
The Civil Aviation Authority of Thailand

Advisory Circular

Guidance on the Acceptance of Nominated Persons for AOC Engineering and AMO/MRO Organisations

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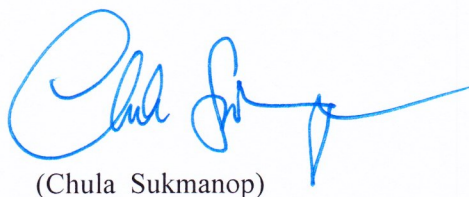
ISSUE APPROVAL

This Advisory Circular provides information and guidance to air operator and maintenance organization on nominate a person or group of persons, acceptable to the CAAT, whose responsibilities include ensuring that the Organisation is in compliance with CAAT AOCR and ADCA 145 requirements. The nominated person(s) represent the management structure of the organisation and are responsible for all functions specified in AOCR and ADCA 145.

This is published to assist air operators in the maintenance section and the Civil Aviation Authority of Thailand (CAAT) personnel delegated with the responsibility of certifying Air Operators and Aircraft Maintenance Organization to comply with all provisions in this Advisory Circular during the certification process.

In addition, this Advisory Circular information in respect of certification which is eligible to conduct by Air Operators to reach the CAAT requirement.

Amendments to this Information and Guidance book will be notified through <http://www.caat.or.th/>



(Chula Sukmanop)

Acting Director General

The Civil Aviation Authority of Thailand

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		Date 1 September 2016
	Advisory Circular Owner: AIR (CAAT)	

**AC AW-05-NOM
1 September 2016**

Advisory Circular

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1. GENERAL. Advisory Circulars (ACs) are issued by the Civil Aviation Authority of Thailand and contain information about standards, practices and procedures acceptable to the Authority.

The revision number of the AC is indicated in parenthesis in the suffix of the AC number.

2. PURPOSE. This Advisory Circular (AC) provides AOC holders and Aircraft Maintenance Organization guidance on nominate a person or group of persons, acceptable to the CAAT.

3. APPLICABILITY. This AC applies to all Thailand AOC holders, CAMO and AMO/MRO.

4. CANCELLATION. This is the first AC issued on this subject.

5. EFFECTIVE DATE. This AC is effective from 20 September 2016.

6. REFERENCES. The following materials were referred to for the development of this AC:

- (a) Air Navigation Act.
- (b) AOC Requirements
- (c) CAAT ADCA 145
- (d) UK CAA BCAR Section A (CAP553), Section A8-10 for welders

7. INTRODUCTION.

The purpose of this procedure is to give guidance on the acceptance of Nominated Persons, also known as “CAAT Form 4” holders, for CAAT Approved AOCs and AMOs/MROs.

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8 Purpose and Scope

To assist the CAAT inspectors in reviewing and assessing nominated persons in a consistent manner.

9 Definitions

NDI: Non Destructive Inspection.

NDT: Non Destructive testing

10 Discussion

10.1. CAAT ADCA 145 Personnel Requirements (Item 17)

The organisation shall appoint an Accountable Manager who has corporate authority for ensuring that all maintenance required by the customer can be financed and carried out to the standard required by CAAT ADCA 145.

The organisation must nominate a person or group of persons, acceptable to the CAAT, whose responsibilities include ensuring that the Organisation is in compliance with CAAT ADCA 145 requirements. The nominated person(s) represent the management structure of the organisation and are responsible for all functions specified in and ADCA 145. This ADCA 145 requires the Managers to be identified and their credentials submitted for acceptance on a CAAT Form 4.

A typical CAAT, 145 AMO/MRO management structure may include:

- (a) The Accountable Manager
- (b) Quality Manager
- (c) Base Maintenance Manager
- (d) Line Maintenance Manager
- (e) Engine Shop Manager
- (f) Workshop Manager

10.2. AOC Airworthiness Personnel Requirements (AOCR Chapter 8, Para 4)

The organisation shall appoint an Accountable Manager who has corporate authority for ensuring that all AOC Engineering activities can be financed and carried out in accordance with AOCR.

The organisation must nominate a person or group of persons, acceptable to the CAAT, whose responsibilities include ensuring that the Organisation is always in compliance with CAAT requirements. The nominated person(s) represent the management structure of the organisation and are responsible for all functions specified in AOCR Chapter 8. The AOCR requires the Managers to be identified and their credentials accepted by the CAAT. These should be submitted for acceptance on a CAAT Form 4.

In a typical AOC Engineering department the management structure may include:

- (a) The Accountable Manager

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- (b) Continued Airworthiness Manager (Nominated Post Holder for Maintenance)
- (c) Quality Manager
- (d) Technical Services Manager
- (e) Certificate of Maintenance Review Staff

11 Procedure

When accepting Nominated Persons on a CAAT Form 4 the following relevant knowledge and experience should be requested:

11.1. For AOC, Engineering

11.1.1 Accountable Manager/Chief Executive should be able to demonstrate:

- (a) A basic understanding of the applicability and extent of CAAT, AOCR and/or ADCA 145 in relation to the approval. This includes the Operations Manual, GMM and RSM, privileges of the approval, changes, continued validity and suspension requirements applicable to the approval in accordance with the applicable requirements.
- (b) That the nominee has the seniority and financial control necessary to ensure that all necessary resources i.e. personnel, facilities and an acceptable quality system are available to support the organisation's approval and to ensure that adequate operational, airworthiness and maintenance standards (as appropriate) are maintained.
- (c) An acceptable record of management or supervision experience in support of the nomination, taking into account the need to manage the organisation concerned in a manner which assigns appropriate priority to safety in order to secure a safe operation in compliance with regulations, to the satisfaction of the CAAT Airworthiness Inspector.

***Note:** Accountable Manager/Chief Executive does not require an AIR Form 4. The acceptance of this person is achieved through approving the GMM.*

11.1.2 Quality Manager should be able to demonstrate:

- (a) Five years relevant work experience of which at least two years should be from the aeronautical industry in an appropriate position.
- (b) A relevant degree or an aircraft maintenance technician qualification with additional education acceptable to the CAAT.
- (c) A comprehensive knowledge of AOCR, and CAAT ADCA 145.
- (d) Thorough familiarity with the Operations Manual, GMM, and/or RSM as applicable.
- (e) Knowledge of SMS
- (f) Knowledge of Human Factors
- (g) A sound knowledge of the application of Quality Systems.
- (h) Appropriate management experience, and the ability to manage a Quality System.

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- (i) Familiarity with the product(s) for which the organisation is approved.

11.1.3 Technical Service Managers should be able to demonstrate:

- (a) Five years relevant work experience of which at least two years should be from the aeronautical industry in an appropriate position.
- (b) A relevant degree or an aircraft maintenance technician qualification with additional education acceptable to the CAAT.
- (c) A comprehensive knowledge of AOCR and ADCA 145.
- (d) Thorough familiarity with the GMM.
- (e) Familiarity with the organisations quality system.
- (f) Knowledge of SMS
- (g) Knowledge of Human Factors
- (h) Technical service experience or qualifications appropriate to the duties to be performed.

11.1.4 Continuing Airworthiness Manager (Nominated Post Holder for Maintenance) should be able to demonstrate:

- (a) Five years relevant work experience of which at least two years should be from the aeronautical industry in an appropriate position
- (b) A relevant degree or an aircraft maintenance technician qualification with additional education acceptable to the CAAT.
- (c) Appropriate managerial experience including a working knowledge of aviation safety standards and the ability to manage in such an environment.
- (d) A thorough knowledge of AOCR requirements and the organisations continuing airworthiness management exposition.
- (e) Knowledge of the Airworthiness control procedures through the GMM
- (f) Knowledge of Human Factors
- (g) Knowledge of SMS
- (h) Familiarity with the organisation's Quality System.
- (i) An understanding of the organisation's contracted and sub-contracted maintenance and technical/engineering services arrangements (contract content).
- (j) Appropriate technical knowledge of the type(s) operated.

11.1 5. CMR Signatory Staff issues the CMR certificate at the intervals specified in the approved Maintenance Programme for an aircraft.

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The CMR indicates that the nominated LAE for the type who has signed it has examined the Aircraft Technical Log and associated documentation and satisfied themselves that in the period since the previous CMR:

- All maintenance specified in the approved Maintenance Programme has been carried out
- All mandatory modifications and inspections have been complied with within the prescribed time periods.
- All Defects recorded in the Aircraft Technical Log have been rectified or deferred in accordance with the prescribed procedures.
- Issue of each required Certificate of Release to Service (CRS) has been correct

The CMR signatory shall be authorised by the AOC with their approval, hold an appropriate aircraft maintenance licence covering the aircraft type and shall have at least 5 years of continuing airworthiness experience

11.1.6 Audit staff

Shall have a knowledge of the regulation they are to audit against, have undergone audit techniques training, and performed two audits successfully under supervision

They shall not work in the department they are auditing and for the purpose of the audit shall report to the Quality Manager.

11.2 For AMO/MRO Approvals

11.2.1 Accountable Manager/Chief Executive should be able to demonstrate:

- A basic understanding of the applicability and extent of ADCA 145 and/or CAAT AOCR in relation to the approval. This includes the RSM, and the purpose of the GMM, privileges of the approval, changes, continued validity and suspension requirements applicable to the approval in accordance with the applicable requirements.
- That the nominee has the seniority and financial control necessary to ensure that all necessary resources i.e. personnel, facilities and an acceptable quality system are available to support the organisation's approval and to ensure that adequate operational, airworthiness and maintenance standards (as appropriate) are maintained.
- An acceptable record of management or supervision experience in support of the nomination, taking into account the need to manage the organisation concerned in a manner which assigns appropriate priority to safety in order to secure a safe operation in compliance with regulations, to the satisfaction of the CAAT Airworthiness Inspector.

***Note:** Accountable Manager/Chief Executive does not require an AIR Form 4. The acceptance of this person is achieved through approving the RSM.*

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11.2.2 Quality Manager should be able to demonstrate:

- (a) Five years relevant work experience of which at least two years should be from the aeronautical industry in an appropriate position.
- (b) A relevant degree or an aircraft maintenance technician qualification with additional education acceptable to the CAAT.
- (c) A comprehensive knowledge of ADCA 145, and CAAT AOCR.
- (d) Thorough familiarity with the RSM and the knowledge of a contracted operators GMM.
- (e) Knowledge of SMS
- (f) Knowledge of Human Factors
- (g) A sound knowledge of the application of Quality Systems.
- (h) Appropriate management experience, and the ability to manage a Quality System.
- (i) Familiarity with the product(s) for which the organisation is approved.

11.2.3 AMO/MRO Managers (Base, Line, Engine Workshop, Component Workshop Managers) should be able to demonstrate:

- (a) Five years relevant work experience of which at least two years should be from the aeronautical industry in an appropriate position.
- (b) A relevant degree, aircraft maintenance technician qualification or other relevant qualifications and experience acceptable to the CAAT.
- (c) A working knowledge of CAAT ADCA 145 and the RSM.
- (d) Knowledge of SMS
- (e) Knowledge of Human Factors
- (f) Familiarity with the organisations Quality System.
- (g) Knowledge of a contracted operators GMM.
- (h) A working knowledge of aviation safety standards, safe maintenance practises, and the ability to manage a facility in such an environment.
- (i) Appropriate management experience.
- (j) Appropriate familiarity with the product.

11.2.4 AMO/MRO Certifying Staff (Mechanics) for base or line maintenance shall:

- (a) Hold an appropriate CAAT Licence containing ratings relevant to the aircraft type being reviewed,
- (b) Be authorised by the AMO on the products it maintains.
- (c) Formal aeronautical maintenance training.

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- (d) Have knowledge of Human Factors
- (e) Have knowledge of SMS
- (f) Knowledge of SFAR 88 (CDCCL) and EWIS
- (g) A thorough knowledge of AOCR requirements and the organisations continuing airworthiness management procedures.
- (h) A good understanding of the organisation's Quality System.
- (i) An understanding of the organisation's contracted and sub-contracted maintenance and technical/engineering services arrangements (contract content).
- (j) Hold a suitable position within the organisation having appropriate responsibilities and have received training on the Organisations C of A renewal procedures and is accepted by the organisation as competent to perform C of A renewals without supervision.

Note: AMO/MRO Certifying staff do need to be approved by CAAT via a CAAT Form 4, they shall be authorised by the AMO via a procedure in the RSM, that is approved by CAAT.

11.2.5 Technicians

Technicians who do not hold an appropriate licence may only be permitted to work under the supervision of licensed mechanics, knowledge of SMS, human factors, SFAR 88 (CDCCL) and EWIS.

11.2.6 Inspectors

Inspectors shall hold an appropriate maintenance licence for the product they are inspecting and shall have received type training on the aircraft type, SMS and Human Factors, SFAR 88 (CDCCL) and EWIS

11.2.7 NDT Staff

- (a) The CAAT recognises the following independent qualifications from ADCA 145 as appropriate for the qualification of NDT staff:
 - EN4179 as administered by a BINDT accredited Outside Agency
 - PCN/AERO
 - ASNT
- (b) If an AMO undertakes NDT it is required to have a nominated qualified Level III person to manage the activity as described below:
 - (i) Level III: The NDT Level III role has a variety of responsibilities. They are management personnel and must be capable of assuming technical responsibility for the NDT facility and staff.

The Level III individual must direct training, possess knowledge of other NDT technologies, approve procedures and related work instructions, and be capable of selecting an appropriate inspection method for a given task.

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The NDT Level III must possess the comprehension and acumen to interpret codes, standards, and related contractual documents. When required, the Level III must also be capable of auditing outside agencies for technical adequacy. The nominated level III person must have a knowledge of ACDA 145

- (ii) Level II: The level II individual must possess the skills and knowledge to set up equipment, interpret specifications, conduct tests, evaluate for acceptance or rejection, and file reports. Other duties include, but are not limited to, supervision of Level I personnel, knowledge of other NDT methods, the ability to develop test procedures with Level III approval, and possess basic knowledge of manufacturing and inspection technology. The Level II is the backbone of the NDT industry. They possess all the rights and responsibilities commensurate with performing tests and signing reports.
- (iii) Level I: This is an apprenticeship rating. The Level I individual cannot act independently of Level II or Level III supervision over the course of their daily duties. They cannot accept or reject parts and assemblies or write reports
- (iv) Level I Limited: Personnel when authorized by the employer's written practice, personnel certified to Level I Limited may perform a specific NDT test or evaluation of a specific part, feature, or assembly. The technician cannot perform tests outside of his or her limited rating.
- (v) Instructor: The NDT instructor must have the skills and knowledge to organize and present classroom exercises or on-the-job-training in accordance with approved outlines. Instructors are designated by the employer's Level III or by the outside agency that is responsible for training.
- (vi) NDT Auditor: The NDT personnel performing external supplier audits must have the education, training, skills, and knowledge to comprehend the processes and procedures utilized in the application of the NDT process. The individual must be familiar with all relevant codes and standards that control the applicable method.

Further information on NDT and other specialised services is given in guidance document XYZ

11.2.8 Welders

- (a) The procedures for the issue and control of welding approval are dependent upon the circumstances of employment of the welder. For welders not employed by a CAAT approved Organisation the provisions of paragraph (b) shall apply.

Where a welder is in the employment of an Organisation approved by the CAAT the CAAT will not undertake direct approval of the welder. The Organisation is required to establish its own effective system for their control. The system shall, as a minimum, include records of all sample tests (and results) and a ready means of establishing the current qualification status of all welders employed. All records shall be available to the

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CAAT upon request, including details relating to welders who have since left the employment of the Organisation.

No essential records, e.g. Approval Cards and Test Reports shall be destroyed without the permission of the CAAT.

A description of the control system shall be included in the Company GMM or RSM required by the relevant CAAT regulation and CAAT approval of the system will be indicated by inclusion of the control of welders in the Schedule of Approval.

- (b) The processes for obtaining welder's approval are as follows:
 - (i) Where the welder is employed by a CAAT approved Organisation, that Organisation shall make arrangements for the welder to prepare and weld an appropriate test sample(s). The Organisation shall submit the test sample(s) to a CAAT approved Test House, or test house acceptable to CAAT for examination together with full particulars of the welder concerned, materials used, details of any post-welding treatment (e.g. heat treatment for stress relief), and identification marks on the test sample(s). Upon receipt of an Approved Test Certificate from the test house, indicating successful test results for the sample(s), the Organisation may grant approval to the welder. Only then may the welder be employed on work of significance to airworthiness.
 - (ii) In the event of a welder leaving the employment of an Organisation approved by the CAAT or not working for such an organisation, the welder may seek an individual approval to work independently from an organisation. In this case he could apply to the UK CAA for a Welders approval in accordance with CAP 533, Section A8-10, or to another competent authority acceptable to CAAT

11.2.9 Audit staff

Shall have a knowledge of the regulation they are to audit against, have undergone audit techniques training, and performed two audits successfully under supervision

They shall not work in the department they are auditing and for the purpose of the audit shall report to the Quality Manager.

11.2.10 Persons contracted to perform line maintenance tasks through maintenance agreements in addition to holding an appropriate licence shall be trained in any significant differences which exists between the operator's aircraft and that which they are normally employed to maintain together with any relevant company procedures they are required to observe.

12 Continuation (Recurrent) Training

Personnel engaged in maintenance-related tasks shall receive continuation training covering any changes to the aircraft and its maintenance, taking into account the result of in-service experience gained by the operator and that published by the aircraft, engine and equipment manufacturers.

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Attention shall also be paid to changes in company procedures, the Thailand Regulations and Requirements

13. Set of typical questions for all nominated persons

- What are the main regulations in the field of civil aviation in Thailand?
- What is the Division of CAAT responsible for the certification and continued safety oversight of air operators in Thailand?
- Name major documents which have to be obtained by an AOC applicant to be authorized to conduct commercial air transport?
- Define key elements of Safety Management System?
- Who are the mandatory nominated persons in an AOC holder?
- Describe the principles of Compliance Monitoring system in your company.
- Where can you find up to date civil aviation regulations?
- What is your role in Compliance Monitoring System?
- Where can you find current CAAT regulations covering commercial operations requirements for Compliance Monitoring system?
- What is your role in Safety Management System?

14. Set of typical questions for Continuing Airworthiness nominated person

- In what document CAMO (AOC or AMO or MRO) defines occurrence reporting system?
 - Who shall occurrence be reported to?
 - In what time frame an occurrence shall be reported?
 - Which manufacturer's documents maintenance program is based on?
 - In which cases maintenance program will be revised?
 - Is it acceptable that CAMO extends by itself TBOs, interval for performing applicable AD?
- ADs from which state(s) are applicable to CAMO's managed aircraft?
 - In which way CAMO checks compliance with ADs?
 - Who is authorized for performing modifications and repairs?
 - Which documents constitutes continue airworthiness record system?
 - Is it acceptable to make correction in continue airworthiness. records in a way that will fully cover the original entry?
 - Who approves technical log system?
 - Who controls closing of deferred items in timely manner?
 - What will CAMO do with cont. airworthiness records and technical log system when aircraft is transferred

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- to another CAMO or owner/operator?
15. Who issues an approval for CAMO?
 16. Which CAMO document defines CAMO's scope of work?
 17. Which regulation defines (GMM or RSM)?
 18. Who approves CAME (GMM or RSM) ?
 19. Who approves revisions of CAME?
 20. Does the CCAA accept CAMO manager and if yes, what document constitutes acceptance?
 21. Who approves maintenance contracts?
 22. What kind of maintenance is covered with maintenance contracts?
 23. What AMOs are acceptable for performing maintenance on CAMO's aircraft?
 24. In which way CAMO ensures availability of current maintenance data?
 25. Is it acceptable to use non-current maintenance data when managing continuing airworthiness of aircraft?
 26. Is it acceptable for CAMO to perform work out of approved scope of work?
 27. Is it approval for CAMO valid when AOC is suspended or revoked?