# Draft FAQ regarding VDES

ENAV20-11.5

Formerly ENAV19-14.1.20

Questions highlighted in Green are complete – to be posted to appropriate area of the IALA website.

FAQ as a whole are to be kept under review as VDES develops.

Full document to be forwarded to ENAV20.

| **Question** | **Proposed Response** |
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| 1. What does VDES stand for? | VHF Data Exchange System (VDES) |
| 1. What is VDES? | VHF Data Exchange System (VDES) is a radio communication system that operates between ships, shore stations and satellites on Automatic Identification System (AIS), Application Specific Messages (ASM) and VHF Data Exchange (VDE) frequencies in the Marine Mobile VHF band. |
| 1. What is the difference between VDES and AIS? | AIS is a component of VHF Data Exchange System (VDES) which operates using the Gaussian Minimum Shift Keying (GMSK) modulation scheme, other components of VDES will use higher capacity modulation schemes. |
| 1. Why VDES? | The VHF Data Exchange System (VDES) is seen as an effective and efficient use of radio spectrum, building on the capabilities of AIS and addressing the increasing requirements for data through the system. New techniques providing higher data rates than those used for AIS is a core element of VDES. Furthermore, VDES network protocol is optimized for data communication so that each VDES message is transmitted with a high confidence of reception.  VDES supports e-Navigation and provides access to the Maritime Cloud. |
| 1. What frequencies does VDES use? | VHF Data Exchange System (VDES) comprises a suite of channels in the Maritime mobile VHF band, which are detailed in the IALA VDES Guideline on the IALA website [http://www.iala-aism.org/product-category/publications/guidelines/]  (Ref. Guideline number / section) |
| 1. What is the roadmap for VDES? | VHF Data Exchange System (VDES) will continue to be developed over the next few years in accordance with the roadmap published in the VDES Guideline.  [http://www.iala-aism.org/product-category/publications/guidelines/]  (Ref. Guideline number / section) |
| 1. Are there any VDES test beds? | There are several VHF Data Exchange System (VDES) test beds detailed on the IALA website [http://www.iala-aism.org/products-projects/e-navigation/test-bedsprojects/]. Some of these test beds are currently active and others have now completed and the results are published under the test bed name on the website. |
| 1. Where can I find more information on VDES? | Further information on VHF Data Exchange System (VDES) can be found in the IALA Guideline on VDES which is located on the IALA website [http://www.iala-aism.org/product-category/publications/guidelines/] |
| 1. What are the technical characteristics of VDES? |  |
| 1. What will VDES deliver? |  |
| 1. How does VDES work ? |  |
| 1. What are the user needs for VDES? [what are the user requirements for VDES?] |  |
| 1. What are the benefits of VDES for the users? [Will VDES help protect the marine environment?] |  |
| 1. Who will VDES impact? [Does VDES pertain to only SOLAS vessels and equipment?] [who will be affected by VDES implementation?] |  |
| 1. How will VDES affect small commercial, fishing and recreational vessels? |  |
| 1. Are there training implications for VDES? |  |
| 1. Will VDES change traditional navigation? |  |
| 1. Will VDES impact on the provision of aids to navigation and VTS? |  |
| 1. What are some of the expected consequence of VDES? |  |
| 1. How does an IALA member prepare for VDES? [Does an IALA member need to do anything today to prepare for VDES?] |  |
| 1. What is the VDES satellite component? |  |
| 1. Does the VDES satellite component really needed? [What are the benefits of the satellite component of VDES?] |  |
| 1. What is the cost implication for VDES? |  |
| 1. What is the [usage] limitation of VDES? [What are the parameters of VDES, including amount of data that can be exchanged, range of VDES, etc?.] |  |
| 1. Will VDES replace other communications means (i.e. Inmarsat / iridium, VSAT)? | VDES will complement digital maritime communications … |
| 1. How will VDES units be approved (type approval, testing standards)? |  |
| 1. How will applications used on VDES be developed, tested, approved (for example - type approval – self certification or third party?) and be made available? |  |