

2008 No. 2427

ELECTRONIC COMMUNICATIONS

The Wireless Telegraphy (Mobile Communication Services on Aircraft) (Exemption) Regulations 2008

Made - - - - *10th September 2008*

Coming into force - - *1st October 2008*

The Office of Communications (“OFCOM”) make the following Regulations in exercise of the power conferred by section 8(3) of the Wireless Telegraphy Act 2006(a) (“the Act”).

Before making these Regulations OFCOM have given notice of their proposal to do so in accordance with section 122(4)(a) of the Act, published notice of their proposal in accordance with section 122(4)(b) of the Act and have considered the representations made to them before the time specified in that notice in accordance with section 122(4)(c) of the Act.

Citation, commencement and extent

1.—(1) These Regulations may be cited as the Wireless Telegraphy (Mobile Communication Services on Aircraft) (Exemption) Regulations 2008 and shall come into force on 1st October 2008.

(2) These Regulations shall not extend to the Channel Islands or to the Isle of Man.

Interpretation

2. In these Regulations—

“aircraft BTS” means a base transceiver station located in an aircraft;

“apparatus” means wireless telegraphy apparatus;

“dBm” means decibels of power referenced to one milliWatt;

“e.i.r.p.” means equivalent isotropic radiated power;

“ETSI” means the European Telecommunications Standards Institute;

“kHz” means kilohertz;

“MHz” means megahertz;

“mobile communication services on aircraft” means electronic communications services provided by an undertaking to enable airline passengers to use public communications networks during flight without establishing direct connections with terrestrial mobile networks;

“network control unit” means equipment located in an aircraft that ensures that signals transmitted by ground based mobile electronic communication systems are not detectable

within the cabin by raising the noise floor inside the cabin in mobile communication receive bands; and

“relevant network” means an electronic communications network that includes an aircraft BTS and a network control unit.

Exemption

3. The use of any apparatus on board an aircraft which is—

- (a) an aircraft registered in the United Kingdom; and
- (b) flying over the United Kingdom or UK territorial sea, or, for the time being, beyond the United Kingdom and the UK territorial sea;

is hereby exempt from the provisions of section 8(1) of the Wireless Telegraphy Act 2006 where the terms, provisions and limitations in regulation 4 are met.

Terms, provisions and limitations

4.—(1) The apparatus must comply with the GSM standard EN 301 511 published by ETSI(a) (or equivalent specification).

(2) The apparatus must only operate in the frequency bands 1710-1785 MHz and 1805-1880 MHz.

(3) The apparatus must only be used—

- (a) for mobile communication services on aircraft;
- (b) when the aircraft is three thousand metres or more above the ground;
- (c) where the aircraft BTS limits the transmission power of all apparatus to a nominal value of 0 dBm at all stages of communication, including initial access; and
- (d) where the e.i.r.p. outside the aircraft emanating from the apparatus transmitting at 0 dBm does not, at each of the heights above ground specified in Column 1 of Table 1 of the Schedule, exceed the value specified in Column 2 of that Table.

(4) The apparatus must not cause or contribute to undue interference to any wireless telegraphy.

(5) The apparatus must connect directly to a relevant network in which—

- (a) the network control unit prevents the apparatus, when operating on one of the frequency bands listed in Column 1 of Table 2 of the Schedule, from registering on that band with the types of system on the ground which are listed adjacent to that band in Column 2 of that Table;
- (b) the network control unit and the aircraft BTS operate such that their total e.i.r.p. outside the aircraft does not, at each height above ground specified in Column 1 of Table 3 of the Schedule, and at each of the frequency bands specified in the heading of Columns 2 to 5 of that Table, exceed the value specified in Columns 2 to 5 of that Table;
- (c) the aircraft BTS complies with the GSM standards EN 301 502(b) and EN 302 480(c) published by ETSI (or equivalent specifications); and
- (d) the network control unit complies with the GSM standard EN 302 480 published by ETSI (or equivalent specification).

Ed Richards

Chief Executive of the Office of Communications
For and by authority of the Office of Communications

10th September 2008

(a) EN 301 511 (Version 9.0.2) was published on 20th March 2003
(b) EN 301 502 (Version 8.1.2) was published on 17th July 2001
(c) EN 302 480 (Version 1.1.2) was published on 24th April 2008

SCHEDULE

Regulation 4

Table 1

| <i>Column 1</i> <i>Height above ground in metres</i> | <i>Column 2</i> <i>Maximum e.i.r.p. for the frequency band 1805 to 1880 MHz outside the aircraft in dBm/200 kHz</i> |
|---|--|
| 3000 | -3.3 |
| 4000 | -1.1 |
| 5000 | 0.5 |
| 6000 | 1.8 |
| 7000 | 2.9 |
| 8000 | 3.8 |

Table 2

| <i>Column 1</i> <i>Frequency band</i> | <i>Column 2</i> <i>Systems on the ground</i> |
|--|---|
| 460-470 MHz | Code Division Multiple Access 2000 (also known as CDMA 2000) Fast Low-latency Access with Seamless Handoff Orthogonal Frequency Division Multiplexing (also known as FLASH OFDM) |
| 921-960 MHz | GSM Wideband Code Division Multiple Access (also known as WCDMA) |
| 1805-1880 MHz | GSM Wideband Code Division Multiple Access (also known as WCDMA) |
| 2110-2170 MHz | Wideband Code Division Multiple Access (also known as WCDMA) |

Table 3

| <i>Column 1</i> <i>Height above ground in metres</i> | <i>Column 2</i> <i>Maximum e.i.r.p. for the frequency band 460-470 MHz in dBm/1.25 MHz</i> | <i>Column 3</i> <i>Maximum e.i.r.p. for the frequency band 921-960 MHz in dBm/200 kHz</i> | <i>Column 4</i> <i>Maximum e.i.r.p. for the frequency band 1805-1880 MHz in dBm/200 kHz</i> | <i>Column 5</i> <i>Maximum e.i.r.p. for the frequency band 2110-2170 MHz in dBm/3.84 MHz</i> |
|---|---|--|--|---|
| 3000 | -17.0 | -19.0 | -13.0 | 1.0 |
| 4000 | -14.5 | -16.5 | -10.5 | 3.5 |
| 5000 | -12.6 | -14.5 | -8.5 | 5.4 |
| 6000 | -11.0 | -12.9 | -6.9 | 7.0 |
| 7000 | -9.6 | -11.6 | -5.6 | 8.3 |
| 8000 | -8.5 | -10.5 | -4.4 | 9.5 |

EXPLANATORY NOTE

(This note is not part of the Regulations)

These Regulations give effect to EU obligations of the United Kingdom contained in the Commission Decision of 7th April 2008 on harmonised conditions of spectrum use for the operation of mobile communication services on aircraft (MCA services) in the Community (OJ No L 98 10.4.2008, p. 19).

These Regulations exempt the use of any wireless telegraphy apparatus which complies with certain terms, provisions and limitations, from the requirement to be licensed under section 8(1) of the Wireless Telegraphy Act 2006 (c.36). The apparatus must be on board an aircraft which is registered in the United Kingdom and the exemption applies when the aircraft is flying over the United Kingdom or UK territorial sea, or, for the time being, beyond the United Kingdom and the UK territorial sea (Regulation 3).

The terms, provisions and limitations include requirements that the apparatus complies with the European Telecommunications Standards Institute (“ETSI”) GSM standard EN 301 511 (Regulation 4(1)). The apparatus must only be used when the aircraft is three thousand metres or more above the ground (Regulation 4(3)(b)). Further technical requirements are also specified in regulation 4.

The ETSI standards are available to the public from ETSI on their website at <http://www.etsi.org> or from the ETSI Secretariat at 650 Route des Lucioles, 06921 Sophia-Antipolis Cedex, France (Tel: +33 4 92 94 42 00).

A full regulatory impact assessment of the effect that these Regulations will have on the costs to business is available to the public from OFCOM’s website at <http://www.ofcom.org.uk> or from the OFCOM library at Riverside House, 2A Southwark Bridge Road, London SE1 9HA (Tel: 020 7981 3000). Copies of this assessment have also been placed in the libraries of both Houses of Parliament.

© Crown copyright 2008

Printed and published in the UK by The Stationery Office Limited under the authority and superintendence of Carol Tullo, Controller of Her Majesty’s Stationery Office and Queen’s Printer of Acts of Parliament.

£4.00