DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

A-734
Revision 18
GULFSTREAM AMERICAN
G-44 (Army OA-14
Navy J4F-2)
G-44A
SCAN Type 30

June 1, 1979

AIRCRAFT SPECIFICATION NO. A-734

Type Certificate Holder — Gulfstream American Corporation
P.O. Box 2206
Savannah, Georgia 31402

TYPE DESIGN CONTROLLED BY FAA, SOUTHERN REGION FOR GRUMMAN AMERICAN AVIATION CORPORATION, P. O. BOX 2206, SAVANNAH, GEORGIA 31402.

I - Model G-44 (Army OA-14; Navy J4F-2), Widgeon, 5 PCL-AmFbM; Approved April 5, 1941;
Model G-44A, Widgeon 5 PCL-Am-FbM, Approved October 4, 1945.
(See Note 5 for French "SCAN Type 30").

Prior to civil certification of J4F-2 aircraft, bomb rack, if installed, should be removed. The three through bolts in the front and rear wing beam flanges should be left in place or short bolts installed to preserve the fuel tight properties of the integral fuel tanks.

Model G-44A, Serial Nos. 1401 and up, identical to the Model G-44 except for revised hull bottom lines, relocation of the electrical distribution panel in the cockpit, relocation of airspeed pitot installation and other minor changes.

Engines	2 Rangers 6-440-C5 (See item 108 for optional engines)	
Fuel	87 minimum octane aviation gasoline (See items 5 & 6 for 91 octane).	
Engine limits	For all operations, 2450 rpm (200 hp)	
Airspeed limits	Level flight or climb	175 mph (152 knots) True Ind.
	Glide or dive	210 mph (183 knots) True Ind.
	Flaps extended	104 mph (90 knots) True Ind.
C.G. range	(+14.8) to (+22.5)	
Maximum weight	4525 lb. (See engine item 108(A) for increased weight)	
No. seats	5 (Two at (-6), one at (+19), two at (+52)	
Maximum baggage	Rear compartment - 400 lb. (+90)	
	Bow compartment - miscellaneous seaplane equipment 20 lb. (-50)	
Fuel capacity	108 gal. (Two tanks: 54 gal. each in center section) (+21)	
Oil capacity	7 gal. (+10). (Two tanks: 3 1/2 gal. each in nacelles)	

Control surface movements					
	Wing flaps			38°	down
	Elevator trim tab	10°	up	33°	down
	Elevator	31°	up	21°	down
	Aileron	20°	up	21°	down
	Rudder trim tab	25°	right	25°	left
	Rudder	30°	right	27°	left
	Stabilizer aux. tab			30°	down

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Serial Nos. eligible	1201 and up for aircraft fabricated by Grumman. (1401 and up are Model G-44A.) (See NOTE 5 for "SCAN Type 30")
Required equipment	In addition to the pertinent required basic equipment specified in CAR 4a, the following items of equipment must be installed: 1, 101, 102, 103, 104, 201(a), 202(a), 301, 302, and 401(a). (See NOTE 3 for operation as landplane or flying boat only.)

Specification Pertinent to All Models

Datum	Wing leading edge at center section
Leveling means	Leveling lugs on horizontal stringers left side of cockpit (Serial Nos. 1202 to 1207, inclusive.); built-in spirit level at right front seat (Serial Nos. 1208 and up.)
Certification basis	Type Certificate No. 734 (CAR 4a)
Production basis	None.

Equipment: A plus (+) or minus (-) sign preceding the weight of an item of equipment indicates net weight change when that item is installed.

Approval for the installation of all items of equipment listed herein has been obtained by the aircraft manufacturer except those items preceded by an asterisk (*). The asterisk denotes that approval has been obtained by someone other than the aircraft manufacturer. An item marked with an asterisk may not have been manufactured under a FAA monitored or approved quality control system. Conformity must be determined if the item is not identified by a Form FAA-8130-3, PMA or other evidence of FAA production approval.

Propellers and Propeller Accessories

1. Two fixed wood propellers which are rated for the engine power and speed and which meet the following limits: (including hubs) 54 lb. (-47)
   Static r.p.m. at maximum permissible throttle setting:
   Not over 2085, not under 1985.
   No additional tolerance permitted.
   Diameter: Not over 82 in., not under 80 in.

2. Two Curtiss fixed pitch metal propellers, Model 55518-10 (62 in.) +52 lb. (-47)
   Static r.p.m. at maximum permissible throttle setting:
   Not over 2025, not under 1925.
   No additional tolerance permitted.
   Diameter: Not over 84 in., not under 82 in.
   The following airspeed limits are applicable:

Level flight or climb	168 mph (146 knots) True Ind.
Glide or dive	201 mph (175 knots) True Ind.
Flaps extended	104 mph (90 knots) True Ind.

3. Two Beech controllable propellers, hubs R203-100 with blades R201-211-85T +79 lb. (-45)
   Low pitch static rpm at maximum permissible throttle setting:
   Not over 2230, not under 2130.
   No additional tolerance permitted.
   Pitch setting at 32 in. station: Low 12°, high 26°.
   Diameter: Not over 85 in., not under 83 in.
   Includes electrically actuated mechanical control.
   Cylinder heat temp. gage connected to No. 6 cylinder of each engine and oil cooler fairings, Grumman Part No. 122702 required.

4. Two Kopper Aeromatic propellers, Model 220, blades O-82A — 108 lb. (-47)
Pitch setting at 30 in. station: High 23°, low 13°.
Diameter: 82 in.
Parts list Assembly No. 4300.
When this item is installed, airplane shall be operated in accordance with CAA Approved Operating Manual as prepared by J. L. Ashley Jr., Buck's Flying School, Lovell Field, Chattanooga, Tenn. and approved October 14, 1947. No change in parts list assembly is permitted without CAA engineering approval.

5. Two Hartzell reversible propellers, hubs HC-12X20-2 or -3, blades 8428. — 124 lb. (-47)
Pitch setting at 30 in. station: High 20°, low 14°.
Diameter: Not over 84 in., not under 82-5/16 in.
Including manual control and reversing mechanism installed in accordance with Hatzell Propeller Co. Dwg. SK-108.
Placard required: "Warning, do not reverse propellers in flight or landing. Use reverse for taxi only. Reduce rpm below 1300 before reversing propellers."
Placard required on or near fuel filler cap:
"91 minimum octane fuel required."

6. Two Hartzell controllable propellers, hubs HC-12X20-8C, blades 8428. — 130 lb. (-47)
Diameter: Not more than 84.5 in., not less than 82.5 in.
Low pitch setting at 30 in sta.: 13°.
Minimum clearance between propeller hub and jackplate determined with engine running and propeller in high pitch position to be 1/16 in.
Installation to be accomplished in accordance with Hatzell Installation Instructions No. 3, dated October 26, 1951, and Hartzell Dwg. SK108, Rev. B.
Propeller manual control weight
Additional required equipment: Cylinder head temperature indicators. — 11 lb. (-8)
Placard required on or near fuel filler cap:
"91 minimum octane fuel required."

*7. Two Hartzell propellers for use with Lycoming engines, Item 108 only.
(a) Hubs HC-12X20-9, blades 9333C-0 — 79 lb. (-42)
Pitch setting at 30 in. station: Low 17.5°, high 37.5°
Placard required: "Avoid continuous operation between 1675 and 2160 engine rpm and above 2900 rpm."
(b) Hubs HC-82X20-2, blades 9333C-3 — 68 lb. (-42)
(1) With item 108A engines
Pitch setting at 30 in. station: Low 19°
(2) With item 108B engines
Pitch setting at 30 in. station: Low 18°, high auto. stop 23.5°, feather 89°.
(c) Hubs HC-83X20-2A, blades 8433-0
(1) With Item 108B engines
Pitch setting at 30 in. station: Low 14°, high auto. stop 21.3°, feather 82.5°.
Diameter: 84 in. No additional tolerance permitted.
(2) With Item 108C engines
Pitch setting at 30 in. station: Low 15.5°, high auto. top 22.8°, feather 84.0°.
Diameter: 84 in. No additional tolerance permitted.

Engines and Engine Accessories - Fuel and Oil Systems

101.	Two starters (electric) (Eclipse Y-150)	79 lb. (-42)
102.	Four fuel pumps	
	(a)Two engine-driven (Pesco 227-D)	1 lb. (0)
	(b) Two wobble (Type D-2)	3 lb. (+5)
103.	Two oil coolers (U.A.P. #3150, 5 in. diameter)	24 lb. (-1)
104.	Two hydraulic pumps	
	(a) One engine-driven (Pesco 204A)	4 lb. (+3)
	(b) One hand (Air Associates HC-1077-1)	3 lb. (-15)
105.	Four fuel pumps	
	(a) Two engine-driven (Romec G-4360-4)	
	(b) Two wobble (Type D-2)	No weight change
106.	Two hydraulic pumps	
	(a) One engine-driven (Pesco 204A)	
	(b) One hand (Bowser 176)	No weight change
107.	Two starters (electric) (Eclipse E-80)	No weight change

*108. Engines

A. Two Lycoming GO-435-C2 or GO-435-C2B when modified in accordance with the drawings referred to on Master Dwg. No. SPD-712116 furnished by Link Aeronautical Corp., Endicott, New York (previously by Lockheed Aircraft Service, Inc.). The following revisions to existing limitations are applicable:

Fuel: 91/98 min. grade aviation gasoline

Engine limits: Take-off (2 Min.), 3400 rpm (260 hp)
Maximum continuous,
(With Item 7(a) prop.) 2900 rpm (235 hp)
(With Item 7(b) prop.) 3000 rpm (240 hp)

Maximum weight: (Landplane) 5000 lb.
(Flying boat) 4700 lb.

Oil capacity: 6 gal. (3 gal. per engine) (-12)

Control surface:

Wing flaps			38°	down
Elevator	31°	up	21°	down
Elevator tab	11°	up	32°	down
Aileron	19.5°	up	20.5°	down
Rudder	29.5°	right	26.5°	left
Rudder trim tab	25°	right	25°	left
Stabilizer aux. tab			30°	down

Required equipment: Items 7(a) or (b), 201(a), 202(a), 302, 401(a) and 401(c), and the following additional items:

(1)	Two starters (Eclipse 397-50 type E-80)	39 lb (+1.5)
(2)	Four fuel pumps	
	(a) Two engine-driven (Thompson TFD 900-1)	(-0.5)
	(b) Two boost pumps (Thompson TFD 900-1)	(+10)
	(3) Two hydraulic pumps	
	(a) One engine-driven (Pesco 1P-349-P-2)	4 lb. (+1)
	(b) One hand (Electrol 190)3 lb. (-15)	
(4)	Two oil coolers (U-6005-DV-5), 5" diameter	24 lb. (-1)
(5)	Generator (Leece-Neville E-7A), 50 amp.	23 lb. (+2)

B. Two Lycoming GO-435-C2B
When installed in accordance with instructions and with assemblies furnished with McKinnon-Hickman Co. (Portland Ore.) Kit No. 101270. The following revisions to existing limitations are applicable:

Fuel: 91/98 min. grade aviation gasoline with Item 7(b)(2) propellers.
80/87 min. grade aviation gasoline with Item 7(c)(1) propellers.

Engine limits: Take-off (2 Min.), 3400 rpm (260 hp)
Maximum continuous, 3000 rpm (240 hp)

Maximum weight	(Landplane) 5000 lb.	
	(Flying boat) 4700 lb.	
Oil capacity	6 gal. (3 gal. per engine) (-16)	
Required equipment:	Items 7(b) or 7(c), 104(b), 201(a), 202(a), 302, 401(a), 401(d) and the following additional items:	
	(1) Two starters (Eclipse 397-50 type E-80)	39 lb. (+6.5)
	(2) Four fuel pumps	
	(a) Two engine-driven (AN4100 or AN4101)	4 lb. (-1)
	(b) Two auxiliary (AN4100 or AN4101)	4 lb. (+10)
	(3) One engine-driven hydraulic pump (Pesco 1P-349PB or 1P203LA)	
	(4) Two oil coolers	
	(a) Heat Exchangers Model 1100	16 lb. (-28)
	or (b) Heat Exchangers Model 1103	22 lb. (-28)
	(5) Generator (Leece-Neville E-7A, 50 amp.)	23 lb. (+4)
	(6) Two propeller governors (Hamilton Standard 1Q12-G1)	7 lb. (-35)

C. Two Lycoming GO-480-B1
When installed in accordance with instructions and assemblies furnished with McKinnon-Hickman Co. (Portland, Ore.) Kit No. 101270-480.

Fuel	80/87 min. grade aviation gasoline	
Engine limits	Take-off (2 Min.), 3400 rpm (270 hp)	
	Maximum continuous, 3000 rpm (260 hp)	
Maximum weight	(Landplane) 5000 lb.	
	(Flying boat) 4700 lb.	
Oil capacity	6 gal. (3 gal. per engine) (-16)	
Required equipment:	Items 7(c)(2), 104(b), 201(a), 202(a), 302, 401(a), 401(f), 406 and the following additional items:	
	(1) Two starters (Eclipse 397-50 type E-80)	39 lb. (+6.5)
	(2) Four fuel pumps	
	(a) Two engine-driven (AN4100 or AN4101)	4 lb. (-1)
	(b) Two auxiliary (AN4100 or AN4101)	4 lb. (+10)
	(3) One engine-driven hydraulic pump (Pesco 1P-349PB or 1P203LA)	4 lb. (+1.5)
	(4) Two oil coolers (Heat Exchangers Model 1103)	22 lb. (-28)
	(5) Generator (Leece-Neville E-7A, 50 amp.)	23 lb. (+4)
	(6) Two propeller governors (Hamilton Standard 1Q12-G1	7 lb. (-35)

Landing Gear

201.	Two main wheel-brake assemblies, 7.50-10, with 7.50-10, 6-ply HD tires	
	(a) Goodrich 753A, Assy. No. G-3-45A	(Retracted) 80 lb. (+6)
	(b) Goodrich 753A, Assy. No. G-3-175A	No weight change
202.	Tail wheel assembly, 10 in., with 10.5 in., 6-ply streamline tire	
	(a) Goodrich B-14-161	5 lb. (+164)
	(b) Goodrich B-3-127A	No weight change

Electrical and Radio Equipment

301.	Generator, 10 amp. (Ranger NA-16621)	15 lb. (+2)
302.	Battery, 38 amp. hr. (Exide 6 TAS-9-1)	36 lb. (+22)
303.	Landing light (Grimes ST-250)	4 lb. (+35)

304.	Radio equipment:	
	(a) Receiver and transmitter (Lear AMTR-12), dynamotor, and antenna reel (Receiver and transmitter on right side under wing beam. Dynamotor under right pilot's seat and antenna reel on panel over pilot's head).	28 lb. (+1)
	(b) Alternate receiver and transmitter (Lear T30-RBCC)	36 lb. (-1)
	(c) Equivalent radio equipment in same location	50 lb. (-1)
305.	Extra landing light (Grimes ST-250)	4 lb. (+35)
306.	Generator, 25 amp. (Eclipse 309-9)	+6 lb. (+2)
307.	Generator, 50 amp. (Eclipse 790-1)	24 lb. (+2)

Interior Equipment

401.	(a) CAA Approved Airplane Flight Manual (Airplane Operating Manual is the equivalent).	
	(b) Supplement to Airplane Flight Manual dated April 5, 1951 (Required with item 402.)	
	(c) CAA Approved Airplane Flight Manual supplement for Grumman "Widgeon" with Lycoming GO-435-C2 engine, dated July 2, 1952, or CAA Approved Airplane Flight Manual supplement for Grumman G-44 and G-44A "Widgeon" with Lycoming GO-435-C2B engines, dated March 2, 1953. (Required with item 108A.)	
	(d) CAA Approved Airplane Operating Manual for the Grumman G-44 and G-44A "Widgeon" with Lycoming GO-435-C2B engines, dated March 23, 1953. (Required with item 108B.) (Revision (2) required when Item 7(c) propellers are installed.)	
	(e) Supplement to Airplane Flight Manual dated June 9, 1954. (Required with Item 402(b).	
	(f) CAA Approved Airplane Operating Manual for the Grumman G-44 and G-44A "Widgeon" with Lycoming GO-480-B1 engines, dated December 21, 1954.	
*402.	(a) Lear Model 1120B (L-2B) automatic pilot installed in accordance with Lear, Inc., Grand Rapids, Michigan, Dwgs. 19200A nd 91379. Servo stall torque measured at the servo on the ground: Aileron 50 in. lb. Rudder 50 in. lb. Elevator 25 in. lb. Items 307 and 401(b) and the following placards installed in clear view of pilot are required: "DO NOT USE AUTOPILOT BELOW 300 FEET ABOVE TERRAIN IN THE CRUISE CONFIGURATION." "DO NOT USE AUTOPILOT BELOW 150 FEET ABOVE TERRAIN IN THE APPROACH CONFIGURATION."	45 lb. (+49)
	(b) Lear 1350A-1 approach coupler and 2203C altitude controller installed in accordance with Lear Dwg. 91200E. (Item 401(c) required with this installation.)	11 lb. (+112)
403.	Dual rudder controls complete with removable rudder pedal (Grumman Dwg. 17819)	7 lb. (-33)
404.	Pressure fire extinguisher (Lux, 2 engine type)	25 lb. (-40)
405.	Control column (Grumman Dwg. No. 122850)	
	(a) Single arm (Throw-over type wheel)	3 lb. (-22)
	(b) Double arm ("Y" type wheel)	8 lb. (-22)
*406.	McKinnon-Hickman Co. (Portland, Ore.) Rudder trim boost system in accordance with Dwg. 11,000A, Rev. 1 and Installation Instructions dated March 22, 1955.	8 lb. (-33)
*407.	Stewart Warner Model 940 heater when installed with assemblies and Installation Instructions, Rev. 1, dated July 22, 1955, furnished by McKinnon-Hickman Co., Portland, Ore.	20 lb. (+130)

Miscellaneous (not listed above)

601.	Anchor and rope (Northill)	19 lb. (-87)

NOTE 1. Current weight and balance report including list of equipment included in certificated weight empty, and loading instructions when necessary, must be in each aircraft at the time of original certification and at all times thereafter (except in the case of air carrier operators having an approved weight control system).

NOTE 2. The following placard shall be placed on the instrument panel in full view of the pilot in all configurations:

(a) "This airplane shall be operated in accordance with the CAA Approved Operating Manual for Grumman Model G-44 (G-44A), which shall be carried in the pilot's compartment at all times."

Additional required placards are indicated under pertinent items of equipment.

NOTE 3. (a) Landplane - The wing tip floats may be removed provided the airplane is placarded for use as landplane only. The decrease in empty weight is approximately 45 lb.

(b) Flying boat - The landing gear and tail wheel, their external retracting mechanism, and the brake operating system may be removed, provided the airplane is placarded as a flying boat, and the support tubes, attaching bolts, etc. are installed so as to maintain hull water tightness, and provided the unused hydraulic tubes are plugged. The decrease in weight empty is approx. 185 lb.

NOTE 4. (a) Model G-44A also eligible with main step vents on hull and step extension from station 15 and 15A installed.
(b) Models G-44 and G-44A also eligible with main step vents on hull and step extension from station 15 to 15A removed provided keel reinforcement is incorporated from station 13 to 5A per Grumman Dwg. No. 17407.
(c) Models G-44A and G-44 (Navy J4F-2) also eligible with alternate wing tip floats having redesigned lines above the chine and new strut attachment fitting in accordance with Grumman Dwg. 122575.

NOTE 5. French "SCAN type 30" aircraft, serial numbers 2, 3, 4, 9 through 16, 20 through 23, 25 through 37, and 41 manufactured by Societe' de Construction Airo-Navales, under license to Grumman Aircraft Engineering Corporation, are eligible for certification when accompanied by a certificated from the French Bureau Verites to the effect that (1) the aircraft was manufactured in exact accordance with the approved drawings listed in Grumman Report 1790B and other technical data which formed the basis of approval of the type design under Civil Air Regulations 04, dated May 31, 1938, as amended by Group 1 revision sheet, dated October 8, 1939, in addition to CAR 4a.193 as amended to April 7, 1950, and that (2) any deviation from the approved design have been evaluated by the Bureau Veritas and found to be equivalent to the pertinent Federal Aviation Agency requirements. Each aircraft shall have a fireproof nameplate installed. The nameplate should include the following data: Manufactured by Societe' Construction Airo-Navales, under license to Grumman Aircraft Engineering Corporation; Model : SCAN Type 30; Serial Number; as applicable; Date of manufacture; as applicable; Type Certificate No. 734. Each aircraft will be subject to a satisfactory airworthiness inspection and a flight check by an FAA inspector. Aircraft of this type, other than the serial numbers listed above, must be type certificated and imported under the provisions of CAR 10.

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