



FS-OPS-FRM-030		FOIM (Flight Operations Inspector Manual)	 سازمان هواپیمایی کشوری دفتر عملیات پرواز - معاونت استاندارد پرواز
EDTO			
Revision 02	September 2018		


EDTO Operational Approval

Operator:	Aircraft:
Max diversion time applied:	Engine:


No	Item	Operator's document reference	Remarks (S - Satisfactory NS – Not Satisfactory A – Additional information required)
1.	General requirements		
1.1	Calculation of distance covered during approved extended diversion time period is reasonable and is based on Airplane Flight Manual (AFM) data and drift down procedures and established single-engine level flight procedures are published in the Operations Manual.		
2.	Operations Manual		
2.1	Specifies nominated single-engine cruise speed, drift-down speeds, and distance covered during requested maximum diversion time		
2.2	Procedures for drift-down and establishment of single-engine cruise are included in the manual		
2.3	EDTO weather minima is explained in the manual		
2.4	Information on alternate aerodromes		
2.5	EDTO flight planning <ul style="list-style-type: none"> • Fuel and oil policy • Minimum altitudes applicable to the routes 		
2.6	Policy on diversion in event of engine or other major system failure		
2.7	Operational procedures <ul style="list-style-type: none"> • EDTO aerodrome selection • Pre-flight crew procedures • Enroute procedures (cross checking procedures to identify navigation errors, selection of other navigation aids in case of loss of RNAV capability, contingency procedures, minimum equipment at EDTO entry point, alternate routings, position check before entering EDTO airspace, alternate airports, performance data, APU etc. • Passenger and crew recovery plans for diversion to enroute alternates if applicable. • Post-flight crew procedures 		

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3.	MEL		
	Appropriate EDTO MEL has been approved		
4.	Performance data		
	Data on single-engine performance giving fuel flow and TAS under various atmospheric conditions and power settings are available for the following phases of flight;		
4.1	Drift-down		
4.2	Cruise altitude, including 10,000 feet		
4.3	Altitude capability		
4.4	Holding		
4.5	Missed approach		
5.	Operational Control		
	Operator can provide operational control including flight following of EDTO flights and communications with aircraft		
6.	Flight Planning		
6.1	System provided for additional pre-flight information for EDTO flights		
6.2	System considers weather minima requirements for alternate aerodromes		
6.3	Fuel planning allows for diversion from the most critical point with the most critical failure		
7.	Alternate Aerodromes		
7.1	System in place for selection of alternate aerodromes <ul style="list-style-type: none"> • Fire protection/medical facilities • Fuel and oil servicing (if applicable) • Aerodrome lighting • Approach facilities • Aerodrome facilities • Ground communication • Maintenance facilities (if applicable) 		
7.2	System in place for surveillance of alternate aerodromes		

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7.3	System to ensure CAO.IRI approval of alternate aerodromes for EDTO		
8.	Crew Training and Checking		
8.1	Concept of engineering reliability		
8.2	Flight crew qualification requirements		
8.3	Initial and recurrent training <ul style="list-style-type: none"> • Alternate aerodrome standards • EDTO flight planning and meteorological requirements • MEL requirements for EDTO • Diversion decision making • Non-normal flight procedures 		
8.4	Flight Dispatcher training		
9.	EDTO 75/90 Minutes Approval (additional items)		
9.1	Airworthiness approval (see airworthiness checklist)		
9.2	Mature operator (experience)(mark yes/no)		
9.3	Benign area of operations of aircraft does not hold EDTO/EDTO Type Design Approval (mark yes/no)		
10.	EDTO More than 75/90 Minutes -120 Minutes Approval		
10.1	12 month experience in operating specified engine/airframe combination		
10.2	Proving flight planned		
10.3	Airworthiness approval (see airworthiness checklist)		
11.	EDTO More than 120 Minutes – 180 Minutes Approval		
11.1	12 month experience in operating specified engine/airframe combination		
11.2	Proving flight planned		
11.3	Weather forecast reliability monitored by operator		
11.4	“Flight Following” cell established to monitor weather forecasts and NOTAM for nominated alternate aerodromes		

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11.5	Additional crew training covering operation under system failure conditions, contingency procedures and diversion decision making		
11.6	Airworthiness approval (see airworthiness checklist)		
12.	Draft Operations Specification		
12.1	Specifies maximum diversion time		
12.2	Specifies area of operation		
12.3	Specifies approved engine/airframe combination and aircraft model		
13.	CAO.IRI.AIR OPS EDTO compliance matrix		

Remarks:

Signature of Flight Operations Inspector:

Name of Flight Operations Inspector:

Date:

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EDTO Demonstration Checklist

Step 1


Proving flight

Step 2

Simulator validation conducted on EDTO sector

**Legend: S – Satisfactory
NS – Not Satisfactory**

No	Items	S/NS	Comments if NS
1.	Pre-flight documentation review <ul style="list-style-type: none"> • Technical Log • NOTAMs • Met briefing • CFP • Route map with threshold and max diversion time circles. 		
2.	Take off, climb cruise, entry into EDTO segment, weather minima requirements for alternate aerodrome		
3.	Normal in-flight procedures <ul style="list-style-type: none"> • Fuel management • Communication • Navigation 		
4.	Non-normal scenarios <ul style="list-style-type: none"> • Cabin safety event • In-flight shutdown of engine/s • Decompression, emergency descent to MEA/FL 100 • Loss of electrical power • Incapacitation • Diversion to enroute alternate 		
5.	Engine inoperative approach and landing		
6.	Post-flight procedure <ul style="list-style-type: none"> • Technical log • Communications • Passenger and crew recovery plan 		


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Remarks:

Signature of Flight Operations Inspector:

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Step 3

EDTO proving flight checklist

Operator:

Aircraft model/engine:

Maximum diversion time: 90-120 mins/120-180 mins

Registration:


PIC: Co-pilot:

Sector: Date:


Legend: S – Satisfactory

NS – Not Satisfactory

No	Items	S/NS	Comments if NS
1.	Pre-flight EDTO documentation		
1.1	CMP available and current		
1.2	CMP Supplement available and current		
1.3	AFM EDTO Coverage		
1.4	Configuration compliance letter (manufacturer)		
1.5	FCOM/QRH available and current		
1.6	MMEL/DDG available and current		
1.7	Company Operations manuals and checklists updated for EDTO (Diversion Distances, Alternate Airports, EDTO Performance)		
1.8	Company MEL available and includes EDTO provisions		
2.	Training and Qualification		
2.1	EDTO Flight Crew Training program reviewed		
2.2	EDTO dispatcher training program reviewed		
2.3	EDTO maintenance training program reviewed		
2.4	Flight crew qualified for EDTO		
2.5	Dispatcher support qualified for EDTO		
2.6	Maintenance personnel qualified for EDTO		
2.7	Potential Scenario: Training currency expired, re-qualification requirements		

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3.0	EDTO Flight Release		
3.1	EDTO technical log complete and signed off		
3.2	Company EDTO CFP produced and reviewed		
3.3	EDTO diversion time identified on flight plan		
3.4	EDTO entry, exit and equi-time points identified on flight plan		
3.5	EDTO Alternates and validity period identified on flight plan		
3.6	EDTO area of operation confirmed		
3.7	Flight plan shows most limiting critical fuel scenario (Engine inoperative speed, icing)		
3.8	NOTAMs and approach plates for designated EDTO alternates		
3.9	EDTO weather minima check (enroute and destination)		
3.10	EDTO plotting chart available for flight		
3.11	Dispatch briefing observed and complete		
3.12	Potential Scenario: Simulated 120 Minute MEL dispatch condition		
4.	Flight Deck preparation		
4.1	EDTO critical systems checks (Nav/Comm)		
4.2	FMS Preparation (EDTO Fixes, Alternate Airports)		
4.3	EDTO briefing complete		
4.4	Fuel load confirmed against critical fuel scenario		
5.	Enroute		
5.1	Enroute alternate airport weather checks		
5.2	EDTO alternate status confirmed prior to EDTO entry point		
5.3	Enroute communication procedures/oceanic control		
5.4	Fuel progress monitoring		
5.5	Navigation procedures and use of plotting chart		
5.6	FMC functionality and usage		
5.7	Company communications/flight following procedures		
5.8	EDTO area confirmation for potential reroutes		
5.9	APU cold soak start procedures and maintenance program interface		
5.10	Potential Scenario: EDTO Alternate below minimums prior to EEP, Simulated EDTO verification flight		
6.	Simulated Diversion Scenarios		
6.1	Flight crew coordination, CRM		
6.2	Diversion Aerodrome Selection		

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6.3	Use of QRH procedures (as applicable)		
6.4	Diversion strategy considerations (speed, thrust selection)		
6.5	Dispatch/Operations Control Centre Coordination		
6.6	Maintenance Control Centre Coordination		
6.7	Ground handling coordination		
6.8	Potential Scenarios: Engine shutdown, decompression, cargo fire, passenger medical, weather diversion		

Remarks:

Signature of FOI:

Name of FOI:

Date: