum | 1.270 m (50 in.) forward of fuselage bulkhead. |
|------------------|--|

16. Control surface deflections

| | |
|--|------------------|
| a) Elevator (elevator neutral – horizontal stabilizer profile) | |
| - nose-up attitude | 17° ± 1° |
| - nose-down attitude | 16° ± 1° |
| b) Elevator tab | |
| - nose-up attitude tab stop | 4° ± 1° |
| - nose-down attitude tab stop | 30° + 2° - 3° |
| c) Ailerons (aileron neutral - trailing edge) | |
| - upward | 25° ± 2° |
| - downward | 15° ± 2° |
| d) Rudder: left and right | 40° ± 2° |
| e) Rudder tab: left and right | 15° ± 1.5° |
| f) Flaps: | |
| - full flaps | 30° ± 2° |
| f) Front wheel travel: | |
| - left and right | 18° ± 2° |

| | |
|--------------------------------|---------------------------------------|
| 17. Levelling Means | Fuselage bottom at 0.906m (35.67 in.) |
| 18. Minimum Flight Crew | 1 (Pilot) at station 2.310 m (91 in.) |



| | |
|---|---|
| 19. Maximum Passenger Seating Capacity | 3 |
| | one seat at R.H. station 2.310 m (91 in.) two seats at station 3.250 m (128 in.) |

20. Baggage/ Cargo Compartments (Maximum weight and balance)

| | |
|---------------|--|
| 20.1 Baggage: | |
| Forward | 34 kg (75 lbs) at 0.660 m (26 in.) |
| Rearward | 79 kg (174 lbs) at 4.065 m (160 in.) |
| 20.2 Cargo: | 154 kg (339.5 lbs) at 3.185 m (125.39 in.) |

21. Wheels and Tyres

| | |
|-----------------------|------------------|
| Landing gear: | |
| track | 3.30 m (130 in.) |
| wheelbase | 2.03 m (80 in.) |
| Nose Wheel Size: | 6.00x6 |
| Nose Wheel Tyre Size: | 15x6.00-6x4PR |
| Main Wheel Size: | 6.00-6 |
| Main Wheel Tyre Size: | 6.00-6x6PR |

| | |
|-------------------------------------|-------------------|
| 22. Serial Numbers Eligible: | 0001 through 0115 |
|-------------------------------------|-------------------|

A.IV. Operating and Service Instructions

1. Flight Manual

a) Up to aircraft S/N 040:

Airplane Flight Manual: Edition dated September 22, 1977

b) From aircraft S/N 041 to 0115:

Pilot's Operating Handbook and Airplane Flight Manual: Edition dated April 10, 1978, revised September 14, 1987.

2. Maintenance Manual

Aircraft Maintenance Manual (AMM) must be at edition dated June 1st, 1983 or later editions (incl. Chapter 4 Airworthiness Limitations).

Service Life Limited parts must be retired in accordance with the following schedule:

| <u>Component</u> | <u>Part Number</u> | <u>Service Life (hours)</u> |
|-----------------------|--------------------|-----------------------------|
| Inboard Spar Assembly | 7W10201-1 | 47,674 |



A.V. Notes

1. The basic required equipment as prescribed in the applicable airworthiness regulations (see § Airworthiness requirements) must be installed in the aircraft.
2. The empty weight must include unusable fuel weight of 10.9 kg (24 lbs) at 1.075 m (42.3 in.) and oil full quantity [15.14 kg (34 lbs) at 1.635 m (64 in.)] of both engines.



SECTION B GENERAL NOTES

B.I. Operating limitations

1. The GA-7 airplane is certified in the Normal category for day and night operations, when appropriate equipment and instruments required by the operational and airworthiness regulations are approved, installed and operative.
2. The limitations of use, indicated limit airspeeds marked on airspeed indicator, loading instructions and instruction and limitation plates are given in the approved Airplane Flight Manual.

B.II. General

1. The FAA originally certified the GA7 airplane on September 22, 1977 for Grumman American Aviation Corporation, original holder. Production ceased with serial number 0115.
Gulfstream Aerospace Corporation transferred the Type Certificate to SOCATA, S.A. 65009 Tarbes Cedex France, as a manufacturer. The Direction Générale de l'Aviation Civile (DGAC) France type certificated this aircraft under its type certificate Number TC 190. The European Aviation Safety Agency (EASA) began oversight of this product on September 28, 2003, on behalf of France, deeming the DGAC France TC 190 to be an EASA TC in accordance with Article 3 of Commission Regulation (EU) No. 748/2012. The FAA subsequently validated this product as IMPORT TC A17SO. There was no production.
SOCATA transferred the Type Certificate to Cougar Aircraft Corporation, Boxford, MA 01921, USA on 23 May 2019.



SECTION ADMINISTRATIVE

I. Acronyms & Abbreviations

DGAC: Direction Générale de l'Aviation Civile
EASA : European Aviation Safety Agency
RPM: Revolution per minute (engine speed)
TC: Type Certificate
TCDS: Type Certificate Data Sheet

II. Type Certificate Holder Record

| | |
|--------------------------------|--|
| From 22.9.1977 to 13.8.1997 | Gulfstream Aerospace Corporation Savannah, Georgia 31402 USA |
| From 14.8.1997 until 22.5.2019 | SOCATA 65921 TARBES Cedex 9 FRANCE |
| From 23.5.2019 | COUGAR AIRCRAFT CORPORATION c/o Wayne Mansfield 28 Glendale Road Boxford, MA 01921 USA |

III. Change Record

| Issue | Date | Changes | TC Issue No. & Date |
|----------|------------|--|--------------------------------|
| Issue 01 | 15/08/2019 | Implementation of EASA TCDS template to DGAC TCDS No. 190 at the same time of SOCATA (DAHER) transfer of the Type Certificate No. 190 to Cougar Aircraft Corporation in the USA. | Initial EASA Issue, 15/08/2019 |

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