



EUROPEAN AVIATION SAFETY AGENCY

Operational Evaluation Board Report

Cabin Crew Evaluation

**ATR 42 and ATR 72
(ATR 42/72)**

(ATR 42-300/-500/-600 and ATR 72-200/-500/-600)



15 May 2014

**European Aviation Safety Agency
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2. SIGNATURE PAGE and REVISION RECORD

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Rev. No.	Content	Date
First Issue	-Initial Evaluation of ATR 42-600 and ATR 72-600; -Catch-up of ATR 42-300/-500 and ATR 72-200/-500	15 May 2014

3. CABIN CREW SUBGROUP COMPOSITION

Name	Organisation	Function
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4. LIST OF ACRONYMS

ATR	Aviation Transport Regional
ADT	Aircraft Differences Table
ANAC	Agência Nacional de Aviação Civil
Aircraft	Generic term to include airplane and aeroplane
AMC	Acceptable Means of Compliance
CAA	Civil Aviation Authority
CAI	Certification Action Item
CAR	Canadian Aviation Regulation
CCOM	Cabin Crew Operating Manual
DAC-CTA	Departamento de Aviação Civil - Centro Técnico Aeroespacial (Civil Aviation Authority – Brazil)
CBT	Computer Based Training
CC	Cabin Crew
CRD	Comment Response Document
CS	Certification Specifications
CS-CCD	Certification Specifications – Cabin Crew Data
CUP	Catch-up Process
CRD	Comment Response Document
EASA	European Aviation Safety Agency
EASA OPS	EASA Air Operations Regulation
EC	European Commission
EU	European Union
EU-OPS	Operational Requirements – Commercial Air Transport (Aeroplanes)
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulations
GM	Guidance Material
JAA	Joint Aviation Authorities
JAR-OPS	Joint Aviation Regulations – Operations
KoM	Kick off Meeting

NAA	National Aviation Authorities
OEB	Operational Evaluation Board
ORO	Organisation Requirements for Air Operations
OSD	Operational Suitability Data
OWE	Over Wing Exit
PSU	Passenger Service Unit
TC	Type Certification
TCH	Type Certificate Holder
TCCA	Transport Canada Civil Aviation
TCDS	Type Certification Data Sheet

5. APPLICABLE DEFINITIONS

Base aircraft means an aircraft used as a reference to compare differences with another aircraft.

Candidate aircraft means an aircraft subject to the evaluation process.

New type means an aircraft having differences requiring a completion of aircraft type specific training.

Passenger seating capacity means the passenger seating capacity of the aircraft that is subject to the initial TC process as specified in the relevant type certification data sheet or the maximum passenger seating configuration of an individually configured aircraft.

Type specific data means all design and design related data relevant to new type(s) or variant(s).

Variant means an aircraft that has significant differences to the base aircraft requiring differences training (but not requiring a completion of aircraft type specific training).

Note on references and reference texts:

Where references are made to requirements and where extracts of reference texts are provided, these are at the amendment state at the date of evaluation or publication of the report. Readers should take note that it is impractical to update these references to take account of subsequent amendments to the source documents.

6. EXECUTIVE SUMMARY

6.1 Evaluation Background

6.1.1. In April 2009, ATR applied for an OEB CC initial evaluation of the ATR 42-600 and ATR 72-600.

6.1.2. ATR additionally requested a cabin crew catch-up process (CUP) for the existing models at the time (i. e. ATR 42-300/-500 and ATR 72-200/-500).

6.1.3. For the purpose of these OEB cabin crew evaluations, the ATR 42-500 was used as the “base aeroplane,” and the ATR 42-300/-600 and ATR 72-200/-500/-600 were the “candidate aeroplanes”.

6.1.4. As a result, an OEB CC evaluation was completed by the EASA OEB Cabin Crew Subgroup, for all ATR 42 and ATR 72 models- i.e. ATR 42-300/-500/-600 and ATR 72-200/-200/-600.

6.1.5. Also as part of the evaluation, and in anticipation of the implementation of the Operational Suitability Data (OSD) concept, which incorporates the approval of cabin crew type specific data, the design related data pertinent to cabin crew operation, addressing all ATR 42/72 models, provided by ATR in the form of the ATR CCOM and Computer Based Training (CBT), were assessed against the provisions of the Certification Specifications – Cabin Crew Data (CS-CCD).

6.1.6. Pending the completion of the ATR 42/72 OEB CC report, preliminary results of the OEB CC evaluation were published by EASA, in August 2011, in the form of a “Letter of Intent”. With the publication of the present report, the respective “Letter of Intent” is being withdrawn.

6.2 Purpose and Applicability

6.2.1. This report, combines the EASA OEB CC evaluations of the ATR 42-300, ATR 42-500, ATR 42-600, and of the ATR 72-200, ATR 72-500, ATR 72-600.

6.2.2. This report addresses the following:

- a. Substantiates that the ATR 42-600 and ATR 72-600 are variants of the ATR 42-500 (as per EU-OPS 1.1030 and EASA OPS ORO.CC.250).
- b. Substantiates that the ATR 42-300, the ATR 72-200, the ATR 72-500 are variants of the ATR 42-500 (as per EU-OPS 1.1030 and EASA OPS ORO.CC.250).
- c. Provides analysis for establishing compliance at the operator level, with EU-OPS 1.1030 and EASA OPS ORO.CC.250 when considering the ATR 42/72 all models.
- d. Provides a systematic, consistent and uniform basis for the operational approval by the NAAs of cabin crew training programmes (as per EU-OPS 1.1010 and EASA OPS ORO.CC.125/130) when operating on the ATR 42/72.
- e. Is applicable to cabin crew operation under the framework of EASA.

6.3 Conclusions

6.3.1 Variants

6.3.1.1 All conclusions regarding “Variants” were reached based upon the comparison of four design-related categories of elements(see Chapter 6, 6.1), and on the assumption that similarity of location and type of portable safety equipment, and of operating procedures is demonstrated at the operator level, as per the applicable requirements.

6.3.1.2 For cabin crew, the ATR 42-300, the ATR 42-600, the ATR 72-200, the ATR 72-500, the ATR 72-600 are **variants of the ATR 42-500**, thus, requiring additional training only for the identified differences.

6.3.1.3 Cabin crew differences training would be required at the operator level when transferring from one aircraft to another, in order to ensure compliance, with EU OPS 1.1010 and EASA OPS ORO.CC 125/130.

6.3.1.4 For cabin crew training and checking purposes Level 1 to Level 3 Differences training (in accordance with the OEB Handbook – Part III – Draft Procedure Document for Cabin Crew Subgroup, Difference Levels) would apply, as specified in Chapter 8.3 of this report.

6.3.2 Single and multiple cabin crew operation

6.3.2.1 In addition to the training required by the design-related identified differences, as contained in the ATR Aeroplane Differences Table (ADT), for the necessary compliance at the operator level, the cabin crew training would need to include the standard operating procedures for single cabin crew operation and multiple cabin crew operation.

6.3.3 Type specific data assessment

6.3.3.1 The content of the revised ATR 42/72 CCOM and of the CBT complies with the requirements for type specific data, as per the EASA CS-CCD, and is recommended to support the operator in developing customised cabin crew training syllabi, and the competent authority in approving such syllabi.

6.3.3.2 The content of this OEB CC report should be considered as being grandfathered for the corresponding OSD CC for the ATR 42-300/-500/-600 and ATR 72- 200/-500/-600.

6.3.3.3 All data provided in support of the present evaluations should be reviewed by the TCH and any change in the aircraft design or configuration with significance for cabin crew training and operation should be submitted to EASA for incorporation in this report and be appropriately reflected in this document.

6.3.4 Training programme option

6.3.4.1 The cabin crew training programme for the ATR 72-600 which was attended by the CC Subgroup members as part of this evaluation process (see chapter 7, (d)), and which was assessed in light of the currently applicable cabin crew training requirements, was found to be an adequate example of usage of theoretical and practical elements provided by the

TCH. Such a training content could be an option to be considered when establishing cabin crew training programmes for the ATR 42/72, in compliance with this report.

7. SYNOPSIS OF THE EVALUATION

7.1 Evaluation Background

7.1.1 In April 2009, ATR applied for a joint operational evaluation for the ATR 42/72 Glass Cockpit series, referred to as “ATR-600”, to be led by EASA and with participation from Agência Nacional de Aviação Civil (ANAC), the Federal Aviation Administration (FAA) and Transport Canada Civil Aviation (TCCA).

7.1.2 The scope of the EASA OEB evaluation includes:

- pilot type rating designation & license endorsement;
- flight crew training, checking and currency;
- Master Minimum Equipment List (MMEL);
- simulator qualification;
- **Cabin Crew Training;**
- Electronic Flight Bag; and
- Aircraft compliance with EU OPS subparts K & L.

7.1.3 As opposed to the other areas of the “ATR-600” OEB evaluation, the cabin crew evaluation was conducted by EASA exclusively, and was not a joint evaluation.

7.1.4 For cabin crew purposes, the ATR application requested an OEB initial evaluation in order to determine whether the ATR 42-600 and the ATR 72-600 should be considered a variant or a new aircraft type to the ATR-42-500 (as per EU-OPS 1.1030 and EASA OPS ORO.CC.250), and consequently to establish training recommendations for cabin crew transferring to the ATR 42-600 and ATR 72-600. (as per EU-OPS 1.1010 and EASA OPS ORO.CC.125/130 and the associated guidance material).

7.1.5 ATR additionally requested a cabin crew catch-up process (CUP) for the existing models at the time (i. e. ATR 42-300/-500 and ATR 72-200/-500) in order to make a similar determination to the one described above. The ATR 42-500 was considered to be the ‘base aircraft’ for the CUP assessment.

7.1.6 Also as part of the requested cabin crew evaluation, and in light of the implementation of the Operational Suitability Data (OSD) concept, which incorporates the approval of cabin crew type specific data, the design related data pertinent to cabin crew operation, addressing the ATR 42-300/-500/600 and ATR 72-200/-500/-600, contained in the revised ATR 42/72 CCOM were assessed against the provisions of the EASA Certification Specifications-Cabin Crew Data (CS-CCD), Appendix 1 to CS CCD 310.

7.1.7 The ATR 42/72 OEB CC evaluation was performed in two stages.

The catch-up process was conducted in 2010, based on the review of the applicable approved EU operator cabin crew training courses.

The “ATR 600” evaluation commenced in 2011, when the basis cabin layouts became available, as well as the revised and aggregated format of the ATR 42/72 CCOM, now containing all relevant information for the ATR 42-300/500/600 and the ATR 72-200/500/600 in one document.

7.1.8 Pending the completion of the ATR 42/72 OEB CC report, preliminary results of the OEB CC evaluation were published by EASA, in August 2011, in the form of a “Letter of Intent”. With the publication of the present report, the respective “Letter of Intent” is being withdrawn.

7.2 Basis for Grandfathering under the OSD

7.2.1 The purpose of the OEB CC evaluations conducted by EASA is to determine aircraft types and variants for cabin crew operation, and issue associated cabin crew training recommendations to support the NAAs’ approval of applicable training syllabi.

7.2.2 In light of the adoption by the EC of Initial Airworthiness Implementing Rules 748/2012, amended through the EASA Opinion 07/2011, which introduces the concept of Operational Suitability Data (OSD), the determination of aircraft type/variant and the approval of type specific data for cabin crew will be integrated in the Type Certification process, and performed based on the content of the associated Certification Specifications-Cabin Crew Data (CS-CCD) published by EASA on the 31st January, 2014. The CS-CCD define the process and criteria for determination of aircraft type and variant and of type specific data for cabin crew. This data will constitute the basis for the establishment of customised training syllabi by operators/training providers, subject to their NAA’s approval.

7.2.3 Emanating from the above, the OEB CC evaluations of the ATR 42/72 were carried out having regard of the following regulatory reference and advisory material:

7.2.4 Regulatory reference:

- EU-OPS [Commission Regulation (EC) No 859/2008 of 20 August 2008 amending Council Regulation (EC) No 3922/91 as regards common technical requirements and administrative procedures applicable to commercial transportation by aeroplane]
- PART CC – Annex V [Commission regulation (EU) No 290/2012 of 30 March 2012 amending Regulation (EU) No 1178/2011 laying down technical requirements and administrative procedures related to civil aviation aircrew pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council]
- PART ORO - Annex III [Commission regulation (EU) No 290/2012 of 30 March 2012 amending Regulation (EU) No 1178/2011 laying down technical requirements and administrative procedures related to civil aviation aircrew pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council]
- CS-CCD - Certification Specifications-Cabin Crew Data, published by EASA on the 31st January, 2014.

- (EU) No 69/2014 amending Regulation (EU) No 748/2012 laying down implementing rules for the airworthiness and environmental certification of aircraft and related products, parts and appliances, as well as for the certification of design and production organisations

7.2.5 Advisory material:

- AMC/GM to PART CC, Annex V - Air Crew Regulation
- AMC/GM to PART ORO, Annex III - Air Operations Regulation
- EASA Opinion 07/2011 – Operational Suitability Data (OSD) - amending Regulation (EU) No 1702/2003 of 24/09/2003 laying down implementing rules for the airworthiness and environmental certification of aircraft and related products, parts and appliances, as well as for the certification of design and production
- EASA CRD 2011-10 – Certification Specifications-Cabin Crew Data (CS-CCD)
- EASA OEB Handbook, Part III - Draft Procedure Document for Cabin Crew Subgroup (dated 02/06/2009).

7.2.6 The following steps were taken by the OEB CC Subgroup in fulfilling the evaluations for the ATR 42/72:

- a) Participation in the ATR/EASA KoM to agree on the evaluation timeframe and associated logistics;
- b) Review of all applicable documentation provided by ATR:
 - i. ATR CCOM (comprising the ATR 42-300/-500/-600 and ATR 72-200/-500/-600), and associated CBT;
 - ii. Aircraft Differences Tables (ADTs) for the ATR 42-300/-500/-600 and ATR 72-200/-500/-600
- c) Attendance of the ATR 72-600 cabin crew training programme.
- d) Aircraft inspections for the ATR 42-500 and ATR 72-600 in order to validate differences and similarities identified by ATR in the ADTs.
- e) Production of training and checking recommendations for cabin crew operating on the ATR 42/72 –all models, as contained in this report.

8. EVALUATION CONTENT

8.1 Comparison of the ATR 42-300/-500/-600 and ATR 72-200/-500/-600

8.1.1 The aim of the assessment was to establish whether for cabin crew, the ATR 42-300; ATR 42-600; ATR 72-200; ATR 72-500; ATR 72-600 are variants of the ATR 42-500 or whether they are different aircraft types.

8.1.2 The comparison was carried out based on the guidance provided by the ADTs. In order to ensure the transition to the OSD CS-CCD, and since they display a high degree of similarity, both the ADT contained in the OEB Handbook – Part III – Draft Procedure Document for Cabin Crew Subgroup, and the ADT contained in the then, EASA CRD 2011-10 - Certification Specifications-Cabin Crew Data (CS-CCD) were used.

8.1.3 In accordance with this guidance, elements belonging to the following four design-related categories were assessed;

- aircraft configuration
- doors and exits
- aircraft systems
- normal and emergency operation

8.1.4 Guidance on how to assess all relevant elements belonging to each of the four categories above was taken from the JOEB Handbook – Part III – Procedures Document for Cabin Crew Subgroup, Appendix 3 – B, Detailed Information for compilation of ADT, and from the Certification Specifications-Cabin Crew Data (CS CCD.205-Determination Elements).

8.1.5 Using the above categories as criteria, the following comparisons were performed:

- A: ATR 42-500 versus ATR 42-600
- B: ATR 42-500 versus ATR 72-600
- C: ATR 42-500 versus ATR 42-300
- D: ATR 42-500 versus ATR 72-200
- E: ATR 42-500 versus ATR 72-500

A. ATR 42-500 versus ATR 42-600

Findings:

8.1.5.A.1 As per the TCDS, both the ATR 42-500 and the ATR 42-600 have been certified for a maximum seating capacity of 66 seats.

8.1.5.A.2 The following differences were identified on the ATR 42-600:

- Type 2 Flight Attendant Panel (FAP) was enhanced and evolved into Cabin Management System (CMS);

8.1.5.A.3 These differences can be adequately addressed through cabin crew differences training. They do not require aircraft type specific training in order to ensure cabin crew proficiency during operation.

8.1.5.A.4 **Conclusion:**

For cabin crew, the ATR 42-600 is a variant of the ATR 42-500, as per EU-OPS 1.1030, EASA OPS ORO.CC.250, and the associated guidance material.

B. ATR 42-500 versus ATR 72-600

Findings:

8.1.5.B.1 As per the TCDS, the ATR 72-600 has been certified for a maximum seating capacity of 74 seats as opposed to 66 seats for the ATR 42-500.

8.1.5.B.2 The following differences were identified on the ATR 72-600:

- Two cabin crew seats (forward/aft) with different operation and associated equipment, versus 1 cabin crew seat (aft) on the ATR 42-500;
- In certain cabin configurations, Type 2 Flight Attendant Panel (FAP) was enhanced and evolved into Cabin Management System (CMS);
- In the cabin configurations, where Type 2 FAP was enhanced and evolved into CMS there is a different location of guarded emergency light control switch;

8.1.5.B.3 These differences can be adequately addressed through cabin crew differences training. They do not require aircraft type specific training in order to ensure cabin crew proficiency during operation.

8.1.5.B.4 **Conclusion:**

For cabin crew, the ATR 72-600 is a variant of the ATR 42-500, as per EU-OPS 1.1030, EASA OPS ORO.CC.250, and the associated guidance material.

C. ATR 42-500 versus ATR 42-300

Findings:

8.1.5.C.1 As per the TCDS, both the ATR 42-300 and the ATR 42-500 have been certified for a maximum seating capacity of 66 seats.

8.1.5.C.2 The following differences were identified on the ATR 42-300:

- Passenger entrance door handrail stowage and operation;
- Service door gust lock system;
- Passenger fixed oxygen system- type/operation/capacity;
- Type 1 FAP versus Type 2 FAP on the ATR 42-500;
- Type 1 interphone system versus Type 2 interphone system on the ATR42-500.

8.1.5.C.3 These differences can be adequately addressed through cabin crew differences training. They do not require aircraft type specific training in order to ensure cabin crew proficiency during operation.

8.1.5.C.4 **Conclusion:**

For cabin crew, the ATR 42-300 is a variant of theatre 42-500, as per EU-OPS 1.1030, EASA OPS ORO.CC.250, and the associated guidance material.

D.ATR 42-500 versus ATR 72-200

Findings:

8.1.5.D.1 As per the TCDS, the ATR 72-200 has been certified for a maximum seating capacity of 74 seats as opposed to 66 seats for the ATR 42-500.

8.1.5.D.2 The following differences were identified on the ATR 72-200:

- Passenger entrance door handrail stowage and operation;
- Service door gust lock system;
- Two cabin crew seats (forward/aft) with different operation and associated equipment, versus 1 cabin crew seat (aft) on the ATR 42-500;
- Passenger fixed oxygen system- type/operation/capacity;
- Type 1 FAP versus Type 2 FAP on the ATR 42-500;
- Type 1 interphone system versus Type 2 interphone system on the ATR42-500;

8.1.5.D.3 These differences can be adequately addressed through cabin crew differences training. They do not require aircraft type specific training in order to ensure cabin crew proficiency during operation.

8.1.5.D.4 **Conclusion:**

For cabin crew, the ATR 72-200 is a variant of theatre 42-500, as per EU-OPS 1.1030, EASA OPS ORO.CC.250, and the associated guidance material.

E. ATR 42-500 versus ATR 72-500

Findings:

8.1.5.E.1 As per the TCDS, the ATR 72-500 has been certified for a maximum seating capacity of 74 seats as opposed to 66 seats for the ATR 42-500.

8.1.5.E.2 The following differences were identified on the ATR 72-500:

- Two cabin crew seats (forward/aft) with different operation and associated equipment versus 1 cabin crew seat (aft) on the ATR 42-500

8.1.5.E.3 These differences can be adequately addressed through cabin crew differences training. They do not require aircraft type specific training in order to ensure cabin crew proficiency during operation.

8.1.5.E.4 Conclusion:

For cabin crew, the ATR 72-500 is a variant of the ATR 42-500, as per EU-OPS 1.1030, EASA OPS ORO.CC.250, and the associated guidance material.

8.2 Difference Levels

The following is an excerpt from Chapter 4 – Difference Levels for Training and Checking of the EASA OEB Handbook, Part III- Draft Procedures Document for Cabin Crew Subgroup, and defines the different levels of training.

Difference level	Training	Checking
1	Self-Instruction (Written information)	Not applicable
2	Aided Instruction (CBT, Video.)	Applicable as required
3	Hands-on Training (Training Device, or Aircraft)	Applicable
4	Aided Instruction and Hands-on Training (Training Device, or Aircraft)	Applicable

Level 1: Applicable to aircraft with differences that can be adequately addressed through self-instruction. Level 1 training represents a knowledge requirement such that, once appropriate information is provided, understanding and compliance can be assumed to take place. Compliance with Level 1 training is typically achieved by methods such as issuance of operating manual page revisions, dissemination of cabin crew operating bulletins or differences hand-outs to describe minor differences between aircraft.

Level 2: Applicable to aircraft with systems or procedural differences that can be adequately addressed through aided instruction. At Level 2, aided instruction is appropriate to ensure crew understanding, emphasise issues, provide a standardised method of presentation of material, or to aid retention of material following training. Level 2 aided instruction typically employs such means as slide/tape presentations, computer based training (CBT), stand-up lectures or videotapes.

Level 3: Applicable to aircraft with differences that can only be addressed through use of devices capable of system training (i.e. hands-on training) Training devices are required to supplement instruction to ensure attainment or retention of crew

skills and abilities to accomplish the more complex tasks, usually related to operation of particular aircraft systems. Typical training devices for Level 3 would include emergency evacuation procedures trainers, fire and smoke trainers, cabin crew panel trainers etc. When dedicated trainers are not available, Level 3 would require hands-on training using the aircraft.

Level 4: Applicable to aircraft with differences that can only be addressed through completion of aircraft type specific training, thus constituting a new aircraft type for cabin crew operation. Level 4 would always require hands-on training utilising either appropriate emergency evacuations procedures trainers or the aircraft and appropriate aided instruction.

8.3 Recommendations for Cabin Crew Training and Checking

8.3.1 Apart from establishing if for cabin crew, the candidate aircraft can be classified as a variant or a new type, the result of applying the ADTs also serves the purpose of identifying what Differences training may be required when transferring to the candidate aircraft.

8.3.2 Based on the conclusions provided by the application of the ADTs and on the guidance in the OEB Handbook - Part III regarding the Difference Levels for Training and Checking, the following assessments were carried out to establish the recommendations for cabin crew training and checking when transferring from the ATR 42-500, to the ATR42-600; the ATR72-600; the ATR 42-300; the ATR 72-200; the ATR 72-500:

A: ATR 42-500 versus ATR 42-600

B: ATR 42-500 versus ATR 72-600

C: ATR 42-500 versus ATR 42-300

D: ATR 42-500 versus ATR 72-200

E: ATR 42-500 versus ATR 72-500

A. ATR 42-500 versus ATR 42-600

Findings:

8.3.2.A.1 For cabin crew training and checking purposes, the ATR 42-600 is a variant of the ATR 42-500.

8.3.2.A.2 Based on the differences identified in the ADT, Level 2 Differences applies when transferring from the ATR 42-500 to the ATR 42-600. Level 2 training provides for systems and procedural differences related to cabin crew knowledge, skills and performance which, if left uncovered, may affect flight safety.

8.3.2.A.3 As shown by the Difference Levels table, checking may be required for Level 2 Differences.

8.3.2.A.4 Level 2 Differences applies to cabin crew training defined by the requirements of EU-OPS 1.1010 and EASA OPS ORO.CC.125/130 with regard to:

- Type 2 Flight Attendant Panel (FAP) was enhanced and evolved into Cabin Management System (CMS)

8.3.2.A.5 **Conclusion:** Differences training and checking at Level 2 would be required when transferring from the ATR 42-500 to the ATR 42-600 and viceversa.

B. ATR 42-500 versus ATR 72-600

Findings:

8.3.2.B.1 For cabin crew training and checking purposes, the ATR 72-600 is a variant of the ATR 42-500.

8.3.2.B.2 Based on the differences identified in the ADT, Level 2 Differences applies when transferring from the ATR 42-500 to the ATR 72-600. Level 2 training provides for systems and procedural differences related to cabin crew knowledge, skills and performance which, if left uncovered, may affect flight safety.

8.3.2.B.3 As shown by the Difference Levels table, checking may be required for Level 2 Differences.

8.3.2.B.4 Level 2 Differences applies to cabin crew training defined by the requirements of EU-OPS 1.1010 and EASA OPS ORO.CC.125/130 with regard to:

- Two cabin crew seats (forward/aft), with different operation and associated equipment versus 1 cabin crew seat (aft) on the ATR 42-500;
- In certain cabin configurations, Type 2 Flight Attendant Panel (FAP) was enhanced and evolved into Cabin Management System (CMS);
- In the cabin configurations, where Type 2 FAP was enhanced and evolved into CMS there is a different location of guarded emergency light control switch;

8.3.2.B.5 **Conclusion:** Differences training and checking at Level 2 would be required when transferring from the ATR 42-500 to the ATR 72-600 and viceversa.

C. ATR 42-500 versus ATR 42-300

Findings:

8.3.2.C.1 For cabin crew training and checking purposes, the ATR 42-300 is a variant of the ATR 42-500.

8.3.2.C.2 Based on the differences identified in the ADT, Level 2 and Level 3 Differences apply when transferring from the ATR 42-500 to the ATR 42-300.

8.3.2.C.3 Level 2 training provides for systems and procedural differences related to cabin crew knowledge, skills and performance which, if left uncovered, may affect flight safety. As shown by the Difference Levels table, checking may be required for Level 2 Differences.

8.3.2.C.4 Level 3 training provides for systems; procedural differences and system training (i.e. hand-on training) related to cabin crew knowledge, skills and performance which, if left uncovered, may affect flight safety. As shown by the Difference Levels table, checking is required for Level 3 Differences.

8.3.2.C.5 Level 2 Differences applies to cabin crew training defined by the requirements of EU-OPS 1.1010 and EASA OPS ORO.CC.125/130 with regard to:

- Type 1 FAP versus Type 2 FAP on the ATR 42-500;
- Type 1 interphone system versus Type 2 interphone system on the ATR42-500;

8.3.2.C.4 Level 3 Differences applies to cabin crew training defined by the requirements of EU-OPS 1.1010 and EASA OPS ORO.CC.125/130 with regard to:

- Passenger entrance door handrail stowage and operation;
- Service door gust lock system;
- Passenger fixed oxygen system- type/operation/capacity;

8.3.2.C.5 **Conclusion:** Differences training and checking at Level 2 and Level 3 would be required when transferring from the ATR 42-500 to the ATR 42-300 and viceversa.

D. ATR 42-500 versus ATR 72-200

Findings:

8.3.2.D.1 For cabin crew training and checking purposes, the ATR 72-200 is a variant of the ATR 42-500.

8.3.2.D.2 Based on the differences identified in the ADT, Level 2 and Level 3 Differences applies when transferring from the ATR 42-500 to the ATR 72-600.

8.3.2.D.3 Level 2 training provides for systems and procedural differences related to cabin crew knowledge, skills and performance which, if left uncovered, may affect flight safety. As shown by the Difference Levels table, checking may be required for Level 2 Differences.

8.3.2.D.4 Level 3 training provides for systems; procedural differences and system training (i.e. hand-on training) related to cabin crew knowledge, skills and performance which, if left uncovered, may affect flight safety. As shown by the Difference Levels table, checking is required for Level 3 Differences.

8.3.2.D.5 Level 2 Differences applies to cabin crew training defined by the requirements of EU-OPS 1.1010 and EASA OPS ORO.CC.125/130 with regard to:

- Two cabin crew seats (forward/aft) with different operation and associated equipment, versus 1 cabin crew seat (aft) on the ATR 42-500;
- Type 1 FAP versus Type 2 FAP on the ATR 42-500;
- Type 1 interphone system versus Type 2 interphone system on the ATR42-500.

8.3.2.D.6 Level 3 Differences applies to cabin crew training defined by the requirements of EU-OPS 1.1010 and EASA OPS ORO.CC.125/130 with regard to:

- Passenger entrance door handrail stowage and operation;
- Service door gust lock system;
- Passenger fixed oxygen system- type/operation/capacity;

8.3.2.D.7 **Conclusion:** Differences training and checking at Level 2 and Level 3 would be required when transferring from the ATR 42-500 to the ATR 72-200 and viceversa.

E. ATR 42-500 versus ATR 72-500

Findings:

8.3.2.E.1 For cabin crew training and checking purposes, the ATR 72-500 is a variant of the ATR 42-500.

8.3.2.E.2 Based on the differences identified in the ADT, Level 2 Differences applies when transferring from the ATR 42-500 to the ATR 72-500.

Level 2 training provides for systems and procedural differences related to cabin crew knowledge, skills and performance which, if left uncovered, may affect flight safety. As shown by the Difference Levels table, checking may be required for Level 2 Differences.

8.3.2.E.4 Level 2 Differences applies to cabin crew training defined by the requirements of EU-OPS 1.1010 and EASA OPS ORO.CC.125/130 with regard to:

- Two cabin crew seats (forward/aft) with different operation and associated equipment, versus 1 cabin crew seat (aft) on the ATR 42-500.

8.3.2.E.5 **Conclusion a):** Differences training and checking at Level 2 would be required when transferring from the ATR 42-500 to the ATR 72-500.

8.3.2.E.5 **Conclusion b):** Level 1 training would be required when transferring from the ATR 72-500 to the ATR 42-500.

9. CONCLUSIONS:

9.1 Variants

9.1.1 All conclusions regarding “Variants” were reached based upon the comparison of four design-related categories of elements (see Chapter 6, 6.1), and on the assumption that similarity of location and type of portable safety equipment, and of operating procedures is demonstrated at the operator level, as per the applicable requirements.

9.1.2 For cabin crew, the ATR 42-300, the ATR 42-600, the ATR 72-200, the ATR 72-500, the ATR 72-600 are **variants of the ATR 42-500**, thus, requiring additional training only for the identified differences.

9.1.3 Cabin crew differences training would be required at the operator level when transferring from one aircraft to another, in order to ensure compliance with EU OPS 1.1010 and EASA OPS ORO.CC 125/130.

9.1.4 For cabin crew training and checking purposes Level 1 or Level 3 Differences training (in accordance with the OEB Handbook – Part III – Draft Procedure Document for Cabin Crew Subgroup, Difference Levels) would apply, as specified in Chapter 8.3 of this report.

9.1.5 **NOTE 1:** *If an operator commences operation of any of the ATR 42/72 series without already operating the ATR 42-600 or ATR 72-600, or commences operation of an ATR 42-600 or ATR 72-600 without already operating any of the ATR 42/72 series, the aircraft is a new type to the operator and Conversion and Differences training/Aircraft Type Specific and Operator Conversion training would be required for cabin crew (as per EU-OPS 1.1010 and EASA OPS ORO.CC.125/130). Level 4 training (in accordance with the OEB Handbook – Part III – Draft Procedure Document for Cabin Crew Subgroup, Difference Levels) would apply.*

9.1.6 **NOTE 2:** *For the purpose of this Report, the analysis has been based on comparisons and differences using the ATR 42-500 as the base aircraft. This does not preclude an operator from using the data to assess differences and subsequent training levels for other combinations of aircraft within the ATR 42/72 models group. For example, an operator currently operating an ATR 72-500 would need to compare the differences between that aircraft and the ATR 42-500 and then the differences between the ATR 42-500 and the ATR 42-600 in order to determine which differences were appropriate and relevant to their aircraft. This data would enable an operator to determine required cabin crew training, when transferring from the ATR 72-500 to the ATR 42-600, or vice-versa.*

9.2 Single and multiple cabin crew operation

9.2.1 For ATR 42/72, in addition to the training required by the design-related identified differences, as contained in the ATR Aeroplane Differences Table (ADT), for the necessary compliance at the operator level, the cabin crew training would need to include the standard operating procedures for single cabin crew operation and multiple cabin crew operation.

9.3 Type specific data assessment

9.3.1 The content of the revised ATR 42/72 CCOM and of the CBT complies with the requirements for type specific data, as per the EASA CS-CCD, and is recommended to support the operator in developing customised cabin crew training syllabi, and the competent authority in approving such syllabi.

9.3.2 The content of this OEB CC report should be considered as being grandfathered for the corresponding OSD CC for the ATR 42-300/-500/-600 and ATR 72- 200/-500/-600.

9.3.3 All data provided in support of the present evaluations should be reviewed by the TCH and any change in the aircraft design or configuration with significance for cabin crew training and operation should be submitted to EASA for incorporation in this report and be appropriately reflected in this document.

9.4 Training programme option

9.4.1 The cabin crew training programme for the ATR 72-600 which was attended by the CC Subgroup members as part of this evaluation process (see chapter 7, (d)), and which was assessed in light of the currently applicable cabin crew training requirements, was found to be an adequate example of usage of theoretical and practical elements provided by the TCH. Such a training content could be an option to be considered when establishing cabin crew training programmes for ATR 42/72, in compliance with this report.