



IEC/TC OR SC: TC80	SECRETARIAT: UK	DATE: 2019-10-30
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Please ensure this form is annexed to the Report to the Standardization Management Board if it has been prepared during a meeting, or sent to the Central Office promptly after its contents have been agreed by the committee.

A. STATE TITLE AND SCOPE OF TC

Technical committee 80 – Maritime navigation and radiocommunication equipment and systems
Scope - To prepare standards for maritime navigation and radiocommunication equipment and systems making use of electrotechnical, electronic, electroacoustic, electro-optical and data processing techniques.

B. MANAGEMENT STRUCTURE OF THE TC

[TC 80 structure on IEC website](#)
Management structure is reviewed at meetings of the Committee every two years. Currently no changes are planned.

C. BUSINESS ENVIRONMENT

There is a need for standards for the systems and equipment carried by ships and the systems that communicate with ships, Aids to Navigation and shore based systems to enable them to efficiently navigate amongst one another in ways that protect the environment and the safety of life at sea. As some ships travel all over the world, there is a need for these standards to be internationally agreed. This eliminates unnecessary barriers to ensure trade is carried out smoothly, predictably and as freely as possible. The basic standards for radiocommunication are set by the International Telecommunications Union (ITU) which is a specialised agency of the United Nations located in Geneva Switzerland. The basic standards for ships bridge equipment are set by the International Maritime Organization (IMO) which is another specialised agency of the United Nations located in London, UK. IMO does not generally produce detailed technical and test standards for maritime navigation and radiocommunication equipment and systems. Therefore, in agreement with IMO, TC80 has adopted the role of producing these for maritime electronic navigation and radiocommunication equipment and systems.
TC80 standards are widely used by Administrations for type approval of equipment which is a regulatory requirement under the IMO International Convention for the Safety of Life at Sea (SOLAS).

D. MARKET DEMAND

The customers for TC 80 standards are the manufacturers of the navigation and communication systems, the test houses which provide the test reports and Administrations which use the standards for type approval purposes which is for example required by the IMO International Convention for the Safety of Life at Sea (SOLAS).

E. TRENDS IN TECHNOLOGY AND IN THE MARKET

A major trend is an increasing focus on improving collaboration within the ship’s bridge team, between the bridge team and pilot and with shore-side sources of information. Associated with this is the development of smarter interfaces between sensors and workstation applications. This is leading to new developments for data transfer via Local Area Networks (LAN) and for Bridge Alert Management (BAM) for handling alarms.

A further trend is increasing integration of ship and shore services known as e-navigation. This is leading to new developments for the harmonized data transfer through communication equipment and inter-operability for the supporting various e-navigation services.

Reducing telecommunication costs is leading to increased mid-ocean use of broadband satellite communications enabling ships to access more data relevant to their needs. This together with the use of PC technology is leading to a greater awareness of cyber security issues for ships.

F. SYSTEM APPROACH ASPECTS (REFERENCE - AC/33/2013)

TC80 has liaisons with all the major International maritime organisations including:

- International Maritime Organization (IMO);
- International Mobile Satellite Organization (IMSO);
- International Chamber of Shipping (ICS);
- International Hydrographic Organisation (IHO);
- International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA);
- International Telecommunication Union (ITU);
- International Organization for Standardization (ISO TC 8);
- Comite International Radio-Maritime (CIRM);
- Radio Technical Commission for Maritime Services (RTCM);
- International Marine Electronics Alliance (IMEA) and
- International Search and Rescue Satellite System (Cospas-Sarsat).

TC80 has established liaison with the International Association of Classification Societies through individual members.

TC80 maintains dialogue and cooperation with other IEC TC/SCs and liaison organizations as shown below:

Component Committees	IEC SC 18A IEC TC 29	Electrical cables Sound measuring equipment
System Committees	IEC TC 18 ISO TC 8	Ship installations Ship bridge installations
Other	IEC TC 70 IEC TC 77 CISPR IEC TC 104 IMO IHO IALA ITU-R	Safety protection EMC EMC Environmental conditions Equipment performance standards Electronic charts Aids to navigation and e-navigation Radio recommendations

G. CONFORMITY ASSESSMENT

At the current time conformity assessment is conducted by notified bodies set up by Administrations with a responsibility for maritime matters.

H. 3-5 YEAR PROJECTED STRATEGIC OBJECTIVES, ACTIONS, TARGET DATES

STRATEGIC OBJECTIVES 3-5 YEARS	ACTIONS TO SUPPORT THE STRATEGIC OBJECTIVES	TARGET DATE(S) TO COMPLETE THE ACTIONS
Revise and update existing standards to add interfaces for BAM	Maintenance programme in place	2022

Revise and update existing standards to incorporate changes required by IMO and ITU	Maintenance programme in place	2022
Develop standards for cyber security on ships	Standard IEC 63154 in progress	2022
Develop standards for use or AIS and VDES technology	Monitor developing requirements in IALA, IMO and ITU.	2022
Develop standards to support Common Maritime Data Structure (CMDS).	Standards IEC 63173-1 and IEC 63173-2 in progress	2023
Develop standards for ECDIS	Maintenance programme under consideration	2023
Develop standards for electronic interfaces	Working Group 6 keeps interface issues under constant review	2024
Investigate needs for satellite navigation on ships	Monitor developing requirements in IMO	2025
Investigate needs for new GMDSS requirements	Monitor developing requirements in IMO and ITU	2025
Develop standards to control amount of EMI from Lighting systems to radiocommunications	Creation of a new standard under consideration	2025
Note: The progress on the actions should be reported in the RSMB.		