Agence Nationale des Fréquences

Ofcom
OFFICE OF COMMUNICATIONS

# MEMORANDUM OF UNDERSTANDING ON FREQUENCY CO-ORDINATION BETWEEN FRANCE AND THE UNITED KINGDOM IN THE FREQUENCY BANDS 880 – 915 MHz PAIRED WITH 925 to 960 MHz AND 1710-1785 MHz PAIRED WITH 1805 – 1880 MHz

## 1. INTRODUCTION

1.1. This Memorandum of Understanding (MoU) describes the procedures for the coordination of civil radio services between France and the United Kingdom (UK) in the frequency bands 880 – 915 MHz paired with 925 to 960 MHz and 1710-1785 MHz paired with 1805 – 1880 MHz.

1.2. In the United Kingdom the frequency bands 880 – 915 MHz, 925 MHz to 960 MHz, 1710-1785 MHz and 1805 – 1880 MHz are assigned to GSM public cellular telecommunications services according to [1].

1.3. In the UK these frequency bands may be made available for IMT/UMTS (FDD) services in the future.

1.4. In France the frequency bands 880 – 915 MHz, 925 MHz to 960 MHz, 1710-1785 MHz and 1805 – 1880 MHz are assigned to GSM and IMT-2000 [2] public cellular telecommunications services.

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

1.6. The Agence Nationale des Fréquences (ANFR) is the Administration of France responsible for all relations with the UK concerning this MoU.

1.7. Accordingly, the Administrations of the UK and France have agreed the co-ordination procedures in this MoU.

1.8. This MoU applies in the regions of France and the United Kingdom

1.9. This MoU does not apply in the Channel Tunnel.

1.10. This MoU does not apply in the Channel Islands.

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

1.12. Coordination of IMT/UMTS (FDD) services is based on the protection requirements for non preferential frequency blocks given in Par 2.2 of annex 2 (08)02. [3]

## 2. COMMITMENT OF THE ADMINISTRATIONS

2.1. The Administrations of France and the UK are committed to ensuring that the radio-communication stations operating in the frequency band covered by this MoU, respect the limits for establishment of base stations without co-ordination given at paragraph 3, unless the stations are specifically exempt from the coordination procedure in accordance with paragraph 4.

[1] United Kingdom Frequency Allocation Table, 2009

[2] International Mobile Telecommunications-2000 (IMT-2000) is the global standard for third generation (3G) wireless communications, from http://www.itu.int/home/imt.html

[3] ECC Recommendation (08)02 Frequency Planning and Frequency Coordination for the GSM 900 (Including E-GSM) /UMTS 900, GSM 1800/UMTS 1800 Land Mobile Systems

## 3. CRITERIA FOR COORDINATION

3.1. Stations using the GSM technology will be coordinated according to the MOUs currently in place [4, 5, 6].

3.2. Stations using IMT/UMTS (FDD) technologies may be used without coordination with a neighbouring country if the mean field strength of each carrier produced by the base station does not exceed a value of:

a. In the frequency band 925-960 MHz: 59 dBμV/m/5MHz at a height of 3m above ground at the coast line between two countries and 31 dBμV/m/5MHz at a height of 3 m above ground at a distance of 6 km inside the neighbouring country.

Or

b. In the frequency band 1805-1880 MHz: 65 dBμV/m/5MHz at a height of 3m above ground at the coast line between two countries and 37 dBμV/m/5MHz at a height of 3 m above ground at a distance of 6 km inside the neighbouring country.

3.3. Radiocommunication stations for which the predicted field strength exceeds the values given in par. 3.2 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.

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

3.5. In the case of non-continuous transmission, 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 [2].

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

[4] Memorandum of understanding between the administrations of Belgium, France, Luxembourg, The Netherlands and the United Kingdom concerning the co-ordination of EGSM frequencies in the frequency bands 880-890MHz and 925-935 MHz, 26 June 1998.
[5] MoU concluded between France/UK for frequency co-ordination in the 890 – 915 MHz and 935 – 960 MHz frequency bands, 20 April 2000.
[6] MoU concluded between UK/France in the 1710 – 1785 and 1805 - 1880 MHz frequency bands, 14 May 1988

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 3.2.

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.

## 5. PREDICTION OF PROPAGATION

The field prediction method shall be according to the latest version of Recommendation ITU-R P. 1546 [7]:

- 10% of the time
- 50% of locations
- Height of the receiver antenna 3m

Taking account of:

- 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

Including model components:

- Mixed land/sea paths
- Receiving/mobile antenna height
- Terrain clearance angle

And standard values:

- DeltaN = 40 (N0m-N1000m)

[7] Recommendation ITU-R P.1546, Method for point-to-area predictions for terrestrial services in the Frequency range 30 MHz to 3 000 MHz

## 6. CO-ORDINATED STATIONS

6.1. 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.

| | Name | Freq Band MHz | Modulation | Individual Channel bandwidth | Lat | Long | East | North | Ground H AMSL (m) | H AGL (m) | EIRP DBm | Ant. Style | Pol | 3dB BW Degs | Az Degs E of N. | Ant. Style |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | |

## 7. CO-ORDINATION PROCEDURE

7.1. Exchanges of information for coordination/notification purposes shall be in the format set out in the HCM agreement[8].

7.2. In the event of cross border interference between authorised users of the frequency bands referred to in this MoU, 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 France and the UK agree to facilitate the exchange of information between authorised users of the band.

7.3. Coordination request should be sent by licensee through the administration responsible for its authorisation.

## 8. REVIEW OF MoU

The coordination threshold and prediction methods defined in this MoU may be reviewed in the light of new technologies, 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.

[8] Agreement between the Administrations of ... on the Coordination of frequencies between 29.7 MHz and 43.5 GHz for fixed service and land mobile service (HCM Agreement)
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 December 2010.

For the administration of FRANCE

Antoine Rigole

Signed at Paris on 4th November 2010

For the UNITED KINGDOM administration

Ray McConnell

Signed at London on 9 NOV 2010