**INSTRUCTIONS**

1. The applicant will tick (√) the appropriate Yes/No boxes, and insert applicable references from the AFM or Ops Manual with sample pages attached as appendix.

2. Applicant must obtain and submit manufacturer’s written confirmation with regard to continuing maintenance.

3. Operating policy and procedures, training syllabus and lesson plan must be submitted for approval before commencement of flight crew / dispatcher training.

**PARTICULARS**

**Applicant: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ AOC No:\_\_\_\_\_\_\_\_\_\_ Rep’s name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Position : \_\_\_\_\_\_\_\_\_\_\_\_**

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| **EDTO APPLICATION DETAILS** | | | |
| **1. GENERAL INFORMATION** | **DATA BY APPLICANT** | | **CAAS USE** |
| 1.1 Applicant |  | |  |
| 1.2 Aeroplane Registration |  | |  |
| 1.3 Aeroplane Serial Number |  | |  |
| 1.4 Aeroplane Type / Model |  | |  |
| 1.5 Aeroplane Manufacturer |  | |  |
| 1.6 Engine Type / Model |  | |  |
| 1.7 Engine Manufacturer |  | |  |
| 1.8 APU Type |  | |  |
| 1.9 APU Manufacturer |  | |  |
| **2. SCOPE OF APPLICATION** | | **COMPLIANCE STATEMENT** | **CAAS USE** |
| 2.1 EDTO \_\_\_ minutes? □ Yes □ No | |  |  |
| 2.2 with \_\_\_min? □ Yes □ No | |  |  |
| 2.3 EDTO \_\_\_ minutes □ Yes □ No | |  |  |
| 2.4 with \_\_\_\_min? □ Yes □ No | |  |  |
| 2.5 Initial EDTO □ Yes □ No | |  |  |
| 2.6 Accelerated EDTO □ Yes □ No | |  |  |
| 2.7 Is application based on CMP? □ Yes □ No  (a) Configuration, Maintenance & Procedures (CMP) Document number  (b) Revision number  (c) Revision date | | If Yes:  (a) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  (b) \_\_\_\_\_\_\_\_\_\_\_\_\_\_  (c) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |

| **AIRWORTHINESS CERTIFICATION COMPLIANCE** | | |
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| **1. DETAILS** | **DATA BY APPLICANT** | **CAAS USE** |
| **1.1 Type Design Approval:**  (a) AFM □ Yes □ No  (b) AFM Supplement □ Yes □ No  (c) TCDS □ Yes □ No  (d) STC □ Yes □ No  (e) Others (Please state) □ Yes □ No |  |  |
| **1.2 Manufacturer’s letter** □ Yes □ No |  |  |
| **1.3 MAX Certified EDTO Limit** | EDTO\_\_\_\_\_\_\_\_\_mins |  |
| **1.4 Most time limited system and its corresponding time limit** | |  |  | | --- | --- | | System: |  | | Time limit: |  | |  |

| **EDTO CONTINUING AIRWORTHINESS** | | | |
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| **Items** | **Data by applicant** | **Applicant’s Compliance statement** | **CAAS Use** |
| **1. Applicant requirements to maintain EDTO Operational Approval validity:**  (a) Current CMP standards.  (b) Airworthiness Directives.  (c) Alert Service Bulletins.  (d) Maintenance requirements as in ANR-98 Third Schedule | ANR-98 Third Schedule  □ Yes □ No  □ Yes □ No  □ Yes □ No  □ Yes □ No |  |  |
| **2. Aircraft Dispatch**  (a) Preclusion of aircraft for EDTO dispatch when after:  (i) an engine IFSD on a previous flight.  (ii) any primary system failure on a previous flight.  (iii) an engine replacement.  (iv) failure of an engine power control system or significant adverse trends in engine performance.  (v) any major maintenance work on the aircraft.  (b) The aircraft must successfully operate at least one non-EDTO flight before being EDTO dispatch and this shall be recorded in the Technical log,  (c) The report (details refer ANR-98 Third Schedule Para 14(2)). | □ Yes □ No  □ Yes □ No  □ Yes □ No |  |  |
| **3 Maintenance Programme and Procedures**  (a) Procedures to preclude simultaneous actions from being applied to multiple similar elements in any EDTO-critical system.  (b) Maintenance procedures shall include:  (i) EDTO related tasks shall be identified on the applicant's routine work forms and related instructions.  (ii) EDTO related procedures, such as involvement of centralised maintenance control, shall be clearly defined in the applicant’s programme.  (iii) An EDTO service check shall be developed to verify  that the status of the aircraft and certain critical items are acceptable. This check shall be accomplished and signed off by an EDTO qualified authorised person immediately prior to an EDTO flight.  (iv) Log books shall be reviewed and documented, as appropriate, to ensure proper MEL procedures, deferred items, maintenance checks and system verification procedures have been properly performed.  (c) Applicant’s procedure to ensure its contractor complies with EDTO requirements and procedures. | □ Yes □ No  □ Yes □ No  □ Yes □ No |  |  |
| **4 EDTO Manual**  (a) Applicant’s EDTO manual for use by personnel involved in EDTO to identify the supplementary procedures and requirements for EDTO operations.  (b) This EDTO manual shall contain key requirements promulgated in ANR-98 Third Schedule Para 3. | □ Yes □ No  □ Yes □ No |  |  |
| **5 Engine/APU Oil Consumption Monitoring Programme**  (a) Procedures that monitor oil consumption rates for engines and APU for EDTO and non-EDTO flights.  (b) Procedures for calculating oil consumption rate prior to departure to address any sudden shift in consumption.  (c) Procedures for monitoring of long term data for increasing trends. | □ Yes □ No  □ Yes □ No  □ Yes □ No |  |  |
| **6 Engine Condition Monitoring Programme**  (a) Procedures for detecting deterioration of engines at an early stage to allow for corrective action before safe operation are affected.  (b) Parameters to be monitored, method of data collection and corrective action process.  (c) Procedures for engine limit margin monitoring to ensure that a prolonged single-engine diversion may be conducted without exceeding approved engine limits. | □ Yes □ No  □ Yes □ No  □ Yes □ No |  |  |
| **7 Verification Programme after Maintenance**  (a) List of primary systems critical to EDTO.  (b) Conditions that require verification flights.  (c) Procedures for initiating verification actions.  (d) Procedures that ensure corrective action are taken after engine shut-down and any other significant failure.  (e) Procedures that identify and reverse adverse trends.  (f) Procedures that preclude repeat items from occurring.  (g) Procedures that monitor and evaluate corrective actions.  (h) Procedures that preclude simultaneous actions from being applied to multiple similar elements in any EDTO-critical system. | □ Yes □ No  □ Yes □ No  □ Yes □ No  □ Yes □ No  □ Yes □ No  □ Yes □ No  □ Yes □ No  □ Yes □ No |  |  |
| **8 Reliability Programme**  (a) Event-oriented programme for EDTO, in addition to the normal reliability programme, to allow early identification and prevention of EDTO problems.  (b) Procedures to ensure reporting of significant individual events (in-flight shut-downs, flight diversions or turn-back, un-commanded power changes or surges, inability to control the engine or obtain desired power, problems with systems critical to EDTO and any other event detrimental to EDTO.  (c) Procedures for downgrade / upgrade criteria (diversion time).  (d) Procedures for monitoring of APU high altitude in-flight start and run capability. | □ Yes □ No  □ Yes □ No  □ Yes □ No  □ Yes □ No |  |  |

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| **9 Propulsion System Monitoring Programme**  (a) Procedures for the monitoring of long term IFSD trends (12  month moving average).  (b) Reporting criteria for the assessment of propulsion system reliability and reporting to the Authority of results of applicant's assessment. | □ Yes □ No  □ Yes □ No |  |  |
| **10 APU in-flight Start Capabilities**  (a) Technical log entry of result APU In-flight start to ensure starting and operational capability after work performed on the APU that may affect the starting and operation of the APU.  (b) Technical log entry of result of APU In-flight start every 3 months for each aircraft of EDTO fleet. |  |  |  |
| **11 Maintenance Training**  (a) Training programmes to ensure each person, including contract personnel, involved in EDTO is adequately trained on applicant's EDTO procedures and is competent to perform his/her duties (EDTO awareness training).  (b) Procedures for ensuring that maintenance personnel have completed EDTO awareness training and have satisfactorily performed EDTO maintenance tasks under supervision, within the framework of the applicant’s approved procedures for Personnel Authorisation. | □ Yes □ No  □ Yes □ No |  |  |
| **12 EDTO Parts Control**   1. Procedures that ensure that proper EDTO parts are used and EDTO configuration is maintained. 2. Control procedures for parts pooling and borrowing   (b) Control procedures for parts pooling and borrowing | □ Yes □ No  □ Yes □ No |  |  |

| **EDTO - FLIGHT OPERATIONS** | | | |
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| **SUBJECTS** | **REQUIREMENTS** | **OPS MANUAL REFERENCE** | **CAAS USE** |
| **OPERATIONS MANUAL – PART A GENERAL** | | | |
| 1. Regulatory requirements 2. Advisory Circular 3. Best practice references | 1. ANR-98, Regulations 41-45 & Third Schedule 2. CAAS AC 98-8-1 3. EASA AMC 20-6 (c) FAA AC 120-42B |  |  |
| Brief description of EDTO | | |  |
| Definitions | Extended Operations.  Adequate aerodrome.  Approved one-engine inoperative cruise speed.  Threshold distance/time.  Adequate EDTO en-route alternate.  Equal time points.  Rule distance/time.  EDTO segment  EDTO significant system.  Maximum approved diversion time.  Dispatch. |  |  |
| Criteria | Applicant’s AOC-defined operating area.  Approved aircraft Type airframe/engine combination. |  |  |
| Approval | Approved diversion time. |  |  |
| Qualifications | Crew qualifications.  EDTO qualified dispatcher personnel.  EDTO qualified operations staff.  EDTO qualified maintenance personnel. |  |  |
| Training (Initial & recurrent) and checking | Flight Crew Training and Operations Manuals.  Flight currency requirements. |  |  |
| EDTO Authorisation | Commander’s responsibilities.  Statement to show when EDTO was approved. |  |  |
| EDTO Flight Preparation and Planning | Aircraft serviceability and MEL.  Communication and navigation facilities.  Critical fuel scenario.  Critical fuel reserve.  EDTO alternate aerodrome selection.  EDTO alternate planning minima.  Pre-dispatch and post-dispatch weather minima.  Computerised flight planning.  Delayed dispatch  Maintenance check (pre-departure service check).  Verification flights. |  |  |
| Flight Crew Procedures | Crew responsibilities.  Flight documentation handling.  Fuel management.  Weather monitoring.  Change of routing.  Diversion decision-making.  Icing.  Crew workload management. |  |  |

| **EDTO - FLIGHT OPERATIONS** | | | |
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| **SUBJECTS** | **REQUIREMENTS** | **OPS MANUAL REFERENCE** | **CAAS USE** |
| **OPERATIONS MANUAL – PART B TYPE - SPECIFIC** | | | |
| Type-related EDTO Operations | Identification of EDTO aeroplane.  Types of EDTO approved operations.  Placards and Limitations.  One-engine inoperative speed. |  |  |
| Type-specific Planning Requirements |  |  |  |
| EDTO Fuel Planning | Include critical fuel scenario. |  |  |
| MEL / CDL | EDTO – specific MEL / CDL items. |  |  |
| Aeroplane Systems | Performance data.  Aerodrome technical differences, navigation fit, communication fit. |  |  |
| Non-normal Procedures | Navigation failures.  Action to be taken on EDTO-significant system failure.  Low fuel scenario. Crew incapacitation. |  |  |

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| **OPERATIONS MANUAL – PART C ROUTE AND AERODROME INSTRUCTIONS** | | | |
| EDTO Areas and Routes | Approved area of operation.  EDTO en route alternates.  Performance restrictions and weather minima for en route alternates.  Meteorological facilities/information.  Low altitude cruise information.  Route minimum diversion altitudes.  MSA restrictions.  Route-specific oxygen requirements. |  |  |

| **EDTO FLIGHT OPERATIONS** | | | |
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| **SUBJECTS** | **REQUIREMENTS** | **OPS MANUAL REFERENCE** | **CAAS USE** |
| **OPERATIONS MANUAL – PART D TRAINING** | | | |
| Ground, Simulator and Line Training  **Part D** - Ground, Simulator and Line Training | **General:**   * EDTO overview. * EDTO regulations. * EDTO type design approval. * Definitions. * Approved one-engine inoperative speed. * Maximum approved diversion time. * Applicant’s approved diversion time. * EDTO area of operation. * EDTO routes. * EDTO alternate aerodromes and weather minima. * Navigation system accuracy, limitations and operating procedures. * Meteorological facilities and information. * In-flight monitoring and procedures. * Computerised flight plan. * Charts and position plotting. * Equal time point. * Critical fuel.   **Normal Procedures:**   * Flight planning and dispatch. * EDTO fuel requirements. * Route alternate selection – weather minima. * MEL – equipment-specific. * EDTO service check and technical log. * Pre-flight FMS set-up. * Flight performance progress monitoring. * Flight management, navigation and communication systems. * Aeroplane system monitoring. * Weather monitoring. * In-flight fuel management (to include independent cross-checking of fuel quantity)   **Non-normal Procedures:**   * Diversion procedures and diversion “decision-making”. * Navigation and communication systems, including appropriate flight management devices in degraded modes. * Fuel management with degraded systems. * Procedures for single and multiple in flight during EDTO sector entry and diversion decisions. * Operating on standby power. * Operational restrictions associated with system failures including any applicable MEL considerations. |  |  |
| EDTO Simulator Training and Line Flying under Supervision. | Pilot’s conversion course.  Annual refresher course. |  |  |
| Flight Operations Staff and Dispatchers. | **Outline of training syllabus to include:**   * EDTO regulation. * Operational approval. * Aeroplane performance. * Diversion procedures. * Area of operation. * Fuel requirements. * Dispatch considerations: MEL, CDL, weather minima and alternate airports. * Delayed dispatch. * Documentation. |  |  |

**Warning: Notice is given that the operator shall accept full responsibility for all information given in this application form. Any attempt to provide false information will result in rejection of the application and, if already granted, the withdrawal of the Operational Approval. In addition, the operator may render himself liable to prosecution under section 29C(1)(b) of the Air Navigation Act.**

**I declare to the best of my knowledge and belief that the statements made and the information supplied in this form are complete and correct. I understand that any false representations made by me for the purpose of procuring the Singapore aviation safety instrument is an offence under section 29C(1)(b) of the Air Navigation Act and I may be subject to the penalties stipulated thereunder and any Singapore aviation safety instrument granted pursuant to the application will be revoked.**

**I have read the above Warning and declare that the information given is true and accurate.**

**Signature / Name of person representing the applicant: ­­­­­­­­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Signature / Name of FS Officer accepting this form: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**REFERENCES**

Regulatory: (1) ANR-98 Regulation 41-45 & Third Schedule

Compliance: (1) CAAS AC 98-8-1 (2) ICAO Annex 6 Part I Att C (3) FAA AC 120 - 42B (4) EASA/JAA AMC 20 - 6