

VDES status - IALA

- WRC-19 agreed to add the satellite component to the VHF data exchange system (VDES)
 - need to update ITU-R M.2092-0 -> ITU-R M.2092-1
 - need to revise the frequency channel plan for the terrestrial component of the VDES to allow interference-free simultaneous operations for terrestrial and satellite components
- IALA ENAV WG3 has drafted new version of ITU-R M.2092; Technical characteristics for a VHF data exchange system in the VHF maritime mobile band
- Preliminary Draft Revision of Recommendation ITU-R M.2092-0 was submitted to ITU-R WP 5B by US, several other countries and IALA

Draft Revision of ITU-R M.2092-0

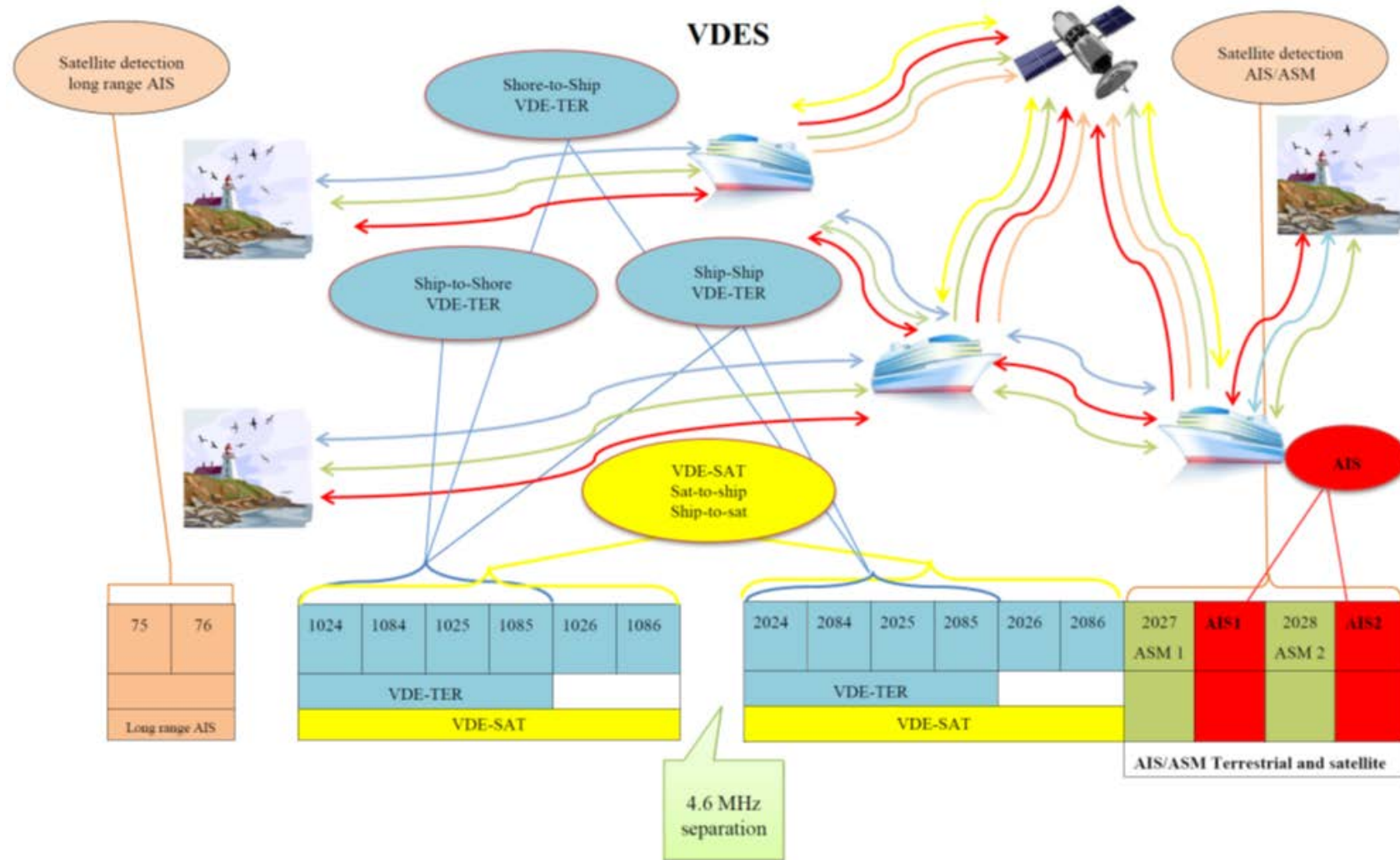
- Document structure is revised as follows:
 - Annex A, Common Technical Elements of VDES (revised Annex 1)
 - Annex B, Characteristics of the ASM Channels in the VHF Maritime Mobile Band (revision of Annex 2)
 - Annex C, Characteristics of the VDE-Terrestrial in the VHF Maritime Mobile Band (revision of Annex 3)
 - Annex D, Characteristics of the VDE-SAT Service in the VHF Maritime Mobile Band (revision of Annexes 4 and 5)
 - Annex E, Resource Sharing Method for VDES Terrestrial and Satellite components (revision of Annex 6)
 - (Annex 7 to be deleted)

Revised operational characteristics

- The system should give its highest priority to the AIS position reporting and safety related information.
- The system installation should be capable of receiving and processing the digital messages and interrogating calls specified by the recommendation.
- The system should be capable of transmitting additional safety information on request.
- The system installation should be able to operate continuously while under way, moored or at anchor.
- The system should use time-division multiple access (TDMA) techniques, access schemes and data transmission methods in a synchronized manner as specified in the Annexes.
- The system should be capable of various modes of operation, including the autonomous, assigned and polled modes.
- The system should provide flexibility for the users in order to prioritize some applications and, consequently, adapt some parameters of the transmission (robustness or capacity) while minimizing system complexity.
- The system should support the use cases identified in Report ITU-R M.2371.
- The VDES on board ship stations should have one multi-function transmitter and a multi-channel and multi-function receiver capable of simultaneously supporting the functions specified in this recommendation. These functions include AIS, ASM, VDE-TER and VDE-SAT.

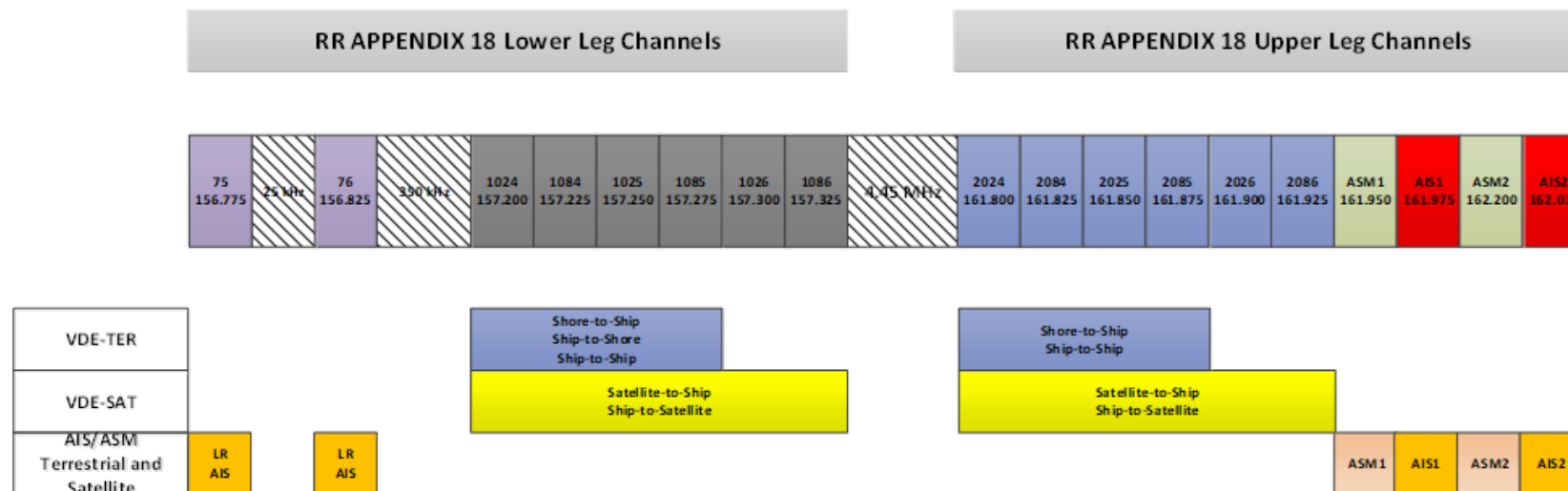


General description of VDES



Revised VDES channel usage

- AIS 1 and AIS 2 are AIS channels, used in accordance with Recommendation ITU-R M.1371, and are also used for receiving AIS messages by satellite.
- Channels 75 and 76 of Appendix 18 of the RR are used for receiving AIS messages by satellite for long range tracking.
- ASM 1 and ASM 2 are the channels used for ASM, and are also used for receiving ASM by satellite.
- The channels 1024, 1084, 1025 and 1085 are identified for ship-to-shore, shore-to-ship and ship-to-ship VDE, but ship-to-satellite and satellite-to-ship VDE may be possible without imposing constraints on ship-to-shore, shore-to-ship and ship-to-ship VDE.
- The channels 2024, 2084, 2025 and 2085 are identified for shore-to-ship and ship-to-ship VDE, but ship-to-satellite and satellite-to-ship VDE should be possible without imposing constraints on shore-to-ship and ship-to-ship VDE.
- The channels 1026, 1086, 2026 and 2086 are identified for ship-to-satellite and satellite-to-ship VDE and are not used by the terrestrial component of VDE.





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