

Inmarsat response to the Ofcom consultation

“Notice on proposal to make the Wireless Telegraphy (Limitations of Number of Licences) Order”

10 January 2014

1 Introduction

Inmarsat is pleased to respond to Ofcom’s “Notice on proposal to make the Wireless Telegraphy (Limitations of Number of Licences) Order”.

In the proposed new text for the Statutory Instrument (SI) “The Wireless Telegraphy (Limitation of Number of Licences) Order”, as shown in Annex 6 of the document, we notice that some bands currently available, or likely to be available in the near future for maritime and aeronautical use are not listed. It may therefore be necessary to amend the proposed SI to include those bands, which consist of L-band frequencies (around 1.5/1.6 GHz) and Ka-band frequencies (around 20/30 GHz). Other changes may also be required to allow the use of Ka-band ESOMP systems under the ship radio licence and the aircraft radio licence. The reasoning and suggested changes are provided below.

We wish to highlight that the proposed changes are intended to ensure that ship radio licenses and aircraft radio licenses may be issued covering the new L-band frequencies and Ka-band frequencies. There may be other ways to accomplish the same objective, and if necessary Inmarsat would be pleased to discuss other approaches with Ofcom.

2 Background

Inmarsat’s current fleet of MSS satellite operate in the “standard L-band” frequencies (1525-1559 MHz and 1626.5-1660.5 MHz). In July 2013, Inmarsat launched the “Alphasat” satellite. This is the first satellite to operate in additional L-band spectrum known as the “extended L-band” frequencies (1518-1525 MHz and 1668-1675 MHz). Alphasat also operates in the standard L-band frequencies. New Inmarsat maritime earth stations and aircraft earth stations will be introduced in the coming

months and years that will be capable of operating in the extended L-band frequencies, in addition to the standard L-band frequencies.

The extended L-band frequencies have already been made available for land mobile earth stations in the UK through licence exemption, although use of the uplink frequencies is limited to the band 1670-1675 MHz, in accordance with ECC Decision ECC/DEC/(04)09. The band 1668-1670 MHz, is not designated to the MSS in the CEPT and is not available for land mobile earth stations in the UK. However this band is allocated to the MSS by the ITU and would be useable to UK registered ships and aircraft outside of Europe. Consequently, Inmarsat suggests that the extended L-band frequencies (1518-1525 MHz and 1668-1675 MHz) should be added to the frequency bands for which a ship radio licence and an aircraft radio licence may be obtained.

Inmarsat is also developing a new broadband satellite system “Global Xpress”, which will use the “Ka-band” satellite frequencies, around 20/30 GHz. The first satellite in this system was launched on 8 December 2013. This system will provide broadband Earth Stations on Mobile Platform (ESOMP) services for land, maritime and aeronautical users. Ofcom has recently conducted a public consultation on the authorisation of land, maritime and aeronautical ESOMPs¹. In the ESOMP consultation, Ofcom proposed to authorise the operation of maritime users through a notice of variation to the ship radio licence, and to authorise the operation of aeronautical users through a notice of variation to the aircraft radio licence. Although Ofcom has not yet released a statement in response to the consultation, the proposed licensing approach has been supported by Inmarsat and others.

If Ofcom’s proposals related to ESOMPs are enacted, the frequency bands 17.3-20.2 GHz and 27.5-30 GHz would also be available for the ship radio licence and the aircraft radio licence. Ofcom should therefore consider including the applicable new frequency bands in the proposed new SI.

Proposed amendments to the draft SI which would make the above described changes are described in sections 3 and 4 below.

We notice that the use of Earth Stations on Vessels operating in the band 14.0-14.5 GHz may be authorised under a notice of variation to the ship radio licence, similar to the approach proposed by Ofcom for maritime ESOMPs in the Ka-band frequencies. It might therefore also be necessary to add this frequency band to the proposed new SI on Limitation of Number of Licences, but possible changes in this regard are not included below.

3 Proposed amendments to Schedule 5

Schedule 5 of the draft SI presented in the consultation document covers maritime applications. With regard to the “Maritime Radio (Suppliers and Demonstration)” licence and with regard to the “Ship Radio” licence listed in Part 1 of Schedule 5, the standard L-band frequencies are already included, but the extended L-band frequencies are not listed. To cover operation in both bands, it is suggested to modify the listed frequency bands as follows:

¹ Earth Stations on Mobile Platforms: Consultation on the authorisation of Earth Stations on Mobile Platforms; publication date 15 August 2013.

- *Replace “1626.5-1660.5 MHz (with associated downlink frequencies: 1525-1559 MHz)” with “1626.5-1660.5 MHz and 1668-1675 MHz (with associated downlink frequencies: 1518-1559 MHz)”.*

Furthermore, following the changes proposed by Ofcom for the ship radio licence in the ESOMP consultation, it is proposed to add to the current list of frequency bands those frequency bands identified in the proposed Notice of Variation to the bands currently listed for maritime users, i.e:

- *Add “27.5 – 30 GHz (with associated downlink frequencies: 17.3-20.2 GHz)”.*

Part 2 of Schedule 5 may also need to be revised. In particular paragraph 1 limits use of the frequencies to ‘part of a “maritime mobile services” (including maritime related mobile-satellite services) or “maritime radio navigation service” (including maritime related radio navigation services) as defined in Article 1 of the Radio Regulations.’ However ESOMPs operate as an application in the fixed satellite service (FSS) and hence would not be consistent with this criterion. An amendment to this paragraph should be made, for example:

- *Revise para 1. of Part 2 of Schedule 5 as follows: “1. With the exception of ESOMPs operating in the band 27-5-30 GHz, Applicants must be seeking authority to use the assigned frequencies solely for the transmission and/or reception of signals as part of a “maritime mobile services” (including maritime related mobile-satellite services) or “maritime radio navigation service” (including maritime related radio navigation services) as defined in Article 1 of the Radio Regulations.”*

4 Proposed amendments to Schedule 6

The aeronautical applications are in Schedule 6 of the draft SI and similar changes to those proposed for maritime applications are also suggested for aeronautical applications. As for the maritime case, the extended L-band and Ka-band frequencies would be added. Specifically, it is suggested to modify the frequency bands listed in Part 1 of Schedule 6 for the aircraft radio licence as follows:

- *Add “1668-1675 MHz”*
- *Replace “1525-1559 MHz” with “1518-1559 MHz”*
- *Add “17.3 – 20.2 GHz”*
- *Add “27.5 – 30 GHz”*

The latter two bands are those proposed by Ofcom for inclusion in the Notice of Variation for an aircraft licence in the ESOMPs consultation.

Part 3 of Schedule 6 may also need to be revised. In particular paragraph 20 limits use of the frequencies “...as part of an “aeronautical mobile service”, “aeronautical mobile-satellite service” or an “aeronautical radio navigation service” as defined in Article 1 of the Radio Regulations.” However ESOMPs operate as an application in the fixed satellite service (FSS) and hence would not be consistent with this criterion. An amendment should be made, for example, the following:

- *Revise para 20. of Part 3 of Schedule 6 as follows “**20. With the exception of ESOMPs operating in the band 27.5-30 GHz, a**Applicants must intend to operate a station solely for the transmission and reception of signals as part of an “aeronautical mobile service” service”, “aeronautical mobile-satellite service” or an “aeronautical radio navigation service” as defined in Article 1 of the Radio Regulations*

5 Concluding comments

Inmarsat thanks Ofcom for the opportunity to comment and asks that Ofcom considers our proposed amendments. Any queries or requests for further information should be addressed to Mr Paul Deedman at paul.deedman@inmarsat.com.
