

**MEMORANDUM OF UNDERSTANDING ON
FREQUENCY CO-ORDINATION BETWEEN
FRANCE**

AND

**THE UNITED KINGDOM
IN THE FREQUENCY BANDS**

791-821 MHz PAIRED WITH 832-862 MHz

880-915 MHz PAIRED WITH 925-960 MHz

1710-1785 MHz PAIRED WITH 1805-1880 MHz

1900-1980 MHz PAIRED WITH 2110-2170 MHz

2500-2570 PAIRED WITH 2620-2690 MHz

TO BE APPLIED IN THE CHANNEL TUNNEL

1. INTRODUCTION

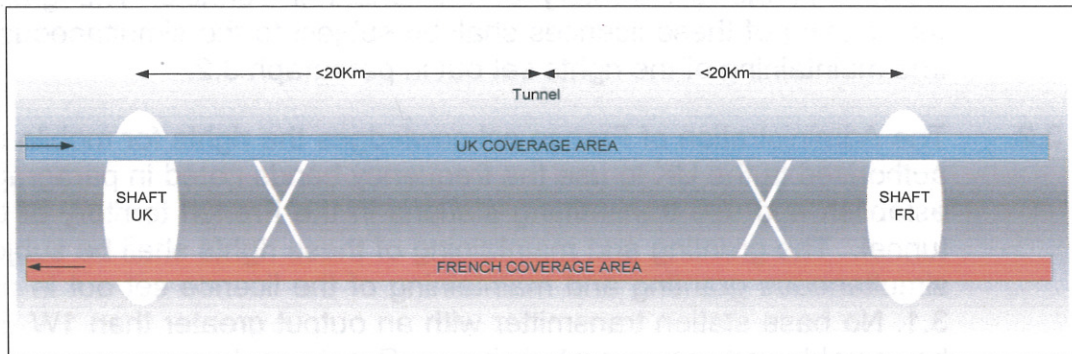
- 1.1. This Memorandum of Understanding (MoU) describes the procedures for the coordination of radiofrequencies for services between France and the United Kingdom (UK) in the Channel Tunnel, in the frequency bands 791-821 MHz paired with 832-862 MHz, 880-915 MHz paired with 925-960 MHz, 1710-1785 MHz paired with 1805-1880 MHz, 1900-1980 MHz paired with 2110-2170 MHz and 2500-2570 paired with 2620-2690 MHz.
- 1.2. The provisions set out for the Channel Tunnel in the MoUs in force between France and UK in the same frequency bands and the previous Channel Tunnel MoU of 20 December 2011 are superseded by this MoU.
- 1.3. The jurisdiction of the French and United Kingdom Administrations is defined in the Channel Tunnel Treaty¹ and extends to the halfway point of the Channel Tunnel.
- 1.4. The definition of the Tunnel halfway point is given in the agreement between the UK and French Governments of 24 June 1982.²
- 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. Pursuant to article 18.2 of the Radio Regulations, "the government of a country may conclude with the government of one or more neighbouring countries a special agreement concerning one or several stations of its broadcasting service or of its land mobile services, operating on frequencies above 41 MHz, situated in the territory of a neighbouring country and intended to improve national coverage. This agreement, which shall be compatible with the provisions of the present Regulations as well as of those regional agreements to which the countries concerned are signatories, may allow exceptions to the provisions of No. 18.1 and shall be communicated to the Secretary-General in order that it may be brought to the notice of administrations for their information."
- 1.8. Accordingly, the Administrations of the UK and France have agreed the co-ordination procedures in this MoU.
- 1.9. The co-ordination procedure is based on the principle of equitable access to the spectrum resource.

¹ Treaty between the United Kingdom and the French Republic concerning the Channel Fixed Link, Canterbury, England, 12 February 1986.

² Agreement between the Government of the United Kingdom and Northern Ireland and the Government of the French Republic relating to the delimitation of the Continental Shelf in the area east of 30 minutes west of Greenwich meridian, London 24 June 1982

2. CRITERIA FOR COORDINATION

- 2.1. The concept of preferential and non preferential frequencies is not applied in this MoU.
- 2.2. The Channel Tunnel consists of three tunnels: the North tunnel is used for traffic from the UK to France, the South tunnel is used for traffic from France to the UK, and the central tunnel is used for service operations. The North tunnel shall be served by British operators and the South tunnel shall be served by French operators as illustrated below.



- 2.3. The signal strength at the tunnel exit shall be less than the values given in Table 1:

<u>Frequency band</u>	<u>Maximum Signal Level</u>
791 – 821 MHz	<u>29 dBμV/m/5 MHz</u>
925 – 960 MHz	<u>19 dBμV/m/0.2 MHz</u> <u>33 dBμV/m/5 MHz</u>
1805 – 1880 MHz	<u>25 dBμV/m/0.2 MHz</u> <u>39 dBμV/m/5 MHz</u>
2110 – 2170 MHz	<u>33 dBμV/m/5 MHz</u>
2620 – 2690 MHz	<u>37 dBμV/m/5 MHz</u>

Table 1 Signal Level at the tunnel exit

For frequency block sizes other than 5 MHz, a factor of $10 \times \text{Log}_{10}(\text{freq. block size in MHz} / 5 \text{ MHz})$ should be added to the per 5 MHz field strength values in the table above.

- 2.4. The central tunnel is excluded from this memorandum.

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3. IMPLEMENTATION AND USE OF TRANSMITTING APPARATUS INSIDE THE TUNNEL

- 3.1. The Administration of the UK commits to granting Wireless Telegraphy Act Licences to the Channel Tunnel Concessionaires (Eurotunnel) which shall state the UK and French mobile operators as co-licensees, to use the frequency bands noted in paragraph 1.1, to establish and use transmitting stations in the UK territory of the Channel Tunnels. The granting and maintaining of these licences shall be subject to the simultaneous granting and maintaining of the rights set out in paragraph 3.2.
- 3.2. The Administration of France acknowledges the rights for mobile operators authorised in the UK to use the frequency bands noted in paragraph 1.1, to establish and use transmitting stations in the French territory of the North tunnel. The granting and maintaining of these rights shall be subject to the simultaneous granting and maintaining of the licence set out in paragraph 3.1. No base station transmitter with an output greater than 1W EIRP may be established or operated by a British mobile operator in French territory, without prior notification to the France national "DATA BASE" information system (COMSIS in France).
- 3.3. For the purposes of and subject to the terms of this MoU, with respect to the provision of Electronic Communication Services, mobile operators operating in the Channel Tunnel under paragraphs 3.1 and 3.2 remain governed by their respective home country regulation regardless of the territory upon which they conduct their activities.
- 3.4. The technical conditions for operating transmitting radio stations in the Channel Tunnel shall be set out in an agreement among French mobile operators authorised in France, British mobile operators authorised in the United Kingdom and Channel Tunnel Concessionaires. That agreement shall be strictly compatible with the provisions of the present MoU.

4. REVIEW OF MoU

This MoU may be reviewed in the light of new technologies and experience of the operation of relevant mobile networks in both countries.

5. DATE OF ENTRY INTO FORCE

This MoU will enter into force on the date of signature.

Done in London, 24/03/2015

For the Administration of United Kingdom

For the Administration of France



Robert Cooper



Cédric Perros