DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

A37EU
Revision 2
AEROSPATIALE
Model SN-601
"Corvette"
March 27, 1980

TYPE CERTIFICATE DATA SHEET NO. A37EU

This data sheet, which is a part of Type Certificate No. A37EU, prescribes conditions and limitations under which the product for which the Type Certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder AEROSPATIALE (Societe Nationale Industrielle Aerospatiale)
37, blvd de Montmorency
75016 Paris, France

I - Model SN-601 "Corvette" (Transport Category Airplane), Approved September 24, 1974

Engine

2 - Model JT15D-4 turbofan engines, manufactured by:
United Aircraft of Canada Limited, or
United Aircraft Corporation, Pratt and Whitney Division.
Engines may be intermixed.

Fuel

JP1
American: MIL J 5616 - ASTMD 1655
French: TRO - AIR 3405
British: DERD 2453 - DERD 2494
Fuels conforming with PWA Specification No. 522.

Anti-Icing Additive
American: MIL J 27686
French: Air 3652) or equivalent to PHILIPS PFA 55 MB
British: DERD 2451)
Anti-icing additive is permissible in quantities up to 0.15% by volume.

Anti-Static Additive
Shell ASA-3 anti-static additive, or equivalent, is permissible in quantities up to 0.0001% by volume (1 mg per liter).

Oil

American: MIL L 23699
French: No specification
British: No specification

Synthetic oils Type II conforming with PWA Specification No. 521. The authorized trade marks are given by UACL Service Bulletin No. 7001.

Engine limits

Thrust ratings (ISA)

Maximum takeoff (5 min)	2500 lbs
Maximum continuous	2375 lbs

Maximum engine rotor speeds

Low pressure (N1) RPM:	16,540	(104%)
High pressure (N2) RPM:	31,450	(96%)

Maximum interturbine temperature (ITT)

Takeoff (5 min)	700°C	(1292°F)
Maximum continuous (unlimited)	680°C	(1256°F)
Starting transient (2 seconds)	700°C	(1292°F)

Oil temperature

	Min	Max
Starting and idle	-40°C (-40°F)	121°C (250°F)
Takeoff	+10°C (+50°F)	121°C (250°F)
Maximum continuous	0°C (32°F)	121°C (250°F)

Oil pressure

	Min	Max
N2 20,000 r.p.m. (61%) or higher	70 psig	85 psig
N2 lower than 20,000 r.p.m. (61%)	35 psig	85 psig

Fuel temperature for refueling	-54°C (-65°F) 57°C (135°F)
Fuel pressure - minimum for operation	6 psig
Refueling system - maximum operating pressure	50 psig

Airspeed limits (IAS)

Vmo/Mmo (Maximum Operating)	
With fuel in tip tanks	300 kts/0.70 M
With tip tanks empty or not installed	340 kts/0.77 M
Va (Design maneuvering)	192 kts (See NOTE 5)
Vlo (Landing gear operation)	165 kts
Vle (Landing gear extended)	165 kts
Vfe (Flaps extended)	
Takeoff (15°) 240 kts	
Approach (20°)	210 kts
Landing (35°)	165 kts
Vmc (Minimum Control speed) - flaps T.O.	93 kts
- flaps 0 degrees	110 kts (see NOTE 6)
V (maximum for nose-gear steering)	70 kts
V (Airbrakes) - Max speed for extension, retraction, or extended position:	340 kts/0.77 M
V (Maximum tire ground speed)	165 kts (see NOTE 5)

C.G. range (Gear extended)

For all weights

Forward limit: 22% Reference Chord) See NOTE 5

Aft limit: 34% Reference Chord) See NOTE 5

Landing gear retraction moment is 2350 in.lbs., moving c.g. forward by approximately 0.25% Reference Chord.

Reference chord

The Reference Chord length, parallel to the airplane axis, is 70.87 in. (1.800 meters). Its leading edge is located at a distance of 23.82 in. (0.605 m) aft of No. 7 LH or 7 RH leveling marks on the fuselage sides; i.e., at 267.72 in. (6.800 m) from the datum.

Datum

The datum (origin of moments) is located at a distance of 243.90 in. (6.195 m) forward of No. 7 LH or 7 RH leveling marks on the fuselage external sides at frame 16.

Leveling means

Leveling in longitudinal and lateral directions is facilitated by rivets marked on the fuselage sides as follows:

Marks 6LH and 6RH at frame 10
Marks 7LH and 7RH at frame 16
Marks 8LH and 8RH at frame 20
Marks 10LH and 10RH at frame 33

Weight limits

Maximum weights

Maximum ramp	14,660 lbs (6650 kg) (see NOTE 5)
Maximum takeoff	14,550 lbs (6600 kg) (see NOTE 5)
Maximum zero-fuel	12,350 lbs (5600 kg)
Minimum weight	9,250 lbs. (4200 kg)

Minimum crew

2 - Pilot and copilot.

Maximum passengers

15 - Limited by approved seating arrangement
14 - With interior arrangement conforming with Aerospatiale Mod. No. 0040.
0 - In configuration for delivery conforming with Aerospatiale Note A/DEP/CRA No. 91/75.

Maximum baggage

Forward (RH) Compartment (per Aerospatiale Mod. No. 9012).
Compartment length may be varied from 0 to maximum 63.2 in. (1.609 m) by moving aft wall. Distance from datum and permissible load vary linearly with compartment length between following extremes:

Compartment Length	Permissible Load	Distance from Datum
0	0	161.2 in. (4.095 m)
63.2 in. (1.609 m)	317 lbs. (144 kg)	192.9 in. (4.900 m)

Aft Compartment(s) (per Aerospatiale Mod. No. 0039)
Configuration may be comprised of single compartment(s) on either or both sides of aisle, or one continuous compartment crossing aisle. Distance from datum for all compartments is 367 in. (9.330 m). Permissible load is 108 lbs (49 kg), for each single compartment, and 400 lbs (182 kg) for continuous compartment.

Floor loading limits

Maximum floor loading for cabin, aisle, and baggage compartments:
82 p.s.f. (400 kg/m²).

Fuel capacity

2 Integral wing tanks.
Total fuel : 446 U.S. gal. (1680 liters); 2965 lbs. (1344 kg)
Total usable fuel : 440 U.S. gal. (1660 liters); 2920 lbs. (1325 kg)
2 wing tip tanks, per Aerospatiale Mod. No. 0038
Total fuel : 185 U.S. gal. (700 liters); 1226 lbs. (556 kg)
Total usable fuel : 180 U.S. gal. (680 liters); 1191 lbs. (540 kg)
Density for fuel flowmeter adjustment: 0.795.

Oil capacity

2 Integral engine tanks
Total oil in each : 2.33 U.S. gal. (8.70 liters)
Usable oil in each : 1.50 U.S. gal. (5.67 liters)

Maximum altitude

41,000 ft.

Maximum control surface movements

Elevator	Up		20°
	Down		10°
Adjustable horizontal stabilizer	Leading edge up	Mechanical stop	2°37'
		Electrical stop	2°07'
	Leading edge down	Electrical stop	
		flaps up	4°
		flaps down	6°37'
		Mechanical stop	7°07'

Rudder		
Right		30°
Left		30°
Aileron		
Up		15°
Down		11°
Spoilers (Rotation for 15° up-deflection of corresponding aileron)		90°
Airbrakes (Relative to wing surface)	Upper	62°
	Lower	62°
Flaps		35°

Serial numbers eligible

A French "Certificate de Navigabilite pour Exportation" endorsed as noted under "Import Requirements", must be submitted for each individual aircraft for which application for U.S. Certification is made.

Import requirements

A U.S. Standard Airworthiness Certificate may be issued on the basis of a French "Certificat de Navigabilite pour Exportation" signed by a representative of the Secretariat General a l'Aviation Civile (S.G.A.C.) of France, containing the following statement: "The aircraft covered by this Certificate has been examined, tested, and found to conform to the type design approved under Type Certificate No. A37EU, and to be in condition for safe operation".

Certification basis

Type Certificate issued, in accordance with FAR 21.29, invalidation of S.G.A.C. certification that Model SN-601 type design complies with French airworthiness and noise requirements for which the corresponding U.S. equivalents are as follows:

FAR Part 25 dated February 1, 1965, including Amendment Nos. 25-1 through 25-22.
FAR Part 36, including Amendment 36-1, and amendments as follows:

1) 36-8 for airplanes per mod. order 1283 - 15,430 lbs takeoff weight

FAA Special Conditions No. 25-57-EU-18, September 20, 1974.
Type Certificate No. A37EU, issued September 24, 1974.
Date of Application for Type Certification (as amended) :
October 31, 1969.
Equivalent safety found, in lieu of compliance, with respect to the following requirements: FAR 25.773(b) (2) - Pilot compartment view (DV window).
Compliance has been established for following optional FAR Part 25 requirements:
Ditching (25.801) (Structural and exit Provisions only).

Required equipment

The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification. Aerospatiale Note DEP/YDA No. 60/74 lists equipment required for certification; Note DEP/CRA No. 900/74 lists all equipment approved for Model SN-601.

In addition, the following are required:

(1) SGAC-approved SN-601 "Corvette" Airplane Flight Manual (Aerospatiale Document No. 601-A-100-7A) approved September 24, 1974; including Revision No. 3 dated April 21, 1975, and Revision No. 4 dated October 15, 1975.

(2) Stall-warning system, per Aerospatiale Mod. No. 1010);

(3) Stall-prevention system, per Aerospatiale Mod. No. 1131; and,

(4) For carriage of passengers, the wing spar structure in the cabin aisle must be padded with material of a color which contrasts conspicuously with the background color, and must be illuminated in accordance with the emergency lighting provisions of FAR 25.812(a)(1).

Service information

All Model SN-601 Service Bulletins published by Aerospatiale will be D.G.A.C. approved, and will carry a statement to that effect. This statement may be interpreted, as "F.A.A. approved". Service Bulletins that are the subject matter of a French Consigne de Navigabilite (Airworthiness Directive) will be so stated on the Bulletin.

Maintenance Manual (which includes information essential to the proper maintenance of the aircraft, and retirement times of parts with a predetermined service life).

Other available service documents for Model SN-601 "Corvette" are as follows:

Illustrated Parts Catalog;

Wiring Diagram Manual; and,

Structural Repair Manual.

NOTES

NOTE 1. Weight and Balance.

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 CG is within the specified limits at all times with the effect of fuel use and movement of crew and passengers from their assigned position being considered.

c. The following must be included in the airplane empty weight:
Unusable wing fuel of 41 lbs. at 277.5 in., plus total oil of 36 lbs. at 382 in., plus total hydraulic fluid of 24 lbs. at 341.5 inches from datum. With wing tip tank provisions per Aerospatiale Mod. No. 0019, and wing tip tanks per Mod. No. 0038, unusable fuel is increased by 35 lbs.

NOTE 2. Placards.

All placards presented in the approved Airplane Flight Manual must be installed at the appropriate locations.

NOTE 3. Service Life Limits.

Airplane components which are life limited are listed in the DGAC-approved portion of Chapter 5 of the SN-601 "Corvette" Maintenance Manual, and must be replaced as indicated therein.

NOTE 4. Aircraft incorporating Aerospatiale Mod. Order 1355 may be operated at a maximum landing weight of 13,230 1-s (6000 kg) in accordance with rev. 11 to the DGAC approved Airplane Flight manual Document 601-A-100-7A.

NOTE 5. Aircraft incorporating Aerospatiale Mod. Order 1382 may be operated at the following maximum weights:

Maximum ramp weight : 15,542 lbs (7.050 kg)
Maximum takeoff weight : 15,432 lbs (7.000 kg)

in accordance with Revision 12 to the DGAC approved Airplane Flight Manual Document 601-A-100-7A. The following airspeed and C.G. limits must be observed when operating at the above weight:

Airspeed Limits (IAS):

Va (Design Maneuvering)	196 kts.
V (Maximum tire ground speed) (with Mod. M 1330)	156 kts.

Forward C.G. Limits:

24% Reference chord at 15,430 lbs (7000 kg) with linear variation to 22% reference chord at 14,550 lbs (6600 kg)
All other C.G. limits are unchanged.

NOTE 6. Modification 1356 incorporated in DGAC approved Revision 12 to the Airplane Flight Manual, Document No. 601-A-100-7A provides DGAC approved takeoff and performance data for zero degree flap configuration takeoff operations.

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