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Forename:

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Representing:

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Organisation (if applicable):

Maritime and Coastguard Agency

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What additional details do you want to keep confidential?:

No

If you want part of your response kept confidential, which parts?:

Ofcom may publish a response summary:

Yes

I confirm that I have read the declaration:

Yes

Additional comments:

Question 1: Do you agree with Aegis?s conclusions on congestion of current use of 420-470 MHz spectrum? Are there any other signs or areas of congestion that Aegis have

not identified from their review?:

We have no knowledge outside the UHF bands used in the maritime mobile service for onboard communications. A survey conducted by the MCA in 2013 of UK registered vessels indicated that congestion due to use by other vessels was most likely to be experienced in the vicinity of large passenger vessels/cruise ships and port areas. Congestion was reported at Dover, Calais, Liverpool, Portsmouth, Southampton ports. The survey was not restricted to and did not seek to identify specific experience in UK waters.
The statistics from the survey were: 57% of respondents have reported interference while at sea, and 80% have reported interference while berthing. (When referring to interference, all but one respondent is specifically reporting legitimate use of the channels by other vessels, not referring to any form of EMI). Whilst 69% of these respondents report that they have attempted to mitigate the problem by changing channel, many mention finding interference on all available channels.

Question 2: Do you agree with Aegis?s conclusions on the future demand and use of 420-470 MHz spectrum over the next ten years? Are there any other future uses or areas for future demand that Aegis have not identified from their review?:

With respect to Paragraph 4.10 Maritime concerning a switch to digital use, ITU Recommendation M.1174-2 describes the technical characteristics for onboard communications. ITU has discussed digital use in this service as an alternative to analogue FM but we believe this being carried forward to the World Radio Conference this year. In practice it is likely that any changeover from analogue to digital will be gradual, longer than 10 years, and may exacerbate congestion in these bands in the shorter term.

Question 3: Do you agree with Aegis?s conclusions that there is not yet any UK demand for wideband services in the 450-470 MHz band (which could for example, be used to improve rural mobile coverage)? Please provide any supporting evidence for your position.:

The MCA has no comment on UK demand, but highlights the potential impact of mobile devices able to operate in proximity to ships in our answer to Q5.

Question 4: Have you experienced degradation in your systems? performance which you consider to be caused by continental interference in the last 12 months? If yes, what approach did you take towards managing and minimising interference?

Please provide any supporting evidence which explains the frequency, impact, duration, time, location and cause (whether suspected or investigated) of the interference

with respect to your specific sector(s).:

At this time we do not have information about continental interference.

Question 5: Is there additional information relevant to the configuration of the 420-470 MHz band that we should consider in developing our approach to its future management? Please provide any evidence to support your views.:

Errors: Paragraph 2.3 refers to maritime frequencies at '467-467.5MHz' which is incorrect. The maritime spectrum is in 2 x 75KHz bands centred on 457.55MHz and 467.55Mhz respectively.
The use of the above frequencies is in the Radio Regulations and reference ITU-R Recommendation M.1174 characteristics. The modulation is analogue FM; the channels may be simplex, 2 frequency simplex or duplex; a base station onboard should be in the lower band. The maximum power is 2W lower power is used where possible.
Use: The frequencies provide on-board communications on ships for; fire-fighting parties; mustering and handling of passengers; anchor handling; internal inspection amongst others. Anywhere that communication is needed with mobile units inside the vessel hull.
Impact of interference/congestion: As the use of on-board communications includes safety-related communications any interference may result in increased risks in safety of life, environment (via pollution) and human health, economic loss. It is imperative that these frequencies are protected from interference for vessels in UK waters. In the survey cited in our answer to Q1, 38% of respondents claimed that safety had been compromised by interference; others describe situations where there was a perceived or potential risk, which in most cases was mitigated by switching channel.
Possibility to change frequency: There is no possibility to change frequency in the short term (less than 20 years). These bands are internationally harmonised in the Radio Regulations; a necessity for international shipping. The propagation of these frequencies inside the vessel provides a good trade-off for reliable communication between risks created by equipment installation.
The value of shipping and cargo in UK waters in any 24hour period and has been estimated as in excess of £200bn.
The provision of a mobile service in the 450-470 band offers the potential for interference including from devices operated in proximity to vessels or brought onboard, say by passengers.

Question 6: Do you agree with the potential solutions Aegis have proposed for managing the 420-470 MHz band to both meet the continued growth in congestion and demand from incumbent spectrum users, and to facilitate the deployment of wideband technologies? Are there any other solutions which you consider we should examine that Aegis have not identified from their review?

Please provide any evidence to support your position and reference each solution in your response as appropriate.:

The MCA has no strong view on the mechanism for management except that the mechanism should ensure the protection of the maritime bands against interference as indicated in our answer to Q5.

Question 7: Do you have any further comments relevant to how we might manage spectrum between 420-470 MHz? :

See answers to Q5 and Q6.

Question 8: Do you have any comments on our proposed programme of work, the outcomes from which we will use to inform future decisions on how we manage the 420-470 MHz band? Are there any additional areas you consider we should explore?:

No comment.