1. e-Navigation Communications – VHF elements only

| **Essential element of e-Navigation communications** | ***AIS*** | | ***e-Navigation VHF Data Exchange (VDE)***  ***(Toll free)*** | | ***GMDSS*** |
| --- | --- | --- | --- | --- | --- |
| **Sub-group** | ***AIS for safety of navigation*** | ***AIS long range (i.e. Sat-AIS)*** | ***using existing AIS protocol*** | ***using ITU standard protocol*** | ***Distress alerting, Selective calling*** |
| **Radio channels** | * *AIS-1 & AIS-2 (simplex)*   + *As now, no change* | * *Channels 75 and 76 (simplex)*    + *As per outcome from WRC 2012* | * *Channels 27B and 28B*    + *World-wide dedicated channels (WRC-15 target)* | * *Channels 24, 84, 25, 85, 26, 86* | * *Channel 70* |
| **Functionality** | * *Safety of navigation* * *Maritime and inland distress and safety communications* | * *Space detection of AIS* * *Future SAR* | * *Marine safety information* * *Marine security information* * *SSRMs* * *General purpose information communication* | * *General purpose data exchange* * *Robust high speed data exchange* | * *Maritime and inland distress and safety communications* |
| **Message types**  **for AIS protocol** | * *Vessel identification* * *Vessel dynamic data* * *Vessel static data* * *Voyage related data* * *Aids to Navigation* * *Base Station* | * *Space detection of AIS* * *Other messages for support of future SAR* | * *International application specific messages* * *Regional application specific messages* * *Base Station* |  |  |
| **Sub functionality** | * *Ship to ship collision avoidance* * *VTS* * *Tracking of ships* * *Locating in SAR* * *VDL control (by Base Station)* | * *Detection of vessels by coastal states beyond range of coastal AIS base stations* * *Locating in SAR* * *Future distress alerting if required by the GMDSS review* | * *Area warnings and advice* * *Meteorological and hydrological data* * *Traffic management* * *Ship-shore data exchange* * *Channel management* | * *High message payload* | * *Distress alerting* * *Selective calling (DSC)* * *AIS Channel Management ([[1]](#footnote-1))* |

1. With the protection of the AIS1 and AIS2 frequencies, AIS channel management via both AIS message 22 and DSC is considered unnecessary and undesirable. [↑](#footnote-ref-1)