

Wireless Telegraphy Licence Conditions

Booklet OfW 597

Business Radio, Fixed Link, Maritime, Aircraft and
Satellite licence classes above 10Watts E.I.R.P. transmit
power

Introduction

Each Wireless Telegraphy licence issued by the Office of Communications ("Ofcom") under section 8 of the Wireless Telegraphy Act 2006 ("the Act") authorises the licensee to establish and use stations or install or use apparatus for wireless telegraphy, subject to the terms, provisions and limitations of that licence.

The terms contained in this General Licence Conditions Booklet (the "Booklet") are incorporated into and form part of the terms, provisions and limitations of each wireless telegraphy licence to which this Booklet applies. (Each such wireless telegraphy licence is referred to as "the Licence".)

This Booklet applies to the following licences:

<i>Business Radio</i>	<i>Maritime</i>	<i>Fixed</i>	<i>Satellite</i>	<i>Aeronautical</i>
<i>Business Radio (Area Defined)</i>	<i>Automatic Identification Systems (AIS)</i>	<i>Point to Point Fixed Links</i>	<i>Satellite (Earth Station Network)</i>	<i>Aircraft</i>
<i>Business Radio (GSM-R)</i>	<i>Coastal Station Radio (International)</i>	<i>Scanning Telemetry</i>	<i>Satellite (Earth Station) (Non-Fixed Satellite Service)</i>	<i>Aircraft (Transportable)</i>
<i>Business Radio (Police & Fire)</i>	<i>Coastal Station Radio (International) Area Defined</i>		<i>Satellite (Earth Station) (Non-Geostationary)</i>	<i>Unmanned Aircraft System (UAS) Operator Radio licence</i>
<i>Business Radio (Public Safety Radio (Emergency Services))</i>	<i>Coastal Station Radio (Marina)</i>		<i>Satellite (Permanent Earth Station)</i>	
<i>Business Radio (Suppliers light)</i>	<i>Coastal Station Radio (Search and Rescue)</i>		<i>Satellite (Transportable Earth Station)</i>	
	<i>Coastal Station Radio (UK)</i>			
	<i>Coastal Station Radio (UK) Area Defined</i>			
	<i>Differential Global Position System (DGPS)</i>			
	<i>Maritime Navigational Aids and Radar</i>			

	<i>Maritime Radio (Suppliers and Demonstration)</i>			
--	---	--	--	--

General licence conditions

Condition 1 – Licence Term, Variation and Revocation

1. The Licence shall continue in force until revoked by Ofcom or surrendered by the Licensee.
2. Pursuant to schedule 1 paragraph 8 of the Act Ofcom may not revoke this Licence under schedule 1 paragraph 6 except:
 - (a) at the request of, or with the consent of, the Licensee;
 - (b) if there has been a breach of any of the conditions of the Licence;
 - (c) if, in connection with the transfer or proposed transfer of rights and obligations arising by virtue of the Licence, there has been a breach of any provision of regulations made by Ofcom under the powers conferred by section 30 (1) and (3) of the Act¹;
 - (d) in accordance with schedule 1 paragraph 8(5) of the Act;
 - (e) if it appears to Ofcom to be necessary or expedient to revoke the Licence for the purposes of complying with a direction by the Secretary of State given to Ofcom under section 5 of the Act or section 5 of the Communications Act 2003; or
 - (f) for reasons related to the management of the radio spectrum, provided that in such case the power to revoke may only be exercised after five (5) years' notice is given in writing to the Licensee.
3. Where Ofcom exercise their power to revoke or vary the Licence in accordance with schedule 1 paragraph 6 of the Act, the Licensee shall be notified in writing or by a general notice. Any general notices will be posted on the Ofcom website².

Condition 2 – Changes

1. The Licence may not be transferred³.
2. The Licensee must give immediate notice to Ofcom in writing of any change to the Licensee's name and address from that recorded on the Licence

Condition 3 – Licence Fee

1. The Licensee shall pay to Ofcom the relevant sums as provided in section 12 of the Act and the regulations made thereunder:
 - i) on or before the date of issue of the Licence; and

¹ These are regulations on spectrum trading.

² <https://www.ofcom.org.uk/>

³ However rights and obligations arising by virtue of certain wireless telegraphy licences may be transferred in accordance with regulations made by Ofcom under powers conferred by section 30 of the Act. See Ofcom's website for the latest position on which licences are subject to spectrum trading.

- ii) on or before the payment date shown on the Licence for subsequent payments or such other date or dates as shall be notified in writing to the Licensee, in accordance with those regulations and any relevant terms, provisions and limitations of the Licence.

Condition 4 – Radio Equipment Use

1. The Licensee must ensure that the Radio Equipment relevant to each Licence is constructed, established, installed and used only in accordance with the provisions specified in the individual Licence schedules. Any proposal to amend any detail specified in those schedules must be agreed with Ofcom in advance and implemented only after that Licence has been varied or reissued accordingly.
2. The Licensee must ensure that the Radio Equipment is used only by persons who have been authorised by the Licensee to do so, and that such persons are made aware of, and of the requirement to comply with, the terms of the Licence.
3. The Licensee shall ensure that the establishment, installation, modification or use of the Radio Equipment is carried out in accordance with the provisions set out in condition 7 of this Licence in relation to electromagnetic field (EMF) exposure.

Condition 5 – Access and Inspection

1. The Licensee shall permit any person authorised by Ofcom:
 - i) to have access to the Radio Equipment; and
 - ii) to inspect the Licence and Radio Equipment, at any and all reasonable times or, when in the opinion of that person an urgent situation exists, at any time to ensure that the Radio Equipment is being used in accordance with the terms of the Licence.

Condition 6 – Modification, Restriction and Closedown

1. A person authorised by Ofcom may require the Radio Equipment, or any part thereof, to be modified or restricted in use, or temporarily or permanently closed down immediately if in the opinion of the person authorised by Ofcom:
 - i) a breach of the Licence has occurred; and/or
 - ii) the use of the Radio Equipment is causing or contributing to Undue Interference to the authorised use of other radio equipment.
2. Ofcom may require the Radio Equipment to be modified or restricted in use, or temporarily closed down either immediately or on the expiry of such period as may be specified in the event of a national or local state of emergency being declared. Ofcom may only exercise this power after a written notice is served on the Licensee or a general notice applicable to holders of a named class of Licence is published.

Condition 7 – Electromagnetic Fields (EMF) Compliance

Sites which are not shared with another licensee

1. The Licensee shall only establish, install, modify or use Relevant Radio Equipment if the total electromagnetic field exposure levels produced by the Licensee's On-Site Radio Equipment do not exceed the basic restrictions⁴ in the relevant tables for general public exposure identified in the ICNIRP Guidelines⁵ in any area where a member of the general public is or can be expected to be present when transmissions are taking place.

Sites which are shared with another licensee

2. In the case of a shared site where the Shared Site Exemption applies to the Licensee, the Licensee shall comply with paragraph 1 above.
3. In the case of a shared site where the Shared Site Exemption does not apply to the Licensee, the Licensee shall only establish, install, modify or use the Relevant Radio Equipment if:
 - (a) the total electromagnetic field exposure levels produced by the Licensee's On-Site Radio Equipment, together with
 - (b) the total electromagnetic field exposure levels produced by all other wireless telegraphy stations and wireless telegraphy apparatus operated by another licensee on the same site for which the Licensee can reasonably assume that a Shared Site Exemption does not apply,do not exceed the basic restrictions⁶ in the relevant tables for general public exposure identified in the ICNIRP Guidelines⁷ in any area where a member of the general public is or can be expected to be present when transmissions are taking place.

Emergency Situations

4. The obligations in paragraphs 1, 2 and 3 above will not apply if the Relevant Radio Equipment is being used for the purpose of seeking emergency assistance or reporting and responding to an emergency situation (in the vicinity of that situation) including for search and rescue activities and maritime emergency communications.⁸

⁴ Compliance with the reference levels for general public exposure identified in the ICNIRP Guidelines will ensure compliance with the basic restrictions.

⁵ The relevant tables for general public exposure are identified in Ofcom's "Guidance on EMF Compliance and Enforcement".

⁶ Compliance with the reference levels for general public exposure identified in the ICNIRP Guidelines will ensure compliance with the basic restrictions.

⁷ The relevant tables for general public exposure are identified in Ofcom's "Guidance on EMF Compliance and Enforcement".

⁸ Further information on emergency situations is set out in Ofcom's "Guidance on EMF Compliance and Enforcement".

Relationship with authorised transmission levels

5. The Licensee shall comply with paragraphs 1, 2 and 3 above notwithstanding the maximum transmission levels authorised in the Licence.

Records

6. The Licensee shall keep, or shall procure that a third party shall keep, and shall make available to Ofcom on request, records (including the type of records identified in Ofcom's "Guidance on EMF Compliance and Enforcement") that demonstrate how it has complied with paragraphs 1, 2 and 3 above when Relevant Radio Equipment is established, installed, modified or used.

Ofcom's "Guidance on EMF Compliance and Enforcement"

7. When evaluating its compliance with paragraphs 1, 2 and 3 above, the Licensee shall take into account Ofcom's "Guidance on EMF Compliance and Enforcement" that is in force at the relevant time.

Condition 8 – Interpretation

1. In this Booklet and in the Licence:
 - i) the establishment, installation and use of the Radio Equipment shall be interpreted as establishment and use of stations and installation and use of apparatus for wireless telegraphy as specified in section 8 of the Act;
 - ii) the expression "Undue Interference" shall have the meaning given by Section 115 of the Act; and
 - iii) "inspect" includes examine and test.
 - iv) "Radio Equipment" means the radio equipment specified in the Licence.

2. In this Booklet:

"dBi" means the ratio in dB (decibel) when comparing the gain of the antenna to the gain of an isotropic antenna. An isotropic antenna is a theoretical antenna which radiates power uniformly in all directions.

"EIRP" means equivalent isotropically radiated power which is the product of the power supplied to an antenna and the absolute or isotropic antenna gain in a given direction relative to an isotropic antenna.

"ERP" means effective radiated power which is the product of the power supplied to an antenna and its gain in a given direction relative to a half-wave dipole.

"general public" means any person who is not: (a) the Licensee, owner, operator or installer of the Relevant Radio Equipment; or (b) acting under a contract of employment or otherwise

acting for purposes connected with their trade, business or profession or the performance by them of a public function.⁹

“ICNIRP Guidelines” means the version of the Guidelines published by the International Commission on Non-Ionizing Radiation Protection for limiting exposure to electromagnetic fields which are identified in Ofcom’s “Guidance on EMF Compliance and Enforcement” that is in force at the relevant time.¹⁰

“Licensee’s On-Site Radio Equipment” means the Relevant Radio Equipment and any other wireless telegraphy station(s) and wireless telegraphy apparatus on the same site which transmits at powers higher than 10 Watts EIRP or 6.1 Watts ERP.¹¹

“Relevant Radio Equipment” means all the Radio Equipment that is authorised by this Licence to transmit at powers higher than 10 Watts EIRP or 6.1 Watts ERP.

“Shared Site Exemption” means any of the following three situations apply on a shared site in relation to the Licensee’s or another licensee’s wireless telegraphy station(s) or wireless telegraphy apparatus that is authorised to transmit at powers higher than 10 Watts EIRP or 6.1 Watts ERP:

- The first situation is that all of the licensee’s wireless telegraphy station(s) or wireless telegraphy apparatus on a shared site do not transmit at a combined total radiated power in any particular direction¹² that is higher than 100 Watts EIRP or 61 Watts ERP.¹³
- The second situation is that the total electromagnetic field exposure levels produced by the licensee’s wireless telegraphy station(s) or wireless telegraphy apparatus in any area where a member of the general public is or can be expected to be present when transmissions are taking place is no more than 5% of the basic restrictions or 5% of the

⁹ There is pre-existing health and safety legislation which already requires employers to protect workers from exposure to electromagnetic fields (“EMF”) including the following legislation specifically relating to EMF (as amended from time to time): [The Control of Electromagnetic Fields at Work Regulations 2016](#), [The Control of Electromagnetic Fields at Work Regulations \(Northern Ireland\) 2016](#) and [The Merchant Shipping and Fishing Vessels \(Health and Safety at Work\) \(Electromagnetic Fields\) Regulations 2016](#).

¹⁰ Ofcom’s “Guidance on EMF Compliance and Enforcement” will initially require the Licensee to comply with the ICNIRP Guidelines for limiting exposure to time-varying electric, magnetic and electromagnetic fields (up to 300 GHz), published in: Health Physics 74(4):494-522, dated April 1998 and available at: <https://www.icnirp.org/cms/upload/publications/ICNIRPemfgdl.pdf> (“1998 Guidelines”) or the ICNIRP Guidelines for limiting exposure to electromagnetic fields (100 KHz to 300 GHz), published in: Health Physics 118(5): 483–524; 2020 and available at: <https://www.icnirp.org/cms/upload/publications/ICNIRPrfgdl2020.pdf> (“2020 Guidelines”). However, once work on the relevant standards explaining the methodology for assessing compliance with the 2020 Guidelines has progressed sufficiently, Ofcom will publish a public consultation on updating its “Guidance on EMF Compliance and Enforcement” to explain that going forward Ofcom will be requiring the Licensee to comply with the 2020 Guidelines only. Following this public consultation, Ofcom will publish an updated version of Ofcom’s “Guidance on EMF Compliance and Enforcement” on its website. Ofcom will follow the same process for any subsequent versions of the ICNIRP Guidelines.

¹¹ 10 Watts EIRP is equivalent to 6.1 Watts ERP. In linear units $EIRP (W) = 1.64 \times ERP (W)$; in decibels $EIRP (dB) = ERP (dB) + 2.15$. Ofcom’s “Guidance on EMF Compliance and Enforcement” explains how the Licensee can determine if wireless telegraphy station(s) or wireless telegraphy apparatus “transmits at powers higher than 10 Watts EIRP or 6.1 Watts ERP”.

¹² For the purpose of this situation, the combined total radiated power is a simple sum of the radiated powers (in EIRP or ERP) of all of the licensee’s wireless telegraphy station(s) or wireless telegraphy apparatus on the shared site that transmits signals covering the same or overlapping areas.

¹³ 100 Watts EIRP is equivalent to 61 Watts ERP.

reference levels in the relevant tables for general public exposure identified in the ICNIRP Guidelines.¹⁴

- The third situation is where the licensee’s wireless telegraphy station or wireless telegraphy apparatus has an antenna gain that is equal to or higher than 29 dBi and has a fixed beam.

“shared site” means a site that is shared by the Licensee and at least one other licensee for the purposes of establishing, installing, modifying or using wireless telegraphy stations or wireless telegraphy apparatus.

“site” means a physical structure, building, vehicle or moving platform.

“wireless telegraphy apparatus” has the meaning given to it in section 117 of the Wireless Telegraphy Act 2006.

“wireless telegraphy station” has the meaning given to it in section 117 of the Wireless Telegraphy Act 2006.

3. Any schedule to the Licence shall form part of the Licence together with any subsequent schedule which Ofcom may issue as a variation to the Licence.
4. The Interpretation Act 1978 shall apply to the Licence as it applies to an Act of Parliament.

¹⁴ The relevant tables for general public exposure are identified in Ofcom’s “Guidance on EMF Compliance and Enforcement”.

Document history

<i>Version</i>	<i>Date</i>	<i>Changes</i>
1.0	18 May 2021	First published
1.1	18 March 2022	Amended table of applicable licences to include the Aircraft and Aircraft (Transportable) licence classes.
1.2	20 January 2023	Amended table of applicable licences to include the Unmanned Aircraft System (UAS) Operator Radio licence class.