GUIDELINE FOR AERONITICAL RADIO SPECTRUM LICENSES

January, 2021

National Communications Authority

GUIDELINE FOR AERONITICAL RADIO SPECTRUM LICENSES

1. INTRODUCTION

Article 41 for the National Communication Law 2017, prohibits the possession, installation, maintenance, working or use of "apparatus for Aeronautical radio" without a license granted by National Communication Authority (NCA) under the same Act. The licensing of apparatus for Aeronautical Radio Spectrum Services is governed by the NCA. The terms and conditions under which a license is granted, see Appendix 1.

In this document, the NCA sets out its guidelines for all applicants wishing to apply Aeronautical Radio Spectrum Service licenses. NCA encourages all applicants to read these guidelines carefully before submitting an application.

Please note that an Aeronautical Radio Spectrum license granted by NCA permits the licensee to possess and operate the apparatus for Aeronautical Radio Spectrum specified in the licence. It does not absolve the licensee from complying with any other statutory obligations (e.g. planning authority, aids to navigation consents etc.).

Please further note that this document does not constitute legal, commercial, financial, technical or other advice and the Authority for Communication Regulation shall not, at any time, be bound by the contents of this document which do not necessarily set out the Authority's final or definitive position in any particular matter.

The Authority reserves its right to act at all times in accordance with its statutory functions and objectives and this may include reaching a decision or taking an action which is at variance with all or any part of these guidelines.

There are following categories and sub-categories of Aeronautical licenses issued by NCA which are explained in detail in the following sections:

I. **Aircraft Radio Station Licenses**

   A. Aircraft Mobile Radio station

   B. Aircraft Transportable Radio station

II. **Ground Based Aeronautical Station Licenses**

   A. Aeronautical Ground Station (AGS)

   B. Aeronautical Navigational Aids

   C. Aeronautical Ground Based Radar

2. AIRCRAFT RADIO STATION LICENCE

An Aircraft Radio Licence covers all the radio equipment on board a single aircraft, which the licence identifies. An Aircraft Station Licence is required for the possession and operation of radio equipment on-board the aircrafts, hang-gliders or balloons registered in Somalia.

An Aircraft Radio Station Licence is an international document which must be kept current at all times and any discrepancies in the document will render the Licence invalid. The original Aircraft Station Licence should be kept on-board the aircraft at all times and be available for production to appropriate authorities if required. Without radio, aircraft operations would be unsafe and unable to meet the global demand for rapid and cost-effective transport. Short-term aircraft licences are available for temporary use of an aircraft, for example the delivery of an aircraft.

As the regulation of the aviation industry in Somalia is the responsibility of the Somali Civil Aviation Authority (SCAA). In this regard, the SCAA should be contacted directly in relation to such matters as aircraft registration, aircraft inspections and radio operator qualification. The terms

& conditions of the radio license reduce the likelihood of causing interference from the licensee to other radio users.

Details of the licence conditions attached to an Aircraft Station Licence are contained in Terms and Condition Sections. Applicants are advised to familiarise themselves with these conditions as non-compliance with any of these conditions will render the Licensee liable to enforcement action by NCA.

There are two available options for Aircraft Radio Station License:

a) an Aircraft Mobile Radio Station license to cover the use of aeronautical radio equipment on-board an individual aircraft including the use of satellite, Wi-Fi and mobile communication access equipment.
b) an Aircraft Transportable radio station license to cover the use of one handheld VHF radio with an integral antenna and power supply on multiple aircrafts. The License does not cover the radio's use as a land mobile station.

1.1 Eligibility

The following entities would be permitted to apply for aircraft station radio licenses:

A) Commercial and non-commercial airliners;

B) Provide separate evidence that he/she is successful registered SCAA in keeping with the provisions of the Civil Aviation Authority.

1.2 Licensee Responsibilities

In general, the licensee must ensure:

I) SCAA must approve the radio equipment and its installation.

II) Must provide successful registration certificate from SCAA in keeping with the provisions of the Civil Aviation Authority.

III) Ground and Fixed Station should identify themselves by means of radio station Call Sign, its location, its assigned Civil Aviation identifier, the name of the airport or local area which it serves, or any additional identification approved by the SCAA.

IV) The licensee must be either posted in the aircraft or kept on board with the aircraft registration certificate. If a single authorization covers a fleet of aircraft, a copy of the license must be either posted in each aircraft or kept with each aircraft registration certificate.

1.3 Technical details

The Licensee is required to ensure that the apparatus is used only on such radio frequency bands listed in the Somali NFAT, complying with all obligations under relevant international agreements relating to the use of the apparatus and the associated frequency bands. All transmissions from the cellular mobile, Wi-Fi, & satellite equipment will be carried out when above 3000 meters altitude and on non-interference and non-protected basis. In addition to this, the following parameters are required to be followed:

I. Cellular Mobile Equipment On-board Aircraft

For GSM: The aircraft base station transmitter must: limit the power of all GSM mobile terminals transmitting in the 1800 MHz band to a nominal value of 0 dBm at all stages of communications including initial access.

For UMTS: The aircraft Node B, while in operation, must limit the transmit power of all UMTS mobile terminals transmitting in the 2100 MHz band to a nominal value of – 6 dBm/3,84 MHz at all stages of communication and the maximum number of users should not exceed 20.

For LTE: The aircraft Node B, while in operation, must limit the transmit power of all LTE mobile terminals transmitting in the 1800 MHz band to a nominal value of 5 dBm/5 MHz at all stages of communication.

II. Wi-Fi on-board Aircraft:

Since Wi-Fi stations on board aircraft operate within the premises of the Aircraft, the similar conditions as applied to the indoor use of ISM bands are applicable. It must be ensured that all transmissions must be strictly restricted within the aircraft.

III. Satellite earth stations on-board aircraft

Satellite earth stations on aircraft are intended to provide non-safety related data communication services. The aircraft mobile radio station license covers the use of satellite equipment operating on frequency band: 14.0-14.5 GHz on-board the aircraft. The following conditions apply. (ECC decision on the free circulation and use of Aircraft Earth Stations (AES) in the frequency bands 14.0-14.5 GHz (Earth-to-space), 10.7-11.7 GHz (space-to-Earth) and 12.5-12.75 GHz (space-to-Earth) [ECC/DEC/(05)11])

a) e.i.r.p. must not be greater than 50dBw;
b) the equipment must comply with the relevant European Telecommunication Standards (e.g. EN 302 186)

c) the equipment must comply with the Recommendation ITU-R M.1643

d) the equipment must be operated under the control of a network control facility.

The Aircraft mobile radio station license also covers the use of satellite equipment operating on frequency band: 17.3-19.7 GHz and 27.5-29.5 GHz bands on-board the aircraft. The following conditions apply:

a) e.i.r.p. must not limited to a value within the range 55-60 dBw;

b) the equipment must comply with the European Telecommunication Standard EN 303 978.

c) the equipment must be operated under the control of a network control facility.

d) the equipment must be self-monitoring and should a fault which can cause harmful interference to FSS or terrestrial networks be detected, the transmissions must be ceased automatically;

3. AERONAUTICAL GROUND STATION (AGS) LICENCES

The aeronautical ground station licence covers the use of aeronautical frequencies for services such as general aviation, air traffic control, operations control, search and rescue and emergency communications, HF communication and public correspondence services.

I) **General Aviation**: Aviation service which covers common air to ground frequencies which are assigned to general aviation operations (e.g. common glider frequency).

II) **Air traffic control service** is provided for the purpose of: Avoiding collisions between all aircraft and maintaining an orderly flow of air traffic Applying separation between aircraft and expediting and maintaining an orderly flow of air

traffic Preventing collisions between controlled air traffic and expediting and maintaining an orderly flow of air traffic Preventing collisions between aircraft, between aircraft and obstacles on the manoeuvring area and expediting and maintaining an orderly flow of air traffic.

III) **Operational Control**: A two-way communication between an aircraft and a ground station for the purposes stated in ICAO Annex 6, Parts 1 & 3, chapter 1: "Operational Control. The exercise of authority over the initiation, continuation, diversion or termination of a flight in the interest of safety of the aircraft and the regularity and efficiency of the flight."

IV) **Search, Rescue and Emergency Communications Service**: used only for communications with aircraft and other aeronautical search and rescue stations engaged in search and rescue activities. Aeronautical ground search and rescue stations can be moved for temporary periods from a specified location to an area where actual or practice search and rescue operations are being conducted.

V) **HF Communication Service**: the service provided through ground stations with HF frequency assignments.

VI) **Public Correspondence**: the service involving communication messages relating to air carrier / company business communications and passenger service / convenience.

3.1 Eligibility

The following entities would be permitted to apply for Aeronautical Ground station licenses:

a) Aeronautical Ground station licenses may be applied by SCAA or airdrome approved by SCAA

b) An Applicant that wished to deploy Aeronautical Ground Station Must Provide separate evidence that he/she is successful registered SCAA in keeping with the provisions of the Civil Aviation Authority.

3.2 Licensee Responsibilities

I) Must provide successful registration certificate from SCAA in keeping with the provisions of the Civil Aviation Authority.

II) Ground and Fixed Station should identify themselves by means of radio station call sign, its location, its assigned Civil Aviation identifier, the name of the airport or local area which it serves, or any additional identification required.

III) Aeronautical radio messages must be limited to those concerning flight safety or flight regularity.

3.3 Technical details

Table 1: Somalia Aviation Frequency Band Plan

#	Frequency Band (MHz)		Allocation	Frequency Band (MHz)		Utilization	Remarks
01	2.850	22.000	Aeronautical Mobile (R) service in HF bands	2.850	22.000	Aeronautical Mobile (R) service in HF bands	As per Appendix 27 of ITU radio regulations
02	108.000	117.975	AERONAUTICAL RADIO NAVIGATION	108.000	112.000	AERONAUTICAL RADIO NAVIGATION	Instrument Landing System (ILS) localizer
				112.000	117.975	AERONAUTICAL RADIO NAVIGATION	VHF Omni-directional Range (VOR).
03	117.975	137.000	AERONAUTICAL MOBILE (R)	118.000	121.450	International and National Aeronautical Mobile Services	Specific international allotments will be determined in the light of AFI Region agreement.

				121.500	121.500	Emergency frequency	
				121.550	123.050	International and National Aeronautical Mobile Services	Reserved for ground movement and national allotments.
				123.050	123.150	Auxiliary frequency Search and Rescue (SAR)	
				123.450	123.450	Air-to-air communications	
				123.150	136.975	International and National Aeronautical Mobile Services	
04	1087.7	1092.3	**global flight tracking in civil aviation**	1087.7	1092.3	Automatic Dependent Surveillance-Broadcast (ADS-B)	Earth-to-space 1090 MHz as per ITU in WRC-15

4. AERONAUTICAL NAVIGATION AIDS LICENCES

The navigational aids licence covers, for example, the operation of navigational aids such as non-directional beacon systems, VHF marker beacons, instrument landing system, VHF omni-directional range (short / medium range navigation aid normally associated with distance measuring system) and DME (distance measuring system).

i) **Non-directional radio beacon (NDB):** The non-directional radio beacon (NDB) system is used for short/medium range navigation. When used with automatic direction finder (ADF) equipment in aircraft, NDB provides a bearing with moderate accuracy. NDB is used by larger aircraft over sea or overland routes and is extensively deployed at general aviation aerodromes, where it provides a cost-effective and easily installed facility. Offshore NDB operations require procedures to prevent co-channel interference where frequencies are assigned on a shared basis in accordance with ICAO Annex 10.

ii) **VHF marker beacons:** VHF marker beacons serve to determine individual sites within the air traffic network and in the approach area. The directional pattern and modulation frequency differ according to the intended purpose. Beacons shall work in conjunction with each other using the same frequency.

iii) **Instrument landing system (ILS):** is a standard approach and landing system. localizer is coupled with glide path system and with the Microwave landing system (MLS) and/or DME. MLS is a newer system, which operates in a similar manner to ILS. The ILS localizer radio equipment, when used as part of the ILS system provides guidance on azimuth while approaching the runway. The equipment transmissions are within the band 108 – 111.975 MHz in accordance with ICAO Annex 10. Station identifiers are required as per the instructions of QCAA. Equipment standards and channel plans are given in ICAO Annex 10.

iv) **VHF omni-directional range (VOR):** is a short/medium-range navigation aid system. is normally associated with distance measuring equipment (DME).

v) **Distance measuring system (DME):** is the ICAO standard system for determining ranges within radio line of sight, using pulse techniques and time measurement. It is the standard system used for en route and terminal navigation.

1.4 Eligibility

The following entities would be permitted to apply for Aeronautical Navigational Aide licenses:

a) Aeronautical Ground station licenses may be applied by SCAA or airdrome approved by SCAA

1.5 Licensee's Responsibilities

I. SCAA must be approved the radio equipment and its installation.

II. Must provide successful registration certificate from SCAA in keeping with the provisions of the Civil Aviation Authority.

III. Ground and Fixed Station should identify themselves by means of radio station call sign, its location, its assigned Civil Aviation identifier, the name of the airport or local area which it serves, or any additional identification required.

IV. The licensee is generally responsible for ensuring that the navigation aide(s) are planned, installed, operated and maintained in accordance with SCAA and international requirements.

4.3 Technical details

Table 1: provides information on the applicable frequency band(s) and associated technical details.

5. AERONAUTICAL GROUND BASED RADAR LICENCES

The ground based radar covers both air traffic control primary radar as well as secondary surveillance radar as defined in ICAO Annex 10.

1.6 Eligibility

The following entities would be permitted to apply for Aeronautical Ground Based Radar Station licenses:

a) Aeronautical Ground Based Radar Station licenses may be applied by SCAA or airdrome approved by SCAA

1.7 Licensee's Responsibilities

The licensee is generally responsible for ensuring that the navigation aide(s) are planned, installed, operated and maintained in accordance with SCAA and international requirements.

1.8 Technical Detail

The license covers aeronautical primary radar and mono-pulse secondary surveillance radar (SSR). SSR is an ICAO standard system employing secondary radar principles, used either by itself or co-located and synchronized with primary radar. All SSR installations have a frequency for ground-air interrogation and a frequency for the air-ground reply.

6. CALL SIGNS

Call signs are used to identify, uniquely, a user's radio station and facilitate channel sharing. Call signs will be issued by SCAA.

Call signs are issued by NCA and all consist of the prefix for the geographic area (TWR and APP combined for Somalia) and a suffix (5 characters) which will be unique for the individual application. NCA will design the table for the call sign incorporation with SCAA.

7. COORDINATION REQUIREMENTS

The use of aeronautical radio frequencies is covered by ITU allotment plans. Co-ordination of frequencies is required to ensure that the proposed use will not suffer harmful interference between neighbouring countries. The use of aeronautical frequencies in Somalia from Ground stations which are not already covered by the Appendixes, of ITU Radio Regulations, will be co-ordinated with the Regional ICAO through the National Communication Authority (NCA).

APPENDIX A: LICENCE TEMPLATES AND TERMS & CONDITIONS

National Communications authority
Federal Republic of Somalia

License Number: **NCA-XXXX/2021**

LICENSE

For the Provision of

Aircraft Radio Station License

WHEREAS [Company Name] requested authorization to Aircraft Radio Station Services in Somalia under the authority of the National Communications Authority (NCA).

AND WHEREAS, in accordance with mandate and the policy of the Ministry of Post, Telecommunications & Technology, the National Communications Authority, with principal responsibility for Radio Spectrum Licensing, **MAY GRANT** a Aircraft Radio Station License.

NOW, THEREFORE, by Article 41 of Communication Act of October 02, 2017 and pursuant to section 2 of its regulations, the National Communications Authority hereby grants a Aircraft Radio Station License [**Company Name**]

The [**Company Name**] is hereby authorized to establish, install and work Aircraft Radio Station in Somalia for the specified term of this License and subject to the provisions of the Spectrum Regulations and the License terms and conditions overleaf.

Dated: 13 January 2019

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General Manager
National Communications Authority
Federal Republic of Somalia

Terms and Condition

1. Radio equipment operation

1.1 a copy of the license shall be kept with the radio equipment at all times.

1.2 The Licensee shall:

i. ensure that all persons using the station are made aware of and comply with the terms of this license

ii. permit representatives of NCA to have access to the radio equipment on-board the aircraft for the purpose of verifying compliance with the terms of this license

1.3 The Licensee shall not permit any person to use the station unless that person:

i. possesses a valid radio operator's certification from SCAA

ii. is under the supervision of a person possessing the above.

1.4 The Licensee and all persons using the station shall comply with the relevant provisions of the ITU Constitution and Convention and the Radio Regulations, in particular article 33 of the Constitution, and articles 36, 37, 39, 42 and clause 44.1 of the Radio Regulations.

2. Identification of Transmission:

2.1 The Licensee shall use one of the following methods of identification for all transmissions:

i. Aircraft call sign indicated in the license.
ii. The type of aircraft followed by the registration number of the aircraft issued by SCAA
iii. Any other aircraft identification approved by the SCAA for use by aircraft radio stations participating in an organized flying activity of short duration.
iv. For survival craft station with a reference to its parent aircraft. No identification is required for automatically transmitted distress signals. Transmissions other than distress or emergency signals must be identified by the call sign or by the registration number of the parent aircraft followed by a single digit other than 0 or 1.

3. Technical conditions

3.1 The radio equipment except the equipment for Off-Route communication5 shall be operated within the aeronautical frequency bands and with the technical limits as defined in "Annex 10 to the Convention on International Civil Aviation: Volume 5" and the latest edition of "Handbook on Radio Frequency Spectrum Requirements for Civil Aviation: Including Statement of Approved ICAO Policies, Doc 9718--AN/957".

3.2 The use of mobile communication access equipment is allowed on-board the aircraft with the following conditions:

I. the operation will be on a non-interference and non-protected basis.
II. the minimum height above ground for any transmission will be 3000 metres.

III. The aircraft base station transmitter must limit the power of all GSM mobile terminals transmitting in the 1800 MHz band to a nominal value of 0 dBm at all stages of communications including initial access.

IV. The aircraft Node B, while in operation, must limit the transmit power of all UMTS mobile terminals transmitting in the 2 100 MHz band to a nominal value of – 6 dBm/3,84 MHz at all stages of communication and the maximum number of users should not exceed 20.

V. The aircraft Node B, while in operation, must limit the transmit power of all LTE mobile terminals transmitting in the 1 800 MHz band to a nominal value of 5 dBm/5 MHz at all stages of communication.

3.3 The use of satellite equipment on 14-14.5 GHz band is allowed with the following conditions:

I. the operation will be on a non-interference and non-protected basis.
II. the minimum height above ground for any transmission will be 3000 metres.
III. e.i.r.p. must not be greater than 50dBW;
IV. the equipment must comply with the ITU-R Recommendation M.1643
V. the equipment must be operated under the control of a network control facility.

3.4 The use of satellite equipment on 17.3-19.7 GHz and 27.5-29.5 GHz bands is allowed with the following conditions:

I. the operation will be on a non interference and non protected basis.
II. the minimum height above ground for any transmission will be 3000 metres.
III. e.i.r.p. must not limited to a value within the range 55-60 dBw;
IV. the equipment must be operated under the control of a network control facility.
V. the equipment must be self-monitoring and should a fault which can cause harmful interference to FSS or terrestrial networks be detected, the transmissions must be ceased automatically;

3.5 The use of WiFi access equipment is allowed, provided that all transmissions must be strictly restricted within the aircraft.

4. Technical Schedule

Aircraft Details	
Aircraft registration number	
Aircraft call sign	
Fuselage number	
Type of aircraft and model	
Aircraft owner/operator	

Equipment Details			
Communications:			
Equipment	Model / Type	Quantity	Frequency Band
Navigation:			
Equipment	Model / Type	Quantity	Frequency Band
Radar:			
Equipment	Model / Type	Quantity	Frequency Band

Emergency distress:			
Equipment	Model / Type	Quantity	Frequency Band

Aircraft earth station:					
Satellite Network / satellite	Satellite orbital position	Equipment / Model / Type	Quantity	Power erp Frequency	Frequency Band

Other Equipment:					
Equipment	Model / Type	Quantity	Power erp	Emissions	Frequency Band

5. Special Condition

National Communications authority
Federal Republic of Somalia

License Number: **NCA-XXXX/2021**

LICENSE

For the Provision of

Aircraft Transportable Radio Station License

WHEREAS [Company Name] requested authorization to Aircraft Transportation Radio Station Services in Somalia under the authority of the National Communications Authority (NCA).

AND WHEREAS, in accordance with mandate and the policy of the Ministry of Post, Telecommunications & Technology, the National Communications Authority, with principal responsibility for Radio Spectrum Licensing, **MAY GRANT** Aircraft Transportation Radio License.

NOW, THEREFORE, by Article 41 of Communication Act of October 02, 2017 and pursuant to section 2 of its regulations, the National Communications Authority hereby grants Aircraft Transportation Radio License [**Company Name**]

The [**Company Name**] is hereby authorized to establish, install and work Aircraft Transportation Radio in Somalia for the specified term of this License and subject to the provisions of the Spectrum Regulations and the License terms and conditions overleaf.

Dated: 13 January 2021

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General Manager
National Communications Authority
Federal Republic of Somalia

Terms and Condition

1. Radio equipment operation

1.1 a copy of the license shall be kept with the radio equipment at all times.

1.2 The Licensee shall:

iii. ensure that all persons using the station are made aware of and comply with the terms of this license

iv. permit representatives of NCA to have access to the radio equipment on-board the aircraft for the purpose of verifying compliance with the terms of this license

1.3 The Licensee shall not permit any person to use the station unless that person:

iii. possesses a valid radio operator's certification from SCAA

iv. is under the supervision of a person possessing the above.

1.4 The Licensee and all persons using the station shall comply with the relevant provisions of the ITU Constitution and Convention and the Radio Regulations, in particular article 33 of the Constitution, and articles 36, 37, 39, 42 and clause 44.1 of the Radio Regulations.

2. Identification of Transmission:

2.1 The Licensee shall use one of the following methods of identification for all transmissions:

v. Aircraft call sign indicated in the license.
vi. The type of aircraft followed by the registration number of the aircraft issued by SCAA
vii. Any other aircraft identification approved by the SCAA for use by aircraft radio stations participating in an organized flying activity of short duration.

3. Technical conditions

3.1 The radio equipment except the equipment for Off-Route communication5 shall be operated within the aeronautical frequency bands and with the technical limits as defined in "Annex 10 to the Convention on International Civil Aviation: Volume 5" and the latest edition of "Handbook on Radio Frequency Spectrum Requirements for Civil Aviation: Including Statement of Approved ICAO Policies, Doc 9718--AN/957".

4. Technical Specification

This schedule forms part of the aircraft transportable radio station license No. XXXX issued to XXXX, the Licensee on [Date].

Equipment	Manufacturer / Model	Quantity	Power erp	Frequency Band

5. Special Condition

National Communications authority
Federal Republic of Somalia

License Number: **NCA-XXXX/2021**

LICENSE

For the Provision of

Aeronautical Ground Station License

WHEREAS [Company Name] requested authorization to Aeronautical Ground Station Services in Somalia under the authority of the National Communications Authority (NCA).

AND WHEREAS, in accordance with mandate and the policy of the Ministry of Post, Telecommunications & Technology, the National Communications Authority, with principal responsibility for Radio Spectrum Licensing, **MAY GRANT** to Aeronautical Ground Station License.

NOW, THEREFORE, by Article 41 of Communication Act of October 02, 2017 and pursuant to section 2 of its regulations, the National Communications Authority hereby grants to Aeronautical Ground Station License [**Company Name**]

The [**Company Name**] is hereby authorized to establish, install and work to Aeronautical Ground Station in Somalia for the specified term of this License and subject to the provisions of the Spectrum Regulations and the License terms and conditions overleaf.

Dated: 13 January 2021

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General Manager
National Communications Authority
Federal Republic of Somalia

Terms and Condition

1. Radio equipment operation

1.1 The installation of stations at aerodromes shall require approval from SCAA.
1.2 The Licensee shall not permit any person to use the station unless that person:
   a) possesses a valid radio operator's certification from SCAA
   b) is under the supervision of a person possessing the above.

1.3 Aeronautical radio messages shall be limited to those concerning flight safety or flight regularity.

2. Technical conditions

2.1 All new installations and any proposal to amend any details specified in this license and the associated technical schedule(s) require prior coordination with the Regional ICAO through the NCA.

3. Identification of Transmission:

3.1 The Radio user shall use one of the following methods of identification for all transmissions:

   a) the aeronautical ground station call sign
   b) the location name of the station
   c) Any other identification method approved by the SCAA

6. Special Condition

7. Technical Schedule

This schedule forms part of the Aeronautical Ground Station (AGS) License No. XXXX issued to XXXX, the Licensee on [Date].

INSTALLATION / AERODROME LOCATION	
Location:	
Latitude:	
Longitude:	
Service area (radius from base station) (km)	
Call sign /system ID:	
Antenna Type:	

Antenna Power (e.r.p) (W)			
Antenna Height:			
COMMUNICATIONS SYSTEM			
Type of Station: General aviation/ Operations control / Air Traffic Control / Search and Rescue and Emergency Communications / HF communications / Other			
Equipment	Model / Type	Power ERP	Frequency(ies)/ Band assigned

National Communications authority
Federal Republic of Somalia

License Number: **NCA-XXXX/2021**

LICENSE

For the Provision of

Aeronautical Navigational Aids Station License

WHEREAS [Company Name] requested authorization to Aeronautical Navigational Aids Station Services in Somalia under the authority of the National Communications Authority (NCA).

AND WHEREAS, in accordance with mandate and the policy of the Ministry of Post, Telecommunications & Technology, the National Communications Authority, with principal responsibility for Radio Spectrum Licensing, **MAY GRANT** to Aeronautical Navigational Aids Station License.

NOW, THEREFORE, by Article 41 of Communication Act of October 02, 2017 and pursuant to section 2 of its regulations, the National Communications Authority hereby grants to Aeronautical Navigational Aids Station License [**Company Name**]

The [**Company Name**] is hereby authorized to establish, install and work to Aeronautical Navigational Aids Station in Somalia for the specified term of this License and subject to the provisions of the Spectrum Regulations and the License terms and conditions overleaf.

Dated: 13 January 2021

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General Manager
National Communications Authority
Federal Republic of Somalia

Terms and Condition

1. Radio equipment operation

The radio equipment shall be operated to ensure that the appropriate identification methods as required by the International Standards and Recommended Practices and Procedures, as issued and amended from time to time by ICAO, are employed for all transmissions.

2. Technical Conditions

All new installations and any proposal to amend any details specified in this license and the associated technical schedule require prior coordination with the Regional ICAO through the NCA.

3. Special Condition

4. Technical Schedule

This schedule forms part of the Aeronautical Ground Based Navigational Aids Station License No. XXXX issued to XXXX, the Licensee on [Date].

INSTALLATION / AERODROME LOCATION			
Location:			
Latitude:			
Longitude:			
Service area (radius from base station) (km)			
Call sign /system ID:			
Antenna Type:			
Antenna Power (e.r.p) (W)			
Antenna Height:			
COMMUNICATIONS SYSTEM			
Type of Station: Non-directional radio beacon / VHF Omni-directional radio (VOR) / VHF Marker beacon / Instrument landing system / DME pair / Other			
Location (Lat & Long)	Manufacturer /Model / Type	Frequency	Max. range

National Communications authority
Federal Republic of Somalia

License Number: **NCA-XXXX/2021**

LICENSE

For the Provision of

License Aeronautical Radar Station License

WHEREAS [Company Name] requested authorization to License Aeronautical Radar Station Services in Somalia under the authority of the National Communications Authority (NCA).

AND WHEREAS, in accordance with mandate and the policy of the Ministry of Post, Telecommunications & Technology, the National Communications Authority, with principal responsibility for Radio Spectrum Licensing, **MAY GRANT** to License Aeronautical Radar Station License.

NOW, THEREFORE, by Article 41 of Communication Act of October 02, 2017 and pursuant to section 2 of its regulations, the National Communications Authority hereby grants to License Aeronautical Radar Station License [**Company Name**]

The [**Company Name**] is hereby authorized to establish, install and work to License Aeronautical Radar Station in Somalia for the specified term of this License and subject to the provisions of the Spectrum Regulations and the License terms and conditions overleaf.

Dated: 13 January 2021

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General Manager
National Communications Authority
Federal Republic of Somalia

Specific Terms & Conditions

1. Radio equipment operation

1.1 The radio equipment shall be operated to ensure that the appropriate identification methods as required by the International Standards and Recommended Practices and Procedures, as issued and amended from time to time by ICAO, are employed for all transmissions.

1.2 The licensee shall ensure that:

A) the radar systems are planned, installed, operated and maintained in accordance with the ITU and ICAO requirements
B) that persons authorized to use the equipment are trained, certified and licensed in accordance with the SCAA requirements.
C) the apparatus is used only for the purposes of aiding the navigation of any aircraft.

2. **Technical conditions**:

All new installations and any proposal to amend any details specified in this license and the associated technical schedule require prior coordination with the Regional ICAO through the NCA.

3. Special Condition

4. Technical Schedule

This schedule forms part of the Aeronautical Ground Based Radar Station License No. XXXX issued to XXXX, the Licensee on [Date].

Location (Airport / Aerodrome name)			
Type of Station: Primary Radar / Secondary Radar			
Location (Lat & Long)	Manufacturer /Model / Type	Frequency	Peak power
Scan rate (rpm)	Pulse repetition rate	Antenna height	Peak power