



IEC/TC OR SC: TC80	SECRETARIAT: GB	DATE: 2017-08-30
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A. STATE TITLE AND SCOPE OF TC

Title of 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

[Working Groups, Project Teams and Maintenance Teams structure](#)

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 TC80 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

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) and
- International Sailing Federation (ISAF).

In addition there are liaisons with:

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

G. CONFORMITY ASSESSMENT

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
Produce standards for Bridge Alert Management (BAM)	Standard IEC 62923 in preparation	2018
Revise and update existing standards as necessary	Maintenance programme in place	2020
Investigate needs for cybersecurity on ships	A new standard is proposed.	2021
Produce standards to support e-navigation	Monitor developing requirements within IMO, IHO, ITU and IALA	2022
Produce standards to support Common Maritime Data Structure (CMDS).	Specialist Working Group has been set up	2022