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# TYPE-CERTIFICATE DATA SHEET

No. EASA.A.084

**for**

ATR 42 and ATR 72

**Type Certificate Holder:**

ATR-GIE Avions de Transport Régional

1, Allée Pierre Nadot

31712 Blagnac Cedex

FRANCE

For Models:

ATR 42-200, ATR 42-300, ATR 42-320, ATR 42-400, ATR 42-500

ATR 72-101, ATR 72-102, ATR 72-201, ATR 72-202, ATR 72-211, ATR 72-212, ATR 72-212A



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**SECTION 1: ATR 42 Series****I. General**

## 1. Type/ Model/ Variant

ATR 42-200, ATR 42-300, ATR 42-320, ATR 42-400, ATR 42-500

## 2. Performance Class

A

## 3. Certifying Authority

Primary certification of above aircraft models has been granted by French DGAC under DGAC Type Certificate N° 176 and has been transferred to EASA since 28 September 2003 under EASA Type Certificate A.084.

## 4. Manufacturer

ATR - GIE Avions de Transport Régional  
1, Allée Pierre Nadot  
31712 Blagnac Cedex  
France

5. EASA<sup>1</sup> Type Certification Application Date

ATR 42-200	: 02 February 1982
ATR 42-300	: 02 February 1982
ATR 42-320	: 27 April 1987
ATR 42-400	: 19 July 1995
ATR 42-500	: 18 May 1993

## 6. EASA Type Certification Date

ATR 42-200	: 24 September 1985
ATR 42-300	: 24 September 1985
ATR 42-320	: 04 March 1988
ATR 42-500	: 28 July 1995
ATR 42-400	: 27 February 1996

<sup>1</sup> Former State of Design Authority before EASA founding in 2003 was DGAC.



## II. Certification Basis

1. Reference Date for determining the applicable requirements  
Refer to section I.5

2. EASA Type Certification Basis

a) ATR 42-200 / -300 / -320 models

JAR 25, Change 8 and Amendment 81/2 inclusive, including the French National Variants.

b) ATR 42-400 / -500 models

- JAR 25 change 13 including amendments 90/1, 91/1 and 93/1 for:
  - 25X20 to 25X261, except for 25.101(i), .105(c), .109, .113 and .115(a)
  - 25.471 to 25.519
  - NPA 25F-219 "Flight characteristics in icing conditions iss. 2" – 25.1419
  - NPA 25B-215 "Stall - stall warning speeds and manoeuvre capability" – 25.103, .107, .119, .125, .143, .207 (NPA 25B-215 applies per reference from NPA 25F-219)
  - NPA 25DF-179 "Operation without normal electrical power" – 25.1309(e), .1351(d)  
(as published in O.P. 90/1)
  - NPA 25DF-191 "Miscellaneous requirements" - 25.819(b), .1309(b), .1351(b)(5)(c), .1353(c)(6)(d), .1355(c), .1357(d)(f) revoked), .1359(d), .1362, .1363(a), .1431(d).  
(as published in O.P. 90/1)
  - NPA 25D-181 "Resistance to fire terminology" - 25.853(e), .863(b)(4), .867(a).  
(as published in O.P. 91/1)
  - NPA 25D-206 "Emergency exit marking" - 25.811(e)(4)  
(as published in O.P.91/1)
  - NPA 25D-227 "Compartment interior" – 25.853(f)  
(as published in O.P. 93/1)
- JAR 25 change 13 for:
  - 25.301 to 25X1587, except for the paragraphs listed above and 25.561, .562, .735(f)(g)(h)(i)(j), .785 and .787  
(Paragraph 25.562 is not part of Certification Basis)
- JAR 25 change 12 for:
  - 25.561
  - 25.785
  - 25.787
- NPA 25 BDG 244 "Accelerate-STOP distances and related performance matters" for:
  - 25.101(i)
  - 25.105(c)



- 25.109
- 25.113
- 25.115(a)
- 25.735 (f)(g)(h)(i)(j)
- 25X1591(a)(b)(c)(d)

- JAR AWO Subpart 2 change 1 for Cat II approaches

Applicable EASA Airworthiness Standards for ATR 42-500 with Change 5948 installed:

The following EASA airworthiness standards are applicable for areas within Glass Cockpit perimeter as defined by MOD 5948 and associated ATR MODs listed in the table below:

<b>Prerequisite ATR Change for Change 5948 installation</b>	<b>Classif.</b>	<b>Title</b>
6604	Major	DME 1 Antenna re-location
6230	Major	Adapt New Avionics Suite on ATR 42-500
6233	Major	Install New Fuel Gauging system in Kg on ATR 42-500
6298	Minor	Aileron Control – Rigging of Quadrant at section 15
6164	Minor	Install MPC ED36 for New Avionics Suite
6368	Minor	New cockpit integrated LED lighting system (CILLS)

- CS 25 amendment 3, except for 25.561:

Subpart B

- 25.255(a)(2)

Subpart C

- 25.581

Subpart D

- 25.671(b)(c)
- 25.672(a)
- 25.677(b)
- 25.679(a)(2)
- 25.685
- 25.699(a)(b)
- 25.703



- 25.729(e)(f)(3)
- 25.735(d)
- 25.771(a)(c)(e)
- 25.773(a)
- 25.777(f)
- 25.783(e)
- 25.841(b)(5)(b)(6)(b)(8)
- 25.843(b)(3)
- 25.853(a)(d)(e)
- 25.854(a)
- 25.855(h)
- 25.857(b)(3)
- 25.869(a)
- 25.899

#### Subpart E

- 25.1141(f)
- 25.1165(g)
- 25.1203(a)(b)(2)(b)(3)

#### Subpart F

- 25.1301 to 25.1305
- 25.1307(c)(d)(e)
- 25.1309
- 25.1316
- 25.1321 to 25.1323
- 25.1325(a)(d)(e)(f)
- 25.1326(a)
- 25.1327
- 25.1331
- 25.1333
- 25.1337
- 25.1351(a)(b)(6)(c)(d)
- 25.1353 (a)(b)(c)(6)(d)(e)
- 25.1355 to 25.1360
- 25.1381
- 25.1419(c )
- 25.1431
- 25.1435(b)(1)
- 25.1459

#### Subpart G

- 25.1501
- 25.1523 to 25.1529
- 25.1541 to 25.1549
- 25.1555
- 25.1563 to 25.1587

- JAR 25 change 13 for 25.561



## - CS-AWO Subpart 2 for CAT II approaches

## 3. Special Conditions

SC ref.	Title	Applicability
O1	Demonstration of Endurance	ATR 42-200 / -300 / -320 / -400 / -500 models
B1	Take-off path	ATR 42-200 / -300 / -320 models
B2	High speed characteristics	ATR 42-200 / -300 / -320 models
B3	Landing climb / all engines operating	ATR 42-200 / -300 / -320 models
B4	Static lateral stability	ATR 42-200 / -300 / -320 models
B5	Stick pusher	ATR 42-200 / -300 / -320 / -400 / -500 models
B7	Stall and stall warning speeds and manoeuvre capability	ATR 42-400 / -500 models
B8	Steep approach capability	ATR 42-200 / -300 / -320 models with optional MOD 3091 installed
B9	Steep approach capability	ATR 42-500 model with optional MODs 4404 or 5964 MOD (in combination with MOD 5948) installed
B10	Clever stall warning / Stick Pusher (Refer to CRI B-03)	ATR 42-400 / -500 models
B11	Operations on narrow runways	ATR 42-500 model with optional MOD 4718 installed
B13 <sup>2</sup>	Steep slope approach with reduced landing distances	ATR 42-200 / -300 / -320 / -500 models with optional MOD 4972 installed
BB1	Automatic take-off power control system	ATR 42-200 / -300 / -320 models
C01	Operations on unpaved runways	ATR 42-200 / -300 / -320 / -500 models with optional MOD 5038 installed
C3	Pressurized cabin loads	ATR 42-200 / -300 / -320 models
C4	Damage tolerance and fatigue evaluation of structure	ATR 42-200 / -300 / -320 models
C5	Design airspeeds	ATR 42-200 / -300 / -320 models

<sup>2</sup> This Special Condition was initially referenced as B11, but corrected to avoid use of same references on different topics.



C6	High lift devices	ATR 42-200 / -300 / -320 models
C7	Propeller debris	ATR 42-200 / -300 / -320 models
D1	Doors	ATR 42-200 / -300 / -320 models
D2	Fire extinguishers	ATR 42-200 / -300 / -320 models
D3	Cargo compartment fire detection system	ATR 42-200 / -300 / -320 models
D4	Test for pressurized cabins	ATR 42-200 / -300 / -320 models
D7	Lightning protection indirect effects	ATR 42-400 / -500 models
D-15	Introduction of towbarless towing	ATR 42-200 / -300 / -320 / -500 models with optional MOD 6458 installed
D-16	Heat Release and Smoke Density Requirements to Seat Materials	ATR 42-200 / -300 / -320 / -400 / -500 models
E1	Propellers	ATR 42-200 / -300 / -320 models
E-02	Fuel Tank Safety	ATR 42-500 model with optional MOD 7932 installed
E-10	Fuel Quantity Indication System	ATR 42-500 model with MODs 5948 and 5977 installed
F1	Miscellaneous	ATR 42-200 / -300 / -320 models
F2	Low altitude automatic pilot engagement after Take-Off	ATR 42-400 / -500 models
F3	Effect of external radiations upon aircraft systems	ATR 42-400 / -500 models
F-18	HIRF Protection	ATR 42-500 model with MOD 5948 installed
F-1018	HIRF Protection	ATR 42-500 model with MODs 5948 and 6233 installed
F-35	Flight Recorder / Data Link recording	ATR 42-500 model with MOD 5948 installed
F-44	Enhanced Flight Vision System (EFVS) to land, using a Head Mounted Display (HMD)	ATR 42-500 model with MODs 5948 and 10036 installed
G1	Instructions for Continued Airworthiness	ATR 42-200 / -300 / -320 models
H-1	Instructions for Continued Airworthiness for EWIS	ATR 42-200 / -300 / -320 / -400 / -500 models

#### 4. Deviations



DEV ref.	Title	Applicability
D-11	Mid Cabin door on VIP configuration aircraft	ATR 42-500 model with optional MOD 5889 installed or other equivalent approved change

## 5. Equivalent Safety Findings

ESF ref.	Title	Applicability
JAR 25.807(c)	Number of passengers authorized in 'Combi' configuration	ATR 42-200 / -300 / -320 models
JAR 25.807(d)	Emergency exits in the event of ditching for 'Combi' configurations	ATR 42-200 / -300 / -320 models
JAR 25.811(e)(3)	Type III exits handle	ATR 42-400 / -500 models
JAR 25.853(f)	Lavatory - "NO SMOKING" placard	ATR 42-400 / -500 models
JAR 25.865	Fire resistance of forward upper engine fitting	ATR 42-200 / -300 / -320 models
B01	Stall and stall warning speeds and manoeuvre capability (1g stall speeds)	ATR 42-400 / -500 models
D01	Reinforced security cockpit door	ATR 42-200 / -300 / -320 / -400 / -500 models
D-10 <sup>3</sup>	Improved flammability standards for thermal / acoustic Insulation materials used in Large Aeroplanes	ATR 42-200 / -300 / -320 / -400 / -500 models
D-19	Bilingual EXIT signs for Japan	ATR 42-500 model with optional MOD 7160 installed
D-20	Trilingual EXIT signs Arabic / French / English	ATR 42-500 model with optional MOD 7392 installed
D-28	Bilingual EXIT signs for China	ATR 42-500 model with optional MOD 10146 installed
F-17	New harmonized CS 25.1329	ATR 42-500 model with MOD 5948 installed
F-25	Integrated Modular Avionics (IMA): Compliance with requirements for individual circuit protection	ATR 42-500 model with MOD 5948 installed

## 6. Environmental Protection

Noise: ICAO Annex 16, Volume I (see TCDSN EASA.A.84)

<sup>3</sup> ESF for the Flammability standards against CS 25 Amdt 3 25.853(a)



## Fuel Venting and Emissions: ICAO Annex 16, Volume II

**III. Technical Characteristics and Operational Limitations**

## 1. Type Design Definition

The type definition is given in the ATR notes given in the table below:

	<b>ATR 42-200/-300/-320</b>	<b>ATR 42-400</b>	<b>ATR 42-500</b>
<b>Definition</b>	Note GATR/C n° 422.268/84	Note A/RT/C n° 425.0960/95	Note A/RT/C n° 425.0000/95

## 2. Description

The ATR 42 is a short-range narrow fuselage twin turbo prop aircraft.

The ATR 42-200, -300, -320, -400, and -500 differ from each other from operating weights and/or powerplant (engine / propeller) configuration:

- The ATR 42-200 and ATR 42-300 models are physically identical and only differ in their maximum operating weights.
- The ATR 42-320 model is equipped with a different engine.
- The ATR 42-400 model is equipped with a different powerplant.
- The ATR 42-500 model is equipped with a different engine and differs from ATR 42-400 in its maximum operating weights.

## 3. Equipment

The pieces of equipment required by the Applicable Technical Requirements must be installed.

The pieces of equipment whose installation is approved are listed in the table below, as applicable according to the aircraft model.

	<b>ATR 42-200 / -300 / -320</b>	<b>ATR 42-400</b>	<b>ATR 42-500</b>
<b>Equipment list</b>	Note GATR/C n° 422.204/85	Note A/RT/C n° 425.1100/95	Note A/RT/C n° 425.0469/95

Cabin furnishing equipment complies with the following specifications (latest applicable issue):

	<b>ATR 42-200 / -300 / -320</b>	<b>ATR 42-400 / -500</b>
- Galleys	Technical Specification AEROSPATIALE n°419.464/82	Technical Specification ATR GIE n°419.098/90
- Passenger seats	Technical Specification AEROSPATIALE n°419.282/82	Technical Specification AEROSPATIALE n°419.282/82



## 4. Dimensions

Refer to relevant approved Airplane Flight Manual

## 5. Engines

Aircraft configuration	Engine model
ATR 42-200	2 PRATT and WHITNEY CANADA PW 120 (see Note 1)
ATR 42-300	2 PRATT and WHITNEY CANADA PW 120 (see Note 1)
ATR 42-320	2 PRATT and WHITNEY CANADA PW 121
ATR 42-400	2 PRATT and WHITNEY CANADA PW 121A
ATR 42-500	2 PRATT and WHITNEY CANADA PW 127M or PW 127E or PW 127F engines (after embodiment of Service Bulletin PW N° 21589 or N° 21667) (see Note 2)
ATR 42-500 with MOD 10016 installed	2 PRATT and WHITNEY CANADA PW 127XT-M
ATR 42-500 with MOD 10302 installed	2 PRATT and WHITNEY CANADA PW 127XT-M or PW 127M (see Note 3)

Note 1: ATR Modification 1822 (SB ATR 42-72-0002) installs 1 or 2 PW 121 engines on ATR 42-200 / -300 but under PW 120 operating conditions

Note 2: Listed engine models are interchangeable and mixable with conditions (refer to relevant approved Airplane Flight Manual and approved MMEL). PW 127N engine is not eligible for ATR 42-500 model installation

Note 3: Listed engine models are interchangeable and mixable with conditions (refer to relevant approved Airplane Flight Manual).

## a) Engines limitations:

Refer to EASA Type Certificate Data Sheet IM.E.041 and relevant approved Airplane Flight Manual for PW 120, 121, 121A, 127E, 127F, 127M, 127XT-M engines limitations.

## b) Fuel limitations:

Refer to relevant approved Airplane Flight Manual Section LIM.5.70.4.

## c) Oil limitations:

Refer to relevant Engine Maintenance Manual chapter 72-00-00.

## 6. Auxiliary Power Unit

Not Applicable



## 7. Propellers

## a) ATR 42-200 / -300 / -320 models

2 HAMILTON SUNDSTRAND 14 SF-5 propellers

Limitations: Refer to FAA Type Data sheet P7NE or relevant approved Airplane Flight Manual.

## b) ATR 42-400 / -500 models

2 HAMILTON SUNDSTRAND 568F-1 propellers

Limitations: Refer to FAA Type Data Sheet P8BO or relevant approved Airplane Flight Manual.

## 8. Fluids (Fuel, Oil, Additives, Hydraulics)

Hydraulics fluid for all ATR 42 models: AIRBUS/ATR standard NSA307110.

Refer to Airplane Flight Manual, Structural Repair Manual and Aircraft Maintenance Manual. For Fuel, refer to Airplane Flight Manual Section LIM.5.70.4

## 9. Fluid Capacities

Unusable fuel	Usable fuel (kg)		
	Normal refuelling with pre selector	Refuelling up to high level indication	
(kg)	(kg)	(kg)	(litres)
21.2	4 500	4 550	5 700

## 10. Airspeed Limits

Refer to relevant approved Airplane Flight Manual section Limitations LIM.3

## 11. Flight Envelope

Refer to relevant approved Airplane Flight Manual section Limitations LIM.2

## 12. Operating Limitations

## 12.1 Approved Operations

All ATR 42 aircraft models are certified in the Transport Category, for night and day operations when the appropriate equipment and instruments required by the airworthiness and operational regulations are approved, installed and operative, in the following conditions:

- instrument and visual flight
- flight in icing conditions

- Ditching



- ATR 42-200 / -300 / -320 models are certified for ditching.
- ATR 42-500 model is certified for ditching when fitted with ATR Modification 4626.

When required by the operational rules, the life raft must be installed in accordance with the locations defined through ATR document ref A/RT/C 421.0178/96 rev. 2.

- Approaches

All ATR 42 aircraft models are certified for ILS CAT II precision approaches.

- a) ATR 42-200 / -300 / -320 models

The list of modifications enabling ATR 42-200 / -300 and -320 models to be operated for CAT II approaches is defined by ATR Service Letter 42-22-5001, dated 28 October 1986. These modifications are as follows:

- Production aircraft:
  - 0030
  - 0801, when aircraft is equipped with Collins radio-navigation systems only
  - 0884, from aircraft MSN 040 and subsequent
  - 1046, up to aircraft MSN 039
  - 1078
  - 1175, only when CAT II approaches are performed with Flight Director
- In service aircraft (retrofit):
  - 0084
  - 0801, when aircraft is equipped with Collins radio-navigation systems only
  - 1046, up to aircraft MSN 039
  - 1078
  - 1112
  - 1175, only when CAT II approaches are performed with Flight Director

- b) ATR 42-400 / -500 models

ATR 42-400 / -500 models can be operated for CAT II approaches when fitted with ATR Modification 1112.

ATR 42-500 model can be operated for CAT II approaches when fitted with ATR Modification 5948.

- Navigation (B-RNAV, P-RNAV, GNSS, ...)

All ATR 42 aircraft models are compliant with B-RNAV, P-RNAV, RNAV non precision approach, RNP approach, and GNSS as primary means of navigation specifications, providing that aircraft is equipped and operated in accordance with the relevant approved Airplane Flight Manual (AFM).

## 12.2 Other Limitations

Refer to relevant Airplane Flight Manual approved by EASA



## 13. Maximum Certified Masses

## a) ATR 42-200/-300/-320 models

	<b>ATR 42-200 (kg)</b>	<b>ATR 42-300 / -320 (kg)</b>	<b>ATR 42-300 / -320 Mod 0951 or 8430 (kg)</b>
MRW	15 770	16 170	16 720
MTOW	15 750	16 150	16 700
MLW	15 500	16 000	16 400
MZFW	14 500 / 15 200 <sup>(1)</sup>	14 800 / 15 200 <sup>(1)</sup>	15 200

	<b>ATR 42-300 / -320 Mods 4076<sup>(2)</sup> (kg)</b>	<b>ATR 42-300 / -320 Mods 0951 + 1739 + 2082 (kg)</b>	<b>ATR 42-300 / -320 Mods 8430 + 2082 + 1739 (kg)</b>
MRW	17 070	16 720	16 720
MTOW	16 900	16 700	16 700
MLW	16 400	16 400	16 400
MZFW	15 540	15 540	15 540

<sup>(1)</sup> Note: With the embodiment of ATR Modification 0863, the Maximum Zero Fuel Weight is increased to 15 200 kg.

<sup>(2)</sup> Note: ATR Modification 4076 is only applicable if associated with ATR modification 1739 (a/c prior to MSN 70) or ATR Modification 1267 (other MSN).

## b) ATR 42-400 model

	<b>ATR 42-400 (kg)</b>
MRW	18 070
MTOW	17 900
MLW	17 600
MZFW	16 300

## c) ATR 42-500 model

	<b>ATR 42-500 (kg)</b>	<b>ATR 42-500 Mod 5175 (kg)</b>
MRW	18 770	18 770
MTOW	18 600	18 600
MLW	18 300	18 300
MZFW	16 700	17 000

## 14. Centre of Gravity Range



Refer to relevant approved Airplane Flight Manual

15. Datum

Refer to Weight and Balance Manual.

16. Mean Aerodynamic Chord (MAC)

Refer to Weight and Balance Manual.

17. Levelling Means

Refer to relevant approved Airplane Flight Manual

18. Minimum Flight Crew

For all ATR 42 aircraft models: Two (Pilot and Co-pilot) for all types of flight.

19. Minimum Cabin Crew

(in accordance with the emergency evacuation test)

Installed Passenger Seats	Minimum Cabin Crew
51 to 60	2
50 or fewer	1

Note: The above minimum cabin crew numbers are those demonstrated by the type certificate holder for conventional cabin layouts. A lower number may be acceptable in the case of a cabin layout with compensating features agreed by the Agency. In such a case, the lower minimum cabin crew number must be documented in an EASA approved major design change or Supplemental Type Certificate (STC)

20. Maximum Seating Capacity

For the approved number of passengers for each aircraft, refer to the Cabin Layout Catalogue approved by the DGAC-F (ref. GATR/C 422.057/85).

- Full passenger configuration: 60

Note: The maximum number of passengers used for showing compliance with JAR 25.803(c) (emergency evacuation demonstration) was 66.

- COMBI configuration: 34.

Note: The COMBI configuration is achieved by embodiment of ATR Modification 0244 or 0755, respectively associated with embodiment of ATR Modification 1073. COMBI version is only certified for ATR 42-200 / -300 and -320 aircraft models.

21. Baggage/ Cargo Compartment

Refer to relevant Weight and Balance Manual.

22. Wheels and Tyres

- a) ATR 42-200 / -300 / -320 models



	<b>Dimensions</b>
Main Landing Gear tyres	32x8.8R16
Nose Landing Gear tyres	450x190-5 Or 435x190 R5 (these two references are not mixable)

## b) ATR 42-400 / -500 models

	<b>Dimensions</b>
Main Landing Gear tyres	32x8.8R16 12PR
Nose Landing Gear tyres	450x190-5 Or 435x190 R5 (these two references are not mixable)

## 23. ETOPS

The following table provides details on the ETOPS approvals for ATR 42 aircraft models:

<b>Model</b>	<b>Engine type</b>	<b>120 min approval date</b>
ATR 42-500	PW127E	19 November 2000
ATR 42-500	PW127M	21 December 2007

ATR 42-500 model is certified for 120 min ETOPS operations (supported by ATR Modification 4711) in compliance with the technical requirements of JAA Information Leaflet n° 20.

The type design, system reliability and performance of ATR 42-500 model is found capable for extended range operations when configured, maintained and operated in accordance with the current approved revision of the ETOPS Configuration, Maintenance and Procedures (CMP) document.

This paragraph does not constitute an approval to conduct extended range operations. Operational approval must be obtained from the Authority responsible for aircraft operations.

**IV. Operating and Service Instructions**

## 1. Airplane Flight Manual (AFM)

Refer to relevant approved Airplane Flight Manual



2. Instructions for Continued Airworthiness and Airworthiness Limitations  
Refer to ATR AMM, SRM, IPC, CMM documents and the relevant approved "Time Limits" document
3. Weight and Balance Manual (WBM)  
Refer to Weight and Balance Manual

#### **V. Operational Suitability Data (OSD)**

The Operational Suitability Data elements listed below are approved by the European Aviation Safety Agency under the EASA Type Certificate [TC number EASA.A.084] as per Commission Regulation (EU) 748/2012 as amended by Commission Regulation (EU) No 69/2014.

1. Master Minimum Equipment List
  - a) Master Minimum Equipment List (ATR 42 and ATR 72 Master Minimum Equipment List (MMEL) EDORA reference: EFOS-4775/15) approved at revision 00 dated December 2015 (refer to the latest approved revision), as per the defined Master Minimum Equipment List Operational Suitability Data Certification Basis: JAR MMEL / MEL, Amendment 1.
  - b) Required for entry into service by EU operator.
2. Flight Crew Data
  - a) The Flight Crew Data (OSD FC ATR 42/72 reference: EFOS-4267/15) approved at revision 1, dated 11 December 2015 (refer to the latest approved revision), as per the defined Flight Crew Operational Suitability Data Certification Basis: CS-FCD, Initial Issue.
  - b) Required for entry into service by EU operator.
  - c) Pilot Type Rating (refer following table) :

Manufacturer	Aircraft Model / Name	License Endorsement	Variants	Complex	SP/ SP HPA/ MP	OEB FC Report / OSD FC Report	Remarks
ATR	ATR 42 (Non PEC equipped) ATR 42 (PEC equipped) ATR 42 (glass cockpit)	ATR42/72	X	X	MP	X	OSD FC ATR 42/72 dated of issue Dec 11 <sup>th</sup> 2015
PEC = Propeller Electronic Control							



Note: All ATR 42/72 series aircraft have been assessed as variants requiring familiarization / differences training as summarized in the MDR table (refer to ATR 42/72 OSD-FC report section 4).

*See EASA Explanatory Notes: EASA Type Rating & License Endorsement Lists Flight Crew*

### 3. Cabin Crew Data

- a) The Cabin Crew Data (ATR Operational Suitability Data (OSD) Report - CCD reference: EFOS-5442/15) approved at revision 1, dated 17 July 2015 (refer to the latest approved revision), as per the defined Cabin Crew Operational Suitability Data Certification Basis: CS-CCD, Initial Issue.
- b) Required for entry into service by EU operator.
- c) The ATR42 aircraft models and the ATR72 aircraft models are determined to be variants amongst themselves.

Note: Information on minimum cabin crew number is not part of this CC OSD chapter, please refer to Section 1: ATR 42 series, Chapter III, Subchapter 19 of the TCDS

## **VI. Notes**

### 1. Designations

ATR 42-500 '600 version' is the designation to identify ATR 42-500 aircraft models having received the New Avionic Suite (NAS) modification, also named as 'Glass Cockpit, which represents the incorporation of ATR Significant Major Change no 5948 and a batch of associated ATR (major & minor) modifications.

ATR 42-500 '600 version' aircraft is not considered as new aircraft model or variant.

ATR 42-600 is the commercial designation used by ATR GIE to refer to the ATR 42-500 aircraft model fitted with NAS modification. This designation must not be used on ATR certified / approved documentation, and only mention of 'Mod 5948', 'ATR 42-500 with Mod 5948', or ATR 42-500 '600 version' must be indicated.



**SECTION 2: ATR 72 Series****I. General**

## 1. Type/ Model/ Variant

ATR 72-101, ATR 72-102,  
ATR 72-201, ATR 72-202, ATR 72-211, ATR 72-212, ATR 72-212A

## 2. Performance Class

A

## 3. Certifying Authority

Primary certification of above aircraft models has been granted by French DGAC under DGAC Type Certificate N° 176 and has been transferred to EASA since 28 September 2003 under EASA Type Certificate A.084.

## 4. Manufacturer

ATR - GIE Avions de Transport Régional  
1, Allée Pierre Nadot  
31712 Blagnac Cedex  
France

5. EASA<sup>4</sup> Type Certification Application Date

ATR 72-101	: 19 December 1985
ATR 72-201	: 19 December 1985
ATR 72-102	: 19 December 1985
ATR 72-202	: 19 December 1985
ATR 72-211	: 24 August 1990
ATR 72-212	: 24 August 1990
ATR 72-212A	: 15 February 1996

## 6. EASA Type Certification Date

ATR 72-101	: 25 September 1989
ATR 72-201	: 25 September 1989
ATR 72-102	: 14 December 1989
ATR 72-202	: 14 December 1989
ATR 72-211	: 15 December 1992
ATR 72-212	: 15 December 1992
ATR 72-212A	: 14 January 1997

<sup>4</sup> Former State of Design Authority at the date of application was DGAC then replaced by EASA founding in 2003.



## II. Certification Basis

### 1. Reference Date for determining the applicable requirements

Refer to section I.5

### 2. EASA Type Certification Basis

#### a) ATR 72-101 / -201, -102 / -202, -211 / -212 models

- JAR 25 change 11, including amendments 86/1, 87/1 and 88/1 for:
  - 25X20 (amendment 88/1)
  - 25.335 (amendment 88/1)
  - 25.345 (amendment 88/1)
  - 25.365 (amendment 86/1)
  - 25.571(e)(2), .905(d) and ACJ 25.905(d) (amendment 87/1)
  - 25.603 and ACJ 25.603 (amendment 86/1)
  - 25.812 (amendment 86/1)
  - 25.843 (amendment 86/1)
  - 25.853 (amendment 86/1)
- JAR P change 6, amended by Blue Paper C 795.
- JAR AWO Subpart 2 Change 1 and ACJ 231 and 236 for CAT II approaches.

#### b) ATR 72-212A model

- JAR 25 at change 15 including amendment 96/1 for:
  - 25.201
  - 25.203
- JAR 25 at change 14 for :
  - 25X20 to 25X261 (except for 25.201 and 25.203)
  - 25.901 to 25.945
- JAR 25 at change 13 including amendments 90/1, 91/1 and 93/1 for:
  - NPA 25F-219 "Flight characteristics in icing conditions iss. 2" – 25.1419
  - NPA 25DF-179 "Operation without normal electrical power" - 25.1309(e), 1351(d) (as published in O.P. 90/1)
  - NPA 25DF-191 "Miscellaneous requirements" - 25.819(b), .1309(b), .1351(b)(5)(c), .1353(c)(6)(d), .1355(c), .1357(d)(f) (revoked), .1359(d), .1362, .1363(a), .1431(d). (as published in O.P. 90/1)
  - NPA 25D-181 "Resistance to fire terminology" - 25.853(e), .863(b)(4), .867(a). (as published in O.P. 91/1)
  - NPA 25D-206 "Emergency exit marking" - 25.811(e)(4) (as published in O.P.91/1)
  - NPA 25D-227 "Compartment interior" - 25.853(f) (as published in O.P. 93/1)



- JAR 25 at change 11, including amendments 86/1, 87/1 and 88/1 for:
  - 25.335 (Amendment 88/1)
  - 25.345 (Amendment 88/1)
  - 25.365 (Amendment 86/1)
  - 25.571(e)(2) (Amendment 87/1)
  - 25.603 (Amendment 86/1)
  - 25.812 (Amendment 86/1)
  - 25.843 (Amendment 86/1)
  - 25.853 (Amendment 86/1)
- JAR 25 at change 11 except for the paragraphs listed above.
- JAR AWO Subpart 2 Change 1 for CAT II approaches.

Applicable EASA Airworthiness Standards for ATR 72-212A with MOD 5948 installed:

The following EASA airworthiness standards are applicable for areas within Glass Cockpit perimeter as defined by MOD 5948 and associated ATR changes listed in the table below:

<b>Prerequisite ATR Change for Change 5948 installation</b>	<b>Classif.</b>	<b>Title</b>
6604	Major	DME 1 Antenna re-location
5977	Major	Install New Fuel Gauging system in Kg on ATR 72-212A
6298	Minor	Aileron Control – Rigging of Quadrant at section 15
6164	Minor	Install MPC ED36 for New Avionics Suite
6368	Minor	New cockpit integrated LED lighting system (CILLS)

- CS 25 amendment 3, except for 25.301 to 25.307, .365, .395(b), .561, .571, .601 to .613, .619, and .625:
  - Subpart B
    - 25.255(a)(2)
  - Subpart C
    - 25.581
  - Subpart D
    - 25.671(b)(c)
    - 25.672(a)



- 25.677(b)
- 25.679(a)(2)
- 25.685
- 25.699(a)(b)
- 25.703
- 25.729(e)(f)(3)
- 25.735(d)
- 25.771(a)(c)(e)
- 25.773(a)
- 25.777(f)
- 25.783(e)
- 25.841(b)(5)(b)(6)(b)(8)
- 25.843(b)(3)
- 25.853(a)(d)(e)
- 25.854(a)
- 25.855(h)
- 25.857(b)(3)
- 25.869(a)
- 25.899

#### Subpart E

- 25.1141(f)
- 25.1165(g)
- 25.1203(a)(b)(2)(b)(3)

#### Subpart F

- 25.1301 to 25.1305
- 25.1307(c)(d)(e)
- 25.1309
- 25.1316
- 25.1321 to 25.1323
- 25.1325(a)(d)(e)(f)
- 25.1326(a)
- 25.1327
- 25.1331
- 25.1333
- 25.1337
- 25.1351(a)(b)(6)(c)(d)
- 25.1353 (a)(b)(c)(6)(d)(e)
- 25.1355 to 25.1360
- 25.1381
- 25.1419(c )
- 25.1431
- 25.1435(b)(1)
- 25.1459

#### Subpart G

- 25.1501
- 25.1523 to 25.1529



- 25.1541 to 25.1549
  - 25.1555
  - 25.1563 to 25.1587
- JAR 25 change 13 for :
- 25.301 to 25.307
  - 25.365
  - 25.395(b)
  - 25.561
  - 25.571
  - 25.601 to 25.613
  - 25.619
  - 25.625
- CS-AWO Subpart 2 for CAT II approaches

Applicable EASA Airworthiness Standards for ATR 72-212A with MOD 7900 installed:

The following EASA airworthiness standards are applicable for areas within Cargo conversion perimeter as defined by MOD 7900:

- CS 25 at Amendment 20 for affected areas, for the following paragraphs:  
25.631, 25.807(j), 25.851(a)(2)(3)(4)(5)(6)(7)(8), 25.857(e), 25.1309(e),  
25.1351(a)(1)(d)(1), 25.1357(a)(c)(f), 25.1519, 25.1529, 25.1581, 25.1583,  
25.1585

Plus the following paragraphs applicable to Large Cargo Door only:

25.365(a)(b)(c)(d)(f)(g), 25.613(a)(c)(e)(f), 25.625,  
25.783(a)(1)(2)(3)(4)(5)(c)(1)(d)(1)(2)(3)(5)(6)(8)(e)(f), 25.1301(a),  
25.1353(a), 25.1541

Plus the following paragraphs applicable to Embedded Crew Door only:

25.365(a)(b)(c)(d)(f)(g), 25.613(a)(c)(e)(f), 25.625,  
25.783(a)(1)(2)(3)(5)(c)(1)(d)(1)(2)(3)(5)(6)(8)(e)(f), 25.1353(a), 25.1541

Plus the following paragraphs applicable to Rear Cargo Door only:

25.365(a)(b)(c)(d)(f)(g), 25.613(a)(c)(e)(f), 25.625,  
25.783(a)(1)(2)(3)(5)(d)(1)(2)(3)(5)(6)(8)(e)(f),  
25.1301(a), 25.1309(a)(1), 25.1353(a), 25.1541

Plus the following paragraphs applicable to Cargo Floor only:

25.301, 25.303, 25.305(a)(b), 25.365, 25.561(a)(b)(c), 25.601, 25.603,  
25.605, 25.607, 25.609(a), 25.613(a)(b)(c)(e)(f), 25.619, 25.625(a),  
25.855(d), 25.1301(a), 25.1309(a), 25.1541

Plus the following paragraphs applicable to Cargo Nets and associated aircraft provisions only:

25.301, 25.303, 25.305(a)(b), 25.307(a), 25.321, 25.365(a)(b)(c)(d)(f)(g),  
25.471, 25.561(a)(b)(c), 25.601, 25.603, 25.605, 25.607, 25.609(a),  
25.611(a), 25.613(a)(b)(c)(e)(f), 25.619, 25.621, 25.623, 25.625, 25.855(d),  
25.1301(a), 1519, 25.1541



Plus the following paragraphs applicable to Cargo Class E area only:  
 25.303, 25.305(a)(b), 25.307(a), 25.365, 25.561, 25.601, 25.603, 25.605,  
 25.607, 25.609, 25.611, 25.613(a)(b)(c)(e)(f), 25.619, 25.625,  
 25.855(b)(1)(c)(2)(d)(f)(h)(2), 25.858, 25.869(a)(1), 25.1301(a), 25.1309(a),  
 25.1353(a), 25.1360(a)(b), 25.1541, 25.1557(a)

- CS 25 at Amendment 4 related to Electrical and Electronic common installation for paragraphs:  
 25.601, 25.855(e)(1)(e)(2), 25.863(a)(b)(d), 25.869(a)(4), 25.899(a)(1),  
 25.1301(a)(b), 25.1353(a)(b)(d)(e), 25.1360
- CS 25 at Amendment 3 for paragraphs:
  - o related to Electro-Magnetic Hazard (EMH):  
 25.899(a)(3), 25.1316, 25.1353 (a), 25.1431(c)(d).
  - o related to cockpit controls of air system adaptation and fire protection:  
 25.777(a)(c)
- JAR 25 at Change 13 for paragraphs:
  - o related to air system adaptation:  
 25.773(c), 25.831(a)(b)(2)(c), 25.853(b), 25.899(a), 25.1301(a)(d),  
 25.1309(a)(b)(d)(g)
  - o related to wing & engine scan light adaptation:  
 25.1301, 25.1309(a)(g), 25.1351(a)(1), 25.1353(a), 25.1360(a), 25.1403,  
 25.1431(a)(c)
  - o related to Cargo doors:  
 25.1309(a)(b)(d)(g), 25.1431(c)
  - o related to Structure:  
 25.301, 25.303, 25.305, 25.307, 25.571(a)(b), 25.581, 25.601, 25.603,  
 25.615, 25.899
  - o related to EMH:  
 25.581, 25.899(a), 25.1309(a)(b)(d)(g)
  - o related to Fire protection:  
 25.1309(a)(b)(d)(g)

### 3. Special Conditions

SC ref.	Title	Applicability
O1	Demonstration of endurance	ATR 72-101/-201, -102/-202, -211/-212/-212A models
B5	Stick pusher	ATR 72-101/-201, -102/-202, -211/-212/-212A models
B7	1g Stall Speed	ATR 72-101/-201, -102/-202, -211/-212/ models
B7	Stall and stall warning speeds and manoeuvre capability	ATR 72-212A model
B9	Steep approach capability	ATR 72-101/-201, -102/-202, -211/-212/-212A models with optional MOD 3792, 5332 or 5964 (in combination with MOD 5948) installed or



		other equivalent approved change
B10	Clever stall warning / Stick Pusher	ATR 72-212A model
B11	Operations on narrow runways	ATR 72-101/-201, -102/-202, -211/-212/-212A models with optional MOD 4406 installed or other equivalent approved change
C01	Operations on unpaved runways	ATR 72-101/-201, -102/-202, -211/-212/ models with optional MOD 3644 installed or other equivalent approved change; and ATR 72-212A model with optional MOD 6404 installed or other equivalent approved change
D7	Lightning protection indirect effects	ATR 72-101/-201, -102/-202, -211/-212/-212A models
D-15	Introduction of towbarless towing	ATR 72-101/-201, -102/-202, -211/-212/-212A models with optional MOD 6458 installed or other equivalent approved change
D-16	Heat Release and Smoke Density - Requirements to seat materials	ATR 72-101/-201, -102/-202, -211/-212/-212A models
E-02	Fuel Tank Safety	ATR 72-212A model with MOD 7928 installed or other equivalent approved change
E-10	Fuel Quantity Indication System	ATR 72-212A model with MOD 5948 installed
F2	low altitude automatic pilot engagement after take-off	ATR 72-101/-201, -102/-202, -211/-212/-212A models
F3	Effect of external radiations upon aircraft system	ATR 72-101/-201, -102/-202, -211/-212/-212A models
F-18	HIRF Protection	ATR 72-212A model with MOD 5948 installed
F-35	Flight Recorder/data link recording	ATR 72-212A model with MOD 5948 installed
F-44	Enhanced Flight Vision System (EFVS) to land, using a Head Mounted Display (HMD)	ATR 72-212A model with MODs 5948 and 10036 installed or other equivalent approved change
F-1018	HIRF Protection	ATR 72-212A model with MODs 5948 and 5977 installed or other equivalent approved change
02	Propeller: All composite blades	ATR 72-211/-212 models
H-1	Instructions for continued Airworthiness for EWIS	ATR 72-101/-201, -102/-202, -211/-212/-212A models



## 4. Deviations

DEV ref.	Title	Applicability
D-12	Mid Cabin door on VIP configuration aircraft	ATR 72-212A model with optional MOD 6063 installed or other equivalent approved change
D-13	Firm Handhold	ATR 72-212A model with optional MOD 6063 installed or other equivalent approved change
D-14	Heat release and Smoke density	ATR 72-212A model with optional MOD 6063 installed or other equivalent approved change

## 5. Equivalent Safety Findings

ESF ref.	Title	Applicability
JAR 25.785(h)	Flight attendant seat installed between the type III exits	ATR 72-102/-202/-212/-212A models <sup>(1)</sup>
JAR 25.853(f)	Lavatory - "NO SMOKING" placard	ATR 72-212A model <sup>(1)</sup>
JAR 25.811(e)(3)	Type III exits handle	ATR 72-212A model <sup>(1)</sup>
B01	Stall and stall warning speeds and manoeuvre capability (1g stall speeds)	ATR 72-212A model
D01	Reinforced security cockpit door	ATR 72-101/-201, -102/-202, -211/-212/-212A models <sup>(1)</sup>
D-10 <sup>(2)</sup>	Improved flammability standards for thermal / acoustic Insulation materials used in Large Aeroplanes	ATR 72-101/-201, -102/-202, -211/-212/-212A models <sup>(1)</sup>
D-19	Bilingual EXIT signs for Japan	ATR 72-212A model with optional MOD 7160 installed or other equivalent approved change <sup>(1)</sup>
D-20	Trilingual EXIT signs Arabic / French / English	ATR 72-212A model with optional MOD 7392 installed or other equivalent approved change <sup>(1)</sup>
D-25	ATR 72-600F Embedded Crew Door	ATR 72-212A model with MOD 7900 installed
D-28	Bilingual EXIT signs for China	ATR 72-212A model with optional MOD 10146 installed or other



		equivalent approved change <sup>(1)</sup>
F-17	New harmonized CS 25.1329	ATR 72-212A model with MOD 5948 installed
F-25	Integrated Modular Avionics (IMA): Compliance with requirements for individual circuit protection	ATR 72-212A model with MOD 5948 installed

- (1) Note: ESF not applicable to ATR 72-212A model with Change 7900 (Cargo conversion) installed.
- (2) Note: ESF for the Flammability standards against CS 25 Amdt 3 25.853(a).

#### 6. Environmental Protection

Noise: ICAO Annex 16, Volume I (see TCDSN EASA.A.84)

Fuel Venting and Emissions: ICAO Annex 16, Volume II

### **III. Technical Characteristics and Operational Limitations**

#### 1. Type Design Definition

The type definition is given in the ATR notes given in the table below:

	<b>ATR 72-101 and -201</b>	<b>ATR 72-211</b>
Definition	Note GATR/C n° 425.795/89	Note GATR/C n° 425.718/92
	<b>ATR 72-102 and -202</b>	<b>ATR 72-212</b>
Definition	Note GATR/C n° 422.130/89	Note GATR/C n° 425.719/92
	<b>ATR 72-212 A</b>	
Definition	Note A/RT/C n° 425.0779/96	

#### 2. Description

The ATR 72 is a short-range narrow fuselage twin turbo prop aircraft.

The ATR 72-101 and ATR 72-201 models are physically identical and only differ in their maximum operating weights.

The ATR 72-102 and ATR 72-202 models are physically identical and only differ in their maximum operating weights.

The ATR 72-211 and ATR 72-212 models have a different powerplant than the one mounted on ATR 72-101/-102/-201/-202 models.

The differences existing between respectively ATR 72-101 and ATR 72-102 models, ATR 72-201 and ATR 72-202 models, and ATR 72-211 and ATR 72-212 models, are limited to the type of doors, emergency exits and their distribution.

The ATR 72-212A model is equipped with specific propellers and can have different engines than the ones fitted on ATR 72-211 / -212 models.

The MOD 7900 entails the following physical modifications:



- A Large Cargo Door (LCD), embedding a crew door, in replacement of the standard forward LH cargo door, based on FAA ST01761 NY technical solutions,
- An upper hinged rear cargo door of the same opening size as the passenger door,
- A structural tube for class-E cargo operations,
- A windowless fuselage, without type III doors nor the aft RH service door,
- Removal of thermo-acoustics blankets, except for section 11 (Flight deck area),
- Removal of passenger oxygen and air conditioning distribution and other passengers' systems and features,
- A fire protection system and cargo interiors compatible with class-E cargo operations,
- A cockpit door "western" type not secured (made from ATR 42-500 standard version one),
- Reinforcement of floor panels at 488Kg/m<sup>2</sup> [100lbs/ft<sup>2</sup>],
- An enhanced corrosion protection,
- A lower surround skin protection plates for each cargo door.

### 3. Equipment

The pieces of equipment required by the Applicable Technical Conditions must be installed. The pieces of equipment whose installation is approved are listed in the definition of the reference models and of the modifications which are applicable to these models.

	<b>ATR 72-101 and -201</b>	<b>ATR 72-211</b>
Equipment list	Note GATR/C n° 425.892/89	Note GATR/C n° 425.182/92

	<b>ATR 72-102 and -202</b>	<b>ATR 72-212</b>
Equipment list	Note GATR/C n° 422.102/89	Note GATR/C n° 425.676/92

	<b>ATR 72-212 A</b>
Equipment list	Note A/RT/C n° 425.0790/96

Cabin furnishing equipment must comply with the following specifications (latest applicable issue), except for ATR 72-212A with MOD 7900 (full cargo) installed:

	<b>ATR 72-101 / -201 / -102 / -202 / -211 / -212</b>	<b>ATR 72-212A</b>
- Galleys	Technical Specification AEROSPATIALE n°419.464/82	Technical Specification ATR GIE n°419.098/90
- Passenger seats	Technical Specification AEROSPATIALE n°419.282/82	Technical Specification AEROSPATIALE n°419.282/82

### 4. Dimensions

Refer to relevant approved Airplane Flight Manual.

### 5. Engines



Aircraft configuration	Engine model
ATR 72-101 and -201	2 PRATT and WHITNEY CANADA PW 124B
ATR 72-102 and -202	2 PRATT and WHITNEY CANADA PW 124B
ATR 72-211 and -212	2 PRATT and WHITNEY CANADA PW 127 or PW127F after embodiment of Service Bulletin PW N°21591 (ATR Modification 8233)
ATR 72-212A	2 PRATT and WHITNEY CANADA PW 127M or PW 127F (see note 1)
ATR 72-212A post mod 7079	2 PRATT and WHITNEY CANADA PW 127N or PW 127M or PW 127F (see note)
ATR 72-212A with MOD 10016 installed	2 PRATT and WHITNEY CANADA PW 127XT-M
ATR 72-212A with MOD 10302 installed	2 PRATT and WHITNEY CANADA PW 127XT-M or PW127M (see note 2)

Note 1: Listed engine models are interchangeable and mixable with conditions (refer to relevant approved Airplane Flight Manual and approved MMEL).

Note 2: Listed engine models are interchangeable and mixable with conditions (refer to relevant approved Airplane Flight Manual).

a) Engines limitations:

Refer to EASA Type Certificate Data Sheet IM.E.041 and relevant approved Airplane Flight Manual for PW 124 B, 127, 127F, 127M, 127XT-M, 127N engines limitations

b) Fuel limitations :

Refer to relevant approved Airplane Flight Manual Section LIM.5.70.4.

c) Oil limitations :

Refer to relevant Engine Maintenance Manual chapter 72-00-00.

6. Auxiliary Power Unit

Not Applicable

7. Propellers

a) Models ATR 72-101/-201, -102/-202

- 2 HAMILTON SUNDSTRAND 14 SF-11 propellers

or

- 2 HAMILTON SUNDSTRAND 14 SF-11 E propellers

Limitations: Refer to FAA Type Data Sheet P7NE, or relevant approved Airplane Flight Manual



## b) Models ATR72-211 and 212

- 2 HAMILTON SUNDSTRAND 247 F-1 propellers  
or
- 2 HAMILTON SUNDSTRAND 247 F-1E propellers

Limitations: Refer to FAA Type Data Sheet P1BO, or relevant approved Airplane Flight Manual

## c) Models ATR 72-211/-212 fitted with modification 3560

- 2 HAMILTON SUNDSTRAND 14 SFL-11 propellers  
(same characteristics as 14 SF-11).

Limitations: Refer to FAA Type Data Sheet P7NE, or relevant approved Airplane Flight Manual

## d) Model ATR72-212A

- 2 HAMILTON SUNDSTRAND 568F-1 propellers

Limitations: Refer to FAA Type Data Sheet P8BO, or relevant approved Airplane Flight Manual

## 8. Fluids (Fuel, Oil, Additives, Hydraulics)

Hydraulics fluid for all ATR 72 models: AIRBUS/ATR standard NSA307110.

Refer to Airplane Flight Manual, Structural Repair Manual and Aircraft Maintenance Manual. For Fuel, refer to Airplane Flight Manual Section LIM.5.70.4

## 9. Fluid Capacities

Unusable fuel	Usable fuel (kg)		
	Normal refuelling with pre selector	Refuelling up to high level indication	
(kg)	(kg)	(kg)	(litres)
30	5 000	5 050	6 360

## 10. Airspeed Limits

Refer to relevant approved Airplane Flight Manual

## 11. Flight Envelope

Refer to relevant approved Airplane Flight Manual.

## 12. Operating Limitations

## 12.1 Approved Operations

All ATR 72 aircraft models are certificated in the Transport Category, for night and day operations when the appropriate equipment and instruments required by the



airworthiness and operational regulations are approved, installed and operative, in the following conditions:

- instrument and visual flight
- flight in icing conditions

- Ditching

The ATR 72 models are certified for ditching.

When requested by the operational rules the life rafts must be installed in accordance with the locations defined in document GATR/C 421.054/92 issue 5.

- Approaches

All ATR 72 aircraft models are certified for ILS CAT II precision approaches.

All ATR 72 can be operated for CAT II approaches when fitted with ATR Modification 1112.

ATR 72-212A model can be operated for CAT II approaches when fitted with ATR Modification 5948.

- Navigation (B-RNAV, P-RNAV, GNSS, ...)

All ATR 72 aircraft models are compliant with B-RNAV, P-RNAV, RNAV non precision approach, RNP approach, and GNSS as primary means of navigation specifications, providing that aircraft is equipped and operated in accordance with the relevant approved Airplane Flight Manual (AFM).

#### 12.2 Other Limitations

Refer to relevant Airplane Flight Manual approved by the EASA.

### 13. Maximum Certified Masses

#### a) ATR 72-101 / -201, -102 / -202, -211 / -212 models

	<b>ATR 72-101 / -102 (kg)</b>	<b>ATR 72-201 / -202 / -211 / -212 (kg)</b>	<b>ATR 72-201 / -202 Mods 2055 + 3651 (kg)</b>	<b>ATR 72-211 / -212 <sup>(2)</sup> Mods 2055 + 3651 (kg)</b>
MRW	20 020	21 530	22 030	22 030
MTOW	19 990	21 500	22 000	22 000
MLW	19 900	21 350	21 350	21 350
MZFW	19 350	19 700 / 20 000 <sup>(1)</sup>	19 700 / 20 000 <sup>(1)</sup>	19 700 / 20 000 <sup>(1)</sup>

<sup>(1)</sup> Note: With the embodiment of ATR Modification 3849, the Maximum Zero Fuel Weight is increased to 20 000 kg.



- (2) Note: With the embodiment of ATR Modifications 2055 and 3651, ATR 72-211 and -212 aircraft models must be equipped with HAMILTON SUNDSTRAND 247F-1 propellers.

b) ATR 72-212A models

	ATR 72-212A 'Basic' (kg)	ATR 72-212A Mod 4671 (kg)	ATR 72-212A Mod 5213 (kg)	ATR 72-212A Mod 5555 (kg)	ATR 72-212A Mod 6219 (kg)
<b>MRW</b>	22 180	22 670	22 670	22 970	23 170
<b>MTOW</b>	22 000	22 500	22 500	22 800	23 000
<b>MLW</b>	21 850	22 350	22 350	22 350	22 350
<b>MZFW</b>	20 000	20 300	20 500	20 800	21 000

	ATR 72-212A Mod 7214 (kg)
<b>MRW</b>	22170
<b>MTOW</b>	21999
<b>MLW</b>	21850
<b>MZFW</b>	20500

Note: the ATR 72-212A with MOD 7900 installed shares the same maximum certified masses with MOD 5555 and is eligible to MOD 6219 ones.

Operational Weight Variants (WV):

On ATR 72-212A aircraft model fitted with ATR Modification 6852, Operational Weight Variants (WV) have been defined as follows:

	Operational Weight Variant (WV)						
	WV00	WV09	WV10	WV20	WV30	WV40	WV50
<b>MRW</b>	21 170	22170	22 180	22 670	22 670	22 970	23 170
<b>MTOW</b>	21 000	21999	22 000	22 500	22 500	22 800	23 000
<b>MLW</b>	21 000	21850	21 850	22 350	22 350	22 350	22 350
<b>MZFW</b>	20 000	20500	20 000	20 300	20 500	20 800	21 000

Depending on the embodiment of ATR Modification 4671, 5213, 5555 or 6219, with or without ATR Modification 7214 associated, ATR 72-212A aircraft model, fitted with ATR Modification 6852, can be operated as identified in the table below:



ATR Mod	Operational Weight Variant (WV)						
	WV00	WV09	WV10	WV20	WV30	WV40	WV50
'Basic'	✓		✓				
4671	✓		✓	✓			
5213	✓		✓	✓	✓		
5555	✓		✓	✓	✓	✓	
6219	✓		✓	✓	✓	✓	✓
7214 + 5213	✓	✓	✓	✓	✓		
7214 + 5555	✓	✓	✓	✓	✓	✓	
7214 + 6219	✓	✓	✓	✓	✓	✓	✓

## 14. Centre of Gravity Range

Refer to relevant approved Aircraft Flight Manual.

## 15. Datum

Refer to Weight and Balance Manual

## 16. Mean Aerodynamic Chord (MAC)

Refer to relevant Weight and Balance Manual.

## 17. Levelling Means

Refer to relevant approved Airplane Flight Manual.

## 18. Minimum Flight Crew

For all ATR 72 aircraft models: Two (Pilot and Co-pilot) for all types of flight.

## 19. Minimum Cabin Crew

(in accordance with the emergency evacuation test)

Installed Passenger Seats	Minimum Cabin Crew
51 to 78	2
50 or fewer	1

## Notes:

The above minimum cabin crew numbers are those demonstrated by the type certificate holder for conventional cabin layouts. A lower number may be acceptable in the case of a cabin layout with compensating features agreed by the Agency. In such a case, the lower minimum cabin crew number must be documented in an EASA approved major design change or Supplemental Type Certificate (STC).

This section is not applicable to ATR 72-212A with MOD 7900 (full cargo) installed.

## 20. Maximum Seating Capacity

- Full passenger configuration: 74



Note: The maximum number of passengers used for showing compliance with JAR 25.803(c) (emergency evacuation demonstration) was 74

- Full passenger configuration for aircraft fitted with ATR Modification 7289: 78
- Full passenger configuration for aircraft fitted with ATR Modification 10001 in NON HIC configuration (*without compliance toward CS 25.562*): 78

Note: The 78 pax cabin configuration is achieved by embodiment of ATR Modifications:

- 7289, respectively associated with embodiment of ATR Modifications 6219, 6517, 6666, and 7497
- or
- 10001 respectively associated with embodiment of ATR Modifications 6219, 6517, 6666, 7497, 7807 and 6540 or 7450.

**Notes:**

Change 10001 is developed for export purposes only, and thus seats may be installed without compliance to CS 25.562 Amendment 5, upon written acceptance by the importing (NAA) authority.

The 78 pax cabin configuration is only certified for ATR 72-212A aircraft model.

This section is not applicable to ATR 72-212A with MOD 7900 (full cargo) installed.

**21. Baggage/ Cargo Compartment**

Refer to relevant Weight and Balance Manual.

**22. Wheels and Tyres**

For All ATR 72 models

	<b>Dimensions</b>
Main Landing Gear tyres	H 34 x 10.0 R16
Nose Landing Gear tyres	450x190-5 Or 453X190R5 (these two references are not mixable)

**23. ETOPS**

The following table provides details on the ETOPS approvals for ATR 72 series.

<b>Model</b>	<b>Engine type</b>	<b>120 min approval date</b>
ATR 72-101 / -102	PW124B	13 February 1995
ATR 72-201 / -202	PW124B	13 February 1995
ATR72-212A	PW127F	29 November 2000
ATR72-212A	PW127M	21 December 2007



ATR72-212A	PW127N	06 June 2014
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ATR 72-101 / -201 and -102 / -202 models are certified for 120 min ETOPS operations according to Condition Technique Complémentaire (CTC) 20 ETOPS and in compliance with the technical requirements of AC 20-142A, issue dated December 30<sup>th</sup>, 1988.

ATR 72-212A model is certified for 120 min ETOPS operations (supported by ATR Modification 4711) in compliance with the technical requirements of JAA Information Leaflet n° 20.

The type design, system reliability and performance of ATR model(s) were found capable for extended range operations when configured, maintained and operated in accordance with the current revision of the ETOPS Configuration, Maintenance and Procedures (CMP) document applicable to each model.

This paragraph does not constitute an approval to conduct extended range operations. Operational approval must be obtained from the Authority responsible for aircraft operations.

Note: ATR 72-212A with MOD 7900 (full cargo) installed is not certified for ETOPS operations.

#### **IV. Operating and Service Instructions**

1. Airplane Flight Manual (AFM)  
Refer to relevant approved Airplane Flight Manual
2. Instructions for Continued Airworthiness and Airworthiness Limitations  
Refer to ATR AMM, SRM, IPC, CMM documents and the relevant approved "Time Limits" document
3. Weight and Balance Manual (WBM)  
Refer to Weight and Balance Manual

#### **V. Operational Suitability Data (OSD)**

The Operational Suitability Data elements listed below are approved by the European Aviation Safety Agency under the EASA Type Certificate [TC number EASA.A.084] as per Commission Regulation (EU) 748/2012 as amended by Commission Regulation (EU) No 69/2014.

1. Master Minimum Equipment List
  - a) Master Minimum Equipment List (ATR 42 and ATR 72 Master Minimum Equipment List (MMEL) EDORA reference: EFOS-4775/15) approved at revision 00 dated December 2015, (refer to the latest approved revision) as per the defined Master Minimum Equipment List Operational Suitability Data Certification Basis: JAR MMEL / MEL, Amendment 1.



- b) Required for entry into service by EU operator.

## 2. Flight Crew Data

- a) The Flight Crew Data (OSD FC ATR 42/72 reference: EFOS-4267/15) approved at revision 1, dated 11 December 2015, (refer to the latest approved revision), as per the defined Flight Crew Operational Suitability Data Certification Basis: CS-FCD, Initial Issue.
- b) Required for entry into service by EU operator.
- c) Pilot Type Rating (refer following table) :

Manufacturer	Aircraft Model / Name	License Endorsement	Variants	Complex	SP/ SP HPA/ MP	OEB FC Report / OSD FC Report	Remarks
ATR	ATR 72 (Non PEC equipped) ATR 72 (PEC equipped) ATR 72 (glass cockpit)	ATR42/72	X	X	MP	X	OSD FC ATR 42/72 dated of issue Dec 11 <sup>th</sup> 2015
<p>PEC = Propeller Electronic Control</p> <p>Note: All ATR 42/72 series aircraft have been assessed as variants requiring familiarization / differences training as summarized in the MDR table (refer to ATR 42/72 OSD-FC report section 4).</p> <p><i>See EASA Explanatory Notes: EASA Type Rating &amp; License Endorsement Lists Flight Crew</i></p>							

## 3. Cabin Crew Data

- a) The Cabin Crew Data (ATR Operational Suitability Data (OSD) Report - CCD reference: EFOS-5224/15) approved at revision 1, dated 17 July 2015, (refer to the latest approved revision), as per the defined Cabin Crew Operational Suitability Data Certification Basis: CS-CCD, Initial Issue.
- b) Required for entry into service by EU operator.
- c) The ATR72 aircraft models and the ATR42 aircraft models are determined to be variants amongst themselves.

Note: Information on minimum cabin crew number is not part of this CC OSD chapter, please refer to Section 2: ATR 72 series, Chapter III, Subchapter 19 of the TCDS.



## **VI. Notes**

### 1. Designations

“*ATR 72-500*” is the commercial designation used by ATR to refer to ATR 72-212A aircraft model.

“*ATR 72-212A ‘600 version’*” is the commercial designation to identify ATR 72-212A aircraft models having received the New Avionic Suite (NAS) modification, also named as ‘*Glass Cockpit*’, which represents the incorporation of ATR Significant Major Change no. 5948 and a batch of associated ATR (major & minor) modifications.

“*ATR 72-212A ‘600 version’*” aircraft is not considered as new aircraft model or variant.

“*ATR 72-600*” is the commercial designation used by ATR GIE to refer to the ATR 72-212A aircraft model fitted with NAS modification. This designation must not be used on ATR certified / approved documentation, and only mention of ‘Mod 5948’, ‘ATR 72- 212A with Mod 5948’, or ATR 72-212A ‘600 version’ must be indicated.

ATR72-212A ‘600F version’ is the designation to identify ATR 72-212A aircraft models with NAS (Mod 5948) fitted with the cargo conversion Significant Major Change no. 7900.

ATR 72-212A ‘600F version’ aircraft is not considered as new aircraft model or variant.

ATR 72-600F is the commercial designation used by ATR GIE to refer to the ATR 72-212A aircraft model with NAS fitted with the cargo modification. This designation must not be used on ATR certified / approved documentation, and only mention of ‘Mod 7900’, ‘ATR 72-212A with Mod 7900’ or ATR 72-212A ‘600F version’ must be indicated.



**SECTION: ADMINISTRATIVE****I. Acronyms and Abbreviations**

AMM	Aircraft Maintenance Manual
AWO	All Weather Operations
CC	Cabin Crew
CMM	Component Maintenance Manual
CRI	Certification Review Item
CS	Certification Specifications
DOA	Design Organisation Approval
EASA	European Aviation Safety Agency
ESF	Equivalent Safety Finding
ETOPS	Extended-range Twin-engine Operational Performance Standards
EWIS	Enhanced Wiring Interconnection System
FC	Flight Crew
ICA	Instructions for Continued Airworthiness
ICAO	International Civil Aviation Organization
IPC	Illustrated Part Catalogue
JAR	Joint Aviation Requirements
MEL	Master Minimum Equipment List
MRW	Maximum Ramp Weight
MTOW	Maximum Take-Off Weight
MLW	Maximum Landing Weight
MZFW	Maximum Zero Fuel Weight
OSD	Operational Suitability Data
POA	Production Organisation Approval
SRM	Structural Repair Manual
TCDS	Type Certificate Data Sheet
WV	Weight Variant

**II. Type Certificate Holder Record**

ATR - GIE Avions de Transport Régional  
1, Allée Pierre Nadot  
31712 Blagnac Cedex  
France

**III. General Notes**

## 1. Design conditions

On August 18th, 2004, Design Organisation Approval n° EASA.21J.044 has been granted by EASA to ATR - GIE Avions de Transport Régional.



## 2. Production conditions

On December 2nd, 1985, aeronautical products manufacturer was named AEROSPATIALE: Manufacturer identification aircraft plate is AEROSPATIALE-AERITALIA.

On March 12th, 1991, Manufacturer identification on aircraft plate is AEROSPATIALE-ALENIA.

On September 21st, 1992, production agreement for aeronautical products manufacturer n° P06 granted by DGAC to AEROSPATIALE DIVISION AVIONS. Manufacturer identification on aircraft plate is AEROSPATIALE-ALENIA.

On January 1st, 1995, AEROSPATIALE DIVISION AVIONS was renamed AEROSPATIALE BRANCHE AERONAUTIQUE. Manufacturer identification on aircraft plate is AEROSPATIALE-ALENIA.

On December 21st, 1997, Production Organization Approval (POA) N° FG.004, granted by DGAC to AEROSPATIALE BRANCHE AERONAUTIQUE. Manufacturer identification on aircraft plate is AEROSPATIALE-ALENIA.

On July 1st, 1998, AEROSPATIALE BRANCHE AERONAUTIQUE was renamed AEROSPATIALE SECTEUR AERONAUTIQUE. Manufacturer identification on aircraft plate is AEROSPATIALE-ALENIA.

On April 1st, 1999, creation of AEROSPATIALE ATR, after separation from AEROSPATIALE SECTEUR AERONAUTIQUE activities, and Production Organization Approval (POA) N° FG054 granted to AEROSPATIALE ATR. Manufacturer identification on aircraft plate is AEROSPATIALE-ALENIA.

On June 12th, 1999, AEROSPATIALE ATR was renamed AEROSPATIALE MATRA ATR. Manufacturer identification on aircraft plate is AEROSPATIALE MATRA ATR -ALENIA.

On September 28th, 2000, AEROSPATIALE MATRA ATR was renamed EADS ATR. Manufacturer identification on aircraft plate is EADS ATR -ALENIA.

On June 1st, 2001, the POA N° FG054 has been transferred from EADS ATR to ATR - GIE Avions de Transport Régional. Manufacturer identification on aircraft plate is ATR.

On June 10th, 2004, Production Organization Approval (POA) according to Part 21, section A, subpart G, referenced FR.21G.0054 granted by DGAC France to ATR - GIE Avions de Transport Régional. Manufacturer identification on aircraft plate is ATR.

Note: The address of ATR [ATR Blagnac 31712 France EUROP (FB429)] appears on the aircraft identification plate from June 1st 2001.



**IV. Change Record**

Issue	Date	Changes	TC issue
Issue 01	28/04/2006	Initial Issue	Initial Issue, 28/04/2006
Issue 02	21/12/2007	Update: Introduce SC H-1 'EWIS ICA'.	Initial Issue, 28/04/2006
Issue 03	17/10/2012	Update: Introduce ATR '600 Version'. Introduction OW Variants for ATR 72-212A.	Initial Issue, 28/04/2006
Issue 04	04/07/2014	Update: Add Special Condition C02. Remove Special Condition B12 (cancelled); Rename duplicate Special Condition B11. Introduce new Engine PW 127N on ATR 72-212A. Correct references to ATR and DGAC documents.	Initial Issue, 28/04/2006
Issue 05	18/12/2015	Update Introduce OSD Introduce Minimum Cabin Crew Number Typographical corrections Add Special Condition / ESF / Deviation Add OWV 09	Initial Issue, 28/04/2006
Issue 06	20/07/2017	Update: Typographical corrections: Special Condition table of ATR72-212A has been restored (as at issue 04); CRI F-1018 added in 'Special Conditions' for ATR72-212A '600 version' and ATR42-500 '600 version'; Delete the Mod 6404 in ATR72-212A "Maximum certified mass"	Initial Issue, 28/04/2006
Issue 07	18/12/2017	Clarified the Certification Bases for OSD constituents for Flight Crew Data, Cabin Crew Data and Master Minimum Equipment List. Editorial correction adding SC C01 for ATR 42-500	Initial Issue, 28/04/2006
Issue 08	4/07/2019	Update: Additional data for 78 Pax configuration on ATR 72-212A.	Initial Issue, 28/04/2006
Issue 09	01/02/2021	Typographical corrections and clarifications, version with marked changes re-published on 10/02/2021	Initial Issue, 28/04/2006
Issue 10	14/10/2022	Update:	Initial Issue,



		<p>Introduce Cargo Conversion MOD n° 7900;  Removal of the term “version”, replacement by the associated major significant Change;  Removal of the distinction between the State of Design Authority and EASA;  Merging of tables for Special Conditions, Deviations and Equivalent Safety Findings with deletion of column “Supporting Ref” deletion and addition of column “Applicability”;  Add ESF D-28 in section 2, Special Conditions E-02 and F-44 in sections 1 and 2;  Summary of details related to commercial designations in paragraph 3 of chapter VI. Notes;  Typographical corrections and clarifications.  Introduce new Engine PW127XT-M on ATR 42-500 and ATR 72-212A</p>	28/04/2006
Issue 11	05/05/2023	<p>Update:  Sections 1 &amp; 2 - II.2) Reference to DGAC-F letter removed  Sections 1 &amp; 2 - III.5) Reference to MOD 10302 introduced on ATR 42-500 and ATR 72-212A  Section 1 - VI.1) Creation of chapter VI. Notes for Designations  Section 2 - II.2) additional information added for ATR 72.212A Certification Basis  Section 2 – VI.1) Clarification of chapter VI. Notes for Designations  Section ADMINISTRATIVE – III. Creation of chapter General notes for rearrangement of 1). Design conditions and 2) Production conditions (previously in Section 2 – VI Notes).</p>	Initial Issue, 28/04/2006
Issue 12	07/09/2023	<p>Update:  Sections 1 - II.2.b) Correction for definition of Certification Basis for ATR 42-400 / -500.</p>	Initial Issue, 28/04/2006

-END-

