

Notice of Proposed Changes to Satellite Services licences resulting from the AVMS Directive

Notice

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Summary

- 1.1 This is a statutory notice under Schedule 1, paragraphs 6 and 7 of the WT Act 2006. This notice details changes that are proposed by Ofcom to Satellite Services Licences for permanent (PES) and transportable (TES) earth stations to enable Ofcom to secure compliance with new legislation implementing the Audio Visual Media Services (AVMS) Directive¹. Specifically, section 9(4) of the WT Act 2006, is amended by Regulation 13 of the AVMS Regulations to allow Ofcom to include conditions to require licensees to suspend or cease providing transmission services to non-EU satellite television and, from spring 2010, on-demand programme services, using licensed apparatus and to allow Ofcom to require licensees to provide information to it in relation to such channels or services.
- 1.2 The AVMS directive changed jurisdiction for those channels where the programme provider is established in countries outside the EU from the Member State responsible for the satellite to the Member State from which a channel is being uplinked. The consequence of this change is that the UK has formal jurisdiction under EU law for non-EU based satellite television channels (and on-demand programme services falling within the scope of the AVMS Directive) which are broadcast into EU Member States by means of UK-based uplinks. Ofcom has responsibility vested in it by the Communications Act 2003 to secure the application, in the case of all television and radio services, of standards that provide adequate protection to members of the public from the inclusion of offensive and harmful material in services that come within its jurisdiction.
- 1.3 The background to the new legislative provisions was set out in Part 5 of the Government's consultation in July 2008 on its proposals for implementation of the AVMS Directive. ² On 11 March 2009 the Secretary of State for Culture Media and Sport published a written statement setting out how the Government intended to proceed with implementation of the Directive including its decision in relation to the new regulatory arrangements for non-EU channels³. Regulation 13 of the AVMS Regulations sets out the changes to the Act which allow Ofcom to insert these new licence conditions.
- 1.4 Accordingly, Ofcom proposes two additional requirements in section 4 of the PES and TES licences, namely:
 - (d) The licensee shall comply with any notice given by Ofcom under section 9A of the Wireless Telegraphy Act 2006 requiring the licensee to cease or suspend the uplinking by means of the licensed apparatus of any service specified in such notice by such date as may be specified.

and

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¹ See Regulation 13 of The Audiovisual Media Services Directive Regulations 2009 (SI 2009 No.2979) http://www.opsi.gov.uk/si/si2009/uksi_20092979_en_1

² See http://www.culture.gov.uk/images/consultations/AVMS Consultation_Document.pdf

³ See http://www.culture.gov.uk/reference_library/minister_speeches/5932.aspx

- (e) The licensee shall provide such information as Ofcom may request by notice in writing for the purpose of determining whether section 9A of the Wireless Telegraphy Act 2006 applies in relation to a service for which the licensee provides uplink facilities using the licensed apparatus or for any purpose connected with the giving of a notice by Ofcom under section 9A of the Act.
- 1.5 In addition to these changes which are tracked into Annexes 1 and 2, the opportunity will be taken to improve the wording of the TES Schedule through minor editorial changes. The key change is to clarify that the TES shall operate only in accordance with the conditions specified in any variation to the licence schedule authorised by Ofcom's online clearance and authorisation tool SPECTRAsc

Background information on the AVMS Directive and Satellite Services

- 2.1 The EU Audiovisual Media Services (AVMS) Directive came into force on 19
 December 2007. The United Kingdom and other EU and EEA Member States were required to implement it into their domestic legislation by 19 December 2009. The Directive revises and updates the existing Television Without Frontiers (TVWF)
 Directive, which was adopted in 1989 and amended in 1997. It is based on a proposal from the European Commission published on 13 December 2005. The final version was adopted as the Common Position of the Council of Ministers on 15
 October 2007 and, without further amendment, by the European Parliament in its second reading on 29 November 2007. Further information about the TVWF and AVMS Directives is available on the European Commission's website at http://ec.europa.eu/avpolicy/reg/index_en.html
- 2.2 Prior to the AVMS Directive the TVWF Directive set out rules which ensured that every television broadcaster whose broadcasts can be received in the EU was assigned to the jurisdiction of one, and only one, Member State. Paragraph 3 of Article 2 set out the rules which determined the jurisdiction for broadcasters which are established in the EU. Paragraph 4 of Article 2 set out rules which determined the jurisdiction for channels which can be received with standard consumer equipment within the EU but for which Broadcasters are established in countries outside the EU. These channels were assigned to the jurisdiction of:
 - the Member state whose satellite capacity was being used to broadcast the channel into the EU:
 - or, if the channel was not using any satellite capacity belonging to an EU Member State,
 - the Member State, if any, from which the channel was being uplinked to the satellite.

The UK does not currently have any television broadcasting satellite capacity and there are at present no channels which fall to the UK's regulatory control as a result of their use of uplink facilities in the UK. Moreover, all of those Broadcasters who are established in countries outside of the EU who uplink from the UK, do so to satellites licensed or authorised through other EU Member states. Hence no channels belonging to Broadcasters established outside of the EU fell within the UK jurisdiction under the TVWF Directive.

- 2.3 Currently within the EU there are some 400 satellite broadcast channels that have been identified by the European Commission as falling into this category of broadcasting to the EU, but residing outside the EU.
- 2.4 The AVMS Directive makes no change to the rules in Article 2 paragraph 3 of the TVWF Directive. It therefore makes no change to Member States' jurisdiction, for the

- purposes of EU law, over television channels which are transmitted by broadcasters established within the EU.
- 2.5 However, the Directive reverses the rules in Article 2 paragraph 4 of the TVWF Directive. As a result, it assigns jurisdiction over satellite television channels (and any video-on-demand programme service within the ambit of regulation under the AVMS Directive that is provided via satellite) which can be received with standard consumer equipment within the EU, but which are established in countries outside the EU, to the Member State, if any, from which the channel or service is being uplinked. Only if the channel or service is not being uplinked from any EU Member State does the AVMS Directive assign jurisdiction to the Member State whose satellite capacity is being used to broadcast it in the EU.
- 2.6 The consequence of this change is that from the transposition date of 19th December 2009, the UK has formal jurisdiction under EU law for a number of non-EU satellite channels that are broadcast into EU Member States by means of UK based uplinks. Currently it appears that the number of channels falling into this category will initially be less than ten channels. The uncertainty regarding exact numbers is because several channels are uplinked from more than one Member State and jurisdiction will fall to the Member State in which uplinks were first established
- 2.7 The DCMS Consultation in July 2008 identified that these channels are different from those channels which Ofcom currently regulates in that, by definition, they will not have a business presence in the UK. The consultation recognised that this may make it more difficult for Ofcom to secure compliance with EU and UK regulation, particularly when a channel operator is unwilling to comply with directions from Ofcom in the event that there is a breach of the regulations. The DCMS consultation recognised that, in the first instance of an alleged or identified infraction of EU rules by a non-EU satellite TV channel under UK jurisdiction, Ofcom would attempt to resolve the issue by discussion with the non-EU broadcaster as we would with any other UK broadcaster.
- 2.8 However, it was recognised that ultimately, in the event that the non-EU broadcaster chooses to continue to breach the EU rules, then Ofcom would require a power to intervene to prevent the channel or on-demand programme service being uplinked from the UK. Such a power would ensure that the power Ofcom has to stop a domestic broadcaster from broadcasting (by revoking the licence) would also exist in relation to non-EU channels.
- 2.9 Three options were discussed in the Government's consultation. In summary these were:
 - Do Nothing;
 - Empower the Government or Ofcom to act against a channel by instructing providers to stop uplinking in specified circumstances – such as the channel's failure to comply with directions relating to the UK's regulation, or the absence of the removal of its broadcasting licence;or
 - Subject the uplink providers in the UK to ongoing regulation of some kind in relation to the non-EU~ satellite television channels they uplink.

- 2.10 The DCMS consultation discounted the option of doing nothing and effectively considered the two alternative approaches proposed to ensure that effective sanctions could be taken against a non-EU broadcast channel that breaks the EU rules and chooses to ignore Ofcom demands for it to abide by those rules.
- 2.11 Under both approaches, it would be necessary for Ofcom to be able to identify the relevant uplink provider for a non-EU channel which was in breach of the Broadcasting Code, or had failed to obtain a licence from Ofcom, in order to direct the uplink provider to terminate the channel breaching the regulations.
- 2.12 Both DCMS and the respondents to the consultation preferred the less burdensome approach of providing Ofcom with the power to direct an uplink provider to stop uplinking a channel in breach of the Broadcasting Code, rather than imposing new regulatory responsibilities on the uplink providers.
- 2.13 On 11 March 2009 the Secretary of State for Culture Media and Sport published a written statement setting out how the Government intended to proceed with implementation of the Directive in light of the responses it received to the consultation. Specifically, in relation to the uplinking of non-EU channels, the statement included the following:

"Finally, the Directive requires Member States to ensure that non-EU satellite TV channels which are uplinked from their territory and can be received within the Community meet minimum EU standards. A channel is uplinked from a Member State if that country hosts the ground station from which the television signal is sent up to the satellite for broadcast.

As a result, non-EU satellite television channels which are uplinked from within the UK and which are not already within the jurisdiction of another Member State of the EU or European Economic Area will be required to have a broadcasting licence issued by Ofcom. This will ensure that Ofcom can take appropriate action against them if they breach the standards set out in the Directive. Providers of uplink services will be required to stop uplinking a channel if they are informed by Ofcom that the channel does not have a licence or that it is in breach of the licence conditions, but they will not be required to check that a channel has a licence before agreeing to uplink it, or to monitor broadcasts themselves.

The Government is working closely with Ofcom and with the broadcasting and video-on-demand industries to establish the new regulatory arrangements."

- 2.14 Following the Ministerial Statement, The Audiovisual Media Services Regulations (SI 2009 No. 2979) ("the AVMS Regulations") were made on 9 November and laid before Parliament on 10 November. The AMVS Regulations came into force on 19 December 2009.
- 2.15 Regulation 13 amends the WT Act 2006 in order to allow Ofcom to direct an uplink provider to cease uplinking an offending channel and provides Ofcom with the power to request information from uplinkers regarding identification of channels that are being uplinked for non-EU broadcasters⁴.

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⁴ A second set of regulations are anticipated in spring 2010 which will extend the new requirements to cover on-demand programme services, as defined in section 368A of the Communications Act 2003.

Ofcom's Proposals for Changes to PES and TES Licences

- 3.1 In line with Ofcom's policy of light touch regulation and minimal intervention in both broadcasting and spectrum management, it is proposed that minimum additional requirements be placed on UK satellite uplinkers to fulfil the new regulations.
- 3.2 The respondents to the DCMS consultation expressed a range of views regarding effective intervention, but all were agreed that an amicable settlement should be pursued with the foreign programme provider before any notice or takedown instructions are issued and this aligns with Ofcom's normal practice when considering infringements of the Broadcast Code.
- 3.3 Regulation 13 of the AVMS Regulations amends section 9(4) of the Wireless Telegraphy Act 2006 to allow Ofcom to include conditions in Satellite Services Licences for permanent (PES) and transportable (TES) earth stations to request licensees to
 - a) suspend or cease uplinking by means of satellite uplink apparatus, a service named by Ofcom in a notice given to the licensee under new section 9A inserted by the AVMS Regulations⁵; and to
 - b) require the licensee to provide Ofcom with such information necessary for the purpose of determining whether section 9A applies in relation to a service uplinked by the satellite uplinker or for any purpose connected with the giving of a notice under section 9A as Ofcom may request by a notice in writing.
- 3.4 In relation to the requirement to provide information, it is envisaged that it will only be necessary to contact uplink providers on an ad-hoc basis to request information. Normally this would be when a complaint has been made regarding the content of a channel (or on-demand programme service once section 9A has been amended to additionally cover these services) believed to fall within UK jurisdiction, or when Ofcom wishes to verify that a channel or, from spring 2010, an on-demand programme service, is being uplinked within the UK.
- 3.5 In order to ensure that existing and future uplink operators are aware of these new powers, Ofcom proposes that the existing licence schedules for two classes of licence be amended. Ofcom proposes that both the Satellite (Permanent Earth Station) and Satellite (Transportable Earth Station) schedules be amended by the addition of paragraphs d) and e) in section 4 as follows:
 - d) The licensee shall comply with any notice given by Ofcom under section 9A of the Wireless Telegraphy Act 2006 requiring the licensee to cease or suspend the uplinking by means of the licensed apparatus of any service specified in such notice by such date as may be specified.

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⁵ As noted in section 2, section 9A initially only applies in relation to the uplinking of non-EU television programme services (i.e. television channels) but will be extended to cover non-EU on-demand programme services in spring 2010.

- e) The licensee shall provide such information as Ofcom may request by notice in writing for the purpose of determining whether section 9A of the Wireless Telegraphy Act 2006 applies in relation to a service for which the licensee provides uplink facilities using the licensed apparatus or for any purpose connected with the giving of a notice by Ofcom under section 9A of the Act.
- 3.6 As stated in 3.3 above, Ofcom does not intend to propose a detailed regime of reporting on uplink providers regarding non-EU programme providers, preferring a light touch "as necessary" approach. It is believed that this will have a minimum impact in terms of additional burden placed on the uplink providers. Thus the proposed change to section 4 e) of the earth station licence schedule supports the minimum intervention necessary to implement the AVMS Directive.
- 3.7 The proposed changes to section 4 d) of the earth station licence schedules, places an obligation on the uplink operator to have the facilities to ensure their ability to comply with the AVMS Directive when necessary.

Next Steps

- 4.1 Following the issue of this notice, affected licence holders have one month to make representations about the proposal. Subject to comments received, Ofcom intends to modify the schedules to PES and TES licences in Spring 2010.
- 4.2 Representations should be made to:

John Rogers Floor 3 Spectrum Policy Group Riverside House 2A Southwark Bridge Road London SE1 9HA

Fax: 020 7981 3208

Or by Email to: john.rogers@ofcom.org.uk

Further information

4.3 If you want to discuss the issues and questions raised in this consultation, or need advice on the appropriate form of response, please contact John Rogers on 020 7981 3078

Annex 1

Proposed Amendments to SATELLITE (PERMANENT EARTH STATION) Schedule

SATELLITE (PERMANENT EARTH STATION)

SCHEDULE 1 TO LICENCE NUMBER <Lic_No>,

TERMS, PROVISIONS AND LIMITATIONS COVERED BY THIS LICENCE

This schedule forms part of Licence <Lic_No>, issued to <Lic_Name>, the Licensee on <Issue_Date>, and describes the terms and equipment specifications covered by this licence.

1. The Licensee may establish and use:

A Permanent sending and receiving Earth Station ("the Station") at the location specified in the attached schedule for the purpose of providing Wireless Telegraphy links between the Station and Geostationary Satellite.

2. Limitations on use.

The Stations shall use only:

- a) the classes of emission specified in the Designation of Emission column of the attached schedule:
- b) the frequencies specified in the Transmit Frequency and Receive Frequency columns of the schedule;
- c) a power not exceeding that specified in the Equivalent Isotropically Radiated Power column of the schedule:
- d) the antenna type specified in the Antenna Type column of the schedule;
- e) a power density not exceeding that specified in the Spectral Power Density Column of the schedule;
- f) the Station shall be operated only from the location specified on the schedule.

3. Apparatus

The Licensee shall ensure that:

- a) the apparatus comprised in the station(s) ("the Apparatus") is so designed constructed, maintained and operated, that it does not cause any undue interference to other users of the spectrum;
- b) the Apparatus complies with (and is maintained in accordance with) the relevant performance specification(s) published by the operator of the Geostationary Satellite;

- c) the earth station antenna shall not be employed for transmission at elevation of less than 3 degrees measured from the horizontal plane to the direction of maximum radiation as specified in ITU Radio Regulation ITU – RR ART. 21.14:
- d) the component of effective isotropic radiated power directed towards the horizon and the minimum elevation angle above the horizontal must comply with ITU Radio Regulations and not exceed those limits specified by Radio Regulations ITU-RR ART. 21.8 ART. 21.15;
- e) in the band 13.75GHz 14GHz, earth stations with an antenna diameter of less than 4.5m operate in compliance with the pfd limits in RR 5.502, that the e.i.r.p. of any emission from an earth station in the fixed satellite service does not exceed 85dBW and that the e.i.r.p. density of emissions in the band 13.77-13.78 GHz complies with RR 5.503;
- f) in the bands 27.8185-28.4545 GHz and 28.8265-29.4625 GHz, the power flux density produced by the earth station does not exceed -108.5db(W/(m² 1MHz) for more than 50% of the time produced at 6m above ground level at a distance of 6 kms from the earth station:
- g) the apparatus used for transmission complies with the R&TTE Directive and all appropriate National Interface Requirements for Satellite Earth Stations in force within the UK;
- h) 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;

Where appropriate, Ofcom may require that the Licensee provide additional screening at the installation as a condition of the licence.

4. National and international obligations

- a) The earth station must undergo national coordination and site clearance for operation at the specified location.
- b) The relevant satellite data shall have been submitted to ITU in accordance with established ITU procedures.
- c) All transmissions in the Fixed Satellite Service must be terminated prior to any change of location; unless operating under a specific exemption authorised by Ofcom.
- d) The licensee shall comply with any notice given by Ofcom under section 9A of the Wireless Telegraphy Act 2006 requiring the licensee to cease or suspend the uplinking by means of the licensed apparatus of any service specified in such notice by such date as may be specified.

- e) The licensee shall provide such information as Ofcom may request by notice in writing for the purpose of determining whether section 9A of the Wireless Telegraphy Act 2006 applies in relation to a service for which the licensee provides uplink facilities using the licensed apparatus or for any purpose connected with the giving of a notice by Ofcom under section 9A of the Act.
- f) Some or all of the operations listed in Schedule 2 are subject to International Co-ordination in accordance with Article 9 of the Radio Regulations. While international coordination is being carried out by Ofcom, these operations are subject to the provisions of Article 4.4 of the Radio Regulations (non-interference, non protected basis with respect to other users of this spectrum). Where international coordination is not successful, the relevant operations will be removed from the licence.

5. Interpretation

In this and subsequent schedule(s):

- a) "Earth Station" means a radio transmitter located on the surface of the earth and intended for communication with one satellite.
- b) "Geostationary Satellite" means a satellite in geostationary orbit which remains approximately in a fixed position relative to a position on the surface of the earth.
- c) "Uplink" and any cognate expression refers to a transmission in the Earth-tospace direction

Notes

1. This Licence does not affect the requirement, where necessary, to obtain licences or authorisations under other Acts. Some satellite television or radio broadcasting services also require licences under the Broadcasting Act 1990, and some installations require Local Authority Planning Approval.

Advice should be sought from:

Ofcom Riverside House 2a Southwark Bridge Road London SE1 9HA

Switchboard: 020 7981 3000

Fax: 020 7981 3333

http://www.ofcom.org.uk/tv/ifi/tvlicensing/

http://www.ofcom.org.uk/radio/ifi/

And the appropriate Local Authority planning department.

- 2. The Licensee must apply for a variation of the Licence from Ofcom before making any changes which may contravene the Licence.
- 3. Technical terms used in clause 2 shall have the meanings assigned to them in the Radio Regulations.

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| Licensing Centre Point | <lcp_ngr></lcp_ngr> |
|------------------------|---------------------|

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|-------------------------------|---------------------|-------------------|
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| | | | Transmit | | Re | ceive | |
|---|-------------------------------|-----------------------------|-------------------------|-----------------------------------|-------------------------|-----------------------------------|--|
| Antenna Centre Height AGL (m) | Anten na Type | Dish Size (m) | Tx Gain (dBi) | Tx Beamwidt h (deg) | Rx Gain (dBi) | Rx Beamwidt h (deg) | System Noise temperature (K) |
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| Satellite Name | Orbit Long (deg) | ES Azimuth (deg) | ES Elevation (deg) |
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| name> | | | |

| Transmit Frequency | Receive Frequency | Associated Authorised Bandwidth (MHz) | Associated Emissions |
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| <tx-2></tx-2> | | <bandwidth></bandwidth> | В |
| | <rx-1></rx-1> | <bandwidth></bandwidth> | С |
| | <rx-2></rx-2> | <bandwidth></bandwidth> | D |

| Emission reference code | Emission Type | Emission Code | Antenna I/P Power (dBW) | Spectral Power Dens (dBW/Hz) |
|-------------------------|--|---------------------|--|---------------------------------------|
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| | > | | power> | Den> |
| В | <em_type< td=""><td><em_code></em_code></td><td><antenna ip<="" td=""><td><spectral power<="" td=""></spectral></td></antenna></td></em_type<> | <em_code></em_code> | <antenna ip<="" td=""><td><spectral power<="" td=""></spectral></td></antenna> | <spectral power<="" td=""></spectral> |
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| | > | | power> | Den> |

Annex 2

Proposed Amendments to SATELLITE (TRANSPORTABLE EARTH STATION) Schedule

SATELLITE (TRANSPORTABLE EARTH STATION) SCHEDULE 1 TO LICENCE NUMBER <Lic_No>,

TERMS, PROVISIONS AND LIMITATIONS COVERED BY THIS LICENCE

This schedule forms part of Licence **<Lic_No>**, issued to **<Lic_Name>**, the Licensee on **<Date>**, and describes the terms and equipment specifications covered by this licence.

1. The Licensee may establish and use:

Transportable sending and receiving Earth Station(s) ("the Station(s)") at the locations specified in the attached schedule for the purpose of providing Wireless Telegraphy links between the Station(s) and Geostationary Satellite(s).

2. Limitations on use.

The Stations(s) shall use only:

- a) the antenna type(s) specified in the Antenna Type column of the schedule;
- b) operate only in accordance with the conditions specified in any variation to licence schedule authorised by Ofcom's online clearance and authorisation tool SPECTRAsc.

3. Apparatus

The Licensee shall ensure that:

- a) The apparatus comprised in the Station(s) (" the Apparatus ") is so designed, constructed, maintained and operated, that its use does not cause any undue interference to other users of the spectrum.
- b) The Apparatus complies with (and is maintained in accordance with) the relevant performance specification(s) published by the operator(s) of the Geostationary Satellite(s).
- c) Earth station antennae shall not be employed for transmission at elevation angles of less than 3 degrees measured from the horizontal plane to the direction of maximum radiation as outlined in ITU Radio Regulation ITU RR ART. 21.14.
- d) The component of effective isotropic radiated power directed towards the horizon and the minimum elevation angle above the horizontal must comply with ITU Radio Regulations and not exceed those limits specified by Radio Regulations RR ART. 21.8 RR ART.21.15.

- e) The apparatus used for transmission complies with the R&TTE Directive and all appropriate National Interface Requirements for Satellite Earth Stations in force within the UK.
- f) The Antenna Radiation Pattern Envelope meets the minimum performance specified by ITU Recommendation ITU-R S465, or ITU-R S580 for antennas installed after 1995.

4. National and international obligations

- a) The earth station must obtain satisfactory site clearance for operation at that location; operators intending to transmit in the Fixed Satellite service frequency bands must obtain national clearance and co-ordination prior to commencing operation in the UK.
- b) The relevant satellite data shall have been submitted to ITU in accordance with established ITU procedures.
- c) All transmissions in the Fixed Satellite Service must be terminated prior to any change of location; unless operating under a specific exemption authorised by Ofcom.
- d) The licensee shall comply with any notice given by Ofcom under section 9A of the Wireless Telegraphy Act 2006 requiring the licensee to cease or suspend the uplinking by means of the licensed apparatus of any service specified in such notice by such date as may be specified.
- e) The licensee shall provide such information as Ofcom may request by notice in writing for the purpose of determining whether section 9A of the Wireless Telegraphy Act 2006 applies in relation to a service for which the licensee provides uplink facilities using the licensed apparatus or for any purpose connected with the giving of a notice by Ofcom under section 9A of the Act.

5. Interpretation

In this and subsequent schedules

- a) "Earth Station" means a radio transmitter located on the surface of the earth and intended for communication with one or more satellites.:
- b) "Geostationary Satellite" means a satellite in geostationary orbit which remains approximately in a fixed position relative to a position on the surface of the earth.

c) "Uplink" and any cognate expression refers to a transmission in the Earth-tospace direction

Notes

- 1. This licence does not affect the requirement, when necessary, to obtain licences or authorisations under other Acts. Some satellite television or radio broadcasting services also require licences under the Broadcasting Act 1990, and some installations require Local Authority Planning Approval.
- 2. The Licensee must apply for a variation of the Licence from Ofcom before making any changes which may contravene the Licence.
- 3. Technical terms used in clause 2 shall have the meanings assigned to them in the Radio Regulations.

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|---------|-------------------|-------|---------------------------|----------|-----------------------|
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| Antenna Type | Make/Model | Serial No. | Tx Gain | Dish Size |
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| > | | | | |