สำนักงานการบินพลเรือนแห่งประเทศไทย
The Civil Aviation Authority of Thailand

AIR Operations Manual

CAAT-AIR-OM

Issue 03, Revision 01

Date: 30 June 2023

Approved By

(Paisit Herabat)

Manager, Airworthiness and

Aircraft Engineering Department (AIR)

Civil Aviation Autority of Thailand (CAAT)

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ADMINISTRATION OF THE OPERATIONS MANUAL

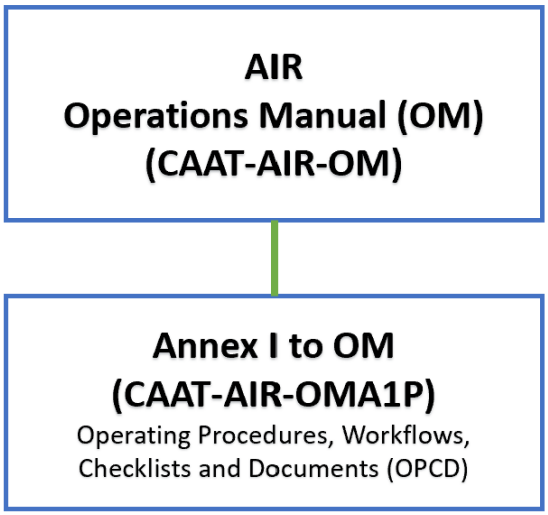
I. Foreword

I.1 Background

The Civil Aviation Authority of Thailand (CAAT) is responsible for the regulation and supervision of all civil aviation matters within the Kingdom of Thailand. With respect to civil aviation safety, the regulation and supervision responsibilities of CAAT are divided into various domains (e.g. Personal Licensing, Flight Operations, Airworthiness of Aircraft, Air Navigation Services, Aerodromes, Aeronautical Information Service). Each domain is required to ensure public safety both on the ground and in the air through aviation safety oversight systems and procedures, in accordance with international civil aviation standards. The discharge of the airworthiness aspects of this responsibility has been delegated to AIR.

This Airworthiness and Aircraft Engineering Department (AIR) Operations Manual (OM) contains the policy and procedures that must be applied to the safety oversight of all AIR aspects of any Thai civil registered aircraft and related civil aviation activities within Thailand and other States. In simple terms, this OM supports AIR staff regarding the what, how, and when aspects of their duties.

The Operations Manual consists of a core document (OM) and one Annex (Annex I to OM), as shown in the diagram below, and must be read in conjunction with each other.



Due to the broad scope of civil aviation operations in Thailand, it is not possible to provide detailed procedures for all situations. Therefore, AIR staff are expected to have a thorough knowledge of their respective responsibilities and exercise sound judgement in applying the provisions of this OM. If any

doubt or uncertainty exists, AIR staff must immediately consult with their respective Division Head or the AIR Manager.

Supplementing the OM are AIR Circulars. These are issued under the authority of the AIR Manager when issues arise that require notification to AIR staff, and are:

a. of a temporary nature or short duration
b. intended for immediate implementation prior to subsequent inclusion in the OM
c. of a general briefing or training nature

A registry of AIR Circulars is maintained in the Annex 1 Master Index.

For the purposes of this OM, Annex I and AIR Circulars, "must" and "must not" are words of obligation. "Must" imposes an obligation on AIR staff and indicates something that is mandatory. "Must not" is used when something is prohibited.

The word "should" indicates a recommendation and advises AIR staff to use that option.

I.2 AIR Policy

AIR strictly adheres to practices that promote safety and is committed to meeting all applicable national regulations and International Civil Aviation Organization (ICAO) provisions.

AIR supports an open reporting culture, and encourages honesty, respect, and an environment where individuals are accountable for their actions and can expect to be treated fairly. We will strive to learn from all events and to develop risk awareness with the aim of continually improving the safety level of the Thai aviation industry.

The responsibility for fostering efficient AIR operations lies with each individual staff member. The AIR Manager is responsible and accountable for implementing quality management systems and for ensuring that all reasonable steps are taken to improve the quality of work. All processes must be planned, documented, monitored, and evaluated based on regulatory requirements and CAAT procedures, and promulgated via clear and measurable steps.

I.3 AIR Compliance Statement

The oversight systems and procedures in this OM comply with the Air Navigation Act B.E. 2497, CAAT Emergency Decree B.E. 2558, associated regulations, and applicable ICAO provisions. It defines requirements and standards for AIR staff to ensure adequacy of procedures and safe operational practices.

The provisions of this OM do not supersede or replace any associated regulatory requirements.

Uniform and consistent application of the provisions contained herein will allow AIR to regulate and oversee the airworthiness aspects of CAAT in providing a high level of safety assurance to the traveling public.

The AIR Manager is responsible for ensuring that this OM accurately reflects CAAT regulations, procedures, and operational policies, and that operations are carried out based on these provisions.

Adherence, by AIR staff, to the provisions of this OM is mandatory and will, therefore, facilitate the exercise of AIR functions in an appropriate and consistent manner.

The contents of this OM are confidential and not to be released in any manner to persons not associated with CAAT.

II. Amendment of the Operations Manual

Amendments to this OM must be made whenever the existing material is identified as outdated or when new processes and procedures are developed. Each Division Head is required to review their respective OM material, including Annex I, on at least a 6-monthly basis, using Checklist AIR-CL-OPD-002 and initiate an amendment where required.

Whenever there is a revision to the OM, the appropriate Chapter will be reissued in full with the newly revised text being highlighted in yellow.

Whenever there is a revision to OM Annex I, the appropriate operating procedure, workflow, document or checklist will be reissued in full (with the newly revised text being highlighted in yellow for operating procedures only).

Whenever the OM is reissued (i.e. the Issue number changes) changes will not be highlighted.

Summary details of changes for both OM and Annex I are included under the respective Record of Amendments (i.e. in this Chapter (refer II.2) for the OM and in the respective Chapter or Section sheet of the Master Index for Annex I).

Suggestions and comments, from all AIR staff, for the revision and amendment of this OM are most welcome and should be sent to the respective Division Head and the AIR Manager.

The procedure for amendment of the OM is contained in AIR-OP-ADM-001.

II.1 Distribution

The OM is available in electronic format to all AIR staff and is stored in Microsoft SharePoint and DRMS. Printed copies are considered to be uncontrolled.

II.2 Record of Amendments

Amendment No.	Effective Date	Reason	Authorisation
Initial Issue	17 Mar 2022	Consolidation of: a. Airworthiness Manual b. Engineering Manual c. AOC Ramp Inspection Manual d. Surveillance/Inspection Policy and Procedures Manual into one integrated OM	AIR Manager
Issue 02	26 Aug 2022	All OM Chapters and all OPs revised to reflect new CAAT Department abbreviations and various additional minor corrections Chapter 0.1 – new numbering and additions in Chapter 6 and Chapter 7.6 Chapter 0.2 – revised to clarify that an OM reissue will not have change yellow highlighting Chapters 0.2 Section II; 4.4; 4.5.5; 5.2; 6.7; 7.5.2 - added references to new Checklist AIR-CL-OPD-002 to be used for 6-monthly documentation reviews Chapter 6 – added AIR-CL-OPD-002 Checklist for 6-Monthly Review Chapter 6.1 - added requirement for Division Heads to review Operating Documents on a 6-monthly basis Chapter 1.2 - revised AIR duties and responsibilities following publication of Order No.72/2565, replacing No.247/2562 Chapter 2.3 · revised credentials regulation CAAT Regulation on Aviation Inspectors B.E. 2564 (2021) · an example of the Credentials Card is included	AIR Manager

Amendment No.	Effective Date	Reason	Authorisation
		Chapter 3 - added requirement in AIR-OP-SOM-001 Procedure for Management of Safety Occurrences requiring SKP team to verify transmission of certain reports to type design holders etc. Chapter 4.4 and AIR-OP-REG-001 Procedure for Regulation Development and Amendment – included requirement to publish differences from ICAO SARPs in the AIP Thailand Chapter 6 - added description of workflows and consequential paragraph renumbering Chapters 7.2; 7.3; 7.4; 7.11 - various OPs URL and QR codes updated for recording SLA data Chapter 7.5 · added a new last paragraph in AIR-OP-CER-CR-203 Section 3 detailing actions to be taken when a deregistration request appears to indicate a possible conflict between the applicant and a third party · added a new Checklist for Aircraft Physical Re-Inspection (C of R) AIR-CL-CER-CR-205 · added a note to AIR-OP-CER-CR-201 introducing the new checklist AIR-CL-CER-CR-205 Chapter 7.6 - added a new section and new procedure AIR-OP-CER-AOC-304 AOC Operator Notification Management - added a new section regarding managing operator approval requests - amended AIR-OP-CER-AO-301 Procedure for Renewal of AOC to clarify Certificate extension from the renewal assessment result - updated AIR-CL-CER-AOC-301 Checklist for AOC Package	

Amendment No.	Effective Date	Reason	Authorisation
		Chapters 7.6; 8.5 – amended various OPs to include: - a procedure to generate an audit number for a Nominated Personnel Interview task - reference to ETOPs regulation Chapter 7.7 - amended AIR-OP-CER-CA-300 Procedure for Issuance and Renewal of Standard Certificate of Airworthiness to require all records to be kept for all registered aircraft during aircraft inspections - added a new procedure - AIR-OP-CER-CA-303 Procedure for Remote Aircraft Inspection - amended CAAT-AIR-FM-CER-CA-301, Non-Compliance Acknowledgement Form A to add conditions for reinspection or application rejection - updated CAAT-AIR-CL-CER-CA-304, Checklist for Aeroplane Equipment Inspection AID - updated CAAT-AIR-CL-CER-CA-305 Checklist for Helicopter Equipment Inspection AID - revised CAAT-AIR-FM-CER-CA-301 Non-Compliance Acknowledgement Form A to reflect operator responsibility to transmit certain reports to type design holders etc. Chapters 7.7; 7.8; 7.9; 7.10, Procedures for C of A Findings Management – included text to notify operator, if failing to rectify Findings within 2 months, that a reinspection is needed Chapter 7.8 · renamed to Export of Airworthiness Approval · new procedure for products other than Export C of A Chapter 7.9 - revised AIR-CL-CER-SCA-401 Checklist for Issue-Renew-Export C of A Paramotor, Paraglider,	

Amendment No.	Effective Date	Reason	Authorisation
		Paraplane and Hang Glider Inspection to be suitable for Paramotor/Paraplane Chapter 7.10 - updated CAAT-AIR-FM-CER-SFP-302 Special Flight Permit Conditions Chapter 7.12 - AIR-OP-CER-OPM-300 Procedure for Approval of Operator Manuals o removed the requirement to use CAAT-AIR-CL-CER-OPM-302R (amendment form). This checklist is submitted by operators. AIR staff are no longer required to complete this checklist in EMPIC - Chapter 7.12 and AIR-OP-CER-OPM-301 Procedure for Indirect Approval of Operator Manuals o changed "Acceptance" to "Indirect Approval" o revised the Indirect Approval notification package to be submitted by the operator o added minor change criteria for other operator airworthiness manuals Chapter 7.13 - amended AIR-OP-CER-OSE-301 Procedure for Maintenance Task Variation Approval and Acceptance to include advice to Division Head and PMI after review Chapter 7.14 · AIR-OP-CER-RSC-501/502A/503/504 amended section 6 to include requirement to update CAAT website AMO list · AIR-OP-CER-RSC-501/502A/503 amended section 3 to ensure cross-checking of certificate information by Division Head · AIR-OP-CER-RSC-501 amended Phase 5 Certification section a. to ensure the correct certificate fee is invoiced	

Amendment No.	Effective Date	Reason	Authorisation
		Chapter 7.15 - revised checklist AIR-RI-302 Training Program Manual/Program compliance review and approval checklist Chapter 8.5 · updated AIR-CL-SUR-SM-300 Checklist for Base Audit · updated AIR-CL-SUR-SM-302 Checklist for Ramp Inspection Chapter 11.2.3 - amended to describe the recording system for exemptions, both SFP and others Chapter 13.3.2.1 - added to describe how to access technical documents and responsibility for maintaining the master list and access points	
Issue 03	27 Jan 2023	All OM Chapters and all OPs revised to reflect change in naming of Requirements ("Issue X" becomes "No. X") and various additional minor corrections Chapter 0.2 - added AIR; TCAR to Abbreviations - added authorisation for AIR Circulars and included in Annex 1 Master Index Chapter 4 AIR-OP-REG-001 - added reminder to update Thailand AIP with differences to ICAO SARPS Chapter 6.2 - added a Note to address situations where Checklists are completed electronically in EMPIC and therefore there are no signatures on printouts - Clarified actions to ensure currency of checklists Chapter 7.5.3	AIR Manager

Amendment No.	Effective Date	Reason	Authorisation
		- added a Note regarding combinations of registration marks that must not be used Chapter 7.6 - amended AIR-OP-CER-AOC-300/301/302 to clarify actions to ensure currency of checklists and add linkage to interview procedure for nominated personnel Chapters 7.14, 7.15, AIR-OP-CER-RSC-500/502B/503/504/505/506/507 - added provisions for Repair Station Certificate of Acceptance Chapter 8.2 - added additional guidance regarding management of CAP Due Dates, Closing Due Dates, and extensions Chapter 8.3 - amended provisions for unannounced surveillance; AOC and Repair Station surveillance frequency; foreign ramp inspections; Reliability Program Evaluations Chapters 8.4, 8.5 AIR-OP-SUR-SP-302; AIR-OP-SUR-SM-300/301 - added additional provisions regarding audit team responsibilities and risk-based output information Chapter 8.4 AIR-OP-SUR-SP-500 - added Repair Station risk-based surveillance assessment criteria procedure	
Issue 03 Revision 01	30 Jun 2023	Chapter 4 AIR-OP-REG-001/002/003, 7.14 AIR-OP-CER-RSC-502B AIR-CL-CER-RSC-531 CAAT-AIR-FM-CER-RSC-551, 8.4 AIR-OP-SUR-SP-500 - clarified provisions for Repair Station Certificate of Acceptance	AIR Manager

Amendment No.	Effective Date	Reason	Authorisation
		Chapter 7.5 AIR-OP-CER-CR-203, CAAT-AIR-FM-CER-CR-202/206, Workflow Deregistration of Aircraft - added requirement to coordinate with ERD for deregistration - updated various Forms and Deregistration Workflow Chapter 7.6 AIR-OP-CER-AOC-302 - added details to raise awareness for inspectors to ensure aircraft configuration even if it is the same model of aircraft Chapter 7.7 AIR-OP-CER-CA-300, AIR-CL-CER-CA-300/301/303 - added details to raise awareness for inspectors to ensure periodic checks of ICAO 24-bit Addresses Chapter 7.12 AIR-OP-CER-OPM-301 - added details on required indirect approval procedure Chapter 7.13 AIR-OP-CER-OSE-301 - added details to enhance maintenance task variation assessment Chapter 8.3.3, 8.4 OP-SUR-SP-500 - clarified provisions for Repair Station surveillance cycle mid-term audit Chapter 8.5.2, 8.5.2.1, AIR-OP-SUR-SM-301/501, AIR-CL-SUR-SM-308 - clarified authorisation and procedures to conduct a remote audit Annex 1 - added an additional sheet (Manuals & Guidance) - amended Audit Timeframes sheet to link to revised RI Audit Timeframes	

Amendment No.	Effective Date	Reason	Authorisation
		Editorials - Chapter 4.5.4 b. - Chapter 8.4 AIR-OP-SUR-SP-500	

III. List of Effective Pages

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12	1 - 3	Issue 03 / Rev 01	30 Jun 2023
13	1 - 12	Issue 03 / Rev 01	30 Jun 2023

IV. Abbreviations

AD	Airworthiness Directive
AEROTHAI	Aeronautical Radio of Thailand Limited

AIR	CAAT Airworthiness and Aircraft Engineering Department
AME	Aircraft Maintenance Engineer
AMP	Aircraft Maintenance Program
ANA	AIR Navigation Act B.E. 2497 (1954) and its latest amendment
AOC	Air Operator Certificate
AOL	Air Operator License
B.E.	Buddhist Era
CAA	Civil Aviation Authority
CAAT	The Civil Aviation Authority of Thailand
CC/EFOD	Compliance Checklist/Electronic Filing of Differences
CE	Critical Element (ICAO)
C of A	Certificate of Airworthiness
C of R	Certificate of Registration
CAP	Corrective Action Plan
CMR	Certificate of Maintenance Release
DBD	Department of Business Development
DG	Director General
EAD	Emergency Airworthiness Directive
EASA	European Union Aviation Safety Agency
EDTO	Extended Diversion Time Operation
e.g.	For example
FAA	Federal Aviation Administration (United States)
FC	Flight Cycles
FH	Flight Hours

GMM	General Maintenance Manual
IASA	International Aviation Safety Assessment (FAA)
ICA	Instructions for Continuing Airworthiness
ICAO	International Civil Aviation Organization
IMS	Information Management System (AIR)
LLP	Life Limited Part
MEL	Minimum Equipment List
MOE	Maintenance Organisation Exposition
MTP	Maintenance Training Program
NAA	National Aviation Authority
N/A	Not Applicable
OJT	On Job Training
OM	AIR Operations Manual
PBCS	Performance Based Communication and Surveillance
PBN	Performance Based Navigation
PMI	Principal Maintenance Inspector
POA	Power of Attorney
POI	Principal Operations Inspector
PPE	Personal Protective Equipment
PQ	Protocol Questions (ICAO)
QAD	Quality Assurance Department (CAAT)
RCP	Required Communication Performance
RPM	Reliability Program Manual
RSP	Required Surveillance Performance

RVSM	Reduced Vertical Separation Minimum
SFP	Special Flight Permit
SLA	Service Level Agreement
SMD	Safety Management Department (CAAT)
SMS	Safety Management System
SSC	Significant Safety Concern (ICAO)
STC	Supplemental Type Certificate
TC	Type Certificate
TCAR	Thailand Civil Aviation Regulation
TPM	Training Program Manual
TSO	Technical Standards Order
URL	Uniform Resource Locator
USOAP	Universal Safety Oversight Audit Programme (ICAO)

V. Definitions

Terms used in this OM hold equivalent definitions to those listed in the Air Navigation Act (B.E. 2497) as amended, and ICAO provisions and should be read as such.

CHAPTER 1: INTRODUCTION TO AIR

(Who we are and what we do)

1.1 General

The mission of AIR is to provide safety oversight in the field of airworthiness for Thai registered aircraft and related civil aviation activities within Thailand and other States. This includes:

a. Promulgating regulations and guidance addressing the appropriate Standards and Recommended Practices of ICAO
b. Implementing an effective airworthiness certification system
c. Implementing an effective airworthiness surveillance system
d. Resolving safety concerns in the area of airworthiness
e. Coordinating with appropriate entities both domestic and international to increase the safety and effectiveness of implementation of airworthiness provisions.

1.2 AIR Duties and Responsibilities

CAAT Order No. 72/2565, dated 30 March 2565, defines the duties and responsibilities of AIR as follows:

a. Study, analyse and develop standards, rules and regulations; define standard practices; establish handbooks and procedures
b. Consider and recommend requirements arising from ICAO provisions
c. Review, recommend, draft, and amend aviation regulations and other provisions in line with international standards
d. Regulate and surveillance to ensure compliance with aviation regulations and other provisions.
e. Approve and certify regulations
f. Investigate major defects and determine appropriate corrective actions
g. Study, analyse, and research inspection procedures and methods, including determining appropriate corrective actions to improve inspection effectiveness
h. Review, update, and advise on information received from States of Design that affect Thai registered aircraft
i. Register and deregister aircraft, and coordinate with importing and exporting States of Registry
j. Plan and work according to the strategic initiatives of CAAT, which fall under AIR responsibility
k. Manage risks, as the risk owner or risk sharer, applicable to AIR missions and responsibilities
l. Collaborate and support operations of other Departments as required

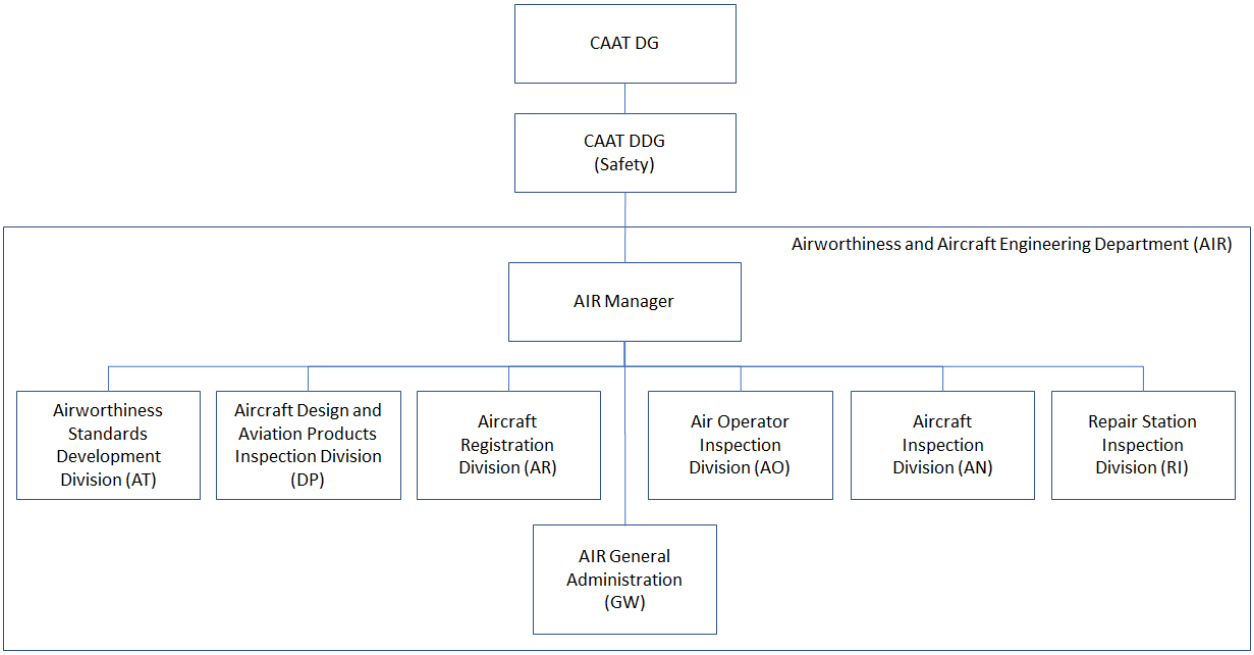
1.3 AIR Organisational Structure

AIR is under the supervision of the CAAT Director General (DG) and the Deputy Director General (DDG) - Safety.

AIR is comprised of six divisions and one general administration group as follows:

1. Airworthiness Standards and Development Division (AT)
2. Aircraft Design and Aviation Products Inspection Division (DP)
3. Aircraft Registration Division (AR)
4. Air Operator Inspection Division (AO)
5. Aircraft Inspection Division (AN)
6. Repair Station Inspection Division (RI)
7. AIR General Administration (GW)

The following diagram shows the organisational structure of AIR.



1.4 Duties and Responsibilities of AIR Divisions

CAAT Order No. 72/2565 defines the duties and responsibilities of each AIR Division as follows:

1.4.1 Airworthiness Standards Development Division (AT)

a. Be a focal point for collecting laws, rules, regulations, requirements, notices, interpretation of laws and necessary knowledge concerning airworthiness and aircraft engineering
b. Analyse and make recommendations on ICAO provisions regarding airworthiness and aircraft engineering
c. Oversee/make recommendations for drafting, designing, improving or revising laws, rules, regulations, orders, procedures and recommendations concerning airworthiness, and aircraft engineering in order to comply with international standards
d. Give advice, answer questions, provide information and knowledge concerning airworthiness and aircraft engineering to the aviation industry
e. Study, follow up, analyse and develop laws, rules, and regulations and make recommendations for standards, regulations, guidance materials, operating procedures regarding airworthiness and aircraft engineering
f. Study and analyse information regarding the development of AT work processes
g. Plan and work according to the strategic initiatives of CAAT, which fall under AT responsibility
h. Manage risks, as the risk owner or risk sharer, applicable to AT missions and responsibilities
i. Coordinate with, or support the work of, related organisations or other work as assigned

1.4.2 Aircraft Design and Aviation Products Inspection Division (DP)

a. Accept and approve designs, production, repairs, modifications, parts and technical equipment of aircraft to ensure compliance with regulations
b. Oversee and inspect certificate or approval holders for design, production or modification of aircraft, major appliances and components
c. Investigate and follow up on major defects discovered regarding designs, production, modifications of aircraft, major appliances, and components, as well as consider appropriate corrective actions
d. Report the results of inspections and consider enforcement when regulations regarding aircraft standards and products are violated
e. Inspect and approve aircraft to meet environmental standards
f. Issue regulations to concerned parties regarding mandatory continuing airworthiness information
g. Study and analyse information regarding the development of DP work processes
h. Plan and work according to the strategic initiatives of CAAT, which fall under DP responsibility
i. Manage risks, as the risk owner or risk sharer, applicable to DP missions and responsibilities
j. Coordinate with, or support the work of, related organisations or other work as assigned

1.4.3 Aircraft Registration Division (AR)

a. Issue and re-issue certificates of registration
b. Prepare and distribute the register of aircraft and maintain aircraft history information
c. Study and analyse information regarding the development of AR work processes
d. Coordinate with States of Design to obtain continuing airworthiness information
e. Plan and work according to the strategic initiatives of CAAT, which fall under AR responsibility
f. Manage risks, as the risk owner or risk sharer, applicable to AR missions and responsibilities
g. Coordinate with, or support the work of, related organisations or other work as assigned

1.4.4 Air Operator Inspection Division (AO)

a. Carry out inspections for the issuance or renewal of certificates of airworthiness and issue export certificates of airworthiness for aircraft of Air Operator Certificate (AOC) holders
b. Carry out inspections and approve the airworthiness of AOC holders, including coordinating with Flight Operations Standards Department (OPS) to issue, renew and revise AOC and operations specifications
c. Oversee, inspect and audit air operators in terms of aircraft maintenance and airworthiness to ensure compliance with laws, rules and regulations
d. Issue special flight permits for aircraft of AOC holders
e. Inspect and follow up on major airworthiness defects discovered and consider corrective actions
f. Report the results of inspections and consider enforcement when airworthiness regulations are violated
g. Study and analyse information regarding the development of AO work processes
h. Plan and work according to the strategic initiatives of CAAT, which fall under AO responsibility
i. Manage risks, as the risk owner or risk sharer, applicable to AO missions and responsibilities
j. Coordinate with, or support the work of, related organisations or other work as assigned

1.4.5 Aircraft Inspection Division (AN)

a. Carry out inspections for the issuance or renewal of certificates of airworthiness and issue export certificates of airworthiness for aircraft of non-AOC holders
b. Oversee and inspect Thai and foreign aircraft to ensure compliance with laws, rules and regulations in terms of aircraft maintenance and airworthiness
c. Issue special flight permits for aircraft of non-AOC holders
d. Report the results of inspections and consider enforcement when airworthiness regulations are violated
e. Study and analyse information regarding the development of AN work processes
f. Plan and work according to the strategic initiatives of CAAT, which fall under AN responsibility
g. Manage risks, as the risk owner or risk sharer, applicable to AN missions and responsibilities
h. Coordinate with, or support the work of, related organisations or other work as assigned

1.4.6 Repair Station Inspection Division (RI)

a. Approve, issue, renew and revise repair station certificates as required by regulations
b. Supervise and inspect (audit) repair station certificate holders to assess compliance with regulations
c. Investigate and follow up on major defects discovered during aircraft maintenance in repair stations and considering corrective actions
d. Report the results of inspections and consider enforcement when repair station regulations are violated
e. Study and analyse information regarding the development of RI work processes
f. Plan and work according to the strategic initiatives of CAAT, which fall under RI responsibility
g. Manage risks, as the risk owner or risk sharer, applicable to RI missions and responsibilities
h. Coordinate with, or support the work of, related organisations or other work as assigned

1.4.7 General Administration (GW)

a. Carry out departmental documentation activities
b. Carry out departmental budget, finance and inventory activities
c. Collect statistics and report personnel information
d. Coordinate with, or support the work of, related organisations or other work as assigned

1.5 Certificates and Approvals

Given the duties and responsibilities described above, the list of certificates and approvals under the AIR responsibility is as follows:

No.	Certificates and Approvals	Responsible Division
1	Type Certificate Validation	DP
2	Supplemental Type Certificate Validation	DP
3	Noise Certificate	DP
4	Certificate of Registration	AR
5	Air Operator Certificate (AOC) (Airworthiness)	AO
6	Standard Certificate of Airworthiness	AO, AN
7	Export Certificate of Airworthiness	AO, AN
8	Special Certificate of Airworthiness	AO, AN
9	Special Flight Permit	AO, AN

No.	Certificates and Approvals	Responsible Division
10	Modifications and Repairs Approval	DP
11	Approval and Acceptance of Operator Manuals, including: a. General Maintenance Manuals (GMM) b. Aircraft Maintenance Programs (AMP) c. Minimum Equipment Lists (MEL) d. Maintenance Training Programs (MTP) e. Reliability Program Manuals (RPM) f. EDTO/ETOPS Manuals	AO, AN
12	Approval and Acceptance of Operator Specific Extensions a. MEL Rectification Interval Extension b. Maintenance Task Variation	AO
13	Repair Station Certificates	RI
14	Approval and acceptance of Repair Station Documents, including: a. Maintenance Organisation Expositions (MOE) b. Training Program Manuals (TPM) c. Capability Lists d. CAAT MOE Supplements	RI

1.6 Surveillance Activities

AIR undertakes surveillance activities as follows:

No.	Surveillance Activities	Responsible Division
1	Base Audits (for Air Operator Certificate (AOC) Holders)	AO
2	Line Station Inspections (for AOC Holders)	AO
3	Ramp Inspections	AO
4	Reliability Program Evaluation	AO
5	Repair Stations (domestic and foreign)	RI

1.7 Delegation of Authority to AIR Manager

The AIR Manager has been delegated the authority, from the DG, to sign the following documents:

No.	Delegated Document	Reference
1	MEL Extension Letter (การขยายระยะเวลาบำรุงรักษาอากาศยาน)	คำสั่ง กพท. ที่ 303/2560 สั่ง ณ วันที่ 7 กรกฎาคม 2560 เรื่อง มอบหมายอำนาจหน้าที่ให้ผู้จัดการ ในการสั่งและปฏิบัติการแทนผู้อำนวยการสำนักงานการบินพลเรือนแห่งประเทศไทย
2	Repair Station Extension Letter (การขยายระยะเวลาใบรับรองหน่วยซ่อม)	
3	Aircraft Noise Certification (การรับรองเสียงของอากาศยาน)	
4	Aircraft Maintenance Programme Approval (การรับรองคู่มือการซ่อมบำรุงรักษาอากาศยาน)	
5	Reservation of Aircraft Registration Mark (การจองทะเบียนอากาศยาน)	บันทึกท้ายหนังสือ LEG ที่ กพท 06/SL 580 ลงวันที่ 21 สิงหาคม 2561 เรื่อง ร่างประกาศ กพท. เรื่อง หลักเกณฑ์และวิธีการในการจองทะเบียนอากาศยาน

Other related delegation documents include:

a. คำสั่ง กพท. ที่ 255/2562 สั่ง ณ วันที่ 26 สิงหาคม 2562 เรื่อง มอบหมายอำนาจหน้าที่ให้ผู้จัดการสำนัก และผู้จัดการฝ่าย ปฏิบัติการแทนผู้อำนวยการสำนักงานการบินพลเรือนแห่งประเทศไทย
b. คำสั่ง กพท. ที่ 47/2563 สั่ง ณ วันที่ 19 กุมภาพันธ์ 2563 เรื่อง แต่งตั้งพนักงานเจ้าหน้าที่ให้ปฏิบัติตามพระราชบัญญัติการเดินอากาศ พ.ศ. 2497 (และประกาศที่เกี่ยวข้อง)

CHAPTER 2: AIR HUMAN RESOURCE MANAGEMENT

(How AIR manages human resources and competency)

2.1 General

This chapter describes how AIR manages human resources to ensure that AIR staff are competent in fulfilling their duties and responsibilities, including:

a. Human resource requirements
b. Required qualifications and experience
c. Training and currency
d. Training program and records management

2.2 Human Resource Requirements

In order for AIR to fulfil its airworthiness safety oversight responsibilities, a sufficient number of qualified, experienced and competent personnel are required. The Human Resource Management Department (HRD) is responsible for coordinating and calculating AIR staff requirements. This is updated on an annual basis in consultation with AIR.

HRD recruits AIR staff upon request from the AIR Manager within the CAAT approved staff calculation.

2.3 Required Qualifications and Experience

General qualifications and experience requirements for all AIR staff in management roles and each division are defined in the CAAT Job Description Manual (CAAT-HRD-JD).

For AIR Inspectors, the CAAT Regulation on Aviation Inspectors B.E. 2564 (2021), referred to here as the Credentials Regulation, describes how AIR staff may be authorised by the DG as Aviation Safety Inspectors (ASI) and the categories to which they may be authorised.

Note: Each Credential contains an expiry date and a current photo of the inspector

The DG authorises the holder of a Credential to exercise all powers and authorisations contained in:

a. ANA, Chapter 6, Sections 60/19 and 60/20 and Chapter 8, Sections 65, 66 and 67
b. The Civil Aviation Authority Emergency Decree B.E. 2558, Section 37

Note: In all cases such powers and authorisations are to be exercised for the purpose of performing duties and responsibilities lawfully assigned to CAAT

Example of Credential Card
Example of Authorised Scope

In addition to holding a valid Credential, AIR inspectors must also possess the personality to win the respect and confidence of the operators. They are expected to display a reasonable level of tact and understanding, as well as exemplary personal conduct, both in the office and at the operator's premises.

2.3.1 Categories of ASI-AIR

Based on the areas of responsibility, there are four ASI-AIR categories:

a. Aircraft Engineering Inspector (ASI-AIR-EGI), responsible for matters related to initial airworthiness of aircraft
b. Airworthiness Inspector (ASI-AIR-AWI), responsible for matters related to continuing airworthiness of aircraft
c. Repair Station Inspector (ASI-AIR-RES), responsible for matters related to repair station approvals
d. Airworthiness Ramp Inspector (ASI-AIR-RPI), responsible for physical inspection of aircraft

Inspectors are assigned to audits or inspections by the relevant Head of Division based upon the availability of appropriate credentials and the types of authorisations required.

Note: For the purpose of this OM, audit and inspection could be used interchangeably.

2.3.2 Authorisation of Inspector Credentials

The authorisation of AIR credentials is primarily based upon verification of personnel qualification and competency requirements as specified in the Credentials Regulation. An Inspector Credentials Card together with the scope of authorisation is issued to qualified inspectors by the DG.

The qualification and experience requirements are summarised in the table below:

Criteria	EGI	AWI	RES	RPI
Appointment Pre-requisite Summary	1. Being a CAAT employee for a specified period of time, or a person who is appointed by the DG to act on behalf of CAAT 2. Meeting the defined qualifications and experience requirements 3. Meeting CAAT English proficiency requirements 4. Successfully completing the required training courses 5. Successfully completing the required number of on-the-job training (OJT) sessions in accordance with OJT requirements detailed in Section 5 of the Inspector Appointment and Authorisation Procedures Manual 6. Pass OJT assessment 7. Being nominated by the AIR Manager			

Criteria	EGI	AWI	RES	RPI
	8. Having no record of stigma or misbehaviours such as corruption or misconduct or being finally sentenced to imprisonment except punishment for offenses committed through negligence or petty offenses			
References	Detailed information regarding the authorisation of Inspectors is described in the CAAT Inspector Appointment and Authorisation Procedure Manual (CAAT-QAD-IAAP), with specific references as follows: ● Chapter 6: Inspector appointment process ● Chapter 7: Extension of authorisation in a new domain ● Chapter 8: Continuation of authorisation ● Chapter 9: Process in case of loss or theft of credentials card ● Chapter 10: Process in case of damaged credentials card ● Chapter 11: Termination of credentials card			
Background	At least a Bachelor's degree in Engineering or equivalent university degree accepted by the DG		**Option 1**: At least a Bachelor's degree in Engineering or equivalent university degree accepted by the DG **Option 2**: Aircraft Maintenance Engineer (AME) license	
Experience	Minimum 5 years in aviation, inclusive of 3 years' experience in the field of airworthiness or aircraft engineering and Minimum 1 year in a CAAT aviation safety oversight related function	Minimum 5 years in aviation, inclusive of 3 years in the field of airworthiness or aircraft engineering and Minimum 1 year in a CAAT aviation safety oversight related function, or minimum 10 years in line maintenance audits (external)	**Option 1**: Minimum 5 years in CAAT in an airworthiness role, or a CAAT aviation safety oversight related function **Option 2**: Minimum 5 years in airworthiness management together with minimum 1 year in a CAAT aviation safety oversight related function	**Option 1**: Minimum 5 years in aviation, inclusive of 3 years' experience in the field of airworthiness or aircraft engineering and Minimum 1 year in a CAAT aviation safety oversight related function **Option 2**: Minimum 3 years' experience in

Criteria	EGI	AWI	RES	RPI
				aircraft physical inspection either with CAAT or another National Aviation Authority (NAA)
English Proficiency	TOEIC score of 600, ICAO Language Proficiency Level 4, IELTS 5.5, TOEFL IBT 75, Graduate from abroad, **or** Graduate from university using English a whole program DG may exempt for applicant who: 1. was appointed as an Aviation Safety Inspector by the DG, 2. is a CAAT employee and having working experience related to Aviation/Aerodrome Safety Inspection for 5 years or more, **or** 3. Have a minimum total working experience related to Aviation/Aerodrome Safety Inspection for 10 years or more.			
Validity Period	2 years			

For further details regarding basic training and On-Job-Training (OJT) requirements, refer to the CAAT Training Programme (CAAT-HRD-TNP).

For other details regarding credentials refer to the CAAT Inspector Appointment and Authorisation Procedure Manual (CAAT-QAD-IAAP). Specific details of the appointment process are contained in CAAT-QAD-IAAP Chapter 6.

Staff seeking or renewing inspector credentials should submit an application and associated documents, as described in CAAT-QAD-IAAP, to the respective Division Head. The Division Head will coordinate with AT, as the credentials coordinator for AIR. AT will verify the qualifications and experience, using Credentials & Authorisation Application Checklists (AIR-CL-HRM-001, AIR-CL-HRM-002, AIR-CL-HRM-003 for initial, renewal, and scope extension, respectively), before proposing to the AIR Manager for consideration.

2.4 Training and Currency

All AIR staff, including AIR ASI, are required to meet the minimum training requirements defined in CAAT-HRD-TNP - Corporate Training Programme and Training Programme for AIR Department.

Initial and recurrent training programs are based upon the competencies required to perform the various processes and tasks within AIR. Recurrent training intervals are also detailed in CAAT-HRD-TNP.

The criteria to maintain credential status are defined in CAAT-QAD-IAAP.

2.5 AIR-HR-Inspector Development Mechanism

In general terms, AIR Inspectorate staff are categorised as:

a. Trainee
b. Technical Support Staff
c. Credentialed Staff
d. OJT Trainer
e. OJT Assessor

Note: A Credentialed staff member may also hold either one or both of the OJT Trainer and OJT Assessor endorsements

AIR staff under training for any of the positions described above must be provided with a documented training program, individualised based upon the specific knowledge, skills and experience of the trainee.

The concerned Division Head is responsible for:

a. The development, ongoing management and review of the training program
b. Maintaining a training file for each trainee, which records the details of classroom and practical training undertaken and contains copies of OJT Record Forms
c. Closely monitoring the trainees progress
d. Making a recommendation to the AIR manager when a trainee is ready for an assessment of competency in the position being trained for
e. Obtaining feedback from a trainee, at the conclusion of the training period, regarding the training process

In cases where a trainee is unable to meet the Expectation requirement (described below) within a reasonable period of time, the Division Head must bring this to the attention of the AIR Manager.

Section 2.5.1 (Trainee) describes the basic, or AIR Induction, process that a trainee is required to satisfactorily complete before becoming eligible for training and assessment for appointment as Technical Support Staff.

Sections 2.5.2 (Technical Support Staff), 2.5.3 (Credential Staff), 2.5.4 (OJT Trainer) and 2.5.5 (OJT Assessor) describe competency prerequisites for appointment to each of the respective categories.

2.5.1 Trainee

Expectation: The Trainee is expected to:

a. Develop a clear understanding of Division related regulations, guidance materials, internal procedures (OM) and day-to-day activities
b. Provide support, as directed by the Division Head, for the Division audit and inspection team on certification, surveillance and administrative tasks
c. Undertake self-study and self-training in the areas of CAAT regulations, AIR and Division internal procedures and guidance, in order to develop an understanding of "where the information is and what it is"

Competency Requirements	
Classroom Training	AIR mandatory training program: Basic AIR ● General Familiarisation Aircraft Type ● Basic Airworthiness and Maintenance ● General OM Presentation ● Airworthiness Requirements Specialised Training (for all AIR Inspectorate staff) ● SMS (Technical) ● Human Factors in Aviation (Technical) ● SSP Implementation ● Audit Techniques Specialised for AWI ● C of R Process ● C of A Process ● AOC Process Specialised for EGI ● Aircraft Type Acceptance Process ● Noise Certification Process ● Aircraft Repair and Modification Approval Process Specialised for RES ● AMO Certification Process Specialised for RPI ● Ramp Inspection of an Operator's Aircraft (Domestic and Foreign)

Competency Requirements	
Practical Training	As developed by the Division Head to include OJT on: ● Administrative tasks ● Regulations, guidance material, procedures, etc relevant to the Division ● Application and documentation reviews ● Inspection and auditing ● Issuance and management of Findings
Timeframe	6-12 months Note: The period as a Trainee may be reduced to 3 months or less for staff with civil aviation experience over 5 years
Assessment	There is no formal end-of-training assessment. However, completion of the training program to the satisfaction of the Division Head is required
Assess by	Division Head

2.5.2 Technical Support Staff

Expectation: The staff member is expected to demonstrate the ability to satisfactorily perform, under the supervision of a credentialed staff (team leader), the following:

a. Audit and inspection tasks
b. Application and documentation reviews
c. Issuance and management of Findings
d. Administrative tasks

Competency Requirements	
Classroom Training	AIR mandatory training program: Basic AIR ● General Familiarisation Aircraft Type ● Basic Airworthiness and Maintenance ● General OM Presentation ● Airworthiness Requirements Specialised Training (for all AIR Inspectorate staff) ● SMS (Technical) ● Human Factors in Aviation (Technical) ● SSP Implementation ● Audit Techniques Specialised for AWI ● C of R Process ● C of A Process ● AOC Process Specialised for EGI ● Aircraft Type Acceptance Process ● Noise Certification Process ● Aircraft Repair and Modification Approval Process Specialised for RES ● AMO Certification Process Specialised for RPI ● Ramp Inspection of an Operator's Aircraft (Domestic and Foreign)
Practical Training	As developed by the Division Head to include OJT on: ● Administrative tasks ● Regulations, guidance material, procedures, etc relevant to the Division ● Application and documentation reviews ● Inspection and auditing ● Issuance and management of Findings
Timeframe	Depending upon the staff experience and completion of classroom and practical training requirements
Assessment	Yes and to be focused on: ● Regulatory knowledge ● Internal procedures ● Preliminary audit procedures, knowledge and techniques

Competency Requirements	
Assess by	A Panel combining the following: ● Subject Matter Expert ● Division Head ● AIR Manager Note: One Panel member may fulfil more than one role

2.5.3 Credential Staff

Expectation: The staff member is expected to demonstrate the ability to represent CAAT as a Credentialed Officer and satisfactorily perform the following:

a. Demonstrate a deep understanding of Division related regulations, guidance materials, internal procedures (OM) and day-to-day activities
b. Audit and inspection tasks
c. Understand and challenge the operational tasks performed by the operator
d. Manage an audit team
e. Application and documentation reviews
f. Issuance and management of Findings
g. Administrative tasks

Competency Requirements	
Classroom Training	Additional AIR Specialised courses as determined necessary by the Division Head and as defined in: ● CAAT-HRD-TNP, Section 4.7 Training Program for AIR Department, B. Additional Program
Practical Training	Satisfactory completion of OJT Program by Inspectorate area and for each Credential limitation: ● 2 OJT as a team member ● 1 OJT as the lead auditor Note: The minimum duration is 3 formal OJT assessments for each Credential limitation
Timeframe	Based upon the training program developed by the Division Head
Assessment	Yes and to be focused on: ● Regulatory knowledge ● Audit procedures knowledge and techniques ● Results of OJT assessments
Assess by	A Panel combining the following:

Competency Requirements	
	● Subject Matter Expert ● Division Head ● AIR Manager Note: One Panel member may fulfil more than one role

2.5.4 OJT Trainer

Expectation: The staff member is expected to demonstrate competency as an OJT Trainer.

Competency Requirements	
Classroom Training	Additional specialised training as determined necessary by the AIR Manager, which may include: ● Teaching and instructional skills, including "Train the Trainer" skills
Practical Training	Satisfactory completion of OJT Program by Inspectorate area and for each Credential limitation: ● 1 successful OJT as trainer under supervision ● 1 successful OJT as trainer under no supervision as evidenced by trainee feedback
Timeframe	Based on the CAAT requirement: ● 2 years after obtaining the credential ● Appointment by the AIR Manager
Assessment	Yes and to be focused on: ● Regulatory knowledge ● Audit procedures knowledge and techniques ● OJT techniques ● Training skills
Assess by	A Panel combining the following: ● Subject Matter Expert ● Division Head ● AIR Manager Note: One Panel member may fulfil more than one role

2.5.5 OJT Assessor

Expectation: The staff member is expected to demonstrate competency as an OJT Assessor.

Competency Requirements	
Classroom Training	Additional specialised training as determined necessary by the AIR Manager, which may include: ● Assessment skills
Practical Training	Satisfactory completion of OJT Program by Inspectorate area and for each Credential limitation: ● 1 successful OJT as assessor under supervision
Timeframe	Based on the CAAT requirement: ● 2 years after obtaining the credential ● Appointment by the DG
Assessment	Yes and to be focused on: ● Regulatory knowledge ● Audit procedures knowledge and techniques ● Assessment techniques
Assess by	A Panel combining the following: ● Subject Matter Expert ● Division Head ● AIR Manager Note: One Panel member may fulfil more than one role

2.5.6 On-Job Training and Assessment

OJT is typically carried out after the completion of classroom training related to the practical training area. An OJT Trainer will be allocated by the Division Head to:

a. Supervise a trainee who wishes to be appointed to the respective position
b. Record the trainees performance in the Inspector OJT Record Form (AVINSPECTOR-02) every time OJT is carried out
c. Provide the Record Form to the trainee as one of the required pieces of evidence to indicate completion of the training program

For Technical Support Staff applying for the initial issue of Credentials the minimum number of required OJT sessions is three. This may be reduced for the subsequent issue of additional Credentials. The number of OJT sessions required for the appointment to other positions is dependent upon the individual training plan.

Following the satisfactory completion of the training program, including both classroom and practical training, the OJT Trainer must make a recommendation to the Division Head that a trainee is ready for an assessment of competency.

Following approval by the AIR Manager, an assessment will be conducted in a simulated or real situation under the supervision of an OJT Assessor. The objective of the assessment is to ensure a demonstration of the following skills:

a. Impartiality, objectivity, in carrying out tasks
b. Behaviour skills (Initiative, tact, openness, patience, flexibility and Leadership)
c. A good understanding of human nature (Human Factors)
d. Drafting and reporting, as applicable to the task
e. Interpersonal and communication skills (ability to efficiently interact with auditees and the audit team, convey clear messages, participate in or lead audit team meetings, lead opening and closing meetings)
f. Ability to Interpret Thai laws & regulations, apply CAAT policies, procedures (particularly audit procedures) and guidance and analyse technical information to determine compliance
g. Decision making skills (judgment and objectivity)
h. Ability to manage time and priorities and to find quick and clever ways to overcome difficulties (resourcefulness)

The results of the assessment must be formalised using the OJT Assessment Form (AVINSPECTOR-02). In the form, the OJT Assessor must recommend:

a. The appointment
b. The scope of authorisation
c. Any limitations on the authorisation that may be required

To evaluate the trainee, the OJT Assessor must:

a. Carry out the assessment and evaluate the performance of the trainee
b. Record the trainees performance in the OJT Assessment Form
c. Provide the assessment form to the trainee as evidence to indicate completion of the assessment

2.6 AIR Training Plan and Records Management

An AIR Training Plan is developed on an annual basis and provides details of training which is programmed for each AIR staff member, including both general and specialised training.

Each AIR staff member is responsible for completing the Individual Development Plan (IDP), managed by HRD, by listing required and appropriate training for the forthcoming year. Based on the information in the IDP and an assessment carried out by the respective Division Head, an AIR training plan is developed. This assessment is an interactive process, between the Division Head and each individual staff member, and considers both technical training requirements (i.e. credentials related training) and general CAAT and developmental related training. The same process is carried out by the AIR Manager for the Division Heads.

AT is responsible for coordinating AIR training and developing a consolidated training plan for consideration by the AIR Manager. Following approval by the AIR Manager, the AIR training plan is submitted to HRD, who coordinate non-technical training requirements. Technical training requirements for airworthiness must be coordinated and managed within AIR by AT.

During the course of the year, each Division Head is responsible for monitoring the implementation of training for their respective staff and advising AT of any variances to the approved plan.

The responsibility for ensuring the currency of credentials and training requirements, as well as the accurate maintenance of training records, lies with each individual staff member. All training records are maintained in the HRD database system.

In addition, AIR ASI credentials are monitored by each Division Head, in coordination with AT, using the AIR Training and Credential Monitoring database that records, for each AIR staff member, the:

a. applicable AIR ASI type and expiry date of the authorisations held
b. expiry dates for recurrent training in the areas of:
    - Safety Management Systems
    - Human Factors in Aviation

CHAPTER 3: AIR SAFETY OCCURRENCE MANAGEMENT

(How AIR manages safety occurrences)

3.1 General

This Chapter describes how AIR:

a. Maintains an overview of safety
b. Identifies or becomes aware of safety occurrences
c. Responds to safety occurrences

3.2 Reference

a. CAAT Requirement No.22 on Reporting of Civil Aviation Occurrences (ข้อกำหนดสำนักงานการบินพลเรือนแห่งประเทศไทย ฉบับที่ 22 ว่าด้วยการรายงานเหตุการณ์ด้านความปลอดภัยในการบินพลเรือน)
b. Guidance Material on Reporting of Civil Aviation Occurrences (CAAT-SMD-OCC)
c. CAAT Requirement No. 32 on Protection of Safety Data and Information
(ข้อกำหนดของสำนักงานการบินพลเรือนแห่งประเทศไทย ฉบับที่ 32 ว่าด้วยการพิทักษ์ข้อมูลด้านความปลอดภัยและสารสนเทศด้านความปลอดภัยในการบินพลเรือน)
d. Thailand's Aviation Safety Occurrence Reporting Portal (https://caat.or.th/occurrence/index.php)

3.3 Maintaining an Overview of Safety

3.3.1 Role of AIR as a Regulator

Regulators perform a fundamentally different role to that of service providers. Regulatory authorities do not provide direct products or services to consumers in the public, but rather they conduct oversight processes to provide assurance to the users that service providers' products and services meet their safety responsibilities. The key contribution regulators offer to safety stems from their influence on service provider performance. They accomplish this by identifying major hazards in the civil aviation system, establishing controls, and performing safety oversight. Regulators also work collaboratively with service providers on voluntary efforts, providing guidance in ways that foster growth in their safety cultures and safety management capabilities.

3.3.2 How AIR Overviews Safety

The two prime mechanisms by which AIR maintains an overview of safety are the certification and surveillance programs.

An operator or organisation is required to meet an appropriate level of safety by demonstrating compliance with relevant CAAT regulatory provisions prior to being granted a certification or approval.

The processes by which AIR ensures appropriate levels of safety are met across the wide range of airworthiness activities are described in Chapter 7, AIR Certifications and Approvals.

The ongoing maintenance of appropriate levels of safety is assured by AIR's surveillance program, which takes regular and ad-hoc snapshots of certificate or approval holders levels of compliance. A surveillance program is developed on a yearly basis and contains regular and ad-hoc audits or inspections, as well as ongoing reliability monitoring activities. Additional ad-hoc surveillance activities may be added during the year based upon emerging safety issues. Full details of what, when, how and for who AIR does surveillance is detailed in Chapter 8, AIR Surveillance.

An additional means by which AIR maintains an overview of safety is by assessing information received regarding safety occurrences, as described in the following section.

3.4 Awareness of Safety Occurrence Information

AIR becomes aware of safety occurrence information from a number of sources, including:

a. Inspections and audits
b. Reliability monitoring
c. Mandatory, voluntary and confidential occurrence reports from operators and organisations
d. Information received from internal CAAT meetings, for example:
    - SDVSG - Safety Data Verification Subgroup
    - ASAG - Aviation Safety Action Group
e. Information received from foreign regulatory authorities

CAAT has adopted the European Coordination Centre for Accident and Incident Reporting Systems (ECCAIRS) tool as the Occurrence Reporting System (ORS) central repository. Occurrences are captured and entered in the database by Safety Management Department (SMD) staff in accordance with an aviation taxonomy that assists in describing the occurrence information and is used for safety analysis and data exchange.

The ORS provides for a single interface and database. The SMD ORS team is primarily concerned with the timely allocation of occurrences to designated Departmental Safety Key Personnel (SKP) for further processing and analysis, thus providing a closed-loop approach for each occurrence (see figure below). ORS provides support in the fields of Continuing Airworthiness of products, parts and appliances, as well as oversight of service providers and individuals. The steps described in the figure below also apply to internal AIR procedures for dealing with safety occurrence information.

The SMD ORS team has close ties to AIR SKP, in particular via the ASAG – SDVSG.

The ASAG is chaired by the DG and is the CAAT operational committee that decides on and monitors the implementation of the Thailand Aviation Safety Plan (TASP), with respect to all CAAT actions, duties and responsibilities. Additionally, ASAG identifies the leading aviation safety risks in Thailand and defines appropriate mitigation actions. It meets on a quarterly basis, or as otherwise requested by the chairman.

The SDVSG is chaired by the SMD Manager and includes SKP from each Department. SDVSG, as a subgroup under ASAG, is responsible for reviewing occurrence reports to:

a. verify data completeness
b. verify inclusion of root cause analysis by reporting organisation
c. determine CAAT actions to follow-up on the implementation of reporting organisation's risk control measures
d. determine any immediate actions for CAAT to ensure continued safe operations

The SDVSG meets every two weeks, or as otherwise requested by the chairman.

3.5 Management of Safety Occurrences

The management of safety occurrences within AIR involves the designated Safety Key Personnel (SKP) located in each Division, the Division Heads and the AIR Manager, who meet as required following receipt of safety occurrence information to determine required actions.

The specific actions to be taken are generally determined on a case-by-case basis considering both the severity of the occurrence and the likelihood of a recurrence. However, the procedure described in AIR-OP-SOM-001, Procedure for Management of Safety Occurrences, is to be used as a general template for actions.

The analysis of safety occurrences may result in the identification of a need for:

a. Development or amendment of;
   - Regulations, Acceptable Means of Compliance, Guidance Material (refer to Chapter 4 and 5)
   - Airworthiness Directives or Continued Airworthiness Notifications (refer to Chapter 10)
b. Additional surveillance (refer to Chapter 8)
c. Re-certification (refer to Chapter 7)
d. Enforcement (refer to Chapter 11)

The procedure for the management of safety occurrences is contained in AIR-OP-SOM-001.

Full details regarding the role and responsibilities of SKP are contained in the Safety Key Personnel Operational Manual (CAAT-SKP-001) maintained by SMD.

3.6 Management of Other Safety Information

3.6.1 Report of Aircraft Status from Regional Monitoring Agency (RMA)

The following information or reports may be received from the RMA:

a. Results of aircraft height-keeping performance
b. Results of aircraft system performance for Performance Based Communication and Surveillance (PBCS)
c. Results of safety and readiness assessments
d. Operator compliance with RVSM or PBCS approval requirements

AIR must review the reports and take appropriate actions to ensure that operators comply with special operations approval requirements. Non-compliance with these requirements may lead to:

a. Special audits or inspections
b. Requests for investigation
c. Findings issuance
d. Enforcement actions

The procedure for Management of Aircraft Status Report from RMA is contained in AIR-OP-SOM-002.

CHAPTER 4: AIR REGULATION DEVELOPMENT AND AMENDMENT

(How AIR develops and keeps AIR regulation updated)

4.1 General

This Chapter describes:

a. AIR regulatory structure
b. When regulations are developed and amended
c. How regulations are developed and amended

4.2 AIR Regulatory Structure

The primary Thai civil aviation legislation consists of:

a. AIR Navigation Act B.E. 2497 (1954) (ANA)
b. Civil Aviation Authority of Thailand Emergency Decree B.E. 2558 (2015) (CAAT-ED)

The following ANA Chapters contain provisions related to airworthiness:

a. Chapter 2: General provisions on aircraft
b. Chapter 3: Registration and markings of aircraft
c. Chapter 4: Aircraft type, aircraft production and airworthiness control (including provisions for repair station approval)

The CAAT-ED, in Sections 7 and 37, empowers CAAT to regulate and control civil aviation activities, and to ensure conformity with international standards.

Empowered by the primary legislation, the following regulations, grouped by source, may be developed in the airworthiness domain:

a. Ministry
   - Ministerial Regulation (กฎกระทรวง)
   - Announcement of the Ministry of Transport (ประกาศกระทรวงคมนาคม)
   - Order of the Ministry of Transport (คำสั่งกระทรวงคมนาคม)
b. Civil Aviation Board (CAB) (chaired by the Minister of Transportation)
   - Regulation of CAB (ข้อบังคับของคณะกรรมการการบินพลเรือน)
c. CAAT
   - Regulation of CAAT (ข้อบังคับของสำนักงานการบินพลเรือนแห่งประเทศไทย)
   - Requirement of CAAT (ข้อกำหนดของสำนักงานการบินพลเรือนแห่งประเทศไทย)
   - Rule of CAAT (ระเบียบสำนักงานการบินพลเรือนแห่งประเทศไทย)
   - Announcement of CAAT (ประกาศสำนักงานการบินพลเรือนแห่งประเทศไทย)
   - Order of CAAT (คำสั่งสำนักงานการบินพลเรือนแห่งประเทศไทย)
d. Others
   - Regulation of Department of Civil Aviation (DCA) (ระเบียบกรมการบินพลเรือน)

- Announcement of DCA (ประกาศกรมการบินพลเรือน)
- Announcement of Department of Air Transport (ประกาศกรมการขนส่งทางอากาศ)
- Requirement of Technical Committee (ข้อกำหนดของคณะกรรมการเทคนิค)

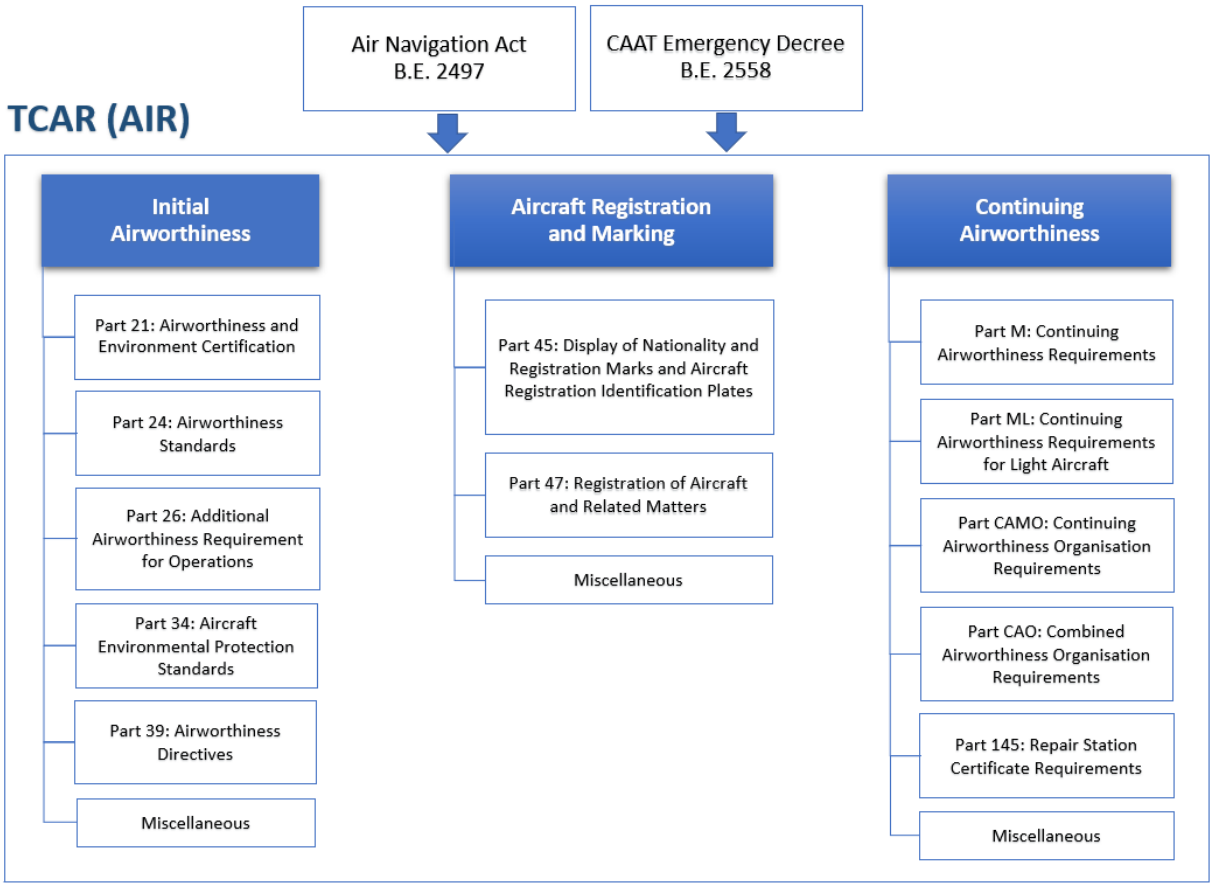
Note: The DCA and Technical Committee have been dissolved, but some provisions are still effective until superseded by new regulations.

Compared with many other States, Thailand's civil aviation regulatory system is relatively complex, especially when viewed from the operators' perspective. Consequently, CAAT publishes operating regulations, known as Thai Civil Aviation Regulations (TCAR), for each domain (e.g. personal licensing, flight operations, airworthiness, air navigation services, aerodrome, aviation security). TCAR provide a clear definition of compliance requirements and are consistent with the regulatory structure of many other States, while remaining fully compliant with the Thailand regulatory system.

TCAR in the AIR domain, are organised into 3 functional areas consisting of:

a. Initial airworthiness
b. Aircraft registration and markings
c. Continuing airworthiness

with details and concerned divisions shown in the diagram below.



Note:

a. TCAR are supported, where required to assist operator understanding and compliance, by an Acceptable Means of Compliance (AMC) and Guidance Material (GM). Details of AMC and GM are provided in Chapter 5 of this OM.
b. Additional AIR regulations, concerning administrative matters etc., are published separately and shown here as Miscellaneous.

For full details of how AIR regulations are organised by TCAR, refer to the AIR Regulation and GM Roadmap.

All regulations are available for download on the CAAT website.

4.3 When Regulations Are Developed and Amended

The need to develop and amend AIR regulations can arise due to many factors, including:

a. New, or changes to existing, higher level Thai regulatory provisions
b. Any amendment of an Annex to the Chicago Convention or Documents and Manuals based thereon (ICAO Annexes, Documents and Manuals).
c. Any amendment to foreign source regulations, which have been copied or adapted into AIR regulations
d. Identification of a new safety risk or an increase in an existing safety risk
e. Evidence indicating that a safety risk for which a regulation was designed no longer exists
f. Any other reason specified by the DG, including requests from government, industry stakeholders, or any interested parties

The prime purpose is always to deliver additional safety benefits for the Thai civil aviation industry.

4.4 How Regulations Are Developed and Amended

The overall process for regulation development is described in the following:

a. Manual for Civil Aviation Regulation Development - (CAAT-LEG-CARD) (available in Thai only)
b. Manual for ICAO SARPs Management and Development of Legal Framework for Regulatory Oversight (CAAT-LEG-SAM)

While each Division Head is responsible for ensuring that applicable AIR regulatory provisions are suitable and adequate, AT is responsible for providing oversight and guidance, as well as coordinating AIR activities, providing regular status updates to the AIR Manager and maintaining the AIR interface with LEG.

It is important that AIR regulations remain current. Therefore, it is necessary to regularly review the relevant provisions of ICAO and referenced authorities (e.g. EASA, FAA) for proposed or forthcoming changes and take action regarding any consequently required amendments to AIR regulations. In many

cases, this information is obtained directly upon receipt of ICAO State Letters or EASA/FAA Notices of Proposed Rulemaking. However, notwithstanding this, each Division Head is required to undertake a review of respective regulations on a 6-monthly basis, using Checklist AIR-CL-OPD-002, with the objective of identifying any need for amendments. In this regard, the Division Head is required to advise AT of the results of this review. AT is required to coordinate this information, record the results, and provide a summary to the AIR Manager.

With respect to amendments resulting from revisions to ICAO Annexes, it is important to remember that where the regulation does not comply with an ICAO standard, AT in coordination with respective Division Heads and SMO must update AIP Thailand, GEN 1.7 Differences from ICAO Standards, Recommended Practices and Procedures and notify the differences to ICAO via the ICAO Compliance Checklist/Electronic Filing of Differences (CC/EFOD) system.

The procedure for regulation development and amendment is contained in AIR-OP-REG-001.

4.5 How to Develop and Amend Regulations Adopted from Foreign Standards

4.5.1 Acceptability of Foreign Airworthiness Standards

The acceptability by CAAT of foreign standards related to AIR depends upon the level of similarity with the equivalent operating regulations known as TCAR. This level of similarity will be determined through a gap analysis between the two standards.

AIR will not perform a gap analysis with every foreign standard but only with those standards that are internationally recognised, or for which CAAT considers there is an advantage for Thai stakeholders.

AIR will consider the following criteria to initiate a gap analysis between TCAR and the standard from a foreign country:

a. The likelihood to find similarities between the two standards;
b. The international recognition of the foreign standard;
c. The relationship between Thailand and the foreign country/region where the foreign standard is applicable.

For the countries that use standards considered as "similar to" or "not lower than" TCAR, AIR will review the data available to determine if it can partly or totally rely upon the certification and surveillance implemented by the foreign country.

For other countries using standards which are not "similar to" or "not lower than" TCAR, AIR will not rely upon the certification and surveillance implemented by the foreign country.

The procedure for Foreign Authorities and Standards Gap Analysis is contained in AIR-OP-REG-002.

4.5.2 Acceptability of Foreign Authorities

The acceptability by CAAT of a foreign authority depends upon the proficiency of the authority and the level of similarity between the foreign standards and TCAR. This level of acceptability will be determined by an analysis of the authority and its airworthiness standards.

AIR will not perform an analysis with every foreign authority but only with those who are internationally recognised and use standards considered as "similar to" or "not lower than" TCAR, or for which AIR considers there is an advantage for Thai stakeholders.

AIR will consider the following criteria to initiate an analysis of the foreign authority:

a. The level of similarity between TCAR and the foreign standard;
b. The level of proficiency of the foreign authority.

4.5.3 Determining Level of Proficiency of Foreign Authorities

The level of proficiency will be determined considering the following criteria:

a. The publicly available results of surveillance by international civil aviation organisations or agencies (Note i)
   - Information (Note ii) published by the European Commission's Air Safety Committee
   - FAA's International Aviation Safety Assessment (IASA) category (Note iii) for the foreign authority
   - Significant Safety Concerns (SSC) (Note iv) or USOAP results when available) raised by ICAO.

   Note:

   i. Only safety related results are considered
   ii. The European Union's (EU) "Air Safety List" indicating air carriers, which are banned from operating within the European Union. EU website: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32020R1992
   iii. FAA website: https://www.faa.gov/about/initiatives/iasa/
   iv. ICAO website: https://www.icao.int/safety/pages/usoap-results.aspx

b. The international reputation of the foreign authority, i.e.:
   - The foreign country issues Type Certificates that are widely recognised by other ICAO Member States.
   - The foreign country has signed bilateral agreements related to airworthiness with other ICAO Member States.

c. The foreign authorities are overseen by a regional Safety Agency on a continuous basis, i.e. EASA Member States NAAs are standardised by EASA.

AT in coordination with related Divisions is responsible for:

a. Establishing the list of foreign authorities to be considered as acceptable by CAAT. The list is approved and published by the DG
b. Amending the list every time new information regarding the level of proficiency of a foreign authority becomes publicly available

4.5.4 Gap Analysis Conclusions

The overall conclusion of a gap analysis will be formulated as follows:

a. The foreign standard will be considered as lower than TCAR when:
   - Over 50% of the provisions contained in the foreign set of regulations are lower than TCAR
   - Safety objectives are not supported by guidance material to detail how to meet the safety objectives
   - There are several significant differences with a direct safety impact

b. The foreign standard will be considered as similar to TCAR when:
   - Over 50% of the provisions contained in the foreign set of regulations are similar to TCAR
   - Some safety objectives are supported by guidance material to detail how to meet the safety objectives
   - There are few significant differences with direct safety impact
   - There can be other significant differences with no direct safety impact

c. The foreign standard will be considered as not lower than TCAR when:
   - Over 50% of the provisions contained in the foreign set of regulations are not lower than TCAR
   - Most of the safety objectives are supported by guidance material to detail how to meet the safety objectives
   - There are very limited significant differences with direct safety impact
   - There can be other significant differences with no direct safety impact

4.5.5 Ensuring the Level of Similarity is Maintained

At 6 monthly intervals, using Checklist AIR-CL-OPD-002, or following a new issue of the foreign standard, the respective Division Head, in coordination with AT, will review and record any gap analysis to ensure that the level of similarity between TCAR and the foreign standard considered as "similar to" or "not lower than" is maintained and that the foreign authority continues to remain an acceptable authority. AT is required to provide a summary of the gap analysis to the AIR Manager.

The procedure for Acceptable Foreign Authorities and Standards - Ensuring the Level of Similarity is Maintained is contained in AIR-OP-REG-003.

4.6 Public Hearing

Operator engagement is an important part of the regulation development process. The Manual for Civil Aviation Regulation Development (CAAT-LEG-CARD) provides the requirements and procedures for conducting public hearings for regulation development.

The conclusions and recommendations from the public hearing must be summarised and submitted to LEG with the proposed draft regulation for further consideration. The template, which is recommended for documenting the conclusion, is provided in:

a. AIR-TL-REG-001: Public Hearing Summary Report for Face-to-Face Meeting
b. AIR-TL-REG-002: Public Hearing Summary Report for Consultation by Correspondence

CHAPTER 5: AIR ACCEPTABLE MEANS OF COMPLIANCE AND GUIDANCE MATERIAL DEVELOPMENT AND AMENDMENT

(How AIR develops and keeps AIR AMC and GM updated)

5.1 General

This chapter is intended to be read in association with Chapter 4 AIR Regulation Development and Amendment and describes:

a. The purpose of Acceptable Means of Compliance (AMC) and Guidance Material (GM)
b. When and how AMC and GM must be developed and amended
c. The AIR system for AMC and GM coding

AMC and GM exist in support of regulatory material, referred to here as operating regulations.

a. Operating regulations are binding and used to specify a high and uniform level of safety and uniform conformity and compliance
b. AMC explains how one or more requirements of an operating regulation, for the issue of a certificate, licence, approval or other authorisation, can be met by an individual or organisation applying for the authorisation. AMC are considered as meeting the requirements of the operating regulations.
   - It is recognised that there may be several effective approaches taken in order to meet safety standards as prescribed under the Air Navigation Law. Applicants may, on their own initiative, propose other ways of meeting the requirements of the operating regulation, known as an Alternative Means of Compliance (AMoC).
   - When an applicant wishes to use an AMoC to the AMC, it is required, prior to implementation, to provide a full description of the AMoC. The description must include any revisions to manuals or procedures that may be relevant, as well as an assessment demonstrating that the requirements of the regulation are met.
   - In order to demonstrate that an AMoC meets all the requirements of the regulation, a risk assessment must be completed and documented by the applicant. The result of the risk assessment must demonstrate that an equivalent level of safety to that established by the AMC is achieved.
   - A proposal for an AMoC will be subject to separate assessment by AIR to determine whether the authorisation can be issued. The applicant may implement an AMoC only after receiving formal approval from CAAT.

c. GM provides explanations and amplification of an operating regulation policy intention, rather than a means of complying with it. GM is non-binding and, where applicable, must be read in conjunction with the relevant operating regulations and AMCs. GM may be made available in three formats, depending upon requirements:
   - associated directly with an AMC in one document, known as an AMC/GM

- associated directly with an operating regulation and AMC, if applicable, as a standalone document, either singly or as a series, depending upon the number of topics to be addressed
- as a standalone document in order to address a specific generalised topic

Both the AMC and GM are intended to ensure uniform and consistent application of the operating regulations, ease of compliance for the applicant and efficiency of certification and surveillance by AIR.

5.2 When and How AMC and GM Are Developed and Amended

Not all operating regulations require AMC and GM, with the decision being made on a case-by-case basis, taking into account the complexity and scope of the operating regulation. Some operating regulations may not require any AMC or GM, while others may require an AMC and multiple GM. The decision as to what to publish in support of an operating regulation is taken by the AIR Manager, following a recommendation from the respective Division Head and AT.

While the need to develop AMC and GM is essentially based on experienced judgement, the identification of the need to amend existing AMC and GM must be assessed by the respective Division Head based upon:

a. The scope and complexity of a proposed amendment to the referenced operating regulation
b. The result of post-implementation feedback, lessons learned etc, from either the respective operating regulation, AMC or GM
c. Amendments to foreign regulations, AMC or GM upon which CAAT operating regulation, AMC and GM are harmonised
d. In the case of an AMC, to incorporate an approved AMoC

Additionally, each Division Head is required to review their respective AMC and GM on, at least, a 6-monthly basis, using Checklist AIR-CL-OPD-002.

When a need is identified to develop or amend an AMC or GM, the procedures described in AIR-OP-AGM-001 and AIR-OP-AGM-002, respectively, must be followed.

The procedure for AMC or GM to Regulations Development and Amendment is contained in AIR-OP-AGM-001.

The procedure for Standalone GM Development and Amendment is contained in AIR-OP-AGM-002.

5.3 AMC and GM Coding

Coding for both AMC and GM are designed to ensure traceability and ease of reference for operators.

AMC are coded with reference to the associated IR, e.g. CAAT-AIR-AMC to TCAR AIR Part-XXX and do not require individual code numbers. A consolidated list of AIR AMC with assigned coding, issue number, revision number and issue date is maintained by AT.

GMs are coded in accordance with the procedures defined in the Document Management System Procedures Manual (CAAT-QAD-DMSP), and referenced to the responsible Division. The following Table defines the numerical sequences assigned to each Division. A consolidated list of AIR GM with responsible Division, assigned coding, version number and issue date is maintained by AT.

Responsible Division	GM Coding
AT	000 - 099
DP	100 - 199
AR	200 - 299
AO	300 - 399
AN	400 - 499
RI	500 - 599

For example, CAAT-GM-AIR-500: Guidance Material for Maintenance Organisation Certificate Holders and Applicants – General Provisions

CHAPTER 6: AIR OPERATING DOCUMENTS DEVELOPMENT AND AMENDMENT

(How AIR develops and keeps AIR checklists, forms, certificates, model template letters and workflows updated)

6.1 General

This chapter is intended to describe how AIR standardises and harmonises procedures across Divisions and among operators and organisations by using the following, known here as AIR operating documents:

a. Checklists
b. Forms
c. Certificates
d. Model Template Letters
e. Workflows

This ensures that all activities are conducted in a uniform manner and that the results of safety oversight activities (i.e. certifications, approvals, inspections, audits, etc.) are actioned appropriately.

Not all operating regulations require checklists, forms, certificates, model template letters and workflows, with the decision being made on a case-by-case basis, taking into account the complexity and scope of the operating regulation. The decision as to what to publish in support of an operating regulation is taken by the AIR Manager, following a recommendation from the respective Division Head and AT.

While the need to develop the operating documents is based on regulations, safety oversight activities, efficiency of operations, AIR procedures and experienced judgement, the identification of the need to amend existing operating documents must be assessed by the respective Division Head based upon:

a. The scope and complexity of a proposed amendment to the referenced operating regulation
b. The result of post-implementation feedback, lessons learned etc, from either the respective operating regulation, AMC, GM, or AIR procedures
c. Amendments to foreign regulations, checklists and forms upon which CAAT operating regulation, checklists and forms are harmonised

One or more of the above operating documents may be associated with any of the Procedures contained in Annex I.

On at least a 6-monthly basis, each Division Head is required to review the respective Division-related operating documents, using Checklist AIR-CL-OPD-002, and ensure they remain current and published on the CAAT website and in EMPIC as appropriate. Each Division Head must advise AT of the result of this review and AT is responsible for consolidating the information and providing a summary to the AIR Manager.

6.2 Checklists

A checklist is:

a. A comprehensive list of procedures to be completed in a specified order in order to ensure that no important step is forgotten and ensure harmonisation among users
b. Designed to identify specific items for review and make reference to the applicable regulatory requirement or related procedures
c. Designed for use by operators, organisations or AIR staff as appropriate

A checklist should:

a. Improve efficiency by minimising mistakes
b. Provide a written trail detailing what was done at every step of a procedure
c. Contain items which are actionable and grouped by category
d. Be precise, efficient, easy to use in any situation and straight to the point

A checklist is not intended to limit the ability of AIR staff to explore other areas where warranted. For example, a checklist can be used as a tool to support inspection and audit preparation and performance, but it must not prevent AIR staff from reading the applicable regulations, AMC, GM and exercising professional judgement when conducting the inspection or audit. When errors are identified or improvements considered necessary in a particular checklist (such as typos, incorrect references, or requirements for approval of a new technology or new type of special operation, etc.), AIR staff must inform the Division Head by any means for the improvement and revision of the concerned checklist.

AIR uses checklists for three main purposes:

a. Compliance
   The purpose of a compliance checklist is to assist both operators and AIR staff to ensure that documents submitted for approval are standardised and include all the items that are required. Compliance checklists are typically associated with regulations or standards, for example:
   - TCAR 8 Part 145 compliance checklist
   - MOE compliance checklist
   - TPM compliance checklist
   - Maintenance program compliance checklist

b. Audit
   The purpose of an audit checklist is to reflect compliance or otherwise with the regulatory requirements or set of standards to be applied in the area being reviewed. To detect a non-conformance, the ASI-AIR must follow the guidance reflecting that standard. The checklist describes what should be happening and the observations of the ASI-AIR show what is actually happening. A gap between the two generally indicates a nonconformity.

c. Inspection
The purpose of an inspection checklist is to check and verify aircraft and aircraft systems. As each item on the checklist is addressed, the ASI-AIR confirms that it is correct in accordance with the appropriate regulations and requirements.

Checklists are currently maintained in two formats:

a. Electronic using EMPIC
Note: when checklists are completed electronically in EMPIC, printouts will not contain the signature of the responsible ASI-AIR

b. Paper, or PDF, for situations where the use of EMPIC is not feasible or practical

Note: It is intended to move to a fully electronic system as circumstances permit

6.3 Forms

Forms are used as a way of ensuring that essential information is routinely supplied by operators and organisations or documented by AIR staff. CAAT forms issued by approved operators or organisations provide traceability and demonstrate compliance with CAAT requirements.

AIR Forms can be:

a. Associated with regulations, for example:
- Application forms
- Technical forms such as CAAT Form 1 or Certificate of Release to Service of Aircraft (CRS)

b. Developed to improve efficiency and communication, for example:
- Aircraft Deregistration Notification form

AIR is also required, in the course of activities, to use a variety of non-AIR developed forms, for example MAAR Form 2 and Form 3.

6.4 Certificates

Certificates are issued by CAAT as a means of authorisation for an operator or organisation to perform tasks in accordance with respective regulatory requirements (i.e. ANA and operating regulations). The issuance of a Certificate represents the last stage in an approval process and may have a specific validity or be non-terminating. Depending upon the nature of the approval or authorisation, the Certificate may require the signature of the DG, or may be delegated to the AIR Manager to sign.

6.5 Model Template Letters

Where applicable, Model Template Letters are used as guidelines for communicating within CAAT and the industry regarding AIR activities. Given the wide variety of possible communications, they may require suitable customisation on a case-by-case basis.

Model Template Letters are not controlled documents and therefore are not subject to the amendment process described in AIR-OP-OPD-001.

6.6 Workflows

Where applicable, Workflows are used to provide a consolidated picture of an operational procedure, including the appropriate Service Level Agreement (SLA) timeframes for each element of the procedure.

6.7 How AIR Operating Documents Are Developed and Amended

It is important that operating documents remain current. Therefore, it is necessary to regularly review the relevant provisions for proposed or forthcoming changes (see Chapter 4 and 5) and take action regarding any consequently required amendments to AIR operating documents.

Each Division Head is required to undertake a review of respective regulations on a 6-monthly basis, using Checklist AIR-CL-OPD-002, with the objective of identifying any need for amendments. Where such a need is identified the respective Division Head is also required to review relevant AIR operating documents to identify any associated requirement for amendment. In this regard, the Division Head is required to advise AT of the results of this review. AT is required to coordinate this information, record the results, and provide a summary to the AIR Manager.

When a need is identified to develop or amend operating documents, with the exception of Model Template Letters, the procedure described in AIR-OP-OPD-001 must be followed.

Note: The overall process for the development of checklists and forms is described in the Manual for Document Management System Procedure - (CAAT-QAD-DMSP) Chapter 6: Development or Amendment of a Controlled Document.

6.8 Operating Document Coding

Operating documents coding is designed to ensure traceability and ease of reference for operators and AIR staff. A consolidated list of operating documents with responsible Division, assigned coding, version number and issue date is maintained by AT.

AIR codes operating documents to be consistent with the procedures defined in the Document Management System Procedure - (CAAT-QAD-DMSP).

CHAPTER 7: AIR CERTIFICATIONS AND APPROVALS

(What, when, and how AIR issues certifications and approvals)

7.1 General

7.1.1 List of AIR Certificates and Approvals

This Chapter describes the issuance of AIR certifications and approvals. A full list of AIR certifications and approvals along with the associated responsible Division is contained in Chapter 1, Section 1.5.

7.1.2 Findings and the Certification Process

A recommendation to a Division Head or AIR Manager for the issuance or renewal of a certificate or approval cannot be accepted if there are open Findings. Only after the operator or organisation's compliance with the respective regulations has been established and all Findings are closed, may the certification team prepare the approval package.

Additionally, the implementation of the whole corrective action must not exceed the timeframe imposed by CAAT to close the Finding.

Note: The agreed corrective actions and relevant evidence must be received with sufficient time to complete a detailed review and close the related Findings by the due date (e.g.: 14 days in advance for a Finding due date set up at 2 months).

The final objective of non-compliance management is to ensure that the actions requested were effectively implemented in due time. The end of the process and the closure of the Finding occur when all actions have been implemented and evidence has been provided as requested.

Details regarding the management of non-compliances may be found in CAAT-QAD-NCP Non-Compliance Management Procedure. The provisions contained in CAAT-QAD-NCP are mandatory for any AIR activities relating to the management of non-compliances. Any queries or comments must be directed to the concerned Division Head and AIR Manager.

7.2 Type Certificate Validation

7.2.1 Introduction

This Section defines procedures for the issuance of a Letter of Validation of Type Certificate for aircraft to be registered in Thailand.

A Letter of Validation of Type Certificate is evidence to demonstrate that the type design of an aircraft, engine or propeller detailed in the Type Certificate has been certified to meet the applicable airworthiness standards in CAAT Requirement No. 17, and environmental protection standards in CAAT Requirement No. 16 and Technical Committee Requirement No. 2. As specified in ANA Section 41/14, a Letter of Validation is a prerequisite for obtaining a Certificate of Airworthiness (Standard or Special Category 1).

Note: In the context of this OM, the term Validation means Acceptance. CAAT accepts Type Certificates or Supplemental Type Certificates issued by certain States (see 7.2.2) without detailed investigation into the certification basis (i.e. "validation"). The use of the word Validation is to ensure consistency of terminology with the Air Navigation Act.

7.2.1.1 Applicability

According to:

a. ANA Section 41/14
b. Ministerial Regulations providing the rules and procedures for Validation of Foreign Type Certificate or Supplemental Type Certificate of Aircraft, issued by a Contracting State or any country entering into an agreement with Thailand, to be used in an application for a Certificate of Airworthiness (B.E. 2553),

a Letter of Validation of Type Certificate is required for aircraft, which are:

a. to be registered in Thailand
b. type certificated to meet the applicable airworthiness standards in CAAT Requirement No. 17, and environmental protection standards in CAAT Requirement No. 16 and Technical Committee Requirement No. 2

   Note: A Letter of Validation may be issued for a restricted Type Certificate (referred as a Specific Type Certificate in ANA) when some of the applicable airworthiness or environmental protection standards are exempted for special purpose operations

A Type Certificate for engines or propellers of an aircraft to be registered in Thailand will be accepted upon issuance of the Letter of Validation of Type Certificate for the aircraft.

7.2.1.2 Eligibility

A Type Certificate Holder of an aircraft or an owner or possessor of a registered aircraft, which meets the applicability requirements detailed in 7.2.1.1, is eligible under Air Navigation Act (B.E. 2497) Section 41/14 to submit an application for a Letter of Validation of Type Certificate.

7.2.1.3 Validity

Once issued, a Letter of Validation of Type Certificate remains valid for an unlimited duration, provided that the Type Certificate:

a. remains valid
b. is not suspended
c. complies with the applicable airworthiness and environmental protection standards

7.2.2 Issuance of a Letter of Validation of Type Certificate

An application for a Letter of Validation of Type Certificate**,** submitted by an eligible person in accordance with 7.2.1.2, should contain the following elements:

a. Intention letter
b. Completed application form (Application for the Letter of Validation of Foreign Type Certificate or Supplemental Type Certificate to be used in Application for Certificate of Airworthiness)
c. The application must be signed by the Type Certificate Holder or an owner or possessor of the aircraft to be registered.
d. An application for a C of R or evidence demonstrating that the aircraft will be registered in Thailand
e. Copy of the Type Certificate
f. Copy of the Type Certificate Data Sheet (TCDS)

Note: CAAT accepts a TCDS which meets the applicable airworthiness standards of CAAT Requirement No. 17 as well as the environmental protection standards in CAAT Requirement No. 16 and Technical Committee Requirement No. 2, and is issued by one of the following States:

- Federal Aviation Administration (FAA) of the United States of America
- European Aviation Safety Agency (EASA) of the European Union
- Transport Canada Civil Aviation (TCCA) of Canada
- Civil Aviation National Agency (ANAC) of Brazil

When a Type Certificate is issued by a State not listed above, the TCDS should be validated by one of the above States

g. Information regarding the aircraft type design
   - Drawings and the specifications that show compliance with the certification basis
   - Dimensions, materials and airframe manufacturing process
   - Airworthiness limitations specified for the continuing airworthiness of the aircraft

   Note: The above information is normally obtainable from the approved aircraft documentation

h. Other limitations or conditions on the aircraft type design
i. Statement of Compliance comparing the airworthiness and environmental standards applied by the State of Design with those applied by Thailand
j. Any other documents that may be requested by the DG

When information on the application form is found to be missing or incorrect, the application should be revised. Additional supporting documents may also be requested when the provided information is not sufficient.

An application may be rejected in cases where the provisions of the Ministerial Regulations cannot be met. For example:

a. The applicant is not eligible, or cannot provide a POA, as an owner or possessor of the aircraft
b. The application for the C of R is cancelled
c. There is no satisfactory evidence that the aircraft meets the applicable airworthiness standards in CAAT Requirement No. 17 or environmental protection standards in CAAT Requirement No. 16 and Technical Committee Requirement No. 2

The procedure for the issuance of a Letter of Validation of Type Certificate is contained in AIR-OP-CER-TC-100.

7.3 Supplemental Type Certificate Validation

7.3.1 Introduction

This Section defines procedures for the issuance of a Letter of Validation of Supplemental Type Certificate for changes to the Type Certificate of aircraft to be registered in Thailand.

A Letter of Validation of Supplemental Type Certificate is evidence to demonstrate that changes to the type design of complete aircraft, engines or propellers detailed in the Supplemental Type Certificate have been certified to meet the airworthiness standards in CAAT Requirement No. 17, and environmental protection standards in CAAT Requirement No. 16 and Technical Committee Requirement No. 2. As specified in Air Navigation Act (B.E. 2497) Section 41/14, the Letter of Validation of Supplemental Type Certificate is required prior to the issuance of a Certificate of Airworthiness (Standard or Special Category 1A) for an aircraft to be registered in Thailand embodied with the Supplemental Type Certificate.

Note: In the context of this OM, the term Validation means Acceptance. CAAT accepts Supplemental Type Certificates without detailed investigation into the certification basis (i.e. "validation"). The use of the word Validation is to ensure consistency of terminology with the Air Navigation Act.

7.3.1.1 Applicability

According to:

a. ANA Section 41/14
b. Ministerial Regulations providing the rules and procedures for Validation of Foreign Type Certificate or Supplemental Type Certificate of Aircraft, issued by a Contracting State or any country entering into an agreement with Thailand, to be used in an application for a Certificate of Airworthiness (B.E. 2553),

a Letter of Validation of Supplemental Type Certificate is issued when

a. changes to the type design of complete aircraft, engines or propellers meets the applicable airworthiness standards in CAAT Requirement No. 17, and environmental protection standards in CAAT Requirement No. 16 and Technical Committee Requirement No. 2
b. the aircraft on which the Supplemental Type Certificate is embodied is to be registered in Thailand
c. Type Certificate of the aircraft is validated

Note: A Letter of Validation of Supplemental Type Certificate is not required for a Supplemental Type Certificate to be embodied on registered aircraft, see Chapter 7, 7.4 Modification and Repairs Approval

7.3.1.2 Eligibility

A Supplemental Type Certificate Holder or an owner or possessor of a registered aircraft, which meets the applicability requirements detailed in 7.3.1.1, is eligible under Air Navigation Act (B.E. 2497) Section 41/14 to submit an application for a Letter of Validation of Supplemental Type Certificate.

7.3.1.3 Validity

Once issued, a Letter of Validation of Supplemental Type Certificate remains valid for an unlimited duration, provided that the Supplemental Type Certificate or the Type Certificate of the embodied aircraft

a. remains valid
b. is not suspended
c. complies with the applicable airworthiness and environmental protection standards

7.3.2 Issuance of a Letter of Validation of Supplemental Type Certificate

An application for a Letter of Validation of Supplemental Type Certificate**,** submitted by an eligible person in accordance with 7.3.1.2, should contain the following elements:

a. Intention letter
b. Completed application form (CAAT-AIR-FM-CER-TC/STC-100). The application must be signed by the Supplemental Type Certificate Holder or an owner or possessor of the aircraft to be registered.
c. An application for a C of R or evidence demonstrating that the aircraft will be registered in Thailand
d. Copy of the Supplemental Type Certificate

   Note: CAAT accepts a Supplemental Type Certificate which meets the applicable airworthiness standards of CAAT Requirement No. 17 as well as the environmental protection standards in CAAT Requirement No. 16 and Technical Committee Requirement No. 2.

e. Information regarding the changes to aircraft type design
   - Drawings and the specifications that show compliance with the certification basis
   - Dimensions, materials and manufacturing process of parts or equipment to be installed
   - Airworthiness limitations specified for the continuing airworthiness of the aircraft

   Note: The above information is normally obtainable from the approved supplemental aircraft documentation.

f. Other limitations or conditions from the changes to aircraft type design
g. Statement of Compliance comparing the airworthiness and environmental standards applied by the State of Design with those applied by Thailand
h. Any other documents that may be requested by the DG

When information on the application form is found to be missing or incorrect, the application should be revised. Additional supporting documents may also be requested when the provided information is not sufficient.

An application may be rejected in cases where the provisions of the Ministerial Regulations cannot be met. For example:

a. The applicant is not eligible, or cannot provide a POA, as an owner or possessor of the aircraft
b. The application for the C of R is cancelled
c. There is no satisfactory evidence that the changes to the type design meets the applicable airworthiness standards in CAAT Requirement No. 17 or environmental protection standards in CAAT Requirement No. 16 and Technical Committee Requirement No. 2

The procedure for the issuance of a Letter of Validation of Supplemental Type Certificate is contained in AIR-OP-CER-STC-100.

7.4 Noise Certificate

7.4.1 Introduction

This Section defines procedures for the issuance, reissuance, replacement, suspension and revocation of a Noise Certificate for aircraft registered and operated in Thailand. A Noise Certificate is evidence to demonstrate that a Thai registered aircraft complies with the applicable environmental requirements specified in ICAO Annex 16 Volume 1, and is required to be carried on board when operated.

7.4.1.1 Applicability

According to CAAT Requirement No. 16 on Aircraft Noise Certification Standard and Noise Certificate Application and Issuance, a Noise Certificate is required for aircraft, which meet all of the following criteria:

a. TC issued, validated or accepted by CAAT
b. registered in Thailand
c. specified in ICAO Annex 16 Environmental Protection, Volume I Aircraft Noise, Part 2, Chapter 2 - Chapter 14

An aerial work aircraft (as defined in ICAO Annex 6 Parts 1 and 2), or an aircraft permitted under special conditions prescribed by the DG, does not require a Noise Certificate.

7.4.1.2 Eligibility

An owner or possessor of a registered aircraft, which meets the applicability requirements detailed in 7.4.1.1, is eligible under CAAT Requirement No. 16 to submit an application for a Noise Certificate for the aircraft.

7.4.1.3 Validity

Once issued, a Noise Certificate remains valid for an unlimited duration, provided that the aircraft meets the following conditions:

a. compliance with the applicable type-design, environmental protection and continuing airworthiness requirements
b. aircraft registration remains valid
c. TC remains valid
d. Noise Certificate is not suspended or revoked

7.4.2 Issuance of a Noise Certificate

An application for a Noise Certificate, submitted by an eligible person in accordance with 7.4.1.2, should contain the following elements:

a. Intention letter
b. Completed application form (CAAT-AIR-FM-CER-NC-100)
   - The application for a private aircraft must be signed by the aircraft owner, or under a Power of Attorney (POA)
   - The application for an AOC aircraft must be signed by the AOC holder, as the possessor
c. Copy of the C of R or an application for a C of R if the aircraft has not yet been registered Note: The aircraft registration and aircraft serial number stated on the application must be consistent with the aircraft registration database
d. Copy of the TC
e. Data sheet, such as the TCDS for Noise or Noise Characteristic Data Sheet etc., issued by the State of Design or Aircraft Manufacturer to certify that the aircraft complies with applicable Noise Standards (ICAO Annex 16 Volume I). Examples of acceptable data sheets would be:
   - EASA Type-Certificate Data Sheet for Noise (TCDSN), using the following website link https://www.easa.europa.eu/document-library/type-certificates/tcdsn
   - EASA Certification Noise Levels, using the following website link https://www.easa.europa.eu/domains/environment/easa-certification-noise-levels
   - FAA, using the following website link https://www.faa.gov/regulations_policies/advisory_circulars/index.cfm/go/document.information/documentID/22942
   - Boeing Noise Characteristic data sheet (issued by Boeing)
   - Textron Noise Characteristics Certificated Noise Levels (issued by Textron)

   Note: The noise data sheet must be examined to ensure that there is sufficient evidence that the aircraft complies with the applicable standards defined in ICAO Annex 16. The following items must be specifically addressed:
   i. The aircraft noise levels must meet the applicable noise standards defined in ICAO Annex 16.
   ii. The aircraft configuration including the installed engines and/or propellers must conform to the TC, given that:
      - For new aircraft, a compliance statement from the manufacturer, such as a certificate of conformity, should be provided as the evidence that the aircraft configuration conforms to the TC.
      - For used aircraft, configurations affecting noise characteristics should conform to the submitted data and the TC. Aircraft records should be reviewed where configurations deviate from the TC.
   iii. The maximum take-off and landing weights must be the same as the values stated in the technical manuals, such as AFM, POH or aircraft records.

f. Records of any modifications essential to meet the certificated noise level, including modifications or repairs which might affect the noise levels

   Note: In cases where additional modifications essential to meet the certificated noise levels are required, these should be reflected on the aircraft records. Any modifications embodied on the aircraft should be examined to ensure that they have no effect on the noise levels.

g. Any other documents that may be requested by the DG

When information on the application form is found to be missing or incorrect, the application should be revised. Additional supporting documents may also be requested when the provided information is not sufficient.

An application may be rejected in cases where the provisions of CAAT Requirement No. 16 cannot be met. For example:

a. The applicant is not eligible, or cannot provide a POA, as an owner or possessor of the aircraft
b. The aircraft registration process cannot be completed
c. There is no satisfactory evidence that the aircraft meets the applicable noise standard in ICAO Annex 16
d. The actual aircraft configuration does not meet the aircraft configuration specified in the noise data sheet

The procedure for the issuance of an application is contained in AIR-OP-CER-NC-100.

7.4.3 Reissuance of a Noise Certificate

A Noise Certificate should be reissued when there are changes to the noise levels indicated on the data sheet 7.4.2.1 e).

Note: An application along with evidence demonstrating compliance with the changes to the applicable noise standards in ICAO Annex 16 must be submitted for reissue of the noise certificate.

An application for a Reissuance of a Noise Certificate may be rejected in cases where the provisions of CAAT Requirement No. 16 cannot be met. For example:

a. The applicant is not eligible, or cannot provide a POA, as an owner or possessor of the aircraft
b. There is no satisfactory evidence that the changes on the aircraft meet the applicable noise standard in ICAO Annex 16
c. The changes in the actual aircraft configuration do not meet the aircraft configuration specified in the noise data sheet

The procedure for reissuance of a Noise Certificate is contained in AIR-OP-CER-NC-101.

7.4.4 Replacement of a Noise Certificate

When a Noise Certificate is missing or damaged, the owner or possessor should apply for a replacement certificate. A replacement certificate must be stamped with the word "**REPLACEMENT**".

An application for a Replacement of a Noise Certificate may be rejected in cases where the provisions of CAAT Requirement No. 16 cannot be met. For example:

a. The applicant is not eligible, or cannot provide a POA, as an owner or possessor of the aircraft
b. There is no satisfactory evidence that the noise certificate is loss or damaged

The procedure for replacement of a Noise Certificate is contained in AIR-OP-CER-NC-102.

7.4.5 Termination or Revocation of a Noise Certificate

Upon receiving evidence that compliance with CAAT Requirement No. 16 can no longer be maintained, a Noise Certificate must be:

a. Terminated when:
   - Compliance with the applicable noise standard in ICAO Annex 16 cannot be maintained
   - C of R is terminated
   - C of R is invalid in accordance with Air Navigation Act Section 32
   - C of A is revoked in accordance with Air Navigation Act Section 41/87
b. Revoked when there is evidence that incorrect or incomplete major details, or falsified information, was intentionally submitted to unlawfully obtain the Noise Certificate

If more information is required, a physical inspection of the aircraft or records should be conducted.

After the termination or revocation, the owner or possessor has the responsibility to return the Noise Certificate to CAAT as soon as reasonably practicable. (Not yet implemented and will become effective with Part 21 Subpart I)

The procedure for termination or revocation of a Noise Certificate is contained in AIR-OP-CER-NC-103.

7.5 Certificates of Registration (C of R)

7.5.1 Introduction

This Section defines procedures relating to the:

a. Reservation of a Registration Mark
b. Issuance of a Certificate of Registration
c. Reissuance or Replacement of a Certificate of Registration
d. Deregistration

7.5.1.1 Applicability

According to:

- Air Navigation Act, Chapter 3, Sections 30-31 and
- Requirement of The Civil Aviation Authority of Thailand No. 23 Aircraft Registration, Deregistration and related matters,

an application for aircraft registration can only be accepted if the Certificate of Registration holder is the owner or possessor of the aircraft. This can be either an individual person with Thai nationality or a juristic person with the principal place of business situated in Thailand, and for:

a. An ordinary partnership, all partners must hold Thai nationality
b. A limited partnership, all partners who jointly have unlimited liability must hold Thai nationality and at least 51 percent of the capital of such partnership must belong to natural persons who hold Thai nationality
c. A limited company or public limited company, such company must not have bearer shares on issue, a majority of its directors must hold Thai nationality, and at least 51 percent of all shares must belong to one or any combination of the following persons:
    - Natural persons who hold Thai nationality
    - Ministries, sub-ministries, or Government Departments
    - Limited companies or public limited companies, of which Ministries, sub-Ministries, or Government Departments hold not less than 51 percent of all shares
    - Other juristic persons as prescribed in the Ministerial Regulations

7.5.1.2 Eligibility

To be eligible an applicant must be an owner or possessor which meets the applicability requirements detailed in 7.5.1.1 and is eligible under Air Navigation Act Chapter 3, Sections 30-31 and Requirement of The Civil Aviation Authority of Thailand No. 23.

7.5.1.3 Validity

A Certificate of Registration will become ineffective when:

a. There is a change in ownership of the aircraft if the owner is a registrant, or a change in the possessory right in such aircraft where the person having the possessory right is a registrant
b. The aircraft registrant lacks the qualifications pursuant to the Air Navigation Act Section 31

c. It appears that the ownership or possessory right of the registrant is not as shown in the registration as having such rights in the particulars of the application
d. The aircraft has serious damage and is unfit for further use
e. The Certificate of Airworthiness has expired for more than six months
f. The aircraft has been missing for more than three months

Upon becoming ineffective (excluding item f.), the owner or possessor has a responsibility, under Air Navigation Act Section 32, to return the Certificate of Registration as soon as reasonably practicable.

7.5.2 Reservation of Registration Mark

The Notification of The Civil Aviation Authority of Thailand on Reservation of Registration Marks B.E. 2561, allows an applicant for a Certificate of Registration to reserve a Registration Mark. The list of available Registration Marks is published on the CAAT website and must be updated twice a year, using Checklist AIR-CL-OPD-002.

Note: A reserved Registration Mark will be held for 12 months and an application form may request only one Reservation Mark.

An application to reserve a Registration Mark must be submitted by an eligible person in accordance with 7.5.1.2. The application should contain the following elements:

a. Intention letter
b. Completed Application for Reservation of Registration Mark Form (CAAT-AIR-FM-CER-CR-200R)
c. Identification documents
   - An individual person must submit the National ID card or other related Government issued documents
   - A juristic person must submit a Certificate of Corporate Registration or related documentation to substantiate juristic person status
d. Delivery plan for aircraft registration
e. Aircraft data documentation (If requested)
f. Power of Attorney (POA), if the person who signs the letter of intention and application form is not the intended Certificate of Registration holder

Note 1: The delivery plan for aircraft registration may be detailed in the intention letter
Note 2: If the applicant does not pay the Reservation Mark fee by the date specified on the invoice, the application will be rejected. The rejection can be made in EMPIC, by email or formal letter.

The procedure for Reservation of Registration Mark is contained in AIR-OP-CER-CR-200.

7.5.3 Issuance of C of R

According to Requirement of The Civil Aviation Authority of Thailand No. 23, an applicant for a Certificate of Registration must submit the following:

a. Intention letter
b. Completed Application for Certificate of Registration Form (CAAT-AIR-FM-CER-CR-202)

Note: If the applicant is not the aircraft owner or aircraft possessor, a POA is required to authorise the person

c. Confirmation of cancellation or deregistration from a foreign registry or a certificate of non-registration from the State of aircraft manufacture
d. Documentation showing ownership or right of possession of the aircraft (i.e. aircraft bill of sale, aircraft leasing agreement or purchase agreement)
e. Confirmation of reservation of Registration Mark (If any). If a mark has not been reserved, AIR staff will allocate an available mark from EMPIC
f. Applicant documentation as detailed in 7.5.1.1 a)

Checklist for Certificate of Registration Audit (AIR-CL-CER-CR-201) must be used to ensure the correctness and completeness of the required documentation before proceeding to an aircraft physical inspection.

Note 1: When letters are used for the registration mark, combinations must not be used which might be confused with the five-letter combinations used in the International Code of Signals, Part II, the three-letter combinations beginning with Q used in the Q Code, and with the distress signal SOS, or other similar urgent signals, for example XXX, PAN and TTT
Note: 2: The requirements for performing an aircraft physical inspection are detailed in CAAT Requirement No. 27, Aircraft Nationality and Registration Marks.

When information on the application form is found to be missing or incorrect, the application should be revised. Additional supporting documents may also be requested when the provided information is not sufficient.

The aircraft will be registered when the:

a. Applicant is the owner or right of possessor of the aircraft
b. Applicant is qualified as specified in Air Navigation Act, Section 31
c. Aircraft meets the requirements of CAAT Requirement No. 27, Aircraft Nationality and Registration Marks
d. Applicant has paid the Certificate of Registration fee

The requirements for the issuance of a Certificate of Registration do not take into consideration the conformance of the aircraft with applicable Thai airworthiness standards. In order to ensure that there is a reasonable expectation that an aircraft to be registered can subsequently be issued with an appropriate Certificate of Airworthiness, for a first-of-type aircraft AR must coordinate with DP regarding conformance with applicable Thai airworthiness standards. Where any doubt exists, this must be discussed with the applicant.

Additionally, for a first-of-type aircraft, the State of Design must be informed after completion of the registration process. First Type of Aircraft Entry Notification Form (CAAT-AIR-FM-CER-CR-204)

The procedure for Issuance of Certificate of Registration is contained in AIR-OP-CER-CR-201.

7.5.4 Reissuance or Replacement of C of R

According to Requirement of The Civil Aviation Authority of Thailand No. 23, Clause 9, when there is a change in information or rights of aircraft possessors or owners, the Certificate of Registration holder must apply to have the Certificate reissued, by providing evidence and reasons no later than 30 days after any change has been made.

Note: A reissued Certificate of Registration can be identified by the "**REISSUED**" stamp in red ink above the Certificate number.

Where a Certificate of Registration holder requests a replacement Certificate due to loss, damage or information becoming illegible, the holder must submit an application for a replacement Certificate along with evidence and reasons.

Note: A replacement Certificate can be identified by the "**REPLACEMENT**" stamp in red ink above the Certificate number.

An applicant for reissuance or replacement of a Certificate of Registration must submit documentation as follows:

a. Intention letter
b. Completed Application for Replacement Certificate or Reissued Certificate Form (CAAT-AIR-FM-CER-CR-205)

   Note: If the applicant is not the Certificate holder, a POA is required to authorise the person.

c. Certified true copy of the current Certificate of Registration
d. The original Certificate of Registration

   Note: This must be returned within 30 days after the issue of the new Certificate.

e. Relevant documents for consideration (aircraft bill of sale, aircraft lease agreement, purchase agreement, deed of novation etc.)
f. Applicant documentation as detailed in 7.5.1.1 a)

Note: Police report is required when the Certificate has been lost

The DG will reissue or replace the Certificate when the:

a. Applicant is the Certificate holder or authorised person
b. Application form and relevant documents are correct and complete
c. Applicant has paid the reissuance or replacement fee

The procedure for issuance or replacement of a Certificate of Registration is contained in AIR-OP-CER-CR-202.

7.5.5 Deregistration

According to Requirement of the Civil Aviation Authority of Thailand No. 23, Clause 11, Certificate of Registration holders who wish to deregister the aircraft must submit the following documents:

a. Intention letter
b. Completed Application for Deregistration of Aircraft Form (CAAT-AIR-FM-CER-CR-206)
   Note: If the applicant is not the Certificate holder, a POA is required to authorise the person
c. Certified true copy of the current Certificate of Registration
d. The original Certificate of Registration
   Note: This must be returned within 30 days after deregistration
e. Applicant documentation as detailed in 7.5.1.1 a)

When the DG is satisfied with the application, the aircraft will be deregistered and the applicant notified. The applicant must remove nationality and registration marks from the aircraft and ELT shall be decoded or removed from aircraft. The applicant must return original Certificate of Registration within 30 days from the date of the deregistration confirmation letter.

Additionally, the DG has the authority to deregister an aircraft without request under the circumstances listed in Requirement of the Civil Aviation Authority of Thailand No. 23, Clause 12.

The procedure for deregistration of an aircraft is contained in AIR-OP-CER-CR-203.

7.5.6 Notification of Non-Registration

Occasionally, a request may be received seeking information about whether an aircraft has ever been issued with a Certificate of Registration in Thailand. This could occur in situations where:

a. An aircraft has passed through Thai ownership without being issued with a C of R
b. An applicant is applying to register an aircraft, which was manufactured in Thailand, in the foreign country

Notification of Non-Registration of Aircraft (CAAT-AIR-FM-CER-CR-203) must be used to provide such advice if the aircraft has never been issued with a Certificate of Registration in Thailand.

7.5.7 Notification of Secured Property

The Business Security Act B.E. 2558, makes provisions for an agreement where a person (either a natural person or a juristic person) grants security over property to another person, as security for the performance of an obligation without delivering the property itself. A property provided as a security may be a registered asset and in the context of this OM is an aircraft.

Upon receiving information from The Business Security Registration Office of the Department of Business Development (DBD) that a business security agreement involving an aircraft has been registered by the DBD, AR staff must record the provided details in EMPIC and the concerned aircraft is considered to be "Secured Property".

7.6 Air Operator Certificate (AOC) (Airworthiness)

7.6.1 Introduction

This Section details airworthiness aspects to be addressed in support of OPS for the Air Operator Certificate (AOC) certification process.

According to ANA Sections 41/112 and 41/115, an AOC may be issued to an organisation that complies with:

a. The Regulation of Civil Aviation Board (RCAB) No. 85 and No. 86
b. Announcement of CAAT on Air Operator Certification Requirements B.E. 2564 (AOCR)
c. Announcement of CAAT on Helicopter Operation Requirements B.E. 2564 (HOR)

7.6.1.1 Applicability

This Section is applicable to all organisations operating, or intending to operate, aircraft for commercial air transport operations in accordance with ANA Section 41/114.

7.6.1.2 Eligibility

An organisation, which meets the applicability requirements detailed in 7.6.1.1, is eligible to submit an application for an AOC.

7.6.1.3 Validity

According to AOCR Chapter 1, Section 3, an AOC is valid for not more than 2 years for an initial issue. Thereafter, it may be renewed, on an ongoing basis, for not more than 5 years at a time subject to the satisfaction of CAAT.

7.6.2 Initial Certification and Renewal of AOC

7.6.2.1 Initial Certification of AOC

The initial certification process consists of 5 phases:

1. Pre-application phase
2. Formal application phase
3. Document evaluation phase
4. Demonstration and inspection phase, including:
   4.1 On-site audits/inspections
   4.2 Flight demonstration

5. Certification phase

The procedure for the initial certification of AOC process is contained in AIR-OP-CER-AO-300.

7.6.2.1 Renewal of AOC

The renewal certification process consists of 4 phases:

1. Formal application phase
2. Document evaluation phase
3. Demonstration and inspection phase, including:
   3.1. On-site audits/inspections
   3.2. Flight demonstration
4. Certification phase

The procedure for the renewal of an AOC process is contained in AIR-OP-CER-AO-301.

7.6.3 Variation of AOC

According to AOCR Chapter 1, Section 5, AOC holders may apply for a variation of certification. Any subsequent changes to the AOC operation may necessitate amendments to the AOC or Ops Spec depending upon the subject of the change. The changes may include, but are not limited to, the following elements:

a. Operator name change
b. Operator location change - address or operational base
c. Change of area of operations
d. Change of type of operations
e. Change in Ops Spec (EDTO, ADS-B OUT, PBN, AWO, RVSM, MNPS, PBCS, CPDLC/ADS-C, EFB, etc.)
f. Add or remove aircraft type
g. Add or remove aircraft
h. Change in aircraft maintenance
i. Change in management and nominated personnel (Accountable Manager, Head of Engineering, Head of Quality, Certificate of Maintenance Review Staff)
j. Special authorisations
k. Others

The procedure for the variation of an AOC is contained in AIR-OP-CER-AO-302.

7.6.4 Suspension and Revocation of AOC

According to ANA Section 41/120, when it is found that an AOC holder has taken any of the following actions, the DG has the power to suspend the AOC:

a. Violating or not complying with the conditions specified in the AOC or in the Ops Spec and operating conditions that cause or may cause harm to air operations
b. Violating or not complying with the duty of the AOC holder as prescribed in ANA
c. Unable to maintain a safe operation
d. Violating or not complying with any regulations, rules, announcements or any other requirements prescribed by the DG

Note: The period or conditions within which the AOC holder must take corrective actions are specified in the AOC suspension order.

According to ANA Section 41/121, the DG has the power to revoke an AOC when it is found that an AOC holder has taken any of the following actions:

a. Violating or not complying with the conditions specified in the AOC or in the Ops Spec and operating conditions that causes serious harm to air operations
b. The AOC has been suspended more than 2 times within a period of 2 years
c. Ceases its operation in whole or in part without permission
d. Unable to conduct its operation within the period of 6 months from the date of being granted the AOC
e. Ceases its operation continuously for a period of more than 1 year without any appropriate reason

The procedure for provision of information to OPS in support of suspension and revocation of an AOC is contained in AIR-OP-CER-AO-303.

7.6.5 Management of Operator Notifications

Regulation requires AOC holders to notify CAAT regarding any safety matters, including any proposal to change the maintenance arrangements, e.g. a change to another maintenance organisation or significant organisational, procedural or technical change to a maintenance agreement.

The procedure for AOC Operator Notification Management is contained inAIR-OP-CER-AOC-304.

7.6.6 Management of Operator Approval Requests

While holding a valid AOC, an operator is required to ensure appropriate compliance of their operation and its documentation. Some activities are required by regulation to be the subject of an official

application while some may be submitted to CAAT as a special case. AIR must coordinate with OPS, as appropriate to the issue.

- For Operator Manual Approvals, refer to OM Chapter 7.12
- For Approval and Acceptance of Operator Specific Extensions, refer to OM Chapter 7.13
- For any special approval request (e.g. Hajj operation), the operator must be consulted and dealt with on a case-by-case basis. Special inspections or surveillance may be required as appropriate

  Note: All special approval records are retained in DRMS, in addition to EMPIC (OAS/AR Modules)

7.7 Standard Certificates of Airworthiness (Standard C of A)

7.7.1 Introduction

This Section defines procedures for the issuance and renewal of a Standard Certificate of Airworthiness (C of A) for an aircraft registered and operated in Thailand.

According to ANA Section 41/64, 41/69, and 41/67 (1), a Standard C of A may be issued to an individual aircraft on the basis of evidence that the aircraft:

a. complies with the applicable airworthiness requirements
b. conforms to the type design
c. is in a condition for safe operation

Note: In no case may an aircraft be operated unless there is an appropriate valid C of A issued for that aircraft

7.7.1.1 Applicability

This Section is applicable to all individuals, operators, organisations and other entities applying for the issuance or renewal of a Standard C of A for Thai registered aircraft, operated for the purpose of transporting passengers or goods, including animals, and constructed conforming to the Type Certificate approved or accepted by CAAT under ANA Section 41/62 (1).

7.7.1.2 Eligibility

An owner or possessor of a Thai registered aircraft, which meets the applicability requirements detailed in 7.7.1.1, is eligible to submit an application for a Standard C of A for the aircraft

7.7.1.3 Validity

According to ANA Section 41/68 (1), a Standard C of A is valid for three (3) years from the date of issue or renewal.

7.7.1.4 Circumstances under which a Standard C of A will not be in force

Temporarily ineffective Standard C of A under ANA Section 41/85. A C of A will become temporarily ineffective under any of the following events:

a. A major aircraft appliance, TSO article or aircraft part replacement on an aircraft does not have an Airworthiness Approval Tag under Section 41/73, paragraph one

b. The aircraft has not undergone maintenance under the rules, procedures and specified periods of time for maintenance detailed in a Notification by the DG under Section 41/77, paragraph two
c. The replacement of the product under a) on the aircraft has not been certificated under Section 41/84, Replacement Maintenance Certification
d. When an aircraft commander requests an engineer to perform maintenance under Section 41/88

Note: When an aircraft has undergone maintenance under Section 41/77 and certification has been obtained under Section 41/84, the C of A will become effective

Invalidity of Standard C of A under ANA Section 41/70. A Standard C of A will become invalid when any of the following events occur:

a. The Certificate of Registration becomes ineffective under Section 32 due to;
   - Change of ownership
   - Lack of owner eligibility
   - Aircraft has been missing for more than 3 months
   - Aircraft is damaged beyond further use
   - Aircraft's C of A has expired by more than 6 months
b. The aircraft Type Certificate or major aircraft appliance Type Certificate is revoked under Section 41/10, paragraph one
c. An alteration to the aircraft violates Section 41/78 (major modification without approval)
d. The DG orders revocation of the C of A under Section 41/87
e. The aircraft is so damaged or deteriorated that it is in a dangerous condition, which cannot be fixed

7.7.2 Issuance and Renewal of a Standard C of A

The applicant must follow requirements in Ministerial Regulations relating to Determining Regulations and Procedures in Applying and Renewing the Certificate of Airworthiness B.E 2555, when submitting a C of A application. For renewal, the application package must be submitted not less than 60 days before the current Standard C of A expiry date.

The procedure for Issuance and Renewal of Standard C of A is contained in AIR-OP-CER-CA-300.

Note: The applicant must correct any Findings that are identified during the inspection within an agreeable timeframe, but not more than 6 months. Otherwise, the assigned staff will reject their application.

7.7.3 Replacement of a Standard C of A

When a Standard C of A is missing or damaged, the applicant must follow requirements in Ministerial Regulations Relating to Determining Regulations and Procedures in Applying and Renewing the Certificate of Airworthiness B.E 2555.

Note: A replacement Certificate can be identified by the word "ใบแทน" stamp in red ink above the certificate number.

The procedure for replacement of a Standard C of A is contained in AIR-OP-CER-CA-301.

7.7.4 Suspension or Revocation of a Standard C of A

According to ANA Section 41/86, when a registered aircraft owner or possessor, in accordance with responsibilities under ANA Section 41/80, fails to keep a record and make a report to the DG, keeps an untruthful record, or makes an untruthful report, the DG will order suspension of the Standard C of A of that aircraft.

According to ANA Section 41/87, the DG will order revocation of the C of A of an aircraft or an aircraft of any type in the following cases:

a. When the DG issues an Airworthiness Directive under ANA Section 41/82, or the DG or a person delegated by DG (Competent Official as defined in ANA) issues an order with respect to safety under ANA Section 41/81 or 41/83,
   and
   such aircraft, or the aircraft of such type, has not undergone maintenance conforming to the particulars and periods of time specified in the Directive or Order without reasonable grounds
b. When a person having responsibilities under ANA Section 41/80 fails to keep a record or make a report and submit it to the DG, or, substantially or repeatedly, keeps an untruthful record or makes an untruthful report
c. Such aircraft, or the aircraft of such type, may not be rectified to be safe for operation

The DG will establish criteria as may be appropriate to determine when the recordkeeping or report making is deemed as substantially or repeatedly untruthful under b.

The procedure for suspension or revocation of a Standard C of A is contained in AIR-OP-CER-CA-302.

7.8 Export Airworthiness Approval

7.8.1 Introduction

This Section defines procedures for the issuance of an Export Airworthiness Approval for:

a. Aircraft registered and operated in Thailand
An Export C of A may be required by an importing Authority to provide confirmation that the current State of Registry has conducted a recent satisfactory review of the airworthiness status of the aircraft and, apart from any agreed deviations, found the aircraft to be in compliance with the applicable Type Certificate.

The Export C of A is not a flight authority and does not authorise the aircraft for flight.

According to ANA Section 41/71, an Export C of A may be issued to an individual aircraft on the basis of evidence that the aircraft:

1) meets the standards for aircraft under ANA Section 34
2) meets the requirements or acceptance of the importing country
3) is in a condition for safe operation

b. Separate aircraft engines, propellers, and other aeronautical products
According to ANA Section 41/75, aircraft engines, propellers, and other aeronautical products can be exported separately and correct documentation may be required by an importing Authority to provide confirmation that the current State of Registry has conducted a recent satisfactory review of the airworthiness status of the aeronautical product, and apart from any agreed deviations, the product has been found to be manufactured or maintained in compliance with applicable approved design and related airworthiness directives.

7.8.1.1 Applicability

This Section is applicable to all individuals, operators, organisations and other entities applying for the issuance of an Export Airworthiness Approval for Thai registered aircraft or a separate aeronautical product for the purpose of exporting them from Thailand to another importing country.

7.8.1.2 Eligibility

An owner or possessor of a Thai registered aircraft or a separated aeronautical product, which meets the applicability requirements detailed in 7.8.1.1, is eligible to submit an application for an Export Airworthiness Approval for such aircraft or product.

7.8.1.3 Validity

There is no validity period for an Export Airworthiness Approval. It becomes part of the aeronautical product records and indicates that on the date of issuance the aircraft or product was inspected by CAAT, found to comply with the applicable requirements, and determined to be airworthy.

Note: It is up to the importing country authority to determine the period for which it will accept an Export Airworthiness Approval as valid.

7.8.2 Issuance of Export Certificate of Airworthiness (Export C of A) for an Aircraft

The applicant must follow the requirements in Ministerial Regulation on the Export Certificate of Airworthiness B.E.2555, when submitting an Export C of A application.

The procedure for issuance of an Export C of A is contained in AIR-OP-CER-ECA-300.

Note: The applicant must correct any Findings, relating to the airworthiness of the aircraft, that were identified during the inspection, or any issues that were not accepted by the importing country within an agreeable timeframe, but not more than 6 months. Otherwise, the assigned staff will reject the application.

7.8.3 Issuance of Export Airworthiness Approval Tag for Aircraft Engines, Propellers, and other Aeronautical Products

The applicant must follow the requirements in Ministerial Regulation on the Export Airworthiness Approval Tag for Major Aircraft Appliance, Aircraft Replacement Part, and Technical Standard Order Article B.E. 2555, when submitting an application for Export Airworthiness Approval Tag

The procedure for issuance of an Export Airworthiness Approval Tag is contained in AIR-OP-CER-ECA-301.

7.9 Special Certificates of Airworthiness (Special C of A)

7.9.1 Introduction

This Section defines procedures for the issuance and renewal of a Special Certificate of Airworthiness (Special C of A) for an aircraft registered and operated in Thailand.

According to ANA Sections 41/64, 41/67 (2) and 41/69, a Special C of A may be issued with operating limitations to an individual aircraft on the basis of evidence that the aircraft:

a. For TC aircraft, complies with applicable airworthiness requirements
b. For non-TC aircraft, has undergone maintenance as specified in Regulation of Civil Aviation Board No. 43 on Ultralight Aircraft and Regulation of Civil Aviation Board No. 70 on Ultralight Aircraft for Paramotor, Paraglider, Paraplane, and Hang Glider
c. is in a condition for safe operation

Note: In no case may an aircraft be operated unless there is an appropriate valid Special C of A issued for that aircraft.

7.9.1.1 Applicability

This Section is applicable to all individuals, operators, organisations and other entities applying for the issuance or renewal of a Special C of A for Thai registered aircraft, to be operated for purposes detailed under ANA Section 41/62 (2) which consist of 4 types of Special C of A:

a. **Type 1**: Aircraft operated for purposes other than transporting passengers or goods, including animals and constructed conforming to the type in accordance with a specific Type Certificate under ANA Section 37 (2) or conforming to the type in accordance with a Letter of Validation under ANA Section 41/14.
b. **Type 2**: Aircraft operated for the purposes of flight testing for issuance of a Type Certificate under ANA Section 41/2, paragraph 1 or a Supplemental Type Certificate under ANA Section 41/5, paragraph 2 (a) or for other purposes as prescribed in the requirements.
c. **Type 3**: Aircraft operated for a temporary purpose and constructed conforming to the type in accordance with a provisional Type Certificate under ANA Section 41/4.
d. **Type 4**: Aircraft operated for a specific purpose which does not require a Type Certificate under ANA Section 36, paragraph 3.

Note: In no case may an aircraft be operated unless there is an appropriate valid Special C of A issued for that aircraft

Operating Limitations must be issued on the reverse side of the Special C of A with the following statements:

i. ห้ามทำการบินรับผู้โดยสารหรือพัสดุภัณฑ์ในเชิงการค้า
The aircraft shall not be operated for the commercial air transport of passengers or goods

ii. ห้ามทำการบินเหนือเขตชุมชนหนาแน่น หรือในที่โล่งซึ่งมีคนมาชุมนุมกัน
The aircraft shall not be operated over a built-up area

iii. ให้ทำการบินในเวลากลางวันด้วยกฎการบินด้วยทัศนวิสัย (VFR) เท่านั้น
The aircraft shall only be operated under Visual Flight Rules (VFR)

iv. ผู้ทำการบินจะต้องแจ้งหอบังคับการบินถึงคุณลักษณะของอากาศยานเบาพิเศษ เมื่อทำการบินเข้าหรือออกในเขตควบคุมจราจรทางอากาศ
The aircraft shall not be operated in restricted areas without the pilot making a report to Air Traffic Control

v. ห้ามทำการบินผาดแผลง
The aircraft shall not be operated for aerobatics

vi. ผู้ทำการบินต้องแจ้งผู้ที่ไปด้วยให้ทราบถึงคุณลักษณะของอากาศยานเบาพิเศษ
The Pilot shall brief any additional aircraft occupants about the characteristics of the aircraft

vii. นักบินที่ทำการบินต้องมีใบอนุญาตนักบินส่วนบุคคล เป็นอย่างต่ำ
The pilot shall hold, as a minimum, a PRIVATE PILOT LICENSE

viii. ให้ทำการตรวจอากาศยานและลงนามรับรองความปลอดภัยของอากาศยานไว้สมุดปูมอากาศยานโดยมีผู้อนุญาต ซึ่งออกให้โดยสำนักงานการบินพลเรือนแห่งประเทศไทยซึ่งมีศักย์และสิทธิให้ดำเนินการดังกล่าวได้
The aircraft shall be inspected, maintained and certified, in the aircraft logbook, by Personnel holding privileges under Section 45 or by a repair station approved under Section 41/101 (1)

ix. ให้ทำการบินตามคู่มือปฏิบัติการบิน และกฎการบินอย่างเคร่งครัด
The operation shall strictly comply with the Operations Manual and Flight Rules

x. ให้เขียนคำว่า "อากาศยานเพื่อการทดลอง" หรือ "Experimental" ไว้บริเวณใกล้ประตูทางเข้าทั้งสองด้านส่วนสูงของตัวอักษรจะต้องมีขนาดอย่างน้อย 10 เซนติเมตร
The word "Experimental" shall be attached to the aircraft near the entrance with a letter height of at least 10 cm

xi. ห้ามบินเดินทาง เว้นแต่ได้รับอนุญาตจากสำนักงานการบินพลเรือนแห่งประเทศไทย
The aircraft shall not be operated for travel, unless permission has been granted from CAAT

xii. อากาศยานลำนี้ไม่ได้มาตรฐานตามอนุสัญญาการบินพลเรือนระหว่างประเทศ ลงวันที่ 7 ธันวาคม พุทธศักราช 2487

This aircraft is classified as a non-type certificate aircraft in accordance with the Convention on International Civil Aviation, signed on 7 December 1944

Note: The statements above may be revised to contain additional details depending upon considerations made during the aircraft inspection for the initial issue or renewal of the Special C of A

7.9.1.2 Eligibility

An owner or possessor of a Thai registered aircraft, which meets the applicability requirements detailed in 7.9.1.1, is eligible to submit an application for a Special C of A for the aircraft.

7.9.1.3 Validity

According to ANA Section 41/68 (2), the validity of each type of Special C of A is as follows:

a. **Type 1**: 3 years from the date of issue or renewal
b. **Type 2**: Not exceeding 1 year, and not exceeding the period of time:
   - Specified by the DG for the applicant applying for the Type Certificate to complete the construction of a prototype aircraft or prototype of a major aircraft appliance under ANA Section 38, paragraph 3, or
   - Which flights for other purposes will be made under ANA Section 41/62 (2) (b)
c. **Type 3**: 1 year from the date of issue or renewal
d. **Type 4**: 1 year from the date of issue or renewal

7.9.1.4 Circumstances under which a Special C of A will not be in force

Temporarily ineffective Special C of A under ANA Section 41/85. A Special C of A will become temporarily ineffective under any of the following events:

a. A major aircraft appliance, TSO article or aircraft part replacement on an aircraft does not have an Airworthiness Approval Tag under ANA Section 41/73, paragraph 1
b. The aircraft has not undergone maintenance in accordance with the rules, procedures and specified periods of time for maintenance detailed in a Notification by the DG under ANA Section 41/77, paragraph 2
c. The replacement of a product under a) on the aircraft has not been certificated under ANA Section 41/84, Replacement Maintenance Certification
d. When an aircraft commander requests an engineer to perform maintenance under ANA Section 41/88

Note: When an aircraft has undergone maintenance under ANA Section 41/77 and certification has been obtained under ANA Section 41/84, the C of A will become effective.

Invalidity of Special C of A under ANA Section 41/70. A Special C of A will become invalid when any of the following events occur:

a. The Certificate of Registration becomes ineffective under ANA Section 32 due to:
   - Change of ownership
   - Lack of owner eligibility
   - Aircraft has been missing for more than 3 months
   - Aircraft is damaged beyond further use
   - Aircraft's C of A has expired by more than 6 months
b. The aircraft Type Certificate or major aircraft appliance Type Certificate is revoked under ANA Section 41/10, paragraph 1
c. An alteration to the aircraft violates ANA Section 41/78 (major modification without approval)
d. The DG orders revocation of the C of A under ANA Section 41/87
e. The aircraft is so damaged or deteriorated that it is in a dangerous condition, which cannot be fixed

7.9.2 Issuance and Renewal of a Special C of A

The applicant must follow requirements in Ministerial Regulation on Determining Regulations and Procedures in Applying and Renewing the Certificate of Airworthiness B.E 2555, when submitting a Special C of A application.

Note: For renewal, the application package must be submitted not less than 60 days before the current Special C of A expiry date.

The procedure for Issuance and Renewal of Special C of A is contained in AIR-OP-CER-SC-400.

Note: The applicant must correct any Findings that are identified during the inspection within an agreeable timeframe, but not more than 6 months. Otherwise, the assigned staff will reject their application.

7.9.3 Replacement of a Special C of A

When a Special C of A is missing or damaged, the applicant must follow requirements in Ministerial Regulation on Determining Regulations and Procedures in Applying and Renewing the Certificate of Airworthiness B.E 2555.

Note: A replacement Certificate can be identified by the word "ใบแทน" stamp in red ink above the certificate number.

The procedure for replacement of a Special C of A is contained in AIR-OP-CER-CA-301.

7.9.4 Suspension or Revocation of a Special C of A

According to ANA Section 41/86, when a registered aircraft owner or possessor, in accordance with responsibilities under ANA Section 41/80, fails to keep a record and make a report to the DG, keeps an untruthful record, or makes an untruthful report, the DG will order suspension of the Special C of A of that aircraft.

According to ANA Section 41/87, the DG will order revocation of the C of A of an aircraft or an aircraft of any type in the following cases:

a. When the DG issues an Airworthiness Directive under ANA Section 41/82, or the DG or a person delegated by DG (Competent Official as defined in ANA) issues an order with respect to safety under ANA Section 41/81 or 41/83,
   and
   such aircraft, or the aircraft of such type, has not undergone maintenance conforming to the particulars and periods of time specified in the Directive or Order without reasonable grounds
b. When a person having responsibilities under ANA Section 41/80 fails to keep a record or make a report and submit it to the DG, or, substantially or repeatedly, keeps an untruthful record or makes an untruthful report
c. Such aircraft, or the aircraft of such type, may not be rectified to be safe for operation

The DG will establish criteria as may be appropriate to determine when the recordkeeping or report making is deemed as substantially or repeatedly untruthful under b.

The procedure for suspension or revocation of a Special C of A is contained in AIR-OP-CER-CA-302.

7.10 Special Flight Permits (SFP)

7.10.1 Introduction

This Section defines procedures for the issuance of a Special Flight Permit (SFP) for a Thai registered aircraft.

An SFP, commonly referred to as a Ferry Permit, may be issued to any Thai registered aircraft that may not currently meet applicable Airworthiness Requirements but is capable of safe flight.

The Exemption Policy also applies to such a request in accordance with ANA Section 41/90.

7.10.1.1 Applicability

This Section is applicable to all individuals, operators, organisations and other entities applying for the issuance of an SFP for a Thai registered aircraft which is:

a. Prohibited from flying under ANA Section 41/89 for the following reasons:
   - There is no C of A according to ANA Section 41/61
   - A C of A becomes invalid according to ANA Section 41/70
   - A C of A becomes temporarily ineffective according to ANA Section 41/85
   - The aircraft is not inspected within the period of time specified in any orders or directives issued by DG or a person delegated by DG (Competent Official as defined in ANA) according to ANA Section 41/81 or Section 41/82
   - The aircraft is prohibited from flying under ANA Section 41/83
   - A C of A is suspended under ANA Section 41/86
   - A C of A is revoked under ANA Section 41/87

   and has a need according to ANA Section 41/90 to:
   - Fly back to the base of the aircraft registrant or air operator
   - Fly to a repair station
   - Fly to evacuate from areas of impending danger
   - Allow any aircraft having a C of A to make a flight apart from the limitations specified in the aircraft manual

b. Required to conduct a flight test, in accordance with ANA Section 16 paragraph 2 (1), for the following reasons:
   - Considerations relating to the issuing of a C of A
   - After aircraft maintenance in the event that the aircraft does not have a C of A
   - Other purposes, such as to demonstrate performance and deliver the seller's aircraft to the buyer, or fly for aircraft research and development, or fly to certify significant aircraft modifications, etc.

7.10.1.2 Eligibility

An owner or possessor of a Thai registered aircraft that meets the applicability requirements detailed in 7.10.1.1, is eligible to submit an application for an SFP for the aircraft.

7.10.1.3 Validity

a. For flight tests, an SFP is valid for 14 days after the date of issuance.
b. For other purposes, the validity period is determined by CAAT and is based on conditions or requirements from TC holders, on a case-by-case basis.

7.10.2 Issuance of a SFP

The applicant must follow requirements in the Air Navigation Act B.E. 2497, Part 4 Airworthiness, Section 41/90 or Announcement of the Department of Air Transport relating to Requirements for Flight-testing B.E. 2551, when submitting an application for an SFP.

The procedure for Issuance of an SFP is contained in AIR-OP-CER-SF-300.

Note: The applicant must correct or clarify any Findings that are identified during the inspection or any issues arising from the documentation assessment within an agreeable timeframe, but not more than 6 months. Otherwise, the assigned staff must reject the application.

7.11 Modifications and Repairs Approval

7.11.1 Introduction

This Section defines procedures for the approval of modifications and repairs to aircraft registered in Thailand.

A Modification or Repair Approval Certificate is evidence to demonstrate that changes to the type design under Modifications or Repairs of an aircraft, engine or propeller meet the applicable airworthiness standards in CAAT Requirement No. 17, and environmental protection standards in CAAT Requirement No. 16 and Technical Committee Requirement No. 2.

CAAT Requirement Issue 20 specifies the rules and procedure for approval of modifications and repairs to type certificate products.

7.11.1.1 Applicability

A Modification or Repair Approval Certificate is issued when:

a. The modification or repair is not issued by the Type Certificate Holder of the complete aircraft, engines or propellers, as applicable. A modification or repair issued by the Type Certificate Holder is considered CAAT approved data and does not require approval.
b. Changes to the type design under a modification or repair of complete aircraft, engines or propellers meets the applicable airworthiness standards in CAAT Requirement No. 17, and environmental protection standards in CAAT Requirement No. 16 and Technical Committee Requirement No. 2
c. The modification or repair is approved under the authority of a National Aviation Authority (NAA) acceptable to CAAT
d. The aircraft is registered in Thailand
e. Type Certificate of the aircraft is validated

Modifications or repairs embodied on an aircraft prior to registration in Thailand can be accepted through the issuance of the Certificate of Airworthiness, provided that the modifications or repairs conform to CAAT Requirement No. 20. However, when a Supplemental Type Certificate is embodied prior to the registration, a Letter of Validation is required (See Chapter 7.2).

7.11.1.2 Eligibility

An owner or possessor of a registered aircraft, which meets the applicability requirements detailed in 7.11.1.1, is eligible under CAAT Requirement No. 20 to submit an application for a Modification or Repair Approval Certificate.

7.11.1.3 Validity

Once issued, a Modification or Repair Approval Certificate remains valid for an unlimited duration, provided that the:

a. Modification or repair remains valid
b. Modification or repair is not suspended
c. Compliance with the applicable airworthiness and environmental protection standards can be maintained
d. Design approval holder of the modification or repair can continue to update and maintain the modification or repair data as necessary
e. Aircraft owner or possessor can access the latest technical data issued by the design holder of the modification or repair
f. Aircraft owner or possessor continues to comply with conditions and limitations defined in the Modification or Repair Approval Certificate issued by CAAT

7.11.2 Issuance of a Modification or Repair Approval Certificate

The approval is divided into 3 phases:

a. acceptance of the modification or repair
b. conformity inspection
c. approval of the modification or repair results

7.11.2.1 Acceptance of modification or repair

An application for a Modification or Repair Approval Certificate**,** submitted by an eligible person in accordance with 7.11.1.2, contain the following elements:

a. Intention letter
b. Completed application form (CAAT-AIR-FM-CER-MR-100R). The application must be signed by an owner or possessor of the aircraft.

   Note: A modification or repair must be classified as either major or minor in accordance with CAAT Requirement No. 20

c. Completed application report (CAAT-AIR-FM-CER-MR-101R)
d. Supporting documents associated with the modification or repair may include:
   - Supplemental Type Certificate
   - Service Bulletin or Modification/Repair Instructions
   - Master Data List or Approved Model List including related documents
   - Instructions for Continuing Airworthiness (ICA)
   - Airplane Flight Manual Supplement (AFMS)

   Note: CAAT accepts a modification or repair which meets the applicable airworthiness standards of CAAT Requirement No. 17, as well as the environmental protection standards in CAAT

Requirement No. 16 and Technical Committee Requirement No. 2, and is issued under the authority of States acceptable to CAAT. For example:

- Supplemental Type Certificate issued by FAA or EASA
- EASA Design Organisation Approval
- EASA Minor Modification/Repair Approval
- FAA Designated Engineering Representative (DER)
- FAA Organization Designation Authorization (ODA)

When a modification or repair is issued under the authority of a State not listed above, the information may be evaluated on a case-by-case basis to demonstrate an equivalent level of safety with the modification or repair issued by the above examples

When information on the application form is found to be missing or incorrect, the application should be revised. Additional supporting documents may also be requested when the provided information is not sufficient.

An application may be rejected in cases where the provisions of the CAAT Requirement No. 20 cannot be met. For example:

a. The applicant is not eligible, or cannot provide a POA, as an owner or possessor of the aircraft
b. The C of R is invalid
c. The evidence provided cannot demonstrate that the:
   - modification or repair meets the applicable airworthiness standards in CAAT Requirement No. 17, or environmental protection standards in CAAT Requirement No. 16 and Technical Committee Requirement No. 2
   - modification or repair is compatible with the embodied product
   - applicant can access all necessary documents required by the modification or repair

Upon approval, CAAT will issue a Letter of Consent, listing all required documents to demonstrate compliance with the modification or repair instructions, to permit the applicant to perform the modification on the aircraft.

7.11.2.2 Conformity inspection

When the modification or repair is performed on the aircraft, an inspection to ensure conformity may be conducted. Following are examples of areas that can be examined:

a. All modification or repair instructions are complied with
b. Parts, equipment or modification kits are in accordance with the instructions
c. Modification or repair is performed by authorised persons or repair stations
d. Equipment, systems or areas related to the modification or repair are inspected or tested to meet the intended functionality or design objectives
e. Documentation is completed

Note: For an owner or possessor with multiple aircraft of the same type in a fleet, applying for the same modification or repair, the inspection may be limited to one aircraft.

7.11.2.3 Approval of Modification or Repair Results

After the modification or repair is performed on the aircraft, additional documents demonstrating the completion of the modification or repair must be submitted by an eligible person in accordance with 7.11.1.2, in order to obtain a Modification or Repair Approval Certificate. The documentation to be submitted is as follows:

a. Letter requesting modification or repair approval
b. Completed package of modification or repair data which may include:
   - Copy of completed worksheets
   - Airworthiness Approval Tags or Certificates of Conformity
   - Test reports
   - Certificate of Release to Service (CRS)
   - Other information requested by CAAT

Conditions and limitations are detailed in the Modification or Repair Approval Certificate in order to prescribe the obligations of the owner or possessor of the aircraft to:

a. Retain and update all technical documents issued by the design holder of the modification or repair
b. Update all applicable documentation, which may include the Electrical Load Analysis, Instructions for Continued Airworthiness, Minimum Equipment List, Aeroplane Flight Manual Weight and Balance Report, Aircraft Maintenance Programme, etc
c. Provide necessary training to pilots, cabin crew, maintenance and other related staff
d. Report any design incompatibilities or deficiencies

An application may be rejected in cases where the provisions of the CAAT Requirement No. 20 cannot be met. For example:

a. There is no satisfactory evidence that the modification or repair complies with the modification or repair instructions
b. The modification or repair is performed by unauthorised persons or repair stations

The procedure for the issuance of a Modification or Repair Approval Certificate is contained in AIR-OP-CER-MR-100.

7.12 Approval of Operator Manuals

7.12.1 Introduction

This Section defines procedures for the approval and acceptance of operator manuals for Air Operator Certificate (AOC) and Non-AOC (General Aviation: GA) holders in Thailand.

a. AOC Holder

An operator who holds or intends to obtain an AOC is responsible for maintaining an airworthiness manual that complies with:

- Regulation of CAB No. 85 on Air Operator Certificate
- Regulation of CAB No. 86 on Air Operation of Aircraft
- Announcement of CAAT on Air Operator Certificate Requirements B.E. 2564 (AOCR)
- Announcement of CAAT on Helicopter Operation Requirements B.E. 2564 (HOR)

The operator manuals which must be approved by CAAT are as follows:

- General Maintenance Manual (GMM)
- Aircraft Maintenance Program (AMP)
- Minimum Equipment List (MEL)
- Training Program Manual (TPM)
- If applicable, Reliability Program Manual (RPM)
- If applicable, EDTO/ETOPS Manuals

b. Non-AOC Holder (GA)

The owner or operator of a GA aircraft is responsible for maintaining an airworthiness manual that complies with Announcement of CAAT on General Aircraft Requirement.

The operator manuals which must be approved by CAAT, if applicable, are as follows:

- MEL
- EDTO/ETOPS Manuals

The Aircraft Maintenance Program that is issued by a Type Certificate holder or manufacturer as applicable, is accepted and does not need an approval from CAAT.

7.12.1.1 Applicability

This Section is applicable to all AOC and non-AOC (GA) holders applying for approval of operator manuals.

7.12.1.2 Eligibility

An operator who meets the applicability requirements detailed in 7.12.1.1, is eligible to submit an application for approval and acceptance of operator manuals.

7.12.2 Approval of Operator Manuals

7.12.2.1 GMM

The applicant must follow the requirements in the Announcement of the Department of Air Transport on Requirements for General Maintenance Manual B.E. 2551, when submitting a GMM approval application.

7.12.2.2 AMP

The applicant must follow the requirements in the Announcement of CAAT on Aircraft Maintenance Programme of Air Operator Certificate Holder B.E. 2560, when submitting an AMP approval application.

7.12.2.3 MEL

The applicant must follow the requirements:
For AOC holder, in the Announcement of DCA on Approval of Minimum Equipment List B.E. 2555,
For Non-AOC holder, in the Announcement of CAAT on General Aircraft Requirement,
when submitting an MEL approval application.

7.12.2.4 TPM

The applicant must follow the requirements in the Announcement of CAAT on Air Operator Certificate Requirements B.E. 2564, when submitting an TPM approval application.

7.12.2.5 RPM

The applicant must follow the requirements in the Announcement of CAAT on Aircraft Maintenance Program for Air Operator Certificate Holder B.E. 2560, when submitting an RPM approval application.

7.12.2.6 EDTO/ETOPS Manual

The applicant must follow the requirements in the Announcement of the Department of Air Transport on Approval of Extended Range Twin - Engine Aircraft Operation (ETOPS).

The procedure for approval of Operator Manuals is contained in AIR-OP-CER-OPM-300.

7.12.3 Indirect Approval of Operator Manuals

There are some cases where an operator manual amendment can be incorporated without the prior consent of CAAT. This is called "indirect approval".

In cases where the operator has incorporated indirect approval procedures into their GMM, which must specify the class of amendments that can be incorporated without the prior consent of CAAT, the operator must inform CAAT of the minor amendment. In cases of a major amendment, approval from CAAT is required. Indirect approval of a manual must not be applicable to a new issue of a whole document.

The operator must follow the requirements in the Announcement of CAAT on Air Operator Certification Requirements B.E. 2564 (AOCR).

The procedure for indirect approval of operator manuals is contained in AIR-OP-CER-OPM-301.

7.13 Approval and Acceptance of Operator Specific Extensions

7.13.1 Introduction

This Section defines procedures for the approval and acceptance of operator specific extensions for Air Operator Certificate (AOC) holders in Thailand.

7.13.1.1 Applicability

This Section is applicable to all AOC holders.

7.13.1.2 Eligibility

An operator who meets the applicability requirements detailed in 7.13.1.1, and has an appropriate extension procedure approved in the appropriate manual (such as GMM, AMP, or MEL) is eligible to request or utilise a particular applicable extension.

7.13.2 Approval and Acceptance of Extensions

7.13.2.1 Minimum Equipment List - Rectification Interval Extension (MEL-RIE)

The MEL Rectification Interval Extension (RIE) (also known as Repair Interval Extension) normally requires approval from CAAT. An operator, who has already incorporated the extension procedure into its documentation, may request an extension approval from CAAT.

In cases where an operator has incorporated a one-time extension procedure into the GMM, the operator must inform CAAT for the use of the one-time extension. In cases where further RIEs become necessary, approval from CAAT is required.

The operator must follow the requirements in the Announcement of DCA on Approval of Minimum Equipment List B.E. 2555, and the Announcement of CAAT on Air Operator Certification Requirements B.E. 2564 (AOCR).

The procedure for MEL-RIE approval and acceptance is contained in AIR-OP-CER-OSE-300.

7.13.2.2 Maintenance Task Variation

A maintenance task variation (also known as a Permitted Variation, Short-term Escalation, Margin, Allowable Tolerance, Extension Tolerances, or Tolerance Window) to maintenance periods normally requires approval from CAAT. An operator who has already incorporated the variation procedure into its documentation may request a variation approval from CAAT.

In cases where an operator has incorporated a one-time variation procedure into the GMM, the operator must inform CAAT for the use of the one-time variation. In cases where further extensions become necessary, approval from CAAT is required.

The operator must follow the requirements in the Announcement of CAAT on Aircraft Maintenance Programme of Air Operator Certificate Holder B.E. 2560, and the Announcement of CAAT on Air Operator Certification Requirements B.E. 2564 (AOCR).

The procedure for maintenance task variation approval or acceptance is contained in AIR-OP-CER-OSE-301.

7.14 Repair Station Certificates

7.14.1 Introduction

This Section describes the issuance, renewal, change, suspension or revocation of approvals and acceptances for Repair Stations that are involved in the maintenance of Thai registered aircraft and components intended for fitment thereto.

According to ANA Sections 41/94, 41/98 and 41/111, a Repair Station Certificate may be issued to an organisation that:

a. complies with the applicable Repair Station Certificate requirements
b. is in a condition for safe operation

In no case may a Repair Station undertake maintenance activities on Thai registered aircraft unless there is an appropriate valid Repair Station Certificate issued for that organisation.

CAAT issues two types of Repair Station Certificates:

a. Repair Station Certificate of Approval – for Repair Stations authorised by the full and simplified approval processes
b. Repair Station Certificate of Acceptance – for Repair Stations authorised by the acceptance process

Note: The terms "Maintenance Organisations" and "Repair Stations" should be read interchangeably.

7.14.1.1 Applicability

This Section is applicable to all organisations involved in the maintenance of Thai registered aircraft and components intended for fitment thereto under ANA Sections 41/94, 41/98 and 41/111, and applying for the issuance or renewal of a Repair Station Certificate.

7.14.1.2 Eligibility

A repair station which meets the applicability requirements detailed in 7.14.1.1, is eligible to submit an application for a Repair Station Certificate.

7.14.1.3 Validity

According to the following:

- ANA Section 41/97
- Requirement of The Civil Aviation Authority of Thailand No. 2 Repair Station Certificate
- Requirement of The Civil Aviation Authority of Thailand No. 5 on Foreign Repair Station Certificate
- Requirement of The Civil Aviation Authority of Thailand No. 39 on Foreign Repair Station Certificate of Acceptance
- Requirement of The Civil Aviation Authority of Thailand No. 40 on Foreign Repair Station Certificate

a Repair Station Certificate is valid for 3 years from the date of issue or renewal.

7.14.2 Certification Process

The certification process provides for interaction between the applicant and CAAT commencing from the initial application. It ensures that programs, systems, and intended methods of compliance are thoroughly reviewed, evaluated, and tested.

There are 3 types of Repair Station Certification processes:

a. Full certification
b. Simplified certification (only applicable to Foreign Repair Stations with Certificates granted in accordance with standards which are similar to TCAR 8 Part 145)
c. Acceptance certification (only applicable to Foreign Repair Stations with Certificates granted by a foreign competent authority acceptable to CAAT in accordance with standards which are not lower than TCAR 8 Part 145)

The procedure for identifying the applicable certification process is contained in AIR-OP-CER-RSC-500

The certification process consists of 5 phases:

- Phase 1 Pre-Application
- Phase 2 Formal Application
- Phase 3 Document Evaluation
- Phase 4 Demonstration and Inspection
- Phase 5 Certification

Note: For Type c. (Acceptance) Phase 4 may not be required

7.14.3 Issuance and Renewal of a Repair Station Certificate

The applicant must comply with Requirements of The Civil Aviation Authority of Thailand No. 2, 5, 39 and 40, as appropriate, when submitting an application for a Repair Station Certification.

For a renewal, the application package must be submitted not less than 60 days before the current Repair Station Certificate expiry date.

After identification of the applicable certification process, the procedures for issuance and renewal of Repair Station Certificates must be applied in accordance with the following:

a. The procedure for a full certification process is contained in AIR-OP-CER-RSC-501
b. The procedure for a simplified certification process is contained in AIR-OP-CER-RSC-502A
c. The procedure for an acceptance certification process is contained in AIR-OP-CER-RSC-502B

Note: The applicant must correct any Findings and respond to CAAT notifications that are identified during the certification process within an agreeable timeframe, but not more than 30 days for Repair Station Certificate of Acceptance and not more than 6 months for Repair Station Certificate of Approval. Otherwise, the assigned staff will terminate the application.

7.14.4 Change of a Repair Station Certificate

When a Repair Station Certificate holder applies for a change to any Repair Station Certificate of Approval, it must be made in accordance with TCAR 8 Part 145, 145.A.85 and Appendix IIIA, by using CAAT Form 2.

When a Repair Station Certificate holder applies for a change to any Repair Station Certificate of Acceptance, it must be made by using CAAT Form 2A in accordance with Requirement of The Civil Aviation Authority of Thailand No. 39 on Foreign Repair Station Certificate of Acceptance.

The procedure for changes to a Repair Station Certificate is contained in AIR-OP-CER-RSC-503.

7.14.5 Surrender of a Repair Station Certificate

According to TCAR 8 Part 145, 145.A.90(c), when a Repair Station Certificate of Approval holder wishes to surrender a certificate, this should be notified to CAAT by completion of CAAT Form 2 and submitted by email to air-amo@caat.or.th.

When a Repair Station Certificate of Acceptance holder wishes to surrender a certificate, this should be notified to CAAT by completion of CAAT Form 2A and submitted by email to air-amo@caat.or.th.

The procedure for surrender of a Repair Station Certificate is contained in AIR-OP-CER-RSC-504.

7.14.6 Suspension or Revocation of a Repair Station Certificate

A suspension of a Repair Station Certificate of approval or Repair Station Certificate of Acceptance means that CAAT removes, partially or in whole, the ratings endorsed on the Certificate and the MOE (if

applicable). A revocation means that the Repair Station Certificate of approval or Repair Station Certificate of Acceptance granted is removed in whole and definitively.

According to the following, as applicable:

- ANA Sections 41/107 and 41/108
- Clauses 11 and 12 of Requirements of The Civil Aviation Authority of Thailand No. 5
- Clauses 14 and 15 of Requirements of The Civil Aviation Authority of Thailand No. 39

the DG will order suspension or revocation of a Repair Station Certificate of approval or Repair Station Certificate of Acceptance as follows:

a. Suspend an approval or acceptance on reasonable grounds in the case of a potential safety threat
b. Revoke or suspend an approval or acceptance in whole or in part, depending upon the extent of a significant non-compliance (Level 1 Finding), until successful corrective action has been taken by the repair station
c. Suspend, in whole or in part, an approval or acceptance in cases of failure to comply with the timescales granted by CAAT

The procedure for suspension or revocation of a Repair Station Certificate is contained in AIR-OP-CER-RSC-505.

7.14.7 Approval or Acceptance Reinstatement

The following applies to suspended approvals only.

Following the acceptance of a corrective action plan by CAAT, the Repair Station should commence the implementation of the corrective actions.

For a Certificate of Approval, at the completion of the implementation process, the Repair Station should undertake a full audit to assess compliance with TCAR 8 Part 145. Before CAAT can undertake a reinstatement audit, a Statement of Compliance to TCAR 8 Part 145, signed by the Repair Station's Compliance Monitoring Manager, and the relevant audit report must be provided to confirm the effective implementation of the corrective actions. AIR must formally notify the repair station of any reinstatement of approvals.

For a Certificate of Acceptance, at the completion of the implementation process, the Repair Station should undertake a full audit to assess compliance with the standard acceptable by CAAT. A Statement of Compliance to the standard acceptable by CAAT, signed by the Repair Station's Accountable Manager, and the relevant audit report must be provided to CAAT to confirm the effective implementation of the corrective actions, if any. AIR must formally notify the repair station of any reinstatement of acceptance.

The procedure for approval of the reinstatement of a Repair Station Certificate is contained in AIR-OP-CER-RSC-506

7.14.8 Replacement of a Repair Station Certificate

When a Repair Station Certificate is missing or damaged, the applicant must follow requirements in:

a. Requirement of The Civil Aviation Authority of Thailand No. 2 on Repair Station Certificate Item 9, or
b. Requirements of the Civil Aviation Authority of Thailand No. 5 on Foreign Repair Station Certificate Item 14, and
c. Notification of the Civil Aviation Authority of Thailand on Repair Station Certificate Requirements B.E. 2563 (2020), Appendix IIIB (TCAR 8 Part 145), or
d. Requirement of The Civil Aviation Authority of Thailand No. 39 on Repair Station Certificate of Acceptance, Item 16

Note: A Replacement Certificate can be identified by the word "REPLACEMENT" stamp in red ink above the certificate number

The procedure for replacement of a Repair Station Certificate is contained in AIR-OP-CER-RSC-507.

7.15 Approval and Acceptance of Repair Station Documents

7.15.1 Introduction

This Section defines procedures for approval and acceptance of Repair Station documents and unless otherwise specified applies to both domestic and foreign Repair Stations.

The use of the words "approval" and "acceptance" in this Chapter refer to actions taken with respect to Repair Station documents only and should not be confused with Repair Station Certificates of Approval or Certificates of Acceptance.

The provisions of this Chapter do not apply to Repair Station documents submitted by applicants for, or holders of, Repair Station Certificates of Acceptance. In those cases, the relevant documents are considered as notifications and are only subject to an acknowledgement.

Note:

- the terms "Maintenance Organisations" and "Repair Stations" should be read interchangeably

For a Repair Station Certificate, the following documents must be submitted for approval or acceptance:

a. Maintenance Organisation Exposition (MOE) (for approval)
b. Training Program Manual (TPM) (for approval)
c. CAAT MOE Supplement (for acceptance)
d. CAAT Capability List (for acceptance)

Note: For details of the above documents refer to Guidance Material for Maintenance Organisation Certificate Holders and Applicants - General Provisions (CAAT-GM-AIR-500)

An approved or accepted document provides the Repair Station with evidence that its procedures comply with CAAT Regulations and Requirements.

The respective documents must be used by those involved in the Repair Station and must be submitted to the DG for approval or acceptance prior to implementation.

The document approval and acceptance process can be a part of certification or stand-alone when an individual document is amended.

7.15.1.1 Applicability

This Section is applicable to Repair Stations:

a. Involved, or who wish to be involved, in the maintenance of Thai registered aircraft and components intended for fitment thereto
b. Applying for the issuance or renewal of Repair Station Certificates under ANA Sections 41/94 and 41/111

7.15.1.2 Eligibility

A Repair Station, which meets the applicability requirements detailed in 7.15.1.1, is eligible under TCAR 8 Part 145 to submit an application for approval or acceptance of, as applicable:

a. MOE
b. TPM
c. CAAT MOE Supplement
d. CAAT Capability List

7.15.1.3 Validity

The validity of an approval or acceptance of a document listed in 7.15.1.2 is identical to the validity of the associated Repair Station Certificate.

7.15.2 Approval of Maintenance Organisation Exposition (MOE)

The applicant must follow the requirements in the Notification of the Civil Aviation Authority of Thailand on Repair Station Certificate Requirements B.E. 2563 (2020) (TCAR 8 Part 145), when submitting an MOE approval and acceptance application.

For any change to an MOE:

a. In the case of direct approval (changes requiring prior approval by CAAT) of the changes in accordance with TCAR 8 Part 145, 145.A.85, AIR staff must verify that the procedures specified in the MOE are in compliance with TCAR 8 Part 145 before formally notifying the Repair Station of the approval
b. In the case an indirect approval (changes not requiring prior approval by CAAT) procedure is used for the approval of the changes in accordance with TCAR 8 Part 145, 145.A.70(c), AIR staff must ensure that:
    - The changes remain minor
    - There is adequate control over the approval of the changes to ensure they remain in compliance with the requirements of TCAR 8 Part 145

    Note: For details, refer to CAAT-GM-AIR-501

The procedure for approval of an MOE is contained in AIR-OP-CER-RSM-500

7.15.3 Approval of Maintenance Organisation Training Program Manual (TPM)

The applicant must follow the requirements in the Notification of The Civil Aviation Authority of Thailand on Repair Station Certificate Requirements B.E. 2563 (2020) (TCAR 8 Part 145), when submitting a TPM approval application.

The procedure for approval of a TPM is contained in AIR-OP-CER-RSM-500.

7.15.4 Acceptance of CAAT MOE Supplement

The applicant must follow the requirements in the Notification of the Civil Aviation Authority of Thailand on Repair Station Certificate Requirements B.E. 2563 (2020) (TCAR 8 Part 145), when submitting a CAAT MOE acceptance application.

The procedure for acceptance of a CAAT MOE Supplement is contained in AIR-OP-CER-RSM-501.

7.15.5 Acceptance of CAAT Capability List

For a Repair Station Certificate, the applicant must follow the requirements in the Notification of the Civil Aviation Authority of Thailand on Repair Station Certificate Requirements B.E. 2563 (2020) (TCAR 8 Part 145), when submitting a CAAT Capability List acceptance application.

The procedure for acceptance of a CAAT Capability List is contained in AIR-OP-CER-RSM-502.

Chapter 8: AIR Surveillance

(What, when, and how AIR manages Surveillance Activities)

8.1 General

This Chapter describes how AIR meets its surveillance obligations, including:

- Surveillance Policy
- Surveillance Program
- Surveillance Planning
- Surveillance Methods

AIR surveillance activities are carried out to proactively verify that the holders of certifications, authorisations, or approvals continue to meet the established requirements and function at the level of competency and safety required by CAAT. These activities include the conduct of audits or inspections, the review of documents, meetings with concerned parties, and analysis of available safety information.

AIR surveillance provides essential information on the safety risk and state of compliance of operators, identifying any corrective actions or other interventions needed to manage risk and bring performance up to the level required by regulations.

8.2 Surveillance Policy

8.2.1 Introduction

This Section details Airworthiness Surveillance Policy for all AIR surveillance activities.

Continuing safety oversight of approved operators by CAAT is an on-going component of the certification system. It is essential to ensure that the required standard of operation is maintained in order to provide, to the public, a safe and reliable commercial air transport service.

In accordance with ANA Sections 15/10 (5), 41/106 and 41/119, CAAT inspectors have the authority and responsibility for maintaining ongoing safety oversight of commercial air transport operations in order to ensure that accepted safety practices and approved procedures for the promotion of safety in operations are maintained. To achieve this objective, AIR establishes an annual risk-based surveillance plan in order to continuously monitor operations conducted by each operator. In addition, AIR undertakes unannounced and unscheduled audits and inspections when such activities are considered appropriate. Such surveillance may result in the revision of operations specifications or the temporary suspension or revocation of approvals.

This Section is applicable to AIR surveillance activities for:

a. AOC Holders
b. Repair Stations

8.2.2 General Policy and Objectives

The Thailand State Safety Programme (SSP) describes how CAAT manages aviation safety. It has been established to protect people from aviation safety risks and aims to achieve safe aviation systems.

To achieve this, AIR is committed to:

a. Continuously improving aviation safety oversight systems by collaboratively working with other Departments to achieve effective, efficient and consistent surveillance programs
b. Complying with the Thailand State Safety Policy and the CAAT Safety Oversight Policy
c. Achieving State Safety Objectives described in the Thailand Aviation Safety Action Plan
d. Achieving CAAT Safety Oversight Objectives, by ensuring that Thailand's civil aviation system:
    - Remains safe under all circumstances
    - Meets international standards where applicable and is recognised as such

In support of this commitment, AIR must:

a. Effectively manage aviation safety risks and maintain or set up the necessary management and mechanisms to do so
b. Sustain current levels of aviation safety in airworthiness aspects, and seek to continuously improve

c. Comply with international and national safety requirements and ensure that if any differences are necessary, the reasons are well understood
d. Target and coordinate proportionate regulatory oversight and intervention on the basis of risk exposure and safety performance
e. Manage resources and co-operation between stakeholders in order to deliver the best results for the Thai aviation industry
f. Actively seek out emerging risks and take proactive action to minimise the impact on the aviation system
g. Promote a positive safety culture across the Thai aviation industry

The required surveillance and related inspections are planned by the AIR Manager and concerned Division Heads and are conducted by inspectors responsible for the standard of conduct of a specific operator's operation. All inspectors authorised to conduct safety oversight must hold valid credentials identifying them as inspectors appointed by CAAT under ANA Sections 15/15 and 15/16.

Surveillance is conducted on a continuous basis, and includes periodic and unannounced inspections of all aspects of an operation. The areas covered by the surveillance activities, over a period of time, are the same as those examined during the original certification process. The areas examined include at least a re-evaluation of the operator's:

a. Organisation
b. Management effectiveness and control
c. Facilities and equipment
d. Aircraft maintenance
e. Operational control and supervision
f. Operational and personnel records and training
g. Company manuals
h. Financial viability
i. Record of compliance with the provisions of associated operations specifications and pertinent operating regulations

All AIR safety oversight activities with respect to a particular operator are risk-based and carefully planned. As it is not possible to cover all aspects of an operation during every surveillance, the surveillance is also planned on the basis of a risk assessment, so that aspects of the operation that involve the greatest risk receive more frequent attention.

Where an operator has established a Safety Management System (SMS) that has been assessed as effective and is achieving the agreed performance measures, then safety oversight activities for that air operator may be reduced in some areas, while refocusing on verification of the assumptions made with respect to the performance of the SMS.

8.2.3 Non-Compliance Management Policy

The CAAT QAD Non-Compliance Management Procedure (CAAT QAD-NCP) has set out conditions for the issuance and management of Non-Compliances found during audits of operators which hold any CAAT approval or are applying for Certification by CAAT.

8.2.3.1 Consistency in Issuing Findings

A Finding is generated as a result of a lack of compliance with CAAT requirements or approved procedures. The lack of compliance is expressed in terms of one or more deficiencies. Finding statements must be precise, factually accurate, complete and clearly bounded.

As defined by QAD, Findings are further identified according to their severity by one of the following categories:

Level 1 Finding:
Any significant Non-Compliance that is detected with the:

a. Applicable requirements
b. Organisation's procedures and manuals
c. Terms of an approval, certificate or specialised operation authorisation
d. Content of a declaration

which lowers safety or seriously endangers flight safety.

Level 1 Findings must be issued for the following:

a. Failure to give the competent authority access to the facilities of the organisation
b. Obtaining or maintaining the validity of the organisation certificate or specialised operations authorisation by falsification of submitted documentary evidence
c. Evidence of malpractice or fraudulent use of the organisation certificate or specialised operations authorisation
d. The lack of an accountable manager

A more detailed list of possible Level 1 Findings is contained in the tables below:

AOC Holders
● Working outside scope of approval ● Failure to comply with AD (inadequate control or deliberate actions) ● Significantly out-of-date Maintenance Program ● Failure to comply with mandatory tasks (CMR/AD/LLP) ● Failure to comply with repair repeat inspections ● Carrying out maintenance, modifications or repairs to non-approved data ● Significant failure in compiling ICA's for STC's ● Inappropriate or lack of a required reliability system ● Insufficient or incompetent key personnel ● Systemic breakdown of continuing airworthiness management ● Systemic breakdown of contracted maintenance oversight system ● Knowingly releasing aircraft with incomplete or incorrect maintenance ● Arranging maintenance to be carried out by an unapproved organisation ● Inadequate maintenance planning and control (variations of CMR/AD/LLP tasks) ● Operating aircraft with a non-approved modification, unrecorded defects, or in a non-airworthy condition ● Inappropriate management of significant repetitive defects ● Any action intended to mislead the authority ● Lack of a Nominated Postholder (where no deputy is defined within the Exposition or where no suitable temporary arrangements can be approved on an interim basis) ● Significant failure to respond within the agreed timescales ● Repeat significant Finding ● Failure or ineffective Quality System (multiple significant Findings across various areas of an organisation at medium or high safety severity levels, indicating a breakdown of the control or monitoring of the organisation's compliance and adherence to its procedures and safety policies)

Repair Stations
• Working outside scope of approval • Fabrication of primary structural elements without TC holder approval or in accordance with approved data • Carrying out maintenance, modifications or repairs to non-approved data • Systemic breakdown of calibration control • Systemic breakdown of maintenance standards • Knowingly releasing aircraft with incomplete or incorrect maintenance • Insufficient or incompetent key personnel • Lack of a Nominated Postholder (where no deputy is defined within the Exposition or where no suitable temporary arrangements can be approved on an interim basis) • Significant failure to respond within the agreed timescales • Repeat significant Finding • Failure or ineffective Quality System (multiple significant Findings across various areas of an organisation at medium or high safety severity levels, indicating a breakdown of the control or monitoring of the organisation's compliance and adherence to its procedures and safety policies)

Level 2 Finding:
Any Non-Compliance that is detected with the:

a. Applicable requirements
b. Organisation's procedures and manuals
c. Terms of an approval, certificate, or specialised operation authorisation
d. Content of a declaration

which could lower safety or seriously hazard flight safety.

Classifying Findings can be a challenge especially where the regulation does not provide any examples to support the making of a determination, therefore in some situations a judgement is necessary.

Observations:
Recommendations providing opportunities for improvement. For example,

- Provide additional safety measures
- Enhance safety and management system
- Improve current practice and procedure
- Recommendation to go beyond compliance level
- Industries' best practice initiatives
- Other improvement or enhancement

An observation is not subject to any corrective actions unless the operator decides to improve. It is not required to report to CAAT on the implementation of actions from an observation and CAAT will not monitor the implementation of these actions.

8.2.3.2 Timeliness of Issuing Findings

As required by QAD, the audit report accompanied by any Findings report must be distributed to the operator no later than 10 working days after the closing meeting.

For AOC holders, AIR auditors must coordinate with OPS for a consistent timeframe for audit report and Findings distribution.

8.2.3.3 Management of Findings

Level 1 Finding:
A Level 1 Finding requires that immediate corrections be put in place by the operator to restore an acceptable level of safety.

When issuing a Level 1 Finding, AIR auditors must consider the need for any regulatory follow up actions, such as, limiting or prohibiting activities, which may involve limiting, suspending or revoking the certificate, specialised operations authorisations or specific approvals. The determination of the need for this follow up action depends upon the specific nature and extent of the Finding. If, in the opinion of the AIR auditors, the regulatory follow up action is required, then the matter must be brought to the attention of the Division Head and AIR Manager.

In such situations, the "immediate" actions taken by operators, when appropriate and accepted, can allow the AIR auditors to:

a. Close the Level 1 Finding if the operator has demonstrated implementation of acceptable corrections and corrective actions
b. Re-categorise the Level 1 Finding to become a Level 2 Finding, if the "immediate" actions implemented by the operator are unable to restore an acceptable level of safety

   Note:
   - These actions must not be less than the implementation of corrections and the assurance that the non-compliance extent is clearly identified and that all non-compliance items are resolved
   - As EMPIC does not allow re-categorisation of a Finding, then:
     - The Level 1 Finding must be closed and a Level 2 Finding must be created. The Level 1 Finding must include detail in the reason for closure that a Level 2 Finding was created to address the implementation of corrective actions. The reference of the Level 2 Finding must also be included.
     - The Level 2 Finding created must mention the reference of the Level 1 Finding of origin and recall that it is intended to address the corrective actions only, as acceptable corrections were already implemented to close the Level 1 Finding

Level 2 Finding:

AIR auditors must:

a. Grant the operator a corrective action implementation period appropriate to the nature of the Finding. However, initially, for any case, the time period must not be more than 3 months. At the end of this period and subject to the nature of the Finding, AIR auditors may extend the 3-month period subject to a satisfactory corrective action plan being agreed
b. Assess the corrective action and implementation plan proposed by the operator, and if the assessment concludes that they are sufficient to address the non-compliances, AIR auditors must accept them

Corrective Action Plan (CAP) Due Date

When the CAP due date is approaching, AIR auditors should contact the operator, by email, and provide an official reminder.

When a CAP is not submitted by the operator within the CAP due date, AIR auditors must contact the operator, by email, and give the first official reminder of the overdue target. A meeting with the operator may be held depending upon the seriousness of the Finding.

Closing Due Date

When the closing due date is approaching, AIR auditors should contact the operator, by email, and provide an official reminder. A meeting with the operator may be held depending upon the seriousness of the Finding.

When the closing action is not submitted within the Closing Due Date or the Finding is unable to be closed appropriately, AIR auditors must take the following action:

a. Arrange a formal meeting with the operator, as soon as possible but no later than 2 weeks from the due date, to discuss the issue and set up a new due date with the commitment of the auditee in the meeting
b. Issue an official follow-up letter with the result from the meeting
c. Any additional extension must be authorised by an official letter
d. If the Finding cannot be closed within the new deadline and no extension is possible, report this issue to the Division Head and AIR Manager

Extension:

When an operator has requested an extension of a due date for submitting a Correction within the due date (i.e. submits the request letter before the due date), AIR auditors must determine the action to be taken as follows:

a. Determine whether to accept the extension. If it is not accepted and the due date has already been exceeded, consider it as 'overdue'

b. If the extension is accepted, set a new due date and keep all related documents in EMPIC in the particular surveillance activity
c. If after the 3rd extension, the Correction or CAP is still not finished as proposed, AIR auditors must report this status to the Division Head and AIR Manager

Note: The requests for extension made by the operator to the AIR auditors must be by email or official letter

Rejection:

When AIR auditors request an operator to amend a Correction or CAP and that amendment still does not contain all the components requested, AIR auditors must determine the action to be taken as follows:

a. Provide notice to the operator of an unacceptable Correction or CAP detailing the aspects which are unacceptable
b. If notice of an unacceptable Correction or CAP is given to the operator 3 times and the 3rd Correction or CAP is still not acceptable, AIR auditors must report this status to the Division Head and AIR Manager

8.2.3.4 Summary

Actions	Timeframe for Actions
Distribute audit report and Findings	Within 10 working days after closing meeting
Level 1 Findings initial period	Immediately until successfully corrected
Level 2 Findings initial period	Not more than 3 months
Findings extension	3 extensions (each with appropriate period)
Findings rejection	3 rejections

8.3 Surveillance Program

8.3.1 Introduction

This Section details the Surveillance Program for all AIR surveillance activities.

The surveillance program described below may be adjusted at any time by using a risk-based approach.

8.3.2 Categories of Surveillance

AIR surveillance activities can be categorised into 2 main categories:

a. Periodic surveillance
b. Unannounced surveillance
   - Scheduled unannounced surveillance
   - Unscheduled unannounced surveillance

8.3.2.1 Periodic Surveillance

Periodic surveillance is planned on a scheduled basis and announced to operators. The periodic surveillance includes the following activities:

a. Base Audit
b. Line Station Inspection
c. Repair Station Audit

The purpose of periodic surveillance is to establish the level of compliance with current legislation and conformity with documented procedures in order to identify any non-compliances and initiate corrective actions.

8.3.2.2 Unannounced Surveillance

In addition to periodic surveillance, unannounced surveillance is carried out as deemed necessary. This surveillance follows the same methodology as the periodic surveillance and may be carried out using the same checklists or could be focused on a specific subject of concern.

Unannounced surveillance may lead to a clearer insight into the risks and nature of an operator. The purposes include but are not limited to:

a. Random checks on all aspects of maintenance
b. Sample the end product on either an announced or unannounced basis in order to establish or verify the ongoing level of compliance in specific areas when it is not possible or necessary to conduct a 100% inspection of all the operator's activities, products or services
c. Assure day-to-day compliance of the operator's operation and management systems
d. Focus on a particular type of operation, system or component

e. Verify the correction of identified deficiencies or to follow up on reported safety events, whistle-blower reports and significant changes
f. Determine the cause of a poor safety performance, high risk score, or follow-up on corrective action implementation, and identify and rectify a particular repeated problem of an operator

There will be no prior notice for any unannounced surveillance conducted. However, AIR auditors would normally send a general notification to the operator regarding the start of the unannounced surveillance. This surveillance can be undertaken at any time or can be programmed to focus on a particular type of operation, system or component, and may involve visits at nights, weekends, or holidays.

The following section describes the 2 types of unannounced surveillance, which may be undertaken for:

a. Base
b. Line Station
c. Ramp Activity
d. Reliability Program
e. Repair Station

Scheduled Unannounced Surveillance:
Scheduled unannounced surveillance (periodic random surveillance) activities are scheduled as part of the AIR annual surveillance plan.
However, these activities will not be scheduled in conflict with other periodic surveillance activities.

Unscheduled Unannounced Surveillance:
Unscheduled unannounced surveillance activities are initiated as deemed necessary, and may include the following:

a. Special Audit or Inspection
   Analysis of previous audit reports indicates a pattern of weakness that the operator may be experiencing. When an audit or inspection prior to the next periodic surveillance is deemed necessary, it may have a narrower audit focus than a periodic surveillance.

   During product inspection (such as C of A inspection), some systematic deficiencies may also be revealed. Deficiency in product may reflect hidden problems in the operator system. AIR auditors should focus more on system establishment and implementation to ensure the regulatory compliance capability of the operator, which normally affects the whole operation rather than an individual product.

b. Survey
   A survey can be used for collecting data from operators, and can form part of the risk assessment. It can be an activity to look carefully and thoroughly at particular subjects to assess or raise awareness to the stakeholders whether they continue to meet the established requirements and

function at the level of competency and safety as required. It can be distributed using digital media such as social networks, email, QR codes, URLs, or any other appropriate platforms.

c. Operator Self-Assessment Evaluation
Operator Self-Assessment helps AIR auditors evaluate the performance of operators. This may require an interaction with the operator to evaluate the correctness of assessment results with evidence including face-to-face discussions and interviews.

d. Meetings and Interviews
When it is necessary to raise the level of compliance in order to initiate corrective action not achieved through other tools and in order to test knowledge and understanding of requirements, a meeting or interview with the operator may be conducted with:
- Accountable Manager
- Nominated Personnel
- Operator Representatives

8.3.3 Frequency

The information below describes a minimum standard of frequencies for AIR surveillance.

Some aspects of surveillance can be varied based on the risk of an organisation with a consideration of the risk profile over a period of time and the consequent level of confidence AIR has in the organisation's activities. Refer to 8.4.3 Risk-Based Surveillance.

AOC Certificate Holders

Type	Activities	Frequency	Risk-Based Output
Periodic	Base Audit	Once every year	Scope and Frequency
	AOC Line Station Inspection (All stations)	Once in a period of certificate's validity	-
Scheduled Unannounced	Base Audit	Once in a period of certificate's validity	Scheduling and Scope
	AOC Line Station Inspection	Sampling once every year	Sampling Size
	Ramp Inspection	Sampling once every year	Sampling Size
	Reliability Program Evaluation	Once every year	Frequency

Determination of Sampling Rate:

The determination of the sampling rate, for applicable activities, should be based on the following principles:

a. The selection should enable the widest possible sampling rate of the operator population
b. Repetitive unannounced surveillance should be avoided on those operators for which the previous surveillance has not revealed safety deficiencies, unless it forms part of a series of partial inspections with the intention to cover the complete checklist
c. No discrimination based on the nature of the operator, the type of operation or type of aircraft

Activity	Description	Population Set	Sampling Size
AOC Line Station Inspection (Scheduled Unannounced)	The selection of Line Station is based on a sample of each operator. The sampling size is adjusted following evaluation of risk profile results.	All AOC Line Stations	10%
AOC Ramp Inspection (Scheduled Unannounced)	The selection of aircraft for ramp inspections is based on a sample of each aircraft type for each operator. The sampling size is adjusted following evaluation of risk profile results.	All in-service aircraft of all AOC Holders	10%
AOC Ramp Inspection (Unscheduled)	Special ramp inspections are occasionally undertaken to ensure airworthiness of aircraft during special occasions or when emerging risk is observed, such as before a long holiday. The selection of aircraft to be inspected is focused on domestic flights and mainly conducted at BKK and DMK stations only.	Domestic flights inbound and outbound from BKK and DMK	At least 2 aircraft per operator

Repair Station Certificate Holders

A schedule of audits and inspections is established that is appropriate for each organisation, having regard to the level of risk identified and the effectiveness of the organisation's management system, in particular the ability to effectively manage safety risks from their identification to their mitigation.

Note: the beginning of the first surveillance planning cycle is normally determined by the date of issue of the first certificate and is normally set to be one year. However, the surveillance planning cycle may be aligned with the calendar year and the previous surveillance planning cycle shortened accordingly.

For organisations that carry out their regular activities at more than one site, the determination of the sites and the audit requirements at these sites should consider the results of past oversight activities and the volume of activities at each site, as well as the main risk areas identified.

The surveillance planning cycle and the related surveillance program for each organisation must be reviewed annually to ensure that they remain adequate regarding any changes in the nature of the organisation, the complexity of its activities or its safety performance.

If an approved organisation subcontracts maintenance tasks, a determination must be made as to whether the subcontracted organisation needs to be audited and included in the surveillance program, taking into account the specific nature and complexity of the subcontracted activities, the results of previous surveillance activities of the approved organisation, and the assessment of the associated risks.

The methodology to determine the Surveillance planning cycle and to define the content of the surveillance program is detailed in Section 8.3.5.7, Chapters 8.4 and 8.5, and Procedure for Repair Station Certificate Holder Risk-Based Surveillance Planning AIR-OP-SUR-SP-500.

Domestic Repair Stations (AMO)

Type	Activities	Frequency	Risk-Based Output
Periodic	Repair Station PPB Audit	First Surveillance planning cycle must not exceed one year After the first cycle and if an acceptable level of safety and compliance is found, the Standard Surveillance cycle is 24 Months Note: The determination of an acceptable level of safety and compliance is detailed in the Risk Based Surveillance program procedure A 24 Month Surveillance planning cycle may be shortened to 12 months if there is evidence that the safety performance of the organisation has decreased The 24 Month Surveillance cycle may be extended to 36 months if during the	The content of the Surveillance program The duration of the Surveillance Cycle The duration of each audit and inspection Areas of greatest safety concerns

		previous 24 months the organisation has demonstrated an acceptable level of performance as defined by the Risk Based Surveillance methodology For both 24 and 36 Month surveillance planning cycles, the audit may be onsite or remote and should focus on the management system and the areas of greatest concern. It must be programmed at mid-cycle so that the organisation is more frequently overseen	
Periodic	Line Station Inspection certified under an AMO certificate Note: the way an AMO manages its line stations, including training of the staff, management of the documentation, etc is part of a Repair Station audit. During this audit, verification is required to ensure that line stations have been audited by the Compliance Monitoring system	For any new line station the first Surveillance planning cycle must not exceed one year Line stations under an AMO must be audited during each surveillance cycle defined for that specific AMO However, when the organisation demonstrates an appropriate compliance monitoring and safety management system a sampling of line stations selected using a Risk Based approach may be implemented as follows: • At least 50% of the Line stations under an AMO must be audited during each surveillance cycle • 100% of the Line stations must be audited during	

		two consecutive surveillance cycles	
Scheduled Unannounced	Repair Station PPB Audit	10% of domestic AMOs must be subject to an unannounced audit Note: this should be a partial audit allowing for focus on areas of greatest safety concern	List of AMOs with corresponding areas of greatest safety concerns
Scheduled Unannounced	Line Station Inspection certified under AMO certificate	5% of domestic AMOs line stations will be subject to an unannounced audit Note: this should be a partial audit allowing for focus on areas of greatest safety concern	List of AMOs line stations with corresponding areas of greatest safety concerns

Foreign Repair Stations (FAMO) subject to Full Certification (All A rating + B and C as applicable)

When the FAMO:

- also holds a repair station certificate issued by an authority acceptable to CAAT, in accordance with standards that are not lower than or similar to TCAR 8 Part 145

and

- the scope of work for which the organisation received CAAT approval is included in the original certificate

Type	Activities	Frequency	Risk-Based Output
Periodic	Repair Station PPB Audit	First Surveillance planning cycle must not exceed one year After the first cycle and if an acceptable level of safety and compliance is found, the Standard surveillance cycle is 36 months	The duration of the Surveillance Cycle The duration of each audit and inspection Areas of greatest safety concerns

		Note: The determination of an acceptable level of safety and compliance is detailed in the Risk Based Surveillance program procedure The Surveillance planning cycle may be shortened to 12 months or 24 months if there is evidence that the safety performance of the organisation has decreased For both 24 and 36 Month surveillance planning cycles, the audit may be onsite or remote and should focus on the management system and the areas of greatest concern. It must be programmed at mid-cycle so that the organisation is more frequently overseen	
Periodic	Line Station Inspection certified under FAMO certificate Note: the way an FAMO manages its line stations, including training of the staff, management of the documentation, etc is part of a Repair Station audit. During this audit, verification is required to ensure that line stations have been audited by the Compliance Monitoring system	For any new line station the first Surveillance planning cycle must not exceed one year Line stations under an FAMO must be audited during each surveillance cycle defined for that specific FAMO However, when the organisation demonstrates an appropriate compliance monitoring and safety management system a sampling of line stations selected using a Risk Based	The duration of the Surveillance Cycle The duration of each audit and inspection The line stations to sample and corresponding areas of greatest safety concerns

		system approach may be implemented When sampling is used at least 30% of the Line stations under each FAMO must be audited during each surveillance cycle	

When the FAMO:

- does not hold a repair station certificate issued by an authority acceptable to CAAT, in accordance with standards that are not lower than or similar to TCAR 8 Part 145

or,

- the scope of work authorised by CAAT is not included in the original certificate, but is included in the National Authority Certificate

Type	Activities	Frequency	Risk-Based Output
Periodic	Repair Station PPB Audit	First Surveillance planning cycle must not exceed one year After the first cycle and if an acceptable level of safety and compliance is found, the Standard surveillance cycle is 24 months Note: The determination of an acceptable level of safety and compliance is detailed in the Risk Based Surveillance program procedure The Surveillance planning cycle may be shortened to 12 months if there is evidence that the safety performance of the organisation has decreased	The content of the Surveillance program The duration of the Surveillance Cycle The duration of each audit and inspection Areas of greatest safety concerns

		The Surveillance cycle may be extended to 36 months if during the previous 24 months the organisation has demonstrated an acceptable level safety of performance For both 24 and 36 Month surveillance planning cycles, the audit may be onsite or remote and should focus on the management system and the areas of greatest concern. It must be programmed at mid-cycle so that the organisation is more frequently overseen	
Periodic	Line Station Inspection certified under FAMO certificate Note: the way an FAMO manages its line stations, including training of the staff, management of the documentation, etc is part of a Repair Station audit. During this audit, verification is required to ensure that line stations have been audited by the Compliance Monitoring system	For any new line station the first Surveillance planning cycle must not exceed one year Line stations under a FAMO must be audited during each surveillance cycle defined for that specific FAMO However, when the organisation demonstrates an appropriate compliance monitoring and safety management system a sampling of line stations selected using a Risk Based system approach may be implemented When sampling is used: • At least 50% of the Line stations under an AMO must be audited during each surveillance cycle	

		• 100% of the Line stations must be audited during two consecutive surveillance cycles	
Scheduled Unannounced	Repair Station PPB Audit	10% of the FAMOs will receive an unannounced audit This should not be a full audit and should target areas of greatest concern This may be performed remotely	List of AMOs with corresponding areas of greatest safety concerns

Foreign Repair Stations (FAMO) subject to Simplified Certification (B and C in accordance with Standards similar to TCAR 8 Part 145)

Type	Activities	Frequency	Risk-Based Output
Periodic	Repair Station PPB Audit	First Surveillance planning cycle must not exceed one year. This may be performed remotely After the first cycle and if an acceptable level of safety and compliance is found, the Standard surveillance cycle is 24 months. This may be performed remotely Note: The determination of an acceptable level of safety and compliance is detailed in the Risk Based Surveillance program procedure The Surveillance planning cycle may be shortened to	The content of the Surveillance program The duration of the Surveillance Cycle The duration of each audit and inspection Areas of greatest safety concerns

		12 months if there is evidence that the safety performance of the organisation has decreased	

Foreign Repair Stations (FAMO) subject to Certificate of Acceptance (B and C in accordance with Standards not lower than TCAR 8 Part 145)

Type	Activities	Frequency	Risk-Based Output
Periodic	Repair Station PPB Audit	The Standard surveillance cycle is 36 months These FAMOs receive periodic surveillance every 18 months, performed remotely using AIR-CL-CER-RSC-500 Checklist for Foreign Repair Station Certification of Acceptance Surveillance	N/A

8.3.4 Collaboration

Some AIR surveillance activities are undertaken in collaboration with other departments (as one CAAT team) to establish the level of compliance over a wider range of operational requirements.

The current collaborative surveillance activities between OPS and AIR are:

a. Base Audits, including meetings and interviews with Accountable Managers and Nominated Personnel
b. Foreign AOC Ramp Inspections

8.3.5 Scope

8.3.5.1 Base Audit

A Base audit is performed at the operator's base of operations to assess the suitability of the operator's organisation, management, facilities, equipment, manuals, personnel and training records in the airworthiness aspects.

Base audit at full scope must be accomplished in the following areas:

a. Organisation and facilities
b. Arrangements for engineering and maintenance support
c. Aircraft leasing management
d. Aeroplane and helicopter instruments, equipment and flight documents
e. Aeroplane and helicopter communication, navigation and surveillance equipment
f. Aeroplane and helicopter continuing airworthiness
g. Manuals, logs and records
h. Reliability program foundation (refer to the scope 8.3.5.5 Reliability Program Evaluation)

8.3.5.2 Line Station Inspection

A Line Station inspection is performed to ensure that adequate housing, equipment, spare parts, technical data and qualified personnel are available to satisfactorily complete all maintenance functions at stations which are geographically located far from the operator's base of operations.

If possible, the inspection should be conducted when actual departure or arrival operations are in progress, in order to assess the operation of the Line Station and the effectiveness of the equipment, services, procedures and personnel utilised.

The Line Station inspection includes 2 types of line maintenance:

a. Line maintenance at stations holding a Repair Station Certificate (included in Scope of Approval)
b. Line maintenance at stations operated under AOC provisions

The Line Station inspection must be accomplished in the following areas:

a. Maintenance facility, tools, equipment, and aircraft parts management
b. Operations manuals
c. Personnel, training and qualification records
d. Continuing airworthiness information and documentation
e. Aircraft flight preparation
f. Safety reporting system
g. Maintenance release

8.3.5.3 Ramp Inspection

A Ramp Inspection is carried out to inspect aircraft on the ramp during operations to verify compliance with regulations and requirements. The inspection must be conducted when actual departure or arrival operations are in progress, in order to assess the ramp operation activities and the effectiveness of the equipment, services, procedures and personnel utilised.

Ramp inspections cover the following areas:

a. Documents required to be onboard
b. Aircraft physical general condition

c. Cabin safety and emergency equipment
d. Aircraft ground handling and servicing
e. Maintenance release

8.3.5.4 Foreign AOC Ramp Inspection

A Foreign AOC Ramp Inspection is carried out to observe and evaluate the foreign air operator's ramp activities during the period immediately before or after a flight and to determine the operator's compliance with international obligation and safe operating practices. This inspection is carried out jointly with OPS.

When AIR receives information regarding a safety issue concerning airworthiness relating to particular foreign country (e.g. ICAO Significant Safety Concern, FAA categorisation information, etc.), AIR will coordinate with OPS for further actions to ensure the safety of the foreign AOC operation.

8.3.5.5 Reliability Program Evaluation

An operator is required by Announcement of CAAT on Aircraft Maintenance Program of Air Operator Certificate Holder B.E. 2560 to establish a reliability program when:

- Aircraft Maintenance Schedule is based upon MSG-3 logic
- Aircraft Maintenance Schedule includes condition monitored components
- Aircraft Maintenance Schedule does not contain overhaul time periods for all significant system components
- Specified by the Manufacturer's MPD or MRB

The purpose of a reliability program is to ensure that the aircraft maintenance program tasks are effective, and their recurrence at regular intervals is adequate. The reliability program therefore may give rise to the optimisation of a maintenance task interval, as well as the addition or deletion of a maintenance task. In this respect, the reliability program provides an appropriate means of monitoring the effectiveness of the maintenance program.

A Reliability Program Evaluation is performed to assess the maturity and maintainability of the operator's reliability program and to review the organisation's overall approach to making decisions and how their reliability program influences those decisions.

The evaluation includes the following elements:

a. Reliability Program Foundation (which is normally performed in base audit scope)
    - Data collection system
    - Performance standards system
    - Data analysis and decision making process
    - Reporting and display format

b. Reliability Program Administration
   - Applicability of the program to aircraft fleet type and model, and special operations
   - Organisational duties and responsibilities, organisational authority, and delegations
   - Personnel training and experience requirements
   - Management and administration procedures, including program revision processes
   - Procedures and standards for data quality management
   - Maintainability of authorized special operations e.g. EDTO/ ETOPS, CAT II, CAT III, PBN
   - Procedures for monitoring and revising the performance standards
   - Procedures for identifying and correcting deficiencies
   - Corrective action implementation and follow-up processes
   - Maintenance task and interval adjustments including approvals
   - Reports used or generated, and the frequency
   - Participation of the reliability review board or committees
   - Monitoring procedures for the performance and effectiveness of the program

After the evaluation, if information obtained from reliability monitoring indicates degraded level of safety, special evaluation or impose operational restrictions will be initiated via finding issuance or enforcement action, as appropriate.

8.3.5.6 Repair Station Audit

A Repair Station audit is performed to ensure an approved repair station complies with regulations and requirements, and to ensure that the maintenance activity is properly performed. The scope of a repair station audit should determine compliance with regulatory requirements and safe operating practices.

There are 2 types of repair station audits:

a. Domestic Repair Station (onsite surveillance)
b. Foreign Repair Station (both onsite and remote surveillance depending upon the type of the applicable initial certification)

The scope of the surveillance audit must include:

a. Facility requirements
b. Personnel requirements
c. Certifying staff and support staff
d. Equipment and tools
e. Components
f. Maintenance data
g. Production planning
h. Performance of maintenance
i. Certification of maintenance
j. Recordkeeping
k. Occurrence reporting
l. Maintenance procedures

m. Maintenance Organisation Exposition
n. Privileges of the organisation
o. Access
p. Immediate reaction to a safety problem
q. Management systems
r. Internal safety reporting scheme
s. Contracting and subcontracting

8.3.5.7 Meetings and Interviews

Meetings and interviews with an operator may be conducted on the various occasions. The scope depends upon the topic to be discussed. The following are examples of discussion topics regarding personnel competency:

a. Accountable Manager Competency
   - Knowledge of regulatory requirements
   - Knowledge of approved working scope
   - Understanding of aircraft operations
   - Understanding of concepts to manage all of the safety critical aspects of the operation

b. Nominated Personnel Competency
   - Knowledge of regulatory requirements relevant to their duties and responsibilities
   - Knowledge of airworthiness management systems
   - Understanding of operator's quality system
   - Understanding of human factors and SMS principles

8.3.5.8 Maintenance Review

A maintenance review is an operator self-assessment. The scope is to ensure that all:

a. Maintenance is complete
b. Mandatory inspections and modifications that are due have been complied with
c. Defects have been rectified or deferred in accordance with company procedures
d. Necessary Certificates of Release to Service have been issued

The operator is required to submit the following documents:

Subject	Frequency
Maintenance Review Document	Every 6 months
Maintenance Review Report	Every 1 year

Upon request by AIR, access must be provided by the operator in respect to:

a. Aircraft being certified
b. Approved maintenance schedule and check control system
c. Mandatory inspection and modification control system
d. Defect control system

e. All technical records including worksheets
f. Aircraft defects

In the case of computer-controlled records, access must likewise be provided.

A copy of a Maintenance Review Report issued for an aircraft must be sent to AIR by the operator, within 10 days, for evaluation.

Maintenance review tasks must not be subcontracted.

8.4 Surveillance Planning

8.4.1 Introduction

This Section details the development and revision of AIR annual surveillance plan.

8.4.2 AIR Annual Surveillance Plan Development and Revision

The surveillance plan is developed annually in the 4th quarter of the year for the forthcoming year's surveillance activity and consists of periodic surveillance and scheduled unannounced surveillance.

The first step in the development of the plan is to undertake a risk-based assessment for each operator.

The schedule is subject to changes depending upon the prevailing circumstances, which could include:

a. The need for any additional unannounced surveillance activities
b. Applicability and validity of operators including matters affecting the operator such as financial conditions, laws and regulations, complexity of operation, technological changes, etc.
c. Limitations arising from unforeseen circumstances

The procedures for development and revision of surveillance plans are contained in AIR-OP-SUR-SP-300 and AIR-OP-SUR-SP-301 respectively.

8.4.3 Risk-Based Surveillance

Surveillance is planned based on a risk assessment and the development of a risk profile for each operator, so that aspects of the operation that involve the greatest risk receive more frequent or deeper attention.

Consequently, surveillance is developed taking into account the:

a. Specific nature of the organisation
b. Complexity of its activities
c. Results of past certification or oversight activities
d. Assessment of the associated risks

An operator's risk profile is dynamic and must be reviewed, at a minimum, during the development of the annual surveillance plan, due to possible changes in the nature, size and complexity of the operation, operating environment, and operator performance.

The development of risk profiles allows the identification of each operator's risks and enables a deep understanding of the effects of risks associated with the specific operation. This allows the development of a surveillance plan based on the identified risk.

Where an operator risk profile indicates an undesirable trend, such as poor or declining performance, or highlights other significant factors, consideration must be given to an increased focus on this operator. This may include:

a. Additional hours spent on each audit module (increased scope, duration, or sampling rate)
b. Additional scheduled surveillance (increased frequency)
c. Additional unannounced surveillance (scheduled, unscheduled)

The procedure for the assessment of an AOC Holder's risk profile is contained in AIR-OP-SUR-SP-302.
The procedure for the assessment of a Repair Station's risk profile is contained in AIR-OP-SUR-SP-500.

8.5 Surveillance Methods

8.5.1 Introduction

This Section details methods for AIR surveillance activities which, in general, cover the phases related to preparation, conduct, and follow-up activity and includes the following:

a. Audits
b. Inspections
c. Meetings and interviews
d. Survey and operator self-assessment evaluation
e. Application of surveillance methods
f. Discontinuing a surveillance activity

8.5.2 Audits

An audit is a systematic, independent and documented process for obtaining evidence and evaluating it objectively to determine the extent to which requirements and audit criteria are fulfilled.

Provisions for preparing and performing audits, as well as the required content of audit reports, are defined in the SMO Audit Procedure Manual (CAAT-QAD-AUP) and should be read in conjunction with this OM.

Audits are normally conducted onsite. However, consideration may be given to undertaking these remotely depending upon the prevailing circumstances.

AOC Holders
The procedures for onsite audits are contained in AIR-OP-SUR-SM-300.
The procedures for remote audits are contained in AIR-OP-SUR-SM-301.

Repair Stations
The procedures for onsite audits are contained in AIR-OP-SUR-SM-500.
The procedures for remote audits are contained in AIR-OP-SUR-SM-501.

8.5.2.1 Confirmation of the Feasibility of a Remote Activity

In accordance with the provisions of the SMO Audit Procedure Manual (CAAT-QAD-AUP), the feasibility of a remote audit must be carefully assessed by the assigned Team leader, taking into account the overall context, limitations and benefits.

A risk assessment must be formalised and specifically address:

a. Confidentiality, security and data protection
b. The possibility to use Information and Communication Technology (ICT)

c. The possibility to interview targeted staff from the organisation
d. The impact on the activity of any operations and functions that may not be operative (i.e. because of unexpected circumstances)
e. The characteristics and complexity of the organisation (including a review of compliance records in the light of risk based surveillance) and of the requirements to be audited or inspected

The risk assessment must feature a conclusion stating:
a. Whether the audit objectives can be achieved or not, and
b. The mitigating actions to be implemented to make the remote audit effective, if any

The risk assessment must form part of the audit records.

8.5.3 Inspections

An inspection is an examination of specific activities, products or services of a certificate, approval or authorisation holder performed by AIR inspectors to confirm compliance with requirements for the certificate, approval or authorisation already issued by the CAAT.

The procedures for onsite inspections are contained in AIR-OP-SUR-SM-302.
The procedures for remote inspections are contained in AIR-OP-SUR-SM-303.

8.5.4 Meetings and Interviews

A meeting is an assembly of people for discussion.
An interview is a more formal meeting at which someone is asked questions.
Meetings and interviews with an operator may be conducted on the various occasions, including:

a. When it is necessary to gain information, or conduct oral counselling to modify operator behavior and change attitudes to compliance
b. When it is necessary to ensure compliance competency of accountable manager or nominated personnel
c. When feedback to a participant on compliance performance is required
d. When it is necessary to review performance with particular activities
e. When it is necessary to raise or discuss and promote safety issues

The procedures for meetings and interviews are contained in AIR-OP-SUR-SM-304.

8.5.5 Survey

A survey is a research method used for collecting data from a predefined group of respondents to gain information and insights into various topics of interest. They can have multiple purposes, and can be conducted in many ways depending on the methodology chosen and research goal.

The procedures for conducting a survey are contained in AIR-OP-SUR-SM-305.

8.5.6 Operator Self-Assessment Evaluation

An operator self-assessment is a performance evaluation that allows the operator to assess how well their compliance performance is and what they should improve. AIR evaluates the responses to ensure that the operator is providing truthful feedback.

The procedures for operator self-assessment development and evaluation are contained in AIR-OP-SUR-SM-306.

8.5.7 Application of Surveillance Methods

The surveillance method used is chosen to suit the circumstances, depending upon the surveillance activity:

Activity	Surveillance Methods
Base	Audits
Repair Station	
Line Station	Inspections
Ramp Activity	
Reliability Program Evaluation	
Maintenance Review	Operator Self-Assessment Evaluation
Oral Counselling	Meetings and Interviews

8.5.8 Discontinuing a Surveillance Activity

The decision to discontinue an audit must be made by the relevant Division Head. However, in threatening situations, an individual AIR Auditor may discontinue an audit. In such an event, the Lead Auditor and Division Head must be informed at the earliest opportunity. Events that may prevent an audit continuing include but not limited to:

a. The safety of the audit team is at risk
b. The objective of the audit becomes unattainable due to access limitations
c. Hindrance, harassment or aggressive behavior of the operator
d. Non-availability of an operator's key staff required for the surveillance activity

CHAPTER 9: AIR AUDITOR AND INSPECTOR RESPONSIBILITIES

(Responsibilities of AIR Auditors and Inspectors)

9.1 Introduction

This Chapter details:

a. Roles and responsibilities for AIR audit and inspection team members when undertaking AIR Certification and Surveillance activities
b. Standard durations for audit and inspection activities
c. Requirements for personal safety during audits and inspections

The AIR audit or inspection team will vary according to the type of audit or surveillance activity and includes as appropriate:

a. Team leader
b. Team members
   - Credentialed staff
   - Technical support staff
   - Specialist staff
c. Trainees

Internal or external observers may be permitted subject to the prior approval of the AIR Manager. Unless formally approved, they must have no active role in the activity.

An AIR team may not require all the positions listed above and various duties and responsibilities may be combined.

The following outlines the terms of reference, qualifications and responsibilities of a team leader and each team member.

Note: Details regarding the authorisations of Credentialed Officers are contained in OM, Chapter 2.

9.2 Team Leader

9.2.1 Terms of Reference

The team leader must:

a. Report directly to the Division Head until released from audit or inspection duties
b. Conduct all audit or inspection related matters in accordance with policy and procedures specified in Chapter 7 AIR Certifications and Approvals and Chapter 8 AIR Surveillance
c. Immediately contact the Division Head with a recommendation for action in the event of an immediate threat to aviation safety
d. Communicate directly with the Division Head to obtain the required personnel resources

9.2.2 Qualifications

The team leader must hold a valid credentials inspector card with the type associated with the functional area to be audited.

9.2.3 Responsibilities

The team leader must:

a. Plan, organise, direct and control the audit or inspection process
b. Maintain an audit or inspection file, which will include letter of authorisation, all working notes, copies of audit or inspection related documents and a copy of the final report
c. Manage the team members
d. Ensure that the pre-audit or inspection information to the operator is prepared
e. Ensure that team members are knowledgeable in their assigned areas
f. Coordinate with appropriate CAAT Departments for any required collaboration
g. Manage any significant matters arising during the pre-audit or inspection phase, including potential problems or changes in the scope
h. Coordinate or chair the entry meeting with the auditee and maintain communications with the auditee's senior management
i. Advise the Division Head immediately of any immediate threat to safety and ensure that the Division Head is aware of any safety issues identified during the audit or inspection
j. Ensure that all Findings are tied to the applicable regulatory requirement and are supported by specific examples and evidence or other supporting documentation where applicable
k. Ensure that all draft Findings have been discussed with the operator's representatives prior to the closing meeting, where it is possible to do so
l. Coordinate or chair the closing meeting with the operator's senior management
m. Ensure that audit or inspections reports and Findings are distributed to the operator within the required timeframe
n. Ensure that the operator acknowledges the audit or inspection result during the closing meeting
o. Ensure that possible enforcement actions arising from the audit or inspection and subsequent actions regarding regulatory Findings are well discussed with the Division Head and taken care of
p. Ensure that any required post-audit or inspection follow-up actions are managed
q. Ensure that team members have fulfilled all their responsibilities prior to release from audit or inspection duties
r. Ensure that all audit or inspection documents are kept in EMPIC

9.3 Team Members

9.3.1 Terms of Reference

Team members must:

a. Report directly to the team leader, until released from audit or inspection duties
b. Assist the team leader and conduct all audit or inspection related matters in accordance with policy and procedures specified in Chapter 7 AIR Certifications and Approvals and Chapter 8 AIR Surveillance
c. Immediately contact the team leader, with recommendations for action in the event of an immediate threat to aviation safety

9.3.2 Qualifications

Technical Support Staff team members must have:

a. Satisfactorily passed the probationary period
b. Satisfactorily completed an approved Audit or Inspection Techniques Course
c. Successfully demonstrated competency, to the satisfaction of an OJT Assessor, to perform the responsibilities listed in 9.3.3

Specialist staff team members must have specific skills, knowledge or experience that are required for the particular activity.

9.3.3 Responsibilities

A team member must:

a. Assist and conduct audit or inspection fieldwork and document Findings as managed by the team leader
b. Document Findings as they are encountered and forward these to the team leader
c. Communicate with the team leader to ensure that audit or inspection progress is reported and potential problems are addressed
d. Review the validity and applicability of Findings by ensuring they are tied to the applicable regulatory requirements and are supported by specific examples and evidence or other supporting documentation where applicable
e. Provide the team leader with the applicable specialty area element (checklist) summaries where requested to do so
f. Prepare all draft Findings to be discussed with the operator's representatives prior to the closing meeting, where it is possible to do so
g. Prepare and distribute the audit or inspection report and Findings to the operator within the required timeframe
h. Obtain the audit or inspection result acknowledgement from the operator
i. Report and discuss with the team leader regarding any possible enforcement action arising and assist in coordination of subsequent action regarding regulatory audit Findings

j. Assist the team leader regarding any required post-audit or inspection follow-up actions
k. Manage all audit documents and store them in EMPIC

9.3.4 Trainees

Trainees are AIR staff who are:

a. In the process of gaining the necessary qualifications to act as Technical Support Staff
or
b. Already appointed as Technical Support Staff and in the process of gaining the necessary qualifications to become a Credentialed Inspector

Note: the qualifications and experience required for the issuance of Credentials are contained in Chapter 2

Trainees must be under the direct supervision of a designated OJT Trainer.

9.4 Duration of Audit or Inspection

Standard durations for an Audit or Inspection are contained in Annex I Audit Timeframes. Situations may arise where standard durations are not appropriate for the activity being undertaken. In these cases specific approval must be obtained from the Division Head and AIR Manager for an increased duration.

9.5 Completion of Documentation

During the course of certifications, approvals and surveillance activities a number of process steps require the review and completion of checklists, forms and other documentation.

In all cases where the signature, either hard-copy or electronic, of an AIR officer is required on such documentation, it must be that of the credentialed officer who has been assigned to the particular activity. Other AIR staff who may be acting in a technical support or trainee role are not authorised to sign such documentation.

In addition, such documentation must be fully completed with each item or checkbox etc., annotated appropriately, including the use of N/A for non-applicable items. Leaving items or sections blank is not permitted.

The checklists, forms and other documents that require completion are designed to be self-explanatory, however, if there is any doubt staff must co-ordinate with the respective Division Head.

9.6 Access Authority of Audit Team

The assigned AIR audit team is authorised to enter the operator's premises and conduct surveillance activities. If the operator does not allow the AIR audit team to enter the premises, the audit team must document this in the audit report, raise a Level 1 Finding, and report the situation to the Division Head and AIR Manager for further action.

9.7 Personal Safety During Audits and Inspections

When required to enter airside or in other hazardous areas, all team members must wear appropriate personal protective equipment (PPE). This is not just for their own personal protection, but also to set an appropriate professional example to the auditee.

Airside PPE includes:

a. Hi-visibility vest, and, if required trousers
b. ID card worn on the outside of the hi-visibility clothing
c. If an ID lanyard is worn it must be of the break-away type in case it is caught in moving machinery
d. Safety shoes
e. Hearing protection
f. Eye protection appropriate to the risk, ranging from sunglasses, through safety glasses to goggles

If required to enter a construction site, the following is required, in addition to that listed above:

g. Hard hat
h. Protective gloves
i. Protective jacket, hi-visibility on the outside

CHAPTER 10: AIR MANDATORY CONTINUING AIRWORTHINESS INFORMATION (MCAI) AND CONTINUED AIRWORTHINESS NOTIFICATION (CAN) MANAGEMENT

(How AIR manages MCAI and CAN)

10.1 General

This Chapter describes how AIR manages:

a. Mandatory Continuing Airworthiness Information (MCAI) issued by a Foreign State of Design
b. MCAI issued by CAAT

Note: MCAI typically refers to:

- ADs
- Mandatory Service Bulletins
- Certification Maintenance Requirements (CMR)
- Airworthiness Limitation Items (ALI)
- any Mandatory Maintenance task prescribed by the State of Design who issued the original Type Certificate or Manufacturer of the Aircraft and related equipment

c. Applications for Alternative Method of Compliance (AMOC) to Airworthiness Directives (AD)
d. Continued Airworthiness Notifications (CAN)

10.2 Mandatory Continuing Airworthiness Information (MCAI)

ICAO Annex 8 describes the term "mandatory continuing airworthiness information" (MCAI) as intended to include mandatory requirements for modification, replacement of parts or inspection of aircraft and amendment of operating limitations and procedures. Among such information is that issued by Contracting States in the form of airworthiness directives.

ICAO Annex 8 also specifies that the regulatory authority of a State of Registry has prime regulatory responsibility for the management of MCAI for all aircraft registered in that State and therefore AIR must ensure that:

a. In respect of aeroplanes over 5,700 kg and helicopters over 3,175 kg maximum certificated take-off mass, when information is received on the existence of faults, malfunctions, defects and other occurrences that cause or might cause adverse effects on the continuing airworthiness of the aircraft, this information is transmitted to the organisation responsible for the type design of that aircraft
b. Whenever the received safety-related information relates to an engine or propeller, such information must be transmitted to both the organisation responsible for engine or propeller type design and the organisation responsible for the aircraft type design

c. Where an identified continuing airworthiness safety issue is associated with a modification, the information must also be transmitted to the organisation responsible for the design of the modification

Note: Operator responsibilities with respect to a, b and c above are contained in AOCR and GAR

Care must be taken to ensure that any sensitive aviation security information:

a. Must not be transmitted when distributing mandatory continuing airworthiness information
b. Must be securely transmitted to the appropriate authority in the State of Design in accordance with ICAO Annex 17

Note: Guidance material on the transmission of sensitive aviation security information is contained in ICAO Doc 9760

10.2.1 MCAI issued by Foreign State of Design

Foreign MCAI refers to Mandatory Continuing Airworthiness Information or any AD released for products, parts and appliances by States of Design other than Thailand.

In accordance with DCA Announcement of Airworthiness Directives B.E. 2554, all MCAI originating from States of Design other than Thailand is mandatory for all aircraft registered in Thailand, provided that:

a. The MCAI was issued by FAA, EASA or other countries deemed acceptable by the DG in the Type Certificate acceptance process
b. The MCAI has not been cancelled or superseded by a CAAT AD, or other official means, before the date of entry into force of that AD.

Note: Generally, CAAT does not supersede MCAI released by a foreign State of Design unless those AD introduce no adverse effect to the safety of aircraft operation

The procedure for the management of MCAI issued by a Foreign State of Design is contained in AIR-OP-CAN-100.

10.2.2 MCAI issued by CAAT

10.2.2.1 Introduction

In accordance with Air Navigation Act B.E. 2497, Section 41/82, an AD can be issued by CAAT for products, parts and appliances where Thailand is either the State of Registry or State of Design. As Thailand is currently not a State of Design, the procedure for the management of MCAI for products, parts and appliances whose design originated in Thailand is not included in this Chapter.

CAAT may issue an AD based on data from reliability analysis, incident or accident investigations as applicable to Thai operators. CAAT is required to share the information with the appropriate State of Design.

10.2.2.2 CAAT AD Actions

Following the identification of a need for CAAT to take continuing airworthiness actions, the following types of AD, along with associated processes, may be considered for issuance:

a. Emergency AD
   - Issue Emergency AD (EAD)

b. Standard AD
   - Issue Proposed AD (PAD)
   - Issue AD

c. Changes to previously issued ADs
   - Correct AD
   - Revise AD
   - Supersede AD
   - Cancel AD

The procedure for Determination of Required Continuing Airworthiness Action is contained in AIR-OP-CAN-101.
The procedure for Emergency AD Process is contained in AIR-OP-CAN-102.
The procedure for Standard AD Process is contained in AIR-OP-CAN-103.
The procedure for Changes to previously issued ADs is contained in AIR-OP-CAN-104.

10.2.3 Distribution of AD

AIR is responsible for the publication and dissemination of CAAT ADs, including transmitting all related information to the State of Design.

Additionally, AIR distributes foreign MCAI to relevant Thai operators in order to raise the awareness of aircraft owners or operators.

The procedure for CAAT AD Publication and Dissemination is contained in AIR-OP-CAN-105.
The procedure for the Publication of Foreign Mandatory Continuing Airworthiness Information (MCAI) is contained in AIR-OP-CAN-100.

10.2.4 Alternative Method of Compliance (AMOC) to an AD

10.2.4.1 Introduction

An AMOC is a State of Design approved deviation to an AD. It is a different means, other than the one specified in an AD, to address an unsafe condition on products, parts and appliances. An AMOC must provide a level of safety equivalent to the level of safety to be restored by compliance with the original AD. AMOCs may be issued in respect of, but are not necessarily limited to, the following:

a. Alternative modifications
b. Alternative inspection procedures
c. Alternative maintenance intervals or procedures
d. Specific operating procedures or limitations

10.2.4.2 Eligibility

An owner or possessor of a registered aircraft is eligible to submit an application for an AMOC to an AD.

10.2.4.3 Issuance of Approval letter

An applicant for the approval of an AMOC to that specified in a CAAT AD or a Foreign State of Design AD must submit a request to the DG containing at least the following information:

a. The make, model, and serial number of the aircraft or aircraft component to which the CAAT AD or a Foreign State of Design AD applies
b. Registration markings
c. The name and address of the applicant
d. The identification of the CAAT AD or a Foreign State of Design AD for which the alternative method of compliance is sought
e. Documents demonstrating compliance to the AD:
    - For CAAT AD, substantiating data to demonstrate a level of safety equivalent to that of the AD
    - For Foreign State of Design AD, an alternative method of compliance approved by the State of Design
f. Such further particulars as the DG may require relating to the aircraft, aircraft component, or the approval of an AMOC

The DG may approve an AMOC when satisfied that the AMOC provides an equivalent level of safety to that achieved through compliance with the requirements in the CAAT AD or a Foreign State of Design AD.

The procedure for approval of an AMOC to an AD is contained in AIR-OP-CAN-106.

10.2.5 Responsibilities

Operators have a responsibility to:

a. Identify, acquire and monitor all the MCAI applicable to their aircraft
b. Comply with applicable MCAI within the effective of date of the AD
c. Monitor and comply with all MCAI requiring periodic inspections
d. Send the report to the State of Design and CAAT when the MCAI includes a reporting requirement to the foreign aviation authority
e. Send a request for an AMOC to CAAT for aircraft registered in Thailand. The AMOC can be applied only after CAAT approval.

AIR has a responsibility to:

a. Verify compliance with the latest MCAI applicable to all Thai registered aircraft and where possible physically check the aircraft during the following inspections:
   - C of A issuance and renewal
   - Ramp inspection
b. Ensure, for AOC holders, that the operator responsibilities described above are reflected in the operator's General Maintenance Manual (GMM)

10.2.6 Enforcement

In cases where the officer carrying out the inspection identifies any of the following, they must be brought to the attention of the Division Head and AIR Manager for consideration of enforcement action:

a. An aircraft is flown without compliance with a relevant MCAI within the prescribed timeframe (Refer ANA Section 41/89)
b. Inaccurate or incomplete entries have been made in the records for compliance of mandatory modifications, or where there is sufficient reason to believe that a false entry has been made

10.3 Continued Airworthiness Notification (CAN)

AIR may issue a CAN to bring industry attention to an issue which does not necessarily meet the threshold of an 'unsafe condition', which would warrant an AD. A CAN alerts, educates, recommends and guides, however compliance with the details of a CAN is not mandatory.

CAN may be developed within AIR, or adopted from continued airworthiness information issued by other States, as in the following examples:

a. FAA Continued Airworthiness Notification to the International Community (CANIC)
b. FAA Safety Alert for Operators (SAFO)
c. FAA Special Airworthiness Information Bulletin (SAIB)
d. EASA Safety Information Bulletin (SIB)
e. EASA Safety Directives (SD)

f. Transport Canada Civil Aviation Safety Alert (CASA)
g. ANAC Brazil Special Airworthiness Bulletin (BEA)
h. CAA New Zealand Continuing Airworthiness Notice (CAN)

The procedure for CAN development and management is contained in AIR-OP-CAN-107.

Chapter 11 AIR Exemption and Enforcement Management
(How AIR manages Exemptions and Enforcement)

11.1 General

This Chapter describes criteria for considering:

a. Issuing exemptions
b. Taking enforcement action

11.2 Exemptions

Compliance by operators and organisations with ANA B.E. 2497 and related Air Navigation Regulations is mandatory. However, there may be situations where it is not possible to comply due to exceptional circumstances, physical constraints, or the non-availability of specified equipment etc. These situations may warrant the granting of exemptions.

CAAT may issue an exemption for:

a. An aircraft that is capable of safe flight but is unable to meet applicable airworthiness requirements
b. A civil aviation organisation that is capable of providing a safe operation but is unable to meet applicable airworthiness requirements
   Note: In the AIR context a civil aviation organisation means an operator (AOC or GA), AMO, design or production organisation

Note: Normally, exemptions apply to an aircraft or organisation that has been issued with a Certificate but does not conform to the conditions of that Certificate

Applications for exemptions must be assessed on a case-by-case basis.

11.2.1 Type of Available Exemptions

The CAAT exemption policy and procedures are contained in:

a. Notification of CAAT on Exemption Policy and Procedure B.E. 2562
b. Exemption Policy and Procedure Manual (CAAT-LEG-EXE)

There are 2 categories of exemptions applicable to AIR activities:

a. General Exemption. This is an exemption issued under ANA Section 15/14
   - A General Exemption does not affect air navigation safety and is promulgated by notification through the CAAT website or any CAAT information network
   - It may exempt an aircraft, aeronautical product, or aircraft maintenance service from any specific requirement, in whole or in part, in any regulation, order, notice, circular, directive, guideline or requirement, issued under the ANA, and may include conditions

b. Specific Exemption. This is an exemption issued under:
   - ANA Section 39, relevant to Type Certificates under ANA Section 38
   - ANA Section 41/90, relevant to aircraft prohibited from flying under ANA Section 41/89 and includes Special Flight Permits
   - ANA Section 41/91, relevant to foreign aircraft

11.2.2 Policy for Exemptions

a. Exemptions under ANA Sections 15/14, 39, 41/90, 41/91 must be granted by the DG
b. AIR must carry out a technical evaluation of the application for the granting of an exemption. If granted, the exemption must contain conditions and limitations for the person or organisation to follow while operating under the exemption. In all cases, before granting an exemption, it must be ascertained that an equivalent level of safety is maintained.
c. Before granting an exemption under ANA Section 15/14 (General Exemption), AIR must ensure that either:
   - The requirement has been substantially complied with and that further compliance is unnecessary, or
   - The action taken or provision made in respect of the matter to which the requirement relates is as effective or more effective than actual compliance with the requirement, or
   - The prescribed requirements are clearly unreasonable or inappropriate in the particular case, or
   - Events have occurred that make the prescribed requirements unnecessary or inappropriate in the particular case, and that the risk to safety will not be significantly increased by the granting of the exemption

   Note: A general exemption, once approved, must be published as soon as practicable at least on the CAAT Website or in any CAAT information network. After the expiry of the period of exemption, the notification must be removed from the website or network.

Note: The holder of an exemption (i.e. air operator, individual or organisation) must carry a copy of the exemption document while undertaking operations.

11.2.3 Granting of Exemptions

After identification of the exemption category, the procedures for granting an exemption must be applied in accordance with the following:

a. For exemptions which fall under the category of Special Flight Permits (refer to Chapter 7.10) the procedure is contained in AIR-OP-CER-SF-300
b. For other exemptions, both general and specific, the procedures are contained in the Exemption Policy and Procedure Manual (CAAT-LEG-EXE)

The respective Division Head is responsible for ensuring that all exemption records (Approvals and Rejections) are maintained in the appropriate location. All exemptions relevant to specific aircraft are to be maintained in EMPIC – AR Module. For others, they must be kept in AIR Drive / 6_Certification and Approval / Exemption Approvals.

11.3 Enforcement

The purpose of this Section is to provide an overview of how CAAT and AIR manage enforcement. The CAAT-LEG-ENF Aviation Enforcement Policy and Procedure Manual provides details and guidance about each of the existing enforcement tools available and the circumstances under which these tools should be used.

11.3.1 Compliance versus Enforcement

Compliance exists when all regulations and safety standards are being met. Enforcement is the action necessary when compliance is not present. Enforcement requires legal or administrative actions and are both known as deterrent actions.

Note:

- Enforcement action is the steps that must be taken from the moment a possible violation of the ANA or Regulations has been detected until the case is concluded
- Administrative action is an action taken by, or on behalf of, the DG and includes oral counselling, suspension or revocation of documents or entitlements. For moderate and low risk events this would normally result in the issuance of warning letters

11.3.2 Determining Appropriate Course of Actions

Many factors need to be considered in choosing an appropriate course of action to ensure compliance and provide deterrence to breaches of regulatory requirements or procedures. When considering a course of action, CAAT has adopted the following general approach:

a. A person who reports making an honest mistake should generally not be prosecuted or fined, nor should their licence, certificate or authority be suspended of cancelled for reasons of punishment
b. There should be a measured response to less serious contraventions of the safety rules and procedures which may involve counselling and training rather than either criminal prosecution or the suspension or cancellation of licences, certificates or authorities or the imposition of any financial penalties
c. People who consciously and wilfully choose to operate outside the rules or procedures and thereby put the lives of members of the public, including passengers, or property at risk should be prosecuted and removed from the industry

11.3.3 Enforcement Actions

When taken, enforcement actions may involve the revocation or suspension of a:

a. Licence
b. Certificate
c. Approval
d. Permit
e. Authorisation
f. Permission
g. Other document

11.3.4 Enforcement Priorities

The following are CAAT enforcement priorities:

a. Education of the industry wherever possible
b. Promotion of compliant attitudes with the industry
c. Regulatory investigations and field surveillance
d. Enforcement of the Law and Regulations

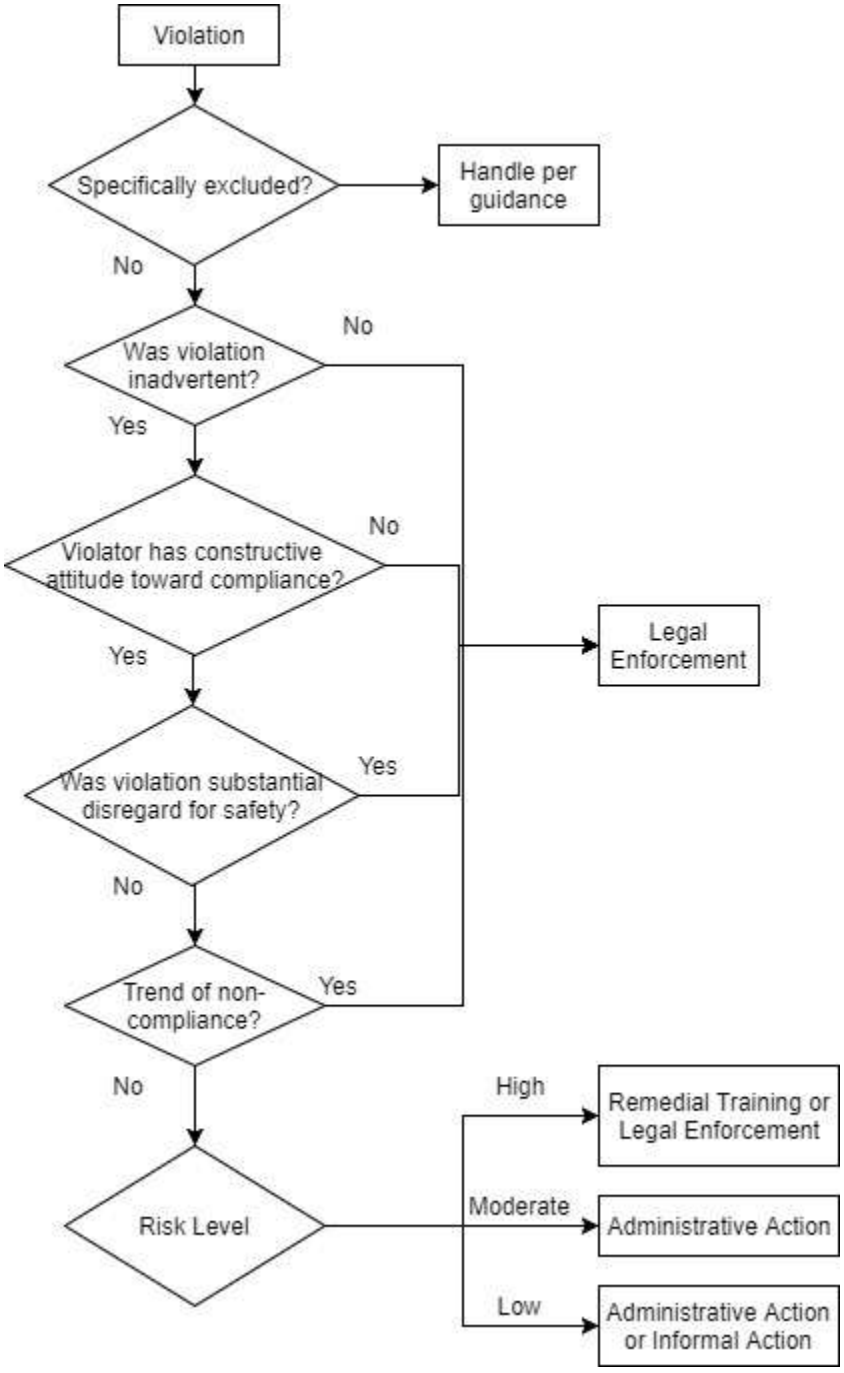
Consequently, from an AIR perspective, it should be recognised that some non-compliances may be better managed through safety management systems rather than through formal enforcement processes. For example:

a. Where the contravention appears to have been unintentional
b. Where the individual, operator or organisation is proposing corrective measures that are likely to address the cause of the event and prevent recurrence

11.3.5 Enforcement Decision Process

As mentioned above, CAAT-LEG-ENF provides detailed information on the determination of appropriate enforcement actions, including a flowchart, reproduced below, to focus the enforcement decision making process.

Note: The flowchart must be read in conjunction with CAAT-LEG-ENF and is provided here as illustrative only



Recognising that the type and level of enforcement action taken will vary depending upon the specific circumstances, AIR staff must use the above flowchart as a means of determining appropriate actions as well as ensuring that each specific situation is evaluated using the same criteria (i.e. ensuring fairness and equitability).

Most enforcement action taken by AIR is administrative action and includes:

a. Oral counselling
b. Issuance of warning letters
c. Suspension or revocation of documents or entitlements

When legal action is required to be taken, it may also involve administrative actions being taken in parallel.

Whenever any AIR staff considers that a non-compliance exists which may warrant the taking of enforcement action, this should immediately be brought to the attention of the concerned Division Head and AIR Manager.

The procedure for taking enforcement action is contained in AIR-OP-EEM-001.

Chapter 12 AIR International Standards Management
(How AIR manages compliance with International Standards)

12.1 General

This Chapter describes:

a. How compliance with ICAO Standards is managed
b. The impact of external international Standards compliance assessments on Thai international civil aviation operations

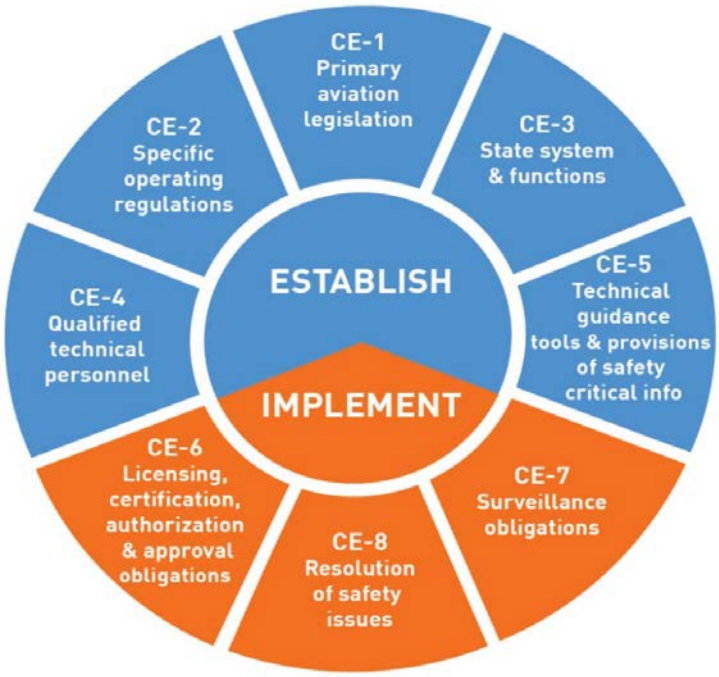
12.2 Ensuring Compliance with ICAO Standards

The overall purpose in ensuring compliance with ICAO Standards is to improve Thai aviation safety by:

a. Integrating the ICAO Standards and Recommended Practices (SARPs) into the AIR legal framework and daily practices
b. Ensuring the highest practical degree of uniformity in AIR regulations, standards, and procedures with international best practices

In ensuring compliance, AIR:

a. Focuses on the ICAO eight critical elements (CE) identified as the essential components of a State safety oversight system. These critical elements are as follows:



b. Assesses compliance by using the ICAO Universal Safety Oversight Audit Programme (USOAP) Continuous Monitoring Approach (CMA) Protocol Questions (PQs) as the primary tool for assessing the effective implementation of the eight CEs. This provides a status report as to whether AIR is currently meeting the ICAO Standards and thereby operating in a safe manner.

   Note: All PQs have an associated CE, and together aim at assessing the overall "health" of those CEs.

c. Uses the USOAP CMA On-Line Framework (OLF) as an ongoing gap-analysis report to ICAO to:
   - Demonstrate meeting the requirements of a safety assurance system
   - Demonstrate compliance with Standards
   - Identify areas for improvement

Where differences are identified between ICAO Standards and CAAT airworthiness regulatory provisions, AIR inputs this information into the ICAO Compliance Checklist/Electronic Filing of Differences (CC/EFOD) application.

OM Chapter 4 Air Regulation Development and Amendment contains details regarding:
- AIR actions to assess and record compliance with ICAO Standards
- How AIR incorporates into AIR regulations:
  - An amendment to an ICAO Annex or Document
  - An amendment to relevant foreign source regulations

12.3 Impact of External International Standards Compliance Assessments

The ability for CAAT to demonstrate continuous compliance with the ICAO Standards is critical for the continued operation and growth of Thai registered operators undertaking international air services.

In order to externally verify compliance, there are 2 major oversight activities that regularly measure AIR's compliance against ICAO safety standards:

a. ICAO USOAP
b. FAA International Aviation Safety Assessment (IASA)

Note: EASA maintains an EU Air Safety List, which restricts or prohibits the operations of specific operators in Europe

Ultimately, via different mechanisms, any of the 3 programs (ICAO, FAA, EASA) may affect the ability of Thai registered operators that operate, or seek to operate, to foreign countries or codeshare with foreign carriers.

12.3.1 ICAO USOAP

ICAO USOAP CMA performs on-site and remote activities to make regular assessments of a State's safety oversight system. These can be full scope or limited scope audits. Identified deficiencies, with respect to ICAO Standards, are issued as Findings, with those of high priority being termed Significant Safety Concerns (SSC) and identified on the ICAO website with Red Flags.

Note: An SSC indicates a lack of ability of the audited State to properly oversee air operators under its jurisdiction. It does not necessarily indicate a particular safety deficiency but, rather, indicates that the State is not providing sufficient safety oversight to ensure the effective implementation of applicable ICAO Standards.

States are required to provide, and have approved by ICAO, Corrective Action Plans (CAPs) to address Findings.

12.3.2 FAA IASA

FAA IASA performs on-site and remote activities to assess the ability of the State's aeronautical authorities to oversee the operational safety of its airlines. These can be full scope or limited scope audits. Identified deficiencies, with respect to ICAO Standards, are issued as Findings and the State is assigned an FAA Category rating:

a. Category 1, means that the CAA has demonstrated that it meets the ICAO Standards for each of the eight CEs. Carriers from Category 1 countries are permitted to operate into the United States and/or codeshare with United States operators
b. Category 2, means that the CAA was noncompliant in at least one CE. Carriers from Category 2 countries that operate into the United States have such services limited while they remain under that assessment and are prohibited from launching new commercial services into the United States or codeshare with United States airlines
c. When a country is removed from the IASA summary listing, a full reassessment of the CAA must be conducted before the country can be rated in the IASA program and before a carrier subject to that country's aviation safety oversight can serve the United States using its own aircraft or can put a United States carrier code on its flights

Note: IASA does not assess the safety compliance of any particular air carrier (nor does it address aviation security, airports, or air traffic management).

Chapter 13 AIR Information and Document Management

(How AIR communicates with the industry and keeps information and documents)

13.1 General

This Chapter describes the:

a. Structure and components of the AIR Information Management System (IMS)
b. How AIR uses the IMS in its work

13.2 What is AIR-IMS?

AIR-IMS is a general term for a system designed to facilitate the storage, organisation and retrieval of information. It uses an AIR Portal as the main interface and comprises different applications, which support AIR operational activities.

AIR-IMS facilitates cooperation and collaboration amongst AIR Staff by storing and allowing retrieval of all available information relevant to the work function from the same data source.

AIR-IMS resides on CAAT IT infrastructure and is managed by AIR authorised persons in each Division appointed by the AIR Manager. The data and associated information is secured and only made available to AIR staff users and relevant CAAT Departments.

13.3 AIR-IMS Elements

AIR-IMS comprises of 4 elements:

a. Official Data Storage
   (1) Physical Content Storage
   (2) Electronic Document and Information Storage
   (3) Record Retention and Disposal
b. Information Structure
   (1) General Structure
   (2) ICAO Documents and Information
   (3) Airworthiness Technical Library and Records
c. Interface and Access
d. Feedback and Support

13.3.1 Official Data Storage

All AIR documents and records are managed to ensure that they will not be in conflict with:

- Rules of Prime Minister's Office on Sarabun and further amendment (ระเบียบสำนักนายกรัฐมนตรี ว่าด้วยงานสารบรรณ)
- QAD Document Management System Procedure
- Official Information Act (พระราชบัญญัติ ข้อมูลข่าวสารราชการ)
- Personal Data Protection Act (พระราชบัญญัติ การคุ้มครองข้อมูลส่วนบุคคล)
- Cybersecurity Act (พระราชบัญญัติ การรักษาความมั่นคงปลอดภัยไซเบอร์)

All incoming and outgoing documents are managed with e-Sarabun. Refer to e-Sarabun manual.

1) Physical Content Storage

All AIR hard-copy documents (paper-copies) and physical media (e.g. CD/DVD-ROM etc.) must be kept in a safe and secured location to prevent damage, tempering, unauthorised sharing and loss. They must be stored in a CAAT official physical content storage location.

a. KDC Service (Krungdhep Document Company Limited)

KDC is a service provider CAAT contracts for a full range of physical content solutions from a pick-up service to official hard-copy document storage. Learn more about KDC.

In order for KDC to provide any services, they must be requested by authorised persons. The level of service is limited depending upon the user-level of each authorised person. See the list of KDC Service Authorised Persons for AIR here.

An Authorised Person can be added by completing the KDC Authorization Form and sending to service@kdc.co.th by authorised persons.

b. Storage of Documents

AIR staff are responsible for ensuring that all physical contents from their assignments are finally properly stored in an official location.

The procedure for Physical Content Storage is contained in AIR-OP-IMS-001.

c. Retrieval of Documents

When it is necessary to retrieve any file or content stored with KDC, a request must be made through an authorised person. AIR staff who wish to use retrieval service of KDC should identify the "**Item Code**" box number they would like to retrieve in the KDC Inventory List, then send an email (AIR-TL-IMS-001) to an authorised person to pass on to KDC. The following must be followed when using the KDC retrieval service:

- Next Day Retrieval (เรียกเอกสารแบบวันรุ่งขึ้น)
  The service must be requested before 1500LT. KDC will provide the service at the appointed time or no later than 1400LT the next day

- Same Day Retrieval (เรียกเอกสารแบบเร่งด่วน)
  The service must be requested before 1100LT. KDC will provide the service before 1500LT within the same day

- Permanent Out (นำออกจากระบบถาวร)
  This service will permanently retrieve the file from the KDC storage system.

- Refile (ส่งกลับหลังให้บริการ)
  This service will return the retrieved box or documents to the KDC storage system.

2) Electronic Document and Information Storage

All AIR digital documents and information must be stored in prescribed storage locations and reside on CAAT IT infrastructure. The storage procedure for electronic documents is included in every procedure, identified with the storage location depending upon the nature of the data. There are 3 official computer-based storage locations currently being used:

a. Microsoft 365

Microsoft 365 (formerly known as Office 365) is a suite of apps that provides Microsoft Office and many collaboration tools in the Cloud. It provides anywhere and anytime access to familiar Office tools, enterprise-grade email, web conferencing, document management, and business process workflows. Currently, AIR utilises the following Microsoft applications:

- Microsoft SharePoint (also known as AIR Portal)
  AIR utilises the Microsoft SharePoint as a customised AIR information interface for information presentation. It contains links to access information supporting AIR work functions. It is also used as a tool to publish news or important information to AIR Staff.

- SharePoint Document Library (also known as AIR Drive)

The Document Library provides a cloud-based space to store files where AIR staff can find them easily, work on them together, and access them from any device at any time. It is used as document storage for any dynamic documents and on-going working documents.

When issues or problems are identified with Microsoft 365, the respective AIR staff should send an email to support@caat.or.th.

b. EMPIC

EMPIC-EAP® is a software system created by regulators for regulators to address the safety and security oversight responsibilities conferred by ICAO and the Chicago Convention.

AIR utilises EMPIC to record and store technical data such as Aircraft Data, Organisation Approvals, Customer Management, etc. There are 4 modules associated with AIR functions:

- CM Module
  This is a customer database which contains contacts, addresses and group functions for organisations and individuals.

- TC Module
  This is an aircraft database which contains information regarding Type Certificates, Supplemental Type Certificates, Noise Certificates, Original Equipment Manufacturer's data, etc.

- AR Module
  This is an aircraft database which contains information regarding C of R, C of A, Special Flight Permits, or any other information relevant to specific aircraft registrations

- OAS Module
  This is an organisation database which contains information regarding certificates, nominated personnel, manuals, surveillance information, etc.

CAAT has chosen to implement EMPIC on a progressive basis and consequently the procedures detailed in this OM may direct AIR staff to undertake activities by using the EMPIC application, or traditional paper-based methods, or a combination of the two.

It is important that where a combination of EMPIC and other methods are used for any activity (e.g., communications with operators by EMPIC or email), that traceability and auditability of AIR documentation are considered as prime requisites. Any questions or concerns regarding this must be referred to the concerned Division Head.

Applications for certifications or approvals should be submitted via EMPIC. However, hard copy or email may be accepted at the discretion of the concerned Division Head.

Detailed steps for the use of EMPIC are not described in this OM and AIR staff must refer to AIR-EMPIC User Guidance for those details:

- For more information about EMPIC system, click here.
- For how to use EMPIC, click here for manuals and guidance.

c. Document and Records Management System (DRMS)

DRMS is a documentation system containing both controlled and uncontrolled documents and is supported by QAD. AIR uses DRMS as a document storage facility for any static documents (i.e. completed with no further changes). DRMS has 2 components:

- DRMS Flow (Controlled Document Submission)
  This is a document control system managed by QAD and HRD. It is used as a channel to submit manuals, forms, checklists for approval under the QAD control system and to submit training reports to HRD.

  For the DRMS Flow manual, click here.

- DRMS Document Library (Alfresco - Uncontrolled Documents)
  This is where AIR can directly store and manage documents other than controlled documents, such as draft internal letters, approved plans, scanned official correspondence, images, and videos.

  It is also used for uploading content to share and work on with other AIR staff. AIR users can view and work on this content, depending upon their permission level settings.

  Access authorisation is managed by QAD through the AIR-IMS team.

To know more about DRMS, please see the video here (Thai Language).

When issues or problems are identified with DRMS, AIR staff should send an email to qad_iq@caat.or.th.

3) Records Retention and Disposal

a. Retention Period

The retention period specifies the period of time the record must be retained before it becomes eligible for disposal. The following principle is applied for all AIR Documentation:

Media Format	Type of Documents	Retention Period
Physical Content Format (Hard-Copy and Physical Media)	Documents relevant to Aircraft	10 years OR 1-year after aircraft out-of-service (whichever is later)
	Documents relevant to Operators	10 years OR 1-year after invalidity of operator (whichever is later)
	Others	10 years
Electronic Format (Soft-copy)	All Types	Permanent (Note)
Note: When it is necessary to clean up electronic documents to create more space or for reasonable necessity, the electronic documents that have been kept for 10 years or more can be cleared by deleting the electronic files that have been kept for a period of time from the most to the least. The back-up files of any electronic documents must be kept for at least 20 years.		

b. Control of Obsolete Documents

Obsolete documents, especially controlled documents, are removed from points of use and will be retained for reference or for legal obligations. These documents will be marked 'OBSOLETE' and kept separate from active documents.

Filing cabinets containing obsolete documents are segregated and labelled 'OBSOLETE'. Obsolete electronic documents are removed from their original location and are stored in DRMS archive folder that is accessible upon request. Any obsolete documents that need to be reactivated will be reviewed, approved and released in the same manner as newly established documents. The obsolete documents can be disposed when they have been retained for the following retention period.

Obsolete Document Retention Period	
Type of Document	**Retention Period**
Hard-Copy Obsolete Document	5 Years
Electronic Obsolete Document	2 Years

c. Records Disposal

- **Record Eligible for Disposal**
  Records are eligible for disposal when they have been retained for the total retention period as described in 13.3.1 3) (a).

  Non-record, convenience or information copies and e-mails of a transitory nature may be destroyed without formality once their purpose has been served.

  Note:
  - Non-record is recorded information that has no administrative, legal, fiscal, or archival value. Non-records do not have any retention requirement
  - Convenience copy is additional copies of records that are held by individuals or offices. They are often distributed for information, are not necessarily related to the function of the Department, their existence in the Department does not trigger an action, and they are exact duplicates of the existing record copy.

- **Withholding Records from Disposal**
  Records involved in an audit, investigation, litigation or an open records request must not become eligible for disposal until the final conclusion of the action and satisfaction of the retention requirements pertaining to records related to the action are met.

- **Approval for Disposal**
  Disposal of AIR records must be done with AIR Manager approval.
  For controlled documents, they can be disposed through DRMS flow system with the approval from AIR manager. For other types of documents, a list of records to be disposed must be prepare using the AIR Record Disposal Form (AIR-FM-IMS-001) to ensure that a record of the disposal activity is available for future reference. When the disposal is approved, it must be carried out as follows:
  - Physical Content records stored with KDC can be disposed of by submitting a request for the "Destruction" Service from KDC. The email request for the service (AIR-TL-IMS-001) must be sent by authorised persons
  - Physical Content records retained in AIR Department office must be disposed of by using a shredder (or breaking-in-half for CD/DVD-ROM). Other means of paper disposal, e.g. burning or simply throwing the records away in a waste bin, are NOT acceptable
  - Electronic records stored in the cloud, shared drive, CAAT Computerized Audit/Oversight System, and DRMS must be disposed of by deleting the files including their metadata or transferring them to an archive drive/folder. Overwriting the file is NOT acceptable
  - For controlled document electronic records, after disposal, it will be moved to archive

13.3.2 Information Structure

1) General Structure

Data and information stored in AIR-IMS are grouped into 9 main categories:

No	Category	Example of Data and Information
0	International Standards and Regulations	ICAO Annexes, ICAO Docs, EASA Standards, FAA Standards, Other countries' Standards
1	Primary Legislation	Air Navigation Act, Emergency Decree
2	AIR Operating Regulations	Regulations, Requirements, Rules, Notifications and Orders
3	AIR Administration	AIR General Administration and Official Correspondence, CAAT Corporate Plan, CAAT Internal Audit, AIR Meetings, AIR Stakeholder Management, CAAT External Audit, AIR KPI Management, AIR Reporting System, Crisis Management, AIR Information Management System (AIR-IMS)
4	AIR HR Management	AIR Manpower Management, AIR Inspector's Credential Monitoring, AIR Training and Knowledge Management, AIR PMI, AIR Staff PoC
5	AIR Documentation	Master List of Controlled Documents, Guidance Materials, Manuals, Forms, Checklists, Circulars, Internal Forms, Draft Document Templates, AIR Workflows, Processes and Instructions, KDC Archived Documents Inventory List, Airworthiness Technical Publication
6	AIR Certification and Approval	AOC Certifications, Operation Specifications (Ops Spec), Production and Design Organisation Certifications, C of A, C of R, Repair Station Certifications, Nominated Personnel Acceptance Records, Manual Approvals or Acceptance, Exemption Approvals
7	AIR Surveillance	Surveillance Plans, Surveillance Activities, Operator Reports and Notifications
8	AIR Resolution of Safety Concerns	Safety Issues (Safety Investigations, Safety Recommendations, Safety Actions), Safety Support Information for Surveillance, Enforcement Administrative Actions, Complaints

2) ICAO Documents and Information

ICAO Annexes, Documents, Circulars, and other relevant information are categorised under "International Standards and Regulations" category in DRMS and are managed by SMO.

ICAO Circular 95 - Online Airworthiness Information Network

Circular 95 contains useful information for States to ensure the continuing airworthiness of aircraft, particularly when an aircraft is transferred from one Registry to another and when issuing the Certificate of Airworthiness to an aircraft.

3) Airworthiness Technical Library and Records

All airworthiness records kept by AIR are catagorised in accordance with the general structure. The following are examples of the records and access rights controlled by AIR, including but not limited to:

No.	Documents and Records	CAT	Location
1	Air Operator Certification Records	6	EMPIC – OAS Module, Process: AOC, Case: AOC Certification
2	AOC Operational Manuals (GMM, AMP, RPM, MEL, TPM, EDTO, others)	6	EMPIC – OAS Module, Process: AOC, Case: AIR Manual Approval
3	AMO Certification Records	6	EMPIC – OAS Module, Process: AMO, Document Folder
4	AMO Maintenance Organisation Expositions	6	EMPIC – OAS Module, Process: AMO, Document Folder
5	*Modification Approval Records (Major/Minor)	6	EMPIC – TC Module, Modifications, Mod Type, Document Folder
6	*Repair Approval Records (Major/Minor)	6	EMPIC – TC Module, Modifications, Repair Type, Document Folder
7	AOC Surveillance Records	7	EMPIC – OAS Module, Process: AOC, Case: AIR Surveillance
8	AMO Surveillance Records	7	EMPIC – OAS Module, Process: AMO, Document Folder
9	Records of Surveillance Planning	7	AIR Drive / 7_AIR Surveillance
10	Foreign AOC Ramp Inspections	7	Coordinate with OPS for records
11	*Type Certificates (TCs) Validation Records	6	EMPIC – TC Module, Types, Document Folder
12	*Supplemental TCs Validation Records	6	EMPIC – TC Module, Modifications, Type: STC, Document Folder
13	Meeting minutes with Civil Aviation Organisations	3	AIR Drive / 3_AIR Administration / AIR Meetings / 03. External Meetings
14	Records of MCAI	5	AIR Drive / 5_AIR Documentation / Airworthiness Technical Publication

No.	Documents and Records	CAT	Location
15	Records of SBs mandated by ADs	5	AIR Drive / 5_AIR Documentation / Airworthiness Technical Publication
16	Records of all Approved Alternate Means of Compliance issued against MCAI	6	AIR Drive / 6_AIR Certification / Product and Design Organisation / AMOC
17	Records of Aircraft Incident and Occurrence Investigations	8	AIR Drive / 8_AIR Resolution of Safety Concerns / Safety Cases
18	Records of Faults, Malfunctions and Defects	8	Thailand SDCPS (AIR-SKP and SMO)
19	Records of Special Flight Permits Granted	6	EMPIC – AR Module, Aircraft Registration, Document Folder
20	Noise Certificates	6	EMPIC – AR Module, Aircraft Registration, Document Folder
21	AOC Special Operation Approval Records	6	EMPIC – OAS Module, Process: AOC, Document Folder
22	**Certificate of Registration Approval Records including Reservation, Reissuance or Replacement, and Deregistration	6	EMPIC – AR Module, Aircraft Registration, Document Folder
23	**Certificate of Airworthiness Approval Records	6	EMPIC – AR Module, Aircraft Registration, Document Folder
24	Non-AOC Manual Approvals	6	EMPIC – OAS Module, Process: AOC, Case: AIR Manual Approval
25	List of Airworthiness Technical Reference Documents and Access Points (see 13.3.2.1 below)	5	AIR Drive / 5_AIR Documentation / Airworthiness Technical Publication
26	**Export Certificate of Airworthiness (Aircraft) Approval Records	6	EMPIC – AR Module, Aircraft Registration, Document Folder
27	Export Airworthiness Approval Tag (Aeronautical Products other than aircraft) Approval Records	6	AIR Drive / 6_AIR Certification / Export Airworthiness Approval Tag
28	Operator Special Approval Records	6	AIR Drive / 6_AIR Certification / Special Approval Records
29	Records of Exemption Approval	8	AIR Drive / 6_AIR Certification / Exemption Approvals
30	Records of Enforcement Actions	8	AIR Drive / 8_Resolution of Safety Concerns

CAT – Data Category (refer General Structure in 13.3.2(1))

* For TC/STC validation and Modification/Repair Approval Records, all records prior to EMPIC introduction are kept in AIR Drive / 6_AIR Certification / Production and Design Organisation / Archived TC-STC-Mod-Repair Records

** For each aircraft registered in Thailand, the files are also kept within the particular inspection checklist (EMPIC – AR Module, Particular Aircraft Registration, Surveillance) which contains records detailing applications and supporting documents for the certificates of registration and airworthiness, the maintenance program approved for the aircraft, records of major modifications, together with any other information relevant to the continuing airworthiness of the aircraft reviewed during the aircraft inspection.

13.3.2.1 List of Technical Reference Documents and Access Points

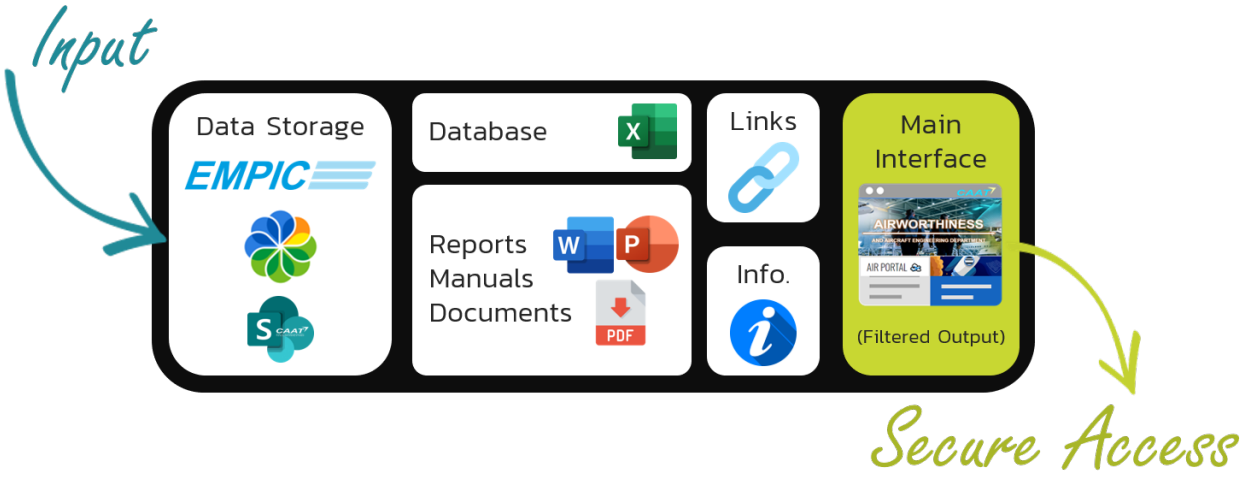
A list of technical reference documents, along with access points, is maintained in Annex 1. DP Division Head is the responsible AIR co-ordination point to ensure the suitability and currency of the listed information. DP will, at regular intervals, co-ordinate with other Divisions and undertake a review of the list (for both suitability and accuracy of access points). However, on an ongoing basis, should any staff have suggestions for adding additional documents to the list or encounter difficulties with access they should advise their Division Head and DP.

13.3.3 Interface and Access

AIR-IMS uses an AIR Portal, which is a customised web-based application, as the main information interface for information presentation. It contains links or instructions to access information supporting AIR staff work functions.

AIR Portal resides on CAAT IT infrastructure and is managed by AIR designated persons.

How does AIR Portal Work?



The data is stored as described above in 13.3.1, and processed through appropriate applications, then made available via the main interface with secure access.

13.3.4 Feedback and Support

AIR Staff users who wish to contribute to AIR Portal such as:

a. Giving an idea
b. Asking questions
c. Reporting AIR Portal problems
d. Requesting the addition of information
e. Commenting for improvement
f. Requesting for information management support

can use the AIR Portal Feedback System (APFS) to provide such feedback here. This system is established for AIR Portal Improvement and any feedback will be collected for AIR-IMS improvement use only.

For any questions about AIR-IMS, please contact: air-ims@caat.or.th