

Extended Diversion Time Operations Workshop

Cairo
Jan 26-30, 2019

Departure

Alternate

Destination

ETP1

ETP2

Module 1
Course Introduction



ICAO

Proudly in partnership with

AIRBUS





Module 1
Course Introduction

Module 2
EDTO Foundation

Module 3
Approval Process

Module 4
Type Design & Reliability
Considerations

Module 5
Flight Operations
Considerations

Module 6
Maintenance
Considerations

Module 7
Continued Surveillance

Module 8
Implementing EDTO
Regulations

Module 9
Assessment

Module 10 – Wrap Up

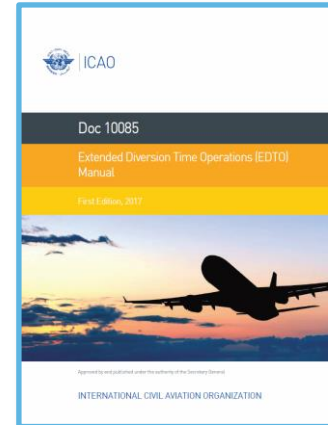


This module consists of an introduction to the course, the instructors and some essential ‘housekeeping’. A run through of course materials provided and introduction to the interactive software to be used in the later modules will also be completed.

Doc 10085: Extended Diversion Time Operations (EDTO) Manual

This course is based on the content of Doc 10085

National regulations may vary from this content



The following symbol indicates a reference to the EDTO Manual throughout the modules of this workshop:





Part I —

Presentation of ICAO course instructors

Part II —

Course goals, concept and structure

Part III —

Administrative information

- **Eric Fortunato - AIRBUS**

- **Mike Mock -** 

- **Ian Knowles -**





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Part I — **Presentation of ICAO course instructors**

Part II — **Course goals, concept and structure**

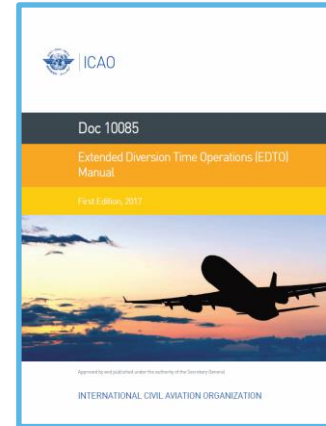
Part III — **Administrative information**



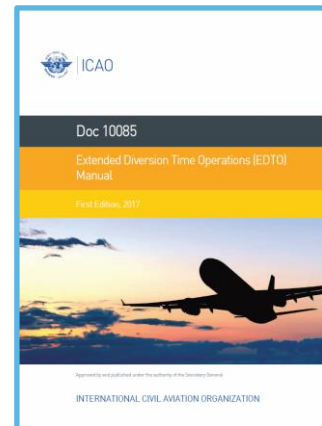
The goals of the ICAO EDTO course are to:

- Provide participants with **knowledge and skills to implement EDTO in National regulations**
 - Based on ICAO Standards and Recommended Practices (SARPs) contained in Annex 6 Part I.
 - With reference to Doc 10085 - Extended Diversion Time Operations Manual (EDTOM) 
- Develop participants' knowledge to **implement** and **oversee** the key components of an EDTO program, in compliance with ICAO SARPs.

- EDTOM guidance has been developed based on experience of many years of ETOPS operations
 - Drafting of EDTO manual has been conducted by EDTO experts from the Special Operations Task Force under the supervision of the FLTOPS/Panel secretariat.
 - Main contributors: International Coordinating Council of Aerospace Industries Associations (ICCAIA), International Air Transport Association (IATA) and States (Australia, France, Singapore, UK, USA, ...)
- The EDTO Manual (Doc 10085) is an outcome of the Regional Safety Oversight Organization (RSOO) Symposium convened by ICAO during October 2011
 - This initiative is aimed at assisting the States in the implementation of the new/revised standards, through guidance material available to RSOOs or other interested parties



- Structure and content of EDTO Manual (Doc 10085):
 - Foreword
 - Definitions and abbreviations
 - **Chapter 1: Policy and General information**
 - Details approval procedures and continuity of certification and operational approval
 - **Chapter 2: Aircraft airworthiness considerations for EDTO**
 - EDTO certification, continued airworthiness, EDTO significant systems...
 - **Chapter 3: EDTO flight operations requirements**
 - Threshold, maximum diversion time and distance, En-route Alternate Aerodrome, Area of operations, EDTO fuel, in-flight Monitoring, diversion, training, ...
 - **Chapter 4: EDTO Maintenance and reliability requirements**
 - EDTO maintenance program, Parts control, EDTO Service Check, Reliability program, Propulsion system monitoring (IFSD rate), verification program, dual maintenance limitation, ECM, oil consumption monitoring, APU in-flight start, EDTO release, training, ...





The following standardized terms and definitions have been adopted in the EDTOM:

- Authorization:** An authorization entitles an operator, owner or pilot-in-command to undertake the authorized operations.
- Acceptance:** An acceptance is a written or implicit acknowledgment by the State of the Operator/State of Registry to an operator or owner of a notification submitted by, or on behalf of, that operator or owner.
- Approval:** An approval is a formal act by the State of the Operator/State of Registry to approve an application or a proposed change submitted by, or on behalf of, an operator or owner. The approval attests to compliance with the applicable provisions.
- Specific Approval:** A specific approval is an approval which is documented in the operations specifications for commercial air transport operations, or in the list of specific approvals for non commercial operations.

The term '**approval**' is often used as a generic term for the activity of a regulator granting permission to undertake a particular operation. For items relating to Annex 8, the term '**type design approval**' is used to refer to the granting of the type design by the State of Design



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Module 10 – Wrap Up



- 09:00 – 10:30 Scheduled Activities
- 10:30 – 11:00 Coffee/Tea break
- 11:00 – 12:30 Scheduled Activities
- 12:30 – 13:00 Coffee/Tea break
- 13:00 – 15:00 Scheduled Activities
- 15:00 End of Day*

** Subject to time constraints*





Session Times		Day				
Start	End	1	2	3	4	5
09:00	10:30	Module 1 Module 2	Module 3 Module 4	Module 5	Module 6	Module 8
10:30	11:00	Break				
11:00	12:30	Module 2	Module 4	Module 5	Module 6	Assessment review
12:30	13:00	Lunch				
13:00	15:00	Module 3	Module 4 Module 5	Module 5 Module 6	Module 6 Module 7	-

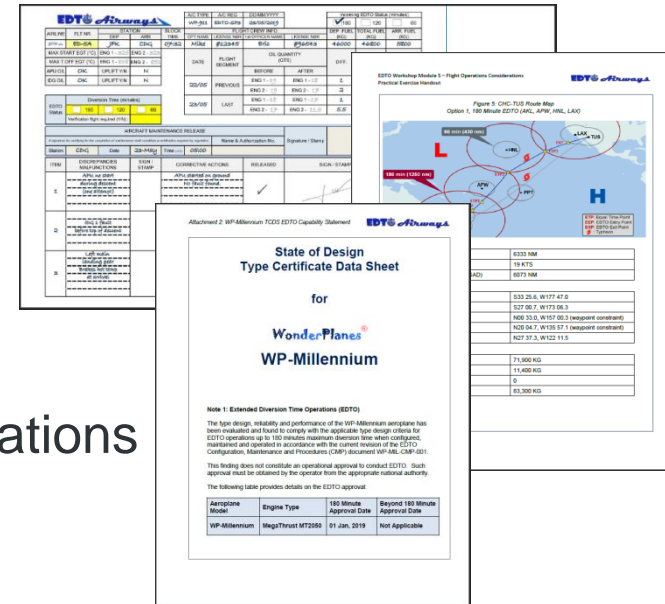
- The workshop is designed with the following format:

– Presentations

- covering the theory for each section

– Practical exercises

- to consolidate understanding
- Questions, polls, example EDTO applications



EDTO of WonderPlanes

State of Design Type Certificate Data Sheet
for
WonderPlanes®
WP-Millennium

Note 1: Extended Diversion Time Operations (EDTO)
The type design, reliability and performance of the WP-Millennium aeroplane has been calculated and found to comply with the applicable type design criteria for EDTO operations up to 150 minutes maximum diversion time when configured, maintained and operated in accordance with the current revision of the EDTO Configuration, Maintenance and Procedures (CMP) document WP-MIL CMP-001.

This finding does not constitute an operational approval to conduct EDTO. Such approval must be obtained by the operator from the appropriate national authority.

The following table provides details on the EDTO approval.

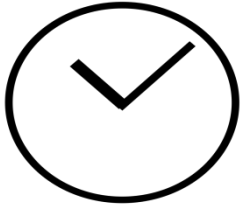
Aeroplane Model	Engine Type	150 Minute Approval Date	Beyond 150 Minute Approval Date
WP-Millennium	Heath Thrust MT2100	01 Jun, 2019	Not Applicable



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Punctuality



Participation



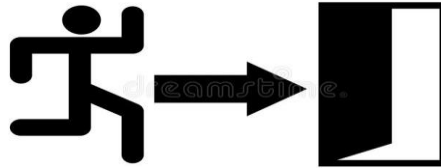
Phones



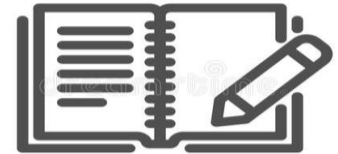
Smoking



Certificates



Emergency Exits



Feedback



- WiFi Connection - xxxxxx
- Password - yyyyyy

Evaluation of participants' performance:

- A final evaluation test
- Multiple choice, open book
- Minimum pass mark: 80%



Overall course evaluation (Feedback)

Course evaluation :

- Content
- Practical exercises
- Instructors
- Ways and means to improve the training



- **Mentimeter (www.menti.com)**
 - Anonymous
 - Web based

- Practice questions...



EDTO Workshop

End of Module 1 – Course Introduction

