

Procedures Manual for Recognised Spectrum Access for Receive Only Earth Stations (ROES)

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1 PURPOSE OF MANUAL

This is the Procedures Manual for Receive Only Earth Station (ROES) applications in the following frequency bands and types of service:

- 3800 – 4200 MHz (Fixed Satellite Service)
- 1690 – 1710 MHz (Meteorological Satellite Service)
- 7750 -7900 MHz (Meteorological Satellite Service)
- 25.5 – 26.5 GHz (Earth Exploration Satellite Service or Space Research Service)

This manual complements the more general licensing policy and procedures described in the overarching Licensing Policy Manual of Ofcom.

This Manual provides information specifically relevant to the use of ROES operating in the bands specified for which a grant of RSA has been received or granted. The manual will be subject to revision as necessary to align with current technological developments for reasons related to the effective and appropriate use of the spectrum.

2 RELEVANT LEGISLATION AND POLICY

2.1 Radio Equipment Directive (Directive 2014/53/EU)

The Radio Equipment Directive (RED) is European legislation which sets out regulatory compliance requirements for radiocommunications equipment in the European Union. The RED updates and replaces Directive 1999/5/EC, the Radio and Telecommunications Terminal Directive (R&TTE Directive) with effect from 13 June 2016. There are many similarities between the RED and R&TTE; equipment must conform with a set of essential requirements, and compliance with harmonised standards offers a presumption of conformity.¹

A transitional period applies so existing radio equipment covered by the RED but which has been tested and certified in conformity with the R&TTE Directive before 13 June 2016 may continue to be placed on the market until 12 June 2017 (i.e. up to one year after the RED comes into effect) and indeed can be put into service after that date. From 13 June 2017, however, equipment covered by the RED can only be placed on the market if it conforms with the RED.

2.2 Wireless Telegraphy (WT) Act 2006 – Licensing

Installation and use of radio equipment is authorised by a licence issued under the WT Act 2006.

However, licensing is reserved for equipment that we consider has the potential to cause harmful interference. Under section 8(4) of the WT Act, we have the duty to exempt from licensing any use of wireless telegraphy apparatus that we consider is not likely to cause harmful interference.

Receive-only equipment, such as receive-only earth stations, is licence exempt, being unlikely to cause harmful interference to other users of spectrum. However, RSA can provide these licence exempt users with an alternative form of spectrum holding, that can be applied for on a voluntary basis, as explained below.

Section 18 of the WT Act prescribes the circumstances relevant for a grant of RSA, namely:

(i) a person is proposing to use or to continue to use a station or apparatus for wireless telegraphy;

(ii) the circumstances of the use are circumstances specified for the purposes of that section in regulations made by Ofcom;

(iii) that use does not require a wireless telegraphy licence but will involve the emission of electromagnetic energy with a view to the reception of anything at places in the United Kingdom or in the territorial waters adjacent to the United Kingdom; and

(iv) for the purposes of that section it is immaterial whether the emissions are from a place within the United Kingdom or from a place outside the United Kingdom.

2.3 Wireless Telegraphy (WT) Act 2006 - Spectrum Pricing

The WT Act 2006 provides the Ofcom with spectrum management legislation to manage the spectrum more effectively and promote its optimal utilisation. Licence and Grant of RSA fees are set out annually in regulations made under the WT Act 2006.

2.4 Enforcement

Ofcom provides an enforcement service which aims to ensure that licensees operate within the conditions of their licence. On the whole, this requires us to investigate complaints of interference affecting existing licensees or holders of Grants of RSA.

3 EQUIPMENT REQUIREMENTS

3.1 Minimum Requirements

The “essential requirements” of Article 3.2 of Directive 2014/53/EU include the minimum system requirements that are deemed necessary for reasons related to the effective and appropriate use of the radio spectrum. The information sheet OFW 241 gives a high level description of how spectrum in the UK is used for satellite systems.

3.2 Operational Requirements

Operators are required to conform to all conditions defined within the grant. Details can be found in Section 13.

The relevant satellite is either fully operational or will be fully operational in the bands applied for within 3 years of the date of application at an orbital location known to the UK administration.

The Antenna Radiation Pattern Envelope meets the minimum performance specified by ITU Recommendation ITU-R S.465, or ITU-R.S.580 for antennas installed after 1995.

4 TAKE-OVERS, TRANSFERS AND CHANGES OF NAME

Details of the legal provisions surrounding changes to a RSA for ROES grant holder’s circumstances are set out in the overarching Ofcom Licensing Policy Manual.

5 PLANNING AND PROTECTION

Holders of grants of RSA for ROES must ensure that their apparatus (i.e. equipment with antennas) meet current planning requirements, and where the antennas may constitute a hazard, particularly to aircraft, then it is the applicant's responsibility to obtain appropriate approvals.

6 FREQUENCY BANDS

At the present time, applications for grants of RSA for ROES are restricted to the bands 1690 - 1710 MHz, 3800 – 4200 MHz and 7750 – 7900 MHz and 25.5 – 26.5 GHz.

7 DISCLOSURE OF INFORMATION

As grants of RSA for ROES are tradable, details of the grant will be published on the WTR on the Ofcom website.

8 DESCRIPTION OF RSA PRODUCT

See section 12 which details the terms, provisions and limitations of the grant

9 GRANT APPLICATIONS

9.1 Making your Application

Before making an application, you should remember that no matter who applies on your behalf, you are still legally responsible for all actions carried out on your proposed radio system. Any false information may lead to the grant being refused or revoked. Also, the grant application form does carry legal status from an evidential point of view and applicants are therefore asked to sign the declaration.

Form OfW530 should be used for applications in geographical areas and frequency bands managed by Ofcom. You can obtain a copy of the OfW530 application form from the [Ofcom website](#).

9.2 How to complete your application form

It is essential that all questions are answered as fully as possible. Incomplete forms will be returned to the applicant. You should consider each question mandatory unless otherwise stated.

9.2.1 New Customers

If you are a new customer, it is particularly important that you include all contact details on your application form, so that Ofcom can set up a new customer account.

9.2.2 Checking your application

Please ensure that you fill the grant application legibly, completely and accurately. Any missing information may result in a delay to the process or the form being returned. Information subsequently found to be inaccurate may render any grant invalid.

9.2.3 RSA Fees

There is a variable charge for a grant of RSA for ROES, which is dependent on the band and protection levels granted. Details are provided in the relevant Statutory Instrument (S.I.) on Wireless Telegraphy (Licence Charges) Regulations, available from the [Office of Public Sector Information website](#).

9.2.4 Payment Method

New customers will be billed on issue of the grant. Amendments will be billed on renewal of the amended grant. Payments should be made payable to the "Ofcom". Permitted methods of payment are described in the Ofcom generic Licensing Policy Manual.

9.2.5 Where to send your form

Please send applications to:

Spectrum.Licensing@ofcom.org.uk

10 DISCLAIMER

Revisions to this document will be done periodically or when there is a substantive need to update the document. This document can therefore only be fully accurate at the time of writing and Ofcom apologises for any inaccuracies that may occur between major revisions. Please contact Ofcom if you have any queries or concerns.

If Ofcom are prevented from issuing appropriate documents to an applicant, for example as a result of an internal system failure, a temporary alternative may be provided.

11 CONTACT DETAILS

For information regarding a Grant of RSA for ROES, please contact:

Ofcom Spectrum Licensing

PO Box 1285

Warrington

WA1 9GL

Email: Spectrum.Licensing@ofcom.org.uk

Telephone: 020 7981 3131

12 GRANT OF RSA FOR ROES

Wireless Telegraphy Act 2006

Notification of RECOGNISED SPECTRUM ACCESS (RSA) grant by the Office of Communications (“Ofcom”) under section 18 of the Wireless Telegraphy Act 2006 (“the Act”)

Product Code	551020
RSA grant reference number	
RSA	
RSA grant holder	
RSA grant holder address	
Date of granting	
RSA start date	
RSA renewal date	
Fee payment date	

PART 1 - GENERAL

1. In granting this Recognised Spectrum Access (“RSA”) the Office of Communications (“Ofcom”) recognises the use of frequencies in the electromagnetic spectrum in Schedule 1 by

XXX XXXX XXXXX

XXXXX

XXXXXXXX XXX XXX

for wireless telegraphy subject to the conditions and restrictions in the terms below.

RSA Term

2. This grant of RSA shall commence on XX,XXXXXX, XXXX and continue in force unless revoked by Ofcom in accordance with paragraph 3.

Revocation and Variation of RSA

3. Pursuant to Schedule 2 to the Act Ofcom may only revoke this RSA:
 - a. at the request of, or with the consent of the grantee; or
 - b. with 5 years notice served on the grantee; or
 - c. immediately (subject to the procedures in the Act) if it appears to Ofcom to be necessary or expedient to revoke the RSA for the purposes of complying with a direction by the Secretary of State given to Ofcom under section 5 of the Act, or under sections 5 and 132 of the Communications Act 2003; or

- d. immediately (subject to the procedures in the Act) in accordance with any international statutory obligations placed on Ofcom under European Community or other agreement which may affect the spectrum recognised; or
 - e. if there has been a failure to pay the fee prescribed in accordance with paragraph 8; or
 - f. if there has been a material breach of any of the terms of this RSA by the grantee; or
 - g. if, in connection with the transfer or proposed transfer of rights and obligations arising by virtue of this RSA, there has been a breach of any provision of any regulations made by Ofcom under the powers conferred by section 30 of the Act.
4. The grantee may surrender all or part of this RSA at any time during the term.
5. Where Ofcom exercises its power to revoke or vary this RSA in accordance with Schedule 2 to the Act, the grantee shall be notified in writing.

Changes

6. This RSA is transferable.
7. The RSA grantee must give immediate notice to Ofcom in writing of any changes in the details of the name and address from that recorded above.

RSA Fees

8. The grantee shall pay Ofcom the relevant sums as provided in the fee regulations made from time to time under section 21 of the Act, payable;
- a. on or before the date of this RSA; and
 - b. on or before the payment date shown on this RSA for subsequent payments or such other date or dates as shall be notified in writing to the holder (if this RSA Grant is renewable),
- in accordance with those fee regulations and any relevant terms of this RSA, failing which Ofcom may revoke this grant of RSA.
9. If this RSA is surrendered or revoked, no refund, whether in whole or in part of any amount which is due under the terms of this RSA or provided for in any regulations made by Ofcom under section 21 of the Act will be made, except at the absolute discretion of Ofcom and in accordance with those regulations.

PART 2 – RECOGNISED SPECTRUM USE

Recognised location of spectrum use

10. The spectrum use recognised by this RSA is at the locations of the wireless telegraphy stations which are specified in Schedules 1.

Recognised purpose of spectrum use

11. This RSA applies in relation to receive-only use of the electromagnetic spectrum for wireless telegraphy at ground level at the locations specified in Schedules 1.

Recognised frequencies

12. The frequency bands of use recognised in this RSA are specified in Schedules 1.

Recognised interference levels

13. At the input to the receivers of the stations identified in Schedule 1, the recognised maximum long term single entry level of interference, arising from other authorised users who operate within the recognised frequencies identified in column 3 of Schedule 1, is set out in column 4 of Schedule 1 (the “single entry interference level”).
14. In recognising use of the radio spectrum by the grantee, Ofcom undertakes to take the RSA into account when carrying out the functions referred to in section 20(1) of the Act to the same extent as Ofcom would take into account a wireless telegraphy licence with terms, provisions and limitations making equivalent provision and, in that regard, subject to paragraphs 15 and 16, when granting wireless telegraphy licences under section 8 of the Wireless Telegraphy Act 2006 and making grants of recognised spectrum access under the Act, Ofcom will not authorise transmissions -
 - a. Where the effect of such a grant would be to increase the level of radio emissions received at the input to the receiver of the station whose location is stated in Schedule 1, above the single entry interference level set out in column 4 of Schedule 1.
15. Notwithstanding paragraph 14, Ofcom will authorise transmissions by grant of a wireless telegraphy licence or by a grant of recognised spectrum access where it appears to Ofcom to be requisite or expedient to do so -
 - a. in the interests of national security, or

- b. for the purposes of complying with a European Community obligation of the United Kingdom or with any international agreement or arrangement to which the United Kingdom is a party;
 - c. for the purposes of complying with a direction by the Secretary of State given to Ofcom under section 5 of the Communications Act 2003 or section 5 of the Wireless Telegraphy Act 2006.

- 16. Nothing in this grant of RSA provides any undertaking in relation to any interference (including harmful interference) which may arise from factors and sources outside Ofcom's control including, without limitation, natural phenomena such as atmospheric pressure, unlicensed users, users outside the United Kingdom and licence exempt use.

Interpretation

- 17. In this grant of RSA:
 - a. "wireless telegraphy" has the meaning set out in section 116 of the Act
 - b. "dBW/MHz" means decibels relative to one Watt of power per bandwidth of one Mega-Hertz of frequency

Schedule 1

RSA Grant No	XXX	Grant version date	XX/XX/20XX	Payment Interval	1 Year
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RSA Centre Point	XX (UK NGR OSGB36)
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Earth Station Deployment	Site Name
ES00XXXX/1	XXX

Earth Station Name	Earth Station NGR	Recognised frequencies MHz		Single entry interference level (dBW/MHz)
		From	To	
ES-1	XX	XX	XX	XXX

Earth Station Deployment	Site Name
ES00YYYY/1	XXX

Earth Station Name	Earth Station NGR	Recognised frequencies MHz		Single entry interference level (dBW/MHz)
		From	To	
ES-2	XX	XX	XX	XXX

Earth Station Deployment	Site Name
ES00ZZZZ/1	XXX

Earth Station Name	Earth Station NGR	Recognised frequencies MHz		Single entry interference level (dBW/MHz)
		From	To	
ES-3	XX	XX	XX	XXX

13 DEFINITIONS

Earth Exploration Satellite Service: A satellite radiocommunication service which obtains information relating to the characteristics of the Earth and its natural phenomena from active or passive sensors on the satellite, and distributes this information to earth stations.

Fixed Service: A radiocommunication service between specified fixed points

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

Meteorological Satellite Service (MetSat): An earth exploration-satellite service for meteorological purposes.

Space Research Service: A radiocommunication service in which spacecraft or other objects in space are used for scientific or technological research purposes.