

MEMORANDUM CIRCULAR NO. 007-18

SUBJECT: AIR NAVIGATION FACILITY CERTIFICATION PROCESS

REFERENCES

1. Civil Aviation Authority Act of 2008
2. Civil Aviation Regulations for Air Navigation Services (CAR-ANS) Part 10
3. Memorandum Circular No. 16-11 dated 24 October 2011
4. Memorandum dated January 5, 2012 re- Implementation of ANF Certification
5. Approved AANSOO-CNS Inspectors Manual/Handbook
6. ICAO Document 9859 (SMS Manual)

1.0 GENERAL

1.1 Background

- 1.1.1 Safety oversight is a function by which states ensure effective implementation of the safety related Standards and Recommended Practices (SARPS) and associated procedures contained in the Annexes to the Convention on International Civil Aviation and related ICAO documents.
- 1.1.2 The effective implementation of eight critical elements in the eight audit areas, which includes aerodromes and air navigation services, is an indication of the State's capability for safety oversight.
- 1.1.3 CAR-ANS Part 10 provides regulatory requirements for ANF service provider operating and maintaining air navigation facilities.
- 1.1.4 Pursuant to the functions of the Director General under R.A. 9497, Chapter VII, Section 35 paragraph (g), to wit: "... *to inspect any air navigation facilities and aerodromes available for use of aircraft, as to its suitability for use and to issue a certificate for such air navigation facility and aerodrome; ...*", a memorandum dated January 5, 2012 was signed by the Director General, which directed AANSOO to implement the CNS facilities audit to ensure that the regulatory requirements and standards stipulated in the CAR-ANS and the Manual of Standards for Aerodromes (MOS) are fully adhered to.
- 1.1.5 The ANF certificate is a document issued by CAAP to confirm that all certification requirements for CNS operation and maintenance have been completed in a satisfactory manner and that the service provider/operator shall comply with the applicable regulations and is fully capable of fulfilling its responsibilities and conducting a safe and efficient operation.

1.2 Purpose

This Memorandum Circular provides direction and guidance to ANF service providers in the process of certifying air navigation facilities operated in the Philippines as required in the Civil Aviation Authority Act of 2008, R.A. 9497, and the Civil Aviation Regulations for Air Navigation Services (CAR-ANS) Part 10.

1.3 Applicability

- 1.3.1 This circular is applicable to ANF (CNS) service providers operating in the Republic of the Philippines prior to the enactment of Philippines aviation laws tasked to operate and maintain aeronautical telecommunication, navigational aids, surveillance and allied power systems including airfield lighting system.
- 1.3.2 This circular shall encompass any CNS and airfield lighting systems listed on Table 1 – *List of CNS and Airfield Lighting Systems (See Attachment A)*.
- 1.3.3 This circular details the processes and procedures for the issuance of Air Navigation Facility Certificate and shall take the following Phases:
 - A. Phase 1 – Pre-Certification Audit/Inspection
 - B. Phase 2 – Certification Audit/Inspection
 - C. Phase 3 – Validation Inspection
 - D. Phase 4 - Issuance of ANF Certificate
 - E. Phase 5 - Surveillance Inspection

1.4 Validity

ANF Certificate issued to the service provider, subject for renewal, is valid from the date of issue until the last day of the 48th month (4 years) after the date on which it was issued or when:

- a) The service provider surrenders it, or,
- b) CAAP suspends or revokes it.

1.5 Definitions And Acronyms

Terms used in this document are referenced from applicable statutory regulations and referenced as applicable.

1.5.1 Definitions

Air Navigation Facility – For this purpose, refers to air communication facilities (Air to ground, ground to ground, point to point, etc), and/or combination of radio navigational aids facilities, surveillance facilities, computers, airfield lighting and

visual navigational aids facilities, electrical and power equipment, power and communication lines and their associated equipment required for certification.

Air Navigation Facility Certificate – a certificate issued by CAAP under applicable regulations for the operation of air navigation facilities.

Audit - A systematic and objective review of an entity's operation to verify compliance with aviation regulations, conformity with or adherence to required standards as well as CAA approved documented policies, processes and procedures.

Audit finding - means the determination of non-conformance of a product, process, practice or procedure or a characteristic thereof to a specified regulation or standard. This will be documented on the Audit Finding Form.

Certification – means a process of determining competence, qualification, or quality on which the issuance of an aviation document is based. This includes the original issuance, denial, renewal or revision of that document.

CNS/ATM – Communications, navigation, and surveillance systems, employing digital technologies, including satellite systems together with various level of automation, applied in support of a seamless global air traffic management system.

Corrective Action Plan (CAP) - means a plan submitted to the convening authority or to his or her delegate by the auditee, following receipt of the audit report. This plan outlines the manner in which the company proposes to correct the deficiencies identified by the audit findings. Carrying out the plan should bring the auditee into full conformance with regulatory requirements.

CNS Service Provider - means a person, an organization or entity engaged in the operation and maintenance of CNS facilities and/or provide CNS service.

Follow-up - means the activity following an audit that is dedicated to program modification based on an approved Corrective Action Plan. Follow-up ensures that the document holder meets regulatory requirements.

Inspection – the basic activity of an audit, which involves detailed examination of the specific activities, product and services.

Non-conformance – means the failure of characteristics, documentation or a procedure to meet the requirements of a regulation or standard, which renders the quality of a product or service unacceptable or uncertain.

Procedure or process – means a series of steps followed methodically to complete an activity. This includes: the activity to be done and individual(s) involved; the time, place and manner of completion; the materials, equipment, and documentation to be used; and the manner in which the activity is to be done.

Safety Management System - A system for the management of safety at aerodromes including the organization structure, responsibilities, procedures, processes and provisions for the implementation of safety policies by an operator/service provider, which provides for the control of safety at, thereby minimizing the associated risk. SMS is a systematic, explicit and comprehensive process for managing safety risks.

Standard - means an established criterion used as a basis for measuring an auditee's level of conformance.

Surveillance – the implementation of process to proactively ensure that the service provider/ operator continue to meet the established requirements at level of competency and safety required by the State to undertake aviation related activity for which they have been licensed, authorized, certified and/or approved to perform.

Verification - means an independent review, inspection, examination, measurement, testing, checking, observation and monitoring to establish and document that products, processes, practices, services and documents conform to regulatory requirements. This includes confirmation that an activity, condition or control conforms to the requirements specified in contracts, codes, regulations, standards, drawings, specifications, program element descriptions, and technical procedures.

1.5.2 Acronyms

AANSOO – Aerodrome and Air Navigation Safety Oversight Office
ANF – Air Navigation Facility
CAP – Corrective Action Plan
CAAP – Civil Aviation Authority of the Philippines
CAR-ANS – Civil Aviation Regulations for Air Navigation Services
CNS/ATM – Communications, Navigation, Surveillance/ Air Traffic Management
CNSSID – CNS Safety Inspection Division
DGCA – Director General of Civil Aviation
FOM – Facility Operations Manual
SMS – Safety Management System

2.0 GENERAL REGULATORY REQUIREMENT

2.1 CAAP Approval

2.1.1 ANF in active operation shall be required to comply with the requirements of ANF certification as mandated under R.A. 9497 and in conformance with Civil Aviation Regulation for Air Navigation Services (CAR-ANS) Part 10: *Regulatory Requirements in the Operation and Maintenance of CNS and Airfield Lighting Systems*.

2.1.2 Holder of an ANF Certificate issued by CAAP shall undergo surveillance audits/inspections in accordance with the approved CNSSID Surveillance

Program to ensure such ANF is operating within the required regulatory standards.

- 2.1.3 Air navigation facilities operating prior to enactment of Philippine aviation laws shall likewise be subjected to periodic surveillance inspection until mandatory documentary requirements for ANF certification are complied with to ensure that operation and maintenance practices are within acceptable level of safety.
- 2.1.4 The service provider must provide unrestricted access to all air navigation facilities and documents for inspection/audit, including interviews to technical personnel involved in the operation and maintenance of ANF.

3.0 ANF CERTIFICATION PROCESS

ANF certification entails a systematic approach to document the CNS service provider's compliance/conformance to regulatory requirements and standards to ensure safety in the operation and maintenance of air navigation facilities. The process shall take following phases:

- a. Phase One – Pre Certification Audit/Inspection
- b. Phase Two – Certification Audit/Inspection
- c. Phase Three – Validation Audit/Inspection
- d. Phase Four – Issuance of ANF Certificate
- e. Phase Five – Surveillance Inspections

3.1 Phase One: Pre-Certification Audit/Inspection

- 3.1.1 Pre-certification phase is the initial assessment of CNS service provider's capability to operate and maintain air navigation facilities in accordance with the standards and regulations.
- 3.1.2 The pre-certification phase identifies the gaps in the service provider's existing operation and maintenance arrangements/procedures of CNS facility with the current regulatory requirements and standards. It requires an on-site inspection/audit to compare the gathered information against the prescribed standards.
- 3.1.3 During this process, the CNS service provider must endeavor to develop and provide necessary documents as prescribed in the CAR-ANS Part 10 (such as, FOM, arrangements with other services, operational procedures, logs, etc.) and adherence to other relevant regulations.

- 3.1.4 Facility Operations Manual (FOM) duly approved by responsible authority of the CNS service provider shall be submitted to AANSOO for review to determine adequacy of the contents prior to acceptance.
- 3.1.5 Before conducting the on-site audit/inspection for certification, CAAP-AANSOO must be satisfied that the approved Facility Operations Manual adequately describes the arrangements and procedures in the operations and maintenance of the air navigation facilities, and that it contains all the details and information as required in the CAR-ANS Part 10. It shall reflect that the ANF provides a safe environment for air traffic, aircraft and aerodrome operation and that the CNS service provider has the required competence and experience.

3.2 Phase Two: Certification Audit/Inspection

- 3.2.1 After acceptance of the FOM, an on-site audit shall be conducted by AANSOO-CNSSID to verify that the information and the processes contained in the FOM is accurate and supported with appropriate documents as proof of CNS facilities' proper implementation.
- 3.2.2 The CNS service provider shall be provided with the audit report which shall reflect the results of the on-site audit/inspection. The safety finding shall be classified into two categories, namely:
 - a. **Non Compliance Category A** is a finding that is critical, in that it has the potential to result in loss of life, serious injury or damage to facilities and which requires corrective action to be completed immediately. Such action may involve closure of a facility.
 - b. **Non Compliance Category B** is a finding that is defined as an occurrence, situation or deficiency involving an item of equipment, an aerodrome facility or procedure within a system that caused, or has the potential to cause, significant safety problems with the system, and which requires action to be completed within an agreed time frame.
- 3.2.3 Resolution of Identified Deficiencies
 - a. After receipt of an audit/inspection report, the CNS service provider shall submit a Corrective Action Plan (CAP) within an agreed period. It shall incorporate actions that will remedy/correct the deficiency and prevent a future re-occurrence.
 - b. The CAP is a written confirmation by the CNS service provider detailing the measures they intend to implement and to address all the findings of

non-compliance. The submitted CAPs shall be subject to review and verification to determine its acceptability.

- c. Depending on the nature of the audit findings, the CNS service provider's CAP shall involve:
 - i **Immediate Corrective Action.** This is action taken immediately upon identification of the audit finding to remove the immediate threat to aviation safety;
 - ii **Short-Term Corrective Action.** This is short-term action to correct a non-conformance that does not pose an immediate threat to aviation safety, which ensures that conformance is established quickly until long-term action is completed to prevent recurrence of the problem. Short-term corrective action will normally take place within **thirty (30) days**; and
 - iii **Long-Term Corrective Action.** This is longer-term action and has two components. The first will involve identifying the cause of the problem and indicating the measures the company will take to prevent a recurrence. These measures should focus on a system change. The second component will include a timetable for company implementation of the long-term corrective action. Long-term corrective action will normally take place within **twelve (12) months**.
- 3.2.4 Proposed CAP that fails to comply within the agreed time/period or findings that cannot be corrected in the long-term corrective action shall be subjected to safety risk assessment by the CNS service provider and shall submit to AANSOO-CNSSID for review and acceptance.
- 3.2.5 Further, for CAPs that may require compliance through a phase approach (*series of work to be completed by phase*), the CNS service provider must submit an implementation plan detailing schedule of activities to be done within a certain period. The implementation plan shall be subject to surveillance safety inspection by AANSOO-CNSSID to ensure that compliance is within the agreed schedule.

3.3 Phase Three: Validation Inspection

Validation is the process to ensure that the Corrective Action Plan submitted by the CNS service provider is being implemented based on the agreed time frame and the nature of work done to resolve the finding.

- 3.3.1 AANSOO shall conduct an on-site validation/verification of the work done as specified in the submitted corrective action plan.
- 3.3.2 A follow up on-site validation maybe required as necessary to further verify effective implementation of the proposed CAPs.

- 3.3.3 An audit finding will be formally closed when it has been corrected through the CAP, the corrections have been found to be acceptable by AANSOO and validation process has been completed.

3.4 Phase Four: Issuance of ANF Certificate

The issuance of ANF certification is the conclusion of the certification process when CAAP-AANSOO has determined that all certification requirements for CNS operation and maintenance have been completed in a satisfactory manner, and that the CNS service provider will comply with all applicable regulations and is fully capable of fulfilling its responsibilities in conducting a safe and efficient operation (*See Attachment B- Copy of ANF Certificate*).

- 3.4.1 The operational requirement for the issuance of ANF Certificate is to ensure that the CNS service provider are able to demonstrate that:

- a. The facilities being provided was able to meet the standards provided in the CARANS.
- b. The CNS technical personnel are trained and competent to carry out its functions as required.
- c. Appropriate documentary requirements are provided and operational procedures/arrangements are in place.

- 3.4.2 ANF certificates shall be issued to the following:

- a. Air Navigation Facilities located inside the airport.
- b. ANF located outside the airport interconnected or part of the CNS system designed to support the air traffic operations.
- c. Ground based air navigation facility that provides guidance to pilots/aircrafts flying under IFR during en-route phase of the flight.
- d. ANF interconnected or part of the CNS/ATM Project.

- 3.4.3 The ANF Certificate shall be issued to concerned CNS Service Provider who endeavored to comply with all the regulatory requirements stipulated in the CAR-ANS Part 10. Attached with the ANF Certificate is the Conditions for Authorization, which provides listing of specific services, the name of equipment/system, and the conditions required for the facility.

- 3.4.4 An Interim ANF Certificate valid for 6 months may be issued to the CNS Service Provider if the following conditions were satisfied:


- a. Result of the certification audit shows no significant safety issue (Category A finding) was identified.

- b. No operational safety issue is present in the facility.
- c. Submitted CAPs are acceptable to AANSOO-CNSSID.

3.5 Phase Five: Surveillance Inspection

3.5.1 Subsequent to the issuance of an ANF Certificate, AANSOO-CNSSID shall be responsible for the continued surveillance, and for conducting periodic inspections to ensure the CNS service provider's continued compliance with CAAP regulations, authorizations, limitations and provisions of its ANF certifications and operational specifications. These periodic inspections are components of CNSSID safety oversight surveillance programme.

For widest dissemination and strict compliance.


CAPTAIN JIM C. SYDIONGCO
Director General

Date: **FEB 12 2018**

ATTACHMENT A

Classification of aeronautical telecommunications, radio navigation, surveillance, and airfield lighting and power systems.

TYPE OF FACILITY	CLASSIFICATION
VHF air/ground voice communication facilities	aeronautical telecommunications
HF air/ground voice communication facilities	aeronautical telecommunications
UHF air/ground voice communication facilities	aeronautical telecommunications
Voice switching and control facilities including Voice and Data Recording facilities	aeronautical telecommunications
ATS point to point communication facilities	aeronautical telecommunications
Air/ground data links	aeronautical telecommunications
Ground to ground data interchange networks	aeronautical telecommunications
Precision approach radio navigation aids	radio navigation
Instrument Landing System (ILS) facilities	radio navigation
Non-precision radio navigation aids	radio navigation
Distance Measuring Equipment (DME) facilities	radio navigation
VHF Omni-range (VOR) facilities	radio navigation
Non-directional beacons (NDB)	radio navigation
Global Navigation Satellite System ground based augmentation stations or facilities	radio navigation
Radar data processing facilities	surveillance
Primary surveillance radar facilities	surveillance
Secondary surveillance radar facilities	surveillance
Surface movement radar facilities	surveillance
Precision runway monitor facilities	surveillance
Automatic dependent surveillance system facilities	surveillance
Diesel Engine Generator Sets/ Portable Power systems/Solar power systems	Power systems
PAPI, Approach Lights, Runway Lights Facilities	Airfield Lighting

Table 1

ATTACHMENT B

Republic of the Philippines
CIVIL AVIATION AUTHORITY OF THE PHILIPPINES



CERTIFICATE

NUMBER: AN - <YYYY>- <series>

This **CERTIFICATION** is issued to

<NAME>

(AIR NAVIGATION FACILITY)

For having been found compliant to CAR-ANS Part 10 and its services conform to the Civil Aviation Regulation-Air Navigation Services Parts (6, 7, 8, and/or 9). As such, the facility is hereby AUTHORIZED to provide (*navigation, communications, surveillance*) services as specified herein. Further, this authorises the facility to operate and maintain the airfield ground lighting and power systems of <Airport> ANF/Airport.

This certification is being issued pursuant to Chapter VII, Sec. 35 paragraph (g) of Republic Act 9497, the revised Civil Aviation Regulation–Air Navigation Services and other relevant directives issued by the Civil Aviation Authority of the Philippines (CAAP), including any conditions specified by the Director General.

This certificate is non-transferable and shall remain valid four (4) years from the date of issue unless suspended or cancelled.

<NAME>

Director General

Date: _____

Aerodrome and Air Navigation Safety Oversight Office (AANSOO)



AIR NAVIGATION FACILITY CERTIFICATE

AUTHORISED Service Provider:

Air Navigation Service-(Name of Airport/Facility)

CONDITIONS FOR AUTHORIZATION

1. This AUTHORIZES the above-mentioned facility to provide the following air navigation services:

A. COMMUNICATIONS

Equipment	Brand	Model		Frequency
VHF Radio				
HF Radio				
Audio Recorder				
UHF/Microwave				

B. NAVIGATION

Equipment	Brand	Model	Frequency
VOR			
DME			
ILS LOC - (Rwy #) LLZ – (Rwy #)			

C. SURVEILLANCE

Equipment	Brand	Model	Frequency
ASR			
SSR			
ADS			

D. AIRFIELD GROUND LIGHTING

Lighting	Brand	Model	RWY Designator
PAPI			
Runway Edge Lights			
Runway End Lights			
Simple Approach Lights			
Precision Approach Lights			
Runway Threshold Lights			
Taxiway Lights			

E. POWER SYSTEMS

Equipment	Brand	Model	Power Rating Capacity
DEGS – #1			
ATS			

2. The _____ Airport Air Navigation Facility is subject to periodic CAAP-AANSOO surveillance.
3. Any change/s to the services/equipment being provided must be referred CAAP-AANSOO for authorization.
4. Major change/s to operational procedures must be referred to CAAP-AANSOO for acceptance.

< NAME >
Director General