



Extended Diversion Time Operations (EDTO) Workshop

Mexico City, Mexico, 27 – 31 May 2019

Summary of Discussions

Date	27 – 31 May 2019
Location	ICAO NACC Regional Office
Opening Ceremony	The Workshop was attended by 24 delegates from 3 States/Territories from the CAR Region. The list of participants is shown in Appendix A .
1.	References <ul style="list-style-type: none">• Annex 6 Part 1 and Doc 10085
2.	Objectives <ul style="list-style-type: none">• The workshop covered all aspects of EDTO authorizations and is aimed at both oversight inspectors from the CAA, in granting EDTO specific approvals and exercising oversight of EDTO, as well as technical pilots/managers of airlines who are considering commencing or increasing EDTO. Due to the interactive nature of this workshop, space is limited to 40 participants, whose participation will be confirmed by ICAO.• The workshop was supported by leading industry experts in EDTO operations from both Boeing and Airbus and presents the latest information, based on the EDTO Manual (Doc 10085) which was published in 2017 to support the updated provisions in Annex 6 Part I.• EDTO provisions were introduced into Annex 6 in Amendment 36 and represent the best practice and lessons learned from extended range operations by aeroplanes with two turbine engines (ETOPS). In addition to allowing for longer EDTO operations, the provisions included similar measures for aeroplanes with more than two turbine engines when operating beyond 60 minutes from an en-route alternate.

3.

Introduction

One of the weakest areas that represent a challenge for our States' safety oversight activities is the proper qualification of their inspectors, particularly on specialized training such as the one we are promoting with the EDTO workshop. As such we raise the importance of having CAA's safety inspectors participate in this important workshop for supporting their qualification for granting EDTO specific approvals and exercising oversight of EDTO. The workshop is supported by leading industry experts in EDTO operations from Boeing, Airbus and ICAO. It presents the latest information and Annex 6 regulation update. Moreover, it provides an excellent opportunity for CAA and their oversight inspectors to becoming aware and knowledgeable for granting specific approvals, exercising oversight of EDTO operations, implementing the new ICAO Standards in the State regulations, as well an exceptional help for flight operations (pilots, managers), 2 maintenance and engineering organizations of airlines that are considering commencing or increasing EDTO system performance.

4.

Workshop Schedule and Activities

The schedule and activities are included in **Appendix B**.

The workshop webpage is located at:

<https://www.icao.int/NACC/Pages/meetings-2019-edtoworkshop.aspx>

5.

Outcomes/Recommendations

- Participants are invited to be familiar with the Doc 10085 (is an outcome of the regional safety oversight organization (RSOO) symposium convened by ICAO during October 2011) to assist them in the implementation of the new/revised standards through guidance material available to RSOOs or others interested parties
- States are invited to contact the NACC office for any clarification, question and support in this matter.

6.

Accomplishments

- Develop participants knowledge to implement and oversee the key components of an EDTO program in compliance with ICAO SARPs
- Inform participants of the new standards
- Provide participants with knowledge and skills to implement EDTO in Nationals regulation
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North American, Central American and Caribbean Office (NACC)
Oficina para Norteamérica, Centroamérica y Caribe (NACC)

Extended Diversion Time Operations (EDTO) Workshop
Taller Operaciones con tiempo de desviación extendido (EDTO)

Mexico City, Mexico, 27 – 31 May 2019/ Ciudad de México, México, 27 – 31 mayo de 2019

LIST OF PARTICIPANTS / LISTA DE PARTICIPANTES

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1. Gregory A.O. Schoop

MEXICO / MÉXICO

2. Luis Hugo Alegría Mosqueira
3. Roberto Becerril Montañó
4. Rafael Ángel De La Torre Y Cordero
5. Alberto Esquinca Gurrúzquieta
6. José Eduardo Fuentes Castillo
7. Antonio Osler Ernesto García Serralde
8. Gilberto Loo Ramírez
9. Manuel Ramírez Cervantes
10. Rafael Ramírez Perdigón
11. Victor Federico Riviello Rodriguez
12. Jorge Miguel Zúñiga Vázquez
13. José Luis Velázquez Juárez
14. Alejandro Guzmán
15. Renato Francisco López
16. Luis Alberto Martínez
17. Oscar Sánchez
18. Israel Santillán
19. José Ángel Bautista Sánchez
20. Alejandro Peña Dickinson

21. David Olmos Lopez

22. José Manuel Pérez Maldonado

GUATEMALA

Luis Roberto Ochoa Rodriguez

AIRBUS

23. Eric Fortunato

BOEING

24. Michael Mock

25. Scott Brown

26. Ruben Malacca

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27. Éric Picaud

28. Ian Knowles

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Regional Workshop on Extended Diversion Time Operations (EDTO)

ICAO RO, Mexico City, Mexico

27 - 31 May 2019

Agenda

DAY 1 – Monday, 27 May 2019	
8:15 – 08:45	Registration
08:45 – 09:00	Opening
09:00 – 10:30	Module 1 – Introduction to the workshop Module 2 – EDTO Foundation
10:30 – 11:00	<i>Coffee Break and workshop photo</i>
11:00 – 12:30	Module 2 – EDTO Foundation(cont.)
12:30 – 13:30	<i>Lunch Break</i>
13:30 – 15:00	Module 3 – EDTO Approval process
15:00 – 15:30	<i>Coffee Break</i>
15:30 – 17:00	Module 3 – EDTO Approval process (cont.)
DAY 2 – Tuesday, 28 May 2019	
09:00 – 10:30	Module 4 - Aircraft Certification Considerations
10:30 – 11:00	<i>Coffee Break</i>
11:00 – 12:30	Module 4 - Aircraft Certification Considerations (cont.)
12:30 – 13:30	<i>Lunch Break</i>
13:30 – 15:00	Module 5 - Flight Operations Considerations
15:00 – 15:30	<i>Coffee Break</i>
15:30 – 17:00	Module 5 - Flight Operations Considerations (cont.)

DAY 3 – Wednesday, 29 May 2019	
09:00 – 10:30	Module 5 - Flight Operations Considerations (cont.)
10:30 –11:00	<i>Coffee Break</i>
11:00 – 12:30	Module 6 - Maintenance Considerations Module
12:30 – 13:30	<i>Lunch Break</i>
13:30 – 15:00	Module 6 - Maintenance Considerations (cont.)
15:00 – 15:30	<i>Coffee Break</i>
15:30 – 17:00	Module 6 - Maintenance Considerations (cont.)
DAY 4 – Thursday, 30 May 2019	
09:00 – 10:30	Module 7 - Continued Surveillance of EDTO capability
10:30 –11:00	<i>Coffee Break</i>
11:00 – 12:30	Module 7 - Continued Surveillance of EDTO capability (cont.)
12:30 – 13:30	<i>Lunch Break</i>
13:30 – 15:00	Module 8: - Implementing EDTO Regulations Assessment review
15:00 – 15:30	<i>Coffee Break</i>
15:30 – 17:00	Module 8: - Implementing EDTO Regulations (cont.)
DAY 5 – Friday, 31 May 2019	
09:00 – 10:30	Assessment
10:30 –11:00	<i>Coffee Break</i>
11:00 – 12:00	Wrap-up and closure

Module 1: EDTO Course Introduction

This module consists of an introduction to the course, the instructors and some essential 'housekeeping'. A run through of course materials provided and introduction to the interactive software to be used in the later modules will also be completed.

Module 2: EDTO Foundations

At the end of this module, participants will be able to understand the fundamental concepts of EDTO. The module includes definition of terms, basic concepts, evolution of regulations and the related ICAO Standards and guidance.

Module 3: EDTO Approval Process

At the end of this module, participants will be able to understand the EDTO approval process and related major requirements. Example national regulations will be used to illustrate the concepts. Different methods such as in service early type design approval and accelerated ops approval will be reviewed.

Module 4: EDTO Type design approval

At the end of this module, participants will be able to understand the EDTO type design and reliability requirements and their impact on aircraft design and documentation. EDTO specific test and analyses requirements will be covered, along with example national regulations to illustrate the points made.

Module 5: Flight Operations Considerations

At the end of this module, participants will understand the flight operations requirements supporting EDTO operations. This will cover area of operations, flight preparation, pre-departure check and inflight procedures, as well as documentation and training.

Module 6: Maintenance Considerations

At the end of this module, participants will understand the maintenance requirements supporting EDTO operations. This module covers configuration management, EDTO significant systems, reliability programs, MELs and other maintenance related subjects.

Module 7: Continued Surveillance of EDTO capability

At the end of this module, participants will understand the shared responsibility of continued surveillance of EDTO operations by manufacturers, type design authorities, operators and national authorities in charge of operational approval.

Module 8: Implementing EDTO Regulations

At the end of this module, participants will be familiar with specific implementations of EDTO regulations. This will look at some examples of regulations and their differences, and how to conduct a State regulation gap assessment.

Module 9: Assessment

The final assessment will take the form of a written test, including both technical questions and a practical application of the workshop content.

Module 10: Wrap up

During this module the main items detailed in the other modules will be reviewed, in order to clarify any misunderstanding by the audience, and propose a conclusion. The assessment will also be reviewed.