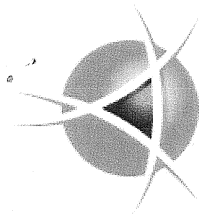

Commission for
Communications Regulation

Ofcom
OFFICE OF COMMUNICATIONS

MEMORANDUM OF UNDERSTANDING ON FREQUENCY COORDINATION BETWEEN THE REPUBLIC OF IRELAND AND THE UNITED KINGDOM FOR WIRELESS ACCESS SERVICES IN THE FREQUENCY BAND 10000 TO 10680 MHz

1. INTRODUCTION

1.1. This memorandum describes the procedures for the coordination of Wireless Access [1] (WA) radio services between the Republic of Ireland (RoI) and the United Kingdom (UK) in the frequency bands 10000 to 10680 MHz.

1.2. Services other than civil Wireless Access are not covered by this agreement.

1.3. In the RoI, the frequency bands 10154 – 10321 MHz and 10504 – 10672 MHz are designated for Fixed Wireless Access (FWA) Services, SRD's and Radiolocation services. It is anticipated that 10000 – 10154 MHz will also be designated for FWA Services in the RoI.

1.4. In the UK , the frequency bands 10125 – 10225 MHz and 10475 – 10575 MHz are designated for Wireless Access Services only. The bands 10125 – 10225 MHz 10504 – 10671 MHz are also used in the UK by the Ministry of Defence and Low Power Radar Level Gauges.

1.5. Ofcom is the Administration of the United Kingdom responsible for all relations with Ireland concerning this MoU.

1.6. The Commission for Communications Regulation is the Administration of the RoI responsible for all relations with the UK concerning this MoU.

1.7. This MoU applies in the regions of The Republic of Ireland, The United Kingdom and The Isle Of Man.

1.8. The co-ordination procedure is based on the principle of equitable access to the spectrum resource

2. COMMITMENT OF THE ADMINISTRATIONS

2.1. The Administrations of the ROI and the UK are committed to ensuring that the radio communication stations operating in the band 10000 - 10680 MHz, respect the limits for establishment of base stations without co-ordination given at paragraph 3.1, unless the stations are specifically exempt from the coordination procedure in accordance with paragraph 4.

3. CRITERIA FOR COORDINATION

3.1. Within the frequency band 10000- 10680 MHz, a station may be established without co-ordination, provided that the predicted power spectral density (PSD) produced by the station, at a height of 10m above ground at 15km inside the border or coastline of the neighbouring country does not exceed 30.8 dBμV/m in a bandwidth of 1MHz (equivalent to an aperture power of -115 dBW/MHz/m^2).

3.2. Radiocommunication stations for which the predicted field strength exceeds the values given in 3.1 must be co-ordinated in accordance with paragraph 7, except where stations are listed in paragraph 6 or an arrangement exists between operators as described in paragraph 4.

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[1] Recommendation ITU R F 1399 Vocabulary of terms for Wireless Access

3.3. To establish the predicted field strength produced by a station, the methodology set out in paragraph 5 shall be employed.

3.4. In the case of time division duplex technology the interference power shall be the power, during the active part of the signal, in the stated bandwidth.

4. ARRANGEMENTS BETWEEN OPERATORS

4.1. To facilitate reasonable and timely development of their systems, licensees are encouraged to develop Bilateral Arrangements.

4.2. Licensees holding rights, in each of the neighbouring countries, to use the frequencies of operation of a Radiocommunication station may mutually agree conditions in which that station can exceed the predicted field strengths set out at paragraph 3.1.

4.3. Where licensees have reached such a mutual agreement, coordination of the corresponding station in accordance with paragraph 7 is not required, subject to the terms of the agreement between the licensees and subject to the agreement being lawful. It is the responsibility of the licensees to ensure that the agreement is lawful. It is also the responsibility of the licensees to ensure that an appropriate agreement is reached with all licensees in the neighbour country authorised to use frequencies at which the predicted field strength may exceed the thresholds set out at paragraph 3.1.

4.4. In order to facilitate operator co-ordination, each Administration will provide names and point of contact information for the relevant licensees, subject to the agreement of the licensees

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5. PREDICTION OF PROPAGATION

The field prediction method shall be according to the current version of Recommendation ITU-R P.452[2] which shall be applied as follows:

- 10% of the time

Taking account of:

- Height of the receiver antenna set at 10 m above ground.
- Terrain profile for the base station in all main directions
- Type of terrain (e.g. land, sea, mixed path)
- Effective radiated field strength
- Antenna tilt and azimuth

[2] Recommendation ITU-R P.452: Prediction procedures for the evaluation of microwave interference, between stations on the surface of the earth at frequencies above about 0.7 GHz.

6. CO-ORDINATED STATIONS

The stations listed below have been agreed by both administrations to be coordinated. Any subsequent change in the parameters given in the table shall void any acceptance of co-ordination for the corresponding station or stations.

	Station Name	Centre Frequency (MHz)	Modulation	Individual Channel Bandwidth	Lat	Long	Ground H AMSL (m)	H AGL (m)	EIRP (dBm)	Ant. Style eg Omni/sector	Pol	3dB BW (Degs)	Az (Degs E of N)	Ant. Pattern or manufacturers code
1														
2														

7. CO-ORDINATION PROCEDURE

7.1. Exchanges of information for co-ordination/notification purposes shall be in the format set out in the HCM agreement Annex 2A (revised at Vilnius 2005)[3]

7.2. In the event of interference between authorised users of the band 10000 – 10680 MHz in the RoI and the UK, the affected users shall exchange information between themselves with a view to resolving the interference by mutual agreement. A report of the interference and the details of the information exchanged shall be sent to both Administrations. The Administrations of the RoI and the UK agree to facilitate the exchange of information between authorised users of the band.

Co-ordination requests should be sent by a licensee through the administration responsible for its authorisation.

8. REVIEW OF MOU

8.1. The co-ordination threshold and prediction methods defined in this MoU may be reviewed in the light of experience of operation of networks in both countries and future prediction developments.

9. TERMINATION OF THE MEMORANDUM OF UNDERSTANDING

Either Administration may withdraw from this Memorandum of Understanding subject to 6 months notice.

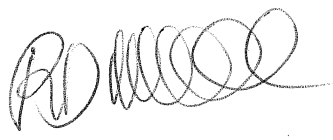
[3] Agreement between the Administrations of ... on the Coordination of frequencies between 29.7 MHz and 39.5 GHz for fixed service and land mobile service (HCM Agreement) Vilnius, 2005 http://hcm.bundesnetzagentur.de/http/englisch/verwaltung/index_europakarte.htm

10. DATE OF ENTRY INTO FORCE

This Memorandum of Understanding shall enter into force on *1st June 2010.*

Signed on 14th May 2010

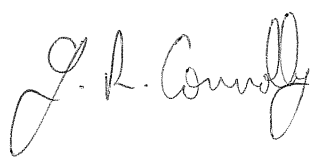
For the administration of the UNITED KINGDOM



RAY MCCONNELL

Date 14 May 2010

For the administration of the REPUBLIC OF IRELAND



JIM CONNOLLY

Date 14th May 2010