Application Form for Licence of: a Permanent Earth Station (PES), or a Receive Only Earth Stations (ROES)

PREAMBLE

1. Introduction

The provisions given below may not be complete and provide only a guidance.

The St Helena Government reserves the right to wave, grant, or refuse a licence request, and reserves the right to annul or modify the conditions and fees. From time to time, fees are subject to review.

2. Definitions:

a. **Fixed Satellite Service**: A radiocommunication service between earth stations at given positions, when one or more satellites are used; the given position may be a specified fixed point or any fixed point within specified areas; in some cases this service includes satellite – to-satellite links, which may also be operated in the inter-satellite service; the fixed-satellite service may also include feeder links for other space radiocommunication service

b. **Earth station**: The ITU definition of an earth station applies, i.e.:
   i. A station located either on the Earth's surface or within the major portion of the earth's atmosphere and intended for communication with one or more space stations; or with one or more stations of the same kind by means of one or more reflecting satellites or other objects in space.
   ii. ITU Regulations require that receiving stations should use equipment with technical characteristics appropriate for the class of emission concerned; in particular, selectivity should be appropriate having regard to RR No. 3.9 on the bandwidth of emissions.
   iii. For the purpose of licensing by the Authority of St. Helena, other technical limitations on the earth station characteristics may apply.

   Earth Station Licences for operation in the Fixed Satellite Service bands typically provide for radio transmissions (uplinks) to specific orbital satellite positions, using transponders or spot frequencies that have been independently assigned by satellite operators.

c. **Permanent Earth Station (PES):** For the purposes of Licensing by the authority of St Helena, a Permanent Earth Station is defined as being an earth station:
   i. whose antenna(s) is(are) fixed on the ground and are connected by appropriate radio spectrum to one or more satellites;
   ii. whose transmit (Tx) and receive (Rx) frequencies conform to SHG's frequency allocations and the ITU table of allocation (see Article 5 of the ITU Radio Regulations) and allocated to the Fixed Satellite Service (FSS), Space Operation Service (SOS), Mobile Satellite Service (MSS), Broadcasting Satellite Service (BSS), Earth Exploration Satellite Service (EESS) and Space Research Service (SRS);
   iii. operating with the aim to provide either feeder-link connectivity to satellites (which off-load/up-load data and information between the satellite segment and the ground network), or provide telecommand/telemetry communication for the health and control of the spacecraft;
   iv. which provides a radio link to a single satellite or multiple satellites in the geostationary orbit (GSO), or non-geostationary orbit (NGSO) that have been brought into use as notified to the ITU, or intended to be in less than 2 years from the date of the application;
   v. which may provide, in addition to feeder-link services or as a standalone, Telemetry, Tracking and Command (TT&C) capabilities, for the provision of position, health and manoeuvring of the spacecraft, or controlling the spacecraft payload.

d. Receive Only Earth Station (ROES): For the purposes of Licensing by the authority of St Helena, a Receive Only Earth Station is defined as being an earth station:

i. whose receive antenna(s) is(are) fixed on the ground and are connected by appropriate radio spectrum to one or more satellites;
ii. whose receive (Rx) frequencies conform to SHG's frequency allocations and the ITU table of allocation (see Article 5 of the ITU Radio Regulations) and allocated to the Fixed Satellite Service (FSS) in 3600-4200 MHz, or Meteorological Satellite Service, or Earth Exploration Satellite Service or Space Research Service (SRS) in 1670-1710 MHz, 7750-7900 MHz and 25.5-26.5 GHz;
iii. that operate with the aim to provide connectivity to satellites (such as off-load data and information from a space station), or provides telemetry/tracking signals for monitoring the health and control of the spacecraft;
iv. which provides a radio link to a single satellite or multiple satellites in the geostationary orbit (GSO), or non-geostationary orbit (NGSO) respectively, that have been brought into use as notified to the ITU, or intended to be in less than 2 years from the date of the application.

e. **Satellite System:** is defined as a space system using one of more satellites.

f. **Satellite Network:** is defined as a satellite system or a part of a satellite system consisting of only one satellite and the cooperating earth stations.

g. **Geostationary Orbit (GSO)**: the orbit of a spacecraft that lies on the equatorial plane of the Earth and at radius from the centre of the Earth of 42,164 km, and whose altitude from the mean sea level is 35,786 km. A space object on the GSO will have the same angular rotation with the Earth rotation and thus remain fixed in the sky as seen from someone on the Earth.

h. **Geostationary satellite**: a space object located on the geostationary orbit at a given longitude (the geocentric angle from the Greenwich meridian to the space object). A GSO satellite is seen to be remaining at a fixed position in the sky, usually measured by its azimuth (Az) and its elevation (el).

i. **Non-Geostationary Orbit (NGSO)**: an orbit that is not GSO, and thus any space craft on such orbit will not be fixed with to the Earth's rotation. There are many types of NGSO, such as Low Earth orbit (LEO), Medium Earth orbit (MEO), High Elliptical orbit (HEO). Some NGSO can also be circular (radius is constant or eccentricity is zero), or elliptical (eccentricity is greater than 0 and no more than 1).

j. **Non-Geostationary satellite**: a space object located at a NGSO. This means that the azimuth, elevation and distance from any point on the Earth surface change all the time.

3. With regard to radiocommunications equipment, the **Telecommunications Ordinance** (as modified in 2020/21) provides that an individual licence is required for the installation or use of a permanent Earth station (PES), unless the said equipment is licence exempt. Non-compliance with this requirement is a breach of the said Ordinance.

4. **Receive Only Earth Stations** are usually exempt from such licensing, and as such these facilities are not protected. For those operators that require a licence, the Ordinance provides for a licence for ROES to recognise the use of the receive spectrum by such stations.

5. The SHG can issue a **Temporary licence** with the following conditions:
    a. The application form is duly filled in and submitted;
    b. The operation of the equipment is on a non-interference and non-protected basis;
    c. The payment of the required fee is made after the application is submitted. Proof of payment must be provided;
    d. Such authorisation will be valid from the date when SHG receive notice that the applicable fees (See Annex 1) have been paid and up to a maximum period of 6 months thereafter.

e. A letter document with the Temporary licence will be issued to the licensee.
f. The license can be renewed, through a new application, and subject to a case by case review.
g. ROES do not require a Temporary licence and can operate freely on a non-interference and non-protected basis.

6. The ROES operator may **voluntarily inform** SHG of their ROES un-protected installations and operations.

7. The radiocommunications PES or ROES licences, issued under the said Ordinance **does not authorise** the provision of other electronic communications services / networks. A separate authorisation is required for the provision of other services / networks.

8. Please refer to Attachment 1 to this Form for information on **fees/charges** to the PES and ROES licenses.

9. As the island of St Helena is many hundreds of kilometres from any nearby country, there is no need to perform any **international terrestrial coordination** with such countries.

10. The operator **must not operate** any PES unless it has obtained a licence from the St Helena Government.

11. Once the application for a full PES or ROES licence **is submitted**, the SHG will endeavour to issue a radiocommunications PES or ROES licence within 60 days from the receipt of the correctly completed form and payment of the applicable fees.

    a. **Administrative fee**: The Administrative fee of the application must be paid before the licence is submitted as per Table in Annex 1 and evidence of such payment must be provided with this application;

    b. **Licence fee**: Upon examination of the licence application, the applicant will receive an invoice for the payment of the licence fee. The licence will be issued once such fee is paid.

12. When the application is submitted the SHG will determine if the applicant may have to **perform frequency coordination** with other users of the spectrum. Only after such coordination is terminated can SHG issue the PES or ROES licence. The applicant could request the issuance of a temporary licence (on a non-interference and non-protected basis) while such coordination is being finalised.

13. SHG **shall not be held liable** in any way if a radiocommunications PES or ROES licence, is issued after the aforesaid 60 day period.

14. Duly completed applications must be sent to the St Helena Authority by email, at the email provided below. Incomplete applications will be returned to the applicant. Email of the SHG:

    - Title: Karen Yon
    - Email address: Karen.Yon@sainthelena.gov.sh

15. Once the licence is issued, or while the application is being processed by SHG, **any changes** to be affected to the installations of the applicant must be notified to SHG as soon as possible. Such notification may cancel or delay further the issuance of the application.

16. **Renewal of Licence**: Within 60 days before the period of validity of the licence ends, the licensee may request to renew the licence for the Permanent Earth Station, TT&C Earth station, or Receive Only Earth Stations by submitting a formal letter to SHG requesting its renewal and stating also that nothing has changed from its current licence. In such case, no new application form is required. Within 30 days of receiving the letter, SHG will issue a response letter to the licensee informing that the licence has been either granted or cancelled (for reasons to be provided by SHG). The applicant will provide proof that the appropriate fees have been paid.

17. Once the applicant receives the PES or ROES licence, **any changes** to the license conditions, equipment operations or technical characteristics, etcetera, must be reported to the SHG immediately. Failing to do so may annul the license.

18. This application and its information will be treated **confidentially**, unless the court of St Helena requires to disclose it for legal purposes.

APPLICATION FORM

Part A: Applicant's Details

A.1 Type of Licence requested, mark an X in one box:

- New PES Licence ☐
- Variation of Existing PES Licence ☐
- Temporary / Experimental PES Licence ☐
- New ROES Licence ☐
- Variation of Existing ROES Licence ☐
- Temporary / Experimental ROES Licence ☐

A.2 General Information

Name of Person or Entity in whose Name the Licence is required

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Passport Number, Tax Number or Company Registration Number
(Attach a photocopy of such document(s) to this application)

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Address

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Telephone **Mobile**

E-mail

A.3 Is the billing address same as above?

☐ Yes
☐ No

If No, please provide the details of the billing address.

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Please note that if the contact should change, you should notify the ST Helena Registrar immediately in writing.

A.4 Technical contact point, if different than above.

Name

Surname

Telephone

Mobile

E-mail

Part B: Information regarding the Network / Service provided

B.1 Please state the purpose of use of the PES / ROES and provide details on the type of services to be delivered.

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B.2 Is the installation of the earth station temporary or permanent?

☐ Temporary

☐ Permanent

a) If permanent, when will operations start?

Period start (DD/MM/YY)

b) If Temporary, then please provide information on the time-frame for which a licence is being requested and why.

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Period start (DD/MM/YY)

Period end (DD/MM/YY)

B.3 Fee Payment

Please state the fees payable for your application (as per Fees in Annex 1)

Band and Satellite type	Number of Antennas	Administrative fee payable (GBP)	Total Yearly Spectrum use fee payable (GBP)
		TOTAL:	**TOTAL:**

PART C: Technical Information of the PES or ROES

C.1 Please provide Address, Location or Co-ordinates of the proposed site of the antenna installation.

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C.2 Please provide to this application form a map / diagram / plan of where antenna(s) will be deployed/located at the above address.

C.3 Geographical coordinates of the site

- **Latitude:** South ____ Deg ____ Min ____ Sec
- **Longitude:** West ____ Deg ____ Min ____ Sec
- **Average site altitude above mean sea level:** ____ meters

C.4 Please provide the details on the type of radio equipment (where applicable) and the schematic of installation. Submit a separate page if necessary.

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C.5 Please provide technical information on the earth station. If installing more than one earth station, please repeat this page for each of the station. For ROES provide only the Receive Antenna information.

a) **STATION NUMBER (sequential starting from 1):**

b) **TRANSMIT ANTENNA (for PES only)**

i) **Transmitting Frequencies / Frequency band**

Lower limit (GHz)	Upper limit (GHz)	Bandwidth (MHz)

ii) **Polarization:**

iii) **Peak Antenna Gain (dBi)**

iv) **EIRP (dBW)**

v) **Modulation, or Emission Code**

vi) **Maximum EIRP spectral density (dB(W/MHz))**

vii) **Power Input to the Antenna feed (dBW)**

viii) **Reference antenna radiation pattern if known (eg, ITU[1])**

If not known provide the antenna radiation diagram on a separate sheet.

c) **RECEIVE ANTENNA (for PES and ROES)**

i) **Receiving Frequencies / Frequency band**

Lower limit (GHz)	Upper limit (GHz)	Bandwidth (MHz)

ii) **Polarization:**

iii) **Peak Antenna Gain (dBi)**

iv) **System Noise Temperature (K)**

v) **Feeder Losses (dB)**

vi) **Modulation, or ITU Emission code**

vii) **Reference antenna radiation pattern, if known (eg, ITU[2])**

If not known provide the antenna radiation diagram on a separate sheet.

[1] Relevant ITU-R Recommendations, or equivalent.

[2]

Part D: Technical Information – Satellite Network, or Satellite System

D.1 Name of the Satellite Operator

D.2 Address of the Satellite Operator

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D.3 Commercial Name of the Satellite Network / Satellite System

D.4 ITU satellite filing denomination

D.5 ITU name of the satellite network / system

D.6 Notifying Administration

D.7 Status of Notification of the Satellite Network/System

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Part E: Declaration

☐ *By submitting this application and ticking this consent box, I am hereby:*

a. *Grant explicit consent to the St Helena Government to process my personal information solely for the purpose of processing this application.*

b. *Grant explicit consent to disclose the information contained in this application to any government official, or entity (such as St Helena Airport Ltd or the Civil Aviation Authority)*

c. *Declare that you have read and understood the Preamble section and Annexes to this form;*

d. *Declare that the information provided in this application is accurate and complete in all respect.*

e. *Declare that I am authorised to submit this application.*

f. *Grant my explicit consent to the St Helena Authority to disclose the technical information contained in my application for frequency coordination and registration purposes.*

Date of application (DD/MM/YY)	
Full name of signatory	
Title	
Passport Nationality and Number	
On behalf of (if applicable)	
Signature in full:	

(Electronic signatures are accepted)

ANNEXES

ANNEX 1: Fees for PES and ROES licence

1. Applicable Fees

	Band and Satellite type		Administrative fee per application per Band (GBP)	Yearly Spectrum use fee per Antenna per Band (GBP)
Permanent Earth Stations	C-band	GSO	1000	8,500
		NGSO		2,500
	Ku-band	GSO		5,000
		NGSO		1,500
	Ka-band	GSO		3,500
		NGSO		1,000
	Amateur Satellite Service (AMSS)		10	25
	< 1 GHz (UHF/VHF) Mobile Satellite Service (MSS) Earth Exploration Satellite Service (EESS) Space Operation Service (SOS) Space Research Service (SRS)		250	500
	Earth Exploration (EESS) Space Operation (SOS) Space Research (SRS)	1 to < 3 GHz	500	750
		3 to < 10 GHz	500	750
		10 to 31 GHz	500	750
TT&C Earth Stations	< 3 GHz		250	750
	≥ 3 GHz		250	750
Receive Only Earth Stations	Meteorological and EESS	1690-1710 MHz	250	750
	Monitoring Stations	3600-4200 MHz	250	750
	Meteorological and EESS	7750-7900 MHz	250	750
	Meteorological and EESS	25.5-26.6 GHz	250	750

2. Fees for temporary (non-commercial) application of PES or ROES licence

a. The fees for the temporary application, whose validity is 6 months are £150 GBP/SHP

3. Payment of Administrative fees:

Bank Transfer information are as follows:

- **Within St Helena - Bank of St Helena; Account Name: SHG Receivables, Reference: 'Earth Station Licence [NAME]'. Acc: 61000003.**
- **From the UK - Natwest Bank, London, Sort code: 60-83-68 for CHAPS & BACS, Account name: Crown Agents Bank. Account number: 33770030. Reference: SHG General Account 33770030. Crown Agents Bank, St. Nicholas House, Sutton, Surrey, SM1 1EL, United Kingdom**
- **From outside the UK or St Helena: Natwest Bank, London, SWIFT: NWBKGB2L. Account name: Crown Agents Bank. SWIFT: CRASGB2L. International Bank Account Number (IBAN): GB30CRAS60836833770030. Reference: SHG General Account 33770030**

If there are any queries then please contact Bank of St Helena or Crown Agents Bank. Please note that a £2.50 charge will be payable to Crown Agents.

ANNEX 2: Additional documents to submit with this application, if applicable

1. **Frequency coordination (of PES or ROES) with other spectrum users in St Helena, if applicable**:
    a. Provide a written statement which provides the results of such coordination.
2. **For the Out-of-Band and Spurious emissions limitations of PES installation**:
    a. Provide a written statement that the equipment complies with relevant limits of ITU-R Recommendations[3] or equivalent.
3. **Receiver Filter**: For PES and ROES, the SHG strongly encourages the applicant to adopt a receiver filter for each channel used, to ensure efficient use of spectrum and protection of its installation from adjacent band interference.
    a. Provide a written statement on the status of the above filter(s).
4. **For the EMF (electro-magnetic force) limitations of PES installation**:
    a. Provide a written statement which states that the PES equipment (which includes all of its structure, cables, antennas, etc.) complies with either the EU COUNCIL RECOMMENDATION (1999/519/EC-12 July 1999)[4], or ICNIRP[5] guidelines.
5. **For PES the limitations due to airport proximity**:
    a. Provider a written statement which states that the equipment complies with the ECC Report 272[6].
    b. Provide relevant technical analysis that shows the situation
6. **ITU satellite coordination, if applicable**.
    a. Provide a brief status of the ITU coordination of the satellite system/network that the PES or ROES will connect to.
7. Provide evidence that the Application fee of the application has been paid.

[3] ITU-R Recommendation SM.329, "Unwanted emissions in the spurious domain". ITU-R Recommendation SM.1540, "Unwanted emissions in the out-of-band domain falling into adjacent allocated bands". ITU-R Recommendation SM.1541, "Unwanted emissions in the out-of-band domain".
[4] https://op.europa.eu/en/publication-detail/-/publication/9509b04f-1df0-4221-bfa2-c7af77975556/language-en
[5] International Commission on Non-Ionizing Radiation Protection
[6] https://www.ecodocdb.dk/document/1028