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| WWMIWS Committee Meeting 1 | WWMIWS-1 |
| Monaco, 26-30 August 2018 | Agenda 2.2 |

## S-412 (including seamless GDPFS, 3.1)

Joe Phillips will provide an update on the S-412 specification and next steps.

**Problem**

The S-412 service will involve a global data layer – providing a single authoritative source for shipping. However, the current structure of the WWMIWS is based on 21 METAREA’s. It is obvious that this will be difficult to achieve a seamless layer of all parameters across the globe.

Discussion: The Committee should consider the challenges in providing seamless services to shipping (e-navigation graphical services and text). Develop pros and cons on a two-centre model that would be responsible for providing this seamless global data layer. This would help guide further thinking and activity following the WWMIWS-1 meeting.

Consider whether NMHS could contribute or not? Consider how the METAREA text MSI service would align with this?

**Problem:**

Recent development requires discussion on whether it's appropriate for S-412 to be divided into 3 separate product specifications.  The proposed product specifications are: (1) S-412 Weather Hazards; (2) S-4xx Weather Conditions; and (3) S-4xx Weather Observations.  S-412 Weather Hazards data will be vector based; S-4xx Weather Conditions would be gridded data sets; and S-4xx Weather Observations would be vector based.  Reasons for dividing S-412 are technical, administrative and governance related.  Technical reasons include improving data modeling, grouping concepts by their data format, data file size and improving the future maintenance of S-412.  Administrative considerations include improving communication of the project's technical concepts and the foreseeable issues of maintaining an all-inclusive product specification. Governance considerations include the future delivery of products, regulatory actions needed to implement new services, and collaborative efforts to ensure seamless services across METAREAS.

Discussion: The Committee should consider the authoritative content currently required to be broadcast via GMDSS and other services that exceed this requirement. Specific attention should be given to authoritative warning services (hazard polygons and weather systems data) and gridded data.

Discussion: The Committee should discuss how they envision S-412 products to be disseminated in the future, specifically with scheduled broadcasts, at-will broadcasts, and near or real-time data streaming.  Particular consideration should be given to the large data size of gridded data and the small data size of vector data.

**Problem:**

Various agencies will be moving to operationalize S-100 based product specifications in the near-future.  One major piece that has not been realized is how a mariner will access these data files.

Discussion: The Committee should consider how they envision S-412 products to be disseminated in the future, specifically through GMDSS, national cloud services, and radio broadcast networks.