

**MEMORANDUM OF UNDERSTANDING ON
FREQUENCY COORDINATION BETWEEN
FRANCE AND
THE UNITED KINGDOM
FOR WIRELESS ACCESS SERVICES
IN THE FREQUENCY BAND**

3480 to 3500 MHz

and

3580 to 3600 MHz

**TO BE APPLIED IN THE AREA INCLUDING FRANCE,
THE UNITED KINGDOM AND THE CHANNEL ISLANDS**



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1. INTRODUCTION

- 1.1. This memorandum describes the procedures for the coordination of Wireless Access¹ (WA) radio services between France and the United Kingdom (UK) including the Channel Islands in the frequency bands 3480 to 3500 MHz and 3580 to 3600 MHz.
- 1.2. Services other than Wireless Access are not covered by this memorandum.
- 1.3. In the United Kingdom and the Channel Islands the frequency bands 3480 to 3500 MHz coupled with 3580 to 3600 MHz are assigned to Broadband Wireless Access services. The Administration of the United Kingdom and the Channel Islands license operators in these frequency bands in Jersey and Guernsey and its main dependencies which are Alderney and Sark. These awards have been made on a technology and service neutral basis.
- 1.4. In France the frequency bands 3480 to 3500 MHz coupled with 3580 to 3600 MHz is assigned to Fixed Wireless Access (Wireless Local Loop, point to multipoint) on the metropolitan territory to one national operator.
- 1.5. In order to facilitate the deployment of systems operating in neighbouring countries, it is necessary to establish, by agreement, regulatory and technical procedures for frequency co-ordination. This agreement is designed to reduce the administrative procedures in the frequency bands in the countries concerned.
- 1.6. Ofcom is the Administration of the United Kingdom responsible for all relations with France concerning this MoU.
- 1.7. The Agence Nationale des Fréquences (ANFR) is the Administration of France responsible for all relations with the UK concerning this MoU.
- 1.8. Accordingly, the Administrations of the UK and France have agreed the following co-ordination procedures.

2. ARRANGEMENTS BETWEEN OPERATORS

- 2.1. An MoU between the administrations of France and the United Kingdom, which enables planning arrangements between mobile operators, subject to agreement of the Administrations, was signed on the 13th October 1999². This principle shall be extended to operators of systems for the frequency bands identified in this MOU.
- 2.2. To facilitate reasonable and timely development of their systems, licensees are encouraged to develop Bilateral Arrangements.
- 2.3. In order to facilitate operator co-ordination, each Administration will provide names and point of contact information for the relevant licensees.

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

² Agreement between the administrations of France and the United Kingdom concerning the approval of planning arrangements between mobile radio communications network operators. 13 October 1999

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3. CO-ORDINATION PROCEDURE

- 3.1. The Administration of France and the UK are committed to ensuring that the licensees covered by this Memorandum of Understanding, respect the limits for establishment of base stations without co-ordination, given in section 3. However, there might be need to establish stations such that the power flux density (PFD) will exceed the limits given in section 3. In such cases, administrations may seek co-ordination.
- 3.2. Receive stations in a neighbour country shall not claim protection from interference from transmit stations that operate such that the signal level in a neighbour country is less than the trigger level described in this MoU.

4. CRITERION FOR COORDINATION

- 4.1. The criterion is based on a single PFD co-ordination trigger level.
- 4.2. A transmitting base station may be established or modified without co-ordination, provided that the predicted PFD produced by the station, at the border or coast line or on the territory of the neighbouring country does not exceed an aperture power of -122 dBW/MHz/m².

5. PREDICTION OF PROPAGATION

The field prediction method shall be according to the current version of Recommendation ITU-R P.452³ which shall be applied as follows:

- 10% of the time

Taking account of:

- Height of the receiver antenna set at 10 m above ground.
- Average terrain height for the base station in all main directions.
- Type of terrain (e.g. land, sea, mixed path) if available.
- Equivalent isotropic radiated power.
- Height of the transmitting antenna, tilt and azimuth.

³ 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.

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6. EXCHANGE OF INFORMATION

- 6.1. A list of base stations existing prior to the date of this agreement is provided in Annex 1. These base stations are considered co-ordinated while no parameters are changed.
- 6.2. Exchanges of information for coordination/notification purposes shall be in the format set out in the HCM agreement Annex 2B (revised at Vilnius 2005).
- 6.3. In the event of interference, the affected parties shall exchange information with a view to resolving the dispute 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 United Kingdom agree to facilitate the exchange of information between operators.
- 6.4. The coordination procedure shall follow the one described in the HCM Agreement.

7. REVIEW ARRANGEMENTS

The limits and prediction methods defined in this Memorandum of Understanding may be reviewed in the light of experience of operation of networks in both countries and future prediction developments.

8. TERMINATION OF THE MEMORANDUM OF UNDERSTANDING

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

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9. DATE OF ENTRY INTO FORCE

This Memorandum of Understanding shall enter into force on 24 September 2008.

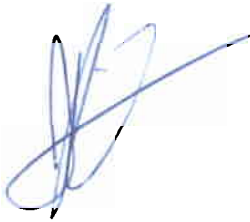
Signed at Paris on 24 September 2008.

For the UNITED KINGDOM administration



Ray McCONNELL

For the administration of FRANCE



Antoine RIGOLE



ANNEX 1 : List of Existing Base Stations considered co-ordinated

French List

Common data									
Ref of Station	Long (4DMS)	Lat (4DMS)	Location - City	Ant height					
29-099101103	4° 28' 06" W	48° 24' 14" N	BREST STRASBOURG	45 m					
35-123125127	1° 37' 35" W	48° 07' 29" N	CESSON SEVIGNE CLOS COURTEL	56 m					
50-153155157	1° 36' 08.03" W	49° 36' 32.04" N	LA GLACERIE DEBUSSY	35 m					
50-147149151	1° 32' 56" W	49° 37' 10" N	DIGOSVILLE HAMEAU GIOT	37 m					
50-159161163	1° 25' 45" W	49° 03' 34" N	COUTANCES PASTEUR	30 m					
50-177179181	1° 25' 25" W	48° 40' 27.12" N	VAINS GOULETS	16 m					
50-165167169	1° 07' 23.02" W	49° 09' 45" N	LA MEAUFFE CAVIE	17 m					
50-171173175	1° 05' 45" W	49° 08' 05" N	S GEORGES MONTCOCQ COTENTIN	20 m					
14-063065067	0° 52' 38" W	48° 50' 21" N	VIRE FAUVEL	34 m					
14-022023025	0° 41' 25" W	49° 16' 35" N	S VIGOR LE GRAND MALAS	35 m					
14-051053055	0° 33' 23" W	48° 50' 45.96" N	CONDE SUR NOIREAU STADE	17 m					
14-045047050	0° 24' 11" W	49° 12' 43" N	S CONTEST LA TOUR	34 m					
14-039041043	0° 22' 09.98" W	49° 10' 41.88" N	CAEN SCAMARONI	24 m					
14-015017019	0° 16' 49" W	48° 54' 41" N	VILLERS CANIVET LEFFARD	54 m					
14-033035037	0° 16' 42" W	49° 11' 44" N	COLOMBELLES PRESSENSE	34 m					
14-027029031	0° 07' 00.99" E	49° 22' 06.96" N	TROUVILLE SUR MER HAUT BOIS	31 m					
14-057059061	0° 11' 11" E	49° 08' 56" N	S DESIR LIEU PAISANT	65 m					
61-225227229	0° 24' 32" W	48° 33' 05" N	BAGNOLES DE L ORNE CHATEAU EAU	31 m					

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61-207209211	0° 01' 07" W	48° 46' 00" N	SEVIGNY BRUYHRE	48 m
61-213215217	0° 05' 13" E	48° 27' 38" N	VALFRAMBERT VERGER THIVILLE	45 m
61-219221223	0° 37' 17" E	48° 44' 50" N	L AIGLE CHAPLY	42 m
76-304306307	0° 04' 51" E	49° 30' 46" N	S ADRESSE HOMMES D ARME	32 m
76-292293296	0° 10' 08" E	49° 32' 08" N	MONTVILLIERS COUDRAIE	33 m
76-274275278	0° 10' 33" E	49° 30' 15" N	LE HAVRE SAKHAROV	39 m
76-267270271	0° 59' 52" E	49° 16' 56" N	ELBEUF FORJT	38 m
76-298300302	1° 00' 53" E	49° 20' 27" N	GRAND COURONNE LAGARRIGUE	44 m
76-280282284	1° 03' 20.99" E	49° 29' 12.12" N	NOTRE DAME DE BONDEVILLE	33 m
76-285287289	1° 08' 24" E	49° 25' 29" N	LE MESNIL ESNARD RELIGIEUX	74 m
27-093095097	1° 08' 25" E	49° 03' 04" N	GRAVIGNY	68 m
27-087089091	1° 27' 15" E	49° 04' 49" N	VERNON LA DEMI LUNE	31 m
80-309311313	2° 16' 26" E	49° 51' 32.04" N	DURY ROUTE AMIENS	45 m
60-201203205	2° 25' 35" E	49° 15' 01.08" N	THIVERNY VICTOR HUGO	31 m
59-195197199	3° 02' 28" E	50° 38' 53.88" N	LAMBERSART GAMBETTA	68 m

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