The UK Chamber of Shipping

Question	Your response
Question 1: Do you agree with our proposal that 'Phase 1' protections would be required to avoid the potential for significant disruption at ports and airports?	Confidential? – N The UK Chamber of Shipping (hereafter Chamber) is the trade association for the UK shipping industry, representing some 200 members, operating 900 vessels equalling 18 million GT in capacity, trading around the UK and globally. The Chamber represents the full breadth of the industry, including dry and wet trades, passenger transport (cruise & ferry), offshore supply and construction, towage, and specialist, as well as professional service providers with shipping interests. The Chamber strongly supports the need for protections to avoid and mitigation against potential significant disruption for what the consultation document describes as 'worst performing' mobile satellite systems during the transition period. Mobile Satellite System (MSS) hardware is installed aboard vessels trading globally which may navigate to or transit through UK waters and forms an important part of the Global Maritime Distress and Safety System (GMDSS). Such MSS hardware may be vulnerable to harmful interference from mobile services using the 'new' 1492-1517 MHz allocation and is therefore in need of adequate protection to ensure it can be operated, and tested, without issue.
Question 2: Do you agree with the list of airports we propose to protect, in Annex A8?	Not applicable to Chamber area of interest.
Question 3: Do you have any comments on the two options we have proposed for the ports which would require protection, noting the further detail (and requests for specific evidence) in Annex A7?	Confidential? – N The UK Chamber considers that neither Option 1 – all major ports, nor Option 2 – all major and minor ports are satisfactory or provide the correct protections. Major ports as defined by DfT are those that handle in excess of 1 million tonnes of cargo a year. This has an indirect relationship to size of vessel and trading area but fails to take into account passenger, offshore, service, hydrographic, constructions etc vessels which do not load/unload cargo. To provide a few examples of minor

Question	Your response
	ports which handle large vessels, Blyth is a major off-shore wind and energy port visited by large heavy lift ships, https://portofblyth.co.uk/offshore-heavy-transport-ship-breaks-record. Falmouth is a major cruise destination and dry dock, https://www.bbc.co.uk/news/uk-england-cornwall-64867366. Portland and Weymouth handle very large cruise ships and ship to ship transfers of hydrocarbons including LNG bunkering, https://www.portland-port.co.uk/record-breaking-cruise-ship-arrives-at-port-land-port. Whether Major or Minor ports, the Chamber believes the proposal to protect operation of MSS only within certain ports is flawed, and that there is a strong rationale for protection along the entire UK coastline. The premise for stating protection is only required within ports is based upon the assumption that the vessel will only need to test their MSS hardware whilst in port and that the vessel will never use satellite communications when inshore, instead opting to use GMDSS VHF radio systems when inshore. The Chamber considers both assumptions to the incorrect. MSS hardware is routinely used inshore for the following reasons: • Long Range Identification and Tracking (LRIT) A properly functioning LRIT system is a legal requirement for vessels subject to the International Maritime Organization (IMO) 'SOLAS' convention. This requirement is for all vessels above 500gt operating internationally and for passenger vessels over 300gt, as well as a range of national requirements to other ships above a certain size as stated within the consultation document. Using LRIT, all SOLAS vessels are required to update their position to their flag administration four times a day, even when inshore. For vessels making use of the UK's large number of anchorages that are not in port, this requirement persists. Furthermore, LRIT satellite downlinks are required to for full functionality of a range of LRIT functions. These include being able to respond to on-demand position reporting requests from national authorities, as well as Search And Rescue (SAR) reporting

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	and authorities requests for more frequent position polling. LRIT should not be confused with the Automatic Identification System (AIS, a short range VHF system) and, contrary to the wording implied by the consultation document, a ship's AIS installation or use of IMT does not make LRIT reporting superfluous in any manner. LRIT is a requirement of the International Maritime Organization. Many different flag administrations operate LRIT reporting data centres and it is not certain that they are able to process ships' position data from alternative sources (such as AIS or IMT), even where possible for them to obtain this data. The Chamber therefore believes, that to fully protect inshore operation of LRIT and allow ships to meet legal obligations, and therefore protect against potential Flag State or Port State Control imposed delays to sailing, MSS hardware is in need of protection around the entire coastline from mobile services operating from on land. • Ship Security Alerting System Vessels may use Inmarsat C for transmission of Ship Security Alerting System (SSAS) and should they not be able to due to interference, they may not be in compliance with the IMO's International Ship and Port Facility Security (ISPS) Code. • Distress messaging Despite being inshore, a vessel may still send a distress call using GMDSS satellite communications (Inmarsat-C) for a number of reasons. It should not be assumed that the vessel will always use VHF radio for distress calls simply because they are inshore (i.e. within GMDSS sea area A1). and therefore to protect inshore operation of GMDSS satellite distress messaging, MSS hardware is in need of protection around the entire coastline from mobile services operating from on land. • Comparison to Japanese use of spectrum The Chamber notes the consultation documentation refers to Japan's use of 1475.9-1510.9 MHz for mobile use since 2012 and apparent lack of interference experienced. The Chamber notes however that Japan has implemented only part of the spectrum proposed by

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	Ofcom, to 1510.9 MHz. This leaves a 7.1MHz guard band between the mobile phone operators and the Inmarsat Frequencies, unlike Ofcom's proposal which leaves only a 1 MHz band. The Chamber also understands that Japan introduced and continues to have in place power level limitations to mitigate against interference.
Question 4: Do you agree with our preference to reduce these restrictions to 'Phase 2' levels over a shorter timeline than the natural lifecycle of the terminals?	Confidential? – N The Chamber does not agree with proposals to reduce protection of MSS hardware to 'Phase 2' levels over a short timescale, thereby forcing vessel operators to upgrade MSS hardware within circa 5 years. The shipping industry operates globally and vessel operators build vessels and install equipment to mandated standards are required at time of build/installation. The retrospective requirement to replace equipment before natural obsolescence is not supported nor equitable to shipowners. This is misunderstood and misquoted in Annex 7, under reference 311, which quotes IMO resolution to ECDIS and fails to appreciate the requirements are only for new-build ships given the grandfathering provision for existing vessels Furthermore, should retrospective requirement to upgrade equipment before natural obsolescence occur, it is widely recognised that hardware manufacturers are unable to give a firm commitment to meeting such a deadline. Given ongoing hardware shortages and delays globally, the necessary time to manufacture and install equipment across the world fleet is unclear but not short, particularly given current international trade and tariff difficulties. At present, the Chamber does not consider this practically feasible. The consultation document makes repeated reference to the considerable benefits to consumers from making the spectrum available, however it does not provide costings or an impact assessment as to costs (financial, administrative) incurred by the maritime sector for Option A (soon implementation). The documentation states the cost would be "low" and quotes "new ship earth station costs around £5,000, plus installation costs". Considering the worst case scenario where "*all* Inmarsat maritime receivers currently in circulation need to be upgraded), approximately 125,000-130,000" that would equate to

Question	Your response
	£650million, plus installation costs. This is a considerable sum and whilst a worst case scenario, the Chamber sees no calculation of aggregate costs for the maritime sector as part of the impact assessment. Recognising of the imbalance between the benefits to consumers/telecommunications company and the costs to maritime sector, the Chamber suggests that should a programme for following Option A following Phase 1 be progressed, that remuneration to the maritime sector be awarded to counter the additional incurred costs above replacement at natural obsolescence. Otherwise, the Chamber believes that reduced 'Phase 2' restrictions should not be brought in in keeping with IMO international convention.
Question 5: Taking into account the further detail in Annexes A7 and A8, please provide any evidence: • that a shorter period, around five years, for the relevant receivers to be replaced or upgraded is not technically or practically feasible; or • of the impact that a longer period of up to 20 years may have on the ability of MNOs to use the spectrum and the benefits to consumers and citizens that would be foregone.	Confidential? – N See response above.
Question 6: Do you agree with our proposal not to put in place restrictions on IMT use of this spectrum to protect: (a) land terminals; (b) potential future uses of the 1.5 GHz spectrum; or (c) PMSE users. In this regard, we particularly welcome: • any evidence that Inmarsat's land terminals are used for	No comment.

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the operation of critical national infrastructure or safety purposes; • any evidence that it is not technically or practically feasible to replace Inmarsat land terminals, including through alternative solutions or upgrades; and • any evidence on the impact of protecting land terminals on the ability of mobile network operators ("MNOs") to use the spectrum and the benefits to consumers and citizens that may be foregone.	
Question 7: Are you able to provide any evidence on the likelihood of audio links suffering interference from IMT use of 1492-1517 MHz?	No comment.
Question 8: Do you agree with our proposed approach to coordination?	No comment.
Question 9: Do you agree with our proposal to define PFD limited zones as complex polygons? Would defining them as a set of points, rather than an entire boundary, make coordination calculations easier for licensees?	No comment.
Question 10: Do you agree with our provisional view that not defining coordination zones around ports may be simpler for licensees than complying with multiple different coordination zones, particularly while Phase 1 PFD limits are in place?	No comment.

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Question 11: Do you have any feedback on the coordination procedures (as set out in Annex A10) or the specific parameters proposed?	No comment.
Question 12: How difficult would you find it to comply with our proposed coordination requirements? In particular, we are interested in information from potential licensees on how the proposed coordination zones would affect their deployment processes and decisions.	No comment.
Question 13: Do you have any comments on our proposal that licensees should carry out their own coordination, on the basis of coordination parameters set by Ofcom?	No comment.
Question 14: Do you have any comments on our proposed technical licence conditions?	No comment.
Question 15: Do you have any comments on the non-technical licence conditions that we propose to include in the award licences?	No comment.
Question 16: Do you have any comments on the proposed format for the auction?	No comment.
Question 17: Do you have any comments on the proposed bidding options for the auction? Do you believe we have excluded any bidding options which would be worth identifying?	No comment.
Question 18: Do you have any comments on our proposed information policy or reserve price?	No comment.

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Question 19: Do you have any other comments on the proposals or analysis set out in this consultation document?	No comment.

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