DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

A28NM
Revision 14

Airbus

A318 Series	A320 Series
A318 Model -111	A320 Model -111
A318 Model -112	A320 Model -211
A318 Model -121	A320 Model -212
A318 Model -122	A320 Model -214
	A320 Model -231
A319 Series	A320 Model -232
A319 Model -111	A320 Model -233
A319 Model -112	
A319 Model -113	A321 Series
A319 Model -114	A321 Model -111
A319 Model -115	A321 Model -112
A319 Model -131	A321 Model -131
A319 Model -132	A321 Model -211
A319 Model -133	A321 Model -231
	A321 Model -212
	A321 Model -213
	A321 Model -232

September 27, 2013

TYPE CERTIFICATION DATA SHEET A28NM

This Data Sheet which is part of Type Certificate No. A28NM 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: Airbus
1, Rond-Point Maurice Bellonte
31707 Blagnac, France

Type Certificate Holder Record: Name change from Airbus Industrie to Airbus January 2002

I. Type A318-100 Series Transport Category Airplanes

Model A318-111, Approved June 4, 2003;
Model A318-112, Approved June 4, 2003;
Model A318-121, Approved May 25,2007 ;
Model A318-122, Approved May 25, 2007;

Engines:
Model A318-111, Two CFMI Model CFM56-5B8/P or CFM56-5B8/3 jet engines
Model A318-112, Two CFMI Model CFM56-5B9/P or CFM56-5B9/3 jet engines
Model A318-121, Two Pratt & Whitney Model PW6122A
Model A318-122, Two Pratt & Whitney Model PW6124A

See Note 4 for description of "/3" engine models

Fuel:
See Installation Manual - Document CFM 2129 or PWA7707

TYPE	SPECIFICATION (NAME)		
	FRANCE	USA	UK
Kerosene	DCSEA 134	ASTM D 1655 (JET A) (JET A1)	DEF STAN 91/91 (AVTUR) (JET A1)
		MIL-DTL-83133 (JP 8)	DEF STAN 91/87 (AVTUR) (JET A1) (AIA)
Wide cut		ASTM D 6615 (JET B)	DEF STAN 91/88 (AVTAG)
		MIL-DTL-5624 (JP 4)	
High flash point	DCSEA 144 (F-44)	MIL-DTL-5624 (JP 5)	DEF STAN 91/86 (AVCAT)

Additives: See CFMI " Specific Operating Instructions," CMF TPOI-13 or P&W Service Bulletin 2016. The above mentioned fuels and additives are also suitable for the APU.

Engine Limits:

Engine Limitation	CFMI CFM56-5B8/P or -5B8/3 FAA Data Sheets E37NE E38NE	CFMI CFM56-5B9/P or -5B9/3 FAA Data Sheets E37NE E38NE	PW6122A FAA Data Sheet E00064EN	PW6124A FAA Data Sheet E00064EN
Static Thrust at Sea Level - Take-off (5 min)** (Flat rated 30°C) Maximum Continuous (Flat rated 25°C)	 9 608 daN (21,600 lb) 8478 daN (19,060 1b)	 10 364 daN (23,300 lb) 9 008 daN (20,250 lb)	 9 830 daN (22,100 lbs) 9 030 daN (20,300 lbs)	 10 587 daN (23,800 lbs) 9 297 daN (20,900 lbs)
Maximum Engine Speed - N1 rpm (%) - N2 rpm (%)	 5,200 (104) 15,183 (105)	 5,200 (104) 15,183 (105)	 6,350 (99.1) 18,850 (100)	 6,350 (99.1) 18,850 (100)
Max Gas Temperature (°C) - Take-off (5 min)** - Max Continuous - Starting *	 940 905 725	 950 915 725	 760 727 760	 760 727 760
Max Oil Temperature (supply pump inlet; °C) - Stabilized - Transient Min. Press. (PSI)	 140 (Take Off) 150 (15 min max) 13	 140 (Take Off) 150 (15 min max) 13	 163 (Max Continuous) 177 (20 min max) 25	 163 (Max Continuous) 177 (20 min max) 25
Approved Oils	See SB CFMI 79-001-0X	See SB CFMI 79-001-0X	See PW SB 238	See PW SB 238

* 4 consecutive cycles of 2 minutes each.
** 10 minutes at take-off thrust allowed in case of engine failure (at take off and during go around).

Airspeed Limits (Indicated Airspeed - IAS - Unless Otherwise Stated:

- Maximum Operating Mach - MMO: 0.82
- Maximum Operating Speed - VMO: 350 kt
- Maneuvering Speed VA: - See Limitations Section of Aircraft Flight Manual
- Extended Flaps/Slats Speed - VFE

Airspeed limits Continued:

Configuration	Slats/Flaps	VFE (kt)	
1	18/0 *18/10	230 215	Intermediate Approach Take-off
2	22/15	200	Take-off and Approach
3	22/20	185	Take-off, Approach, and Landing
Full	27/40	177	Landing

* Auto flap retraction at 210 kt in Take-off configuration.

Landing Gear:
- VLE - Extended: 280 kt/Mach 0.67
- VLO - Extension: 250 kt
- Retraction: 220 kt

Tire Limit Speed (Ground Speed) = 195.5 kt (225 mph)

Maximum Weights:

VARIANT	000 BASIC		001 MOD 31672		002 MOD 31673		003 MOD 31674		004 MOD 31675	
	(KG)	(LBS)	(KG)	(LBS)	(KG)	(LBS)	(KG)	(LBS)	(KG)	(LBS)
Max. Take-off Weight	59 000	130 071	61 500	135 583	63 000	138 890	64 500	142 197	66 000	145 504
Max. Landing Weight	56 000	123 458	56 000	123 458	57 500	126 765	57 500	126 765	57 500	126 765
Max. Zero Fuel Weight	53 000	116 844	53 000	116 844	54 500	120 151	54 500	120 151	54 500	120 151

VARIANT	005 MOD 31676		006 MOD 33235		007 MOD 33126		008 MOD 33128	
	(KG)	(LBS	(KG)	(LBS	(KG)	(LBS	(KG)	(LBS
Max. Take-off Weight	68 000	149 913	56 000	123 458	61 000	134 481	64 000	141 094
Max. Landing Weight	57 500	126 765	56 000	123 458	56 000	123 458	56 000	123 458
Max. Zero Fuel Weight	54 500	120 151	53 000	116 844	53 000	116 844	53 000	116 844

Minimum Weight:

VARIANT	All	
	(KG)	(LBS)
Minimum Weight	34,500	76,059

Minimum Crew:
2 Pilots

Maximum Passengers:
136
See note 6

Maximum Baggage:

CARGO COMPARTMENT	MAXIMUM LOAD	
	(KG)	(LBS)
Forward	1,614	3,558
Aft	2,131	4,698
Rear (Bulk)	1,372	3,025

For the positions and the loading conditions authorized in each position (references of containers, pallets, associated weights), see Weight and Balance Manual, Ref. 00P080A0001/C1S Chapter 1.10.

Fuel Capacity (0.8 kg/liter)

A318-100

3-Tank Airplane				
Tank	Usable Fuel		Unusable Fuel	
	Liters (kgs)	Gallons (lbs)	Liters (Kgs)	Gallons (lbs)
Wing	15,609 (12,487)	4,124 (27,531)	58.9 (47.1)	15.6 (103.9)
Center	8,250 (6,600)	2,179 (14,551)	23.2 (18.6)	6.5 (41.0)
TOTAL	23,859 (19,087)	6,303 (42,082)	82.1 (65.7)	20.8 (144.9)

A318-100 with modification 160001 (Structural Provisions for Sharklet – see note 9)

3-Tank Airplane				
Tank	Usable Fuel		Unusable Fuel	
	Liters (kgs)	Gallons (lbs)	Liters (Kgs)	Gallons (lbs)
Wing	15,568 (12,454)	4,113 (27,458)	58.9 (47.1)	15.6 (103.9)
Center	8,248 (6,598)	2,178 (14,546)	23.2 (18.6)	6.5 (41.0)
TOTAL	23,816 (19,052)	6,291 (42,007)	82.1 (65.7)	20.8 (144.9)

Oil Capacity
CFMI CFM56-5B - Engine Oil Capacity, 10 quarts/engine (9.46 liters).

Maximum Operating Altitude:
- 39,800 feet (12,200 m) clean
- 20,000 feet (6,500 m) Slats/Flaps extended.

Equipment:
The basic equipment as prescribed in the airworthiness regulations (see certification basis) must be installed in the aircraft for certification.

Refer to note 1 for list of A318 airplane model FAA Type Definitions.

Serial Numbers Eligible:
Until September 26, 2004, A318 aircraft, all series, all models, have been produced in Hamburg (Germany) under approval LBA.G.0009 issued by LBA to Airbus.
From September 27, 2004 until July 20, 2008, A318 aircraft, all series, all models, have been produced in Hamburg (Germany) under approval DE.21G.0009 issued by LBA to Airbus.
Since July 21, 2008, A318 aircraft, all series, all models, are produced in Hamburg (Germany) under approval EASA 21G.0001 issued by EASA to Airbus.

Until July 20, 2008, a German Export Certificate of Airworthiness endorsed as noted under “Import Requirement,” must be submitted for each individual aircraft for which application for U.S. certification is made.
Since July 21, 2008, a EASA Export Certificate of Airworthiness endorsed as noted under “Import Requirement”, must be submitted for each individual aircraft for which application for U.S. certification is made.

Import Requirements:
A FAA Standard Airworthiness Certificate may be issued based on a German Export Certificate of Airworthiness (Export C of A), signed by a representative of the Luftfahrt-Bundesamt (LBA) of Germany on behalf of the European Community or based on a EASA Export C of A issued by a representative of EASA. The Export C of A should contain 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. A28NM and to be in a condition for safe operation.”

The U.S. airworthiness certification basis for aircraft type certificated under FAR Section 21.29 and exported by the country of manufacture is FAR Sections 21.183(c) or 21.185(c). The U.S. airworthiness certification basis for aircraft type certificated under FAR Section 21.29 exported from countries other than the country manufacture (e.g., third party country) is FAR Sections

21.183(d) or 21.185(b). Notwithstanding that FAR section 21.183(d) and 25.185(b) do not specifically address or require certification by the foreign civil airworthiness authority of the country of manufacture, such certification is the only practical way for an applicant to show, and the Federal Aviation Administration (FAA) to find conformity to the FAA-approved type design and condition for safe operation. Additional guidance is contained in FAA advisory Circular 21-23, Airworthiness Certification of Civil Aircraft, Engines, Propellers, and Related Products Imported into the United States.

Certification Basis:

a. Part 25 of the FAR effective February 1, 1965, including Amendments 25-1 through 25-56 thereto.

a.1 Plus the following sections of Part 25 as amended by amendments 25-1 through 25-97 applied per the FAA derivative aircraft process to the changes and areas affected by the changes for all A318 models:

25.21, 25.23, 25.25, 25.27, 25.29, 25.31, 25.101, 25.103, 25.105, 25.107, 25.109, 25.111, 25.113, 25.115, 25.117, 25.119, 25.121, 25.123, 25.125, 25.143, 25.145, 25.147, 25.149, 25.161, 25.171, 25.173, 25.175, 25.177, 25.181, 25.201, 25.203, 25.207, 25.231, 25.233, 25.235, 25.237, 25.251(e), 25.253, 25.255, 25.571 (welded structure only), 25.801, 25.803, 25.807, 25.809, 25.810, 25.811, 25.812, 25.813, 25.855, 25.857, 25.858, 25.1501, 25.1517, 25.1583, 25.1587

a.2 Plus the following sections of Part 25 as amended by amendments 25-1 through 25-105 applied per the FAA derivative aircraft process to the changes and areas affected by the changes for the A318-121/-122 models,:

25.361, 25.363, 25.367, 25.371, 25.901, 25.903, 25.933, 25.934, 25.939, 25.941, 25.943, 25.945, 25.1041, 25.1043, 25.1045, 25.1091, 25.1093, 25.1103, 25.1105, 25.1107, 25.1121, 25.1123, 25.1125, 25.1127, 25.1141, 25.1143, 25.1163, 25.1165, 25.1167, 25.1181, 25.1182, 25.1183, 25.1185, 25.1187, 25.1189, 25.1191, 25.1193

a.3 Plus the following sections of Part 25 amended as indicated below per Airbus elect to comply:

25.305 Amdt. 86	25.415 Amdt 91
25.321 Amdt. 86	25.427 Amdt 86
25.331 Amdt. 91	25.445 Amdt 86
25.333 Amdt. 86	25.473 Amdt 91
25.335 Amdt. 91	25.479 Amdt 91
25.341 Amdt. 86	25.481 Amdt 91
25.343 Amdt 86	25.483 Amdt 91
25.345 Amdt 91	25.485 Amdt 91
25.349 Amdt. 86	25.491 Amdt 91
25.351 Amdt. 91	25.499 Amdt 91
25.363 Amdt 91	25.561(c) Amdt 91
25.371 Amdt 91	25.571 Amdt 86*
25.373 Amdt 86	25.735 Amdt 92
25.391 Amdt 86	25.853 Amdt 83
	25.1533 Amdt 92

* Not applicable to welded structure

a.4 Plus Section 25.772 & 25.795 amendment 25-106 per Airbus elect to comply.

a.5 Plus portions of Section 25.562, Amendment 64, for the passenger seats only per Airbus elect to comply. FAR paragraphs 25.562(c)(5), (c)(6) do not apply.

b. Based on 14 CFR Section 21.29(a) for new import Type Certificates (TCs), (or Section 21.101(g) for changes to TCs), applicable provisions of 14 CFR Part 26 are included in the certification basis. For any future 14 CFR part 26 amendments, the holder of this TC must demonstrate compliance with the applicable sections.

c. 14 CFR Part 34, effective September 10, 1990, including Amendments 34-1 through 34-3 thereto.

d. 14 CFR Part 36, effective December 1, 1969, including Amendments 36-1 through 36-26 thereto. See Note 7.

e. FAA Special Conditions issued for the A320 and A318-121/-122 in accordance with Section 21.16 of the FAR and published in the Federal Register, as follows:

(1) 25-ANM-23, January 27, 1989:

- Electronic Flight Controls

- Active Controls
- Engine Controls and Monitoring
- Protection from Lightning and Unwanted Effects of Radio Frequency (RF) Energy
- Flight Characteristics
- Flight Envelope Protection
- Side Stick Controllers
- Flight Recorder.

(2) 25-ANM-29, June 9, 1989:
- Computerized Airplane Flight Manual

(3) 25-299-SC, September 27, 2005:
- Sudden Engine Stoppage on Airbus Model A318 airplanes equipped with Pratt and Whitney PW6000 engines

f. For precision approach and landing, the applicable technical requirements are complemented by AC 120-29 and AC 120-28d.
For the automatic flight control system, the applicable technical requirements are complemented by AC 20-57A for automatic landing and by AC 25.1329-1A for cruise.
Use of JAR AWO where applicable to the requirements above, is acceptable.

g. The following paragraphs of the FAR have been complied with through equivalent safety demonstrations:
- 25.783(f) for passenger doors
- 25.807(c) for maximum passenger capacity
- 25.811(e)(3) Type III emergency exit marking.
- 25.813(c) for emergency exit access
- 25.831 Ventilation Packs off takeoff
- 25.933 for flight critical thrust reverser systems.

h. Optional Requirements elected:
- 25.801 for ditching.
- 25.1419 for icing.

i. Special Federal Aviation Regulation (SFAR) Number 88, Amendment 21-78, became effective June 6, 2001. SFAR No. 88, "Fuel Tank System Fault Tolerance Evaluation Requirements", is applicable to the Airbus Model A318. Airbus must satisfy the requirements of SFAR No. 88 within 18 months after the issuance of the amended type certificate.

j. Exemption No. 8812, dated December 21, 2006: As related to Section 25.901(c) of Part 25 for single failures that may result in uncontrollable high thrust conditions on Airbus Model A318 airplanes equipped with Pratt and Whitney PW6000 Engines.

Note 1:
The A318 basic type design definition for U.S. import certification is contained in the following documents:
- D03007678 for the A318-111 & A318-112 models
- D06003309 for the A318-121
- D06003310 for the A318-122

Note 2:
All A318 models are basically qualified for Cat IIIB precision approach.
This does not constitute operational approval.

Note 3:
The FAA has concluded that the occurrence of any uncontrollable high thrust failure condition, or any of the associated causal failures listed within the A318PW Trouble Shooting Manual, may endanger the safe operation of an airplane. Consequently, the FAA recommends that operators be encouraged to report such failures in accordance with paragraphs 121.703(c), 125.409(c) and 135.415(c).

Note 4:
If modification 37147 (Tech insertion program) is embodied in production or 38770 (Tech insertion program retofit) is embodied in service on A318 airplanes, the engine performance and gaseous emission levels are improved. The engine denomination changes to /3

Note 5:
If modification 38573 is embodied in service on A318 airplanes, the engine hardware configurations can be intermixed with one CFM56-5Bx/3 SAC (Tech Insertion) and one CFM56-5Bx/P SAC engine.

Note 6:
If modification 39673 is embodied on A318 airplanes, the two overwing emergency exits are deactivated.

- For overland flights, the aircraft is eligible for maximum capacity of 110 passengers.
- For overwater flights, the aircraft is eligible for maximum capacity of 32 passengers.

Note 7:
For noise, A318-121/-122 models are basically compliant with ICAO Annex 16 Chapter 4 requirements.
For A318-111/-112 models, the compliance with ICAO Annex 16 Chapter 4 requirements is achieved when modification 36521 is embodied.

Note 8:
On series A318-100 airplanes, introduction of standard of wingbox without dry bay (modification 37331) increases the wing fuel capacity by 350 liters.

Note 9:
If Modification 160001 for installation of structural provisions for new large wingtip device (Sharklet) is embodied on A318 series airplanes the usable fuel quantities are reduced as shown above to account for the loss of volume due to structural reinforcements in the wing and center wing box.

II. Type A319-100 Series Transport Category Airplanes

Model A319-112, Approved August 30, 1996;
Model A319-111, Approved June 20, 1997;
Model A319-113, Approved June 20, 1997;
Model A319-114, Approved June 20, 1997;
Model A319-131, Approved June 20, 1997;
Model A319-132, Approved June 20, 1997;
Model A319-115, Approved October 22, 2002;
Model A319-133, Approved October 22, 2002;

Engines:

Model A319-111, Two CFMI Model CFM56-5B5 or CFM56-5B5/P or CFM56-5B5/3 jet engines;
Model A319-112, Two CFMI Model CFM56-5B6 or CFM56-5B6/P or CFM56-5B6/2P or CFM56-5B6/3 jet engines;
Model A319-113, Two CFMI Model CFM56-5A4 or CFM56-5A4/F jet engines;
Model A319-114, Two CFMI Model CFM56-5A5 or CFM56-5A5/F jet engines;
Model A319-115, Two CFMI Model CFM56-5B7 or CFM56-5B7/P or CFM56-5B7/3 jet engines;
Model A319-131, Two IAE Model V2522-A5 jet engines;
Model A319-132, Two IAE Model V2524-A5 jet engines;
Model A319-133, Two IAE Model V2527M-A5 jet engines;

See Note 4 for description of "/P" engine models
See Note 9 for description of "/2P" engine models
See Note 10 for desription of "/F" engine models
See Note 12 for description of "/3" engine models
See Note 13 for description of " " engine models (Select One Package)

Fuel:

See Installation Manual - Documents CFM 2026 or CFM 2129 or IAE-0043

TYPE	SPECIFICATION (NAME)		
	FRANCE	USA	UK
Kerosene	DCSEA 134	ASTM D 1655 (JET A) (JET A1)	DEF STAN 91/91 (AVTUR) (JET A1)
		MIL-DTL-83133 (JP 8)	DEF STAN 91/87 (AVTUR) (JET A1) (AIA)
Wide cut		ASTM D 6615 (JET B)	DEF STAN 91/88 (AVTAG)
		MIL-DTL-5624 (JP 4)	
High flash point	DCSEA 144 (F-44)	MIL-DTL-5624 (JP 5)	DEF STAN 91/86 (AVCAT)

Additives: See CFMI " Specific Operating Instructions," CMF TPOI-13 or IAE V2500 "Installation and Operating Manual" IAE-0043, 4.5 or the "Standard Practices and Processes Manual" in the IETM. The above mentioned fuels and additives are also suitable for the APU.

Engine Limits:

Engine Limitation	CFMI CFM56-5B5*** or - 5B5/P or -5B5/3 FAA Data Sheets E37NE E38NE	CFMI CFM56-5B6*** or -5B6/P or -5B6/2P or -5B6/3 FAA Data Sheets E37NE E38NE	CFMI CFM56-5A4 FAA Data Sheet E28NE	CFMI CFM56-5A4/F FAA Data Sheet E28NE
Static Thrust at Sea Level - Take-off (5 min)** (Flat rated 30°C) Maximum Continuous (Flat rated 25°C)	 9 786 daN (22,000 lb) 9 008 daN (20,250 1b)	 10 453 daN (23,500 lb) 9 008 daN (20,250 1b)	 9 786 daN (22,000 lb) 9 195 daN (20,670 1b)	 9 786 daN (22,000 lb) 9 195 daN (20,670 1b)
Maximum Engine Speed - N1 rpm (%) - N2 rpm (%)	 5,200 (104) 15,183 (105)	 5,200 (104) 15,183 (105)	 5,100 (102) 15,183 (105)	 5,100 (102) 15,183 (105)
Max Gas Temperature (°C) - Take-off (5 min)** - Max Continuous - Starting *	 950 915 725	 950 915 725	 890 855 725	Eng. Limit/ ECAM 915/890 880/855 725/725
Max Oil Temperature (supply pump inlet; °C) - Take-off, Stabilized - Transient (15 min max) Min. Press. (PSI)	 140 155 13	 140 155 13	 140 155 13	 140 155 13
Approved Oils	See SB CFMI 79-001-0X	See SB CFMI 79-001-0X	See SB CFMI 79-001-0X	See SB CFMI 79-001-0X

Engine Limitation	CFMI CFM56-5A5 FAA Data Sheets E28NE (FAA)	CFMI CFM56-5A5/F FAA Data Sheet E28NE (FAA)	IAE V2522-A5 FAA Data Sheets E40NE (FAA)	IAE V2524-A5 FAA Data Sheets E40NE (FAA)
Static Thrust at Sea Level - Take-off (5 min)** (Flat rated 30°C) Maximum Continuous (Flat rated 25°C)	 10 453 daN (23,500 lb) 9 195 daN (20,670 1b)	 10 453 daN (23,500 lb) 9 195 daN (20,670 1b)	 10 249 daN (23,040 lb) 8 540 daN (19,200 1b)	 10 889 daN (24,480 lb) 8 540 daN (19,200 1b)
Maximum Engine Speed - N1 rpm (%) - N2 rpm (%)	 5,100 (102) 15,183 (105)	 5,100 (102) 15,183 (105)	 5,650 (100) 14,950 (100)	 5,650 (100) 14,950 (100)
Max Gas Temperature (°C) - Take-off (5 min)** - Max Continuous - Starting *	 890 855 725	Eng. Limit/ ECAM 915/890 880/855 725/725	Eng. Limit/ ECAM 625/635 610/610 635/635	Eng. Limit/ ECAM 635/635 610/610 635/635
Max Oil Temperature (supply pump inlet; °C) - Take-off, Stabilized - Transient (15 min max) Min. Press. (PSI)	 140 155 13	 140 155 13	 155 165 60	 155 165 60
Approved Oils	See SB CFMI 79-001-0X	See SB CFMI 79-001-0X	See Doc IAE 0043 Sec 4.9 (MIL-L-23699)	See Doc IAE 0043 Sec 4.9 (MIL-L-23699)

Engine Limits Continued:

Engine Limitation	CFMI CFM56-5B7 *** or -5B7/P or -5B7/3 FAA Data Sheets E37NE E38NE	IAE V2527M-A5 FAA Data Sheet E40NE
Static Thrust at Sea Level - Take-off (5 min)** (Flat rated 30°C) Maximum Continuous (Flat rated 25°C)	12 010 daN (27,000 lb) 10 840 daN (24,370 1b)	11 031 daN (24,800 lb) 9 893 daN (22,240 1b)
Maximum Engine Speed - N1 rpm (%) - N2 rpm (%)	5,200 (104) 15,183 (105)	5,650 (100) 14,950 (100)
Max Gas Temperature (°C) - Take-off (5 min)** - Max Continuous - Starting *	950 915 725	645 610 650
Max Oil Temperature (supply pump inlet; °C) - Take-off, Stabilized - Transient (15 min max) Min. Press. (PSI)	 140 155 13	 155 165 60
Approved Oils	See SB CFMI 79-001-0X	See Doc IAE 0043 Sec 4.9 (MIL-L-23699)

* 4 consecutive cycles of 2 minutes each.
** 10 minutes at take-off thrust allowed in case of engine failure (at take off and during go around).
*** See Note 17 for engine models no longer in production/service

Airspeed Limits (Indicated Airspeed - IAS - Unless Otherwise Stated:

- Maximum Operating Mach - MMO: 0.82
- Maximum Operating Speed - VMO: 350 kt
- Maneuvering Speed VA: - See the Limitations Section of Aircraft Flight Manual
- Extended Flaps/Slats Speed - VFE

Configuration	Slats/Flaps	VFE (kt)	
1	18/0 *18/10	230 215	Intermediate Approach Take-off
2	22/15	200	Take-off and Approach
3	22/20	185	Take-off, Approach, and Landing
Full	27/40	177	Landing

* Auto flap retraction at 210 kt in Take-off configuration.

Landing Gear:

- VLE - Extended: 280 kt/Mach 0.67
- VLO - Extension: 250 kt
- Retraction: 220 kt

Tire Limit Speed (Ground Speed) = 195.5 kt (225 mph)

Maximum Weights:

VARIANT	000 BASIC		001 Mod 25328		002 Mod 27112		003 Mod 26457		005 Mod 28136	
	(KG)	(LBS)	(KG)	(LBS)	(KG)	(LBS)	(KG)	(LBS)	(KG)	(LBS)
Max. Take-Off Weight	64,000	141,090	70,000	154,322	75,500	166,447	68,000	149,913	70,000	154,322
Max. Landing Weight	61,000	134,480	61,000	134,480	62,500	137,787	61,000	134,480	62,500	137,787
Max. Zero Fuel Weight	57,000	125.660	57,000	125,660	58,500	128,969	57,000	125,660	58,500	128,969

Minimum Weight:

VARIANT	All	
	(KG)	(LBS)
Minimum Weight	35,400	78,042

Minimum Crew:
2 Pilots

Maximum Passengers:
145
See note 11 and 18

Maximum Baggage:

CARGO COMPARTMENT	MAXIMUM LOAD (KG)	(LBS)
Forward	2,268	5,000
Aft	3,021	6,660
Rear (Bulk)	1,497	3,300

For the positions and the loading conditions authorized in each position (references of containers, pallets, associated weights), see Weight and Balance Manual, Ref. 00J080A0001/C1S Chapter 1.10.

Fuel Capacity (0.8 kg/liter)

A319-100:

3-Tank Airplane				
Tank	Usable Fuel		Unusable Fuel	
	Liters (kgs)	Gallons (lbs)	Liters (Kgs)	Gallons (lbs)
Wing	15,609 (12,487)	4,124 (27,531)	58.9 (47.1)	15.6 (103.9)
Center	8,250 (6,600)	2,179 (14,551)	23.2 (18.6)	6.1 (41.0)
TOTAL	23,859 (19,087)	6,303 (42,082)	82.1 (65.7)	20.8 (144.9)

4 to 9-Tank Airplane (*)				
Tank	Usable Fuel		Unusable Fuel	
	Liters (kgs)	Gallons (lbs)	Liters (Kgs)	Gallons (lbs)
TOTAL 3-Tank Airplane	23,859 (19,087)	6,303 (42,082)	82.1 (65.7)	20.8 (144.9)
ACT 1	3,121 (2,497)	824 (5,505)	17 (13.6)	4.3 (28.8)
TOTAL 4-Tank Airplane	26,980 (21,584)	7,128 (47,587)	99.1 (79.3)	25.1 (173.7)
ACT 2	3,121 (2,497)	824 (5,505)	17 (13.6)	4.3 (28.8)
TOTAL 5-Tank Airplane	30,101 (24,081)	7,952 (53,092)	116.1 (92.9)	29.4 (202.5)
ACT 3	2,186 (1,749)	577 (3,855)	22 (17.6)	5.6 (37.4)
TOTAL 6-Tank Airplane	32,287 (25,830)	8,530 (56,947)	138.1 (110.5)	35.0 (239.9)
ACT 4	2,186 (1,749)	577 (3,855)	22 (17.6)	5.6 (37.4)
TOTAL 7-Tank Airplane	34,473 (27,579)	9,107 (60,803)	160.1 (128.1)	40.6 (277.3)
ACT 5	3,046 (2,437)	804 (5,372)	12 (9.6)	3.1 (20.6)
TOTAL 8-Tank Airplane	37,519 (30,016)	9,912 (66,176)	172.1 (137.7)	43.7 (297.9)
ACT 6	3,121 (2,497)	824 (5,505)	17 (13.6)	4.3 (28.8)
TOTAL 9-Tank Airplane	40,640 (32,513)	10,737 (71,681)	189.1 (151.3)	48.0 (326.7)

(*) See note 7

Fuel Capacity (0.8 kg/liter) continued

A319-100 with modification 160001 (Structural Provisions for Sharklet – see note 20):

3-Tank Airplane				
Tank	Usable Fuel		Unusable Fuel	
	Liters (kgs)	Gallons (lbs)	Liters (Kgs)	Gallons (lbs)
Wing	15,569 (12,455)	4,113 (27,458)	58.9 (47.1)	15.6 (103.9)
Center	8,248 (6,598)	2,178 (14,546)	23.2 (18.6)	6.1 (41.0)
TOTAL	23,817 (19,054)	6,291 (42,007)	82.1 (65.7)	21.7 (144.9)

4 to 9-Tank Airplane (*)				
Tank	Usable Fuel		Unusable Fuel	
	Liters (kgs)	Gallons (lbs)	Liters (Kgs)	Gallons (lbs)
TOTAL 3-Tank Airplane	23,817 (19,054)	6,291 (42,007)	82.1 (65.7)	21.7 (144.9)
ACT 1	2.992 (2,393)	790 (5,275)	17 (13.6)	4.3 (28.8)
TOTAL 4-Tank Airplane	26,809 (21,447)	7,082 (47,282)	99.1 (79.3)	25.1 (173.7)
ACT 2	2.992 (2,393)	790 (5,275)	17 (13.6)	4.3 (28.8)
TOTAL 5-Tank Airplane	29.801 (23.841)	7,872 (52.557)	116.1 (92.9)	29.4 (202.5)
ACT 3	2,444 (1,955)	566 (4.313)	22 (17.6)	5.6 (37.4)
TOTAL 6-Tank Airplane	32,245 (25,796)	8,518 (56,870)	138.1 (110.5)	35.0 (239.9)
ACT 4	2,186 (1,749)	577 (3,855)	22 (17.6)	5.6 (37.4)
TOTAL 7-Tank Airplane	34,431 (27,545)	9,095 (60,725)	160.1 (128.1)	40.6 (277.3)
ACT 5	3,046 (2,437)	804 (5,372)	12 (9.6)	3.1 (20.6)
TOTAL 8-Tank Airplane	37,477 (29.982)	9,899 (66,097)	172.1 (137.7)	43.7 (297.9)
ACT 6	3,121 (2,497)	824 (5,505)	17 (13.6)	4.3 (28.8)
TOTAL 9-Tank Airplane	40,598 (32,479)	10,723 (71,602)	189.1 (151.3)	48.0 (326.7)

(*) See note 7

Oil Capacity
CFMI CFM56-5B - Engine Oil Capacity, 10 quarts/engine (9.46 liters).
IAE V2500-A5 - Engine Oil Capacity, 7 quarts/engine (6.6 liters)

Maximum Operating Altitude:
- 41,000 feet (12,600 m) clean if modification 28162 is embodied.
- 39,800 feet (12,200 m) clean if modification 30748 is embodied.
- 39,100 feet (12,000 m) clean.
- 20,000 feet (6,500 m) Slats/Flaps extended.

Equipment:
The basic equipment as prescribed in the airworthiness regulations (see certification basis) must be installed in the aircraft for certification.
Equipment approved for installation are listed in the definition of the reference model and the modifications applicable to it.
Refer to Type Certification Standard Equipment Lists:
-00J000A0012/C0S for A319-111 Model
-00J000A0004/C0S for A319-112 Model
-00J000A0113/C0S for A319-113 Model
-00J000A0114/C0S for A319-114 Model
-00J000A0131/C0S for A319-131 Model
-00J000A0132/C0S for A319-132 Model
-00J000A0115/C0S for A319-115 Model
-00J000A0133/C0S for A319-133 Model

Refer to Note 1 for list of A319 airplane model FAA Type Definitions.

Serial Numbers Eligible:
Until September 26, 2004, A319 aircraft, all series, all models, have been produced in Hamburg (Germany) under approval LBA.G.0009 or I-A9 issued by LBA to Airbus.
From September 27, 2004 until July 20, 2008, A319 aircraft, all series, all models, have been produced in Hamburg (Germany) under approval DE.21G.0009 issued by LBA to Airbus.
From July 21, 2008 until May 5, 2009, A319 aircraft, all series, all models, have been produced in Hamburg (Germany) under approval EASA.21G.0001 issued by EASA to Airbus.
Since May 6, 2009, All A319 aircraft, all series, all models, are produced in Hamburg (Germany) or Tianjin (People's Republic of China) under approval EASA.21G.0001 issued by EASA to Airbus.

Until July 20, 2008, a German Export Certificate of Airworthiness endorsed as noted under "Import Requirement," must be submitted for each individual aircraft for which application for U.S. certification is made.
Since July 21, 2008, a EASA Export Certificate of Airworthiness endorsed as noted under "Import Requirement", must be submitted for each individual aircraft for which application for U.S. certification is made.

Import Requirements:
A FAA Standard Airworthiness Certificate may be issued based on a German Export Certificate of Airworthiness (Export C of A), signed by a representative of the Luftfahrt-Bundesamt (LBA) of Germany on behalf of the European Community or based on a EASA Export C of A issued by a representative of EASA. The Export C of A should contain 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. A28NM and to be in a condition for safe operation."

The U.S. airworthiness certification basis for aircraft type certificated under FAR Section 21.29 and exported by the country of manufacture is FAR Sections 21.183(c) or 21.185(c). The U.S. airworthiness certification basis for aircraft type certificated under FAR Section 21.29 exported from countries other than the country manufacture (e.g., third party country) is FAR Sections 21.183(d) or 21.185(b). Notwithstanding that FAR section 21.183(d) and 25.185(b) do not specifically address or require certification by the foreign civil airworthiness authority of the country of manufacture, such certification is the only practical way for an applicant to show, and the Federal Aviation Administration (FAA) to find conformity to the FAA-approved type design and condition for safe operation. Additional guidance is contained in FAA advisory Circular 21-23, Airworthiness Certification of Civil Aircraft, Engines, Propellers, and Related Products Imported into the United States.

Certification Basis:
a. Part 25 of the FAR effective February 1, 1965, including Amendments 25-1 through 25-56 thereto.

a.1 Plus the following sections of Part 25 as amended by amendments 25-1 through:
-25-58 (Section 25.812(e))
-25-63 (Section 25.25 (a)(3))
-25-67 (Section 25.807 (c)(7))
(Applied per FAA derivative aircraft policy – reference FAA order 8110.4A)

a.2 Airbus elected to comply with the following sections of Part FAR 25 through Amendment 86:
25.305(d), 25.321(c)/(d), 25.331(a)/(d), 25.333(a)/(c),25.335(d), 25.341,
25.343 (b)(1)(ii), 25.345(a)/(c), 25.349(b), 25.351(b),25.371, 25.373(a),
25.391(e), 25.427, 25.445(a), 25.571(b)(2)/(b)(3), 25.1517.

a.3 Airbus elected to comply with portions of FAR 25.562, Amendment 64, for the passenger seats only. FAR paragraphs 25.562(c)(5), (c)(6) do not apply.

b. Based on 14 CFR Section 21.29(a) for new import Type Certificates (TCs), (or Section 21.101(g) for changes to TCs), applicable provisions of 14 CFR Part 26 are included in the certification basis. For any future 14 CFR part 26 amendments, the holder of this TC must demonstrate compliance with the appicacble sections.

c. Part 34 of the FAR effective Sept. 10, 1990, including amendment 34-1.

d. Part 36 of the FAR effective December 1, 1965, including amendments 36-1 through 36-20 thereto. See Note 16.

e. FAA Special Conditions issued for the A320 in accordance with Section 21.16 of the FAR and published in the Federal Register as follows:

(1) January 27, 1989:
- Electronic Flight Controls
- Active Controls
- Engine Controls and Monitoring
- Protection from Lightning and Unwanted Effects of Radio Frequency
- (RF) Energy
- Flight Characteristics
- Flight Envelope Protection
- Side Stick Controllers
- Flight Recorder

(2) June 9, 1989:
- Computerized AFM

f. For precision approach and landing, the applicable technical requirements are complemented by AC 120-29 and AC 120-28c.
For the automatic flight control system, the applicable technical requirements are complemented by AC 20-57A for automatic landing and by AC 25.1329-1A for cruise.
Use of JAR AWO where applicable to the requirements above, is acceptable.

g. The following paragraphs of the FAR have been complied with through equivalent safety demonstrations:
- 25.101, 25.105, 25.109, 25.113, 25.115, 25.735, for rejected takeoff and landing performance
- 25.783(f) for passenger doors
- 25.807(c) for maximum passenger capacity
- 25.813(c) emergency exit access for a single 13 inch aisle
- 25.933(a), 25.1309(b) for thrust reversing system
- 25.811(e)(3) Type III emergency exit marking.

h. Optional Requirements elected:
- 25.801 for ditching
- 25.1419 for icing

Certification Basis for Airbus Model A319 series airplanes with modification 160500 installation of large wingtip device (Sharklet):

The original certification basis for the Model A319 shown above for components or areas not affected by the change.

Plus the following sections of 14 CFR part 25 as amended by Amendments 25-1 through 25-129 (i.e., the amendment in affect on the date of application April 8, 2010) applied to the components and areas affected by the change:

25.23, 25.25, 25.101, 25.109, 25.113, 25.115, 25.117, 25.161, 25.171, 25.173, 25.203, 25.235, 25.251, 25.301, 25.303, 25.305, 25.307(a)(d), 25.321, 25.331, 25.333, 25.335, 25.337, 25.341(a)(b), 25.343, 25.345, 25.349, 25.351, 25.365(a)(b)(d), 25.367, 25.371, 25.373, 25.391, 25.393(b), 25.427, 25.445, 25.457, 25.459, 25.471(a)(b), 25.473, 25.479(a)(c)(d), 25.481(a)(c), 25.483, 25.485, 25.489, 25.581, 25.601, 25.603, 25.605, 25.607, 25.609, 25.613, 25.619, 25.623, 25.625, 25.629, 25.631, 25.651, 25.671, 25.672, 25.683(b), 25.903(d)(1), 25.1011(b), 25.1385(a)(b)(d), 25.1387(a)(b)(c)(d), 25.1389, 25.1391, 25.1393, 25.1395, 25.1397, 25.1401, 25.1505, 25.1511, 25.1515, 25.1517, 25.1527, 25.1533, 25.1535, 25.1581, 25.1585(a)

Plus the following sections of 14 CFR part 25 amended as indicated below applied to the components and areas affected by the change per Airbus reversion justification:

25.21 Amdt 120[1]	25.181 Amdt 107[2]
25.103 Amdt 107[1&2]	25.201 Amdt 107[2]
25.105 Amdt 120[1]	25.207 Amdt 107[1&2]
25.107 Amdt 107[1&2]	25.231 Amdt 107[2]
25.111 Amdt 120[1]	25.233 Amdt 107[2]
25.119 Amdt 107[1&2]	25.237 Amdt 107 [1&2]
25.121 Amdt 107[1&2]	25.253 Amdt 120[1]
25.123 Amdt 120[1]	25.571(a)(b)(e) Amdt 86[3]
25.125 Amdt 107[1&2]	25.981 Amdt 56[4]
25.143 except (g) Amdt 107[1&2]	25.1001 Amdt 107[1]
25.143(g) at Amdt 108[1]	25.1301 Amdt 56[5]
25.145 Amdt 97[1&2]	25.1309 Amdt 56[5]
25.147 Amdt 107[2]	25,1419 Amdt 56[1]
25.149 Amdt 107[2]	25.1587 Amdt 107[1]
25.175 Amdt 107[2]	

Notes:
1. FAA acceptance of these reversions was based on the fact that Airbus has done additional testing above the requirements incorporated by reference as documented in EASA AMC-F14, dated November 29, 1993, Flight in Icing Conditions, and a determination that compliance with the amendment in effect on the date of application for these rules (i.e., Amendment 25-121) would not materially increase the level of safety exception of 14 CFR 21.101(b)(3). EASA AMC-F14 is incorporeated as part of certification basis for this airplane.

2. FAA acceptance of these reversions was based on fact that Airbus will show compliance with FAA Special Condtion 25-ANM-23 for V_{SR} and a determination that compliance with the amendment in effect on the date of application for these rules (i.e., Amendment 25-108) would not materially increase the level of safety exception of 14 CFR 21.101(b)(3).

3. FAA acceptance of this reversion was based on a determination that compliance with the amendment in affect on the dated of application for this rule (i.e., Amendment 25-96) would not materially increase the level of safety exception of 14 CFR 21.101(b)(3).

4. FAA acceptance of this reversion was based on a determination that compliance with the amendment in effect on the date of application for this rule (i.e., Amendment 25-102) would not materially increase the level of safety exception of 14 CFR 21.101(b)(3).

5. FAA acceptance of this reversion was based on a determination that compliance with the amendment in effect on the date of application for this rule (i.e., Amendment 25-123) would not materially increase the level of safety exception of 14 CFR 21.101(b)(3).

Plus the following sections of part 25 amended as indicated below based on Airbus elect to comply:

25.107(e)(1)(iv) Amendment 25-135
25.177 Amendment 25-135

Special conditions:
The FAA Special Conditions applicable to each model as defined above remain applicable to aircraft equipped with Sharklet, except Paragraph 2 – Active Controls of FAA Special Condition 25-ANM-23 is replaced with the following special conditions:

- 25-469-SC - "Interaction of Systems and Structures"
- 25-470-SC - "Design Dive Speed"
- 25-471-SC - "Design Roll Maneuver Conditions"

Equivalent Safety Findings (ESFs):
The original ESFs applicable to each model as defined above remain effective for aircraft equipped with Sharklet plus the following ESF for aircraft equipped with Sharklet:

25.331 – Use of EASA Certification Specification (CS) 25.331 in lieu of 14 CFR 25.331 for checked pitch maneuver (reference ELOS memorandum TD000885IB-T-A-5)
25.1419 – Analysis instead of flight testing in natural icing conditions (reference ELOS memorandum TD00885IB-T-SE-1)

Noise standards
14 CFR 21.93(b) – No acoustical change

Fuel venting and exhaust emissions standards
Not affected by the change. The initial requirements remain applicable.

Optional Requirements elected

- 25.801 for ditching.
- 25.1419 for icing.
- 25.1535 for ETOPS

Part 26
14 CFR part 26 effective December 10, 2007, including Amendments 26-1 through 26-3.

Note 1:
The A319 basic type design definition for U.S. import certification is contained in the following documents:
-AI/EA-S 413.0969/96 for A319-111 model
-AI/EA-S 413.1012/96 for A319-112 model
-AI/EA-S 413.3100/96 (Mod 25699 supplement) for A319-112 model
-AI/EA-S 413.2504/96 for A319-113 model
-AI/EA-S 413.2505/96 for A319-114 model
-AI/EA-S 413.2127/99 for A319-115 model
-AI/EA-S 413.0393/97 for A319-131 model
-AI/EA-S 413.0396/97 for A319-132 model
-AI/EA-S 413.2128/99 for A319-133 model

Note 2:
For models A319-111, A319-112, A319-113 and A319-114, modification 26799 (FM without ACARS) or 26968 (FM with ACARS) is the minimum standard to be qualified for Cat IIIB precision approach.
For models A319-131 and A319-132, modification 26716 (FM without ACARS) or 26717 (FM with ACARS) is the minimum standard to be qualified for Cat IIIB precision approach.

A319-115 &A319-133 are basically qualified for Cat IIIB precision approach.
This does not constitute operational approval.

Note 3:
Modification 25303 (thrust reverser third line of defense for CFM engine) or 25302 (thrust reverser third line of defense for IAE engine) are part of the FAA Type Design and shall be implemented on any A319 aircraft entered on the U.S. register, before the individual U.S. standard Certificate of Airworthiness can be issued.

Note 4:
If modification 25800 is embodied on models with CFM56-5B engines, the engine performance is improved. The engine denomination changes to /P.
CFM56-5B/"non-P" engine can be intermixed with CFM56-5B/P engine on the same aircraft.

Note 5:
The type design definitions and certification standard equipment lists as referenced in Note 1 are complemented by document 00D000A0546/C0S "A319-100/A321-200 FMGC Type Standard Evolution" and document 00J000A0067/C0S "A319-111/112 ATC Transponder Type Standard Evolution".

Note 6:
A319 for Corporate Jet use are defined through the following set of modifications:
- Modification 28238 (0 to 6 ACTs)
- Modification 28162 (extension of flight envelope up to 41,000 ft)
- Modification 28342 (modification of CG limits)

Note 7:
On A319 for Corporate Jet use, the certification of installing up to six Additional Center Tanks (ACT) in bulk version is defined by modification 28238. The approval together with structural and system provisions was subject of compliance demonstrated to Advisory Circular AC 25-8.

Note 8:
On A319 for Corporate Jet use, exemptions to the following paragraphs of the FAR have been granted when the airplane is not operated for hire or for public transport
(Granted APR 9, 2001, Exemption No. 7489):
25.785(h)(2) Flight Attendant seat locations which do not provide for direct view of the cabin
25.807(d)(7) Distance between exits
25.813(e) Installation of Interior Doors in between passenger compartments

Note 9:
If modification 26610 is embodied on A319 airplanes, the engine performance and gaseous emission levels are improved. The engine denomination changes to /2P (DAC IIC Dual Annual Combustor).

- CFM56-5B6/P engine can be intermixed with CFM56-5B6/2P (DAC IIC Dual Annual Combustor) engine on the same aircraft (AFM Supplement).
- CFM 56-5B/2 "non P" (DAC) engine can be intermixed with CFM 56-5B/2P (DAC II C) engine on the same aircraft (AFM supplement).
- CFM 56-5B/P or / "non P" (SAC) engine can be intermixed with CFM 56-5B/2P (DAC II C) engine on the same aircraft (AFM supplement).

Note 10:
If modification 23755 is embodied on A319 airplanes, the maximum permissible gas temperature for take-off and max. continuous operation is extended to 915° C and 880° C, respectively. However, the ECAM indication remains at 890° C and 855° C, respectively. The engine denomination changes to /F.
On A319-113, CFM 56-5A4 engines can be intermixed with CFM 56-5A4/F engine on the same aircraft.
On A319-114, CFM 56-5A5 engines can be intermixed with CFM 56-5A5/F engine on the same aircraft.

Note 11:
If modification 32208 is embodied in production on A319 airplanes, the aircraft is eligible for maximum capacity of 160 passengers. This modification consists in structural and system provision for the installation of second pair of overwing emergency exits.

Note 12:
If modification 37147 (Tech insertion program) is embodied in production or 38770 (Tech insertion program retofit) is embodied in service on A319 airplanes, the engine performance and gaseous emission levels are improved. The engine denomination changes to /3

Note 13:
If modification 37868 (Select One Package) is embodied in production or if modification 38554 (Select One Package for retrofit) is embodied on in-service A319 airplanes, the engine performance and gaseous emission levels are improved. The engine denomination itself does not change.

Note 14:
If modification 38573 is embodied in service on A319 airplanes, engine hardware configurations can be intermixed with one CFM56-5Bx/3 SAC (Tech Insertion) and one CFM56-5Bx/P SAC engines.

Note 15:
If modification 34119 is embodied in production on A319 airplanes, CFM56-5B SAC (Single Annular Combustor) and CFM56-5B DAC (Double Annular Combustor) engines can be intermixed on the same aircraft.

Note 16:
Further to “D/E/J Noise” Project approval, from November, 05th, 2009, all A319 airplane/engine configurations are eligible to be in compliance with ICAO Annex 16, Chapter 4 and FAR Part 36, Stage 4 (including Amdt 36-28).

Note 17:
From March 31, 2008, there is no longer any CFM56-5B5 non /P in field or in production.
From March 31, 2008, there is no longer any CFM56-5B6 non /P in field or in production.
From March 31, 2008, there is no longer any CFM56-5B7 non /P in field or in production.

Note 18:
For aircraft models A319-115, A319-132 and A319-133, the Type III emergency exit hatchs can be de-activated by embodiment of modification 152777. In this case, the maximum number of occupants in the passenger cabin is limited to zero during taxi, take-off, flight and landing, unless terms and conditions to occupy specific cabin areas have been approved by operator's competent airworthiness authority

Note 19:
On series A319-100 airplanes equipped with CFM engines, introduction of standard of wingbox without dry bay (modification 37331) increases the wing fuel capacity by 350 liters.

Note 20:
If Modification 160001 for installation of structural provisions for new large wingtip device (Sharklet) is embodied on A319 series airplanes the usable fuel quantities are reduced as shown above to account for the loss of volume due to structural reinforcements in the wing and center wing box.

Note 21:
If Modification 160500 for installation of new large wingtip devices (Sharklet) is embodied on A319 ariplanes the eco efficiency and payload-range performance is improved. The certification basis is updated as shown above.

III. Type A320-100/200 Series Transport Category Airplanes

Model A320-111, Approved December 15, 1988
Model A320-211, Approved December 15, 1988;
Model A320-231, Approved July 6, 1989;
Model A320-212, Approved November 26, 1990;
Model A320-232, Approved November 12, 1993;
Model A320-233, Approved November 17, 1995;
Model A320-214, Approved December 12, 1996.

Engines:
Model A320-111, Two CFMI Model CFM56-5A1 or CFM56-5A1/F jet engines;
Model A320-211, Two CFMI Model CFM56-5A1 or CFM56-5A1/F jet engines;
Model A320-212, Two CFMI Model CFM56-5A3 jet engines;
Model A320-214, Two CFMI Model CFM56-5B4 or CFM56-5B4/P or CFM56-5B4/2P or CFM56-5B4/P1 or CFM56-5B4/2P1 or CFM56-5B4/3 or CFM56-5B4/3B1 or jet engines;
Model A320-231, Two IAE Model V2500-A1 jet engines;
Model A320-232, Two IAE Model V2527–A5 jet engines;
Model A320-233, Two IAE Model V2527E–A5 jet engines;

See Note 4 for description of "/P" engine models
See Note 5 for description of "/2P" engine models
See Note 7 for desription of "/F" engine models
See Note 11 for description of "/3" engine models
See Note 12 for description of " " engine models (Select One Package)
See Note 19 for description of "/P1" or "/2P1" or "/3B1" engine models

Fuel:
See Installation Manual - Documents CFM 2026 or CFM 2129 or IAE-0043

TYPE	SPECIFICATION (NAME)		
	FRANCE	USA	UK
Kerosene	DCSEA 134	ASTM D 1655 (JET A) (JET A1)	DEF STAN 91/91 (AVTUR) (JET A1)
		MIL-DTL-83133 (JP 8)	DEF STAN 91/87 (AVTUR) (JET A1) (AIA)
Wide cut		ASTM D 6615 (JET B)	DEF STAN 91/88 (AVTAG)
		MIL-DTL-5624 (JP 4)	
High flash point	DCSEA 144 (F-44)	MIL-DTL-5624 (JP 5)	DEF STAN 91/86 (AVCAT)

Additives: See CFMI " Specific Operating Instructions," CMF TPOI-13 or IAE V2500 "Installation and Operating Manual" IAE-0043, 4.5 or the "Standard Practices and Processes Manual" in IETM. The above mentioned fuels and additives are also suitable for the APU.

Engine Limits:

Engine Limitation	CFMI CFM56-5A1 Data Sheets E28NE (FAA)	CFMI CFM56-5A1/F Data Sheets E28NE (FAA)	CFMI CFM56-5A3 Data Sheets E28NE (FAA)	CFMI CFM56-5B4*** or -5B4/P or 5B4/2P or -5B4/P1 or 5B4/2P1 or -5B4/3 or 5B4/3B1 Data Sheets E37NE (FAA) E38NE (FAA)	IAE V2500-A1 Data Sheets E31NE (FAA)	IAE V2527-A5 or V2527E-A5 Data Sheets E40NE (FAA)
Static Thrust at Sea Level						
- Take-off (5 min)** (Flat rated 30°C)	11 120 daN (25,000 lb)	11 120 daN (25,000 lb)	11 787 daN (26,500 lb)	12 010 daN (27,000 lb)	11 030 daN (24,800 lb)	11 030 daN (24,800 lb)
- Maximum Continuous (Flat rated 25°C)	10 542 daN (23,600 lb)	10 542 daN (23,600 lb)	10 542 daN (23,600 lb)	10 840daN (24,370 lb)	9 890 daN (22,240lb)	9 890 daN (22,240lb)
Maximum Engine Speed						
- N1 rpm (%)	5,100 (102)	5,100 (102)	5,100 (102)	5,200 (104)	5,465 (100)	5,650 (100)
- N2 rpm (%)	15,183(105)	15,183(105)	15,183(105)	15,183(105)	14,915(100)	14,950(100)
Max Gas Temp.(°C)		Eng. limit/ ECAM	Eng. limit/ ECAM			Eng. limit/ ECAM
- Take-off (5 min)**	890	915/890	915/890	950	635	645/635
- Max Continuous	855	880/855	880/855	915	610	610/610
- Starting*	725	725/725	725/725	725	635	635/635
Maximum Oil Temp. (Supply Pump Inlet; °C)						
-Takeoff, Stabilized	140	140	140	140	155	155
-Transient (15 min max)	155	155	155	155	165	165
Min. Press. (PSI)	13	13	13	13	60	60
Approved oils	See SB CFMI 79-001-0X	See SB CFMI 79-001-0X	See SB CFMI 79-001-0X	See SB CFMI 79-001-0X	See doc IAE 0043 (MIL-L 23699)	See doc IAE 0043 (MIL-L 23699)

* 4 consecutive cycles of 2 minutes each.
** 10 minute at take-off thrust allowed in case of engine failure (at take-off and during go-around)
*** See Note 17 for engine models no longer in production/service

Airspeed Limits (Indicated Airspeed - IAS - Unless otherwise Stated:

- Maximum Operating Mach - MMO: 0.82
- Maximum Operating Speed - VMO: 350 kt
- Maneuvering Speed VA: - See Limitations Section of Aircraft Flight Manual
- Extended Flaps/Slats Speed - VFE

Airspeed Limits Continued:

Configuration	Slats/Flaps	VFE (Kt)	
1	18/0 *18/10	230 215	Intermediate Approach Take-off
2	22/15	200	Take-off and Approach
3	22/20	185	Take-off, Approach, and Landing
Full	27/35	177	Landing

* Auto flap retraction at 210 kt in Take-off configuration.

Landing Gear:
- VLE - Extended 280 Kt/Mach 0.67
- VLO - Extension 250 kt
- Retraction 220 kt

Tire Limit Speed (Ground Speed) = 195.5 kt (225 mph)

Maximum Weights:
A320-100:

VARIANT	000 (BASIC)	
	(KG)	(LBS)
Max. Ramp Weight	68,400	150,820
Max. Take-off Weight	68,000	149,940
Max. Landing Weight	63,000	138,915
Max. Zero Fuel Weight	59,000	130,100

A320-200:

FAA Approved Weight Variants	000 BASIC	001	003	007	008	009	010	011	012	013	014	015
A320-211	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
A320-212	YES		YES	YES	YES	YES	YES	YES	YES	YES	YES	
A320-214	YES		YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
A320-231	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	
A320-232	YES		YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
A320-233	YES		YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

FAA Approved Weight Variants	017	018
A320-211		YES
A320-212		YES
A320-214	YES	YES
A320-231		YES
A320-232	YES	YES
A320-233	YES	YES

A320-200 Continued:

VARIANT	000 BASIC	001	003	007	008	009	010
	(KG) (LBS)	(KG) (LBS)	(KG) (LBS)	(KG) (LBS)	(KG) (LBS)	(KG) (LBS)	(KG) (LBS)
Max. Take-off Weight	73500 162068	68000 149940	75500 166478	77000 169785	73500 162068	75500 166478	77000 169785
Max. Landing Weight	64500 142223	64500 142223	64500 142223	64500 142223	64500 142223	64500 142223	64500 142223
Max. Zero Fuel Weight	60500 133403	60500 133403	60500 133403	60500 133403	61000 134505	61000 134505	61000 134505

VARIANT	011	012	013	014	015	017	018
	(KG) (LBS)	(KG) (LBS)	(KG) (LBS)	(KG) (LBS)	(KG) (LBS)	(KG) (LBS)	(KG) (LBS)
Max. Take-off Weight	75500 166478	77000 169785	71500 157631	73500 162068	78,000 171,958	78000 171958	71500 157631
Max. Landing Weight	66000 145505	66000 145505	64500 142223	64500 142223	64,500 142,223	66000 145505	66000 145505
Max. Zero Fuel Weight	62500 137789	62500 137789	61000 134505	61500 135584	61,000 134,505	62500 137789	62500 13789

Minimum Weight:

A320-100:

VARIANT	000 (BASIC)	
	(KG)	(LBS)
Minimum Weight	36,750	81,030

A320-200:

VARIANT	All	
	(KG)	(LBS)
Minimum Weight	37,230	82,080

Minimum Crew:

2 Pilots

Maximum Passengers:

179

See Notes 15 and 20

Maximum Baggage:

CARGO COMPARTMENT	MAXIMUM LOAD (KG)	(LBS)
Forward	3,402	7,500
Aft	4,536	10,000
Rear (Bulk)	1,497	3,300

For the positions and the loading conditions authorized in each position (references of containers, pallets, and associated weights), see Weight and Balance Manual, ref. 00D080A0001/C1S Chapter 1.10.

Fuel Capacity (0.8 kg/liter):

A320-100:

2-Tank Airplane				
Tank	Usable Fuel		Unusable Fuel	
	Liters (kgs)	Gallons (lbs)	Liters (Kgs)	Gallons (lbs)
Wing	15,843 (12,674)	4,185 (27,946)	57.3 (45.8)	15.1 (101.0)
Total	15,843 (12,674)	4,185 (27,946)	57.3 (45.8)	15.1 (101.0)

3-Tank Airplane				
Tank	Usable Fuel		Unusable Fuel	
	Liters (kgs)	Gallons (lbs)	Liters (Kgs)	Gallons (lbs)
Wing	15,843 (12,674)	4,185 (27,946)	58.9 (47.1)	15.6 (103.9)
Center	8,250 (6,600)	2,179 (14,484)	23.2 (19.6)	6.1 (43.2)
TOTAL	24,093 (19,274)	6,364 (42,430)	82.1 (65.7)	21.7 (147.1)

A320-200:

	3-Tank Airplane				4-Tank Airplane (*)			
	Usable Fuel		Unusable Fuel		Usable Fuel		Unusable Fuel	
	Liters (kgs)	Gallons (lbs)	Liters (kgs)	Gallons (lbs)	Liters (kgs)	Gallons (lbs)	Liters (kgs)	Gallons (lbs)
Wing	15,609 (12,487)	4,123 (27,529)	58.9 (47.1)	15.6 (103.9)	15,609 (12,487)	4,123 (27,529)	58.9 (47.1)	15.6 (103.9)
Center	8,250 (6,600)	2,179 (14,550)	23.2 (18.6)	6.1 (41.0)	8,250 (6,600)	2,179 (14,550)	23.2 (18.6)	6.1 (41.0)
ACT (*)					2,992 (2,393)	790 (5276)	17.0 (13.6)	4.4 (29.9)
Total	23,859 (19,087)	6,302 (42,079)	82.1 (65.7)	21.7 (144.9)	26,851 (21,480)	7,092 (47,355)	99.1 (79.3)	26.1 (174.7)

(*) see note 8

4 to 5-Tank Airplane (**) (low pressure ACT system)				
Tank	Usable Fuel		Unusable Fuel	
	Liters (kgs)	Gallons (lbs)	Liters (Kgs)	Gallons (lbs)
TOTAL 3-Tank Airplane	23,859 (19,087)	6,302 (42,079)	82.1 (65.7)	21.7 (144.9)
ACT 1	2,992 (2,393)	790 (5,274)	17 (13.6)	4.5 (30.0)
TOTAL 4-Tank Airplane	26,851 (21,480)	7,092 (47,346)	99.1 (79.3)	26.2 (174.9)
ACT 2	2,992 (2,393)	790 (5,274)	17 (13.6)	4.5 (30.0)
TOTAL 5-Tank Airplane	29,843 (23,874)	7,882 (52,620)	116.1 (92.9)	30.7 (204.9)

(**) see note 26

Fuel Capacity Continued (0.8 kg/liter)

A320-200 with Modification 160001 (Structural Provisions for Sharklet - see note 22):

	3-Tank Airplane				4-Tank Airplane (*)			
	Usable Fuel		Unusable Fuel		Usable Fuel		Unusable Fuel	
	Liters (kgs)	Gallons (lbs)	Liters (kgs)	Gallons (lbs)	Liters (kgs)	Gallons (lbs)	Liters (kgs)	Gallons (lbs)
Wing	15,569 (12,445)	4,113 (27,436)	58.9 (47.1)	15.6 (103.9)	15,569 (12,445)	4,113 (27,436)	58.9 (47.1)	15.6 (103.9)
Center	8,248 (6,598)	2,179 (14,546)	23.2 (18.6)	6.1 (41.0)	8,248 (6,598)	2,179 (14,546)	23.2 (18.6)	6.1 (41.0)
ACT (*)					2,992 (2,393)	790 (5,276)	17.0 (13.6)	4.4 (29.9)
Total	23,817 (19,043)	6,292 (41,982)	82.1 (65.7)	21.7 (144.9)	26,809 (21,447)	7082 (47,258)	99.1 (79.3)	26.1 (174.7)

(*) see note 8

4 to 5-Tank Airplane (**) (low pressure ACT system)				
Tank	Usable Fuel		Unusable Fuel	
	Liters (kgs)	Gallons (lbs)	Liters (Kgs)	Gallons (lbs)
TOTAL 3-Tank Airplane	23,816 (19,052)	6,292 (42,005)	82.1 (65.7)	21.7 (144.9)
ACT 1	2,992 (2,393)	790 (5,274)	17 (13.6)	4.5 (30.0)
TOTAL 4-Tank Airplane	26,808 (21,425)	7,082 (47,279)	99.1 (79.3)	26.2 (174.9)
ACT 2	2,992 (2,393)	790 (5,274)	17 (13.6)	4.5 (30.0)
TOTAL 5-Tank Airplane	29,800 (23,839)	7,872 (52,553)	116.1 (92.9)	30.7 (204.9)

(**) see note 26

Oil Capacity:
CFMI CFM56-5A/5B - Engine Oil Capacity, 10 quarts/engine (9.46 liters).
IAE V2500-A5 - Engine Oil Capacity, 7 quarts/engine (6.6 liters)

Maximum Operating Altitude:
- 39,800 feet (12,200 m) clean if modification 30748 is embodied.
- 39,100 feet (12,000 m) clean.
- 20,000 feet (6,500 m) Slats/Flaps extended.

Equipment:
The basic equipment as prescribed in the airworthiness regulations (see certification basis) must be installed in the aircraft for certification.
Equipment approved for installation are listed in the definition of the reference model and the modification applicable to it. Refer to Type Certification Standard Equipment List 00D000A0101/C1S.

Refer to Note 1 for list of A320 airplane model FAA Type Definitions.

Serial Numbers Eligible:
Until September 26, 2004, A320 aircraft, all series, all models, have been produced in Blagnac (France) under approval P09 or F.G.035 issued by DGAC to Airbus.
From September 27, 2004 until April 14, 2008 , A320 aircraft, all series, all models, have been produced in Blagnac (France) under approval FR.21G.0035 issued by DGAC to Airbus.

From April 15, 2008 until July 20, 2008, A320 aircraft, all series, all models, have been produced in Blagnac (France) under approval FR.21G.0035 issued by DGAC to Airbus or in Hamburg (Germany) under approval DE.21G.0009 issued by LBA to Airbus.
From July 21, 2008 until May 5, 2009, A320 aircraft, all series, all models, have been produced in Blagnac (France) or Hamburg (Germany) under approval EASA.21G.0001 issued by EASA to Airbus.
From May 06, 2009, A320 aircraft, all series, all models, are produced in Blagnac (France), Hamburg (Germany) or Tianjin (People's Republic of China) under approval EASA.21G.0001 issued by EASA to Airbus.

Until April 14, 2008, a French "Certificat de Navigabilite pour Exportation," endorsed as noted under "Import Requirement," must be submitted for each individual aircraft for which application for U.S. certification is made.
From April 15, 2008 until July 20, 2008, a French "Certificat de Navigabilite pour Exportation," endorsed as noted under "Import Requirement," must be submitted for each individual aircraft produced in Blagnac for which application for U.S. certification is made or a German Export Certificate of Airworthiness endorsed as noted under "Import Requirement," must be submitted for each individual aircraft produced in Hamburg for which application for U.S. certification is made.
Since July 21, 2008, a EASA Export Certificate of Airworthiness endorsed as noted under "Import Requirement", must be submitted for each individual aircraft for which application for U.S. certification is made.

Import Requirements:
A FAA Standard Airworthiness Certificate may be issued based on a French "Certificat de Navigabilite pour Exportation," (Export C of A) signed by a representative of the Direction Generale de 1'Aviation Civile (DGAC) of France on behalf of the European Community or based on a German Export C of A issued by a representative of LBA or based on a EASA Export C of A issued by a representative of EASA. The Export C of A should contain, 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. A28NM and to be in a condition for safe operation."

The U.S. airworthiness certification basis for aircraft type certificated under FAR Section 21.29 and exported by the country of manufacture is FAR Sections 21.183(c) or 21.185(c). The U.S. airworthiness certification basis for aircraft type certificated under FAR Section 21.29 exported from countries other than the country manufacture (e.g., third party country) is FAR Sections 21.183(d) or 21.185(b). Notwithstanding that FAR section 21.183(d) and 25.185(b) do not specifically address or require certification by the foreign civil airworthiness authority of the country of manufacture, such certification is the only practical way for an applicant to show, and the Federal Aviation Administration (FAA) to find conformity to the FAA-approved type design and condition for safe operation. Additional guidance is contained in FAA advisory Circular 21-23, Airworthiness Certification of Civil Aircraft, Engines, Propellers, and Related Products Imported into the United States.

Certification Basis

a. Part 25 of the FAR effective February 1, 1965, including Amendments 25-1 through 25-56 thereto.

b. Based on 14 CFR Section 21.29(a) for new import Type Certificates (TCs), (or Section 21.101(g) for changes to TCs), applicable provisions of 14 CFR Part 26 are included in the certification basis. For any future 14 CFR part 26 amendments, the holder of this TC must demonstrate compliance with the appicacble sections.

c. Special Federal Aviation Regulation (SFAR) No.27 effective February 1, 1974, including Amendments 27-1 through 27-5.

d. Part 36 of the FAR effective December 1, 1969, including Amendments 36-1 through 36-12.
See Note 16.

e. FAA Special Conditions issued for the A320 in accordance with Section 21.16 of the FAR and published in the Federal Register, as follows:

(1) January 27, 1989:
- Electronic Flight Controls
- Active Controls
- Engine Controls and Monitoring
- Protection from Lightning and Unwanted Effects of Radio Frequency (RF) Energy
- Flight Characteristics
- Flight Envelope Protection
- Side Stick Controllers
- Flight Recorder.

(2) June 9, 1989:
- Computerized Airplane Flight Manual

f. For precision approach and landing, the applicable technical requirements are complemented by AC 120-29 and AC 120-28c.

For the automatic flight control system, the applicable technical requirements are complemented by AC 20-57A for automatic landing and by AC 25.1329-1A for cruise.

Use of JAR AWO where applicable to the requirements above, is acceptable.

g. The following paragraphs of the FAR have been complied with through equivalent safety demonstrations:
- 25.783(e) for cargo doors
- 25.783(f) for passenger doors and bulk cargo door
- 25.813(c) for emergency exit access
- 25.811(e)(3) Type III emergency exit marking.

h. Optional Requirements elected:
- 25.801 for ditching.
- 25.1419 for icing.

Certification Basis for Airbus Model A320 series airplanes with modification 160500 installation of large wingtip device (Sharklet):

The original certification basis for the Model A320 shown above for components or areas not affected by the change.

Plus the following sections of 14 CFR part 25 as amended by Amendments 25-1 through 25-129 (i.e., the amendment in affect on the date of application April 8, 2010) applied to the components and areas affected by the change:

25.23, 25.25, 25.101, 25.109, 25.113, 25.115, 25.117, 25.161, 25.171, 25.173, 25.203, 25.235, 25.251, 25.301, 25.303, 25.305, 25.307(a)(d), 25.321, 25.331, 25.333, 25.335, 25.337, 25.341(a)(b), 25.343, 25.345, 25.349, 25.351, 25.365(a)(b)(d), 25.367, 25.371, 25.373, 25.391, 25.393(b), 25.427, 25.445, 25.457, 25.459, 25.471(a)(b), 25.473, 25.479(a)(c)(d), 25.481(a)(c), 25.483, 25.485, 25.489, 25.581, 25.601, 25.603, 25.605, 25.607, 25.609, 25.613, 25.619, 25.623, 25.625, 25.629, 25.631, 25.651, 25.671, 25.672, 25.683(b), 25.903(d)(1), 25.1011(b), 25.1385(a)(b)(d), 25.1387(a)(b)(c)(d), 25.1389, 25.1391, 25.1393, 25.1395, 25.1397, 25.1401, 25.1505, 25.1511, 25.1515, 25.1517, 25.1527, 25.1533, 25.1535, 25.1581, 25.1585(a)

Plus the following sections of 14 CFR part 25 amended as indicated below applied to the components and areas affected by the change per Airbus reversion justification:

25.21 Amdt 120[1]	25.181 Amdt 107[2]
25.103 Amdt 107[1&2]	25.201 Amdt 107[2]
25.105 Amdt 120[1]	25.207 Amdt 107[1&2]
25.107 Amdt 107[1&2]	25.231 Amdt 107[2]
25.111 Amdt 120[1]	25.233 Amdt 107[2]
25.119 Amdt 107[1&2]	25.237 Amdt 107 [1&2]
25.121 Amdt 107[1&2]	25.253 Amdt 120[1]
25.123 Amdt 120[1]	25.571(a)(b)(e) Amdt 86[3]
25.125 Amdt 107[1&2]	25.981 Amdt 56[4]
25.143 except (g) Amdt 107[1&2]	25.1001 Amdt 107[1]
25.143(g) at Amdt 108[1]	25.1301 Amdt 56[5]
25.145 Amdt 97[1&2]	25.1309 Amdt 56[5]
25.147 Amdt 107[2]	25,1419 Amdt 56[1]
25.149 Amdt 107[2]	25.1587 Amdt 107[1]
25.175 Amdt 107[2]	

Notes:
1. FAA acceptance of these reversions was based on the fact that Airbus has done additional testing above the requirements incorporated by reference as documented in EASA AMC-F14, dated November 29, 1993, Flight in Icing Conditions, and a determination that compliance with the amendment in effect on the date of application for these rules

(i.e., Amendment 25-121) would not materially increase the level of safety exception of 14 CFR 21.101(b)(3). EASA AMC-F14 is incorporeated as part of certification basis for this airplane.

2. FAA acceptance of these reversions was based on fact that Airbus will show compliance with FAA Special Condtion 25-ANM-23 for V_{SR} and a determination that compliance with the amendment in effect on the date of application for these rules (i.e., Amendment 25-108) would not materially increase the level of safety exception of 14 CFR 21.101(b)(3).

3. FAA acceptance of this reversion was based on a determination that compliance with the amendment in affect on the dated of application for this rule (i.e., Amendment 25-96) would not materially increase the level of safety exception of 14 CFR 21.101(b)(3).

4. FAA acceptance of this reversion was based on a determination that compliance with the amendment in effect on the date of application for this rule (i.e., Amendment 25-102) would not materially increase the level of safety exception of 14 CFR 21.101(b)(3).

5. FAA acceptance of this reversion was based on a determination that compliance with the amendment in effect on the date of application for this rule (i.e., Amendment 25-123) would not materially increase the level of safety exception of 14 CFR 21.101(b)(3).

Plus the following sections of part 25 amended as indicated below based on Airbus elect to comply:

25.107(e)(1)(iv) Amendment 25-135
25.177 Amendment 25-135

Special conditions:
The FAA Special Conditions applicable to each model as defined above remain applicable to aircraft equipped with Sharklet, except Paragraph 2 – Active Controls of FAA Special Condition 25-ANM-23 is replaced with the following special conditions:

- 25-469-SC - "Interaction of Systems and Structures"
- 25-470-SC - "Design Dive Speed"
- 25-471-SC - "Design Roll Maneuver Conditions"

Equivalent Safety Findings (ESFs):
The original ESFs applicable to each model as defined above remain effective for aircraft equipped with Sharklet plus the following ESF for aircraft equipped with Sharklet:

25.331 – Use of EASA Certification Specification (CS) 25.331 in lieu of 14 CFR 25.331 for checked pitch maneuver (reference ELOS memorandum TD000885IB-T-A-5)
25.1419 – Analysis instead of flight testing in natural icing conditions (reference ELOS memorandum TD00885IB-T-SE-1)

Noise standards
14 CFR 21.93(b) – No acoustical change

Fuel venting and exhaust emissions standards
Not affected by the change. The initial requirements remain applicable.

Optional Requirements elected

- 25.801 for ditching.
- 25.1419 for icing.
- 25.1535 for ETOPS

Part 26
14 CFR part 26 effective December 10, 2007, including Amendments 26-1 through 26-3.

Note 1:
The A320 basic type design definition for U.S. import certification is contained in the following documents:
- AI/A 414.282/88 for the A320 Models -111 and -211
- AI/EA-A 413.628/89 for the A320 Model -231
- AI/EA-A 412.1631/90 for the A320 Model -212
- AI/EA-A 414.0665/93 for the A320 Model -232
- AI/EA-S 413.2143/95 for the A320 Model -233
- AI/EA-S 413.0150/95 for the A320 Model -214
- AI/EA-S 413.3004/96 (supplement) for the A320 Model -214.

Note 2:
For models A320-111, A320-211 and A320-212, modification 21038 is the minimum standard to be qualified for Cat IIIB precision approach.
For models A320-231 modification 21039 is the minimum standard to be qualified for Cat IIIB precision approach.

A320-214, A320-232 & A320-233 are qualified for Cat IIIB precision approach per basic design definition.
This does not constitute an operational approval.

Note 3:
All Models of A320 airplanes manufactured after January 1, 1997 must have either modification 25302 (thrust reverser third line of defense for IAE engines) or 25303 (thrust reverser third line of defense for CFM engines) installed, before the individual U.S. standard Certificate of Airworthiness can be issued.

Note 4:
If modification 25800 is embodied on models with CFM56-5B engines, the engine performance is improved. The engine denomination changes to /P.
CFM56-5B/"non-P" engine can be intermixed with CFM56-5B/P engine on the same aircraft.

Note 5:
If modification 26610 is embodied on A320-214 airplanes, the engine performance and gaseous emission levels are improved. The engine denomination changes to /2P (DAC IIC Dual Annual Combustor).

- CFM56-5B4/P engine can be intermixed with CFM56-5B4/2P (DAC IIC Dual Annual Combustor) engine on the same aircraft (AFM Supplement).
- CFM 56-5B/2 "non P" (DAC) engine can be intermixed with CFM 56-5B/2P (DAC II C) engine on the same aircraft (AFM supplement).
- CFM 56-5B/P or / "non P" (SAC) engine can be intermixed with CFM 56-5B/2P (DAC II C) engine on the same aircraft (AFM supplement).

Note 6:
For A320-200 series airplanes with OCTOPUS Airplane Flight Manual, Airbus elected to comply with Part 25 Amendment 25-92.

Note 7:
If modification 23755 is embodied on A320 airplanes, the maximum permissible gas temperature for take-off and max. continuous operation is extended to 915° C and 880° C, respectively. However, the ECAM indication remains at 890° C and 855° C, respectively. The engine denomination changes to /F.
A320-111/-211 CFM 56-5A1 engine can be intermixed with CFM 56-5A1/F engine on the same aircraft.

Note 8:
On A320-200 series aircraft, one Additional Center Tank (ACT) in bulk version is defined by modification 34456 (low pressure system). The approval together with structural and system provisions was subject of compliance demonstrated to Advisory Circular AC 25-8.

Note 9:

A320-231 with modification 23872 (EGT redline increase for IAE engines) :

- for consolidated bump rating operation (mod 22461 or 23408), the maximum permissible gas temperature is extended to 650° C at take-off. The ECAM indication remains at 635°;
- for non rating bump operation, the maximum permissible gas temperature is extended to 640° C at take-off. The ECAM indication remains at 635° C ;
- for maximum continuous and take-off operation, the maximum permissible gas temperature is extended to 615° C. The ECAM indication remains at 610° C.

Note 10:
A320-231 with modification 25000 (FADEC Standard SCN12C for IAE engines) :

- for take-off operation, the maximum permissible gas temperature is extended to 650° C. The ECAM indication remains at 635°C;
- for maximum continuous operation, the maximum permissible gas temperature is extended to 625° C. The ECAM indication remains at 610° C.

Note 11:
If modification 37147 (Tech insertion program) is embodied in production or 38770 (Tech insertion program retrofit) is embodied in service on A320 airplanes, the engine performance and gaseous emission levels are improved. The engine demonointion changes to /3.

Note 12:
If modification 37868 (Select One Package) is embodied in production or if modification 38554 (Select One Package for Retrofit) is embodied on in-service A320 airplanes the engine performance and gaseous emission levels are improved. The engine denomination itself does not change.

Note 13:
If modification 38573 is embodied in service on A320 airplanes, engine hardware configurations can be intermixed with one CFM56-5Bx/3 SAC (Tech Insertion) and one CFM56-5Bx/P SAC engines.

Note 14:
If modification 34119 is embodied in production on A320 airplanes, CFM56-5B SAC (Single Annular Combustor) and CFM56-5B DAC (Double Annular Combustor) engines can be intermixed on the same aircraft.

Note 15:
If modification 150016 (structural and system provision for deactivation of the second pair of overwing emergency exits) is embodied on A320 airplanes, the aircraft is eligible for a maximum capacity of 145 passengers. The maximum number of passengers between any of the overwing exit doors and rear door is 90.

Note 16:
Further to "D/E/J Noise" Project approval, from November, 05th, 2009, all A320 airplane/engine configurations are eligible to be in compliance with ICAO Annex 16, Chapter 4 and FAR Part 36, Stage 4 (including Amdt 36-28).

Note 17:
From March, 31, 2008, there is no longer any CFM56-5B4 non /P in field or in production.

Note 18:
For A320-211, -212, -231, -232 and –233 models, the embodiment of modification 37734 leads to change the maintenance program and its associated Limit of Validity (LoV) from 48,000FC/60,000FH to 37,500FC/80,000FH (whichever occurs first).

Note 19:
If modification 38946 ("BUMP" function) is embodied on models with CFM-5B engines, the engine denomination changes to /P1 (SAC) or /2P1(DAC) or /3B1 (Tech Insertion).
The engine characteristics defined in this section remain unchanged.
Intermix at aircraft level between "Non Bump" engine and "Bump" engine is not allowed.

Note 20:
If modification 150206 is embodied on A320 airplanes, the aircraft is eligible for a maximum capacity of 150.
The airplane is fully compliant with:
- FAR121-311 Amdt 121-315
- Section 25.562 Amendment 25-64 for all passenger seats and flight attendant seats and
- FAA Special Condition 25-375-SC for installation of inflatable restraints.

Note 21:
If modification 151226 is embodied on A320 airplanes the airplane is fully compliant with:
- FAA Special Condition No. 25-403-SC for seat backs with large non-metallic panels and
- Section 25.562 Amendment 25-64 for all passenger seats and flight attendant seats.

Note 22:
If Modification 160001 for installation of structural provisions for new large wingtip device (Sharklet) is embodied on A320 airplanes the usable fuel quantities are reduced as shown above to account for the loss of volume due to structural reinforcements in the wing and center wing box.

Note 23:
If Modification 160500 for installation of new large wingtip devices (Sharklet) is embodied on A320 ariplanes the eco efficiency and payload-range performance is improved. The certification basis is updated as shown above.

Note 24:
On series A320-200 airplanes equipped with CFM engines, introduction of standard of wingbox without dry bay (modification 37331) increases the wing fuel capacity by 350 liters.

Note 25:
If Modification 150364 is embodied on A320 airplanes the aircraft can be operated with 150 passengers and with 3 cabin attendants for increased cabin operational flexibility.

Note 26:
On series A320-200 airplanes, one or two Additional Center Tanks (ACT) in bulk version are defined by modification 28378 (low pressure system). Their approval together with structural and system provisions was subject of compliance demonstrated to AC 25-8.

IV. Type A321-100/200 Series Transport Category Airplanes

Model A321-111, Approved December 20, 1995;
Model A321-112, Approved December 20, 1995;
Model A321-131, Approved December 20, 1995;
Model A321-211, Approved September 18, 1997;
Model A321-231, Approved September 18, 1997:
Model A321-212, Approved May 20, 2005;
Model A321-213, Approved May 20, 2005;
Model A321-232, Approved May 20, 2005.

Engines:
Model A321-111 & A321-212, Two CFMI Model CFM56-5B1 or CFM56-5B1/P or CFM56-5B1/2P or CFM56-5B1/3 jet engines;
Model A321-112 & A321-213, Two CFMI Model CFM56-5B2 or CFM56-5B2/P or CFM56-5B2/3 jet engines;
Model A321-131 & A321-232, Two IAE Model V2530-A5 jet engines
Model A321-211, Two CFMI Model CFM56-5B3/P or CFM56-5B3/2P or CFM56-5B3/P1 or CFM56-5B3/2P1 or CFM56-5B3/3 or CFM56-5B3/3B1 jet engines
Model A321-231, Two IAE Model V2533-A5 jet engines

See Note 6 for description of "/P" engine models
See Notes 11 and 12 for description of "/2P" engine models
See Note 13 for description of "/3" engine models
See Note 14 for description of " " engine models (Select One Package)
See Note 19 for description of "/P1" or "/2P1" or "/3B1" engine models

Fuel:
See Installation Manual - Documents CFM 2129 or IAE-0043

TYPE	SPECIFICATION (NAME)		
	FRANCE	USA	UK
Kerosene	DCSEA 134	ASTM D 1655 (JET A) (JET A1)	DEF STAN 91/91 (AVTUR) (JET A1)
		MIL-DTL-83133 (JP 8)	DEF STAN 91/87 (AVTUR) (JET A1) (AIA)
Wide cut		ASTM D 6615 (JET B)	DEF STAN 91/88 (AVTAG)
		MIL-DTL-5624 (JP 4)	
High flash point	DCSEA 144 (F-44)	MIL-DTL-5624 (JP 5)	DEF STAN 91/86 (AVCAT)

Additives: See CFMI "Specific Operating Instructions," CFM TPOI-13 or IAE V2500 "Installation and Operating Manual" IAE-0043, 4.5. The above mentioned fuels and additives are also suitable for the APU.

Engine Limits

Engine Limitation	CFMI CFM56-5B1*** or -5B1/P or –5B1/2P or -5B1/3 Data Sheets E37NE E38NE (FAA)	CFMI CFM56-5B2 or -5B2/P or -5B2/3 Data Sheets E37NE E38NE (FAA)	CFMI CFM56-5B3/P or –5B3/2P or -5B3/P1 or –5B3/2P1 or -5B3/3 or -5B3/3B1 Data Sheets E37NE E38NE (FAA)
Static Thrust at Sea Level - Take-off (5 min)** (Flat rated 30°C) Maximum Continuous (Flat rated 25°C)	13 344 daN (30,000 lb) 12 940 daN (29,090 1b)	13 789 daN (31 000 lb) 12 940 daN (29,090 1b)	14 234 daN (32,000 lb) 12940 daN (29,090 lb)
Maximum Engine Speed - N1 rpm (%) - N2 rpm (%)	5,200 (104) 15,183 (105)	5,200 (104) 15,183 (105)	5,200 (104) 15,183 (105)
Max Gas Temperature (°C) - Take-off (5 min)** - Max Continuous - Starting *	950 915 725	950 915 725	950 915 725
Max Oil Temperature (Supply Pump Inlet; °C) - Take-off, Stabilized - Transient (15 min max) Min. Press. (PSI)	140 155 13	140 155 13	140 155 13
Approved Oils	See SB CFMI 79-001-OX	See SB CFMI 79-001-OX	See SB CFMI 79-001-OX

Engine Limitation	IAE V2530-A5 Data Sheets E40NE (FAA)	IAE V2533-A5 Data Sheets E40NE (FAA)
Static Thrust at Sea Level - Take-off (5 min)** (Flat rated 30°C) Maximum Continuous (Flat rated 25°C)	13 300 daN (29,900 lb) 11 988 daN (26,950 1b)	14 055 daN (31,600 lb) 11 988 daN (26,950 lb)
Maximum Engine Speed - N1 rpm (%) - N2 rpm (%)	5,650 (100) 14,950 (100)	5,650 (100) 14,950 (100)
Maximum Gas Temperature (°C) - Take-off (5 min)** - Max Continuous - Starting *	Eng. Limit/ ECAM 650/650 610/610 635/635	Eng. Limit/ ECAM 670/650 610/610 635/635
Maximum Oil Temperature (Supply Pump Inlet; °C) - Take-off, Stabilized - Transient (15 min max) Min. Press. (PSI)	155 165 60	155 165 60
Approved Oils	See Doc IAE 0043 Sec 4.9 (MIL-L-23699)	See Doc IAE 0043 Sec 4.9 (MIL-L-23699)

* 4 Consecutive cycles of 2 minutes each.
**10 minutes at take-off thrust allowed only in case of engine failure (at take-off or during go-around)
*** See Note 18 for engine models no longer in production/service

Airspeed Limits (Indicated Airspeed - IAS - Unless otherwise Stated:

- Maximum Operating Mach - MMO: 0.82
- Maximum Operating Speed - VMO: 350 kt
- Maneuvering Speed VA: - See the Limitations Section of Aircraft Flight Manual
- Extended Flaps/Slats Speed - VFE

Airspeed Limits Continued:

Configuration	Slats/Flaps	VFE (Kt)	
1	18/0 18/10	230** 215**	Intermediate Approach Take-off
2	22/14	205 215*	Take-off and Approach
3	22/21	195	Take-off, Approach, and Landing
Full	27/25	190	Landing

* See Note 4
** See Note 10

Landing Gear:
- VLE - Extended: 280 Kt/Mach 0.67
- VLO - Extension: 250 kt
- Retraction: 220 kt

Tire Limit Speed (Ground Speed) = 195.5 kt (225 mph)

Maximum Weights:

A321-100:

VARIANT	000 BASIC		002 Mod 24178		003 Mod 24899	
	(KG)	(LBS)	(KG)	(LBS)	(KG)	(LBS)
Max. Take-off Weight	83,000	182,983	83,000	182,983	85,000	187,391
Max. Landing Weight	73,500	162,040	74,500	164,243	74,500	164,243
Max. Zero Fuel Weight	69,500	153,220	70,500	155,424	70,500	155,424

A321-211 & 231:

VARIANT	000 BASIC		001 Mod 28960		002 Mod 28721		011 Mod 32456	
	(KG)	(LBS)	(KG)	(LBS)	(KG)	(LBS)	(KG)	(LBS)
Max. Take-off Weight	89,000	196,210	93,000	205,027	89,000	196,208	93,500	206,132
Max. Landing Weight	75,500	166,448	77,800	171,517	77,800	171,517	77,800	171,517
Max. Zero Fuel Weight	71,500	157,629	73,800	162,699	73,800	162,699	73,800	162,699

A321-212, 213 & 232:

VARIANT	000 BASIC		002 Mod 28721		007 Mod 31617		011 Mod 32456	
	(KG)	(LBS)	(KG)	(LBS)	(KG)	(LBS)	(KG)	(LBS)
Max. Take-off Weight	89,000	196,210	89,000	196,208	83,000	182,983	93,500	206,132
Max. Landing Weight	75,500	166,448	77,800	171,517	73,500	162,040	77,800	171,517
Max. Zero Fuel Weight	71,500	157,629	73,800	162,699	69,500	153,220	73,800	162,699

Minimum Weight:

VARIANT	All	
	(KG)	(LBS)
Minimum Weight	47,500	104,718

Minimum Crew:
2 Pilots

Maximum Passengers:
220
see note 20

Maximum Baggage:

CARGO COMPARTMENT	MAXIMUM LOAD	
	(KG)	(LBS)
Forward	5,670	12,500
Aft	5,670	12,500
Rear (Bulk)	1,497	3,300

For the positions and the loading conditions authorized in each position (references of containers, pallets, and associated weights), see Weight and Balance Manual, ref. 00E080A0001/C1S Chapter 1.10.

Fuel Capacity (0.8 kg/liter):
A321-100 and A321-200:

3-Tank Airplane				
Tank	Usable Fuel		Unusable Fuel	
	Liters (kgs)	Gallons (lbs)	Liters (Kgs)	Gallons (lbs)
Wing	15,500 (12,400)	4,094 (27,331)	22.6 (18)	6 (39.6)
Center	8,200 (6,560)	2,166 (14,460)	23.2 (18.6)	6.1 (40.97)
TOTAL	23,700 (18,960)	6,260 (41,791)	45.8 (36.6)	12.1 (80.62)

A321-200

4-Tank Airplane (high pressure ACT system) (*)				
Tank	Usable Fuel		Unusable Fuel	
	Liters (kgs)	Gallons (lbs)	Liters (Kgs)	Gallons (lbs)
Wing	15,500 (12,400)	4,094 (27,331)	22.6 (18)	6 (39.6)
Center	8,200 (6,560)	2,166 (14,460)	23.2 (18.6)	6.1 (40.97)
ACT	2,900 (2,320)	766 (5,114)	17 (13.6)	4.5 (29.96)
TOTAL	26,600 (21,280)	7,026 (46,905)	62.8 (50.2)	16.6 (110.58)

(*) see note 7

4 to 5-Tank Airplane (**) (low pressure ACT system)				
Tank	Usable Fuel		Unusable Fuel	
	Liters (kgs)	Gallons (lbs)	Liters (Kgs)	Gallons (lbs)
TOTAL 3-Tank Airplane	23,700 (18,960)	6,260 (41,791)	45.8 (36.6)	12.1 (80.62)
ACT 1	2,992 (2,393)	790 (5,274)	17 (13.6)	4.5 (29.96)
TOTAL 4-Tank Airplane	26,692 (21,353)	7,050 (47,065)	62.8 (50.2)	16.6 (110.58)
ACT 2	2,992 (2,393)	790 (5,274)	17 (13.6)	4.5 (29.96)
TOTAL 5-Tank Airplane	29,684 (23,746)	7,840 (52,339)	79.8 (63.8)	21.1 (140.54)

(**) See note 9

Oil Capacity:
CFMI CFM56-5B - Engine Oil Capacity, 10 quarts/engine (9.46 liters).
IAE V2500-A5 - Engine Oil Capacity, 7 quarts/engine (6.6 liters)

Maximum Operating Altitude:
- 39,800 feet (12,200 m) clean if modification 30748 is embodied.
- 39,100 feet (12,000 m) clean.
- 20,000 feet (6,500 m) Slats/Flaps extended.

Equipment:
The basic equipment as prescribed in the airworthiness regulations (see certification basis) must be installed in the aircraft for certification. Equipment approved for installation are listed in the definition of the reference model and the modification applicable to it. Refer to Type Certification Standard Equipment Schedule Lists:
- 00E000A0007/C1S for A321-111 Model
- 00E000A0006/C1S for A321-112 Model
- 00E000A0004/COS for A321-131 Model
- 00E000A0211/COS for A321-211 Model
- 00E000A0231/COS for A321-231 Model
- 00E000A0212/C0S for A321-212 Model
- 00E000A0213/C0S for A321-213 Model
- 00E000A0232/C0S for A321-232 Model

Refer to Note 1 for list of A321 airplane model FAA Type Definitions.

Serial Numbers Eligible:
Until September 26 2004, A321 aircraft, all series, all models, have been produced in Hamburg (Germany) under approval LBA.G.0009 or I-A9 issued by LBA to Airbus.
From September 27, 2004 until July 20, 2008, A321 aircraft, all series, all models, have been produced in Hamburg (Germany) under approval DE.21G.0009 issued by LBA to Airbus.
Since July 21, 2008, A321 aircraft, all series, all models, are produced in Hamburg (Germany) under approval EASA.21G.0001 issued by EASA to Airbus

Until July 20, 2008, A German Export Certificate of Airworthiness endorsed as noted under “Import Requirement”, must be submitted for each individual aircraft for which application for U.S. certification is made.
Since July 21, 2008, a EASA Export Certificate of Airworthiness endorsed as noted under “Import Requirement”, must be submitted for each individual aircraft for which application for U.S. certification is made.

Import Requirements:
A FAA Standard Airworthiness Certificate may be issued based on a German Export Certificate of Airworthiness (Export C of A), signed by a representative of the Luftfahrt-Bundesamt (LBA) of Germany on behalf of the European Community or based on a EASA Export C of A issued by a representative of EASA. The Export C of A should contain 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. A28NM and to be in a condition for safe operation.”

The U.S. airworthiness certification basis for aircraft type certificated under FAR Section 21.29 and exported by the country of manufacture is FAR Sections 21.183(c) or 21.185(c). The U.S. airworthiness certification basis for aircraft type certificated under FAR Section 21.29 exported from countries other than the country manufacture (e.g., third party country) is FAR Sections 21.183(d) or 21.185(b). Notwithstanding that FAR section 21.183(d) and 25.185(b) do not specifically address or require certification by the foreign civil airworthiness authority of the country of manufacture, such certification is the only practical way for an applicant to show, and the Federal Aviation Administration (FAA) to find conformity to the FAA-approved type design and condition for safe operation. Additional guidance is contained in FAA advisory Circular 21-23, Airworthiness Certification of Civil Aircraft, Engines, Propellers, and Related Products Imported into the United States.

Certification Basis (A321-100 and A321-200)
a. Part 25 of the FAR effective February 1, 1965, including amendments 25-1 through 25-56 thereto.

a.1. Plus the following sections of Part 25 as amended by amendments 25-1 through:
- 25-58 (Section 25.812(e))
- 25-63 (Section 25.25(a)(3))
- 25-67 (Section 25.807(c)(7))
- 25-70 (Section 25.1411(a)(2))

(Applied per FAA derivative aircraft policy – reference FAA order 8110.4A)

a.2. Airbus elected to comply with portions of FAR 25.562, Amendment 64, for the passenger seats only. FAR paragraphs 25.562(c)(5) and 25.562(c)(6) do not apply.

b. Based on 14 CFR Section 21.29(a) for new import Type Certificates (TCs), (or Section 21.101(g) for changes to TCs), applicable provisions of 14 CFR Part 26 are included in the certification basis. For any future 14 CFR part 26 amendments, the holder of this TC must demonstrate compliance with the appicacble sections.

c. Part 34 of the FAR effective September 10, 1960, including amendments 34-1.

d. Part 36 of the FAR effective December 1, 1965, including amendments 36-1 through 36-20 thereto. See Note 17.

e. FAA Special Conditions issued for the A320 in accordance with Section 21.16 of the FAR and published in the Federal Register as follows:
1) January 27, 1989:
- Electronic Flight Controls
- Active Controls
- Engine Controls and Monitoring
- Protection from Lightning and Unwanted Effects of Radio Frequency (RF) Energy
- Flight Characteristics
- Flight Envelope Protection
- Side Stick Controllers
- Flight Recorder.
(2) June 9, 1989
- Computerized Airplane Flight Manual

f. For precision approach and landing, the applicable technical requirements are complemented by AC 120-29 and AC 120-28c.
For the automatic flight control system, the applicable technical requirements are complemented by AC 20-57A for automatic landing and by AC 25.1329-1A for cruise.
Use of JAR AWO where applicable to the requirements above, is acceptable.

g. The following sections of the FAR have been complied with through equivalent safety demonstrations in addition to the equivalent safety findings applicable from the original A320 certification basis:

- 25.101, 25.105, 25.109, 25.113, 25.115, 25.735, for rejected take-off and landing performance
- 25.305, 25.331, 25.333, 25.335, 25.341, 25.345, 25.349, 25.351, 25.371, 25.373, 25.391, 25.427, for design gust criteria
-25.783(e) bulk cargo door
- 25.783(f) for passenger doors
- 25.807(c) for maximum passenger capacity
- 25.933(a) for thrust reversing system.

h. Optional requirements elected:
- 25.801 for ditching.
- 25.1419 for icing.

Certification Basis for Airbus Model A321 series airplanes with modification 160023 installation of large wingtip device (Sharklet):

The original certification basis for the Model A321 shown above for components or areas not affected by the change.

Plus the following sections of 14 CFR part 25 as amended by Amendments 25-1 through 25-129 (i.e., the amendment in affect on the date of application April 8, 2010) applied to the components and areas affected by the change:

25.23, 25.25, 25.101, 25.109, 25.113, 25.115, 25.117, 25.161, 25.171, 25.173, 25.203, 25.235, 25.251, 25.301, 25.303, 25.305, 25.307(a)(d), 25.321, 25.331, 25.333, 25.335, 25.337, 25.341(a)(b), 25.343, 25.345, 25.349, 25.351, 25.365(a)(b)(d), 25.367, 25.371, 25.373, 25.391, 25.393(b), 25.427, 25.445, 25.457, 25.459, 25.471(a)(b), 25.473, 25.479(a)(c)(d), 25.481(a)(c), 25.483, 25.485, 25.489, 25.581, 25.601, 25.603, 25.605, 25.607, 25.609, 25.613, 25.619, 25.623, 25.625, 25.629, 25.631, 25.651, 25.671, 25.672, 25.683(b), 25.903(d)(1), 25.1011(b), 25.1385(a)(b)(d), 25.1387(a)(b)(c)(d), 25.1389, 25.1391, 25.1393, 25.1395, 25.1397, 25.1401, 25.1505, 25.1511, 25.1515, 25.1517, 25.1527, 25.1533, 25.1535, 25.1581, 25.1585(a)

Plus the following sections of 14 CFR part 25 amended as indicated below applied to the components and areas affected by the change per Airbus reversion justification:

25.21 Amdt 120[1]	25.181 Amdt 107[2]
25.103 Amdt 107[1&2]	25.201 Amdt 107[2]
25.105 Amdt 120[1]	25.207 Amdt 107[1&2]
25.107 Amdt 107[1&2]	25.231 Amdt 107[2]
25.111 Amdt 120[1]	25.233 Amdt 107[2]
25.119 Amdt 107[1&2]	25.237 Amdt 107 [1&2]
25.121 Amdt 107[1&2]	25.253 Amdt 120[1]
25.123 Amdt 120[1]	25.571(a)(b)(e) Amdt 86[3]
25.125 Amdt 107[1&2]	25.981 Amdt 56[4]
25.143 except (g) Amdt 107[1&2]	25.1001 Amdt 107[1]
25.143(g) at Amdt 108[1]	25.1301 Amdt 56[5]
25.145 Amdt 97[1&2]	25.1309 Amdt 56[5]
25.147 Amdt 107[2]	25,1419 Amdt 56[1]
25.149 Amdt 107[2]	25.1587 Amdt 107[1]
25.175 Amdt 107[2]	

Notes:

1. FAA acceptance of these reversions was based on the fact that Airbus has done additional testing above the requirements incorporated by reference as documented in EASA AMC-F14, dated November 29, 1993, Flight in Icing Conditions, and a determination that compliance with the amendment in effect on the date of application for these rules (i.e., Amendment 25-121) would not materially increase the level of safety exception of 14 CFR 21.101(b)(3). EASA AMC-F14 is incorporeated as part of certification basis for this airplane.

2. FAA acceptance of these reversions was based on fact that Airbus will show compliance with FAA Special Condtion 25-ANM-23 for V_{SR} and a determination that compliance with the amendment in effect on the date of application for these rules (i.e., Amendment 25-108) would not materially increase the level of safety exception of 14 CFR 21.101(b)(3).

3. FAA acceptance of this reversion was based on a determination that compliance with the amendment in affect on the dated of application for this rule (i.e., Amendment 25-96) would not materially increase the level of safety exception of 14 CFR 21.101(b)(3).

4. FAA acceptance of this reversion was based on a determination that compliance with the amendment in effect on the date of application for this rule (i.e., Amendment 25-102) would not materially increase the level of safety exception of 14 CFR 21.101(b)(3).

5. FAA acceptance of this reversion was based on a determination that compliance with the amendment in effect on the date of application for this rule (i.e., Amendment 25-123) would not materially increase the level of safety exception of 14 CFR 21.101(b)(3).

Plus the following sections of part 25 amended as indicated below based on Airbus elect to comply:

25.107(e)(1)(iv) Amendment 25-135
25.177 Amendment 25-135

Special conditions:

The FAA Special Conditions applicable to each model as defined above remain applicable to aircraft equipped with Sharklet, except Paragraph 2 – Active Controls of FAA Special Condition 25-ANM-23 is replaced with the following special conditions:

- 25-469-SC - "Interaction of Systems and Structures"
- 25-470-SC - "Design Dive Speed"
- 25-471-SC - "Design Roll Maneuver Conditions"

Equivalent Safety Findings (ESFs):
The original ESFs applicable to each model as defined above remain effective for aircraft equipped with Sharklet plus the following ESF for aircraft equipped with Sharklet:

25.331 – Use of EASA Certification Specification (CS) 25.331 in lieu of 14 CFR 25.331 for checked pitch maneuver (reference ELOS memorandum TD000885IB-T-A-5)
25.1419 – Analysis instead of flight testing in natural icing conditions (reference ELOS memorandum TD00885IB-T-SE-1)

Noise standards
14 CFR 21.93(b) – No acoustical change

Fuel venting and exhaust emissions standards
Not affected by the change. The initial requirements remain applicable.

Optional Requirements elected

- 25.801 for ditching.
- 25.1419 for icing.
- 25.1535 for ETOPS

Part 26
14 CFR part 26 effective December 10, 2007, including Amendments 26-1 through 26-3.

Note 1:
The A321 basic type design definition for U.S. import certification is contained in the following documents:
- 00E000A0010/C11 for A321-111 model
- 00E000A0011/C11 for A321-112 model
- 00E000A0012/C11 for A321-131 model
- AI/EA-S 413.3365/96 (supplement) for A321-111/112/131 models
- AI/EA-S 413.0401/97 for A321-211 model
- AI/EA-S 413.0399/97 for A321-231 model
- AI/EA-S 413.1641/01 for A321-212 Model
- AI/EA-S 413.1642/01 for A321-213 Model
- AI/EA-S 413.1639/01 for A321-232 Model

Note 2:
Door 2 and/or Door 3 may be derated to Type III.

Note 3:
For models A321-111 and A321-112, modification 25199 is the minimum standard to be qualified for Cat IIIB precision approach.
For models A321-131, modification 25200 is the minimum standard to be qualified for Cat IIIB precision approach.

A321-211, A321-212, A321-213, A321-231 & A321-232 are basically qualified for Cat IIIB precision approach.

Note 4:
If FWC Standard D2 and FAC standard BAM 0510 are fitted on A321 aircraft, VFE speed in configuration 2 is increased from 205kts to 215kts (as identified by speed limitation placard installed by modification 24641).

Note 5:
Modifications 25302 (thrust reverser third line of defense for IAE engine) and 25303 (thrust reverser third line of defense for CFM engine) are part of the FAA Type Design, and shall be implemented on any A321 aircraft entered on the U.S. register, before the individual U.S. standard Certificate of Airworthiness be issued.

Note 6:
If modification 25800 is embodied on models with CFM56-5B engines, the engine performance is improved. The engine denomination changes to /P.

CFM56-5B/"non-P" engine can be intermixed with CFM56-5B/P engine on the same aircraft.

Note 7:

On the series A321-200, one Additional Center Tank (ACT) in bulk version is defined by modification 25453 (high pressure system). Its approval together with structural and system provisions was subject of compliance demonstrated to Advisory Circular (AC) 25-8.

Note 8:
The type design definitions and certification standard equipment lists as referenced in Note 1 above are complemented by document 00D000A0546/C0S "A319-100/A321-200 FMGC Type Standard Evolution".

Note 9:
On the series A321-200, one or two Additional Center Tanks (ACT) in bulk version are defined by modification 30422 (low pressure system). Their approval together with structural and system provisions was subject of compliance demonstrated to AC 25-8.

Note 10:
On the series A321-200, Weight Variant 001, 002 & 011, VFE speed in Configuration 1 is increased from 230 to 235 kts, and in Configuration 1+F increased from 215 to 225 kts (as identified by speed limitation placard installed by modification 28960, 28721 or 32456).

Note 11:
If modification 26610 is embodied on A321-111 & -212 airplanes, the engine performance and gaseous emission levels are improved. The engine denomination changes to /2P (DAC IIC Dual Annual Combustor).

- CFM56-5B1/P engine can be intermixed with CFM56-5B1/2P (DAC IIC Dual Annual Combustor) engine on the same aircraft (AFM Supplement).
- CFM 56-5B/2 "non P" (DAC) engine can be intermixed with CFM 56-5B/2P (DAC II C) engine on the same aircraft (AFM supplement).
- CFM 56-5B/P or / "non P" (SAC) engine can be intermixed with CFM 56-5B/2P (DAC II C) engine on the same aircraft (AFM supplement).

Note 12:
If modification 27640 is embodied on A321-211airplanes, the engine performance and gaseous emission levels are improved. The engine denomination changes to /2P (DAC IIC Dual Annual Combustor).
CFM56-5B3/P engine can be intermixed with CFM56-5B3/2P (DAC IIC Dual Annual Combustor) engine on the same aircraft (AFM Supplement).

Note 13:
If modification 37147 (Tech insertion program) is embodied in production or 38770 (Tech insertion program for retrofit) is embodied in service on A321 airplanes, the engine performance and gaseous emission levels are improved. The engine denomination changes to /3.

Note 14:
If modification 37868 (Select One Package) is embodied in production or if modification 38554 (Select One Package for Retrofit) is embodied on in-service A321 airplanes the engine performance and gaseous emission levels are improved. The engine denomination itself does not change.

Note 15:
If modification 38573 is embodied in service on A321 airplanes, engine hardware configurations can be intermixed with one CFM56-5Bx/3 SAC (Tech Insertion) and one CFM56-5Bx/P SAC engines.

Note 16:
If modification 34119 is embodied in production on A321 airplanes, CFM56-5B SAC (Single Annular Combustor) and CFM56-5B DAC (Double Annular Combustor) engines can be intermixed on the same aircraft.

Note 17:
Further to "D/E/J Noise" Project approval, from November, 05th, 2009, all A321 airplane/engine configurations are eligible to be in compliance with ICAO Annex 16, Chapter 4 and FAR Part 36, Stage 4 (including Amdt 36-28), except the following :

- A321-111 CFM56-5B1/2P DAC II C WV 008 (mod 30334)
- A321-212 CFM56-5B1/2P DAC II C with or without mod 27772 Weight Variants 000 (Basic) / 001 (mod 28960) / 002 (mod 28721) / 003 (mod 31613) / 011 (mod 32456)
- A321-212 CFM56-5B1/P or CFM56-5B1/3 Weight Variants 001 (mod 28960) / 003 (mod 31613) / 011 (mod 32456)
- A321-213 CFM56-5B2/P or CFM56-5B2/3 with mod 27772 Weight Variants 001 (mod 28960) / 002 (mod 28721) / 003 (mod 31613) / 011 (mod 32456)
- A321-213 CFM56-5B2/P or CFM56-5B2/3 without mod 27772 all Weight Variants
- A321-112 CFM56-5B2/P or CFM56-5B2/3 without mod 27772 all Weight Variants

which are eligible to be in compliance with ICAO Annex 16, Vol. I, Chapter 3 and FAR 36, Stage 3.

Note 18:
From March 31 2008, there is no longer any CFM56-5B1 non /P in field or in production.

Note 19:
If modification 38946 (“BUMP” function) is embodied on models with CFM-5B engines, the engine denomination changes to /P1 (SAC) or /2P1 (DAC) or /3B1 (Tech Insertion).
The engine characteristics defined in this section remain unchanged.
Intermix at aircraft level between “Non Bump” engine and “Bump” engine is not allowed.

Note 20:
If modification 150223 is embodied on A321 airplanes, the aircraft is eligible for a maximum capacity of 183 passengers.
The aircraft is fully compliant with:
- FAR121-311 Amdt 121-315,
- Section 25.562 Amendment 25-64 for all passenger seats and flight attendant seats and
- FAA Special Condition 25-375-SC for installation of inflatable restraints.

Note 21:
On series A321-200 equipped with CFM engines, introduction of standard of wingbox without dry bay (modification 38616) increases the wing tank fuel capacity by 350 liters.

Note 22:
If Modification 160021 for installation of structural provisions for new large wingtip device (Sharklet) is embodied on A321 airplanes there is no appreciable effect on usable fuel quantities.

Note 23:
If Modification 160023 for installation of new large wingtip devices (Sharklet) is embodied on A321 ariplanes the eco efficiency and payload-range performance is improved. The certification basis is updated as shown above.

DATA PERTINENT TO ALL MODELS

Auxiliary Power Unit (APU)

	A318		A319	A320	A321
	-111/-112	-121/-122	All models	All models	All models
HONEYWELL AIRESEARCH GTCP 36-300 (A) (Spec. 31-5306 B)	Basic		Basic		
APIC APS 3200 (Spec. ESR 0802, Rev. A)	Option (Mod 22562 or 35864)	Basic	Option (Mod 22562 or 35864)		
AlliedSignal 131-9[A] (Spec. 4900 M1E 03 19 01)	Option (Mod 25888)				

Note: APU APIC APS 3200 (Mod 35864) is the production standard from:

- MSN 2686 for A318 models,
- MSN 2643 for A319 models,
- MSN 2645 for A320 models,
- MSN 2653 for A321 models.

APU Limits:

GTCP 36-300 (A)

- Maximum Allowable Speed: 69,204 rpm (107 %)
- Maximum Gas Temperature at turbine outlet (ISA + 35°C)
  - rated output: 638°C
  - overtemp. shutdown: 711°C
  - Maximum on starting: 1038°C

APS 3200

- Maximum Rotor Speed: 49,300 rpm (105 %)
- Maximum EGT: 742°C
- Maximum for Start: 900°C at altitudes below 25000 ft; 982°C at altitudes below 25000 ft

131-9[A]

- Maximum Allowable Speed: Nominal 51,728 rpm (106 %); Overshoot 53,875 rpm (110 %)
- Maximum Gas Temperature
  - at turbine outlet: 675°C
  - rated output (ISA + 23°C): 585°C
  - overtemp. shutdown (ISA): 706°C
  - maximum on starting (ISA): 1080°C below 35000 ft, 1108°C above 35000 ft
  - (ISA + 40°C): 1090°C below 35000 ft, 1120°C above 35000 ft

APU Approved oils:

See GARRETT Report GT-7800 or in conformity with MIL-L-IAS, MIL-L23699 or DERD 2487 for the GTCP 36-300, Usable Capacity: 5.8 liters

See APIC Maintenance Manual for approved oils for the APS 3200

See Model Specification 31-12048A-3B for Allied Signal 131-9[A]

Center of Gravity Range (% Mean Aerodynamic Chord):

See DGAC-Approved Airplane Flight Manual, U.S. Version.

Hydraulic Fluids:
- Type IV - Specification NSA 30.7110.
- Capacity (Reservoirs and Systems):

System	Liters	Gallons
Green	100	26
Yellow	75	20
Blue	60	16

Pressure: 3000 ± 200 PSI (207 ± 4 bar)

Tires:
- See Airbus Service Bulletin (SB) A320-32-1007

Datum:
Station 0 (100 inches forward of fuselage nose).

Reference Mean Aerodynamic Chord (MAC):
165.10 inches / 4.1935 m (leading edge of MAC: Sta. 700.85 inches).

Leveling Means:
Clinometer on the cabin seat track rails.

Service Information:
Each of the documents listed below that contain a statement that it is approved by the European Aviation Safety Agency (EASA) - or for approvals made before September 28, 2003 - by the DGAC France, are accepted by the FAA and are considered FAA approved. Additionally, approvals issued by Airbus under the authority of EASA approved Design Organization EASA.21J.031 – or for approvals made before September 28, 2003 – under the authority of DGAC Design Organization Approval No. C01, or JAA Design Organization Approval No. F.JA.02 are considered FAA approved. These approvals pertain to the type design only.

- Airbus Service bulletins, except as noted below
- Structural repair manuals
- Vendor manuals referenced in Airbus Service Bulletins
- Aircraft flight manuals, and
- Repair Instructions

Design changes that are contained in Airbus service bulletins and that are classified as Level 1 Major in accordance with either the US/French or US/EASA Bilateral Aviation Safety Agreement Implementation Procedures for Airworthiness must be approved by the FAA.

Historical Transition Statement:
The Direction Generale de l'Aviation Civile (DGAC) of France originally type certified these aircraft under its Type Certificate Number 180. The FAA validated these products under U.S. Type Certificate Number A28NM. Effective September 28, 2003, EASA began oversight of these products on behalf of France under EASA Type Certificate Number EASA.A.064.

Note 1 - Weight and Balance
a. Current weight and balance report including list of equipment, entitled "Aircraft Inspection Report" included in certificated empty weight, and loading instructions, must be in each aircraft at the time of original certification and at all times thereafter, except in the case of operators having an approved weight control system. Airbus report, " Weight and Balance Manual," contains loading information for each airplane and interior arrangement configuration as delivered. This report contains, or refers to, information relative to location of all passengers and crew member seats, location and capacity of all cargo and baggage compartments, buffets, storage spaces and coat rooms, location and capacity of lounges, lavatories, and the required placards in the passenger compartment.

b. The airplane must be loaded so that the CG is within specified limits at all times, considering fuel loading usage, gear retraction and movement of crew and passengers from their assigned positions.

c. The weights of system fuel and oil, as defined below, and hydraulic fluid, all of which must be included in the airplane empty weight, are listed for each airplane in the Weight and Balance Manual specified in paragraph a. above.

d. System fuel is the weight of all fuel required to fill a lines and tanks up to zero-fuel point on the fuel gauges in the most critical flight attitude, including the unusable tank fuel as defined by FAR part 25.959. (The usable fuel in the crossfeed manifold lines, manifolds, and engine that is not part of the system fuel must be included in the total usable fuel to obtain correct weight and CG for take-off.)

e. The unusable fuel is that amount of fuel in the tanks which is unavailable to the engines under critical flight conditions as defined in FAR Part 25.959. This "unusable" fuel is included in System Fuel as indicated in paragraph d. above, and need not be accounted for separately.

f. System oil is the weight of all remaining in the engine, constant speed drive, lines, and tanks after subtracting the oil in the tanks which is above the standpipe (zero gauge) levels. The engine oil capacities shown elsewhere in this data sheet include only the usable oil for which the tanks must be placarded.

Note 2:
The aircraft must be operated in accordance with the DGAC or EASA -approved FAA Airplane Flight Manual. ("DGAC or EASA-approved" is considered equivalent to "FAA-approved".)

Note 3:
Maintenance criteria to comply with certification requirements for:

- Limitations applicable to Safe Life Airworthiness Limitation Items are provided in the A318/A319/A320/A321 Airworthiness Limitations Section (ALS Part 1) sub-parts 1-2 and 1-3
- Limitations applicable to Damage Tolerant Airworthiness Limitation Items are provided in the A318/A319/A320/A321 Airworthiness Limitations Items document (ALS Part 2)
- Certification Maintenance Requirements are provided in A318/A319/A320/A321 Airworthiness Limitations Section (ALS Part 3 FAA Version)
- Ageing Systems Maintenance (ASM) limitations are provided in the A318/A319/A320/A321 Airworthiness Limitations Section (ALS Part 4).
- Fuel Airworthiness Limitations are provided in A318/A319/A320/A321 Fuel Airworthiness Limitations document (ALS Part 5).

For all these documents, “EASA-approved" is considered equivalent to "FAA-approved".

Note 4:
If modification 25910 is embodied on A319, A320, and A321 series aircraft, or if modifications 25570 and 25861 are embodied on A319 and A320 series aircraft, or if modifications 25570 and 25952 are embodied on A321 series aircraft, the aircraft is qualified for operation in conditions of reduced vertical separation minimum (RVSM) of 1000 ft between flight levels 290 and 410 using ADIRU 1 and 2 only. If modification 28913 and 31528 are embodied on A319, A320, and A321 series aircraft, the aircraft is qualified for operation in conditions of RVSM using ADIRU 1, and ADIRU 2 or 3. All A318 series aircraft are qualified for operation in conditions of RVSM using ADIRU 1, and ADIRU 2 or 3. This does not constitute operational approval.

Note 5:
ETOPS: The Type Design and Reliability of the airplane-engine combinations listed below have been evaluated in accordance with AC 120-42A and found suitable for Extended Operations (ETOPS) up to 180-minute maximum diversion time, when configured, maintained and operated in accordance with the standard contained in the approved Airbus CMP document referenced “SA/FAA: AC 120-42A/CMP” at Revision 01 dated May 01st 2006.
- A319 models: A319-111, A319-112, A319-113, A319-114, A319-115, A319-131, A319-132, A319-133
- A320 models: A320-111, A320-211, A320-212, A320-214, A320-231, A320-232 and A320-233
- A321 models: A321-111, A321-112, A321-211, A321-212, A321-213, A321-131, A321-231, A321-232

This finding does not constitute operational approval to conduct ETOPS.

The ETOPS capability of individual aircraft is managed via the following Airbus modifications:
- Modification 36664: when embodied on A319, A320, and A321 series aircraft, the aircraft is delivered with ETOPS 180 min capability;
- Modification 36667: when embodied on A319, A320, and A321 series aircraft, the aircraft is delivered with ETOPS 120 min capability.

Embodiment of these modifications does not constitute an operational approval to conduct ETOPS

Note 6:
If modification 35944 (FADEC Standard “SCN19” for aircraft equipped with IAE engines) or modification 36462 (FADEC Standard “5BM” for aircraft equipped with CFM engines) is embodied the aircraft is eligible for the following improvements of thrust management:

- Derate Take-Off (DTO) capability up to 40% (Modification 35932 (IAE) or Modification 36481 (CFM))
- Flexible Take-Off capability up to 40% (Modification 36750)

Note 7:
If modification 37986 is incorporated on Airbus Model A318, A319, or A320 airplanes, the Head Up Display is activated.

Note 8:
If modification 150700, and 37270 (with CLS option only), 37048 and 36985 are embodied in production on A318, A319, A320, or A321 airplanes, the airplane is compliant with Fuselage Flame Penetration “Burnthrough” requirements addressed by paragraph 14 CFR Part 25.856(b) Amdt 25-111. The FAA issued an equivalent level of safety finding memorandum TD0669IB-T-CI-12 for this subject.

Note 9:
If modification 150628 is embodied on Airbus Model A318, A319, A320 or A321 airplanes, the aircraft design is compliant with the new operating regulation FAR §121.359(j) which requires the compliance to amended FAR 25.1457 implemented by FAA to increase the Solid State Cockpit Voice Recorder (SSCVR) availability. The FAA issued an equivalent level of safety finding memorandum TD0781IB-T-SE-26 for this subject .

Note 10:
If modification 38062 (Fuel Tank Inerting System (FTIS)) is embodied on A318, A319, A320, or A321 airplanes, the airplane is compliant with paragraph 14 CFR Section 25.981(a) & (b) at amendment 25-102, Part 25 appendix M & N at amendment 25-125, and Section 26.33 at amendment 26-3.

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