Final UK Positions on key issues for the World Radiocommunication Conference 2015 (WRC-15)

Statement

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About this document

Ofcom has today published a document which details the positions the UK will take on selected key issues at the forthcoming International Telecommunication Union (ITU) World Radiocommunication Conference 2015 (WRC-15). This is the third (and final) document Ofcom has published in relation to WRC-15 over the past 18 months.

WRCs are held approximately every four years and take key decisions concerning the identification and international harmonisation of spectrum bands.

Under a Government Direction, Ofcom represents the UK at WRCs. The next conference takes place in Geneva from 2 - 27 November 2015. It will consider a wide range of issues across a number of sector interests, including mobile broadband, maritime, aeronautical, satellite and science use of spectrum.

Today's statement follows on from a consultation in June 2014 and a subsequent update in January of this year and sets out the UK positions Ofcom will take going into WRC-15 on some of the most important and high priority issues.

WRCs cover a wide range of spectrum related issues and discussions are fluid and concessions and compromises have to be considered. Therefore, for a number of issues, the UK may have to adjust its position accordingly to assess the best achievable result overall.

Contents

Section 1

Executive Summary

1.1 This statement outlines the position the UK will take in relation to key issues that will be discussed at the World Radiocommunication Conference being held in November 2015 (WRC-15). These positions build on our update document published in January[1] of this year where we considered responses received to the Consultation Document on WRC-15 that we published in June 2014[2].

1.2 WRC-15 will agree a revision to the Radio Regulations (RRs), an international treaty governing the use of radio spectrum. WRCs are held approximately every 4 years. The RRs specify the allocation of frequency bands to particular uses (such as broadcasting, mobile networks), and also contain regulatory procedures for coordinating frequency use between countries. International agreement on these things is necessary to reduce interference, to ensure that radio equipment can work in different places (creating international economies of scale) and to recognise that some uses are inherently international (e.g. satellite services).

1.3 Ofcom represents the UK at WRCs under a Direction from Government. For WRC-15 we have engaged in a European preparatory process leading to the establishment of European common positions on many of the agenda items. We have also engaged in the preparations of other regional groups outside of Europe and in discussions with other administrations from around the world.

1.4 The UK is supporting many of the European common positions that have been developed for WRC-15. However, there are a few instances where the UK view differs or where no common European position could be agreed. These are explained further in this document.

1.5 UK positions on some of the most important and high profile issues to be addressed at WRC-15 include:

- Supporting availability of the bands 694-790 MHz, 1427-1518 MHz and 3.4-3.8 GHz for mobile broadband;
- Opposing any proposal to make the 470-694 MHz band available for mobile broadband in Europe, noting the importance of this band for the provision of digital terrestrial television in the UK and a number of other European countries;
- Opposing the identification of dedicated harmonised spectrum for Public Protection and Disaster Relief (PPDR) – instead the UK favours a flexible solution which would enable national PPDR agencies (such as the Emergency services) to choose the most appropriate solution to meet national needs;
- Confirming that we will continue to support the retention of the leap second which is occasionally inserted into Co-ordinated Universal Time (UTC) to maintain the link between astronomical and atomic time;

[1] http://stakeholders.ofcom.org.uk/consultations/wrc15/
[2] http://stakeholders.ofcom.org.uk/consultations/wrc15/update-jan-15

- Propose a No Change position on the use of frequency bands allocated to the Fixed-Satellite Service for the control of unmanned aircraft, noting the needs of the authorities responsible for aviation safety and policy;

- Supporting the global use of the 19.7 – 20.2 GHz and 29.5 – 30.0 GHz bands by Earth Stations on Mobile Platforms (ESOMPs), which are satellite terminals designed to use spectrum allocated to the Fixed-Satellite Service while in motion;

- Confirming our continued support for a future Agenda Item (at WRC-19) on the availability of spectrum above 6 GHz for mobile broadband. Such spectrum is likely to be particularly useful for the next generation of mobile services (known as 5G).

1.6 There are many other issues that will be addressed at WRC-15 covering many of the different uses of spectrum. The issues highlighted above and further in this document therefore provide just a small subset of all the issues that will be discussed at the Conference.

1.7 Furthermore, WRCs are complex negotiations and national positions can shift rapidly as the negotiations develop and compromises are agreed. As a result, Ofcom needs to be responsive and reactive and it is likely that the UK will have to adjust some of its positions as the Conference progresses.

Section 2

Introduction

The Radio Regulations and WRC

2.1 The international management of the radio frequency spectrum is set out in a treaty called the International Radio Regulations (RRs)[3], published and maintained by the International Telecommunication Union (a specialised agency of the United Nations). This determines the international rights and obligations placed upon national administrations, around the use of spectrum in their country.

2.2 The RRs are updated at World Radiocommunication Conferences (WRCs) which are held approximately every four years. The next WRC is being held in Geneva from 2nd to 27th November 2015 (WRC-15).

2.3 The RRs contain a table of frequency bands, each being allocated to one or more defined radiocommunication services (such as broadcasting, mobile, fixed and various space services). They also contain regulatory procedures for coordinating frequency use between countries, for example, where a particular use (such as satellite services) cannot be confined simply to one country.

2.4 These allocations and procedures are necessary to:

- Avoid or reduce cross-border interference;
- Facilitate mobility and interoperability of radio equipment (creating international markets with economies of scale); and
- Recognise the international nature of some radio services (for example satellite, aeronautical and maritime services).

Ofcom and the UK role in WRC-15

2.5 Ofcom represents the UK at WRCs under a Direction from Government. We undertake extensive preparatory work in the period between WRCs to establish the UK positions on the various issues under discussion. Over the past 4 years we have participated in many European and international meetings, study groups and committees to consider technical and policy aspects of the WRC-15 agenda.

2.6 WRC-15 is expected to have participants from over 150 countries so it would be impractical for each nation to bring their own individual proposals on every issue. Instead most countries engage within a regional preparatory group to agree common positions on WRC agenda items. The UK participates in a European process organised by the European Conference of Postal and Telecommunications Administrations (CEPT) which consists of 48 countries including all EU Member States.

2.7 The preparatory work undertaken by Ofcom over the past 4 years has included a public consultation and many working groups and committees to develop UK positions. In addition we have engaged in European and international meetings to

[3] http://www.itu.int/pub/R-REG-RR/en

develop European positions and hold preliminary discussions with other regional groups. In doing this Ofcom has worked closely with UK Government and stakeholders, and issued an update on our positions following a public consultation.

2.8 The work within CEPT has resulted in the agreement of about 50 European Common Proposals (ECPs) which form the basis of European positions going into the Conference. This includes ECPs for the vast majority of agenda items and in some cases multiple ECPs for individual agenda items where the item covers multiple issues. The UK has signed the vast majority of these ECPs as described in the next Section of this document.

2.9 The remainder of this document sets out UK positions as they currently stand and Annex 1 shows the list of European Common Proposals (ECPs), noting those that the UK has signed. Annex 2 provides a full list of the agenda items being considered at WRC-15 along with the priority that the UK has given to each item.

Section 3

UK positions at WRC-15

3.1 As explained above, the UK has signed the vast majority of the European Common Proposals (ECPs) that have been agreed for WRC-15. This means that the UK is aligned with the position set out in the ECP and, significantly, means that we will not speak against the ECP at the conference. A full list of the ECPs, including details of whether or not the UK has signed is included at Annex 1.

3.2 In three cases the UK has indicated that it will either not sign or will oppose the ECP. In a couple of other instances no ECP could be agreed as a result of differences in views between European administrations. In both these cases further detail is set out below on the position that the UK will take on these issues going into the WRC.

3.3 In addition we also include below details of our positions on some of the highest profile agenda items. It should be noted however that this document does not attempt to cover many of the issues that will be discussed at WRC-15. Further details of all these issues can be found either in the ECPs themselves (for which links are provided in Annex 1) or in Ofcom's previous publications on WRC-15.

3.4 Finally, it is important to emphasise that the positions set out in this document reflect the positions that the UK will take going into the WRC. Discussions at a WRC can however move quickly as compromises are negotiated. As a result, for a number of issues, the UK may have to adjust its position accordingly to achieve the best result overall for the UK.

Agenda Item 1.1 "Spectrum for wireless and mobile broadband"

3.5 *"to consider additional spectrum allocations to the mobile service on a primary basis and identification of additional frequency bands for International Mobile Telecommunications (IMT) and related regulatory provisions, to facilitate the development of terrestrial mobile broadband applications"*

3.6 The UK has signed all but one of the European Common Proposals (ECPs) under this agenda item which aims to consider additional spectrum for mobile broadband. In particular, the UK supports the ECPs proposing consideration of the bands 1427-1518 MHz and 3.4-3.8 GHz for mobile broadband. The UK also supports the European proposals for No Change in a number of bands, including 470-694 MHz which is used for digital terrestrial television in the UK.

3.7 The UK has not signed the **No Change** ECP for the frequency band **2 700 – 2 900 MHz** as we continue to believe that this band could have potential for mobile broadband in the future. However the UK recognises that there is fragmented and limited global support for an allocation in this band, and that other regional positions on the band are largely supportive of a No Change position. We will monitor discussions at the conference.

Agenda Item 1.2 "Use of the 700MHz band for mobile broadband"

3.8 "*to examine the use of the frequency band 694-790 MHz by the mobile (except aeronautical mobile) service in Region 1*"

3.9 The UK supports making the 694-790 MHz band available for mobile services and a Decision at WRC-15 will facilitate future work at national and European level to make the band available for mobile broadband. Indeed Ofcom has already taken a decision to make the band available for mobile broadband in the UK and is currently in the process of clearing the band. The UK therefore supports the ECPs that have been developed under this agenda item.

Agenda Item 1.3 "Public Protection/ Disaster Relief"

3.10 "*to review and revise Resolution 646 for broadband public protection and disaster relief (PPDR*)"

3.11 The UK supports the ECP that has been developed under this Agenda Item. In particular the UK will oppose any solution which seeks to identify dedicated bands for emergency services use. Instead the UK would favour a solution which provides national flexibility enabling the PPDR agencies to choose the most appropriate solution to meet national needs.

Agenda Item 1.5 "Unmanned Aircraft using fixed satellite service spectrum"

3.12 "*to consider the use of frequency bands allocated to the fixed-satellite service not subject to Appendices 30, 30A and 30B for the control and non-payload communications of unmanned aircraft systems (UAS) in non-segregated airspaces"*

3.13 CEPT was unable to adopt an ECP on this issue due to a divergence of views across Europe. As a result, the UK has submitted a proposal for **No Change**, noting that the European proposal that was under discussion did not meet the requirements of the International Civil Aviation Organisation (ICAO). The UK remains open to the consideration of a solution that would enable the use of frequency bands allocated to the fixed-satellite service for the control of UAS. However, we would want to ensure that any such solution meets the needs of the relevant authorities responsible for aviation safety at a national and international level.

Agenda Item 1.8 "Satellite Earth Stations on board Vessels (ESV)"

3.14 "*to review the provisions relating to earth stations located on board vessels (ESVs)"*

3.15 CEPT has adopted an ECP for this Agenda Item that would see a reduction of the physical protection distances that earth stations located on board vessels (ESVs) must respect in order to protect other services operating in those bands. In many countries frequency bands used by the fixed satellite service (including ESVs) are shared with fixed services and are used for services in support of dedicated communications networks that rely on microwave fixed links. In the UK several of these microwave communication links are used to interconnect oil and gas platforms in the North Sea. Therefore we do not support a relaxation of the protection limits applied to ESVs without taking the needs of those North Sea platforms into account and, as a result, the UK has made a **No Change** proposal to the conference. In addition we have moved the UK priority of this agenda item from low to medium.

Agenda Item 1.9.2 "Maritime-mobile satellite service in the 7/8 GHz bands"

3.16 "*to consider the possibility of allocating the bands 7 375-7 750 MHz and 8 025-8 400 MHz to the maritime-mobile satellite service and additional regulatory measures, depending on the results of appropriate studies*"

3.17 CEPT adopted an ECP on this Agenda Item for a downlink only allocation to the maritime-mobile satellite service (MMSS) in the 7 375-7 750 MHz band. **The UK has not signed this ECP** as we do not believe that the case has been sufficiently made for additional capacity for the MMSS in the space to Earth direction. Furthermore we would be particularly concerned, and would oppose the ECP, if any attempt were made to enable receiving earth stations on vessels to claim protection from fixed services operating in the band.

Agenda Item 1.14 "Use of leap seconds in Universal Coordinated Time"

3.18 "*to consider the feasibility of achieving a continuous reference time-scale, whether by the modification of coordinated universal time (UTC) or some other method, and take appropriate action"*

3.19 CEPT was unable to agree an ECP on this Agenda Item. The UK continues to believe that a major change to the recognised time standard for the world is not required noting:

- there has been a push for change only from a very narrow sector of the global community, whereas time affects all citizens;
- unquantified risks to systems/software designed to operate on UTC with Leap Seconds which may include GNSS user software, astronomy stations, earth stations of NGSO satellites etc.;
- concerns regarding divergence between official time, based on atomic clocks, and the time given by the sun's position in the sky.

3.20 As a result, the **UK has proposed a compromise solution** to WRC-15 that would see the continued transmission of UTC with leap seconds as the primary time standard. Alongside that primary time standard a differential signal would be transmitted that would allow derivation of a time standard without the leap second, by those wishing to use it. We believe this is the best solution to meet the needs of all time users globally.

Agenda Item 7 "Satellite Coordination Procedures"

3.21 "*to consider possible changes, and other options, to facilitate rational, efficient, and economical use of radio frequencies and any associated orbits, including the geostationary-satellite orbit"*

3.22 CEPT adopted ECPs on a number of the sub-items under this agenda item (as shown in Annex 1). One issue however on which an ECP was not agreed relates to the provision around moving satellites between different orbital locations within a given period of time, otherwise known as 'satellite hopping'. The UK feels that current arrangements potentially allow satellite operators to bring into use multiple satellite orbital slots sequentially with one satellite which may not result in optimal use of the scarce orbital resource. As a result we have submitted a proposal into the Conference to try to address this concern.

Agenda Item 9.2 "The ITU-R Director's Report – Bringing into Use of non-Geostationary Satellite Networks."

3.23 "*to consider and approve the Report of the Director of the Radiocommunication Bureau on any difficulties or inconsistencies encountered in the application of the Radio Regulations*:"

3.24 At every WRC a report is produced by the Director of the Radiocommunication Bureau of the ITU. That report highlights certain issues that administrations and/or the Bureau have encountered which might be addressed by the WRC and offers suggestions for potential improvements to the regulatory provisions in the Radio Regulations. It is under this item that the UK and CEPT are looking to change provisions to facilitate the deployment of **ESOMPs (Earth Stations on Moving Platforms)** and we have explained this issue further in our previous consultation and update document.

3.25 One issue highlighted in the report which we think warrants further consideration concerns the bringing into use of frequency assignments to stations of **non-Geostationary Satellite Orbit (non-GSO) satellite systems**. We note that currently there are no provisions in the Radio Regulations (RR) specifically defining the conditions for bringing into use frequency assignments to stations of non-GSO satellite systems. This is in contrast with the provisions for bringing into use frequency assignments to stations of GSO satellite networks. We have consulted on a very similar issue in the context of the revision of our national procedures for the management of satellite filings[4] and we have recently published an update[5] on our position on this issue.

3.26 We are concerned that the current arrangements allow assignments to stations of non-GSO networks or systems to be brought into use when only a limited number of satellites of the overall constellation have been launched. This might lead to issues related to the inefficient use of limited orbital and spectrum resources, if constellations are considered as operational when only a limited number of satellites have been launched. Therefore we have proposed provisions to regulate against such claims through possible amendments of the applicable parts of the Radio Regulations.

Agenda Item 10 "Future Agenda Items for consideration at the next WRC"

3.27 "*to recommend to the Council items for inclusion in the agenda for the next WRC, and to give its views on the preliminary agenda for the subsequent conference and on possible agenda items for future conferences*"

3.28 As we explained in both the previous Consultation and Update documents, during each WRC administrations agree the agenda for the next WRC along with the provisional agenda for the WRC after that. Under this Agenda Item the UK has signed the ECP which includes proposals for twelve separate Agenda Items, including: consideration of additional frequency bands for mobile broadband in bands above 6 GHz; consideration of additional allocations in the bands 137 -174 MHz and 230-470 MHz for controlling small non-GSO[6] satellites; use of the

[4] The full consultation is available at: http://stakeholders.ofcom.org.uk/consultations/satellite-filings-15/
[5] Available at: http://stakeholders.ofcom.org.uk/binaries/consultations/satellite-filings-15/statement/statement.pdf
[6] non-GSO: non geostationary satellite

frequency bands 17.7-19.7 GHz and 27.5-29.5 GHz by earth stations on mobile platforms communicating with geostationary space stations in the fixed-satellite service; and consideration of regulatory actions for the development and implementation of the Global Aeronautical Distress and Safety System (GADSS).

3.29 The UK, along with a number of other CEPT administrations, has also submitted a multicounty proposal for additional allocations at 5 150 – 5 350, 5 350-5 470, 5 725-5 850 and 5 850-5 925 MHz **for potential extension for Wi-Fi**. We feel that this is an important issue that that needs to be considered through the WRC process in order to ensure that sufficient spectrum is made available for WiFi, noting expected future demands from consumers for greater connectivity and faster speeds.

Annex 1

List of European Common Proposals

European Common Proposals (ECP)			UK Action Taken
Agenda item	**Issue / ECP short description**	**WRC Document (Add. = Addendum)**	
AI 1.1 - Spectrum for mobile broadband	IMT identification for 1427-1518 MHz	Doc 9 (Add.1 to Add.1)	SIGNED
	Primary Mobile allocation and IMT identification for 3400-3800 MHz	Doc 9 (Add.2 to Add.1)	SIGNED
	No Change for: 470-694 MHz	Doc 9 (Add.3 to Add.1)	SIGNED
	No Change for: 1300-1350, 1350-1400, 1518-1525, 1695-1710, 2010-2110, 2200-2290, 2900-3100 MHz, 3300-3400, 4500-4800 MHz, 5350-5470 MHz, 5725-5850 MHz	Doc 9 (Add.4 to Add.1)	SIGNED
	No Change for: 3800-4200 MHz	Doc 9 (Add.5 to Add.1)	SIGNED
	No Change for: 4400-4500, 4800-5000, 5925-6425 MHz	Doc 9 (Add.6 to Add.1)	SIGNED
	No Change for: 2700 – 2900 MHz	Doc 9 (Add.7 to Add.1)	NOT SIGNED

European Common Proposals (ECP)			UK Action Taken
AI 1.2 – IMT identification at 700MHz	Issue A (lower edge = 694MHz) and Issue D (SAB/SAP in 470-694MHz)	Doc 9 (Add.1 to Add.2)	SIGNED
	Issue B (Broadcasting) No additional provisions in the RR	Doc 9 (Add.2 to Add.2)	SIGNED
AI 1.3 – Public Protection and Disaster Relief	Have tuning ranges identified and specific arrangements captured in an ITU-R Recommendation	Doc 9 (Add.3)	SIGNED
AI 1.4 – Amateur at 5MHz	Add secondary Amateur in 5350-5450kHz	Doc 9 (Add.4)	SIGNED
AI 1.6.1 – Additional FSS Spectrum	Add FSS primary in 13.4-13.65GHz downlink only	Doc 9 (Add.1 to Add.6)	SIGNED
AI 1.7 – Review of 5091-5150MHz	Review 5091-5150MHz – remove time limits on FSS and increase flexibility for AM(R)S	Doc 9 (Add.7)	SIGNED
AI 1.8 – provisions for ESVs	Define power-related distances from low-water mark for ESVs in 5925-6425MHz and 14-14.5GHz bands	Doc 9 (Add.8)	OPPOSED
AI 1.9.1 – Spectrum for FSS at 7/8GHz	Add primary FSS in 7150-7250 and 8400-8500MHz with restrictions	Doc 9 (Add.1 to Add.9)	SIGNED
AI 1.9.2 – Spectrum for MMSS at 7/8GHz	Add primary MMSS downlink in 7375-7750MHz. No change in 8025-8400MHz	Doc 9 (Add.2 to Add.9)	NOT SIGNED
AI 1.10 – spectrum for MSS at 22-26GHz	MSS in 22-26GHz – No Change	Doc 9 (Add.10)	SIGNED
AI 1.11 – spectrum for EESS at 7GHz	Add primary EESS uplink in 7190-7250MHz with restrictions	Doc 9 (Add.11)	SIGNED

European Common Proposals (ECP)			UK Action Taken
AI 1.12 – spectrum for EESS at 9GHz	Add primary EESS (active) in 9200-9300 and 9900-10400MHz with restrictions	Doc 9 (Add.12)	SIGNED
AI 1.13 – Review of RR No. 5.268	Review 5.268. Remove the 5km distance limitation while keeping pfd limits unchanged and remove limitation to only EVA	Doc 9 (Add.13)	SIGNED
AI 1.15 – Maritime-on-board use at UHF	No extra spectrum. Allow use of narrower channelling and digital equipment	Doc 9 (Add.15)	SIGNED
AI 1.16 – Maritime applications at VHF (Appendix 18)	Issue A AIS blocking. Prohibit ship transmission on channels 2078, 2019, 2079 and 2020	Doc 9 (Add.1 to Add.16)	SIGNED
	Issue B VHF Data Exchange system. Identify channels 24, 84, 25 and 85 and allow these to be merged	Doc 9 (Add.2 to Add.16)	SIGNED
	Issue C satellite component of VDES. Secondary MMSS in 157.1875-157.3375MHz and primary MMSS in 161.7875-161.9375MHz	Doc 9 (Add.3 to Add.16)	SIGNED
AI 1.17 – spectrum for WAIC	Add primary AM(R)S in 4200-4400MHz for WAIC systems	Doc 9 (Add.17)	SIGNED
AI 1.18 – Short range Radar at 77.5-78GHz	Add primary RLS in 77.5-78GHz with power restriction of 55dBm	Doc 9 (Add.18)	SIGNED
AI 2 - Review of ITU-R Recommendations incorporated by reference	Review of ITU-R Recommendations incorporated by reference	Doc 9 (Add.19)	SIGNED
AI 4 - Review of WRC Resolutions and WRC Recommendations	Review of WRC Resolutions and WRC Recommendations	Doc 9 (Add.20)	SIGNED
AI 7 – satellite coordination and	Issue A suspension. Reduce the maximum period of suspension month for month for declaration	Doc 9 (Add.1 to Add.21)	SIGNED

European Common Proposals (ECP)			UK Action Taken
notification procedures	beyond 6 months		
	Issue B BR to publish and make available bringing into use information as soon as possible	Doc 9 (Add.2 to Add.21)	SIGNED
	Issue C suppress API for networks subject to coordination and automatically generate API on receipt of the coordination request	Doc 9 (Add.3 to Add.21)	SIGNED
	Issue D use modern means of communication	Doc 9 (Add.4 to Add.21)	SIGNED
	Issue E failure during 90 day bringing into use period. No Change	Doc 9 (Add.5 to Add.21)	SIGNED
AI 7 – satellite coordination and notification procedures	Issue F align Appendix 30B to Article 11, Appendix 30 and Appendix 30A in respect of suspension	Doc 9 (Add.6 to Add.21)	SIGNED
	Issue G confirmation of applicability of No. 13.6 to clarify bringing into use information	Doc 9 (Add.7 to Add.21)	SIGNED
	Issue I mitigation of excessive filings. Proposals as per Issue C	Doc 9 (Add.9 to Add.21)	SIGNED
	Issue J remove the link between date of receipt of notification and date of bringing into use	Doc 9 (Add.10 to Add.21)	SIGNED
	Issue K provision for launch failure. No Change	Doc 9 (Add.11 to Add.21)	SIGNED
	Issue L Appendix 30 and 30A – replace tacit agreement with explicit agreement. No Change	Doc 9 (Add.12 to Add.21)	SIGNED

European Common Proposals (ECP)			UK Action Taken
	Issue NP favourable finding under 11.32A if the only reason for unfavourable is a probability of receiving interference	Doc 9 (Add.13 to Add.21)	SIGNED
AI 9.1 – Director's Report – specific issues	Issue 9.1.1 protection of COSPAS-SARSAT, emergency satellite system in 406.1 MHz	Doc 9 (Add.1 to Add.22)	SIGNED
	Issue 9.1.2 coordination criteria and arc. Choice of C/I or pfd at notification. Reduce arc by 2 deg in C and Ku bands	Doc 9 (Add.2 to Add.22)	SIGNED
	Issue 9.1.3 satellites for public telecoms in developing countries. No Change	Doc 9 (Add.3 to Add.22)	SIGNED
	Issue 9.1.4 updating and rearrangement of the RR. No Change	Doc 9 (Add.4 to Add.22)	SIGNED
	Issue 9.1.6 review of definitions of fixed and mobile. No Change	Doc 9 (Add.6 to Add.22)	SIGNED
	Issue 9.1.7 spectrum management guidelines for PPDR. Create database maintained by the BR	Doc 9 (Add.7 to Add.22)	SIGNED
	Issue 9.1.8 procedures for nano and pico-satellites – No Change	Doc 9 (Add.8 to Add.22)	SIGNED
AI 9.2 – Director's Report – experience of the Bureau	Director's Report - ESOMPS	Doc 9 (Add.23)	SIGNED
AI 10 – agenda items for WRC-19 and WRC-23	Agenda for WRC-19 and WRC-23	Doc 9 (Add.25)	SIGNED

European Common Proposals (ECP)			UK Action Taken
GFT - Resolution 185 (Busan 2014)	Resolution 185 (Busan 2014) Add primary AMS(R)S[7] at 1087.7-1092.3MHz for ADS-B reception by satellite	Doc 9 (Add.26)	SIGNED

[7] AMS(R)S – Aeronautical Mobile Satellite (Route) Service, a service defined in the Radio Regulations as a "*service reserved for communications relating to safety and regularity of flight, primarily along national or international civil air routes"*

Annex 2

UK Prioritisation Table for WRC-15 Agenda Items

A2.1 As we stated in previous documents the UK priority given to individual agenda items is qualified accordingly;

- **High**: key policy issues for the UK, either because of their strategic importance or because of the potential threat they may pose to UK interests. This will usually apply where there is a major conflict between radio services or between differing UK interests, and especially where the agenda item is so wide-ranging that it presents potentially multiple (as yet undefined) threats (e.g. where additional spectrum is sought without any indication as to the target band). We anticipate these to be controversial with diverging views from other countries, including within Europe. We will aim to actively engage at all stages.

- **Medium**: important for the UK and/or likely to present some difficulties, at least in detail. This will generally apply to agenda items mainly confined to a single radio service, rather than where this is a major conflict between services. We expect some degree of consensus at least in Europe but will ensure UK participation in all relevant meetings.

- **Low**: either relatively unimportant for the UK or sufficiently straightforward and uncontroversial that we can expect others to lead with minimum risk to the UK. We will however continue to monitor developments.

The following Table gives an overview of the current priority status of the individual agenda items.

UK Priority Table for WRC-15

WRC-15 Agenda Item	Title	Current UK priority
1	on the basis of proposals from administrations, taking account of the results of WRC-15 and the Report of the Conference Preparatory Meeting, and with due regard to the requirements of existing and future services in the bands under consideration, to consider and take appropriate action in respect of the following items:	N/A
1.1	to consider additional spectrum allocations to the mobile service on a primary basis and identification of additional frequency bands for International Mobile Telecommunications (IMT) and related regulatory provisions, to facilitate the development of terrestrial mobile broadband applications, in accordance with Resolution **233 (WRC-15)**;	High
1.2	to examine the results of ITU-R studies, in accordance with Resolution **232 (WRC-15)**, on the use of the frequency band 694-790 MHz by the mobile, except aeronautical mobile, service in Region 1 and take the appropriate measures;	High
1.3	to review and revise Resolution **646 (Rev.WRC-15)** for broadband public protection and disaster relief (PPDR), in accordance with Resolution **648 (WRC-15)**;	High
1.4	to consider possible new allocation to the amateur service on a secondary basis within the band 5 250-5 450 kHz in accordance with Resolution **649 (WRC-15)**;	Low
1.5	to consider the use of frequency bands allocated to the fixed-satellite service not subject to Appendices **30**, **30A** and **30B** for the control and non-payload communications of unmanned aircraft systems (UAS) in non-segregated airspaces, in accordance with Resolution **153 (WRC-15)**;	High
1.6	to consider possible additional primary allocations:	
1.6.1	to the fixed-satellite service (Earth-to-space and space-to-Earth) of 250 MHz in the range between 10 GHz and 17 GHz in Region 1;	Medium
1.6.2	to the fixed-satellite service (Earth-to-space) of 250 MHz in Region 2 and 300 MHz in Region 3 within the range 13-17 GHz;	Low
	and review the regulatory provisions on the current allocations to the fixed-satellite service within each range, taking into account the results of ITU-R studies, in accordance with Resolutions **151 (WRC-15)** and **152 (WRC-15)**, respectively;	
1.7	to review the use of the band 5 091-5 150 MHz by the fixed-satellite service (Earth-to-space) (limited to feeder links of the non-geostationary mobile-satellite systems in the mobile-satellite service) in accordance with Resolution **114 (Rev.WRC-15)**;	Low
1.8	to review the provisions relating to earth stations located on board vessels (ESVs), based on studies conducted in accordance with Resolution **909 (WRC-15)**;	Medium
1.9	to consider, in accordance with Resolution **758 (WRC-15)**:	
1.9.1	possible new allocations to the fixed-satellite service in the frequency bands 7 150-7 250 MHz (space-to-Earth) and 8 400-8 500 MHz (Earth-to-space), subject to appropriate sharing conditions;	Medium
1.9.2	the possibility of allocating the bands 7 375-7 750 MHz and 8 025-8 400 MHz to the maritime-mobile satellite service and additional regulatory measures, depending on the results of appropriate studies;	Medium
1.10	to consider spectrum requirements and possible additional spectrum allocations for the mobile-satellite service in the Earth-to-space and space-to-Earth directions, including the satellite component for broadband applications, including International Mobile	Medium

	Telecommunications (IMT), within the frequency range from 22 GHz to 26 GHz, in accordance with Resolution **234 (WRC-15)**;	
1.11	to consider a primary allocation for the Earth exploration-satellite service (Earth-to-space) in the 7-8 GHz range, in accordance with Resolution 650 (WRC-15);	Medium
1.12	to consider an extension of the current worldwide allocation to the Earth exploration-satellite (active) service in the frequency band 9 300-9 900 MHz by up to 600 MHz within the frequency bands 8 700-9 300 MHz and/or 9 900-10 500 MHz, in accordance with Resolution 651 (WRC-15);	Medium
1.13	to review No. 5.268 with a view to examining the possibility for increasing the 5 km distance limitation and allowing space research service (space-to-space) use for proximity operations by space vehicles communicating with an orbiting manned space vehicle, in accordance with Resolution 652 (WRC-15);	Low
1.14	to consider the feasibility of achieving a continuous reference time-scale, whether by the modification of coordinated universal time (UTC) or some other method, and take appropriate action, in accordance with Resolution 653 (WRC-15);	High
1.15	to consider spectrum demands for on-board communication stations in the maritime mobile service in accordance with Resolution 358 (WRC-15);	Low
1.16	to consider regulatory provisions and spectrum allocations to enable possible new Automatic Identification System (AIS) technology applications and possible new applications to improve maritime radiocommunication in accordance with Resolution 360 (WRC-15);	Medium
1.17	to consider possible spectrum requirements and regulatory actions, including appropriate aeronautical allocations, to support wireless avionics intra-communications (WAIC), in accordance with Resolution 423 (WRC-15);	Medium
1.18	to consider a primary allocation to the radiolocation service for automotive applications in the 77.5-78.0 GHz frequency band in accordance with Resolution 654 (WRC-15);	Medium
2	to examine the revised ITU-R Recommendations incorporated by reference in the Radio Regulations communicated by the Radiocommunication Assembly, in accordance with Resolution 28 (Rev.WRC-03), and to decide whether or not to update the corresponding references in the Radio Regulations, in accordance with the principles contained in Annex 1 to Resolution 27 (Rev.WRC-15);	Low
3	to consider such consequential changes and amendments to the Radio Regulations as may be necessitated by the decisions of the Conference;	Low
4	in accordance with Resolution 95 (Rev.WRC-07), to review the resolutions and recommendations of previous conferences with a view to their possible revision, replacement or abrogation;	Low
5	to review, and take appropriate action on, the Report from the Radiocommunication Assembly submitted in accordance with Nos. 135 and 136 of the Convention;	Low
6	to identify those items requiring urgent action by the Radiocommunication Study Groups in preparation for the next world radiocommunication conference;	Low
7	to consider possible changes, and other options, in response to Resolution 86 (Rev. Marrakesh, 2002) of the Plenipotentiary Conference, an advance publication, coordination, notification and recording procedures for frequency assignments pertaining to satellite networks, in accordance with Resolution 86 (Rev.WRC-07) to facilitate rational, efficient, and economical use of radio frequencies and any associated orbits, including the geostationary-satellite orbit;	Medium
8	to consider and take appropriate action on requests from administrations to delete their country footnotes or to have their country name deleted from footnotes, if no longer required, taking into account Resolution 26 (Rev.WRC-07);	Low

9	to consider and approve the Report of the Director of the Radiocommunication Bureau, in accordance with Article 7 of the Convention:		
	9.1	on the activities of the Radiocommunication Sector since WRC-12;	
	9.1.1	Protection of the systems operating in the mobile-satellite service in the band 406-406.1 MHz	Medium
	9.1.2	Studies on possible reduction of the coordination arc and technical criteria used in application of No. 9.41 in respect of coordination under No. 9.7	Medium
	9.1.3	Use of satellite orbital positions and associated frequency spectrum to deliver international public telecommunication services in developing countries	Medium
	9.1.4	Updating and rearrangement of the Radio Regulations	Low
	9.1.5	Consideration of technical and regulatory actions in order to support existing and future operation of fixed satellite service earth stations within the band 3 400-4 200 MHz, as an aid to the safe operation of aircraft and reliable distribution of meteorological information in some countries in Region 1	Low
	9.1.6	Studies towards review of the definitions of fixed service, fixed station and mobile station	Medium
	9.1.7	Spectrum management guidelines for emergency and disaster relief radiocommunication	Low
	9.1.8	Regulatory aspects for nano and pico-satellites	Medium
	9.2	on any difficulties or inconsistencies encountered in the application of the Radio Regulations; and	Medium
	9.3	on action in response to Resolution **80 (Rev.WRC-07)**;	Low
10	to recommend to the Council items for inclusion in the agenda for the next WRC, and to give its views on the preliminary agenda for the subsequent conference and on possible agenda items for future conferences, in accordance with Article 7 of the Convention.		High
RESOLUTION COM5/1 (Busan, 2014)	to include in its agenda, as a matter of urgency, the consideration of global flight tracking, including, if appropriate, and consistent with ITU practices, various aspects of the matter, taking into account ITU-R studies		Medium