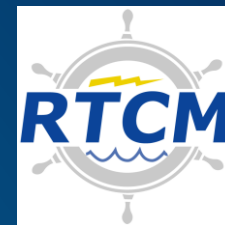
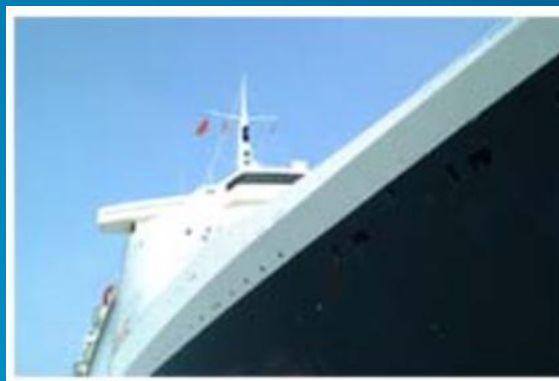




The Radio Technical Commission for Maritime Services
Report to
HSSC-7



Some activities relevant to IHO



Rafael Ponce
rponce@esri.com

Who we are



- **RTCM was established as a U.S. government federal advisory committee in 1947. It is now an independent membership organization with scientific, professional, governmental, and educational affiliations and is no longer restricted to maritime communication matters.**
- **Members involved in**
 - **Policy issues**
 - **Regulatory changes**
 - **Technical standards development**

Quick facts about RTCM



- **More than 130 member organizations**
- **Involvement with**
 - **International Maritime Organization (IMO)**
 - **Cospas-Sarsat**
 - **International Electro-technical Commission (IEC)**
 - **International Organization of Standards (ISO)**
 - **European Telecommunication Standards (ETSI)**
 - **International Loran Association**
- **Contribute to relevant work of:**
 - **The International Hydrographic Organization (IHO)**
 - **The International Telecommunications Union (ITU)**
 - **The International Association of Aids to Navigation and Lighthouses Authorities (IALA)**
 - **The Comité International Radio-Maritime (CIRM)**
 - **The National Marine Electronics Association (NMEA)**
 - **The Mobile Satellite Users Association (MSUA)**
- **15 Special Committees**
- **5 different “Mailing Lists” (subject-specific interest groups)**

Special Committee 104 Differential Global Navigation Satellite Systems (DGNSS)



- **Esri Chairs the Joint RTCM/NMEA Working Group**
- **For the development of new GPS/GNSS data messages**
- **Working Group tasks that can be beneficial to hydrographic surveys:**
 - **PBV Position: Extend (GGA – fix information) sentence with covariance (accuracy) information**
 - **PBV Baseline vector: Develop a new baseline vector sentence with covariance (accuracy) information**
- **NMEA reported new requests for support of new constellations (IRNSS, BDS and QZSS)**

SC 104 coordination with IALA e-Nav Committee WG5

- **The PNT WG –**
 - **Developing a product spec for eLoran data, beacon corrections and data exchange**
 - **An S-100 Product Spec could be of interest to all**



eLoran can be used for commercial shipping including cruise lines.

RTCM Special Committee 133 on Data Exchange for Navigation-Related Internet Connected Applications



- **New Special Committee**
- **Growing number of navigation-related applications available for mariners running on mobile devices.**
- **Applications for mobile devices have the potential to provide useful maritime information**
- **Quality and timeliness in apps affecting navigation safety**
- **a need to produce a standard or standards on Data Exchange for Navigation-Related Internet connected Applications**
- **An Internet based AIS Service will be reviewed and potentially a standard developed.**
 - **Small vessels**
 - **REST Interface**



Thank you

Rafael Ponce
rponce@esri.com