

## RTCM

Our primary goal is to enable radio communications, navigational and electronic systems to make the oceans and waterways safe, secure, pollution free and effective for work and play. However, we also work with resilient navigation solutions on land and land-based Search and Rescue solutions.

Our work impacts more than 60% of the U.S. population including 15 million recreational boaters as well as seafarers who move 90% of our international trade via large ocean-going ships. We also impact the nation's vast inland waterways system, which is vital for commerce and reducing highway and rail congestion. Other aspects of our work are global in nature, especially the resilient navigation work, which impacts anyone requiring precise navigation.

RTCM's leadership and members are involved meaningfully in all significant aspects of maritime telecommunications, electronics and navigation systems and participate in all deliberations having an impact on them. RTCM members in effect have "a seat at the table" during all significant policy deliberations.

## RTCM – WHAT WE DO

- Leads policy initiatives to ensure vital processes, systems, trained users and spectrum are available for maritime users and protected from encroachment
- Provides forums to enable training, policy development and standards for distress and safety systems, saving thousands of lives yearly
- Oversees the ongoing evolution of radio from Morse Code with data rates of about 13 bits per second to satellite systems providing megabit per second capabilities
- Supports worldwide emergency beacon programs and their evolution; more than 2 million beacons have assisted in saving more than 40,000 lives to date
- Ensures vessel and shore-based radar systems and associated transponders work effectively together with related electronic charts for navigation purposes
- Creates standards for satellite positioning and navigation systems such as GPS to facilitate all modes of transportation, surveying, geodesy, precision agriculture, and autonomous vehicles, ensuring vital high integrity and centimeter-accuracy capabilities
- Represents members' interests in many national and international bodies including IMO, ITU, IEC, the FCC and the USCG amongst others, and provides feedback on matters of interest to members
- Conducts an annual assembly with prominent speakers, exhibits, and collaborative meetings of interest to all in the communities we serve



## RTCM - Improving Safety and Survival for **ALL**



### RTCM members are:

- **Agencies**
- **Companies**
- **Educational Institutions**
- **Individuals**

**Join RTCM today!**

[www.rtcn.org](http://www.rtcn.org)



**Radio  
Technical  
Commission for  
Maritime Services**

**We are a non-profit, scientific, professional and educational organization supported by a worldwide membership**

**We invite you to join us -  
Become an RTCM member today!**

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Maritime Services**

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## HOW RTCM OPERATES

- Facilitates the dissemination of Marine Safety Information (MSI) from producers to users
- Supports governmental delegations to the International Maritime Organization (IMO) and International Telecommunication Union (ITU) by providing a channel for private sector experts to assist in the formulation of policy
- Convenes special committees at the request of government authorities and others to resolve issues requiring private sector input and experts
- Provides technical cooperation and support to the National Search and Rescue Committee, International Electrotechnical Commission, National Marine Electronics Association and others
- Cooperates with organizations representing land mobile and aviation users to ensure that shared systems such as emergency satellite beacons and standards for autonomous vehicles utilize internationally-harmonized standards
- Represents Emergency beacon (406 MHz) manufacturers at international Cospas-Sarsat meetings



**RTCM – the Beacon for Maritime Communications**

**RTCM works very closely with the U.S. Coast Guard, the Federal Communications Commission and similar authorities in other nations for the standardization of maritime equipment to aid in search and rescue and normal operations to make voyages safer, more secure and orderly.**

## RTCM influences many technologies:

- **Electronic charts** to mark ocean, coastal, and tributary areas consistent with our standards. RTCM set standards for worldwide systems for displays and the updating and presentation of vital information on them to aid vessel operators.
- **Terrestrial and satellite radio systems** that provide for distress notifications, responses, weather/navigational updates and warnings.
- **Emergency beacons** that can be activated manually or by automatic float-free techniques to transmit distress messages via satellites to shore authorities and other vessels for help anywhere. RTCM assisted the international development of this beacon system.
- **Radar systems** that allow vessels to 'see' one another and monitor proximity to aids to navigation and land areas. These systems are coupled with voice and data radio capabilities and automatic transponder systems to ensure safe navigation. They also locate and track survival craft.
- **GPS and similar systems** that provide position, navigation and location information - These systems are sufficiently accurate for most applications, but others require exceptional accuracy. With strong international cooperation, RTCM develops and keeps current standards to enable this exceptional accuracy.
- **Satellite navigation systems** - RTCM is actively involved in assuring that these systems are protected from interference and cyber-attacks.



## IN THE FUTURE RTCM WILL

- Continue working tirelessly to ensure effective use of radio spectrum for commercial and recreational vessels
- Keep our members informed about policy issues, regulatory changes, and technical standards development
- Provide forums for government and private sector members to work in harmony to develop technical standards and consensus-based recommendations
- Stay actively engaged in the development of international standards for maritime radio navigation, radio communication systems, and search and rescue systems through our involvement with key national and international organizations
- Expand our roles in cyber security, autonomous vehicle management, and high-accuracy, high-integrity precision navigation programs
- Continue to ensure our membership gains full advantage for advances in technology and changes in requirements