EUROPEAN AVIATION SAFETY AGENCY

Operational Evaluation Board Report
Cabin Crew Evaluation Subgroup

B787-8 - Cabin Crew Initial Evaluation

B777 Family - Cabin Crew Catch-up Evaluation
(B777-200 / -200ER / -200LR / -300 / -300ER)

12 December 2013

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3. CABIN CREW SUBGROUP COMPOSITION

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4. LIST OF ACRONYMS

ADT	Aircraft Differences Table
Aircraft	Generic term to include airplane and aeroplane
AMC	Acceptable Means of Compliance
CAA	Civil Aviation Authority
CAI	Certification Action Item
CBT	Computer Based Training
CC	Cabin Crew
CRD	Comment Response Document
CRI	Certification Review Item
CS	Certification Specifications
CS-CCD	Certification Specifications – Cabin Crew Data
CUP	Catch-up Process
DV	Direct Vision
EASA	European Aviation Safety Agency
EASA OPS	EASA Air Operations Regulation
EC	European Commission
ER	Extended Range
ESF	Equivalent safety Finding
EU	European Union
EU-OPS	Operational Requirements – Commercial Air Transport (Aeroplanes)
FAA	Federal Aviation Administration
FAM	Flight Attendant Manual
FAR	Federal Aviation Regulations
GM	Guidance Material
HUD	Head-Up Display
JAR-OPS	Joint Aviation Regulations – Operations
KoM	Kick off Meeting
LR	Long Range
NAA	National Aviation Authorities

OEB	Operational Evaluation Board
ORO	Organisation Requirements for Air Operations
OSD	Operational Suitability Data
OHFCR	Overhead Flight Crew Rest
PSU	Passenger Service Unit
TC	Type Certification
TCH	Type Certificate Holder
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

In March 2013, Boeing submitted to EASA an OEB application for an initial evaluation of cabin crew aspects, in order to determine whether the Boeing 787-8 should be considered a variant or a new aircraft type to the Boeing 777-200ER (as per EU-OPS 1.1030 and EASA OPS ORO.CC.250) and consequently, to establish training recommendations for cabin crew transferring to the Boeing 787-8 (as per EU-OPS 1.1010 and EASA OPS ORO.CC.125/130 and the associated guidance material).

Boeing additionally requested a cabin crew catch-up process (CUP) for the 'Boeing 777 family' (777-200 / -200ER / -200LR / -300 / -300ER) in order to make a similar determination to the one described above.

As a result, an OEB CC evaluation was also completed by the EASA OEB Cabin Crew Subgroup, for the Boeing 777-200 / -200ER / -200LR / -300 / -300ER as the 'candidate aircraft'.

The Boeing 777-200ER was considered to be the 'base aircraft' for this assessment.

Also as part of the evaluation, and, in anticipation of the implementation of the Operational Suitability Data (OSD) concept, the type specific data addressing the B777 family and the B787-8, provided by Boeing in the form of Flight Attendant Manuals (FAMs) and Computer Based Training (CBT), were assessed against the provisions of the EASA CRD 2011-10-Certification Specifications – Cabin Crew Data (CS-CCD).

6.2 Purpose and Applicability

This report, combining the EASA CC operational evaluations of the B787-8 and of the B777 family:

- Substantiates that the Boeing 787-8 is a variant of the Boeing 777-200ER (as per EU-OPS 1.1030 and EASA OPS ORO.CC.250).
- Substantiates that the B777-200; B777-200LR; B777-300; B777- 300ER are variants of the B777-200ER (as per EU-OPS 1.1030 and EASA OPS ORO.CC.250).
- Provides analysis for establishing compliance at the operator level, with EU-OPS 1.1030 and EASA OPS ORO.CC.250 when considering the Boeing 777 family and the B787-8.
- 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 Boeing 777 family and on the B787-8.
- Is applicable to cabin crew operation under the framework of EASA.

6.3 Conclusions

Variants

For cabin crew, the Boeing 777-200, the Boeing 777-200LR, the Boeing 777-300, the Boeing 777-300ER and the Boeing 787-8 are variants of the Boeing 777-200ER (as per EU-OPS 1.1030 and EASA OPS ORO.CC.250).

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.

For training and checking purposes Level 1 or Level 2 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

NOTE 1: *If an operator commences operation of a B777 without already operating the B787-8, or commences operation of a B787-8 without already operating the B777, 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.*

NOTE 2: *For the purpose of this Report, the analysis has been based on comparisons and differences using the B777-200ER 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 B777/787-8 family. For example, an operator currently operating a B777-300 would need to compare the differences between that aircraft and the B777-200ER and then the differences between the B777-200ER and the B787-8 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 B777-300 to the B787-8, or vice-versa.*

Type specific data assessment

The content of the FAMs and the CBT for the B777 family and the B787-8 complies with the requirements for type specific data, as per CRD 2011-10 CS CCD, and is recommended to support the operator in developing customised cabin crew training syllabi and the competent authority in approving such syllabi.

The content of this OEB CC Report should be considered as being grandfathered for the corresponding OSD CC of the B787-8 and the B777 family.

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.

Training programme footprint option

The cabin crew training programme for the B787-8, which was attended by the CC Subgroup members, as part of this evaluation process (see chapter 7, (d)), was found to be an adequate example of usage of theoretical and practical elements provided by the TCH. Such a training programme footprint could be an option to be considered in establishing cabin crew training programmes for the B777 family and the B787-8 in compliance with this report.

7. SYNOPSIS OF THE EVALUATION

The purpose of the OEB CC evaluations presently 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.

In light of 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 of type specific data for cabin crew will be integrated in the Type Certification Data Sheet (TCDS).

Pending the adoption of Opinion 07/2011, applicable Certification Specifications (CS) will be published by EASA, including CS-Cabin Crew Data (CS-CCD).

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.

Emanating from the above, the OEB CC evaluations of the B777 family and the B787-8 were carried out having regard of the following regulatory reference and advisory material:

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 lll [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]

Advisory material:

- AMC/GM to PART CC, Annex V - Air Crew Regulation
- AMC/GM to PART ORO, Annex lll - 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)

- CRI D-28 Issue 3 – B787 Door Indications – ESF
- CAI 2-08b-04, Issue 3 - B787-9 Minimum Cabin Crew Number
- EASA OEB Handbook, Part lll - Draft Procedure Document for Cabin Crew Subgroup (dated 02/06/2009).

The following steps were taken by the OEB CC Subgroup in fulfilling the evaluations for the Boeing 777 family and the Boeing 787-8:

a) Participation in EASA/Boeing KoM to agree on the evaluation timeframe and associated logistics
b) Review of all applicable documentation provided by Boeing:
    i. FAMs for the Boeing 777 family and B787-8,
    ii. CBT for the Boeing 777 family and B787-8,
    iii. Aircraft Differences Tables for the Boeing 777 family and B787-8.
c) Consideration of CRI D-28 Issue 3 – B787 Door Indications - ESF
d) Attendance of the Boeing proposed B787-8 cabin crew training programme.
e) Aircraft inspections for the Boeing 777-200ER and B787-8, in order to validate differences and similarities identified by Boeing in the ADTs.
f) Production of training and checking recommendations for cabin crew operating on the Boeing 777 family and the B787-8, as contained in this report.

8. EVALUATION CONTENT

8.1 Comparison of the Boeing 787-8 and the Boeing 777-200 / -200ER / -200LR / -300 / -300ER

The aim of this assessment was to establish whether for cabin crew, the Boeing 787-8 was a variant of the Boeing 777-200ER, or whether they were different aircraft types.

The assessment 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 EASA CRD 2011-10 – Certification Specifications-Cabin Crew Data (CS-CCD) were used.

In accordance with this guidance, the following categories were assessed;

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

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 EASA CRD 2011-10 – Certification Specifications-Cabin Crew Data (CS-CCD), CS CCD.205 Determination Elements.

The following comparisons were performed:

A: Boeing 777-200ER versus Boeing 787-8

B: Boeing 777-200ER versus Boeing 777-200

C: Boeing 777-200ER versus Boeing 777-200LR

D: Boeing 777-200ER versus Boeing 777-300

E: Boeing 777-200ER versus Boeing 777-300ER

A. Boeing 777-200ER versus Boeing 787-8

Findings:

The Boeing 787-8 has a longer range capability than the Boeing 777-200ER. The Boeing 787-8 has a shorter fuselage and, as per the TCDSs, can accommodate a maximum seating capacity of 381, versus 440 seats on the B777-200ER.

The following differences were identified on the Boeing 787-8:

- Air conditioning – non-bleed air;
- Lower cabin altitude;
- Flight deck – HUD installed;
- Additional controls for movement of flight deck seats;
- Non-opening DV windows on the flight-deck;
- Escape hatch in flight deck ceiling;
- No smoking placards rather than lights as customer option
- Latching system for overhead lockers;
- Systems for lighting, communication, water, waste and lavatories;
- Door features and exit indications;
- Different door type configurations available (e.g. CACA; AAAA);
- Drop-down oxygen system;
- Hi-comfort cabin crew seats;
- OHFCR seats can be occupied during take-off and landing.

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.

Conclusion:

For cabin crew, the Boeing 787-8 is a variant of the Boeing 777-200ER, as per EU-OPS 1.1030, EASA OPS ORO.CC.250, and the associated guidance material.

B. Boeing 777-200ER versus Boeing 777-200

Findings:

The Boeing 777-200 has a shorter range capability than the Boeing 777-200ER. The fuselage is the same size, and as per the TCDSs, accommodates the same maximum seating capacity of 440 seats.

The following differences were identified on the Boeing 777-200:

- Systems for lighting, communication, water, waste and lavatories;
- No facility for the installation of crew rest areas.

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

Conclusion:

For cabin crew, the Boeing 777-200 is a variant of the Boeing 777-200ER, as per EU-OPS 1.1030, EASA OPS ORO.CC.250, and the associated guidance material.

C. Boeing 777-200ER versus Boeing 777-200LR

Findings:

The Boeing 777-200LR has a longer range capability than the Boeing 777-200ER. The fuselage is the same size and, as per the TCDSs, accommodates the same maximum seating capacity of 440 seats.

The following differences were identified on the Boeing 777-200LR:

- Cross aisle stowage with smoke detectors;

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.

Conclusion:

For cabin crew, the Boeing 777-200LR is a variant of the Boeing 777-200ER, as per EU-OPS 1.1030, EASA OPS ORO.CC.250, and the associated guidance material.

D. Boeing 777-200ER versus Boeing 777-300

Findings:

The Boeing 777-300 has a shorter range capability than the Boeing 777-200ER. The Boeing 777-300 has a longer fuselage, an extra pair of exits over the wings, and, as per the TCDSs, can accommodate a maximum seating capacity of 550 versus 440 seats on the B777-200ER.

The following differences were identified on the B777-300:

- Mandatory cabin crew seating at overwing exits;
- Increased number of cabin crew seats and associated equipment and communication systems;
- Additional emergency lighting on wings;
- Additional overwing exits which include off-wing slides.

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.

Conclusion:

For cabin crew, the Boeing 777-300 is a variant of the Boeing 777-200ER, as per EU-OPS 1.1030, EASA OPS ORO.CC.250, and the associated guidance material.

E. Boeing 777-200ER versus Boeing 777-300ER

Findings:

The Boeing 777-300ER has a longer range capability than the Boeing 777-200ER. The Boeing 777-300ER has a longer fuselage, an extra pair of exits over the wings, and, as per the TCDSs, can accommodate a maximum seating capacity of 550 versus440 seats on the B777-200ER.

The following differences were identified on the B777-300ER:

- Cross aisle stowage with smoke detectors;
- Mandatory cabin crew seating at overwing exits;
- Increased number of cabin crew seats and associated equipment and communication systems;
- Minor differences in water and lavatory systems;
- Additional emergency lighting on wings;
- Photo-luminescent floor path emergency lighting;
- Additional overwing exits which include off-wing slides.

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.

Conclusion:

For cabin crew, the Boeing 777-300ER is a variant of the Boeing 777-200ER, 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 lll- 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

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.

Based on the conclusions provided by the application of the ADTs and on the guidance in the OEB Handbook - Part lll 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 Boeing 777-200ER, to the B787-8, B777-200, B777-200LR, B777-300 and the B777-300ER.

A: Boeing 777-200ER versus Boeing 787-8

B: Boeing 777-200ER versus Boeing 777-200

C: Boeing 777-200ER versus Boeing 777-200LR

D: Boeing 777-200ER versus Boeing 777-300

E: Boeing 777-200ER versus Boeing 777-300ER

A. Boeing 777-200ER versus Boeing 787-8

Findings:

For cabin crew training and checking purposes, the Boeing 787-8 is a variant of the Boeing 777-200ER.

Based on the differences identified in the ADT for the Boeing 787-8, Level 2 Differences apply, when transferring from the B777-200ER to the Boeing 787-8.

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

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:

- Operation of additional controls for movement of flight deck seats;
- Operation of escape hatch in flight deck ceiling;
- Operation of latching system for overhead lockers;
- Operation of systems for lighting, communication, water, waste and lavatories;
- Door features and indications;
- Operation of drop down oxygen system;
- Emergency torches
- Operation of hi-comfort cabin crew seats; and
- Procedures for occupancy of seats in OHFCR compartment during take-off and landing.

Conclusion a): Differences training and checking at Level 2 would be required when transferring from the Boeing 777-200ER to the Boeing 787-8. This training provides for systems and procedural differences related to cabin crew knowledge, skills and performance which, if left uncovered, may affect flight safety.

Conclusion b): As per conclusion a), when transferring from the Boeing 787-8 to the Boeing 777-200ER, Level 2 Differences training also applies.

B. Boeing 777-200ER versus Boeing 777-200

Findings:

For cabin crew training and checking purposes, the Boeing 777-200 is a variant of the Boeing 777-200ER.

Based on the differences identified in the ADT for the Boeing 777-200, Level 1 Differences apply when transferring from the Boeing 777-200ER to the Boeing 777-200 and Level 2 Differences apply when transferring from the Boeing 777-200 to the Boeing 777-200ER.

As shown by the Difference Levels table, checking is not applicable to Level 1 Differences however checking may be required for Level 2 Differences.

Level 1 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:

- Systems for lighting, communication, water, waste and lavatories.

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:

- Crew rest areas, if installed, and associated evacuation.

Conclusion a): When transferring from the Boeing 777-200ER to the Boeing 777-200, Level 1 Differences apply.

Conclusion b): When transferring from the Boeing 777-200 to the Boeing 777-200ER, Level 2 Differences apply.

C. Boeing 777-200ER versus Boeing 777-200LR

Findings:

For cabin crew training and checking purposes, the Boeing 777-200LR is a variant of the Boeing 777-200ER.

Based on the differences identified in the ADT for the Boeing 777-200LR, Level 2 Differences apply when transferring from the Boeing 777-200ER to the Boeing 777-200LR.

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

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:

- Cross aisle stowage with smoke detectors.

Conclusion a): Differences training and checking at Level 2 would be required when transferring from the Boeing 777-200ER to the Boeing 777-200LR. This training provides for systems and procedural differences related to cabin crew knowledge, skills and performance which, if left uncovered, may affect flight safety.

Conclusion b): When transferring from the Boeing 777-200LR to the Boeing 777-200ER, Level 1 Differences apply.

D. Boeing 777-200ER versus Boeing 777-300

Findings:

For cabin crew training and checking purposes, the Boeing 777-300 is a variant of the Boeing 777-200ER.

Based on the differences identified in the ADT for the Boeing 777-300, Level 2 Differences apply when transferring from the Boeing 777-200ER to the Boeing 777-300.

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

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:

- Additional overwing exits which include off-wing slides;
- Crew rest compartments, if installed, and associated evacuation.

Conclusion a): Differences training and checking at Level 2 would be required when transferring from the Boeing 777-200ER to the Boeing 777-300. This training provides for systems and procedural differences related to cabin crew knowledge, skills and performance which, if left uncovered, may affect flight safety

Conclusion b): Differences training and checking at Level 2 would be required when transferring from the Boeing 777-300 to the Boeing 777-200ER. This training provides for systems and procedural differences related to cabin crew knowledge, skills and performance which, if left uncovered, may affect flight safety.

E. Boeing 777-200ER versus Boeing 777-300ER

Findings:

For cabin crew training and checking purposes, the Boeing 777-300ER is a variant of the Boeing 777-200ER.

Based on the differences identified in the ADT for the Boeing 777-300ER, Level 2 Differences apply when transferring from the Boeing 777-200ER to the Boeing 777-300ER.

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

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:

- Additional overwing exits which include off-wing slides;
- Cross aisle stowage with smoke detector.

Conclusion a): Differences training and checking at Level 2 would be required when transferring from the Boeing 777-200ER to the Boeing 777-300ER. This training

provides for systems and procedural differences related to cabin crew knowledge, skills and performance which, if left uncovered, may affect flight safety

Conclusion b): Differences training and checking at Level 2 would be required when transferring from the Boeing 777-300ER to the Boeing 777-200ER. This training provides for systems and procedural differences related to cabin crew knowledge, skills and performance which, if left uncovered, may affect flight safety

9. CONCLUSIONS:

9.1 Variants

a. For cabin crew, the Boeing 777-200, the Boeing 777-200LR, the Boeing 777-300, the Boeing 777-300ER and the Boeing 787-8 are variants of the Boeing 777-200ER (as per EU-OPS 1.1030 and EASA OPS ORO.CC.250).
b. 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.
c. For training and checking purposes Level 1 or Level 2 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.

NOTE: *If an operator commences operation of a B777 without already operating the B787-8, or commences operation of a B787-8 without already operating the B777, 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.*

NOTE 2: *For the purpose of this Report, the analysis has been based on comparisons and differences using the B777-200ER 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 B777/787-8 family. For example, an operator currently operating a B777-300 would need to compare the differences between that aircraft and the B777-200ER and then the differences between the B777-200ER and the B787-8 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 B777-300 to the B787-8, or vice-versa.*

9.2 Type specific data assessment

The content of the FAMs and the CBT for the B777 family and the B787-8 complies with the requirements for type specific data, as per CRD 2011-10, CS-CCD, and is recommended to support the operator in developing customised cabin crew training syllabi and the competent authority in approving such syllabi.

The content of this OEB CC Report should be considered as being grandfathered for the corresponding OSD CC of the B787-8 and the B777 family.

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.

9.3 Training programme footprint option

The cabin crew training programme for the B787-8, which was attended by the CC Subgroup members, as part of this evaluation process (see chapter 7, (d)), was found to be an adequate example of usage of theoretical and practical elements provided by the TCH. Such a training programme footprint could be an option to be considered in establishing cabin crew training programmes for the B777 family and the B787-8 in compliance with this report.