

## RESOLUTION 360 (REV.WRC-15)

### **Consideration of regulatory provisions and spectrum allocations to the maritime mobile-satellite service to enable the satellite component of the VHF Data Exchange System and enhanced maritime radiocommunication**

The World Radiocommunication Conference (Geneva, 2015),

*considering*

- a)* that the ITU Radiocommunication Sector (ITU-R) has developed the technical characteristics of a VHF Data Exchange System (VDES) as described in Recommendation ITU-R M.2092;
- b)* that the Automatic Identification System (AIS) as described in Recommendation ITU-R M.1371 is an integral part of the VDES;
- c)* that VDES uses the timing and frame structure of AIS;
- d)* that AIS is used primarily for surveillance and safety of navigation purposes in ship-to-ship use, ship reporting and vessel traffic services applications;
- e)* that there is a growing need for the establishment of a future VDES satellite component which would offer potential enhancements to maritime safety;
- f)* that the VDES satellite component should not interfere with AIS, application specific messages (ASM) and the VDES terrestrial component, while making efficient use of the VHF maritime spectrum and accommodating all users;
- g)* that the VDES satellite component should not cause harmful interference to digital selective calling (DSC), AIS, voice distress, safety and calling channels;
- h)* that the VDES satellite component may operate in the relevant part of the VHF maritime frequency bands 156.0125-157.4375 MHz and 160.6125-162.0375 MHz,

*noting*

that the International Maritime Organization (IMO) has developed an international code for ships operating in polar waters (“Polar Code”),

*recognizing*

- a)* that a satellite component for VDES is necessary to expand the system from the coastal area to a global coverage;
- b)* that a satellite component of the VDES offers potential enhancement to VHF safety communication on a global basis to satisfy the increasing need for maritime communication for enhanced maritime safety;
- c)* that this satellite component should be capable of operating with the terrestrial VDES (AIS, ASM and VDE) and should not interfere with it, or block it;

d) that the satellite component should not cause harmful interference to incumbent services and those in adjacent frequency bands, which are defined for the lower adjacent frequency band from 154 MHz to 156 MHz and for the higher adjacent frequency band from 162 to 164 MHz, and to all other components of the existing VDES as described in Recommendation ITU-R M.2092, DSC, AIS and voice distress, safety and calling channels;

e) that the receiver on the satellite should be resilient to harmful interference from incumbent services and those services in adjacent bands, which are defined for the lower adjacent frequency band from 154 MHz to 156 MHz and for the higher adjacent frequency band from 162 MHz to 164 MHz;

f) that since the VDES as described in Recommendation ITU-R M.2092 uses the frequency bands of Appendix 18, the implementation of the VDES satellite component would be more effective when using the frequency bands within Appendix 18;

g) that studies should be carried out to identify spectrum needed for the VDES satellite component;

h) that some administrations have initiated testing of the satellite component for VDES which will continue,

*resolves to invite the 2019 World Radiocommunication Conference*

to consider, based on the results of ITU-R studies, modifications of the Radio Regulations, including new spectrum allocations to the maritime mobile-satellite service (MMSS) (Earth-to-space and space-to-Earth), preferably within the frequency bands 156.0125-157.4375 MHz and 160.6125-162.0375 MHz of Appendix 18, to enable a new VDES satellite component, while ensuring that this component will not degrade the current terrestrial VDES components, ASM and AIS operations and not impose any additional constraints on existing services in these and adjacent frequency bands as stated in *recognizing d) and e)*,

*invites ITU-R*

to conduct, as a matter of urgency, and in time for WRC-19, sharing and compatibility studies between VDES satellite components and incumbent services in the same and adjacent frequency bands specified in *recognizing d) and e)* to determine potential regulatory actions, including spectrum allocations to the MMSS (Earth-to-space and space-to-Earth) for VDES applications,

*further invites*

all members of ITU-R, IMO, the World Meteorological Organization (WMO), the International Hydrographic Organization (IHO), the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA), the International Electrotechnical Commission (IEC) and the International Radio Maritime Committee (CIRM) to contribute to these studies,

*invites administrations*

to participate in, and support, field trials of the VDES satellite component,

*instructs the Secretary-General*

to bring this Resolution to the attention of IMO, WMO, IHO, IEC, IALA, CIRM and other international and regional organizations concerned.