COMMUNICATION, NAVIGATION AND SURVEILLANCE FACILITIES APPROVAL AND SURVEILLANCE

1.0 PURPOSE

This Advisory Circular (AC) provides guidance on the approval of CNS facilities under the Civil Aviation (ANS) Regulations.

2.0 REFERENCES

2.1 Civil Aviation (ANS) Regulations;
2.2 Manual of ANS standards;
2.3 CAA-AC-CNS 001;
2.4 CAA-AC-CNS 003.

3.0 GUIDANCE AND PROCEDURES

3.1 Approval requirements

3.1.1 The Authority shall approve all the Communication, Navigation and Surveillance facilities before their installation, operations, decommissioning, upgrading or relocation, in the designated airspace and aerodromes.

3.1.2 No person may provide CNS service or operate CNS facilities except under the authority of, and in accordance with the provisions of an ANSP certificate.

3.1.3 An ANSP shall ensure that the installation, operation and maintenance of CNS facilities are in accordance with the standards specified in the manual of Standards and conforms to the applicable system characteristics and specification standards prescribed in the manual.
3.2 Approval Procedures

3.2.1 General

The approval procedure applies to ANSP requesting installation, operations, upgrading, commissioning, decommission or relocation of CNS facilities.

3.2.2 Approval request

An ANSP wishing to obtain an approval for installation, operations, upgrading, commissioning, decommission or relocation of CNS facilities shall apply to the Authority providing details of the change(s) and two copies of the relevant sections of the MANSOPS Part II- CNS.

3.2.3 Assessment Procedure

a) Evaluation:

The document(s) shall be evaluated to ensure its compliance with applicable regulations and requirements.

b) Equipment inspections:

An authorized officer shall have unrestricted access to CNS facilities to be approved for the purpose of inspecting it and record therein and for the purpose of testing or observing the operation of such facility.

The equipment shall be assessed by the Authority to ensure that they meet the requirements published in the manual of ANS standards.

3.2.4 Installation and commission requirements

a) The facility installed and commissioned shall meet the operational specifications;

b) The facility shall conform with the applicable system characteristics and specification standards prescribed in manual of ANS Standards;

c) The facility shall have been allocated an identification code or call sign where applicable,

3.2.5 Performance requirements of the facilities

The facility shall have an acceptable level of operational reliability and an acceptable standard of performance

3.2.6 Flight inspections

This must include details of the standards and procedures to be used for flight inspections, the time interval between flight inspections, and the identity of the flight inspection organization that will be contracted to carry out the flight inspections.
3.2.7 Protected Power Supply system

Each facility listed in the application shall be installed with suitable power supplies and means to ensure continuity of operation appropriate to the needs of the air traffic service or radio navigation service being supported;

Standby power supplies and UPS systems of required capacities shall be provided in all the essential units to ensure continuous operation of communication facilities.

3.2.8 Adequate and accurate records

Records of installations, initial testing, commissioning and re-commissioning of the facility shall be prepared by the Installation team and handed over to the station while handing over the facility/equipment to the station.

3.2.9 Reliability and availability

A provider of communication, navigation or surveillance services shall ensure the availability and reliability of its services meet the ANS regulations and MOS requirements. The inspector shall inspect the following during approval:

a) Redundancy of equipment (main & stand by)
b) the dedicated power supply and Standby power supply/Battery backup
c) Inherent reliability of equipment
d) Controlled temperature & humidity
e) Adequate test equipment
f) Quality maintenance by trained/skilled personnel
g) Availability of necessary spares

3.2.10 The facility listed in the application shall be installed in accordance with the applicable Civil Aviation Regulations to minimize any risk of destruction, damage, or interference with the operation of the facility;

3.2.11 Upon completion of the assessment, the ANSP shall receive a written approval for the facility. The approval shall be subject to withdrawal at any time the facility fails to meet the aforementioned requirements.

4.0 Surveillance

Upon approval of the facilities, the Authority shall be responsible for conducting periodic inspections of CNS facilities to ensure continued compliance with the Regulations and Standards.