

Introduction

Inmarsat welcomes the opportunity to respond to Ofcom's consultation on Earth Stations on Mobile Platforms, published on the 15th August 2013.

Ofcom will be aware that Inmarsat is planning to offer broadband communications worldwide on land, at sea and in the air through Global Xpress, the new constellation of Inmarsat-5 Ka-band satellites. The staggered launch of the three satellites is scheduled to provide full global coverage by the end of 2014. Global Xpress is designed to respond to the continuously increasing demand for globally available mobile broadband in a way that maximises the benefits for citizens and consumers.

To make this possible, Inmarsat has contributed to the regulatory effort towards creating a suitable international framework and is very appreciative of Ofcom's positive collaboration and of its initiative to consult on this service, as an enabler to the UK market and as a leading example for other administrations in Europe and in the world.

Inmarsat also appreciates the low bureaucratic burden which would result from the proposed way for authorising the use of ESOMPs (Earth Station On Mobile Platforms) in the UK. This is clearly beneficial for administrations, operators and final users without introducing any disadvantage for users of other services in the same band.

Question 1) Do you agree that Ofcom should authorise the use of ESOMPs in the UK in the frequency bands 27.5 – 27.8185 GHz, 28.4545 – 28.8265 GHz and 29.4625 – 30 GHz?

Yes, Inmarsat strongly agrees that ESOMPs should be authorised in the above mentioned bands, as, with the technical conditions identified in ECC/DEC(13)01 and ETSI EN 303 978, ESOMPs will be undistinguishable from traditional uncoordinated FSS ESs, for the operation of which these frequencies are already identified by CEPT administrations. Furthermore, the bands proposed by Ofcom for the operation of ESOMPs already include an additional 10MHz guard-band from the edges of the bands identified by Ofcom for FS operation in the UK territory.

These frequencies are also coherent with article 5.516B of the ITU RR, in which a number of bands are identified for use by high-density applications in the fixed-satellite service.

In general, this assignment reflects the good practice of uniform spectrum utilisation. In particular, as far as the CEPT is concerned, the ECC/DEC (05)01, in which these frequencies are identified for the operation of uncoordinated FSS earth stations, is already widely implemented.

Furthermore, as correctly noted by Ofcom, assignment of these frequencies to ESOMPs operation will guarantee adequate protection of other existing services sharing the same bands thanks to recent advances in stabilised antenna technology, which allow stable pointing accuracy, together with compliance with off-axis e.i.r.p limit and other technical and operational characteristics described in the above mentioned ECC/DEC(13)01 and ETSI EN 303 978.

Question 2) Do you agree with Ofcom's proposal to exempt from licensing the establishment, installation and use of land-based ESOMP equipment that transmits in the frequency bands 27.5 – 27.8185 GHz, 28.4545 – 28.8265 GHz and 29.4625 – 30 GHz?

Yes, Inmarsat strongly agrees with this proposal, as it significantly simplifies the overall procedure for ESOMPs authorisation and it is in line with current situation for terrestrial uncoordinated Earth Station, from which ESOMPs will be undistinguishable, if not better, from an interference perspective. In fact, while a traditional VSAT would need manual readjustment in the case of mis-pointing for instance due to strong wind, an ESOMP will maintain the tracking of the correct satellite thanks to automatic readjustment of the pointing direction. Furthermore, in compliance with the technical and operational requirements contained in ECC/DEC(13)01 and ETSI EN 303 978, ESOMPs will have the capability of ceasing any transmission in case the tracking of an unwanted satellite occurs.

Inmarsat notes that the proposed limit of 55 dBW (decibel watt) for the e.i.r.p. of a single ESOMP terminal is the lowest of the 55-60dBW range suggested in ECC/DEC(13)01. Overall, Inmarsat agrees that land use of ESOMPs will not change the current interference environment in the UK.

Question 3) Do you agree that ESOMP equipment mounted on aircraft or ships should be licensed to transmit in the frequency bands 27.5 – 27.8185 GHz, 28.4545 – 28.8265 GHz and 29.4625 – 30 GHz using the existing Notice of Variation process?

Yes, Inmarsat agrees with this proposal. Although it is an “individual licence” approach, it bears little additional burden as radio equipment on ships and aircrafts need to have a radio license anyway. Furthermore, the addition of the ESOMP to the ship or aircraft radio licence has the clear advantage, as also noted by Ofcom, of facilitating a prompt recognition of the terminal authorisation from its flag state, when inspected abroad.

Inmarsat also agrees with Ofcom’s proposal for the ESOMP licence to be granted to the aircraft/ship owners or operators, as coherent with the current legislation for authorisation of the many types of radio apparatus that are used on board.

Finally, Inmarsat is also appreciative of Ofcom’s proposal of not charging a fee for a NoV that adds aircraft-mounted or ship-mounted ESOMPs to the licence. This further simplifies the overall procedure, favours market access and is in line with the ECC/DEC(13)01, which decides for ESOMPs exemption from individual licensing.

Question 4) Do you agree with the proposed technical provisions given in the Draft Interface Requirement and Draft NoVs?

Inmarsat agrees with the technical provisions in the Draft Interface Requirements and the Draft NoVs. Also, adequate reference is made in the IR to the ECC/DEC(13)01 and ETSI EN 303 978, where the full set of technical and operational conditions are described. However, Inmarsat notes that no specific reference is made to the fact that both the ECC/Dec(13)01 and the ETSI EN 303 978 relate only to GSO satellite networks. While work is on-going in the CEPT and ETSI related to ESOMPs operating in non-GSO FSS networks, it would be premature to include authorisation of such ESOMPs in the UK regulations. The new regulations should therefore be limited to ESOMPs operating in GSO networks. A possible suggestion would be to modify the title in the draft IR in table 3.1 of the consultation document as: “Minimum requirements for the use of Earth Stations on Mobile Platforms transmitting towards satellites in geostationary orbit in the 27.5 – 27.8185 GHz, 28.4545 – 28.8265 GHz and 29.4625 – 30 GHz bands.”

Furthermore, Inmarsat supports that the NoVs for the ship and aircraft licences recognise that frequencies within the band 27.5-30 GHz but outside of the above bands may be used by ships and aircraft when outside of territorial waters and national airspace. This is consistent with the ECC Decision (13)01 whereby such use is permitted, subject to not causing interference to any terrestrial applications.