

The evolution of DSC in the Maritime Radiocommunication systems for the future

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- **DSC has progressed from simply the full class A SOLAS requirement to a complete suite of functionalities up to the new class M.**
- **Difficult to say where DSC will evolve next, 3 Years ago, class M did not exist!**

- **DSC = A calling system to set up subsequent communications. Like a prioritized telephone dialing scheme.**
- **This has always been analogue telephony in the past but.....**

- **Digital subsequent comms using DSC for call addressing make no logical sense.**
- **Just about any digital radio protocol will already contain its own addressing structure and be more resilient to errors than DSC. It has been shown in the past that for DSC, Symbol error rate = Bit error rate, in other words there is no coding gain and the error correction has no effect.**

If subsequent comms becomes digital we will have the situation where coding of the comms will be far more robust than the coding of the DSC calling....

Integration Automation

- **EN300 338-7 BAM interface for DSC**
- **Defines how radio and DSC equipment communicates with the Bridge.**
- **DSC terminals have many types of audible alarms and some are extremely loud**

- **EN300 338-8 DSC remote control interface**
- **Defines the protocol for controlling radio and DSC equipment such that everything can be remote operated from a central control unit.**

- **It is not too far fetched to imagine a future bridge installation with a very large flat touch-screen display that can do every thing, ECDIS, Nav, Radar, DSC, AIS and BAM, all running off a NMEA network.**

Combining DSC with other technology. We now see DSC transceivers with AIS Receive functionality. Integration will likely end with large touch-sensitive flat screen displays that handle all navigation and ECDIS functions, ship housekeeping, BAM and all comms including DSC.



Similarly there are also SDR based radio products that can receive and decode just about any type of modulation used at sea, DSC, AIS, Telex, Navtex, HF Fax etc...

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Questions?