



ITU WRC-19

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## ITU WRC-19

- ITU World Radiocommunication Conference 2019 was held in Sharm El-Sheikh, Egypt, from 28 October to 22 November 2019.

### **The purpose of the conference were:**

- to coordinate the world-wide use of frequencies in the radio spectrum
- to address the global demand for spectrum for the growth and development of information and communication technologies
- to update ITU Radio Regulations (RR) which regulates the world-wide use of the radio spectrum.

**IALA participation:** Stefan Bober



## Key outcomes of WRC-19

- Additional bands for IMT
- Earth exploration-satellite (EESS) service
- Non-Geostationary Satellites
- High-altitude platform stations (HAPS)
- WiFi networks
- Railway radiocommunication systems between train and trackside (RSTT)
- Intelligent Transport Systems (ITS)
- Broadcasting-satellite service (BSS)
- **Global Maritime Distress and Safety System (GMDSS) – Expanded coverage and enhanced capabilities for GMDSS.**
- Earth stations in motion (ESIM)

ITU Publications

International Telecommunication Union  
Radiocommunication Sector

### World Radiocommunication Conference 2019 (WRC-19)

Provisional Final Acts



 **ITUWRC**  
SHARM EL-SHEIKH2019  
28 October - 22 November  
Sharm El-Sheikh, Egypt





# Outcome - IALA interest 1

## Satellite component of the VHF data exchange system (VDE SAT)

VDE SAT has secondary allocations for the maritime mobile-satellite service both uplink and downlink.

The applicable pfd mask is contained in Recommendation ITU-R M.2092.

CH (App.18)	1024   1084   1025   1085   1026   1086	2024   2084   2025   2085   2026   2086
<b>VDE-SAT</b> Secondary	ship-to-satellite satellite-to-ship (157.1875-157.3375 MHz)	ship-to-satellite satellite-to-ship (161.7875-161.9375 MHz)
<b>VDE-TER</b> Primary	ship-to-shore shore-to-ship ship-to-ship (157.1875-157.2875 MHz)	shore-to-ship ship-to-ship (161.7875-161.8875 MHz)



## Outcome - IALA interest 2

### **Autonomous Maritime Radio Devices (AMRD)**

#### **Frequency allocation for AMRD Group A**

WRC-19 allocated frequency channels AIS 1 and AIS 2 also for AMRD Group A that enhances safety of navigation, using digital selective calling and/or AIS technology. AMRD Group A, as defined by IMO, consists of Man over Board Class M and Mobile Aids to Navigation.

AMRD Group A should be in accordance with the most recent version of Recommendation ITU-R M.2135 “Technical characteristics of autonomous maritime radio devices operating in the frequency band 156-162.05 MHz”.

#### **Frequency allocation for AMRD Group B**

WRC-19 allocated frequency channels 2006 (160.9 MHz ) for AMRD Group B, that do not enhance the safety of navigation, using AIS technology, in accordance with the most recent version of Recommendation ITU-R M.2135.

Autonomous maritime radio devices Group B are limited to a transmitter e.i.r.p. of 100 mW and an antenna height not exceeding 1 m above the surface of the sea.



## Outcome - IALA interest 3

### **Navigational Data for broadcasting maritime safety and security related information from shore-to-ship (NAVDAT)**

#### **Frequency allocation for NAVDAT in the MF Band**

WRC-19 allocated the use of frequency bands 415-495 kHz and 505-526.5 kHz, also for the NAVDAT system, beside radiotelegraphy. The use shall be in accordance with the most recent version of Recommendation ITU-R M.2010” Characteristics of a digital system, named Navigational Data for broadcasting maritime safety and security related information from shore-to-ship in the 500 kHz band”, subject to agreement between interested and affected administrations.

NAVDAT transmitting stations are limited to coast stations.

#### **Frequency allocation for NAVDAT in the HF Band**

WRC-19 allocated the use of frequency 4 221-4 231 kHz, 6 332.5-6 342.5 kHz, 8 438-8 448 kHz, 12 658.5-12 668.5 kHz, 16 904.5-16 914.5 kHz and 22 445.5-22 455.5 kHz also to NAVDAT system. The use shall be in accordance with the most recent version of Recommendation ITU-R M.2058, subject to agreement between interested and affected administrations. NAVDAT transmitting stations are limited to coast stations.



QUESTIONS ?

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