

	<p style="text-align: center;">TANZANIA CIVIL AVIATION AUTHORITY AIR NAVIGATION SERVICES INSPECTORATE</p>	<p style="text-align: right;">Revision: 2</p>
<p>Document No: TCAA/QSP/SR/AC/ANS -13</p>	<p>Title: Communication, Navigation and Surveillance Facilities Approval</p>	<p style="text-align: right;">Page 1 of 7</p>

1.0 PURPOSE

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

2.0 REFERENCES

- 2.1 Civil Aviation (Radio Navigation Aids) Regulations.
- 2.2 Civil Aviation (Communication Procedures) Regulations.
- 2.3 Civil Aviation (Communication Systems) Regulations.
- 2.4 Civil Aviation (Surveillance and Collision Avoidance systems) Regulations.
- 2.5 TCAA/QSP/SR/AC/ANS -13 Availability and Reliability Standards for CNS Facilities.
- 2.6 TCAA/QSP/SR/AC/ANS- 14 Guidance on Flight Inspection of Radio Navigation Aids.

3.0 GUIDANCE AND PROCEDURES

3.1 Approval requirements

The provisions in the Tanzania Civil Aviation Regulations stipulates that;

- 3.1.1 No person shall install, operate, decommission, upgrade or re-locate a CNS facility/equipment in the designated airspace and aerodromes without the approval from the Authority.
- 3.1.2 An ANS Provider shall ensure that the installation, operation and maintenance of CNS facilities are in accordance with the requirements specified in Civil Aviation Regulations and conform to the applicable system characteristics and specification standards prescribed in the;
 - a) Civil Aviation (Radio Navigation Aids) Regulations.
 - b) Civil Aviation (Communication Procedures) Regulations
 - c) Civil Aviation (Communication Systems) Regulations.
 - d) Civil Aviation (Surveillance and Collision Avoidance systems) Regulations.
 - e) Civil Aviation (Aeronautical Radio Frequency Spectrum Utilization) Regulations.

3.2 Approval Procedures

3.2.1 General

<p>This is a controlled document</p>		<p style="text-align: right;">Issued on: 31 MARCH 2020</p>
---	--	---

	<p style="text-align: center;">TANZANIA CIVIL AVIATION AUTHORITY AIR NAVIGATION SERVICES INSPECTORATE</p>	<p style="text-align: right;">Revision: 2</p>
<p>Document No: TCAA/QSP/SR/AC/ANS -13</p>	<p>Title: Communication, Navigation and Surveillance Facilities Approval</p>	<p style="text-align: right;">Page 2 of 7</p>

The approval procedure applies to ANSP requesting installation, operations, upgrading, commissioning, decommissioning 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/ATM facilities shall send an application letter to the Authority providing details of the concept of the change (s), including any design, specifications, purpose of introducing the change and initial safety assessment performed, to facilitate assessment and approval before continuing with the process.

3.2.3 Assessment Procedure

a) *Evaluation:*

The document(s) shall be evaluated to ensure it is compliant with applicable regulations and requirements.

b) *Equipment inspections:*

CNS Inspector(s) 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 Civil Aviation Regulations. The ANSP shall not conduct any Factory Acceptance Tests (FAT) without the involvement of the Regulator (CNS Inspector(s)). This is to enable the Regulator make appropriate evaluation prior to the acceptance of the equipment to ensure compliance with the Tanzania Civil Aviation Authority.

3.2.4 Installation and commissioning 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 Civil Aviation Regulations.
- c) The facility shall have been allocated an identification code or call sign where applicable.
- d) Installation and implementation processes of new CNS/ATM equipment shall be monitored and assessed by the Authority's CNS Inspector(s) to ensure proper procedures are being adhered to for safety assurance.

<p>This is a controlled document</p>		<p style="text-align: right;">Issued on: 31 MARCH 2020</p>
---	--	---

	<p style="text-align: center;">TANZANIA CIVIL AVIATION AUTHORITY AIR NAVIGATION SERVICES INSPECTORATE</p>	<p style="text-align: right;">Revision: 2</p>
<p>Document No: TCAA/QSP/SR/AC/ANS -13</p>	<p>Title: Communication, Navigation and Surveillance Facilities Approval</p>	<p style="text-align: right;">Page 3 of 7</p>

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.

All these should be provided to the Authority in advance before the conduct of the Flight Inspection, if applicable.

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 and submitted by the installation team while handing over the facility/equipment to the ANSP.

3.2.9 Reliability and Availability

3.2.9.1 The air navigation services provider shall ensure that the availability and reliability of its services meet the Civil Aviation Regulations. 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

	TANZANIA CIVIL AVIATION AUTHORITY AIR NAVIGATION SERVICES INSPECTORATE	Revision: 2
Document No: TCAA/QSP/SR/AC/ANS -13	Title: Communication, Navigation and Surveillance Facilities Approval	Page 4 of 7

- f) Quality maintenance by trained/skilled personnel
- g) Availability of necessary spares

3.2.9.2 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 operations of the facility;

3.2.9.3 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.

3.2.9.4 The ANSP must not conduct any Site Acceptance Tests (SAT) without the involvement of the Regulator (CNS Inspector(s)). This is to enable the Regulator make appropriate evaluation prior to the acceptance of the equipment to ensure compliance with the Tanzania Civil Aviation Regulations.

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

3.2.9.6 The ANSP shall establish procedures in their operations Manual to ensure the above requirements are met for efficiency, safety and regularity of air navigation.

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.

5.0 Application for ANS Facilities Approval

1.	Particulars of Applicant
	a) Name/Title:

	<p style="text-align: center;">TANZANIA CIVIL AVIATION AUTHORITY AIR NAVIGATION SERVICES INSPECTORATE</p>	<p style="text-align: right;">Revision: 2</p>
<p>Document No: TCAA/QSP/SR/AC/ANS -13</p>	<p>Title: Communication, Navigation and Surveillance Facilities Approval</p>	<p style="text-align: right;">Page 6 of 7</p>

3.	Availability of No Break Power Supply (tick where applicable)
	a) Main power
	b) Generator
	c) Solar power
	d) Battery Back-up Duration:
4.	Documentation - This application should be accompanied with the following:
	a) Technical specifications of the equipment
	b) Evidence of availability of test equipment
	c) Availability of maintenance documentation
	d) Evidence of successful site acceptance tests
	e) Evidence of sufficient trained and competent personnel to maintain the equipment
5	Any Additional Information

	<p style="text-align: center;">TANZANIA CIVIL AVIATION AUTHORITY AIR NAVIGATION SERVICES INSPECTORATE</p>	<p style="text-align: right;">Revision: 2</p>
<p>Document No: TCAA/QSP/SR/AC/ANS -13</p>	<p>Title: Communication, Navigation and Surveillance Facilities Approval</p>	<p style="text-align: right;">Page 7 of 7</p>

Signature of ApplicantDate.....

For office use

Approved by:
Name:
Title:
Date:



Tanzania Civil Aviation Authority