

## Satellite Earth Station license application

## Please read the instructions below before filling out this form

Application regarding <sup>1</sup>	New License 🗌 Licens	se cancellation	] Modification Lic	ense number:	
Name (company, association, person)		Organizational or national ID number			
Postal Address		Contact person <sup>3</sup>			
		Telephone	Telefax		
Email		Applicants reference <sup>4</sup>			
Antenna location and ear	rth station name				
Earth station transportable? <sup>5</sup>	Yes 🗌 🛛 No 🗌	Earth station name <sup>6</sup>			
Address of location (or service area if transportable) <sup>7</sup>		Coordinates (WGS84) <sup>8</sup>			
Antenna altitude above ground level [m] <sup>9a</sup>		Horizon mask	<sup>9b</sup> Enclos	ed 🗌 Not	enclosed
Transmission and reception					
Maximum antenna gain, transmitter (dBi)			te of service <sup>10</sup>		
Maximum antenna gain, receiver (dBi)		Total electric peak power before the antenna (dBW)			
Antenna diameter (m)		Maximum electric power density before the antenna (dBW/Hz)			
Radiation pattern (provide reference pattern or a diagram) <sup>11</sup>		Receiving syste temperature (H	em noise Kelvin)		
Antenna beam width (degrees) <sup>12</sup>		Number of carriers (including backups)			
Elevation angle (degrees) <sup>13</sup>		Data rate of transmission (bps)Data rate of reception (bps)		eception	
Azimuth of the antenna (degrees)					
Polarization, transmission <sup>14</sup>		Type of service <sup>16</sup>			
Polarization, reception <sup>15</sup>		□Data □Video □Audio □Telephony □ TT&C □Annan			
Transmission frequencyTX centerTX	Reception frequency 18   RX center RX				
TX center TX		RX center			
	width	frequency (MHz)		bandwidth (kHz)	
(MHz) (kHz TX lower TX u		RX lower		RX upper	
limit		limit		limit	
(MHz) (MHz	2)	(MHz)		(MHz)	
Associated satellite syste	em				
Satellite name used within the ITU		Orbital position of the satellite (degrees east)			
ITU publication reference <sup>19</sup>		Name of the transmission beam of the satellite			
Request for international coordination and notification to ITU (If yes, provide mdb-file in ITU format, containing Appendix 4 data)Yes		Name of the reception beam of the satellite			
I certify that there is an agreemen whose satellite or satellite system		perator(s)	Yes 🗌		
Additional information <sup>21</sup>	Signature <sup>22</sup>				
		Place and date			
		Signature			

Name in block letters

## Instructions for the application form

In order to operate a radio transmitter in Sweden, a license normally is required. In Sweden it is the National Post and Telecommunication Agency (henceforth PTS) that issues the licenses in question.

The form above is used for application for individual license for earth stations (henceforth ES). You are required to fill one form for every new or modified ES link. It is important that you provide all the relevant information in your application. If some of the information is not provided, PTS will request you to provide the information that has been left out. This will delay the processing of your application.

Please note that there is an exemption from license obligation for certain type of earth stations, according to the current Swedish *Direction on Exemption from License Obligation*, published electronically on <a href="http://www.pts.se">http://www.pts.se</a>.

Licenses are subject to annual fees, according to the *Swedish Direction on License Fees*, published electronically on <u>http://www.pts.se</u>.

Furthermore, the equipment used shall comply with the essential requirements and other relevant provisions of RED (2014/53/EU).

Filled application is to be sent electronically or mailed to:

Post- och telestyrelsen Box 6101 102 32 Stockholm

Tel. 08-678 5500 <u>pts@pts.se</u> <u>http://www.pts.se</u> **Annex** with reference to the footnote numbers on the application form.

<sup>1</sup> **Application regarding.** Indicate whether the application is for a new license, license cancellation, time validity extension or modification of an existing license. For license cancellation, the applicant is required to provide the existing license number and signature.

<sup>2</sup> Name. The name of applying company, association or private individual.

<sup>3</sup> **Contact person**. The name of the person whom PTS is able to contact regarding this application.

<sup>4</sup> **Applicants reference.** Option for the applicant to tag the application with an own and arbitrary reference.

<sup>5</sup> Earth station transportable? Provide information whether the ES is transportable or not. A transportable ES usually transmits in the frequency band 14.0-14.5 GHz. Please note that a transportable ES is stationary during operation.

<sup>6</sup> Earth station name. The name of an ES must be unique and must be comprised of no more than 20 characters.

<sup>7</sup> Address of location (or service area if transportable). Location of the ES specified by address. If the application regards a transportable ES, provide information defining the service area.

<sup>8</sup> **Coordinates (WGS84).** Given that the ES is non-transportable, provide the position from which the ES will be transmitting. The position must be specified with 6 digits precision, according to the WGS84 (World Geodetic System 1984) standard, in degrees, minutes, and seconds (e.g. Longitude 16E57'12", Latitude 59N33'45").

A provided position that proves to be significantly erroneous, could result to an assignment that causes interference. In such a case, the applicant risks liability for possible economic losses.

(On the license issued to the applicant, the position data may slightly deviate from the coordinates provided in the original application. In such a case, this is due to another and already registered area of transmission in the vicinity.)

<sup>9a</sup> **Antenna altitude above ground level.** The altitude of the ES antenna above the ground level in meters. Please note that this is not the same as antenna altitude above sea level.

<sup>9b</sup> Horizon mask. A terrain profile that specifies the terrain height surrounding the ES antenna, can be provided together with the application. If the mask is not provided, PTS will assume that the station is not surrounded by any physical obstacles. Absence of such obstacles can result in PTS not being able to issue a license for the intended, use due to the risk of interference.

<sup>10</sup> **Date of start and end of service.** Preferred date on which the ES is intended to be brought into use and the date of the end of use of the service.

<sup>11</sup> **Radiation pattern.** Provide reference pattern or submit a diagram with side lobe characteristics of the antenna. You may provide a reference to relevant ITU recommendation or attach a measurement diagram (dBi).

<sup>12</sup> **Antenna beam width.** Provide the half power beam width of the antenna. This angle is defined as the angle between the half-power (-3 dB) points of the main lobe, when referenced to the peak effective radiated power of the main lobe.

<sup>13</sup> **Elevation angle.** Elevation angle refers to the angle between the pointing direction of the antenna main lobe, directly towards the satellite, and the local horizontal plane. If the ES operates towards a NGSO satellite, please provide the minimum and maximum elevation angles.

<sup>14</sup> **Polarization, transmission.** Provide the transmission polarization: vertical linear (VL), horizontal linear (HL), left-hand circular polarization (LHCP), right-hand circular polarization (RHCP).

<sup>15</sup> **Polarization, reception.** Provide the reception polarization: vertical linear (VL), horizontal linear (HL), left-hand circular polarization (LHCP), right-hand circular polarization (RHCP).

<sup>16</sup> **Type of service.** Option to provide information about the type of service of the operation of the ES.

<sup>17</sup> Transmission frequency. Preferred centre frequency of transmission, and related data.

<sup>18</sup> **Reception frequency.** Preferred centre frequency of reception, and related data. It is not compulsory to provide this information if the ES receives only in the frequency bands 11.7-12.5 GHz.

<sup>19</sup> **ITU publication reference.** The publication reference to the notice of the associated satellite system within ITU (e.g. "*Satcom-6E, BR IFIC 2572, PART II-S*"). This reference is available from the satellite operator providing the service.

<sup>20</sup> **Request for international coordination and notification to ITU.** A license issued by PTS, to use transmitter in earth station (henceforth ES), grants interference protection and right of transmission in relation to the radio use in Sweden. Such a license does not give interference protection and right of transmission in relation to proper radio use in other countries. Hence the license holder must follow the international provision according to RR 4.4 <sup>A</sup>. (This is provided that the intended use is not previously notified to ITU, for example by a notification of a typical earth station together with the associated satellite system. If such notification is in effect, the rights established by the previous notification are in force).

In case the applicant wishes to acquire interference protection and right of transmission internationally, the application shall be supplemented by data <sup>B</sup> required for coordination and ITU notification. Such a request can also be submitted to the Agency at a later stage.

However, the Agency can at its own discretion and initiative, decide to notify selected parts of the national ES use to ITU.

<sup>A</sup> RR 4.4 stipulates that the use shall not cause harmful interference to, and shall not claim protection from proper radio use in other countries.

<sup>B</sup> The information provided must be in electronic format according to the ITU norm (it is not compulsory to attach Appendix 4 and Appendix 7 printouts) – for more information see RR 9/RR 11 <sup>C</sup> and <u>http://www.itu.int/ITU-R/go/space-software/en</u>.

<sup>c</sup> Article 9 and 11 respectively in Radio Regulations (ITU).

<sup>21</sup> Additional information. Use this field space if you need to provide additional information for which no other field space is available.

<sup>22</sup> **Signature.** The signature of the applicant.