

Advisory Circular

GUIDANCE ON THE APPLICATION AND SUBMISSION REQUIREMENTS FOR ENTRY INTO SERVICE (EIS) OF AN AIRCRAFT/ENGINE

GENERAL.....	1
PURPOSE	1
APPLICABILITY	1
RELATED REGULATIONS	1
RELATED ADVISORY CIRCULARS	1
CANCELLATION.....	2
EFFECTIVE DATE.....	2
OTHER REFERENCES	2
1 INTRODUCTION	3
2 FIVE PHASES OF EIS	3
APPENDIX A – OTHER REFERENCES RELEVANT TO THE EIS PROCESS ..	8
APPENDIX B – SAMPLE LOI FOR REFERENCE.....	9

GENERAL

Advisory Circulars (ACs) are issued by the Director-General of Civil Aviation (DGCA) from time to time to provide practical guidance or certainty in respect of the statutory requirements for aviation safety. ACs contain information about standards, practices and procedures acceptable to CAAS. An AC may be used, in accordance with section 11 of the Air Navigation Act 1966 (ANA), to demonstrate compliance with a statutory requirement. The revision number of the AC is indicated in parenthesis in the suffix of the AC number.

PURPOSE

This AC provides guidance to demonstrate compliance with, and information related to, requirements regarding the provision of information needed for the inclusion of a new aircraft, a new engine type for an existing aircraft, or a new variant of an existing aircraft type into an AOC granted under the Air Navigation (119 – Air Operator Certification) Regulations 2018.

APPLICABILITY

This AC applies to the operator seeking or holding an Air Operator Certificate under the Air Navigation (119 – Air Operator Certification) Regulations (ANR-119).

RELATED REGULATIONS

This AC relates specifically to Regulation 15 of ANR-119.

RELATED ADVISORY CIRCULARS

- AC 119-1-1 Guidance on the Application for a Singapore Air Operator Certificate
- AC 119-2-1 Guidance on Air Operator Certificate Certification Requirements
- AC 119-3-1 Guidance on Air Operator Certificate Operating Requirements
- AC 121-1-1 Guidance on General Requirements in ANR-121
- AC 121-2-1 Guidance on Operational Procedures for ANR-121 Operations
- AC 121-3-1 Guidance on Operations Limitations for ANR-121 Operations
- AC 121-7-1 Guidance on Maintenance requirements for Operations under ANR-121
- AC 21-6 Guidance on application of a CAAS Letter of Acceptance of Type Certificate

CANCELLATION

This is the first AC issued on the subject.

EFFECTIVE DATE

This AC is effective from 23 October 2024.

OTHER REFERENCES

- ICAO Annex 6 Operation of Aircraft
- ICAO Doc 8335 Manual of Procedures for Operations Inspection, Certification and Continued Surveillance

1 INTRODUCTION

- 1.1 This AC covers the guidance for applying to introduce a new aircraft type, or a new engine type or variant of an existing aircraft type into an AOC holder's operations. The application process and subsequent activities will be referred henceforth as the "EIS process".
- 1.2 In the case of a new AOC applicant, they should refer to GUIDANCE 119REG5 in AC 119-1-1, and apply the guidance in this AC related to preparing to operate a new aircraft as part of the 5-phase process for an AOC.
- 1.3 In the case where the aircraft or engine type has not been on the Singapore aircraft registry before, the applicant should initiate an application for Acceptance of a Type Certificate (TCA). Guidance for this process can be found in AC 21-6.
- 1.4 The EIS process requires significant effort and detailed work from both the applicant and CAAS. Hence, it is recommended for an applicant to reach out to CAAS Flight Standards Division at the earliest opportunity.
- 1.5 The EIS process is divided into the following five phases:
 - Phase 1 – Pre-application
 - Phase 2 – Formal application
 - Phase 3 – Document evaluation
 - Phase 4 – Validation
 - Phase 5 – Certification
- 1.6 An EIS process can run up to 18 months depending on the complexity of the application. The duration will be discussed and estimated during the initial stage of discussions during phase 1.

2 FIVE PHASES OF EIS

- 2.1 Phase 1 – Pre-application
 - 2.1.1 The pre-application phase is typically the longest phase of the EIS process. During this phase, the applicant's different business units collaborate with the aircraft/engine manufacturer to develop the necessary processes and procedures for operating the new aircraft or new engine type. Additionally, if applicable, this phase may also involve the applicant engaging service providers who will eventually oversee various aspects of operating and maintaining the new aircraft or new engine type or providing training for the applicant's operational personnel.
 - 2.1.2 The duration of the pre-application phase is determined by the time needed for the applicant to prepare the required documentation for submitting a formal application. This preparation phase may take up to 10 months of the previously mentioned 18-month period. The schedule for the subsequent phases, i.e. the remaining 8 months, will need to be tightly coordinated with CAAS.
 - 2.1.3 This phase begins when a prospective applicant makes an initial inquiry about applying to include a new aircraft type, a new engine type or a variant of an existing aircraft type. Before convening a preliminary meeting, the applicant is required to submit a letter of intent from the accountable manager of the company addressed to the

Director-General Civil Aviation. A sample letter of intent is shown in Appendix B. In the case of varying an existing AOC, this letter of intent shall include the following information:

- The nature of the intended application
- The intended scope of operations
- The total number of aircraft/engines intended for purchase or lease
- The intended commencement date for commercial operations or any other type of operations where applicable
- Name and contact information of the accountable manager or his designated EIS project manager
- Any other relevant information that affects the application

2.1.4 The preliminary meeting serves as an opportunity for CAAS to provide basic information and general certification requirements, and for the applicant to explain the intended scope of operation so that appropriate advice may be provided.

2.1.5 It should be expected that there will be several discussions or meetings between the applicant and CAAS before a formal application can be submitted. During these discussions or meetings, CAAS may provide guidance on the preparation of the necessary application forms, manual submissions, supporting documents, or other required materials.

2.1.6 The applicant is responsible for preparing a Gantt chart that details each line item of its work processes for the preparation of the aircraft or engine. This chart should include line items to document expected submission and approval or acceptance timelines by CAAS. This Gantt chart will serve as the foundation of each meeting within this phase, and the applicant should periodically update it to indicate the progress of the EIS process. Additionally, the applicant is also responsible for maintaining a record of the proceedings in the meeting.

2.1.7 One of the objectives of the pre-application phase is to establish an agreement on the submission list of items and their corresponding supporting documents that would form the formal application. CAAS recognises that preparing an aircraft or engine for operations is a complex process, and the documentation or evidence of compliance may not be readily available for certain aspects of the process. During the pre-application meetings, the applicant must communicate these anticipated gaps to CAAS so that an agreeable list of items for the formal application package can be determined.

2.1.8 Another objective of the pre-application meetings is to identify any unforeseen issues that may impact the planned completion of the EIS process. This includes discussing “first mile” items such as training for inspectors from CAAS to perform regulatory oversight, as well as “last mile” items such as the aircraft delivery plan. The aim is to ensure that issues are identified early and resolved as much as possible before they exert pressure on the EIS timeline.

2.1.9 The applicant should indicate in this phase when they are ready to submit the application and supporting documentation for the aircraft/engine type so that proceedings can move towards phase 2.

2.1.10 In terms of training, CAAS may also need the applicant to organise suitable training for CAAS inspectors prior to the next phase of the EIS process. The specific training needs would be discussed during the initial pre-application meetings to facilitate appropriate arrangements.

2.2 Phase 2 – Formal application

- 2.2.1 The objective of the formal application phase is for CAAS to verify that all items that have been agreed upon for submission from the pre-application phase has been submitted as a package. Individual items within the package may be returned for amendments in subsequent phases. It is important for the applicant to note that any issues with the quality of submissions may impact the duration of the document evaluation and validation phases, thus affecting the timeline for the EIS process. The formal application phase is expected to take approximately one month from the start of the submission of the completed application form and the documents within the agreed package.
- 2.2.2 The formal application phase serves as a checkpoint within the EIS process, marking the beginning of the eight-month period during which CAAS determines proceedings.
- 2.2.3 As part of the formal application, the applicant is required to complete form CAAS-ANR-119-1-03.
- 2.2.4 The applicant shall also submit any other applicable forms and/or documents in accordance with the type of applications, or refer to the relevant ACs for guidance pertaining to the intended operations specification as shown in Appendix A to this AC.

Note: The overall guidance on the application for an approval to conduct special operations can be found in AC 98-1-1 (Application for an Approval to conduct a Special Operations)

2.3 Phase 3 – Document evaluation

- 2.3.1 The objective of this phase is to thoroughly examine all documentation and manuals provided by the applicant to ensure coverage of all aspects required by CAAS. This involves also evaluating the Safety Management System (SMS) and coordinating with CAAS to review the submitted documents to assess the applicant's compliance with regulations and operating practices. Initial approval for the applicant's training programmes and documentation may be granted, and maintenance manuals may be approved or accepted. Any discrepancies or open questions are to be addressed and resolved in this phase. The document evaluation is the first phase in which CAAS makes a qualitative assessment of the EIS submissions.
- 2.3.2 The information within the submitted manuals and documents should be valid at the point of submission to CAAS. All submissions during formal application shall be frozen throughout the document evaluation period, except those that have been agreed upon during the pre-application phase. If there are updates midstream during the evaluation, these updates will only be reviewed after the EIS process has been completed, unless they are considered substantive and significant to the application. This is to prevent chasing moving targets during the evaluation.
- 2.3.4 The applicant's technical experts are required to be available to CAAS team for verification of contents, if necessary, to ensure expeditious conduct of the evaluation phase.

2.4 Phase 4 – Validation

2.4.1 This phase entails CAAS inspectors observing demonstrations of specific areas within the applicant's procedures or operations specifications. The objective of the validation phase is for CAAS inspectors to evaluate compliance with regulations, and for the applicant to demonstrate adherence to safety practices. This may include inspecting and evaluating the following areas:

- The feasibility and suitability of any training programmes
- The operational readiness for aircraft and maintenance control and planning systems
- Demonstrations on aircraft emergency evacuation, and ditching procedures
- Special operations with specific equipment completed either in the aircraft or a suitably equipped flight simulations and training device (e.g. low visibility operations, usage of enhanced vision systems)
- Special operations with non-standard flight configurations or requirements (e.g. polar operations, extended diversion time operations)
- Ground operations involving new equipment or procedures

2.4.2 This phase to include one or more proving flights where actual performance of activities (maintenance and ground handling and the use of dummy loads where appropriate) and operations, are observed and evaluated by CAAS. All operations must be performed in accordance with the applicant's documents and manuals as reviewed in Phase 3 of the EIS process.

Note: The list above is non-exhaustive. The validation plan shall be determined by CAAS and communicated to the applicant before or within the validation phase.

2.4.3 This phase may also include one or more proving flights where actual performance of activities (maintenance and ground handling and the use of dummy loads where appropriate) and operations, are observed and evaluated by CAAS. All operations must be performed in accordance with the applicant's documents and manuals as reviewed in Phase 3 of the EIS process.

2.4.4 When the need for a demonstration has been identified, the applicant is to prepare a validation plan specifying the resource allocations, schedule, and the expected outcomes of the evaluation. The validation plan is to be submitted to CAAS at least one week before the planned demonstration. This allows CAAS to review and provide comments, where necessary, on the suitability of the validation plan towards the intended outcome of the demonstration.

2.4.5 Post demonstrations, the CAAS will internally review and notify the applicant whether additional follow-up actions are required to be fulfilled prior to the commencement of the certification phase, and whether any special restrictions or conditions would be specified for the applicant's intended operations. Failure by the applicant to address these follow-up actions may extend the EIS process timeline or render the EIS process invalid. In such cases, CAAS will inform the applicant in writing that the application was unsuccessful, and no further action will be taken by CAAS to process the application.

2.5 Phase 5 – Certification

2.5.1 The objective of the certification phase is to finalise the EIS process. This phase will only begin once CAAS has determined that all the applicant's submitted documents are acceptable, and demonstrations of the specified areas are validated.

2.5.2 The EIS process concludes with the issuance of the revised Operations Specifications for the AOC when CAAS is satisfied that the applicant has complied with the applicable rules and regulations, and the applicant is assessed to be competent to operate the new aircraft or engine type.

APPENDIX A – OTHER REFERENCES RELEVANT TO THE EIS PROCESS

S/No.	Subject	Notice
1	Application for new destination	CAAS (FO)111
2	Operational approval to conduct operations in North Atlantic high-level airspace (NATHLA)	AC 98-2-1
3	Operational approval for area navigation RNAV-10	AC 98-2-2
4	Operational approval for area navigation RNAV-5	AC 98-2-3
5	Operational approval for area navigation RNAV-2 and RNAV-1	AC 98-2-4
6	Operational approval for required navigation performance RNP4	AC 98-2-5
7	Operational approval for required navigation performance approach (RNP APCH)	AC 98-2-6
8	Operational approval for barometric vertical navigation (BAROVNAV)	AC 98-2-7
9	Equipping the aircraft for required navigation performance authorisation required approach (RNP-ARAPCH)	AC 98-2-8
10	Operational approval for required navigation performance RNP1	AC 98-2-9
11	Operational approval for required navigation performance RNP2	AC 98-2-10
12	Equipping the aircraft for reduced vertical separation minima operations (RVSM)	AC 98-3-1
13	Equipping the aircraft to conduct low visibility operations (LVO)	AC 98-4-1
14	Equipping the aircraft for head up display (HUD) / enhanced vision system (EVS)	AC 98-5-1
15	Equipping the aircraft for controller pilot data link communications (CPDLC) and automatic dependant surveillance contract (ADS-C)	AC 98-6-1
16	Equipping the aircraft for automatic dependant surveillance contract (ADS-B)	AC 98-6-2
17	Equipping the aircraft for extended diversion time operations (EDTO)	AC 98-8-1
18	Equipping the aircraft for polar route operations	AC 98-9-1
19	Equipping the aircraft for performance-based communications and performance-based surveillance (PBCS)	AC 98-12-1
20	Guidance on the application for a Singapore Air Operator Certificate (AOC)	AC 119-1-1
21	Application for variation of Air Operator Certificate (AOC)	CAAS-ANR-119-1-3

APPENDIX B – SAMPLE LOI FOR REFERENCE

PRIVATE & CONFIDENTIAL

Date: 4 Jun 2024

Civil Aviation Authority of Singapore (“CAAS”)

Singapore Changi Airport

PO Box 1

Singapore 918141

Attn: Mr Alan Foo

Senior Director (Safety Regulations Group) and Director (Flight Standards).

Dear Sir,

Intention for Entry-Into-Service (EIS) of De Havilland Comet for ABC Airline

1. We confirm that ABC Airline has selected the De Havilland Comet with the signing of a letter of intent on 3 Jun 2024 for the purchase of ten aircraft for addition to our fleet.
2. The 100-seater aircraft is intended for to exploit routes within our network that are currently being underserved by other airlines within the Singapore Airhub.
3. The delivery of the first aircraft to ABC Airline is scheduled for Dec 2025, with the remaining nine to be progressively introduced by the end of the last quarter of the next fiscal year <FY26/27>.
4. We have formed an EIS team and developed an engagement plan with a monthly meeting modality taking reference from the CAAS advisory circulars and ANRs (for e.g.: AC 98-1-1, AC-119-1-1, CAAS advisory circulars AC XXX), to ensure that CAAS will be kept updated on all key developments and milestones.
5. Should you have any questions or clarifications regarding the above, please free to contact me or the EIS project manager (Mr X Y Zee, XXY@ABC.com)

Yours faithfully,

Mr A B See

Accountable Manager

ABC Airline