

# TYPE-CERTIFICATE DATA SHEET

No. EASA.A.004

for

AIRBUS A330

# **Type Certificate Holder**

**AIRBUS** 

2 Rond-Point Emile Dewoitine 31700 Blagnac

France

## For Models:

| A330-201 | A330-223F | A330-301 | A330-743L | A330-841 | A330-941 |
|----------|-----------|----------|-----------|----------|----------|
| A330-202 | A330-243F | A330-302 |           |          |          |
| A330-203 |           | A330-303 |           |          |          |
| A330-223 |           | A330-321 |           |          |          |
| A330-243 |           | A330-322 |           |          |          |
|          |           | A330-323 |           |          |          |
|          |           | A330-341 |           |          |          |
|          |           | A330-342 |           |          |          |
|          |           | A330-343 |           |          |          |



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# **CORRESPONDANCE TABLE MODELS / ENGINE MANUFACTURERS**

|            | A330-200              | A330-300 | A330-700L | A330-800 | A330-900 |
|------------|-----------------------|----------|-----------|----------|----------|
|            | series                | series   | series    | series   | series   |
| GE Engines | A330-201              | A330-301 |           |          |          |
|            | A330-202              | A330-302 | -         | -        | -        |
|            | A330-203              | A330-303 |           |          |          |
| PW Engines | A330-223              | A330-321 |           |          |          |
|            | A330-223<br>A330-223F | A330-322 | -         | -        | -        |
|            | A330-223F             | A330-323 |           |          |          |
| RR Engines | A330-243              | A330-341 |           |          |          |
|            | A330-243<br>A330-243F | A330-342 | A330-743L | A330-841 | A330-941 |
|            | A330-243F             | A330-343 |           |          |          |

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## SECTION 1: A330-200 SERIES

## I. General

# 1. Type / Model

1.1 Type

A330

1.2 Model

Passenger Models:

A330-201, A330-202, A330-203

A330-223 A330-243

Freighter Models:

A330-223F A330-243F

## 2. Airworthiness Category

Large Aeroplanes

Performance Category A

#### 3. Manufacturer

**AIRBUS** 

2 Rond-Point Emile Dewoitine

31700 Blagnac FRANCE

## 4. State of Design Authority Type Certification

4.1 State of Design Authority

DGAC-F

4.2 Application Date

Passenger Models:

A330-201: 15 may 2001 A330-202: 23 January 1996 A330-203: 15 November 1999

A330-223: -A330-243: -

## 4.3. State of Design Authority Type Certificate Date

Passenger Models:

A330-201: 31 October 2002 A330-202: 31 March 1998 A330-203: 20 November 2001 A330-223: 13 July 1998

A330-223: 13 July 1998 A330-243: 11 January 1999

DGAC-F TC 184 remains a valid reference for models certified before 28 September 2003

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## 5. EASA Type Certification

5.1 State of Design Authority EASA

## 5.2 Application Date

Freighter Models:

A330-223F: 30 August 2006 A330-243F: 30 August 2006

## 5.3. State of Design Authority Type Certificate Date

Freighter Models:

A330-223F: 9 April 2010 A330-243F: 9 April 2010

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## SECTION 1: A330-200 SERIES (Cont'd)

#### II. Certification Basis

1. Reference Date for determining the applicable requirements

Reference Application Date for EASA Certification: 23 January 1996

2. Airworthiness Requirements

#### Original Airworthiness Requirements (at time of TC):

- Certification Requirements

JAR 25 Change 13 effective on October 5, 1989 except as follows:

- Paragraph 25.561 is applied at change 12 for wing tanks outside the fuselage contour;
- For showing compliance with JAR 25.785(a)(b)(c), the front row seats located behind a bulkhead are not tested according to JAR 25.562(c)(5)(6). Instead, a minimum 35 inches distance between the seats and the bulkhead is considered as an acceptable alternative.

With the following JAR 25 paragraphs applicable at change 14:

25.21, 25.29, 25.101, 25.111, 25.125, 25.145, 25.147, 25.149, 25.175, 25.177, 25.181, 25.205, 25.251, 25.253, 25.305, 25.307, 25.321, 25.331, 25.333, 25.335, 25.341, 25.343, 25.345, 25.349, 25.351, 25.361, 25.371, 25.373, 25.391, 25.395, 25.397, 25.415, 25.427, 25.459, 25.571, 25.603 (vertical stabilizer only), 25.613 (vertical stabilizer only), 25.615 (vertical stabilizer only), 25.679, 25.723, 25.729, 25.731, 25.733, 25.735, 25.772, 25.777, 25.779, 25.783, 25.851, 25.863, 25.867, 25X899 (vertical stabilizer only), 25.963(g) (fuel centre tank only), 25.979, 25.1303, 25.1381, 25.1415, 25.1419, 25.1533, 25.1543,25.1551

- All Weather Operations

JAR AWO change 1 plus:

- Orange Paper AWO 91/1 NPA JAR AWO 3
- NPA JAR AWO 8 (IM S-148 Longitudinal touchdown performance + MABH deletion)

## Additional Airworthiness Requirements for Freighter Models:

For Freighter Models, the following airworthiness requirements apply in addition to (superseding) the above listed airworthiness requirements:

- CS 25 Amendment 1:

25.1, 25.20, 25.23, 25.27 to 25.31, 25.117, 25.123, 25.235, 25.255, 25.361, 25.363, 25.367, 25.397, 25.405 to 25.409, 25.457, 25.459, 25.471, 25.477, 25.487, 25.489, 25.495, 25.497, 25.503 to 25.509, 25.563, 25.651 to 25.693, 25.699, 25.721, 25.771, 25.779, 25.793, 25.817, 25.841, 25.853, 25.855, 25.859, 25.865, 25.867, 25.871, 25.875, 25.937, 25.941, 25.943, 25.953, 25.955 to 25.959, 25.965, 25.969, 25.971, 25.977, 25.979, 25.991, 25.995, 25.999, 25.1011, 25.1017, 25.1021 to 25.1027, 25.1043, 25.1045, 25.1103, 25.1123, 25.1127, 25.1143, 25.1149, 25.1153, 25.1161, 25.1163, 25.1182, 25.1183, 25.1187, 25.1191 to 25.1207, 25.1315, 25.1326, 25.1335, 25.1337, 25.1381 to 25.1403, 25.1419, 25.1438, 25.1439, 25.1455, 25.1459, 25.1461 to 25.1511, 25.1515, 25.1525, 25.1531, 25.1543, 25.1551 to 25.1555, 25.1563

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#### Plus for main deck cargo door:

25.301, 25.303, 25.305, 25.307, 25.561, 25.571, 25.581, 25.601, 25.603, 25.605, 25.607, 25.609, 25.611, 25.613, 25.619, 25.621, 25.623, 25.625, 25.629, 25.843, 25.899, 25.1316, 25.1529, 25.1541, 25.1557

#### Plus for cargo floor:

25.303, 25.305, 25.307, 25.365, 25.561, 25.571, 25.601, 25.603, 25.605, 25.607, 25.609, 25.611, 25.613, 25.619, 25.621, 25.625, 25.843

#### Plus for cargo barrier wall:

25.303, 25.305, 25.307, 25.365, 25.561, 25.581, 25.601, 25.603, 25.605, 25.607, 25.609, 25.611, 25.613, 25.619, 25.621, 25.625, 25.853, 25.857, 25.1541, 25.1557

#### Plus for NLG attachment point / NLG bay:

25.303, 25.305, 25.307, 25.571, 25.601, 25.603, 25.605, 25.607, 25.609, 25.611, 25.613, 25.619, 25.621, 25.625, 25.631, 25.729, 25.843

## Plus for courier area:

25.365(a)(b)(c)(d), 25.561, 25.562, 25.601, 25.603, 25.605, 25.611, 25.785, 25.787, 25.789, 25.791, 25.803, 25.807, 25.809, 25.810, 25.811, 25.812, 25.813, 25.851, 25.853, 25.869, 25.899, 25.1353, 25.1360, 25.1365, 25.1411, 25.1415, 25.1421, 25.1431, 25.1441, 25.1443, 25.1445, 25.1447, 25.1449, 25.1453, 25.1529, 25.1541, 25.1557, 25.1561

## Plus for Main Deck Cargo Compartment class E:

25.601, 25.603, 25.855, 25.857, 25.858, 25.863, 25.869, 25.1316, 25.1529, 25.1541, 25.1557

- CS 25 Amendment 4:

For main deck cargo door:

25.783

#### Additional Airworthiness Requirements (All models, added Post TC):

The following requirements are additionally applicable when an A/C configuration include the subject optional design change(s):

- Certification Requirements

The following requirements may be considered to certify the following optional designs:

- CS 25.791 Original issue for symbolic no smoking signs in lavatories
- CS 25.811 and CS 25.812 Amdt. 3 for multi lingual "EXIT" signs.
- CS 25.851 (a) (c) Amdt 17 for Halon Free Hand Held Fire Extinguishers Compliance with Commission regulation (EU) N° 744/2010 of 18 August 2010 amending regulation (EC) n° 1005/2009 of the European Parliament and of the Council on substances that deplete the ozone layer, with regard to the critical uses of halon).
- Airborne Communication, Navigation, Surveillance

## **CS-ACNS** Initial Issue

- Subpart B, Section 2 - for optional modifications (Post TC) installing FANS aiming at answering to SES mandate as defined in (EU) N° 29/2009 and amended by (EU) N° 310/2015 of 26 Febuary 2015.

Note: For compliance to CS-ACNS Subpart B, Section 2, a deviation to CS-ACNS.B.DLS.B1.075 is accepted by DEV ACNS-B-GEN-01 to not include DM89 MONITORING [unit name] [frequency] in the downlink message set installed.

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- Subpart D – for optional modifications installing transponders aiming at answering to SES mandate as defined in (EU) No 1207/2011 and amended by (EU) No 1028/2014 of 26 September 2014.

## 3. Special Conditions

## Original Special Conditions part of Certification Basis (at time of TC):

|  | - | JAA | Num | bering: |
|--|---|-----|-----|---------|
|--|---|-----|-----|---------|

| SC G-105 | Resistance to fire  |
|----------|---|
| SC G-7   | Function and reliability testing                            |
| SC A-2   | Interaction of systems and structure                        |
| SC A-3   | Design manoeuver requirements                               |
| SC A-4   | Design dive speed VD  |
| SC A-5   | Limit pilot forces and torque                               |
| SC A-7   | Stalling speeds for structural design                       |
| SC A-11  | Aeroelastic stability requirements                          |
| SC E-2   | Underfloor Crew rest compartment (Passenger Models only)    |
| SC F-101 | Stalling and scheduled operating speeds                     |
| SC F-2   | Motion and effects of cockpit controls                      |
| SC F-3   | Static longitudinal stability                               |
| SC F-4   | Static directional and lateral stability                    |
| SC F-5   | Flight envelope protections                                 |
| SC F-6   | Normal load factor limiting system                          |
| SC S-6   | Lightning protection indirect effects                       |
| SC S-10  | Effects of external radiations upon aircraft systems        |
| SC S-13  | Autothrust system   |
| SC S-16  | Control signal integrity                                    |
| SC S-18  | Electronic flight control                                   |
| SC S-20  | Emergency electrical power                                  |
| SC S-23  | Electrical wiring and miscellaneous electrical requirements |
| SC S-38  | Towbarless towing   |
| SC S-148 | Longitudinal touchdown performance + MABH deletion          |
| SC P-1   | FADEC   |
| SC P-2   | Centre of gravity control system                            |

## Additional Special Conditions for Freighter Models (at time of TC):

For Freighter Models, the following Special Conditions apply in addition to the above listed Special Conditions:

- JAA Numbering:

| SC E-124 | Courier compartment  |
|----------|--|
| SC E-125 | Class E cargo compartment fire protection of essential systems |

SC E-127 Flammability standard for thermal / acoustic insulation materials

SC S-10.2 Effects of external radiations upon aircraft systems



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## Additional Special Conditions part of the Certification Basis (All models, added Post TC):

The following Special Conditions are additionally applicable when an A/C configuration include the subject optional design change(s):

## - JAA Numbering:

- SC E-28 Partial Bulk Crew Rest Compartment with attached to galley (applicable from January 2009)
- SC E-128 Improved flammability standards for thermal/acoustic insulation (applicable from February 2009)
- SC E-130 Application of heat release and smoke density requirements to seat materials (applicable from February 2010)
- SC P-27 Flammability Reduction System (applicable from June 2010)
- SC P-32 Fuel Tank Safety (applicable from November 2013)
- SC S-10.2 Effects of external radiations upon aircraft systems (applicable from February 2000)

#### - EASA Numbering:

- SC B-09 Soft go around
  - (applicable from February 2017)
- SC F-126 Flight Recorders including Data Link Recording (applicable from June 2013)
- SC F-131 Flight Instrument External Probes Qualification in Icing Conditions (applicable from April 2016)
- SC F-134 Head Up Display Installation (applicable from May 2017)
- SC F-137 Security Protection of Aircraft Systems and Networks (applicable from May 2018)
- SC F-GEN-01: Installation of non-rechargeable lithium battery (applicable from April 2019)
- SC H-01 Enhanced Airworthiness Programme for Aeroplane Systems ICA on EWIS (applicable from May 2010)

Additional Special Conditions part of the Certification Basis (Freighter models, added Post TC): The following Special Conditions are additionally applicable when an A/C configuration include the subject optional design change(s):

- JAA Numbering:

SC E-126 Access to Class E Cargo Compartments in Flight (applicable from April 2009)

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Additional Special Conditions part of the Certification Basis (Passenger models, added Post TC): The following Special Conditions are additionally applicable when an A/C configuration include the subject optional design change(s):

#### - JAA Numbering:

SC E-5.1 Lower Deck Lavatory

(applicable from August 2000)

SC E-8.1 Lower Deck Stowage Area

(applicable from August 2000)

SC E-11 Bulk crew rest compartment

(applicable from January 2002)

SC E-19 F/C sliding screens

(applicable from September 2003)

SC E-1014 HIC compliance for front row seating (inflatable restraints)

(applicable from July 2007)

SC E-1023 Side facing seats with with inflatable restraints

(applicable from April 2007)

## - EASA Numbering:

SC D-04 Crew Rest Compartment

(applicable from February 2018)

SC D-06 Installation of Three Point Restraint & Pretensioner System

(applicable from August 2017)

SC D-07 Installation of Oblique Seats

(applicable from August 2017)

SC D-08 Cabin Attendant Seat mounted on lavatory Door Blade

(applicable from July 2018)

SC D-100 Installation of mini suite type seating

(applicable from April 2018)

SC D-102 Incorporation of Inertia Locking Device in Dynamic Seats

(applicable from January 2019)

## 4. Exemptions

None

#### 5. Deviations

## <u>Deviation to Additional Airworthiness Requirements (added Post TC):</u>

- Airborne Communication, Navigation, Surveillance

ACNS-B-GEN-01 Deviation to CS-ACNS Initial Issue Subpart B, Section 2

(See Note in §II-2)

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#### 6. Equivalent Safety Findings

#### Original Equivalent Safety Findings part of Certification Basis (All models, at time of TC):

- JAA Numbering:

ESF S-45 Oil temperature indication

ESF P-9 A330 / RR turbine overheat detection

The following Special Conditions provide an equivalent safety level to JAR 25 acceleratestop and brakes qualification requirements (NPA 25 B, D, G 244)

- SC F-8.1 Accelerate stop distances
- SC S-21 Brakes wear limits

## Additional Equivalent Safety Findings part of the Certification Basis (All models, added post TC):

The following Equivalent Safety Findings are additionally applicable when an A/C configuration include the subject optional design change(s):

- JAA Numbering:
  - ESF E-21 Emergency exit marking reflectance (applicable from December 2004)
  - ESF E-29 Fuselage burn through aft pressure bulkhead

(applicable from March 2009)

- ESF E-30 Fuselage burn through belly fairing
  - (applicable from April 2009)
- ESF E-31 Fuselage burn through bilge area

(applicable from April 2009)

- ESF E-1022Improved flammability standards for thermal / acoustic insulation materials (applicable from August 2005)
- ESF F-128 Minimum Mass Flow of Supplemental Oxygen (applicable from November 2014).
- ESF F-129 Crew Determination of Quantity of Oxygen in Passenger Oxygen System (applicable from November 2014).
- EASA Numbering:
  - ESF B-100 Vibration / buffeting compliance criteria for large external antenna installation (applicable from April 2018).
  - ESF D-101 Green arrow and "Open" Placard of Emergency Exit marking (applicable from February 2018).

## Additional Equivalent Safety Findings part of the Certification Basis (Passenger models, added post TC):

The following Equivalent Safety Findings are additionally applicable when an A/C configuration include the subject optional design change(s):

- JAA Numbering:
  - ESF E-15 Reinforced security cockpit door
    - (applicable from July 2002)
  - ESF E-17 Trolley Lift

(applicable from November 2003)



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ESF E-18 Lower Deck galley compartment (applicable from November 2003)

- ESF E-27 Forward facing seats over 18 degrees to A/C centreline (applicable from June 2009)
- ESF E-134 Installation of seats that make an angle of more than 18° with the aircraft longitudinal axis (applicable from November 2013)

For Multi-Role Transport and Tanker (MRTT) aircraft only:

- JAA Numbering:

ESF F-120 Flight Control Law Designed for Support of Military Air to Air Refuelling (applicable from August 2008)

#### 7. Environmental Protection

7.1 Noise

See TCDSN no. EASA.A.004

7.2 Fuel Venting

Passenger Models:

ICAO Annex 16, Volume II, amendment 1, Part II, chapter II

Freighter Models:

CS-34 Initial issue, ICAO Annex 16, Volume II, amendment 05, Part II, chapter II

## 8. Operational Suitability Data (OSD)

See SECTION: DATA PERTINENT TO ALL MODELS for:

- Operational Suitability Requirements
- EASA Approved Operational Suitability Data
- 9. Extended Range Operations (ETOPS)

See SECTION: DATA PERTINENT TO ALL MODELS for:

- ETOPS Technical Conditions
  - EASA Approved ETOPS Capability



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## SECTION 1: A330-200 SERIES (Cont'd)

#### III. Technical Characteristics and Operational Limitations

## 1. Type Design Definition

#### With General Electric (GE) engines

A330-201: 00G000A0201/C00 A330-202: 00G000A0202/C00 A330-203: 00G000A0203/C00

## With Pratt & Whitney (PW) engines

A330-223: 00G000A0223/C00 A330-223F: 00G000A223F/C00

#### With Rolls Royce (RR) engines

A330-243: 00G000A0243/C00 A330-243F: 00G000A243F/C00

## 2. Description

Two turbo-fan, medium to long range, twin-aisle, large category aeroplane.

## 3. Equipment

Refer to Type Design Definition.

Cabin furnishings, equipment and arrangement shall conform to the following specification:

- 00F252K0005/C01 for cabin seats.
- 00F252K0006/C01 for galley.
- 00F252K0020/C01 for cabin attendant seats.

#### 4. Dimensions

- Length: 58,82m (193ft) - Diameter: 05,64m (18ft 6in) - Wing Span: 60,30m (197ft 10in)

- Height:

Passenger Models: 17,38 m (57ft) Freighter Models: 16,88 m (55ft 5in)

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## 5. Engine

#### 5.1 Model

## General Electric (GE) engines

A330-201: Two (2) General Electric CF6-80E1A2 turbofan engines

A330-202: Two (2) General Electric CF6-80E1A4 or CF6-80E1A4/B turbofan engines

A330-203: Two (2) General Electric CF6-80E1A3 turbofan engines

## Pratt & Whitney (PW) engines

## Passenger Models:

A330-223: Two (2) Pratt & Whitney 4170 turbofan engines
A330-223: Two (2) Pratt & Whitney 4168A turbofan engines
A330-223: Two (2) Pratt & Whitney 4168A-1D turbofan engines
A330-223: One (1) Pratt & Whitney 4168A-1D turbofan engines
One (1) Pratt & Whitney 4168A turbofan engines

#### Freighter Models

A330-223F: Two (2) Pratt & Whitney 4170 turbofan engines A330-223F: Two (2) Pratt & Whitney 4168A-1D turbofan engines A330-223F: One (1) Pratt & Whitney 4168A-1D turbofan engines One (1) Pratt & Whitney 4168A turbofan engines

#### Rolls Royce (RR) engines

A330-243: Two (2) Rolls Royce Trent 772B-60 turbofan engines A330-243: Two (2) Rolls Royce Trent 772C-60 turbofan engines A330-243F: Two (2) Rolls Royce Trent 772B-60 turbofan engines

## 5.2 Type Certificate

#### General Electric (GE) engines

FAA Engine TCDS: E41NE

EASA Engine TCDS: EASA.IM.E.007

# Pratt & Whitney (PW) engines

FAA Engine TCDS: E36NE

EASA Engine TCDS: EASA.IM.E.043

#### Rolls Royce (RR) engines

UK CAA Engine TCDS: 1050

EASA Engine TCDS: EASA.E.042

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#### 5.3 Limitations

## 5.3.1 Installed Engine Limits

## General Electric (GE) engines

| A/C Model             | A330-201   | A330       | A330-203     |            |
|-----------------------|------------|------------|--------------|------------|
| Engine Model          | CF6-80E1A2 | CF6-80E1A4 | CF6-80E1A4/B | CF6-80E1A3 |
|                       |            |            | (MOD 52776)  |            |
| Static thrust at      |            |            |              |            |
| sea level:            |            |            |              |            |
| - take-off<br>(5mn) * | 64,530 lbs | 66,870 lbs | 68,530 lbs   | 68,530 lbs |
| - maximum continuous  | 60,400 lbs | 60,400 lbs | 60,400 lbs   | 60,400 lbs |

<sup>\*</sup> May be extended to 10 minutes in the event of a power unit having failed or been shut down: see notes in Engine TCDS

Other engine limitations: See the relevant Engine Type Certificate Data Sheet.

## Pratt & Whitney (PW) engines

| A/C Model                   |            | A330-223   |            |            | A330-223F  |            |
|-----------------------------|------------|------------|------------|------------|------------|------------|
| Engine Model                | PW4168A    | PW4168A-1D | PW4170     | PW4168A**  | PW4168A-1D | PW4170     |
|                             |            |            |            | (202393)   | (58344)    |            |
| Static thrust at sea level: |            |            |            |            |            |            |
| - take-off<br>(5mn) *       | 68,600 lbs | 68,600 lbs | 70,000 lbs | 68,600 lbs | 68,600 lbs | 70,000 lbs |
| - maximum continuous        | 59,357 lbs |

<sup>\* 10</sup> minutes at take-off thrust allowed only in case of engine failure (at take-off or during go-around in accordance with DGAC "Fiche de caractéristiques moteur".

Other engine limitations: See the relevant Engine Type Certificate Data Sheet.

## Rolls Royce (RR) engines

| A/C Model                   | A330-243      |              | A330-243F     |
|-----------------------------|---------------|--------------|---------------|
| Engine Model                | Trent 772B-60 | Trent772C-60 | Trent 772B-60 |
| Static thrust at sea level: |               |              |               |
| - take-off<br>(5mn) *       | 71,100 lbs    | 71,100 lbs   | 71,100 lbs    |
| - maximum continuous        | 63,650 lbs    | 63,650 lbs   | 63,650 lbs    |

<sup>\*</sup> The take-off rating and the associated operating limitations may be used for up to 10 minutes in the event of an engine failure (see notes in Engine TCDS).

Other engine limitations: See the relevant Engine Type Certificate Data Sheet.

## 5.3.2 Transmission Torque Limits

N/A

<sup>\*\*</sup> Only one of the PW4168A engine should be installed on the freighter on A330-223F aircraft basically fitted with two PW4168A-1D.

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## 6. Fluids (Fuel / Oil / Additives / Hydraulics)

## 6.1 Fuel

The following fuels may be used:

| ENGINES   | KEROSENE DESIGNATION                                 |
|---|--|
| <b>GE:</b> (GE Specification D50TF2)                  | JET A, JET A-1, JP5, JP8, N°3 Jet Fuel, JET B, JP 4, |
| ,   | TS-1(GOST), RT(GOST)                                 |
| PW: (PWA 522 Specification (PW SB N° 2016))           | JET A, JET A-1, JP5, JP8, N°3 Jet Fuel, JET B, JP 4, |
| PW. (PWA 322 Specification (PW 3B N 2010))            | TS-1(GOST), RT(GOST)                                 |
| RR: (Operating Instruction in RR Manuel F-Trent A330) | JET A, JET A-1, JP5, JP8, N°3 Jet fuel,              |
| nn. (Operating instruction in kk Manuel F-Trent A330) | TS-1(GOST), RT (GOST)                                |

The above mentioned fuels are also suitable for the APU.

Refer to Consumable Material List (CML) for details on approved fuel specifications.

## 6.2 Oil

Refer to the Consumable Material List (CML).

Refer to Engine and APU Manufacturers Operating Instructions.

#### 6.3 Additives

Refer to the Consumable Material List (CML).

## 6.4 Hydraulics

Refer to the Consumable Material List (CML).

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## 7. Fluid capacities

## 7.1 Fuel

Fuel quantity (0.8 kg / litre):

|           |                         | 2-TANK AEROPLANE  |               |            |  |
|-----------|-------------------------|---|---------------|------------|--|
|           |                         | Usable fuel   | Unusable fuel |            |  |
|           | 1                       | litres (kg)   | litres        | s (kg)     |  |
|           | GE                      | -   |               |            |  |
| A/C Model | PW                      | A330-223F (with MOD 58623 and without MOD 200281) All m |               | All models |  |
|           | RR                      | A330-243F (with MOD 58623 and without MOD 200281)       |               |            |  |
|           |                         |   | Basic         | MOD        |  |
|           |                         |   | Basic         | 205749     |  |
| WING TANK |                         | 91 300 (73 040)   | 348 (279)     | 190 (152)  |  |
| TRIM      | TRIM TANK 6 230 (4 984) |   | 6 (5)         | 6 (5)      |  |
| TOTAL     |                         | 97 530 (78 024)   | 354 (284)     | 196 (157)  |  |

| 3-TANK AEROPLANE |      |  |             |               |  |  |
|------------------|------|--|-------------|---------------|--|--|
|                  |      | Unusable fuel  |             |               |  |  |
|                  |      | litres (kg)  | litres (kg) |               |  |  |
|                  |      | A330-201   |             |               |  |  |
|                  | GE   | A330-202   |             |               |  |  |
|                  |      | A330-203   |             |               |  |  |
| A/C Model        | PW   | A330-223   | All m       | odels         |  |  |
|                  | PVV  | A330-223F (with MOD 58623+200281 or without MOD 58623) |             |               |  |  |
|                  | RR   | A330-243   |             |               |  |  |
|                  | KK   | A330-243F (with MOD 58623+200281 or without MOD 58623) |             |               |  |  |
|                  |      |  | Basic       | MOD<br>205749 |  |  |
| WING             | TANK | 91 300 (73 040)  | 348 (279)   | 190 (152)     |  |  |
| CENTRE TANK      |      | 41 560 (33 248)  | 83 (67)     | 83 (67)       |  |  |
| TRIM TANK        |      | 6 230 (4 984)  | 6 (5)       | 6 (5)         |  |  |
| TOTAL            |      | 139 090 (111 272)                                      | 437 (350)   | 279 (223)     |  |  |

## 7.2 Oil

Refer to Weight & Balance Manual.

# 7.3 Coolant system capacity

N/A.

# 8. Air Speeds Limits

Refer to approved Aeroplane Flight Manual.

## 9. Rotor Speed Limits

N/A

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## 10. Maximum Operating Altitude and Temperature

## 10.1 Altitude

Maximum Flight level: 41 450 ft (12 634m) Maximum Airfield altitude: 12 500 ft ( 3 810m)

10.2 Temperature

Flight: Minimum: -78°C SAT Ground: Range: -54°C to +55°C

## 11. Operating Limitations

Refer to approved Aeroplane Flight Manual for maximum demonstrated crosswind. Wind Speed Limitations:

- Crosswind: Takeoff: A/C: 45kt (gust included)

Engine: Refer to AFM Limitation section

Landing: A/C: 45kt (gust included)

Engine: Refer to AFM Limitation section

- Tailwind: Takeoff: 10kt

> Landing: 10kt

## 12. Maximum Weight

## Passenger Models:

|          |    | EIS      | EIS      |          |          |          |          |          |          |  |  |  |
|----------|----|----------|----------|----------|----------|----------|----------|----------|----------|--|--|--|
| Variar   | nt | 020      | 021      | 022      | 023      | 024      | 025      | 026      | 027      |  |  |  |
| (MOD     | )  | Basic    | (46892)  | (47784)  | (47888)  | (49819)  | (50864)  | (204732) | (54519)  |  |  |  |
|          |    | A330-201 | -        | -        | A330-201 | A330-201 |          | -        | -        |  |  |  |
|          | GE | A330-202 | A330-202 | A330-202 | A330-202 | -        | -        | -        |          |  |  |  |
| Models   |    | A330-203 | -        | A330-203 | A330-203 | -        |          | A330-203 |          |  |  |  |
|          | PW | A330-223 | A330-223 | A330-223 | A330-223 | -        | -        | -        | -        |  |  |  |
|          | RR | A330-243 |  |  |  |
| MTOW (T) |    | 230      | 230      | 233      | 233      | 202      | 220      | 192      | 220      |  |  |  |
| MLW (T)  |    | 180      | 182      | 182      | 180      | 180      | 182      | 180      | 180      |  |  |  |
| MZFW (T) |    | 168      | 170      | 170      | 168      | 168      | 170      | 168      | 168      |  |  |  |

|          |    | Enhanced | l        |          |          |          |          |          |          |
|----------|----|----------|----------|----------|----------|----------|----------|----------|----------|
| Variar   |    | 050      | 051      | 052      | 05       | 53       | 054      | 055      | 056      |
| (MOD)    | )  | (51802)  | (51803)  | (51804)  | (52109)  | (204437) | (54106)  | (54107)  | (55813)  |
|          |    | A330-201 | -        | A330-201 | -        | -        | A330-201 | A330-201 | A330-201 |
|          | GE | A330-202 | -        | A330-202 | A330-202 | A330-202 | A330-202 | A330-202 | A330-202 |
| Models   |    | A330-203 | A330-203 | A330-203 | -        | A330-203 | A330-203 | A330-203 | A330-203 |
|          | PW | A330-223 | -        | A330-223 | -        | -        | A330-223 | A330-223 | A330-223 |
|          | RR | A330-243 | -        | A330-243 | -        | -        | A330-243 | A330-243 | A330-243 |
| MTOW (T) |    | 230      | 192      | 233      | 210      | 210      | 230      | 192      | 233      |
| MLW (T)  |    | 180      | 180      | 182      | 180      | 180      | 182      | 182      | 180      |
| MZFW (T) |    | 168      | 168      | 170      | 168      | 168      | 170      | 170      | 168      |

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| Variant  |    | 057                  | 058                  | 059                  | 060                  | 061                  | 062                  | 063      | 064      |
|----------|----|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------|----------|
| (MOD)    | )  | (58859)<br>(201436)  | (58860)<br>(201437)  | (57439)              | (57440)              | (200561)             | (201701)             | (204729) | (204730) |
|          | 0- | A330-201             | A330-201             | A330-201             | A330-201             | A330-201             | A330-201             |          |          |
| Models   | GE | A330-202<br>A330-203 | A330-202<br>A330-203 | A330-202<br>A330-203 | A330-202<br>A330-203 | A330-202<br>A330-203 | A330-202<br>A330-203 | -        | -        |
| modolo   | PW | A330-223             | A330-223             | A330-223             | A330-223             | A330-223             | A330-223             | A330-223 | A330-223 |
|          | RR | A330-243             | A330-243             | A330-243             | A330-243             | A330-243             | A330-243             | -        | -        |
| MTOW (T) |    | 236                  | 238                  | 202                  | 220                  | 230                  | 238                  | 192      | 217      |
| MLW (T)  |    | 182                  | 182                  | 182                  | 182                  | 182                  | 182                  | 182      | 182      |
| MZFW (T) |    | 170                  | 168                  | 170                  | 170                  | 168                  | 168-170*             | 168      | 168      |

<sup>(\*)</sup> Linear variation between those weights

|                  |    | 242t                 |                      |                      |                      |
|------------------|----|----------------------|----------------------|----------------------|----------------------|
| Variant<br>(MOD) |    | <b>080</b> (203901)  | <b>081</b> (203902)  | <b>082</b> (203904)  | <b>083</b> (203903   |
|                  | GE | A330-202<br>A330-203 | A330-202<br>A330-203 | A330-202<br>A330-203 | A330-202<br>A330-203 |
| Models           | PW | A330-223             | A330-223             | A330-223             | A330-223             |
|                  | RR | A330-243             | A330-243             | A330-243             | A330-243             |
| MTOW (T)         |    | 238                  | 242                  | 242-238*             | 240                  |
| MLW (T)          |    | 182                  | 182                  | 182                  | 182                  |
| MZFW (T)         |    | 170                  | 166                  | 166-170*             | 168                  |

<sup>(\*)</sup> Linear variation between those weights

## Freighter Models:

|                  |          | EIS              |                |                |
|------------------|----------|------------------|----------------|----------------|
| Variant<br>(MOD) |          | 000 001<br>Basic |                | 002            |
| Models           | GE<br>PW | -<br>A330-223F   | -<br>A330-223F | -<br>A330-223F |
| Modelo           | RR       | A330-243F        | A330-243F      | A330-243F      |
| MTOW (T)         |          | 233              | 227            | 233            |
| MLW (T)          |          | 182              | 187            | 187            |
| MZFW (T)         |          | 173              | 178            | 173-178*       |

<sup>(\*)</sup> Linear variation between those weights

## 13. Centre of Gravity Range

Refer to approved Aeroplane Flight Manual.

## 14. Datum / Mean Aerodynamic Chord (MAC)

Datum: Station 0.0, located 6,382 meters forward of aeroplane nose.

MAC: 7,270m

## 15. Levelling Means

Three primary jacking points: Refer to approved Weight and Balance Manual.

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## 16. Minimum Flight Crew

Two (2): Pilot and Co-pilot.

## 17. Passenger Emergency Exit

## Passenger Models:

Two Passenger Emergency Exit configurations:

- Configuration A-A-I-A: Basic 3 Type A passenger doors and 1 Emergency Exit Type I
- Configuration A-A-A-A: Option 4 Type A passenger doors (MOD 40161)

## Freighter Models:

The forward pair of Passenger Emergency Exit Type A remains active as per Type Design.

18. Maximum Passenger Seating Capacity and associated Minimum Number of Cabin Crew

## Passenger Models:

The maximum number of passengers approved for emergency evacuation is:

- (in Configuration A-A-I-A);
- 406 (in Configuration A-A-A-A). Option

See interior layout drawing for the maximum passenger capacities approved for each aeroplane when delivered.

The table below provides the certified Maximum Passenger Seating Capacities (MPSC), the corresponding cabin configuration (exit arrangement and modifications) and the associated minimum numbers of cabin crew members used to demonstrate compliance with the certification requirement:

| Maximum I  | Minimum                               |   |  |  |  |
|------------|---------------------------------------|---|--|--|--|
| & Cabin Co | Cabin crew                            |   |  |  |  |
| 406        | 406 Configuration A-A-A-A (MOD 40161) |   |  |  |  |
| 400        | Configuration A-A-A-A (MOD 40161)     | 8 |  |  |  |
| 375        | Configuration A-A-I-A (Basic)         | 8 |  |  |  |

A lower number of cabin crew may be approved by EASA for specific cabin layouts.

#### Freighter Models:

With the forward pair of Passenger Emergency Exit Type A fully active:

- The total occupancy of the aeroplane is limited to 16 persons.
- A maximum of 12 supernumeraries may occupy the courier area located aft of the flight deck compartment.

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## 19. Maximum Baggage/ Cargo Loads

For the positions and the loading conditions authorized in each position (references of containers, pallets and associated weights), see Weight and Balance Manual.

## Passenger Models:

| Cargo compartment | Maximum load (kg) |
|-------------------|-------------------|
| Forward           | 18 869            |
| Aft               | 15 241            |
| Rear (bulk)       | 3 468             |

## Freighter Models:

| Cargo compartment | Maximum load (kg) |
|-------------------|-------------------|
| Forward           | 18 869            |
| Aft               | 15 241            |
| Rear (bulk)       | 3 468             |
| Main Deck Cargo   | 65 000            |
| Compartment       | (range mode)      |

## 20. Rotor Blade control movement

N/A

## 21. Auxiliary Power Unit (APU)

One GARRETT (Company name changed to Honeywell International Inc. in 1999):

- GTCP 331-350C (Specification 31-7677A)

## 22. Life-limited parts

Refer to Airworthiness Limitation Section

See SECTION: DATA PERTINENT TO ALL MODELS.

## 23. Wheels and Tyres

Refer to Airbus Service Bulletin A330-32-3004.

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## SECTION 1: A330-200 SERIES – Cont'd

## IV. Operating and Service Instructions

In accordance with EASA Part 21 regulation, Airbus provide on-demand access to the following technical publications to any person required to comply with any of those instructions:

(Access via AirbusWorld portal)

1. Flight Manual (AFM)

Ref. AFM 33000 (latest published revision)

2. Maintenance Manual

Refer to Customized Maintenance Manuals published by Airbus (latest published revision)

3. Structural Repair Manual (SRM)

Refer to Customized SRM published by Airbus (latest published revision)

4. Weight and Balance Manual (W&BM)

Refer to Customized W&BM published by Airbus (latest published revision)

5. Illustrated Parts Catalogue (IPC)

Refer to Customized IPC published by Airbus (latest published revision)

6. Service Bulletins (SBs)

Refer to applicability section of Airbus Service Bulletins (latest published revision)

7. Required Equipment

The equipment required by the applicable regulation shall be installed.

Refer also to MMEL – See SECTION: DATA PERTINENT TO ALL MODELS.

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## SECTION 1: A330-200 SERIES – Cont'd

#### V. Notes

#### 1. All Weather Capability

|                           | GE Engines                               | PW Engines                               | RR Engines                               |
|---------------------------|--|--|--|
| A/C Model                 | A330-201<br>A330-202<br>A330-203         | A330-223<br>A330-223F                    | A330-243<br>A330-243F                    |
| Type Design<br>Capability | Cat 3<br>Precision approach and autoland | Cat 3<br>Precision approach and autoland | Cat 3<br>Precision approach and autoland |

## 2. Conversions between Models

The following A/C Model conversions are approved:

- A330-203 can be converted into A330-202 by application of Airbus Service Bulletin A330-00-3034 covering modification 53335.
- A330-201 can be converted into A330-202 by application of Airbus Service Bulletin A330-00-3051 covering modification 55917.

The following A/C Model engine configuration changes are approved:

- It is feasible for A330-202 to be fitted with CF6-80E1A2 engines by application of Service Bulletin 72-3003 (Mod 46549) and to be reverted to CF6-80E1A4 engines installation by Service Bulletin 72-3005 (Mod 47332).).

## 3. Change of Weight Variants

N/A

## 4. Fuel tank Flammability Reduction System (FRS)

If fitted, the centre fuel tank of aircraft which have made their first flight after 1st of January 2012 must be equipped in production with a fuel tank Flammability Reduction System (Modification 58723). This system shall remain installed and operative and can only be dispatched inoperative in accordance with the provisions of the MMEL revision associated with Modification 58723.

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## SECTION 2: A330-300 SERIES

#### I. General

- 1. Type / Model
  - 1.1 Type

A330

1.2 Model

A330-301, A330-302, A330-303 A330-321, A330-322, A330-323 A330-341, A330-342, A330-343

- 2. Airworthiness Category
  - Large Aeroplanes

Performance Category A

- 3. Manufacturer
  - AIRBUS
  - 2 Rond-Point Emile Dewoitine
  - 31700 Blagnac FRANCE
- 4. State of Design Authority Type Certification
  - 4.1 State of Design Authority

DGAC-F

4.2 Application Date

A330-301: 16 April 1986 A330-321: 10 April 1991 A330-322: 10 April 1991 A330-341: 31 Jan 1994 A330-342: 31 Jan 1994 A330-323: 18 May 1998 A330-343: 18 May 1998

4.3. State of Design Authority Type Certificate Date

A330-301: 21 October 1993 A330-321: 02 June 1994 A330-322: 02 June 1994 A330-341: 22 December 1994 A330-342: 22 December 1994 A330-323: 22 April 1999

A330-343: 13 September 1999

DGAC-F TC 184 remains a valid reference for models certified before 28 September 2003

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## SECTION 2: A330-300 SERIES (Cont'd)

## 5. EASA Type Certification

5.1 State of Design Authority EASA

5.2 Application Date

A330-302: 17 July 2000 A330-303: 17 July 2000

5.3. State of Design Authority Type Certificate Date

A330-302: 17 May 2004 A330-303: 17 May 2004

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## **II. Certification Basis**

1. Reference Date for determining the applicable requirements

Reference Application Date for EASA Certification: 15 June 1988

## 2. Airworthiness Requirements

## Original Airworthiness Requirements (at time of TC):

- Certification Requirements

JAR 25 Change 13 effective on October 5, 1989 except as follows:

Deviation on limited areas for compliance against paragraphs 25.561 and 25.562 such as:

- Compliance at change 12 for wing tank outside the fuselage contour
- For showing compliance with JAR 25.785 (a)(b)(c), the front row seats located behind a bulkhead are not tested according to JAR 25.562(c)(5)(6). Instead, a minimum 35 inches distance between the seats and the bulkhead is considered an acceptable alternative
- All Weather Operations

JAR AWO Change 1 NPA JAR AWO-3 (Take-off in low visibility)

#### Additional Airworthiness Requirements (added Post TC):

The following requirements are additionally applicable when an A/C configuration include the subject optional design change(s):

- Certification Requirements

For A330-302, A330-303, A330-323, A330-342, A330-343 Weight Variants 080s with Centre Tank activated (MOD 204025), the following requirements shall be considered at JAR 25 Change 14 for:

- JAR 25.733 (c)(1)
- JAR 25.963 (g) for fuel centre tank
- JAR 25.979

The following requirements may be considered to certify the following optional designs:

- CS 25.791 Original issue for symbolic no smoking signs in lavatories
- CS 25.811 and CS 25.812 Amdt. 3 for multi lingual "EXIT" signs.
- CS 25.851 (a) (c) Amdt 17 for Halon Free Hand Held Fire Extinguishers Compliance with Commission regulation (EU) N° 744/2010 of 18 August 2010 amending regulation (EC) n° 1005/2009 of the European Parliament and of the Council on substances that deplete the ozone layer, with regard to the critical uses of halon).
- Airborne Communication, Navigation, Surveillance

**CS-ACNS** Initial Issue

- Subpart B, Section 2 - for optional modifications (Post TC) installing FANS aiming at answering to SES mandate as defined in (EU) N° 29/2009 and amended by (EU) N° 310/2015 of 26 Febuary 2015.

Note: For compliance to CS-ACNS Subpart B, Section 2, a deviation to CS-ACNS.B.DLS.B1.075 is accepted by CRI ACNS-B-GEN-01 to not include DM89 MONITORING [unit name] [frequency] in the downlink message set installed.

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> - Subpart D – for optional modifications installing transponders aiming at answering to SES mandate as defined in (EU) No 1207/2011 and amended by (EU) No 1028/2014 of 26 September 2014.

## 3. Special Conditions

## Original Special Conditions part of Certification Basis (at time of TC):

| _ | IAA | Numh   | ering |
|---|-----|--------|-------|
|   | ノヘヘ | INGILL | CHIE. |

| JAA Numb | ering:   |
|----------|--|
| SC G-5   | Resistance to fire terminology (NPA 25D-181)                                 |
| SC G-7   | Function and reliability testing   |
| SC A-1   | Discrete gust requirements (NPA 25C-205)                                     |
| SC A-2   | Interaction of systems and structure (NPA 25C-199)                           |
| SC A-3   | Design manoeuver requirements  |
| SC A-4   | Design dive speed  |
| SC A-5   | Limit pilot forces and torque  |
| SC A-7   | Stalling speeds for structural design  |
| SC A-11  | Aeroelastic stability requirements (NPA 25B, C, D-236)                       |
| SC F-1   | Stalling and scheduled operating speeds                                      |
| SC F-2   | Motion and effects of cockpit controls                                       |
| SC F-3   | Static longitudinal stability  |
| SC F-4   | Static directional and lateral stability                                     |
| SC F-5   | Flight envelope protections  |
| SC F-6   | Normal load factor limiting system   |
| SC S-3   | Landing gear warning (NPA 25D-162)   |
| SC S-6   | Lightning protection indirect effects  |
| SC S-10  | Effects of external radiations upon aircraft systems                         |
| SC S-13  | Autothrust system  |
| SC S-16  | Control signal integrity   |
| SC S-18  | Electronic flight controls   |
| SC S-20  | Emergency electrical power (NPA 25D, F-179)                                  |
| SC S-23  | Electrical wiring and miscellaneous electrical requirements (NPA 25D, F-191) |
| SC S-24  | Doors (NPA 25D, F-251)   |
| SC S-48  | Minimum approach break-off height  |

## Additional Special Conditions part of the Certification Basis (added post TC):

Centre of gravity control system

The following Special Conditions are additionally applicable when an A/C configuration include the subject optional design change(s):

## - JAA Numbering:

SC P-1

SC P-2

**FADEC** 

| SC E-2   | Underfloor Crew rest compartment |
|----------|----------------------------------|
|          | (applicable from February 1993)  |
| SC E-5.1 | Lower deck Lavatory              |
|          | (applicable from August 2000)    |
| SC E-8.1 | Lower deck stowage area          |
|          | (applicable from August 2000)    |



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| SC E-11    | Bulk crew rest compartment (applicable from January 2002)  |
|------------|--|
| SC E-19    | F/C sliding screens (applicable from September 2003)   |
| SC E-28    | Partial Bulk Crew Rest Compartment with attached to galley (applicable from January 2009)                    |
| SC E-128   | Improved flammability standards for thermal/acoustic insulation (Applicable from February 2009)              |
| SC E-130   | Application of heat release and smoke density requirements to seat materials (applicable from February 2010) |
| SC E-1014  | HIC compliance for front row seating (inflatable restraints) (Applicable from July 2007)                     |
| SC E-1023  | Side facing seats with with inflatable restraints (applicable from April 2007)                               |
| SC P-32    | Fuel Tank Safety (applicable from November 2013)   |
| SC S-38    | Towbarless towing  |
| EASA Num   | bering:  |
| SC B-09    | Soft go around (applicable from February 2017)   |
| SC D-04    | Crew Rest Compartment (applicable from February 2018)  |
| SC D-06    | Installation of Three Point Restraint & Pretensioner System  |
|            | (applicable from August 2017)  |
| SC D-07    | Installation of Oblique Seats  |
|            | (applicable from August 2017)  |
| SC D-08    | Cabin Attendant Seat mounted on lavatory Door Blade  |
|            | (applicable from July 2018)  |
| SC D-100   | Installation of mini suite type seating (applicable from April 2018)   |
| SC D-102   | Incorporation of Inertia Locking Device in Dynamic Seats   |
| JC D 102   | (applicable from January 2019)   |
| SC F-126   | Flight Recorders including Data Link Recording   |
|            | (applicable from June 2013)  |
| SC F-131   | Flight Instrument External Probes – Qualification in Icing Conditions  |
|            | (applicable from April 2016)   |
| SC F-134   | Head Up Display Installation   |
|            | (applicable from May 2017)   |
| SC F-137   | Security Protection of Aircraft Systems and Networks   |
|            | (applicable from May 2018)   |
| SC F-GEN-( | 01: Installation of non-rechargeable lithium battery   |
|            | (applicable from April 2019)   |
| SC H-01    | Enhanced Airworthiness Programme for Aeroplane Systems - ICA on EWIS   |
|            | (Applicable from May 2010)   |



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For A330-302, A330-303, A330-323, A330-342 WV22&52 and A330-343 models only:

- JAA Numbering:

SC F-8.1 Accelerate Stop Distances

SC S-148 Longitudinal touchdown performance + MABH deletion - JAR NPA AWO-8 (replace SC S-48 for autopilot standards certification)

For A330-302, A330-303, A330-323, A330-342, A330-343 Weight Variants 080s with Centre Tank activated (MOD 204025):

- JAA Numbering:

SC P-27 Flammability Reduction System (June 2010)

SC P-32 Fuel Tank Safety (November 2013)

### 4. Exemptions

None

#### 5. Deviations

# <u>Deviation to Additional Airworthiness Requirements (added Post TC):</u>

- Airborne Communication, Navigation, Surveillance

ACNS-B-GEN-01 Deviation to CS-ACNS Initial Issue Subpart B, Section 2 (See Note in §II-2)

# 6. Equivalent Safety Findings

### Original Equivalent Safety Findings part of Certification Basis (at time of TC):

- JAA Numbering:

ESF S-45 Oil temperature indication

A330 / RR turbine overheat detection

The following Special Conditions provide an equivalent safety level to JAR 25 acceleratestop and brakes qualification requirements (NPA 25 B, D, G 244)

- SC F-8 Accelerate stop distances
- SC S-21 Brakes wear limits

# Additional Equivalent Safety Findings part of the Certification Basis (added post TC):

The following Equivalent Safety Findings shall be considered for design change(s):

- JAA Numbering:

The following Special Conditions provide an equivalent safety level to JAR 25 acceleratestop and brakes qualification requirements (NPA 25 B, D, G 244)

- SC F-8.1 Accelerate stop distances (applicable from March 1996)
- SC S-21 Brakes wear limits

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The following Equivalent Safety Findings are additionally applicable when an A/C configuration include the subject optional design change(s):

### - JAA Numbering:

- ESF E-15 Reinforced security cockpit door (applicable from July 2002)
- ESF E-17 Trolley Lift

(applicable from November 2003)

- ESF E-18 Lower Deck galley compartment (applicable from November 2003)
- ESF E-21 Emergency exit marking reflectance (applicable from December 2004)
- ESF E-27 Forward facing seats over 18 degrees to A/C centreline (applicable from June 2009)
- ESF E-29 Fuselage burn through aft pressure bulkhead (applicable from March 2009)
- ESF E-30 Fuselage burn through belly fairing (applicable from April 2009)
- ESF E-31 Fuselage burn through bilge area (applicable from April 2009)
- ESF E-134 Installation of seats that make an angle of more than 18° with the aircraft longitudinal axis (applicable from November 2013)
- ESF E-1022Improved flammability standards for thermal / acoustic insulation materials (applicable from August 2005)
- ESF F-128 Minimum Mass Flow of Supplemental Oxygen (applicable from November 2014).
- ESF F-129 Crew Determination of Quantity of Oxygen in Passenger Oxygen System (applicable from November 2014).

#### - EASA Numbering:

- ESF B-100 Vibration / buffeting compliance criteria for large external antenna installation (applicable from April 2018).
- ESF D-101 Green arrow and "Open" Placard of Emergency Exit marking (applicable from February 2018).

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### 7. Environmental Protection

7.1 Noise

See TCDSN no. EASA.A.004

7.2 Fuel Venting

ICAO Annex 16, Volume II, amendment 1, Part II, chapter II

# 8. Operational Suitability Data (OSD)

See SECTION: DATA PERTINENT TO ALL MODELS for:

- Operational Suitability Requirements
- EASA Approved Operational Suitability Data

# 9. Extended Range Operations (ETOPS)

See SECTION: DATA PERTINENT TO ALL MODELS for:

- ETOPS Technical Conditions
- EASA Approved ETOPS Capability

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### SECTION 2: A330-300 SERIES (Cont'd)

#### III. Technical Characteristics and Operational Limitations

#### 1. Type Design Definition

## With General Electric (GE) engines

A330-301: 00G000A0301/C00 A330-302: 00G000A0302/C00 A330-303: 00G000A0303/C00

### With Pratt & Whitney (PW) engines

A330-321: 00G000A0321/C00 (also referred as 00G000A0321/C0S) A330-322: 00G000A0322/C00 (also referred as 00G000A0322/C0S)

A330-323: 00G000A0323/C00

### With Rolls Royce (RR) engines

A330-341: 00G000A0341/C00 A330-342: 00G000A0342/C00 A330-343: 00G000A0343/C00

#### 2. Description

Two turbo-fan, medium to long range, twin-aisle, large category aeroplane.

# 3. Equipment

Refer to Type Design Definition.

Cabin furnishings, equipment and arrangement shall conform to the following specification:

- 00F252K0005/C01 for cabin seats.
- 00F252K0006/C01 for galley.
- 00F252K0020/C01 for cabin attendant seats.

#### 4. Dimensions

- Length: 63,66m (208ft 10in) - Diameter: 05,64m (18ft 6in) - Wing Span: 60,30m (197ft 10in) - Height: 16,83 m (55ft 3in)

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#### 5. Engine

#### 5.1 Model

#### General Electric (GE) engines

A330-301: Two (2) General Electric CF6-80E1A2 turbofan engines

A330-302: Two (2) General Electric CF6-80E1A2 turbofan engines

A330-302: Two (2) General Electric CF6-80E1A4 or CF6-80E1A4/B turbofan engines

A330-303: Two (2) General Electric CF6-80E1A3 turbofan engines

#### Pratt & Whitney (PW) engines

A330-321: Two (2) Pratt & Whitney 4164 turbofan engines

A330-321: Two (2) Pratt & Whitney 4164-1D turbofan engines

A330-322: Two (2) Pratt & Whitney 4168 turbofan engines

A330-322: Two (2) Pratt & Whitney 4168-1D turbofan engines A330-323: Two (2) Pratt

& Whitney 4164-1D turbofan engines

A330-323: Two (2) Pratt & Whitney 4168A turbofan engines

A330-323: Two (2) Pratt & Whitney 4168A-1D turbofan engines

A330-323: One (1) Pratt & Whitney 4168A-1D turbofan engines

One (1) Pratt & Whitney 4168A turbofan engines

A330-323: Two (2) Pratt & Whitney 4170 turbofan engines

## Rolls Royce (RR) engines

A330-341: Two (2) Rolls Royce Trent 768-60 turbofan engines

A330-342: Two (2) Rolls Royce Trent 772-60 turbofan engines

A330-343: Two (2) Rolls Royce Trent 768-60 turbofan engines

A330-343: Two (2) Rolls Royce Trent 772B-60 turbofan engines

A330-343: Two (2) Rolls Royce Trent 772C-60 turbofan engines

# 5.2 Type Certificate

# General Electric (GE) engines

FAA Engine TCDS: E41NE

EASA Engine TCDS: EASA.IM.E.007

### Pratt & Whitney (PW) engines

FAA Engine TCDS: E36NE

EASA Engine TCDS: EASA.IM.E.043

### Rolls Royce (RR) engines

UK CAA Engine TCDS: 1050

EASA Engine TCDS: EASA.E.042



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### 5.3 Limitations

# 5.3.1 Installed Engine Limits

# General Electric (GE) engines

| A/C Model                   | A330-301   |            |            | A330-303     |            |
|-----------------------------|------------|------------|------------|--------------|------------|
| Engine Model                | CF6-80E1A2 | CF6-80E1A2 | CF6-80E1A4 | CF6-80E1A4/B | CF6-80E1A3 |
|                             |            |            |            | (MOD 52776)  |            |
| Static thrust at sea level: |            |            |            |              |            |
| - take-off<br>(5mn) *       | 64,530 lbs | 64,530 lbs | 66,870 lbs | 68,530 lbs   | 68,530 lbs |
| - maximum continuous        | 60,400 lbs | 60,400 lbs | 60,400 lbs | 60,400 lbs   | 60,400 lbs |

<sup>\*</sup> May be extended to 10 minutes in the event of a power unit having failed or been shut down: see notes in Engine TCDS.

Other engine limitations: See the relevant Engine Type Certificate Data Sheet.

# Pratt & Whitney (PW) engines

| A/C Model                   | A330-321   | A330-322   | A330-323   |            |            |  |  |
|-----------------------------|------------|------------|------------|------------|------------|--|--|
| Engine Model                | PW4164/    | PW4168/    | PW4164-1D  | PW4168A/   | PW4170     |  |  |
|                             | PW4164-1D  | PW4168-1D  |            | PW4168A-1D |            |  |  |
| Static thrust at sea level: |            |            |            |            |            |  |  |
| - take-off<br>(5mn) *       | 64,500 lbs | 68,600 lbs | 64,500 lbs | 68,600 lbs | 70,000 lbs |  |  |
| - maximum continuous        | 55,800 lbs | 59,357 lbs | 55,800 lbs | 59,357 lbs | 59,357 lbs |  |  |

<sup>\* 10</sup> minutes at take-off thrust allowed only in case of engine failure (at take-off or during go-around in accordance with DGAC "Fiche de caractéristiques moteur".

Other engine limitations: See the relevant Engine Type Certificate Data Sheet.

# Rolls Royce (RR) engines

| A/C Model             | A330-341     | A330-342     | A330-343      |              |              |  |  |
|-----------------------|--------------|--------------|---------------|--------------|--------------|--|--|
| Engine Model          | Trent 768-60 | Trent 772-60 | Trent 772B-60 | Trent772C-60 | Trent 768-60 |  |  |
| Static thrust at      |              |              |               |              |              |  |  |
| sea level:            |              |              |               |              |              |  |  |
| - take-off<br>(5mn) * | 67,500 lbs   | 71,100 lbs   | 71,100 lbs    | 71,100 lbs   | 67,500 lbs   |  |  |
| - maximum continuous  | 60,410 lbs   | 63,650 lbs   | 63,650 lbs    | 63,650 lbs   | 60,410 lbs   |  |  |

<sup>\*</sup> The take-off rating and the associated operating limitations may be used for up to 10 minutes in the event of an engine failure (see notes in Engine TCDS).

Other engine limitations: See the relevant Engine Type Certificate Data Sheet.

### 5.3.2 Transmission Torque Limits

N/A

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# 6. Fluids (Fuel / Oil / Additives / Hydraulics)

#### 6.1 Fuel

The following fuels may be used:

| ENGINES   | KEROSENE DESIGNATION   |  |  |  |  |
|---|--|--|--|--|--|
| <b>GE:</b> (GE Specification D50TF2)                  | JET A, JET A-1, JP5, JP8, N°3 Jet Fuel, JET B, JP 4,<br>TS-1(GOST), RT(GOST) |  |  |  |  |
| DIAL / DIALA F22 Crasification / DIAL CD AIR 201 C)   | JET A, JET A-1, JP5, JP8, N°3 Jet Fuel, JET B, JP 4,                         |  |  |  |  |
| PW: (PWA 522 Specification (PW SB N° 2016))           | TS-1(GOST), RT(GOST)   |  |  |  |  |
| RR: (Operating Instruction in RR Manuel F-Trent A330) | JET A, JET A-1, JP5, JP8, N°3 Jet fuel,                                      |  |  |  |  |
| (Operating instruction in the Manuel 1-Hent Asso)     | TS-1(GOST), RT(GOST)   |  |  |  |  |

The above mentioned fuels are also suitable for the APU.

Refer to Consumable Material List (CML) for details on approved fuel specifications.

# 6.2 Oil

Refer to the Consumable Material List (CML).

Refer to Engine and APU Manufacturers Operating Instructions.

# 6.3 Additives

Refer to the Consumable Material List (CML).

# 6.4 Hydraulics

Refer to the Consumable Material List (CML).

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# 7. Fluid capacities

### 7.1 Fuel

Fuel quantity (0.8 kg / litre):

|           |             | 2-TANK AEROPLANE            |                      |               |           |  |
|-----------|-------------|-----------------------------|----------------------|---------------|-----------|--|
|           |             | Usable                      | fuel                 | Unusable fuel |           |  |
|           |             | litres                      | (kg)                 | litres        | s (kg)    |  |
|           | GE          | A330-301                    | A330-302             |               |           |  |
|           | GL          |                             | A330-303             |               |           |  |
| A/C Model | PW          | A330-321                    | A330-323             | All models    |           |  |
| A/C Model | /C Model PW | A330-322                    | A330-323             | All models    |           |  |
|           | RR          | A330-341                    | A330-342 (WV22 & 52) |               |           |  |
|           | KK          | A330-342 (except WV22 & 52) | A330-343             |               |           |  |
|           |             |                             |                      | Basic         | MOD       |  |
|           |             |                             |                      | Basic         | 205749    |  |
| WING      | TANK        | 91 764 (73 411)             | 91 300 (73 040)      | 348 (279)     | 190 (152) |  |
| TRIM      | TANK        | 6 121 (4 897)               | 6 230 (4 984)        | 6 (5)         | 6 (5)     |  |
| TOTAL     |             | 97 885 (78 308)             | 97 530 (78 024)      | 354 (284)     | 196 (157) |  |

|           |      | 3-TANK AEROPLANE | 3-TANK AEROPLANE          |               |               |  |  |  |  |
|-----------|------|------------------|---------------------------|---------------|---------------|--|--|--|--|
|           |      | Us               | able fuel                 | Unusable fuel |               |  |  |  |  |
|           |      | lit              | res (kg)                  | litres        | s (kg)        |  |  |  |  |
|           | GE   | A330-302         | WV 030s, 050s, 060s, 080s |               |               |  |  |  |  |
|           | GE   | A330-303         | WV 050s, 060s, 080s       |               |               |  |  |  |  |
| A/C Model | PW   | A330-323         | WV 030s, 050s, 060s, 080s | All m         | odels         |  |  |  |  |
|           | D.D. | A330-342         | WV 050s, 060s, 080s       |               |               |  |  |  |  |
|           | RR   | A330-343         | WV 030s, 050s, 060s, 080s |               |               |  |  |  |  |
|           |      |                  |                           | Basic         | MOD<br>205749 |  |  |  |  |
| WING      | TANK | 91 30            | 00 (73 040)               | 348 (279)     | 190 (152)     |  |  |  |  |
| CENTRE    | TANK | 41 56            | 50 (33 248)               | 83 (67)       | 83 (67)       |  |  |  |  |
| TRIM      | TANK | 6 23             | 6 (5)                     | 6 (5)         |               |  |  |  |  |
| TOTAL     |      | 139 09           | 90 (111 272)              | 437 (350)     | 279 (223)     |  |  |  |  |

# 7.2 Oil

Refer to Weight & Balance Manual.

7.3 Coolant system capacity

N/A.

# 8. Air Speeds Limits

Refer to approved Aeroplane Flight Manual.

9. Rotor Speed Limits

N/A

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# 10. Maximum Operating Altitude and Temperature

### 10.1 Altitude

Maximum Flight level: 41 450 ft (12 634m) Maximum Airfield altitude: 12 500 ft ( 3 810m)

10.2 Temperature

Flight: Minimum: -78°C SAT
Ground: Range: -54°C to +55°C

# 11. Operating Limitations

Refer to approved Aeroplane Flight Manual for maximum demonstrated crosswind. Wind Speed Limitations:

- Crosswind: Takeoff: A/C: 40kt (gust included)

Engine: Refer to AFM Limitation section

Landing: A/C: 40kt (gust included)

Engine: Refer to AFM Limitation section

- Tailwind: Takeoff: 10kt (15kt with MOD 55240)

Landing: 10kt (15kt with MOD 58852)

| A/C Model                   | GE Engines   | PW Engines | RR Engines   |
|-----------------------------|--|------------|--|
| 15kt tailwind<br>at Takeoff | A330-302 (55240)<br>A330-303 (55240)                     | -          | -  |
| 15kt tailwind<br>at Landing | A330-301 (58852)<br>A330-302 (58852)<br>A330-303 (58852) | -          | A330-341 (58852)<br>A330-342 (58852)<br>A330-343 (58852) |

# 12. Maximum Weight

|               |    | EIS                  |                    |                      |                      |                      |                      |                      |                      |                      |                      |  |
|---------------|----|----------------------|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|--|
| Varia<br>(MOD |    | <b>000</b> (Basic)   | <b>001</b> (42200) | <b>002</b> (42600)   | <b>003</b> (44270)   | <b>004</b> (44849)   | <b>010</b> (43308)   | <b>011</b> (44803)   | <b>012</b> (45086)   | <b>013</b> (46688)   | <b>014</b> (48377)   |  |
| ,             | GE | A330-301             | A330-301           | A330-301             | A330-301             | A330-301             | A330-301             | -                    | -                    | -                    | -                    |  |
| Models        | PW | A330-321<br>A330-322 | -                  | A330-321<br>A330-322 | -                    |  |
|               | RR | A330-341<br>A330-342 | -                  | A330-341<br>A330-342 |  |
| MTOW (T)      | )  | 212                  | 184                | 212                  | 215                  | 215-209*             | 217                  | 212                  | 218                  | 215                  | 205                  |  |
| MLW (T)       |    | 174                  | 174                | 177                  | 177                  | 182-177*             | 179                  | 177                  | 182                  | 177                  | 182                  |  |
| MZFW (T)      |    | 164                  | 164                | 167                  | 167                  | 172-167*             | 169                  | 167                  | 172                  | 167                  | 172                  |  |

<sup>(\*)</sup> Linear variation between those weights

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|                  |    | Growth             |                      |                    |                    |                     |                     |  |  |  |  |
|------------------|----|--------------------|----------------------|--------------------|--------------------|---------------------|---------------------|--|--|--|--|
| Variant<br>(MOD) |    | <b>020</b> (Basic) | <b>022</b> (47785)   | <b>024</b> (48350) | <b>025</b> (49651) | <b>026</b> (204732) | <b>027</b> (204733) |  |  |  |  |
|                  | GE | -                  | -                    | -                  | -                  | -                   | -                   |  |  |  |  |
| Models           | PW | A330-323           | A330-323             | -                  | A330-323           | A330-323            | A330-323            |  |  |  |  |
| Models           | RR | A330-343           | A330-342<br>A330-343 | A330-343           | ·                  | Ш                   | =                   |  |  |  |  |
| MTOW (T)         |    | 230                | 233                  | 205                | 217                | 217                 | 198                 |  |  |  |  |
| MLW (T)          |    | 185                | 187                  | 185                | 179                | 185                 | 185                 |  |  |  |  |
| MZFW (T)         |    | 173                | 175                  | 173                | 169                | 173                 | 173                 |  |  |  |  |

|               |    | Enhanced             | I                  |                      |                    |                              |                      |                      |                      |                      |                     |                     |
|---------------|----|----------------------|--------------------|----------------------|--------------------|------------------------------|----------------------|----------------------|----------------------|----------------------|---------------------|---------------------|
| Varia<br>(MOD | -  | <b>050</b> (51805)   | <b>051</b> (51806) | <b>052</b> (51807)   | <b>053</b> (52924) | <b>054</b> (201648) (202218) | <b>055</b> (202462)  | <b>056</b> (202878)  | <b>057</b> (203716)  | <b>058</b> (204297)  | <b>059</b> (204475) | <b>060</b> (204476) |
|               | GE | A330-302<br>A330-303 | A330-301           | A330-302<br>A330-303 | A330-302           | A330-302<br>A330-303         | A330-302<br>A330-303 | A330-302<br>A330-303 | ı                    | ı                    | ı                   | =                   |
| Models        | PW | A330-323             | -                  | A330-323             | -                  | A330-323                     | A330-323             | A330-323             | A330-323             | -                    | A330-323            | A330-323            |
|               | RR | A330-343             | =                  | A330-342<br>A330-343 | -                  | A330-342<br>A330-343         | A330-342<br>A330-343 |                      | A330-342<br>A330-343 | A330-342<br>A330-343 | -                   | -                   |
| MTOW (        | T) | 230                  | 212                | 233                  | 205                | 235                          | 235                  | 205                  | 184                  | 215                  | 217                 | 198                 |
| MLW (T)       |    | 185                  | 187                | 187                  | 185                | 187                          | 187                  | 187                  | 174                  | 187                  | 185                 | 185                 |
| MZFW (1       | Γ) | 173                  | 175                | 175                  | 173                | 173                          | 175-173*             | 175                  | 164                  | 173                  | 173                 | 173                 |

<sup>(\*)</sup> Linear v(\*) Linear variation between those weights

|                 |    | Regional            |                     |                     |                     |                     |                     |                     |  |  |
|-----------------|----|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--|--|
| Variar<br>(MOD) |    | <b>030</b> (204439) | <b>031</b> (204440) | <b>032</b> (204441) | <b>033</b> (204442) | <b>034</b> (204443) | <b>035</b> (204444) | <b>039</b> (204445) |  |  |
|                 | GE | A330-302*           |  |  |
| Models          | PW | A330-323**          |  |  |
|                 | RR | A330-343***         |  |  |
| MTOW (T)        |    | 199                 | 199                 | 190                 | 190                 | 205                 | 205                 | 217                 |  |  |
| MLW (T)         |    | 185                 | 187                 | 185                 | 187                 | 185                 | 187                 | 187                 |  |  |
| MZFW (T)        |    | 173                 | 175                 | 173                 | 175                 | 173                 | 175                 | 175                 |  |  |

(\*) A330-302 "Regional" only with General Electric CF6-80E1A2 turbofan engines (\*\*) A330-323 "Regional" only with Pratt & Whitney 4164-1D turbofan engines (\*\*\*) A330-343 "Regional" only with Rolls Royce Trent 768-60 turbofan engines

|                 |    | 242t                 |                      |                      |                      |
|-----------------|----|----------------------|----------------------|----------------------|----------------------|
| Variar<br>(MOD) |    | <b>080</b> (203897)  | <b>081</b> (203898)  | <b>082</b> (203900)  | <b>083</b> (203899)  |
|                 | GE | A330-302<br>A330-303 | A330-302<br>A330-303 | A330-302<br>A330-303 | A330-302<br>A330-303 |
| Models          | PW | A330-323             | A330-323             | A330-323             | A330-323             |
|                 | RR | A330-342<br>A330-343 | A330-342<br>A330-343 | A330-342<br>A330-343 | A330-342<br>A330-343 |
| MTOW (T)        |    | 238                  | 242                  | 242-238*             | 240                  |
| MLW (T)         |    | 187                  | 187                  | 187                  | 187                  |
| MZFW (T)        |    | 175                  | 171                  | 175-171*             | 173                  |

<sup>(\*)</sup> Linear variation between those weights

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### 13. Centre of Gravity Range

Refer to approved Aeroplane Flight Manual.

#### 14. Datum / Mean Aerodynamic Chord (MAC)

Datum: Station 0.0, located 6,382 meters forward of aeroplane nose.

MAC: 7,270m

#### 15. Levelling Means

Three primary jacking points: Refer to approved Weight and Balance Manual.

#### 16. Minimum Flight Crew

Two (2): Pilot and Co-pilot.

# 17. Passenger Emergency Exit

Two Passenger Emergency Exit configurations:

- Configuration A-A-I-A: Basic 3 Type A passenger doors and 1 Emergency Exit Type I

- Configuration A-A-A-A: Option 4 Type A passenger doors (MOD 40161)

#### 18. Maximum Passenger Seating Capacity and associated Minimum Number of Cabin Crew

The maximum number of passengers approved for emergency evacuation is:

- 375 Basic (in Configuration A-A-I-A);
- 440 Option (in Configuration A-A-A).

See interior layout drawing for the maximum passenger capacities approved for each aeroplane when delivered.

The table below provides the certified Maximum Passenger Seating Capacities (MPSC), the corresponding cabin configuration (exit arrangement and modifications) and the associated minimum numbers of cabin crew members used to demonstrate compliance with the certification requirement:

| Maximum Passenger Seating Capacity (MPSC) |                                   | Minimum    |
|---|-----------------------------------|------------|
| & Cabin Configuration                     |                                   | Cabin crew |
| 440                                       | Configuration A-A-A-A (MOD 40161) | 9          |
| 400                                       | Configuration A-A-A-A (MOD 40161) | 8          |
| 375                                       | Configuration A-A-I-A (Basic)     | 8          |

A lower number of cabin crew may be approved by EASA for specific cabin layouts.

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# 19. Maximum Baggage/ Cargo Loads

| Cargo compartment | Maximum load (kg) |
|-------------------|-------------------|
| Forward           | 22861             |
| Aft               | 18507             |
| Rear (bulk)       | 3468              |

For the positions and the loading conditions authorized in each position (references of containers, pallets and associated weights), see Weight and Balance Manual.

### 20. Rotor Blade control movement

N/A

# 21. Auxiliary Power Unit (APU)

One GARRETT (Company name changed to Honeywell International Inc. in 1999):

- GTCP 331-350C (Specification 31-7677A)

### 22. Life-limited parts

Refer to Airworthiness Limitation Section

See SECTION: DATA PERTINENT TO ALL MODELS.

# 23. Wheels and Tyres

Refer to Airbus Service Bulletin A330-32-3004.

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### SECTION 2: A330-300 SERIES – Cont'd

### IV. Operating and Service Instructions

In accordance with EASA Part 21 regulation, Airbus provide on-demand access to the following technical publications to any person required to comply with any of those instructions:

(Access via AirbusWorld portal)

1. Flight Manual (AFM)

Ref. AFM 33000 (latest published revision)

2. Maintenance Manual

Refer to Customized Maintenance Manuals published by Airbus (latest published revision)

3. Structural Repair Manual (SRM)

Refer to Customized SRM published by Airbus (latest published revision)

4. Weight and Balance Manual (W&BM)

Refer to Customized W&BM published by Airbus (latest published revision)

5. Illustrated Parts Catalogue (IPC)

Refer to Customized IPC published by Airbus (latest published revision)

6. Service Bulletins (SBs)

Refer to applicability section of Airbus Service Bulletins (latest published revision)

7. Required Equipment

The equipment required by the applicable regulation shall be installed.

Refer also to MMEL – See SECTION: DATA PERTINENT TO ALL MODELS.

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### SECTION 2: A330-300 SERIES – Cont'd

#### V. Notes

#### 1. All Weather Capability

|                               | GE Engines   |   | PW Engines   |   | RR Engines                                  |
|-------------------------------|--|---|--|---|---|
| A/C Model                     | A330-301<br>-<br>-                                     | -<br>A330-302<br>A330-303                   | A330-321<br>A330-322<br>-                              | -<br>-<br>A330-323                          | A330-341<br>A330-342<br>A330-343            |
| Type Design<br>Capability     | -  | Cat 3<br>Precision approach<br>and autoland | -  | Cat 3<br>Precision approach<br>and autoland | Cat 3<br>Precision approach<br>and autoland |
| Option<br>Capability<br>(MOD) | Cat 2<br>Precision approach<br>(42390)                 | -   | -  | -   | -   |
|                               | Cat 3<br>Precision approach<br>and autoland<br>(42792) | -   | Cat 3<br>Precision approach<br>and autoland<br>(43397) | -   | -   |

#### 2. Conversions between Models

The following A/C Model conversions are approved:

- A330-301 can be converted into A330-303 by application of Airbus Service Bulletin A330-00-3036 covering modification 53107.
- A330-321 can be converted into A330-322 by application of Airbus Service Bulletin A330-00-3013 covering modification 46661.
- A330-343 can be converted into A330-342 by application of Airbus Service Bulletin A330-00-3039 covering modification 50943.

The following A/C Model engine configuration changes are approved:

- It is feasible for A330-343 to be fitted with RR Trent 772 engines by application of Service Bulletin 72-3008 (Mod 49684) and to be reverted to RR Trent 772B engines installation by Service Bulletin 72-3009 (Mod 49685).

## 3. Change of Weight Variants

The following A/C Models may be changed to WV 080 by application of MOD 205273 (from MSN 1627 onwards):

- A330-302, A330-303 WV 030s, 050s, 060s - A330-323 WV 030s, 050s, 060s - A330-342, A330-343 WV 030s, 050s, 060s

## 4. Fuel tank Flammability Reduction System (FRS)

When the centre fuel tank is installed (mod 204025), the aircraft is equipped in production with a fuel tank Flammability Reduction System (Modification 58723). This system shall remain installed and operative and can only be dispatched inoperative in accordance with the provisions of the MMEL revision associated with Modification 58723.

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### SECTION 3: A330-700L SERIES

#### I. General

- 1. Type / Model
  - 1.1 Type

A330

1.2 Model

A330-743L

- 2. Airworthiness Category
  - Large Aeroplanes

Performance Category A

3. Manufacturer

**AIRBUS** 

2 Rond-Point Emile Dewoitine

31700 Blagnac FRANCE

- 4. State of Design Authority Type Certification
  - 4.1 State of Design Authority

**EASA** 

4.2 Application Date

A330-743L TC: 1 December 2014 A330-743L STC (Courier Area\*): 29 May 2015

- \*Airbus Interior Services (AIS) applied for a Supplemental Type Certificate for the Courier Area, which is associated to the Airbus aircraft Type Design Definition.
- 4.3 State of Design Authority Type Certificate Date

A330-743L TC: 11 November 2019 A330-743L Courier Area STC: 11 November 2019

- 5. EASA Type Certification Date
  - 5.1 State of Design Authority

**EASA** 

5.2 Application Date

A330-743L TC: 1 December 2014 A330-743L STC (Courier Area\*): 29 May 2015

- \*Airbus Interior Services (AIS) applied for a Supplemental Type Certificate for the Courier Area, which is associated to the Airbus aircraft Type Design Definition.
- 5.3 State of Design Authority Type Certificate Date

A330-743L TC: 11 November 2019 A330-743L Courier Area STC: 11 November 2019



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### SECTION 3: A330-700L SERIES (Cont'd)

#### II. Certification Basis

1. Reference Date for determining the applicable requirements

Reference Application Date for EASA Certification (TC): 1st December 2014

Reference Application Date for EASA Certification (STC): 29th May 2015

### 2. Airworthiness Requirements

#### Original Airworthiness Requirements (at time of TC):

- Certification Requirements

JAR 25 Change 13 effective on October 5, 1989 except as follows:

- JAR 25.561 is applied at change 12 for wing tanks outside the fuselage contour;
- JAR 25.415 is applied at change 14 for ground gust condition for control systems;

Plus the following CS 25 paragraphs applicable at Amdt 15 related to the Overall A/C Design (Loads, Handling Qualities, Performances, Ditching, Rapid decompression, Acoustic Fatigue, Aeroelasticity, AFM, Lightning and HIRF protection, Engine/APU rotor burst):

25.21(a)(c)(d)(e)(f), 25.23, 25.25, 25.27, 25.101, 25.103(a)(c)(d), 25.105(b)(c)(d), 25.107(a)(b)(c)(d)(e)(f)(g), 25.109, 25.111(a)(b)(d), 25.113, 25.115, 25.117, 25.119, 25.121(a), 25.123(a), 25.125, 25.143(a)(b1)(b3)(d)(e)(f)(g)(h)(k), 25.145(a)(b)(c)(e), 25.147(a)(c)(d)(f), 25.149, 25.161, 25.171, 25.177, 25.181, 25.201, 25.203, 25.231(a), 25.233, 25.235, 25.251(b)(c)(d)(e), 25.253(a)(b), 25.255, 25.301(b)(c), 25.302, 25.303, 25.305(c)(f), 25.321(b), 25.321(c), 25.321(d), 25.331(a), 25.331(b), 25.331(c), 25.333, 25.335(a)(b)(e), 25.335(b), 25.335(c), 25.335(d), 25.335(e), 25.337, 25.427, 25.341, 25.343(a)(b1)(b3), 25.345(a), 25.345(b), 25.345(d), 25.349, 25.351, 25.363, 25.365(e1)(e2)(e3)(f)(g), 25.367, 25.371, 25.373, 25.391, 25.445, 25.457, 25.471(b), 25.473, 25.479, 25.481(a)(c), 25.483, 25.485, 25.489, 25.491, 25.493, 25.495, 25.499, 25.503, 25.507, 25.509, 25.511, 25.519, 25.561, 25.571(a)(b)(c)(d)(e), 25.581, 25.603(c), 25.629, 25.721(b), 25.777(i), 25.791, 25.807(i), 25.812(a1)(f)(i)(j)(k), 25.899, 25.903(d1), 25.954, 25.1001(a)(b), 25.1309(a)(b)(c), 25.1323(c)(d), 25.1325(e), 25.1353(a), 25.1431(c)(d), 25.1501, 25.1503, 25.1505, 25.1507, 25.1511, 25.1513, 25.1515, 25.1516, 25.1517, 25.1519, 25.1527, 25.1531, 25.1533, 25.1581(a)(b)(d), 25.1583(a)(b)(c)(d)(e)(f)(h)(i)(k), 25.1585(a)(b)(c)(e)(f), 25.1587(b), 25.1591, 25J903(d1)

Plus the following CS 25 paragraphs applicable at Amdt 2

25.103(b), 25.105(a), 25.111(c), 25.119, 25.121(b)(c)(d), 25.123(b), 25.125, 25.207, 25.237, 25.251(a), 25.1419 (flight in icing conditions or load factor)

Plus the following CS 25 paragraphs applicable at Amdt 17

25.1316, 25.1317 (Elect to Comply for Aircraft Electrical and Electronic System Lightning and HIRF protection)

Plus the following CS 25 paragraph applicable at Amdt 23

25.1324 (post TC changes impacting Angle of Attack Installation)



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> Plus the following CS 25 paragraphs applicable at Amdt 15 related to the significant structural changes applied on the A/C (lowered nose section containing the cockpit and the courier area, upper bubble, modified HTP with its auxilliary fins, shifted up VTP, dorsal fin and ventral fins, additionnal fuselage section, pressure bulkhead door and belly door, pressure roof between pressurized compartments and main deck cargo compartment):

25.302, 25.305(a)(b)(c), 25.307(a), 25.365(a)(b)(d)(e2), 25.509(b), 25.519, 25.561(b)(c)(d), 25.571(a1)(a2)(a3)(b)(c)(e1)(e3)(e4), 25.581, 25.601, 25.603, 25.605, 25.607, 25.609, 25.613, 25.619, 25.621, 25.625, 25.631, 25.683(b), 25.783(a), 25.789, 25.841(b7), 25.843(a), 25.903(d1)

Plus the following CS 25 paragraph applicable at Amdt 8

25.603 (materials of the modified FRE)

Plus the following CS 25 paragraphs applicable at Amdt 15 related to the cargo function (unpressurized Main Deck Cargo Compartment (class E), Main Deck Cargo Door and its Cargo Door Actuation System (CDAS), Cargo Loading System (CLS) in the main deck cargo area):

25.001, 25.301(a), 25.305(a)(b), 25.307(a), 25.365(e), 25.561, 25.581, 25.601, 25.603, 25.605, 25.607, 25.609, 25.611, 25.613(a)(b)(c), 25.631, 25.783(a)(b)(c)(d)(e)(f)(g2)(h), 25.787, 25.789, 25.793, 25.809(b)(c), 25.811, 25.831, 25.832, 25.841, 25.843, 25.851(a), 25.853(a), 25.855(a)(b1)(c2)(d)(e)(f)(g)(i), 25.856(a), 25.857(e), 25.863, 25.0869(a), 25.899, 25.903(d1), 25.954, 25.1103(d), 25.1301(a)\*, 25.1309(a)(b)(c)\*, 25.1353(a)(e), 25.1357, 25.1360, 25.1365(d), 25.1431(a)(c)(d), 25.1435, 25.1438, 25.1455, 25.1461, 25.1519, 25.1527, 25.1541, 25.1557(a)(c)

Plus the following CS 25 paragraph applicable at Amdt 2 25.1419(a)

Plus the following CS 25 paragraphs applicable at Amdt 17

25.1316, 25.1317 (Elect to Comply for Aircraft Electrical and Electronic System Lightning and HIRF protection)

\* In this category related to cargo function, paragraphs CS25.1301(a) and CS25.1309(a)(b)(c) apply to the Main Deck Cargo Door, Cargo Access Door and CLS equipments. In addition, CS25.1309(a) applies also to ATA 390 and 391 (Lightning direct/indirect effect).

Plus the following CS 25 paragraphs applicable at Amdt 15 related to the pressurized areas (Courier Area, cockpit, emergency escape path to evacuate through Cockpit Sliding Windows, pressure bulkhead door and belly door, avionic bay):

25.001, 25.365(e)(f)(g), 25.561(c), 25.571(e4), 25.581, 25.601, 25.603, 25.605, 25.607, 25.609, 25.611, 25.631, 25.777(i), 25.783(a)(b)(c)(d)(e)(f)(g2)(h), 25.789, 25.791, 25.803(a)(c), 25.807(a)(e)(f)(g)(i)(j), 25.809(a)(b)(c)(e)(g), 25.810(a1)(a2), 25.811, 25.812(h), 25.813(e), 25.831, 25.832, 25.841, 25.843, 25.851(a)(c), 25.853(a), 25.854, 25.855(d)(e)(h2)(i), 25.856(a), 25.857(e), 25.863, 25.0869(a), 25.899, 25.903(d1), 25.954, 25.1103(d), 25.1301(a)\*, 25.1309(a)(b)(c)\*, 25.1353(a)(e), 25.1357, 25.1360(a), 25.1362, 25.1365(d), 25.1411(c)(d)(f), 25.1431(a)(c)(d), 25.1435, 25.1438, 25.1461, 25.1527, 25.1541, 25.1557(a)(c)

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Plus the following JAR 25 paragraphs applicable at change 14

25.789, 25.831(e), 25.853(a), 25.869(a), 25.903(d1), 25.1301, 25.1309, 25.1353(a)(b)(d), 25.1355(c), 25.1357(a), 25.1360(a), 25.1423(a), 25.1431 (CIDS)

Plus the following CS 25 paragraph applicable at Amdt 2

25.1419(a)

Plus the following CS 25 paragraphs applicable at Amdt 17

25.1316, 25.1317 (Elect to Comply for Aircraft Electrical and Electronic System Lightning and HIRF protection)

\* In this category related to pressurized areas, paragraphs CS25.1301(a) and CS25.1309(a)(b)(c) apply to the Belly Door and the Pressure Bulkhead Door. In addition, CS25.1309(a) applies also to ATA 390 and 391 (Lightning direct/indirect effect).

Plus the following CS 25 paragraphs applicable at Amdt 15 in the frame of the Courier Area STC:

25.301, 25.303, 25.305, 25. 307, 25.365(e)(f)(g), 25.561, 25.571, 25.601, 25.603, 25.605, 25.607, 25.609, 25.611(a), 25.613, 25.619, 25.623, 25.625, 25.787, 25.789, 25.791, 25.793, 25.803, 25.811(b)(c)(d)(g), 25.813, 25.815, 25.820, 25.831, 25.832, 25.854, 856(a), 25.869(a1)(a2), 25.899, 25.1357, 25.1360, 25.1362, 25.1411, 25.1431, 25.1450, 25.1519, 25.1541, 25.1557, 25.1585

Plus the following JAR 25 paragraphs applicable at change 14

25.1423(b)(c)(d) (public adress system)

Plus the following CS 25 paragraphs applicable at Amdt 17

25.1316, 25.1317 (Elect to Comply for Aircraft Electrical and Electronic System Lightning and HIRF protection)

Plus the following CS 25 paragraphs applicable at Amdt 19

25.812(a)(b)(c)(d)(e)(f)(i)(j)(k)(l) (emergency lighting)

- Airborne Communication, Navigation, Surveillance

**CS-ACNS** Initial Issue

- Subpart B, Section 2 – for optional modifications (Post TC) installing FANS aiming at answering to SES mandate as defined in (EU)  $N^{\circ}$  29/2009 and amended by (EU)  $N^{\circ}$  310/2015 of 26 Febuary 2015.

Note: For compliance to CS-ACNS Subpart B, Section 2, a deviation to CS-ACNS.B.DLS.B1.075 is accepted by DEV ACNS-B-GEN-01 to not include DM89 MONITORING [unit name] [frequency] in the downlink message set installed.

- Subpart D for optional modifications installing transponders aiming at answering to SES mandate as defined in (EU) No 1207/2011 and amended by (EU) No 1028/2014 of 26 September 2014.
- Subpart E, Section 2 for RVSM

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# 3. Special Conditions

# Original Special Conditions part of Certification Basis (at time of TC):

| - | JAA Numbering:   |   |
|---|------------------|---|
|   | SC A-4           | Design Dive Speed (VD)  |
|   | SC A-5           | Limit pilot forces and torque   |
|   | SC G-5           | Resistance to fire terminology  |
|   | SC P-32          | Fuel Tank Safety  |
|   | SC S-3           | Landing gear warning  |
|   | SC S-6           | A330/A340 Lightning Protection Indirect Effects   |
|   | SC S-10          | A330/A340 Effect Of External Radiation Upon Aircraft Systems                                |
|   | SC S-13          | Autothrust system   |
|   | SC S-16          | Control signal integrity  |
|   | SC S-18          | Unusual features not addressed by existing JAR  |
|   | SC S-20          | Emergency Electrical Power  |
|   | SC S-21          | Brakes Wear Limits  |
|   | SC S-23          | Electrical wiring and miscellaneous electrical requirements                                 |
|   | SC S-24          | Doors   |
|   | SC S-38          | Towbarless Towing   |
|   | SC S-148         | Longitudinal touchdown performance limit + MABH deletion                                    |
| - | EASA Numbering:  |   |
|   | SC B-01-700L     | Stalling and scheduled operating speeds   |
|   | SC B-02-700L     | Electronic flight control system, control surface awareness                                 |
|   | SC B-04-700L     | Static directional, lateral and longitudinal stability and low energy                       |
|   |                  | awareness   |
|   | SC B-05-700L     | Flight enveloppe protections  |
|   | SC B-06-700L     | Load factor limiting system   |
|   | SC B-14-700L     | On-Ground Yaw Stabilisation Law – R* law  |
|   | SC D-02-700L     | Courier Area: Allowed Occupants   |
|   | SC D-03-700L     | Emergency evacuation  |
|   | SC D-10-700L     | Brake kinetic energy capacity   |
|   | SC D-50/700L/AIS | Courier Area Airworthiness Requirements   |
|   | SC F-126         | Flight Recorders including Data Link Recording  |
|   | SC F-131         | Flight Instrument External Probes – Qualification in Icing Conditions New UTAS Pitot Probes |
|   | SC F-137         | Security protection of aircraft systems and networks  |
|   | SC F-GEN-01      | Non-rechargeable lithium battery installation   |
|   | SC H-01          | Enhanced Airworthiness programme for Aeroplane Systems – ICA on                             |
|   |                  | EWIS  |
|   |                  |   |

# 4. Exemptions

None

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#### 5. Deviations

### **Deviation to Additional Airworthiness Requirements:**

- Airborne Communication, Navigation, Surveillance

ACNS-B-GEN-01 Deviation to CS-ACNS Initial Issue Subpart B, Section 2

(See Note in §II-2)

### 6. Equivalent Safety Findings

### Original Equivalent Safety Findings part of Certification Basis (at time of TC):

- JAA Numbering:

ESF E-1022 Improved flammability standards for thermal / acoustic insulation

materials

- EASA Numbering:

ESF D-06-700L Main Deck Class E Cargo Compartment

ESF D-07-700L Cockpit sliding windows compliance aspects with CS 25.783

ESF D-11-700L Pressure Bulkhead and Cargo Access Doors – Compliance aspects with

CS 25,783

ESF D-15-700L Cockpit Sliding Window Fasteners - Compliance aspects with CS

25.607(a)(c)

ESF D-16-700L Main Deck Cargo Door visual indication provision as per CS 25.783(f)

ESF F-03-700L Landing Light Switch

### 7. Environmental Protection

#### 7.1 Noise

See TCDSN no. EASA.A.004

### 7.2 Fuel Venting

CS-34 amendment 1, ICAO Annex 16, Volume II, amendment 07, Part II, chapter II

# 8. Operational Suitability Data (OSD)

# See SECTION: DATA PERTINENT TO ALL MODELS for:

- Operational Suitability Requirements
- EASA Approved Operational Suitability Data

# 9. Extended Range Operations (ETOPS)

No ETOPS approval for A330-700L is granted initially.

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### SECTION 3: A330-700L SERIES (Cont'd)

#### III. Technical Characteristics and Operational Limitations

### 1. Type Design Definition

### With Rolls Royce (RR) engines

A330-743L: 00G000A0743/C00

This aircraft type design definition is associated with AIS (Airbus Interiors Services)

Modification CJ 1970 - Courier Area Installation.

## 2. Description

Two turbo-fan, medium range, cargo, large category aeroplane.

### 3. Equipment

Refer to Type Design Definition.

Cabin furnishings, equipment and arrangement shall conform to the following specification:

- 00F252K0005/C01 for cabin seats.
- 00F252K0006/C01 for galley.

### 4. Dimensions

| - | Length:                  | 63,12m  | (207ft 1in)  |
|---|--------------------------|---------|--------------|
| - | Fuselage maximum height: | 10,49 m | (34ft 5in)   |
| - | Fuselage maximum width:  | 8,80 m  | (28ft 10in)  |
| - | Wing Span:               | 60,30m  | (197ft 10in) |
| - | Aircraft height:         | 18,95 m | (62ft 2in)   |
|   |                          |         |              |

### 5. Engine

# 5.1 Model

#### Rolls Royce (RR) engines

A330-743L: Two (2) Rolls Royce Trent 772B-60 turbofan engines

# 5.2 Type Certificate

Rolls Royce (RR) engines

EASA Engine TCDS: EASA.E.042

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#### 5.3 Limitations

# 5.3.1 Installed Engine Limits

# Rolls Royce (RR) engines

| A/C Model        | A330-743L     |  |
|------------------|---------------|--|
| Engine Model     | Trent 772B-60 |  |
| Static thrust at |               |  |
| sea level:       |               |  |
| - take-off       | 71,100 lbs    |  |
| (5mn) *          | 71,100 105    |  |
| - maximum        | 63,650 lbs    |  |
| continuous       | 03,030 108    |  |

<sup>\*</sup> The take-off rating and the associated operating limitations may be used for up to 10 minutes in the event of an engine failure (see notes in Engine TCDS). Other engine limitations: See the relevant Engine TCDSs.

# 5.3.2 Transmission Torque Limits

N/A

# 6. Fluids (Fuel / Oil / Additives / Hydraulics)

#### 6.1 Fuel

The following fuels may be used:

| ENGINES   | KEROSENE DESIGNATION                    |  |
|---|---|--|
| RR: (Operating Instruction in RR Manual F-Trent A330) | JET A, JET A-1, JP5, JP8, N°3 JET fuel, |  |
| NA. (Operating instruction in KK Manual F-Trent A550) | TS-1(GOST), RT(GOST)                    |  |

The above mentioned fuels are also suitable for the APU.

Refer to Consumable Material List (CML) for details on approved fuel specifications.

### 6.2 Oil

Refer to the Consumable Material List (CML).

Refer to Engine and APU Manufacturers Operating Instructions.

### 6.3 Additives

Refer to the Consumable Material List (CML).

# 6.4 Hydraulics

Refer to the Consumable Material List (CML).

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# 7. Fluid capacities

#### 7.1 Fuel

Fuel quantity (0.8 kg / litre):

|               |    | 3-TANK AEROPLANE      |           |                      |
|---------------|----|-----------------------|-----------|----------------------|
|               |    | Usable fuel           | Unusa     | ble fuel             |
|               |    | litres (kg)           | litre     | s (kg)               |
|               | GE | -                     |           |                      |
| A/C Model     | PW | -                     | All m     | odels                |
|               | RR | A330-743L WV 000, 001 |           |                      |
|               |    |                       |           | MOD 207112 (MSN 1824 |
|               |    |                       | Basic     | only) or 205749 (MSN |
|               |    |                       |           | 1853 and onward)     |
| WING TANK     |    | 91 300 (73 040)       | 169 (135) | 90 (72)              |
| CENTRE TANK   |    | N/A                   | N/A       | N/A                  |
| TRIM TANK N/A |    | N/A                   | N/A       | N/A                  |
| TOTAL         |    | 91 300 (73 040)       | 169 (135) | 90 (72)              |

### 7.2 Oil

Refer to Weight & Balance Manual.

7.3 Coolant system capacity

N/A.

# 8. Air Speeds Limits

Refer to approved Aeroplane Flight Manual.

9. Rotor Speed Limits

N/A

10. Maximum Operating Altitude and Temperature

10.1 Altitude

Maximum Flight altitude: 35 200 ft (10 729m) Maximum Airfield altitude: 7 000 ft ( 2 134m)

10.2 Temperature

Flight: Minimum: -70°C SAT (TAT shall be greater than -40°C)

Ground: Range: -54°C to +55°C for Take-off and landing

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# 11. Operating Limitations

Refer to approved Aeroplane Flight Manual for maximum demonstrated crosswind. Wind Speed Limitations:

- Crosswind: Takeoff: A/C: 27kt (gust included)

Engine: Refer to AFM Limitation section

Landing: A/C: 27kt (gust included)

Engine: Refer to AFM Limitation section

- Tailwind: Takeoff: 10kt

Landing: 10kt

### 12. Maximum Weight

| Variant<br>(MOD) |    | <b>000</b> (Basic) | <b>001</b> (208331) |
|------------------|----|--------------------|---------------------|
|                  | GE | -                  | =                   |
| Models           | PW | -                  | -                   |
|                  | RR | A330-743L          | A330-743L           |
| MTOW (T)         |    | 227                | 205                 |
| MLW (T)          |    | 187                | 187                 |
| MZFW (T)         |    | 178                | 178                 |

# 13. Centre of Gravity Range

Refer to approved Aeroplane Flight Manual.

### 14. Datum / Mean Aerodynamic Chord (MAC)

Datum: Station 0.0, located 4,882 meters forward of aeroplane nose.

MAC: 7,270m

### 15. Levelling Means

For maintenance: Three primary jacking points and one auxilliary point are fitted.

For cargo loading/unloading: Two of the four maintenance points are used.

Refer to approved Weight and Balance Manual.

# 16. Minimum Flight Crew

Two (2): Pilot and Co-pilot.

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### 17. Occupant Emergency Exit

Emergency Exits are both Cockpit Sliding Windows.

No other Emergency Exit configuration exist.

# 18. Maximum Occupant Seating Capacity and associated Minimum Number of Cabin Crew

The maximum number of allowed occupants approved for emergency evacuation is:

- 4 in the Courier Area, and
- 1 in the cockpit (in addition to the two Flight Crew members)

No Cabin Crew members are required.

## 19. Maximum Baggage/ Cargo Loads

| Cargo compartment              | Maximum load (kg)   |
|--------------------------------|---|
| Main Deck Cargo<br>Compartment | Up to the maximum allowable payload as per WBM, providing it complies with the requirements contained in the BelugaXL Interface Specification between Aircraft & TCU document, reference 00G000AT002/C7S. |
| Aft                            | 18507   |
| Rear (bulk)                    | 3468  |

For the Main Deck Cargo Compartment: loading conditions and requirements for cargo transportation, see Weight and Balance Manual and A330-700L - Interface Specification between Aircraft & TCU, reference 00G000AT002/C7S.

For the Aft and Rear (bulk) compartments: loading conditions authorized on each ULD (Unit Load Device) position or bulk section (references of ULD baseplate, MAX gross weight and CLS (Cargo Loding System) malfunctions), see Weight and Balance Manual.

#### 20. Rotor Blade control movement

N/A

#### 21. Auxiliary Power Unit (APU)

One GARRETT (Company name changed to Honeywell International Inc. in 1999):

- GTCP 331-350C (Specification 31-7677B-1H)

### 22. Life-limited parts

Refer to Airworthiness Limitation Section See SECTION: DATA PERTINENT TO ALL MODELS.

## 23. Wheels and Tyres

Refer to Airbus Service Bulletin A330-32-3004.



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### SECTION 3: A330-700L SERIES (Cont'd)

### IV. Operating and Service Instructions

In accordance with EASA Part 21 regulation, Airbus provide on-demand access to the following technical publications to any person required to comply with any of those instructions:

(Access via AirbusWorld portal)

1. Flight Manual (AFM)

Ref. AFM: STL 33000 (latest published revision)

2. Maintenance Manual

Refer to Customized Maintenance Manuals published by Airbus (latest published revision)

3. Structural Repair Manual (SRM)

Refer to Customized SRM published by Airbus (latest published revision)

4. Weight and Balance Manual (W&BM)

Refer to Customized W&BM published by Airbus (latest published revision)

5. Illustrated Parts Catalogue (IPC)

Refer to Customized IPC published by Airbus (latest published revision)

6. Service Bulletins (SBs)

Refer to applicability section of Airbus Service Bulletins (latest published revision)

7. Required Equipment

The equipment required by the applicable regulation shall be installed.

Refer also to MMEL – See SECTION: DATA PERTINENT TO ALL MODELS.

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# SECTION 3: A330-700L SERIES (Cont'd)

# V. Notes

# 1. All Weather Capability

|                               | RR Engines  |
|-------------------------------|---|
| A/C Model                     | A330-743L   |
|                               | -   |
|                               | -   |
| Type Design<br>Capability     | Cat 1<br>manual ILS CAT I approach using Raw Data |
| Option<br>Capability<br>(MOD) | N/A   |

# 2. Conversions between Models

N/A

# 3. Change of Weight Variants

N/A

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# SECTION 4: A330-800 SERIES

### I. General

- 1. Type / Model
  - 1.1 Type

A330

1.2 Model

A330-841

2. Airworthiness Category

Large Aeroplanes

Performance Category A

3. Manufacturer

**AIRBUS** 

2 Rond-Point Emile Dewoitine

31700 Blagnac FRANCE

- 4. State of Design Authority Type Certification
  - 4.1 State of Design Authority

**EASA** 

4.2 Application Date

A330-841: 25 July 2014

4.3 State of Design Authority Type Certificate Date

A330-841: TC Date to be mentioned

- 5. EASA Type Certification Date
  - 5.1 State of Design Authority

**EASA** 

5.2 Application Date

A330-841: 25 July 2014

5.3 State of Design Authority Type Certificate Date

A330-841: TC Date to be mentioned

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### SECTION 4: A330-800 SERIES (Cont'd)

#### II. Certification Basis

1. Reference Date for determining the applicable requirements

Reference Application Date for EASA Certification: 04 March 2015

#### 2. Airworthiness Requirements

## Original Airworthiness Requirements (at time of TC):

- Certification Requirements

JAR 25 Change 13 effective on October 5, 1989 except as follows:

- JAR 25.561 is applied at change 12 for wing tanks outside the fuselage contour;
- For showing compliance with JAR 25.785(a)(b)(c), the front row seats located behind a bulkhead are not tested according to JAR 25.562(c)(5)(6). Instead, a minimum 35 inches distance between the seats and the bulkhead is considered as an acceptable alternative.

With the following JAR 25 paragraphs applicable at change 14:

25.307 (except (a)), 25.335(f), 25.345(c), 25.361, 25.371, 25.395, 25.397, 25.459, 25.571, 25.603 (applicable to vertical stabilizer only), 25.613 (applicable to vertical stabilizer only), 25.615 (applicable to vertical stabilizer only), 25.679, 25.723, 25.729, 25.731, 25.733, 25.735, 25.772, 25.777, 25.779(a), 25.783, 25.851, 25.855(a)(b)(c)(d)(e), 25.863, 25.867, 25X899 (applicable to vertical stabilizer only), 25.963(g) (applicable to fuel centre tank only), 25.979, 25.1303, 25.1381, 25.1415, 25.1543

Plus the following CS 25 paragraphs applicable at Amdt 2

25.021, 25.103(b), 25.105(a), 25.111(c), 25.119, 25.121 (except (a)), 25.123(b), 25.125, 25.207, 25.237, 25.253, 25.1419

Plus the following CS 25 paragraphs applicable at Amdt 13

25.963(e) (Fuel Tank Access Covers) with 25.963(e)(1) including the design features as per E-16 in the Annex to this TCDS.

Note: Any change or repair that would decrease the safety level of the E-16 design features would lead to the application of CS 25.963(e)(1) at amendment 15 or higher.

Plus the following CS 25 paragraphs applicable at Amdt 15 (applicable at the reference date) 25.023, 25.025, 25.027, 25.029, 25.031, 25.101, 25.103 (except (b)), 25.105 (except (a)), 25.107 (except (h)), 25.109, 25.111 (except (c)), 25.113, 25.115, 25.117, 25.121(a), 25.123 (except (b)), 25.143 (except (c)(i)(j)(l)), 25.145, 25.147, 25.149, 25.161, 25.171, 25.173, 25.175, 25.177, 25.181, 25.201, 25.203, 25.231, 25.233, 25.235, 25.251, 25.253 (except (c)), 25.255, 25.301, 25.302, 25.303, 25.305, 25.307(a), 25.321, 25.331, 25.333, 25.335 (except (f)), 25.337, 25.341, 25.343, 25.345 (except (c)), 25.349, 25.351, 25.365 (except (e),(f),(g)), 25.367, 25.373, 25.391, 25.393, 25.415, 25.427, 25.457, 25.471(b), 25.473, 25.479, 25.481(except (b)), 25.483, 25.485, 25.489, 25.491, 25.493, 25.495, 25.499, 25.503, 25.507, 25.509, 25.511, 25.519, 25.561(c) (applicable to large items of masses only), 25.571, 25.619, 25.625, 25.629, 25.631, 25.683(b), 25.773(b), 25.777(i), 25.809(g) (applicable to Door 3 panelization area only), 25.843(a), 25.901(c), 25.963(a), 25.963(d1)

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> (applicable to fuel centre tank only), 25.1001(a)(b)(c), 25.1323(c)(d), 25.1325(e), 25.1337, 25.1355, 25.1383, 25.1501, 25.1503, 25.1505, 25.1507, 25.1511, 25.1513, 25.1515, 25.1516, 25.1517, 25.1519, 25.1531, 25.1533, 25.1535, 25.1581, 25.1583, 25.1585, 25.1587, 25.1591

Plus the following CS 25 paragraphs applicable at Amdt 15 related to engine installation: (New Engine, Pylon, pre-cooler, air inlet and nacelle, Structural adaptation of the wing at the wing/pylon interface, Electro Pneumatic Bleed Air System)

25.301, 25.303, 25.307, 25.361(a), 25.362, 25.363, 25.365(e1), 25.371, 25.561(c), 25.571, 25.581, 25.603, 25.605, 25.607, 25.609, 25.611, 25.613, 25.619, 25.621, 25.625, 25.631, 25.721 (except (a)), 25.723(b), 25.771(e), 25.779(b), 25.851 (except (a)), 25.856(a), 25.863, 25.865, 25.867, 25.869(a), 25.899, 25.901, 25.903, 25.933, 25.934, 25.939, 25.943, 25.951, 25.952, 25.954, 25.955(a), 25.959, 25.961, 25.963(d5), 25.981(a), 25.993 (except (f)), 25.994, 25.995, 25.997, 25.999, 25.1001(a)(b), 25.1011, 25.1013, 25.1015, 25.1017, 25.1019, 25.1021, 25.1023, 25.1025, 25.1041, 25.1043, 25.1045, 25.1091, 25.1093, 25.1103, 25.1121, 25.1123, 25.1141, 25.1143, 25.1145, 25.1155, 25.1163, 25.1165, 25.1167, 25.1181, 25.1182, 25.1183, 25.1185, 25.1187, 25.1189 (except (c),(f),(g),(h)), 25.1191, 25.1193, 25.1195, 25.1197, 25.1199, 25.1201, 25.1203, 25.1207, 25.1301, 25.1305, 25.1309, 25.1315, 25.1321(d), 25.1351 (except (a),(c)), 25.1353 (except (c)), 25.1357(a)(d)(e), 25.1360(a), 25.1431, 25.1435(a), 25.1438, 25.1461, 25.1521, 25.1527, 25.1549, 25.1551, 25.1557(b), 25.1593, 25.1701, 25.1703 (except (c)), 25.1705, 25.1707, 25.1709, 25.1711, 25.1713, 25.1715, 25.1717, 25.1719, 25.1721 (except (c)), 25.1723, 25.1725, 25.1727, 25.1731

Plus the following CS 25 paragraphs applicable at Amdt 15 related to aerodynamic changes: (New winglet with wing span increase, Wing Aerodynamic clean up, Wing twist change, Wing engine interference, new navigation and strobe lights)

25.301, 25.303, 25.307, 25.445, 25.571 (except (e4)), 25.581, 25.603, 25.605, 25.607, 25.609, 25.611, 25.613, 25.619, 25.625, 25.631, 25.683(b), 25.723(b), 25.863(a)(b), 25.869(a), 25.899, 25.954, 25.959, 25.1001(a)(b), 25.1301(a), 25.1305, 25.1309, 25.1353 (except (c)), 25.1357(a)(e), 25.1360(a), 25.1385, 25.1387, 25.1389, 25.1391, 25.1393, 25.1395, 25.1397, 25.1401, 25.1403, 25.1431, 25.1438, 25.1525

Plus the following CS 25 paragraphs applicable at Amdt 17:

25.1316, 25.1317

- All weather operations

JAR AWO change 1 plus:

- Orange paper AWO 91/1,
- NPA JAR AWO 3,
- NPA JAR AWO 8 (IM S-148 Longitudinal touchdown performance + MABH deletion).
- Airborne Communication, Navigation, Surveillance

**CS-ACNS** Initial Issue

- Subpart B, Section 2 - for optional modifications (Post TC) installing FANS aiming at answering to SES mandate as defined in (EU) N° 29/2009 and amended by (EU) N° 310/2015 of 26 Febuary 2015.

Note: For compliance to CS-ACNS Subpart B, Section 2, a deviation to CS-ACNS.B.DLS.B1.075 is accepted by DEV ACNS-B-GEN-01 to not include DM89 MONITORING [unit name] [frequency] in the downlink message set installed.

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> - Subpart D – for optional modifications installing transponders aiming at answering to SES mandate as defined in (EU) No 1207/2011 and amended by (EU) No 1028/2014 of 26 September 2014.

- Subpart E, Section 2 – for RVSM

### Additional Airworthiness Requirements (added Post TC):

The following requirements are additionally applicable when an A/C configuration include the subject optional design change(s):

- Certification Requirements

The following requirements may be considered to certify the following optional designs:

- CS 25.791 Original issue for symbolic no smoking signs in lavatories
- CS 25.811 and CS 25.812 Amdt. 3 for multi lingual "EXIT" signs.
- CS 25.851(a)(c) Amdt 17 for Halon Free Hand Held Fire Extinguishers Compliance with Commission regulation (EU) N° 744/2010 of 18 August 2010 amending regulation (EC) n° 1005/2009 of the European Parliament and of the Council on substances that deplete the ozone layer, with regard to the critical uses of halon).

### 3. Special Conditions

### Original Special Conditions part of Certification Basis (at time of TC):

- JAA Numbering:

| SC A-5   | Limit pilot forces and torque  |
|----------|--|
| SC E-128 | Improved flammability standards for thermal/acoustic insulation                    |
| SC F-126 | Flight Recorders including Data Link Recording                                     |
| SC G-105 | Resistance to Fire Terminology   |
| SC P-2   | Centre of Gravity Control System   |
| SC P-27  | Flammability Reduction System  |
| SC P-32  | Fuel Tank Safety   |
| SC S-6   | Lightning protection indirect effects  |
| SC S-10  | Effects of external radiations upon aircraft systems (including S-10.1 and S-10.2) |
| SC S-13  | Autothrust system  |
| SC S-16  | Control signal integrity   |
| SC S-18  | Electronic flight controls   |
| SC S-20  | Emergency electrical power (NPA 25D, F-179)  |
| SC S-21  | Brake Wear Limits  |
| SC S-23  | Electrical wiring and miscellaneous electrical requirements                        |
| SC S-38  | Towbarless towing  |
| SC S-148 | Longitudinal touchdown performance + MABH deletion                                 |

# - EASA Numbori

| EASA Numbering: |   |  |
|-----------------|---|--|
| SC B-01         | Stalling and scheduled operating speeds   |  |
| SC B-02         | Electronic Flight Control System (EFCS) Control Surface Awareness               |  |
| SC B-04         | Static Directional, Lateral and Longitudinal Stability and Low Energy Awareness |  |
| SC B-05         | Flight Envelope Protection  |  |
| SC B-06         | Load Factor Limiting System   |  |
| SC D-03         | Brake Kinetic Energy Capacity   |  |



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| SC E-03 | Engine | Cowl | retention |
|---------|--------|------|-----------|
|---------|--------|------|-----------|

SC H-01 Enhanced Airworthiness Programme for Aeroplane Systems - ICA on EWIS

#### Additional Special Conditions part of the Certification Basis (added post TC):

The following Special Conditions are additionally applicable when an A/C configuration include the subject optional design change(s):

### - JAA Numbering:

- SC E-2 Underfloor Crew rest compartment (superseded by SC D-04 for new design)
- SC E-130 Application of heat release and smoke density requirements to seat materials
- SC E-1014 HIC compliance for front row seating (inflatable restraints)
- SC E-1023 Side facing seats with with inflatable restraints

### - EASA Numbering:

- SC B-09 Soft go around
- SC D-04 **Crew Rest Compartment**
- SC D-06 Installation of Three Point restraint & Pre Tensioner System
- SC D-07 Installation of Oblique Seats
- SC D-08 Cabin Attendant Seat mounted on lavatory Door Blade
- SC D-100 Installation of mini suite type seating
- SC D-102 Incorporation of Inertia Locking Device in Dynamic Seats (applicable from January 2019)
- SC F-131 Flight Instrument External Probes Qualification in Icing Conditions
- SC F-134 Head Up Display Installation
- SC F-137 Security Protection of Aircraft Systems and Networks
- SC F-GEN-01: Installation of non-rechargeable lithium battery (applicable from April 2019)

#### 4. Exemptions

None

### 5. Deviations

# Deviation to Additional Airworthiness Requirements:

- Airborne Communication, Navigation, Surveillance

ACNS-B-GEN-01 Deviation to CS-ACNS Initial Issue Subpart B, Section 2 (See Note in §II-2)



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### 6. Equivalent Safety Findings

# Original Equivalent Safety Findings part of Certification Basis (at time of TC):

- JAA Numbering:
  - ESF E-21 Emergency exit marking reflectance
  - ESF E-29 Fuselage burn through aft pressure bulkhead
  - ESF E-30 Fuselage burn through belly fairing
  - ESF E-31 Fuselage burn through bilge area
  - ESF E-1022 Improved flammability standards for thermal / acoustic insulation materials
  - ESF S-45 Oil temperature indication
- EASA Numbering:
  - ESF D-05 Packs off operations
  - ESF E-02 Warning Means for RR Engine Fuel Filters
  - ESF E-05 Thrust Reverser Testing
  - ESF E-10 Fire Extinguishing Agent Concentration
  - ESF E-12 RR T7000 Turbine Overheat Detection
  - ESF E-14 RR T7000 engine zone (seals & caps) fire withstanding capability
  - ESF E-15 Nacelles areas behind Firewalls
  - ESF F-04 Landing light switch

# Additional Equivalent Safety Findings part of the Certification Basis (added post TC):

The following Equivalent Safety Findings are additionally applicable when an A/C configuration include the subject optional design change(s):

- JAA Numbering:
  - ESF E-15 Reinforced security cockpit door
  - ESF E-134 Installation of seats that make an angle of more than 18° with the aircraft longitudinal axis
  - ESF S-1066 Cat III Operations Excess deviation alert
- EASA Numbering:
  - ESF B-100 Vibration / buffeting compliance criteria for large external antenna installation
  - ESF D-101 Green arrow and "Open" Placard of Emergency Exit marking
  - ESF F-128 Minimum Mass Flow of Supplemental Oxygen
  - ESF F-129 Crew Determination of Quantity of Oxygen in Passenger Oxygen System

#### 7. Environmental Protection

7.1 Noise

See TCDSN no. EASA.A.004

7.2 Fuel Venting

CS-34 amendment 1, ICAO Annex 16, Volume II, amendment 08, Part II, chapter II



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# 8. Operational Suitability Data (OSD)

See SECTION: DATA PERTINENT TO ALL MODELS for:

- Operational Suitability Requirements
- EASA Approved Operational Suitability Data
- 9. Extended Range Operations (ETOPS)

See SECTION: DATA PERTINENT TO ALL MODELS for:

- ETOPS Technical Conditions
- EASA Approved ETOPS Capability

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## SECTION 4: A330-800 SERIES (Cont'd)

#### III. Technical Characteristics and Operational Limitations

### 1. Type Design Definition

With Rolls Royce (RR) engines A330-841: 00G000A0841/C00

# 2. Description

Two turbo-fan, medium to long range, twin-aisle, large category aeroplane.

### 3. Equipment

Refer to Type Design Definition.

Cabin furnishings, equipment and arrangement shall conform to the following specification:

- 00F252K0005/C01 for cabin seats.
- 00F252K0006/C01 for galley.
- 00F252K0020/C01 for cabin attendant seats.

### 4. Dimensions

- Length: 58,82m (193ft) - Diameter: 05,64m (18ft 6in) - Wing Span: 64,00m (210ft) - Height: 17,38 m (57ft)

### 5. Engine

## 5.1 Model

#### Rolls Royce (RR) engines

A330-841: Two (2) Rolls Royce Trent 7000-72 turbofan engines

# 5.2 Type Certificate

Rolls Royce (RR) engines

EASA Engine TCDS: EASA.E.036

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#### 5.3 Limitations

# 5.3.1 Installed Engine Limits

# Rolls Royce (RR) engines

| A/C Model        | A330-841      |  |
|------------------|---------------|--|
| Engine Model     | Trent 7000-72 |  |
| Static thrust at |               |  |
| sea level:       |               |  |
| - take-off       | 72,834 lbs    |  |
| (5mn) *          | 72,034 103    |  |
| - maximum        | 65,005 lbs    |  |
| continuous       |               |  |

<sup>\*</sup> The take-off rating and the associated operating limitations may be used for up to 10 minutes in the event of an engine failure (see notes in Engine TCDS).

Other engine limitations: See the relevant Engine Type Certificate Data Sheet.

### 5.3.2 Transmission Torque Limits

N/A

# 6. Fluids (Fuel / Oil / Additives / Hydraulics)

#### 6.1 Fuel

The following fuels may be used:

| ENGINES   | KEROSENE DESIGNATION                             |  |
|---|--|--|
| RR: (Operating Instruction in RR Manuel F-Trent A330) | JET A, JET A-1, JP5, JP8, N°3 JET fuel, TS-1, RT |  |

The above mentioned fuels are also suitable for the APU.

Refer to Consumable Material List (CML) for details on approved fuel specifications.

### 6.2 Oil

Refer to the Consumable Material List (CML).

Refer to Engine and APU Manufacturers Operating Instructions.

#### 6.3 Additives

Refer to the Consumable Material List (CML).

# 6.4 Hydraulics

Refer to the Consumable Material List (CML).

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## 7. Fluid capacities

#### 7.1 Fuel

Fuel quantity (0.8 kg / litre):

|           |      | 3-TANK AEROPLANE  |               |
|-----------|------|-------------------|---------------|
|           |      | Usable fuel       | Unusable fuel |
| <b>r</b>  | 1    | litres (kg)       | litres (kg)   |
|           | GE   | -                 |               |
| A/C Model | PW   | -                 | All models    |
|           | RR   | A330-841          |               |
|           |      |                   | Basic         |
| WING      | TANK | 91 300 (73 040)   | 190 (152)     |
| CENTRE    | TANK | 41 560 (33 248)   | 83 (67)       |
| TRIM      | TANK | 6 230 (4 984)     | 6 (5)         |
| TOTAL     |      | 139 090 (111 272) | 279 (223)     |

## 7.2 Oil

Refer to Weight & Balance Manual.

7.3 Coolant system capacity

N/A.

## 8. Air Speeds Limits

Refer to approved Aeroplane Flight Manual.

9. Rotor Speed Limits

N/A

10. Maximum Operating Altitude and Temperature

10.1 Altitude

Maximum Flight level: 41 450 ft (12 634m)

Maximum Airfield altitude: 8 000 ft ( 2 438m)

10.2 Temperature

Flight: Minimum: -78°C SAT

Ground: Range: -40°C to +55°C for Take-off and landing

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## 11. Operating Limitations

Refer to approved Aeroplane Flight Manual for maximum demonstrated crosswind. Wind Speed Limitations:

- Crosswind: Takeoff: A/C: 35kt (gust included)

Engine: Refer to AFM Limitation section

Landing: A/C: 38kt (gust included)

Engine: Refer to AFM Limitation section

- Tailwind: Takeoff: 10kt

Landing: 10kt

## 12. Maximum Weight

|                  |    | EIS                |                     |                     |                     |                     |
|------------------|----|--------------------|---------------------|---------------------|---------------------|---------------------|
| Variant<br>(MOD) |    | <b>800</b> (Basic) | <b>801</b> (205427) | <b>802</b> (205428) | <b>803</b> (205429) | <b>804</b> (205430) |
|                  | GE | -                  | -                   | -                   | -                   |                     |
| Models           | PW | -                  | -                   | =                   | i i                 |                     |
|                  | RR | A330-841           | A330-841            | A330-841            | A330-841            | A330-841            |
| MTOW (T)         |    | 242                | 242                 | 238                 | 234                 | 230                 |
| MLW (T)          |    | 186                | 186                 | 186                 | 186                 | 186                 |
| MZFW (T)         |    | 172-176*           | 172                 | 176                 | 176                 | 176                 |

<sup>(\*)</sup> Linear variation between those weights

# 13. Centre of Gravity Range

Refer to approved Aeroplane Flight Manual.

## 14. Datum / Mean Aerodynamic Chord (MAC)

Datum: Station 0.0, located 6,382 meters forward of aeroplane nose.

MAC: 7,270m

## 15. Levelling Means

Three primary jacking points: Refer to approved Weight and Balance Manual.

## 16. Minimum Flight Crew

Two (2): Pilot and Co-pilot.

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#### 17. Passenger Emergency Exit

Two Passenger Emergency Exit configurations:

- Configuration A-A-I-A: Basic 3 Type A passenger doors and 1 Emergency Exit Type I
- Configuration A-A-A-A: Option 4 Type A passenger doors (MOD 40161)

## 18. Maximum Passenger Seating Capacity and associated Minimum Number of Cabin Crew

The maximum number of passengers approved for emergency evacuation is:

- 375 Basic (in Configuration A-A-I-A);
- 406 Option (in Configuration A-A-A).

See interior layout drawing for the maximum passenger capacities approved for each aeroplane when delivered.

The table below provides the certified Maximum Passenger Seating Capacities (MPSC), the corresponding cabin configuration (exit arrangement and modifications) and the associated minimum numbers of cabin crew members used to demonstrate compliance with the certification requirement:

| Maximum    | Minimum                               |  |  |  |
|------------|---------------------------------------|--|--|--|
| & Cabin Co | Cabin crew                            |  |  |  |
| 406        | 406 Configuration A-A-A-A (MOD 40161) |  |  |  |
| 400        | 8                                     |  |  |  |
| 375        | 375 Configuration A-A-I-A (Basic)     |  |  |  |

A lower number of cabin crew may be approved by EASA for specific cabin layouts.

## 19. Maximum Baggage/ Cargo Loads

| Cargo compartment | Maximum load (kg) |  |
|-------------------|-------------------|--|
| Forward           | 18 869            |  |
| Aft               | 15 241            |  |
| Rear (bulk)       | 3 468             |  |

For the positions and the loading conditions authorized in each position (references of containers, pallets and associated weights), see Weight and Balance Manual.

#### 20. Rotor Blade control movement

N/A

## 21. Auxiliary Power Unit (APU)

One GARRETT (Company name changed to Honeywell International Inc. in 1999):

- GTCP 331-350C (Specification 31-7677A)

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## 22. Life-limited parts

Refer to Airworthiness Limitation Section See SECTION: DATA PERTINENT TO ALL MODELS.

## 23. Wheels and Tyres

Refer to Airbus Service Bulletin A330-32-3004.

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## SECTION 4: A330-800 SERIES (Cont'd)

## IV. Operating and Service Instructions

In accordance with EASA Part 21 regulation, Airbus provide on-demand access to the following technical publications to any person required to comply with any of those instructions:

(Access via AirbusWorld portal)

1. Flight Manual (AFM)

Ref. AFM 33000 (latest published revision)

2. Maintenance Manual

Refer to Customized Maintenance Manuals published by Airbus (latest published revision)

3. Structural Repair Manual (SRM)

Refer to Customized SRM published by Airbus (latest published revision)

4. Weight and Balance Manual (W&BM)

Refer to Customized W&BM published by Airbus (latest published revision)

5. Illustrated Parts Catalogue (IPC)

Refer to Customized IPC published by Airbus (latest published revision)

6. Service Bulletins (SBs)

Refer to applicability section of Airbus Service Bulletins (latest published revision)

7. Required Equipment

The equipment required by the applicable regulation shall be installed.

Refer also to MMEL - See SECTION: DATA PERTINENT TO ALL MODELS.

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# SECTION 4: A330-800 SERIES (Cont'd)

## V. Notes

# 1. All Weather Capability

|                               | RR Engines  |  |  |
|-------------------------------|---|--|--|
|                               | Till Eligines                                     |  |  |
| A/C Model                     | A330-841  |  |  |
|                               | -   |  |  |
|                               | -   |  |  |
| Type Design<br>Capability     | Cat 1<br>manual ILS CAT I approach using Raw Data |  |  |
| Option<br>Capability<br>(MOD) | -   |  |  |

## 2. Conversions between Models

N/A

# 3. Change of Weight Variants

N/A

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## SECTION 5: A330-900 SERIES

#### I. General

- 1. Type / Model
  - 1.1 Type

A330

1.2 Model

A330-941

2. Airworthiness Category

Large Aeroplanes

Performance Category A

3. Manufacturer

**AIRBUS** 

2 Rond-Point Emile Dewoitine

31700 Blagnac FRANCE

- 4. State of Design Authority Type Certification
  - 4.1 State of Design Authority

**EASA** 

4.2 Application Date

A330-941: 25 July 2014

4.3 State of Design Authority Type Certificate Date

A330-941: 26 September 2018

- 5. EASA Type Certification Date
  - 5.1 State of Design Authority

**EASA** 

5.2 Application Date

A330-941: 25 July 2014

5.3 State of Design Authority Type Certificate Date

A330-941: 26 September 2018

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## SECTION 5: A330-900 SERIES (Cont'd)

#### II. Certification Basis

1. Reference Date for determining the applicable requirements

Reference Application Date for EASA Certification: 25 July 2014

#### 2. Airworthiness Requirements

## Original Airworthiness Requirements (at time of TC):

- Certification Requirements

JAR 25 Change 13 effective on October 5, 1989 except as follows:

- JAR 25.561 is applied at change 12 for wing tanks outside the fuselage contour;
- For showing compliance with JAR 25.785(a)(b)(c), the front row seats located behind a bulkhead are not tested according to JAR 25.562(c)(5)(6). Instead, a minimum 35 inches distance between the seats and the bulkhead is considered as an acceptable alternative.

With the following JAR 25 paragraphs applicable at change 14:

25.307 (except (a)), 25.335(f), 25.345(c), 25.361, 25.371, 25.395, 25.397, 25.459, 25.571, 25.603 (applicable to vertical stabilizer only), 25.613 (applicable to vertical stabilizer only), 25.615 (applicable to vertical stabilizer only), 25.679, 25.723, 25.729, 25.731, 25.733, 25.735, 25.772, 25.777, 25.779(a), 25.783, 25.851, 25.855(a)(b)(c)(d)(e), 25.863, 25.867, 25X899 (applicable to vertical stabilizer only), 25.963(g) (applicable to fuel centre tank only), 25.979, 25.1303, 25.1381, 25.1415, 25.1543

Plus the following CS 25 paragraphs applicable at Amdt 2

25.021, 25.103(b), 25.105(a), 25.111(c), 25.119, 25.121 (except (a)), 25.123(b), 25.125, 25.207, 25.237, 25.253, 25.1419

Plus the following CS 25 paragraphs applicable at Amdt 13

25.963(e) (Fuel Tank Access Covers) with 25.963(e)(1) including the design features as per E-16 in the Annex to this TCDS.

Note: Any change or repair that would decrease the safety level of the E-16 design features would lead to the application of CS 25.963(e)(1) at amendment 15 or higher.

Plus the following CS 25 paragraphs applicable at Amdt 15 (applicable at the reference date) 25.023, 25.025, 25.027, 25.029, 25.031, 25.101, 25.103 (except (b)), 25.105 (except (a)), 25.107 (except (h)), 25.109, 25.111 (except (c)), 25.113, 25.115, 25.117, 25.121(a), 25.123 (except (b)), 25.143 (except (c)(i)(j)(l)), 25.145, 25.147, 25.149, 25.161, 25.171, 25.173, 25.175, 25.177, 25.181, 25.201, 25.203, 25.231, 25.233, 25.235, 25.251, 25.253 (except (c)), 25.255, 25.301, 25.302, 25.303, 25.305, 25.307(a), 25.321, 25.331, 25.333, 25.335 (except (f)), 25.337, 25.341, 25.343, 25.345 (except (c)), 25.349, 25.351, 25.365 (except (e),(f),(g)), 25.367, 25.373, 25.391, 25.393, 25.415, 25.427, 25.457, 25.471(b), 25.473, 25.479, 25.481(except (b)), 25.483, 25.485, 25.489, 25.491, 25.493, 25.495, 25.499, 25.503, 25.507, 25.509, 25.511, 25.519, 25.561(c) (applicable to large items of masses only), 25.571, 25.619, 25.625, 25.629, 25.631, 25.683(b), 25.773(b), 25.777(i), 25.809(g) (applicable to Door 3 panelization area only), 25.843(a), 25.901(c), 25.963(a), 25.963(d1)

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(applicable to fuel centre tank only), 25.1001(a)(b)(c), 25.1323(c)(d), 25.1325(e), 25.1337, 25.1355, 25.1383, 25.1501, 25.1503, 25.1505, 25.1507, 25.1511, 25.1513, 25.1515, 25.1516, 25.1517, 25.1519, 25.1531, 25.1533, 25.1535, 25.1581, 25.1583, 25.1585, 25.1587, 25.1591

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> Plus the following CS 25 paragraphs applicable at Amdt 15 related to engine installation: (New Engine, Pylon, pre-cooler, air inlet and nacelle, Structural adaptation of the wing at the wing/pylon interface, Electro Pneumatic Bleed Air System)

25.301, 25.303, 25.307, 25.361(a), 25.362, 25.363, 25.365(e1), 25.371, 25.561(c), 25.571, 25.581, 25.603, 25.605, 25.607, 25.609, 25.611, 25.613, 25.619, 25.621, 25.625, 25.631, 25.721 (except (a)), 25.723(b), 25.771(e), 25.779(b), 25.851 (except (a)), 25.856(a), 25.863, 25.865, 25.867, 25.869(a), 25.899, 25.901, 25.903, 25.933, 25.934, 25.939, 25.943, 25.951, 25.952, 25.954, 25.955(a), 25.959, 25.961, 25.963(d5), 25.981(a), 25.993 (except (f)), 25.994, 25.995, 25.997, 25.999, 25.1001(a)(b), 25.1011, 25.1013, 25.1015, 25.1017, 25.1019, 25.1021, 25.1023, 25.1025, 25.1041, 25.1043, 25.1045, 25.1091, 25.1093, 25.1103, 25.1121, 25.1123, 25.1141, 25.1143, 25.1145, 25.1155, 25.1163, 25.1165, 25.1167, 25.1181, 25.1182, 25.1183, 25.1185, 25.1187, 25.1189 (except (c),(f),(g),(h)), 25.1191, 25.1193, 25.1195, 25.1197, 25.1199, 25.1201, 25.1203, 25.1207, 25.1301, 25.1305, 25.1309, 25.1315, 25.1321(d), 25.1351 (except (a),(c)), 25.1353 (except (c)), 25.1357(a)(d)(e), 25.1360(a), 25.1431, 25.1435(a), 25.1438, 25.1461, 25.1521, 25.1527, 25.1549, 25.1551, 25.1557(b), 25.1593, 25.1701, 25.1703 (except (c)), 25.1705, 25.1707, 25.1709, 25.1711, 25.1713, 25.1715, 25.1717, 25.1719, 25.1721 (except (c)), 25.1723, 25.1725, 25.1727, 25.1731

Plus the following CS 25 paragraphs applicable at Amdt 15 related to aerodynamic changes: (New winglet with wing span increase, Wing Aerodynamic clean up, Wing twist change, Wing engine interference, new navigation and strobe lights)

25.301, 25.303, 25.307, 25.445, 25.571 (except (e4)), 25.581, 25.603, 25.605, 25.607, 25.609, 25.611, 25.613, 25.619, 25.625, 25.631, 25.683(b), 25.723(b), 25.863(a)(b), 25.869(a), 25.899, 25.954, 25.959, 25.1001(a)(b), 25.1301(a), 25.1305, 25.1309, 25.1353 (except (c)), 25.1357(a)(e), 25.1360(a), 25.1385, 25.1387, 25.1389, 25.1391, 25.1393, 25.1395, 25.1397, 25.1401, 25.1403, 25.1431, 25.1438, 25.1525

Plus the following CS 25 paragraphs applicable at Amdt 17:

25.1316, 25.1317

- All weather operations

JAR AWO change 1 plus:

- Orange paper AWO 91/1,
- NPA JAR AWO 3,
- NPA JAR AWO 8 (IM S-148 Longitudinal touchdown performance + MABH deletion).
- Airborne Communication, Navigation, Surveillance

**CS-ACNS** Initial Issue

- Subpart B, Section 2 - for optional modifications (Post TC) installing FANS aiming at answering to SES mandate as defined in (EU) N° 29/2009 and amended by (EU) N° 310/2015 of 26 Febuary 2015.

Note: For compliance to CS-ACNS Subpart B, Section 2, a deviation to CS-ACNS.B.DLS.B1.075 is accepted by DEV ACNS-B-GEN-01 to not include DM89 MONITORING [unit name] [frequency] in the downlink message set installed.

- Subpart D for optional modifications installing transponders aiming at answering to SES mandate as defined in (EU) No 1207/2011 and amended by (EU) No 1028/2014 of 26 September 2014.
- Subpart E, Section 2 for RVSM



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## Additional Airworthiness Requirements (added Post TC):

The following requirements are additionally applicable when an A/C configuration include the subject optional design change(s):

- Certification Requirements

The following requirements may be considered to certify the following optional designs:

- CS 25.791 Original issue for symbolic no smoking signs in lavatories
- CS 25.811 and CS 25.812 Amdt. 3 for multi lingual "EXIT" signs.
- CS 25.851(a)(c) Amdt 17 for Halon Free Hand Held Fire Extinguishers Compliance with Commission regulation (EU) N° 744/2010 of 18 August 2010 amending regulation (EC) n° 1005/2009 of the European Parliament and of the Council on substances that deplete the ozone layer, with regard to the critical uses of halon).

## 3. Special Conditions

## Original Special Conditions part of Certification Basis (at time of TC):

# - JAA Numbering:

| • | JAA NUMD | ering:   |
|---|----------|--|
|   | SC A-5   | Limit pilot forces and torque  |
|   | SC E-128 | Improved flammability standards for thermal/acoustic insulation                    |
|   | SC F-126 | Flight Recorders including Data Link Recording                                     |
|   | SC G-105 | Resistance to Fire Terminology   |
|   | SC P-2   | Centre of Gravity Control System   |
|   | SC P-27  | Flammability Reduction System  |
|   | SC P-32  | Fuel Tank Safety   |
|   | SC S-6   | Lightning protection indirect effects  |
|   | SC S-10  | Effects of external radiations upon aircraft systems (including S-10.1 and S-10.2) |
|   | SC S-13  | Autothrust system  |
|   | SC S-16  | Control signal integrity   |
|   | SC S-18  | Electronic flight controls   |
|   | SC S-20  | Emergency electrical power (NPA 25D, F-179)  |
|   | SC S-21  | Brake Wear Limits  |
|   | SC S-23  | Electrical wiring and miscellaneous electrical requirements                        |
|   | SC S-38  | Towbarless towing  |
|   | SC S-148 | Longitudinal touchdown performance + MABH deletion                                 |
|   |          |  |

#### - EASA Numbering:

| LAJA   | Nun | ibering.  |
|--------|-----|---|
| SC B-0 | 01  | Stalling and scheduled operating speeds   |
| SC B-0 | 02  | Electronic Flight Control System (EFCS) Control Surface Awareness               |
| SC B-0 | 04  | Static Directional, Lateral and Longitudinal Stability and Low Energy Awareness |
| SC B-0 | 05  | Flight Envelope Protection  |
| SC B-0 | 06  | Load Factor Limiting System   |
| SC D-  | 03  | Brake Kinetic Energy Capacity   |
| SC E-0 | 03  | Engine Cowl retention   |
| SC H-  | 01  | Enhanced Airworthiness Programme for Aeroplane Systems - ICA on EWIS            |
|        |     |   |

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## Additional Special Conditions part of the Certification Basis (added post TC):

The following Special Conditions are additionally applicable when an A/C configuration include the subject optional design change(s):

## - JAA Numbering:

- SC E-2 Underfloor Crew rest compartment (superseded by SC D-04 for new design)
- SC E-130 Application of heat release and smoke density requirements to seat materials
- SC E-1014 HIC compliance for front row seating (inflatable restraints)
- SC E-1023 Side facing seats with with inflatable restraints

#### - EASA Numbering:

- SC B-09 Soft go around SC D-04 Crew Rest Compartment
- SC D-06 Installation of Three Point restraint & Pre Tensioner System
- SC D-07 Installation of Oblique Seats
- SC D-08 Cabin Attendant Seat mounted on lavatory Door Blade
- SC D-100 Installation of mini suite type seating
- SC D-102 Incorporation of Inertia Locking Device in Dynamic Seats (applicable from January 2019)
- SC F-131 Flight Instrument External Probes Qualification in Icing Conditions
- SC F-134 Head Up Display Installation
- SC F-137 Security Protection of Aircraft Systems and Networks
- SC F-GEN-01: Installation of non-rechargeable lithium battery (applicable from April 2019)

#### 4. Exemptions

None

## 5. Deviations

#### <u>Deviation to Additional Airworthiness Requirements (added Post TC):</u>

- Airborne Communication, Navigation, Surveillance

ACNS-B-GEN-01 Deviation to CS-ACNS Initial Issue Subpart B, Section 2 (See Note in §II-2)



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## 6. Equivalent Safety Findings

## Original Equivalent Safety Findings part of Certification Basis (at time of TC):

- JAA Numbering:
  - ESF E-21 Emergency exit marking reflectance
  - ESF E-29 Fuselage burn through aft pressure bulkhead
  - ESF E-30 Fuselage burn through belly fairing
  - ESF E-31 Fuselage burn through bilge area
  - ESF E-1022 Improved flammability standards for thermal / acoustic insulation materials
  - ESF S-45 Oil temperature indication
- EASA Numbering:
  - ESF D-05 Packs off operations
  - ESF E-02 Warning Means for RR Engine Fuel Filters
  - ESF E-05 Thrust Reverser Testing
  - ESF E-10 Fire Extinguishing Agent Concentration
  - ESF E-12 RR T7000 Turbine Overheat Detection
  - ESF E-14 RR T7000 engine zone (seals & caps) fire withstanding capability
  - ESF E-15 Nacelles areas behind Firewalls
  - ESF F-04 Landing light switch

## Additional Equivalent Safety Findings part of the Certification Basis (added post TC):

The following Equivalent Safety Findings are additionally applicable when an A/C configuration include the subject optional design change(s):

- JAA Numbering:
  - ESF E-15 Reinforced security cockpit door
  - ESF E-134 Installation of seats that make an angle of more than 18° with the aircraft longitudinal axis
  - ESF S-1066 Cat III Operations Excess deviation alert
- EASA Numbering:
  - ESF B-100 Vibration / buffeting compliance criteria for large external antenna installation
  - ESF D-101 Green arrow and "Open" Placard of Emergency Exit marking
  - ESF F-128 Minimum Mass Flow of Supplemental Oxygen
  - ESF F-129 Crew Determination of Quantity of Oxygen in Passenger Oxygen System

#### 7. Environmental Protection

7.1 Noise

See TCDSN no. EASA.A.004

7.2 Fuel Venting

CS-34 amendment 1, ICAO Annex 16, Volume II, amendment 07, Part II, chapter II



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## 8. Operational Suitability Data (OSD)

## See SECTION: DATA PERTINENT TO ALL MODELS for:

- Operational Suitability Requirements
- EASA Approved Operational Suitability Data

-

## 9. Extended Range Operations (ETOPS)

See SECTION: DATA PERTINENT TO ALL MODELS for:

- ETOPS Technical Conditions
- EASA Approved ETOPS Capability

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## SECTION 5: A330-900 SERIES (Cont'd)

#### III. Technical Characteristics and Operational Limitations

## 1. Type Design Definition

With Rolls Royce (RR) engines A330-941: 00G000A0941/C00

## 2. Description

Two turbo-fan, medium to long range, twin-aisle, large category aeroplane.

## 3. Equipment

Refer to Type Design Definition.

Cabin furnishings, equipment and arrangement shall conform to the following specification:

- 00F252K0005/C01 for cabin seats.
- 00F252K0006/C01 for galley.
- 00F252K0020/C01 for cabin attendant seats.

## 4. Dimensions

- Length: 63,66m (208ft 10in) - Diameter: 05,64m (18ft 6in) - Wing Span: 64,00m (210ft) - Height: 16,79 m (55ft 1in)

5. Engine

5.1 Model

## Rolls Royce (RR) engines

A330-941: Two (2) Rolls Royce Trent 7000-72 turbofan engines

## 5.2 Type Certificate

Rolls Royce (RR) engines

EASA Engine TCDS: EASA.E.036

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#### 5.3 Limitations

## 5.3.1 Installed Engine Limits

## Rolls Royce (RR) engines

| A/C Model        | A330-941      |  |
|------------------|---------------|--|
| Engine Model     | Trent 7000-72 |  |
| Static thrust at |               |  |
| sea level:       |               |  |
| - take-off       | 72,834 lbs    |  |
| (5mn) *          | 72,034 103    |  |
| - maximum        | 65,005 lbs    |  |
| continuous       | 801 600,60    |  |

<sup>\*</sup> The take-off rating and the associated operating limitations may be used for up to 10 minutes in the event of an engine failure (see notes in Engine TCDS).

Other engine limitations: See the relevant Engine Type Certificate Data Sheet.

## 5.3.2 Transmission Torque Limits

N/A

## 6. Fluids (Fuel / Oil / Additives / Hydraulics)

#### 6.1 Fuel

The following fuels may be used:

| ENGINES   | KEROSENE DESIGNATION                             |  |
|---|--|--|
| RR: (Operating Instruction in RR Manuel F-Trent A330) | JET A, JET A-1, JP5, JP8, N°3 JET fuel, TS-1, RT |  |

The above mentioned fuels are also suitable for the APU.

Refer to Consumable Material List (CML) for details on approved fuel specifications.

## 6.2 Oil

Refer to the Consumable Material List (CML).

Refer to Engine and APU Manufacturers Operating Instructions.

#### 6.3 Additives

Refer to the Consumable Material List (CML).

## 6.4 Hydraulics

Refer to the Consumable Material List (CML).

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## 7. Fluid capacities

#### 7.1 Fuel

Fuel quantity (0.8 kg / litre):

|           |      | 3-TANK AEROPLANE  |               |
|-----------|------|-------------------|---------------|
|           |      | Usable fuel       | Unusable fuel |
| •         | 1    | litres (kg)       | litres (kg)   |
|           | GE   | -                 |               |
| A/C Model | PW   | -                 | All models    |
|           | RR   | A330-941          |               |
|           |      |                   | Basic         |
| WING      | TANK | 91 300 (73 040)   | 190 (152)     |
| CENTRE    | TANK | 41 560 (33 248)   | 83 (67)       |
| TRIM      | TANK | 6 230 (4 984)     | 6 (5)         |
| TOTAL     |      | 139 090 (111 272) | 279 (223)     |

## 7.2 Oil

Refer to Weight & Balance Manual.

7.3 Coolant system capacity

N/A.

## 8. Air Speeds Limits

Refer to approved Aeroplane Flight Manual.

9. Rotor Speed Limits

N/A

10. Maximum Operating Altitude and Temperature

10.1 Altitude

Maximum Flight level: 41 450 ft (12 634m)

Maximum Airfield altitude: 8 000 ft ( 2 438m)

10.2 Temperature

Flight: Minimum: -78°C SAT

Ground: Range: -40°C to +55°C for Take-off and landing

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## 11. Operating Limitations

Refer to approved Aeroplane Flight Manual for maximum demonstrated crosswind. Wind Speed Limitations:

- Crosswind: Takeoff: A/C: 30kt (gust included)

Engine: Refer to AFM Limitation section

Landing: A/C: 35kt (gust included)

Engine: Refer to AFM Limitation section

- Tailwind: Takeoff: 10kt (15kt with MOD 205376)

Landing: 10kt (15kt with MOD 205377)

## 12. Maximum Weight

|                  |    | EIS            |                     |                     |                     |                     |
|------------------|----|----------------|---------------------|---------------------|---------------------|---------------------|
| Variant<br>(MOD) |    | 900<br>(Basic) | <b>901</b> (205432) | <b>902</b> (205433) | <b>903</b> (205434) | <b>904</b> (205435) |
|                  | GE | =              | -                   | =                   | =                   |                     |
| Models           | PW | -              | -                   | =                   | i i                 |                     |
|                  | RR | A330-941       | A330-941            | A330-941            | A330-941            | A330-941            |
| MTOW (T)         |    | 242            | 242                 | 238                 | 234                 | 230                 |
| MLW (T)          |    | 191            | 191                 | 191                 | 191                 | 191                 |
| MZFW (T)         |    | 177-181*       | 177                 | 181                 | 181                 | 181                 |

<sup>(\*)</sup> Linear variation between those weights

## 13. Centre of Gravity Range

Refer to approved Aeroplane Flight Manual.

## 14. Datum / Mean Aerodynamic Chord (MAC)

Datum: Station 0.0, located 6,382 meters forward of aeroplane nose.

MAC: 7,270m

## 15. Levelling Means

Three primary jacking points: Refer to approved Weight and Balance Manual.

## 16. Minimum Flight Crew

Two (2): Pilot and Co-pilot.

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#### 17. Passenger Emergency Exit

Two Passenger Emergency Exit configurations:

- Configuration A-A-I-A: Basic 3 Type A passenger doors and 1 Emergency Exit Type I
- Configuration A-A-A-A: Option 4 Type A passenger doors (MOD 40161)

## 18. Maximum Passenger Seating Capacity and associated Minimum Number of Cabin Crew

The maximum number of passengers approved for emergency evacuation is:

- 375 Basic (in Configuration A-A-I-A);
- 440 Option (in Configuration A-A-A-A).

See interior layout drawing for the maximum passenger capacities approved for each aeroplane when delivered.

The table below provides the certified Maximum Passenger Seating Capacities (MPSC), the corresponding cabin configuration (exit arrangement and modifications) and the associated minimum numbers of cabin crew members used to demonstrate compliance with the certification requirement:

| Maximum    | Minimum                               |   |  |
|------------|---------------------------------------|---|--|
| & Cabin Co | Cabin crew                            |   |  |
| 440        | 440 Configuration A-A-A-A (MOD 40161) |   |  |
| 400        | 8                                     |   |  |
| 375        | Configuration A-A-I-A (Basic)         | 8 |  |

A lower number of cabin crew may be approved by EASA for specific cabin layouts.

## 19. Maximum Baggage/ Cargo Loads

| Cargo compartment | Maximum load (kg) |
|-------------------|-------------------|
| Forward           | 22861             |
| Aft               | 18507             |
| Rear (bulk)       | 3468              |

For the positions and the loading conditions authorized in each position (references of containers, pallets and associated weights), see Weight and Balance Manual.

#### 20. Rotor Blade control movement

N/A

## 21. Auxiliary Power Unit (APU)

One GARRETT (Company name changed to Honeywell International Inc. in 1999):

- GTCP 331-350C (Specification 31-7677A)

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## 22. Life-limited parts

Refer to Airworthiness Limitation Section See SECTION: DATA PERTINENT TO ALL MODELS.

## 23. Wheels and Tyres

Refer to Airbus Service Bulletin A330-32-3004.

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## SECTION 5: A330-900 SERIES - Cont'd

## IV. Operating and Service Instructions

In accordance with EASA Part 21 regulation, Airbus provide on-demand access to the following technical publications to any person required to comply with any of those instructions:

(Access via AirbusWorld portal)

1. Flight Manual (AFM)

Ref. AFM 33000 (latest published revision)

2. Maintenance Manual

Refer to Customized Maintenance Manuals published by Airbus (latest published revision)

3. Structural Repair Manual (SRM)

Refer to Customized SRM published by Airbus (latest published revision)

4. Weight and Balance Manual (W&BM)

Refer to Customized W&BM published by Airbus (latest published revision)

5. Illustrated Parts Catalogue (IPC)

Refer to Customized IPC published by Airbus (latest published revision)

6. Service Bulletins (SBs)

Refer to applicability section of Airbus Service Bulletins (latest published revision)

7. Required Equipment

The equipment required by the applicable regulation shall be installed.

Refer also to MMEL - See SECTION: DATA PERTINENT TO ALL MODELS.

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# SECTION 5: A330-900 SERIES - Cont'd

## V. Notes

# 1. All Weather Capability

|                               | RR Engines   |
|-------------------------------|--|
| A/C Model                     | A330-941   |
|                               | -  |
|                               | -  |
| Type Design<br>Capability     | Cat 1<br>manual ILS CAT I approach using Raw Data    |
| Option<br>Capability<br>(MOD) | Cat 3<br>Precision approach and autoland<br>(206292) |

## 2. Conversions between Models

N/A

# 3. Change of Weight Variants

N/A

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## **SECTION: DATA PERTINENT TO ALL MODELS**

The below information is applicable to all models unless specifically mentioned:

## 1. Maintenance Instructions and Airworthiness Limitations

The following initial minimum maintenance requirements and their frequencies shall be used in the development of an approved maintenance programme for the aircraft:

Applicable Document Reference:

A330-200/-300/-800/-900 series

- A330 Maintenance Review Board Report (latest published revision)

A330-700L serie

- A330-700L Maintenance Requirements Document (latest published revision)
- A330-700L Maintenance Requirements Document Supplement for Courier Area ref MRD-S dated 1<sup>st</sup> of November 2019 (or later approved revision)

The following Airworthiness Limitations Sections (ALS) apply:

#### ALS PART 1: SAFE LIFE AIRWORTHINESS LIMITATION ITEMS (SL ALI)

Limitations applicable to Safe Life Airworthiness Limitation Items are provided in the A330 Airworthiness Limitations Section (ALS) sub-parts 1-2 and 1-3 approved by EASA; Applicable Document Reference:

- Ref: A330 ALS Part 1 (latest published revision)
- Ref: A330 ALS Part 1 Variations (latest published set of variations)

#### ALS PART 2: DAMAGE TOLERANCE AIRWORTHINESS LIMITATION ITEMS (DT ALI)

Limitations applicable to Damage Tolerant Airworthiness Limitation Items are provided in the A330 Airworthiness Limitations Section (ALS) Part 2 approved by EASA; Applicable Document Reference:

- Ref: A330 ALS Part 2 (latest published revision)
- Ref: A330 ALS Part 2 Variations (latest published set of variations)

## - ALS PART 3: CERTIFICATION MAINTENANCE REQUIREMENTS (CMR)

Certification Maintenance Requirements are provided in the A330 Airworthiness Limitations Section (ALS) Part 3 approved by EASA;

Applicable Document Reference:

- Ref: A330 ALS Part 3 (latest published revision)
- Ref: A330 ALS Part 3 Variations (latest published set of variations)

## **ALS PART 4: AGEING SYSTEMS MAINTENANCE (ASM)**

Limitations applicable to Ageing System Maintenance are provided in the A330 Airworthiness Limitation Section (ALS) Part 4 approved by EASA; Applicable Document Reference:

- Ref: A330 ALS Part 4 (latest published revision)
- Ref: A330 ALS Part 4 Variations (latest published set of variations)

#### **ALS PART 5: FUEL AIRWORTHINESS LIMITATIONS (FAL)**

Fuel Airworthiness Limitations are provided in the A330 Airworthiness Limitations Section (ALS) Part 5 approved by EASA;

Applicable Document Reference:

- Ref: A330 ALS Part 5 (latest published revision)
- Ref: A330 ALS Part 5 Variations (latest published set of variations)



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## 2. Operational Suitability Data (OSD)

The Operational Suitability Requirements and Data listed below are applicable to all A330 models:

#### 2.1 Flight Crew Data (FCD)

- Operational Suitability Requirements:

**CS-FCD** Initial Issue

- Operational Suitability Data approved by EASA:

Required for Entry into Service by EU operator.

FCD Ref. V01RP1505446 Issue 1 dated 11<sup>th</sup> of December 2015 All Models:

(or later approved revisions)

A330-743L only: FCD Ref. G01RP1919857 Issue 1.2 dated 9th of October 2019

(or later approved revisions)

All A330 and A350 aircraft models are assigned a single licence endorsement and share the same A330/350 type rating. Variants within the A330/350 type rating are defined in the Flight Crew Data report reference V01RP1505446.

#### 2.2 Cabin Crew Data (CCD)

- Operational Suitability Requirements:

SC A-01-CCD OSD Cabin Crew Data (CCD) Certification Basis Determination of Certification Basis for changes to A330 CCD SC CCD-01

- Operational Suitability Data approved by EASA:

Required for Entry into Service by EU operator (Passenger Models only).

CCD Ref. LR01RP1534111 Issue 1 dated 16<sup>th</sup> November 2015 All Models:

(or later approved revisions)

A330-200F/-700L: No Cabin Crew Data required

A330-200/-300/-800/-900 series are one and the same aircraft for cabin crew.

The A330-200/-300/-800/-900 is a variant within the A330/A340/A350 aircraft type for cabin crew.

## 2.3 Master Minumum Equipment List (MMEL)

- Operational Suitability Requirements:

JAR MMEL / MEL Subpart B amendment 1

- Operational Suitability Data approved by EASA:

Required for Entry into Service by EU operator

All Models: MMEL Ref. MMEL STL 33100 dated November 2015

(or later approved revisions)

A330-700L: MMEL-Supplement Ref. MMEL-S MOD CJ1970 dated 1st August 2019 (or later approved revisions)

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# 3. Extended Range Operations (ETOPS)

## 3.1 ETOPS Technical Conditions

| A/C Model               |  | A330-300<br>All WV (Except WV 080) |                      |  |                    |   | A330-300<br>WV 050 + WV052<br>WV 08x + Centre Tank Activated |                    |                           |
|-------------------------|--|------------------------------------|----------------------|--|--------------------|---|--|--------------------|---------------------------|
|                         | A330-301<br>-<br>-   | A330-321<br>A330-322               | A330-341<br>A330-342 | A330-302<br>A330-303   | -<br>-<br>A330-323 | -<br>-<br>A330-343                        | -<br>A330-302<br>A330-303                                    | -<br>-<br>A330-323 | -<br>A330-342<br>A330-343 |
| Defined in              | JAA CRI G-6 (up to 180min)<br>EASA CRI G-8 (beyond 180min) |                                    |                      | JAA CRI G-106 (up to 180min)<br>EASA CRI G-8 (beyond 180min) |                    | EASA CRI G-8<br>(up to and beyond 180min) |  |                    |                           |
| Technical<br>Conditions |  |                                    |                      | 20-6<br>-42 / IL 20)   |                    |   | ,  | AMC 20-6 Rev       | /1                        |
|                         | A330-200   |                                    |                      |  |                    | A330-2                                    | 00F  |                    |                           |
| A/C Model               | A330-20<br>A330-20   |                                    | -                    | -  |                    | -   | -  |                    | -                         |

|                         |  | A330-200 |          | A330-200F                         |              |           |  |
|-------------------------|--|----------|----------|-----------------------------------|--------------|-----------|--|
| A/C Model               | A330-201<br>A330-202   | -        | -        | -                                 | -            | -         |  |
|                         | A330-203   | A330-223 | A330-243 | -                                 | A330-223F    | A330-243F |  |
| Defined in              | JAA CRI G-106 (up to 180min)<br>EASA CRI G-8 (beyond 180min) |          |          | EASA CRI G-106F<br>(up to 180min) |              |           |  |
| Technical<br>Conditions | AMC 20-6<br>(AMJ 120-42 / IL 20)                             |          |          |                                   | AMC 20-6 Rev | 1         |  |

| A/C Model               | A330-900       |                                     |          | A330-800  |              |          |  |
|-------------------------|----------------|-------------------------------------|----------|---|--------------|----------|--|
|                         |                |                                     | A330-941 | -   | -            | A330-841 |  |
|                         | -              | -                                   | -        | -   | -            | -        |  |
|                         | -              | -                                   | -        | -   | -            | -        |  |
| Defined in              |                | CS 25.1535 Amdt<br>to and beyond 18 | -        | CS 25.1535 Amdt 15<br>(up to and beyond 180min) |              |          |  |
| Technical<br>Conditions | AMC 20-6 Rev 2 |                                     |          |   | AMC 20-6 Rev | 2        |  |

| A/C Model               |                | A330-700L         |                       |   | - |   |
|-------------------------|----------------|-------------------|-----------------------|---|---|---|
|                         | -              | -                 | A330-743L             | - | - | - |
|                         | -              | -                 | -                     | - | - | - |
|                         | -              | -                 | -                     | - | - | - |
| Defined in              | No ETOPS appro | val for A330-700L | is granted initially. |   | - |   |
| Technical<br>Conditions | No ETOPS appro | val for A330-700L | is granted initially. |   | - |   |

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## 3.2 EASA Approved ETOPS Capability

The Type Design, system reliability and performance of below listed A330 models were found capable for Extended Range Operations when configured, maintained and operated in accordance with the latest published revision of the ETOPS Configuration, Maintenance and Procedures (CMP) document, LR2/EASA: AMC 20-6/CMP.

This finding does not constitute an approval to conduct Extended Range Operations (operational approval must be obtained from the responsible Authority).

The following table provides details on the ETOPS approvals.

|                  |                                       |                  | Approval Date    |                          |
|------------------|---------------------------------------|------------------|------------------|--------------------------|
| A/C Model        | Engine Type                           | ETOPS 120 Min    | ETOPS 180 Min    | ETOPS Beyond 180<br>Min* |
| A330-200 SERIES  |                                       |                  |                  |                          |
| A330-201         | GE CF6-80E1A2                         | -                | 19 November 2002 | 13 October 2009          |
| A330-202         | GE CF6-80E1A4                         | -                | 27 April 1998    | 13 October 2009          |
| A330-203         | GE CF6-80E1A3                         | -                | 30 November 2001 | 13 October 2009          |
| A330-223         | PW 4168A                              | -                | 13 July 1998     | 13 October 2009          |
|                  | PW 4168A-1D                           | -                | 04 June 2009     | 13 October 2009          |
|                  | PW 4170                               | -                | 04 June 2009     | 13 October 2009          |
| A330-223F        | PW 4170                               | -                | 09 July 2010     | -                        |
|                  | PW 4168A-1D                           | -                | 10 April 2012    | -                        |
|                  | Intermix<br>PW 4168A /<br>PW 4168A-1D | -                | May 2013         | -                        |
| A330-243         | RR Trent 772B-60                      | -                | 03 February 1999 | 13 October 2009          |
|                  | RR Trent 772C-60                      | -                | 19 April 2006    | 13 October 2009          |
| A330-243F        | RR Trent 772B-60                      | -                | 09 July 2010     | -                        |
| A330-300 SERIES  |                                       |                  |                  |                          |
| A330-301         | GE CF6-80E1A2                         | 29 April 1994    | 06 February 1995 | 13 October 2009          |
| A330-302         | GE CF6-80E1A2                         | -                | -                | 11 December 2014         |
|                  | GE CF6-80E1A4                         | -                | 17 June 2004     | 13 October 2009          |
| A330-303         | GE CF6-80E1A3                         | -                | 17 June 2004     | 13 October 2009          |
| A330-321         | PW 4164                               | 06 February 1995 | 04 August 1995   | 13 October 2009          |
|                  | PW 4164-1D                            | -                | -                | 04 February 2011         |
| A330-322         | PW 4168                               | 06 February 1995 | 04 August 1995   | 13 October 2009          |
|                  | PW 4168-1D                            | -                | -                | 04 February 2011         |
| A330-323         | PW 4164-1D                            | -                | -                | 11 December 2014         |
|                  | PW 4168A                              | -                | 22 April 1999    | 13 October 2009          |
|                  | PW 4168A-1D                           | -                | 04 June 2009     | 13 October 2009          |
|                  | PW 4170                               | -                | 04 June 2009     | 13 October 2009          |
| A330-341         | RR Trent 768-60                       | 15 December 1995 | 17 June 1996     | 13 October 2009          |
| A330-342         | RR Trent 772-60                       | 15 December 1995 | 17 June 1996     | 13 October 2009          |
| A330-343         | RR Trent 768-60                       | -                | -                | 11 December 2014         |
|                  | RR Trent 772B-60                      | -                | 21 October 1999  | 13 October 2009          |
|                  | RR Trent 772C-60                      | -                | 20 April 2006    | 13 October 2009          |
| A330-700L SERIES |                                       |                  |                  |                          |
| A330-743L        | RR Trent 772B-60                      | -                | -                | -                        |
| A330-800 SERIES  |                                       |                  |                  |                          |
| A330-841         | RR Trent 7000-72                      | -                | 12 February 2020 | 02 April 2020            |
| A330-900 SERIES  |                                       |                  |                  |                          |
| A330-941         | RR Trent 7000-72                      | -                | 14 November 2018 | 24 January 2019          |

<sup>(\*)</sup> Refer to AFM and ETOPS CMP document for maximum diversion time/distance.

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## **SECTION: ADMINISTRATIVE**

#### I. Acronyms and Abbreviations

A/C Aircraft

AFM Aeroplane Flight Manual

ALS Airworthiness Limitation Section
AMC Acceptable Means of Compliance

APU Auxiliary Power Unit
AWO All Weather Operations
CAA Civil Aviation Authority
CCD Cabin Crew Data

CRI Certification Review Item
CS Certification Specification

DGAC Direction Générale de l'Aviation Civile (French NAA)

EASA European Union Aviation Safety Agency

EC European Commission
EIS Entry Into Service

ESF Equivalent Safety Finding

ETOPS Extended Range Operations (with Two-Engined Aeroplanes)

EU European Union

EU MS European Union Member States

EWIS Electrical Wiring Interconnection System

FCD Flight Crew Data
GE General Electrics

FAA Federal Aviation Administration
FAR Federal Aviation Regulation
FRS Flammability Reduction Systems

ICA Instructions for Continued Airworthiness ICAO International Civil Aviation Organization

JAA Joint Aviation Authorities Joint Aviation Requirements **JAR** MSN Manufacturer Serial Number **MMEL** Master Minimum Equiment List MLW Maximum Landing Weight **MTOW** Maximum Take-Off Weight **MZFW** Maximum Zero Fuel Weight NAA **National Aviation Authority** NPA Notice of Proposed Amendment OSD **Operational Suitability Data** 

PW Pratt & Whithney
RR Rolls Royce
SB Service Bulletin
SC Special Condition
TC Type Certificate

TCDS Type Certificate Data Sheet

TCDSN Type Certificate Data Sheet for Noise

WV Weight Variant

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# II. Type Certificate Holder Record

**AIRBUS** 2 Rond-Point Emile Dewoitine 31700 Blagnac France

# **III. Change Record**

Starting from Issue 18

| Issue | Date     | Changes  | TC issue |
|-------|----------|--|----------|
| 18.0  | 27/11/09 | Page 4 Section 1.6   | 17/05/04 |
|       |          | Update of CMP Document reference number  |          |
|       |          | - Introduction of ETOPS Beyond 180 Min (approval date:   |          |
|       |          | 13 October 2009)   |          |
|       |          | <ul> <li>Amendment Approval date 4 June 2009 for ETOPS 180 Min (A330-323 PW<br/>4168A-1D and PW 4168A-1D)</li> </ul> |          |
|       |          | Page 6 Section 2.II.6  |          |
|       |          | Environmental Standards chapter re-arrangement   |          |
|       |          | Page 6 Section 2.II.7 & 2.II.8.2   |          |
|       |          | <ul><li>New Chapter title</li></ul>  |          |
|       |          | - Addition of CRI G-106 (2.II.7 only)  |          |
|       |          | - Addition of CRI G-8  |          |
|       |          | Page 11 Section 2.III.3.2.1  |          |
|       |          | <ul> <li>Introduction of reference to Approved Oil documentation</li> </ul>  |          |
|       |          | Page 14 Section 2.III.4.12   |          |
|       |          | <ul> <li>Introduction of reference to ALS 5, and deletion of Certification Document<br/>reference numbers</li> </ul> |          |
|       |          | Page 17 Section 3.II.7   |          |
|       |          | <ul> <li>Environmental Standards chapter re-arrangement</li> </ul>   |          |
|       |          | Page 17 Section 3.II.8   |          |
|       |          | - Addition of CRI G-8  |          |
|       |          | Page 21 Section 3.III.2.6  |          |
|       |          | <ul> <li>Mod number corrected (Variant 060)</li> </ul>   |          |
|       |          | Page 22 Section 3.III.3.2.1  |          |
|       |          | <ul> <li>Introduction of reference to Approved Oil documentation</li> </ul>  |          |
|       |          | Page 25 Section 3.III.4.12   |          |
|       |          | <ul> <li>Introduction of reference to ALS 5, and deletion of Certification Document</li> </ul>                       |          |
|       |          | reference numbers  |          |
|       |          | Page 26  |          |
|       |          | <ul> <li>Introduction of new Section 4 (Change Record)</li> </ul>  |          |
| 19.0  | 30/03/10 | Introduction of section 4 for A330-200 Freighter   | 09/04/10 |
| 20.0  | 11/06/10 | Addition of SC H-01 as Special Condition (Enhanced Airworthiness Programme   | 09/04/10 |
|       |          | for Aeroplane Systems - ICA for EWIS)  |          |
| 21.0  | 22/06/10 | Addition of WV 001 for A330-200 Freighter  | 09/04/10 |
| 22.0  | 20/07/10 | Addition of A330-200F ETOPS approval   | 09/04/10 |
|       |          | Addition of WV 061 for A330-200 passenger aircraft   |          |
| 23.0  | 18/07/10 | Addition of WV 057 and 058 on the A330-200 Passenger aircraft.   | 09/04/10 |
|       |          | Addition of fuel quantity table (Section 4 § 3.1.2) due to the introduction of                                       |          |
|       |          | MOD 58623 & 200281.  |          |
|       |          | Correction of typo error for fuel quantity tables (section 3 § 4.1 & Section 4 § 3.1.1).                             |          |
| 24.0  | 06/09/10 | Correction of a typo error on Section 1 - § 6 - ETOPS table  | 09/04/10 |



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| Issue | Date     | Changes  | TC issue |
|-------|----------|--|----------|
| 25.0  | 27/09/10 | Correction of typo error to remove ambiguity on A330-200 Freighter model (Section 4 - §1.1)  | 09/04/10 |
| 26.0  | 17/01/11 | Addition of WV 057 and 058 on the A330-243 Passenger aircraft (RR models). Addition of WV 002 on the A330-200F. Addition of Special condition P27 for A330-200 and A330-300 Passenger aircraft.  | 09/04/10 |
| 27.0  | 23/02/11 | Addition of RT Fuel for use on GE, PW and RR engines and APU Addition of PW 4164-1D and PW4168-1D engines (MOD 58777 and 58776)  | 09/04/10 |
| 28.0  | 09/03/11 | Correction of static take-off thrust (5 mn) number for A330-203  New Paragraph 3.III.4.13 Fuel tank flammability Reduction System (FRS)  Update of Paragraph 6 in Section 2 and 3 (Environmental Requirements for Noise)   | 09/04/10 |
| 29.0  | 06/05/11 | Addition of MOD 201436 to Variant 057 and addition of MOD 201437 to Variant 058 in Maximum Certified Weights for A330-201/-202/-203/-223/-243: Addition of PW4164-1D and PW4168-1D in the ETOPS table as a result of previous certification of MOD 58776 and 58777   | 09/04/10 |
| 30.0  | 26/10/11 | Addition of Variant 054 in Maximum Certified Weights for A330-302/-303/-323/-342/-343 (Section 2.III.1.6, 2.III.2.6 and 2.III.3.6)   | 09/04/10 |
| 31.0  | 04/05/12 | Removal of SC P-27 Flammability Reduction System from A330-300 Certification Basis Addition of SC E-130 and E-1014 to A330-300/-200 Certification Basis Addition of Weight Variants 054 and 055 for A330-302/-303/-323/-342/-343 Addition of Weight Variant 062 for A330-201/-202/-203/-223/-243 Correction Section 3.III.1.7: Service Bulletin 72-3003 was erroneously listed as 72-003   | 09/04/10 |
| 32.0  | 29/10/12 | Addition of PW4168A-1D Engine for A330-223F (Section 4.III.1.2.1.)  Addition of SC E-128 to A330-300/-200 Certification Basis  Addition of Weight Variant 056 for A330-302/-303/-323/-342/-343  Correction of MOD number (43308) for A330-301 Weight Variant 010   | 09/04/10 |
| 33.0  | 14/11/12 | Addition of Equivalent Safety Finding E-1022 to A330-300/-200 Certification Basis  | 09/04/10 |
| 34    | 28/05/13 | Addition of paragraph "Elect to comply" for A330-200/-200F/-300. After certification of MOD 200542 on Symbolic Exit Sign, the TCDS need to reflect the compliance with CS 25.811 and CS 25.812 Amdt. 3 Installation of one PW 4168A engine on A330-223F aircraft basically fitted with two PW4168A-1D Addition of PW4168A-1D and Intermix PW4168A/4168A-1D for A330-223F on Section 1 §6 reflecting ETOPS capabilities and approval of LR2/EASA: AMC 20-6 CMP Revision 25. |          |
| 35    | 20/11/13 | Addition of WV057 for A330-323/-342/-343   | 09/04/10 |
| 36    | 22/11/13 | Correction of a typo in section 2 §2.6 on MTOW of WV057 for A330-223. 184t instead of 187t   | 09/04/10 |
| 37    | 15/09/14 | Addition of WV058 for A330-342/-343 Addition of ESF E-134 and SC F-126 for A330-200/-200F/-300 Rewording of A330-200F Certification basis  | 09/04/10 |
| 38    | 11/12/14 | Addition of GE CF6-80E1A2 on A330-302<br>Addition of PW 4164-1D on A330-323<br>Addition of RR Trent 768-60 on A330-343<br>Addition of WVs 030, 031, 032, 033, 034, 035, and 039 on A330-302, -323, and -343  | 09/04/10 |

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|----------|----------|--|----------|
|          |          | Addition of ESFs F-128 and F-129 on A330-300, -200, and -200F  |          |
| 39       | 23/03/15 | Addition of WVs 059, 060, 026 and 027 on A330-323  | 09/04/10 |
|          |          | Addition of WV 053 on A330-202 and -203  |          |
|          |          | Addition of WVs 063 and 064 on A330-223  |          |
| 40       | 08/06/15 | Introduction of WVs 080, 081, 082, 083 on A330-302, A330-303, A330-323,  | 09/04/10 |
|          |          | A330-342, A330-343   |          |
|          |          | Introduction of Wing Centre Tank on on A330-302, A330-303, A330-323,   |          |
|          |          | A330-342, A330-343   |          |
|          |          | Correction of A330-300 Certification Basis   |          |
|          |          | Introduction of the EASA Engine TC reference   |          |
|          |          | Introduction of Minimum Cabin Crew requirements  |          |
| 41       | 18/06/15 | Updating of typos  | 09-04/10 |
| 42       | 15/07/15 | Extension of A330-300 WV080s aircraft capability to A330-300   | 09/04/10 |
|          |          | WV 030s, 050s, 060s  |          |
|          |          | Extension of Fuel Centre Tank modification 204025 to A330-300 WV 030s,   |          |
|          | 1        | 050s, 060s   |          |
| 43       | 21/09/15 | Introduction of  | 09/04/10 |
|          | 1        | WVs 080, 081, 082, 083 on A330-202, A330-203, A330-223, A330-243   |          |
| 44       | 14/12/15 | Introduction of the OSD data   | 09/04/10 |
| 45       | 25/09/17 | Introduction of Special Conditions and ESF   | 09/04/10 |
|          |          | Introduction of Halon Free requirement   |          |
|          |          | Introduction of Hydraulic Fluid Type V   |          |
|          | 22/27/42 | Update of Max Pax and Minimum Cabin Crew paragraph   | 00/04/40 |
| 46       | 20/07/18 | Introduction of ESF D-101 Green Arrow and "Open" Placard for Emergency   | 09/04/10 |
| 47       | 26/00/10 | Exit Marking   | 26/00/10 |
| 47       | 26/09/18 | Full rework of TCDS to match latest EASA TCDS Template   | 26/09/18 |
|          |          | Introduction of new section for introduction of A330-941 model (A330neo) Simultaneous release of full Annex to TCDS detailing SC / ESF |          |
| 48       | 22/11/18 | A330-900   | 26/09/18 |
| 40       | 22/11/10 | - \$III-7.1: Typo correction on unusable fuel (MOD 205749 is Type Design)  | 20/03/18 |
|          |          | - \$III-10.2: Update of Thermal Envelope (MOD 208120)  |          |
|          |          | - \$III-11: Update of Wind Speed Limitations (MOD 208117)  |          |
|          |          | - §V-1: Update of All Weather Capability (MOD 206292)  |          |
|          |          | DATA PERTINENT TO ALL MODELS   |          |
|          |          | - §3.2: Approval of ETOPS 180min for A330-941 in relation with update of   |          |
|          |          | EASA TCDS for RR Trent 7000 engine.  |          |
| 49       | 30/11/18 | A330-200/-300  | 26/09/18 |
|          | ' '      | - §III-5: Editorial introduction of mixability of PW 4168A with 4168A-1D for   | , ,      |
|          |          | A330-223/-323 (as per conditions of corresponding MOD 58956 and  |          |
|          |          | associated Airbus SB)  |          |
| <u> </u> | 24/04/40 | A220 200/ 200/ 000   | 26/00/48 |
| 50       | 24/01/19 | A330-200/-300/-900   | 26/09/18 |
|          |          | - §II-3: Typo correction for SC P-2 Centre of gravity control system  (ref or title harmonization vs. referred as P. 03 or Trim Tank)  |          |
|          |          | (ref.or title harmonization vs. referred as P-02 or Trim Tank)   |          |
|          |          | A330-300 - §III-1: Double reference for A330-321 and A330-322 TDD (same document)  |          |
|          |          | A330-321: 00G000A0321/C00 = 00G000A0321/C0S  |          |
|          |          | A330-321: 00G000A0321/C00 = 00G000A0321/C0S<br>A330-322: 00G000A0322/C00 = 00G000A0322/C0S   |          |
|          |          | DATA PERTINENT TO ALL MODELS   |          |
|          |          | - §3.2: Approval of ETOPS 180min and beyond 180min for A330-941.   |          |
|          |          | ANNEX TO TCDS UPDATE   |          |
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|---------|----------|--|----------|
| 51      | 01/03/19 | A330-200/-300 - §II-2: Elect to Comply to CS-ACNS Subpart B, Section 2 and Subpart D for optional modifications answering SES mandates | 26/09/18 |
|         |          | A330-900 - §V-1: Update of All Weather Capability (MOD 206292-2)   |          |
|         |          | ANNEX TO TCDS UPDATE   |          |
|         |          | - SC D-102: Incorporation of Inertia Locking Device in Dynamic Seats   |          |
| 52      | 26/04/19 | - SC CCD-01: Changes to A330 Cabin Crew Data A330-900  | 26/09/18 |
| JZ      | 20/04/13 | - §III-11: 15kt tailwind at take-off (MOD 205376) and landing (MOD 205377) - §III-11: Crosswind limitations updated A330-200/-300/-900 | 20/03/18 |
|         |          | - §II-3: New SC F-GEN-01: Installation of non-rechargeable lithium battery DATA PERTINENT TO ALL MODELS                                |          |
|         |          | - §3.2: Precision added on ETOPS approval for A330-941. ANNEX TO TCDS UPDATE   |          |
| <u></u> |          | - SC F-GEN-01: Installation of non-rechargeable lithium battery  |          |
| 53      | 14/10/19 | A330-200/-300  | 26/09/18 |
|         |          | - §II-2: few indications added between TC and Post TC requirements<br>- §II-6: ESF E-21 is "Post TC" for A330-200/-300                 |          |
|         |          | - §III-11: some wording harmonization with A330-900  |          |
|         |          | A330-200/-300/-900   |          |
|         |          | - §II-2: few editorial re-arrangement  |          |
|         |          | - §III-4: data rounding (match with published manuals)   |          |
|         |          | - §III-18: addition of a note for harmonization with A340 TCDS   |          |
| 54      | 11/11/19 | Introduction of a new section for the introduction of the A330-743L model (Beluga XL)  | 11/11/19 |
| 55      | 12/02/20 | Introduction of new section for introduction of A330-841 model (A330neo) A330-200/-300/-700/-800/-900                                  | 12/02/20 |
|         |          | - Re-arrangement of the TCDS layout (order of sections) and miscellaneous  |          |
|         |          | minor wording harmonization between sections   |          |
|         |          | - §II-3: Addition of missing SC: S-48 (Minimum approach break-off height)  |          |
|         |          | + S-148 (Longitudinal touchdown performance + MABH deletion)   |          |
|         |          | - §II-5: Repeater of deviation information already in Note in §II-2  |          |
|         |          | - §II-7: New EASA template for environmental protections requirements A330-700L  |          |
|         |          | - §V: simplified, removal of useless information   |          |
|         |          | - §VI: suppressed / merged in Section "Data pertinent to all models"   |          |
|         |          | - §VII: suppressed / merged in Section "Data pertinent to all models" A330-900   |          |
|         |          | - \$II-2: Typo correction on 25.307; 25.391; 25.393; 25.723; 25.855; 25.863;   |          |
|         |          | 25.1357, and addition of a note to CS 25.963(e) Amdt 13  |          |
|         |          | - §V-1: Rewording of All Weather Capability section to match fleet situation   |          |
|         |          | DATA PERTINENT TO ALL MODELS   |          |
|         |          | - §2: Addition of OSD data from A330-700L  |          |
| 56      | 03/04/20 | - §3.1: Typo corrections<br>A330-200   | 12/02/20 |
| 30      | 03/04/20 | - §III-5.3.1: Visual typo correction: empty column removed   | 12/02/20 |
|         |          | - §III-12: Typo correction: MOD 201436 to retrofit A330-200 to Variant 057   |          |
|         |          | DATA PERTINENT TO ALL MODELS   |          |
|         |          | - §3.1: Simplification, removal of useless information   |          |
|         |          | - §3.2: Approval of ETOPS 180min and beyond 180min for A330-841.   |          |

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