

Ice observations and their coding

Development
Baltic Sea Ice Code of 1980
Code for reporting ice and navigational conditions

Overview

By the end of the 19th century, the national ice services of several countries bordering the North and Baltic Seas had introduced routine ice observing and reporting systems. The search for a suitable ice reporting code began very early because a quick and convenient way of transmitting the ice observations to a central body and making them available to users was urgently needed. Shipping traditionally has a large variety of terms designating the different ice phenomena, taking into account regional differences that are attributable to different natural environments. Although today an essential criterion in the assessment of ice conditions still is the extent to which they hinder navigation, additional features describing the ice extent had to be introduced within the framework of the international exchange of ice information required in the wake of World War I. Requests for more and better ice information on the part of industry and shipping, efforts within the World Meteorological Organization to develop a uniform terminology, the transition to a prolonged shipping season lasting throughout winter in the Gulfs of Bothnia and Finland as well as increasing activities in the coastal areas forced the ice services to continually improve the technology and contents of their information exchange.

The chronological data can be summarized as follows:

Baltic Sea Ice Code
Ice Observing Stations
WMO Sea Ice Nomenclature / Ice Symbols

1920/21 National ice code

1st digit: ice conditions
2nd digit: impact on navigation

1928 / 29 1st Baltic Sea Ice Code

1st digit: ice conditions
2nd digit: navigation

1952 1st WMO Sea Ice Nomenclature

1954/55 2nd Baltic Sea Ice Code (revised in 1969, GTS use)

1st digit (i): ice conditions
2nd digit (j): stage of ice development
3rd digit (k): navigational conditions

1968 2nd WMO Sea Ice Nomenclature

1980 WMO Ice Symbols

1981/82 3rd Baltic Sea Ice Code of 1980 (B = Baltic)

1st digit (AB) = quantity and arrangement of ice
2nd digit (SB) = stage of ice development
3rd digit (TB) = topography and form of ice
4th digit (KB) = navigational conditions

1955/56, 1981/82, 1993/94 Change of German station numbers

Baltic Sea Ice Code of 1980

The new code describes the ice conditions in harbours, fairways, coastal areas, and marked navigation channels. Together with the ice charts and detailed written ice reports, it informs ships' officers of current ice and navigational conditions. The sea and navigation districts of each country are designated by letters: AA, BB, CC etc. Each district is subdivided into sections numbered from 1 to 9.

The single observations for the code elements

AB, SB, TB, KB

thus are compiled and distributed in the following general code format:

AA 1AB, SB, TB, KB 2AB, SB, TB, KB 3AB, SB, TB, KB.... nAB, SB, TB, KB

BB 1AB, SB, TB, KB 2AB, SB, TB, KB 3AB, SB, TB, KB.... nAB, SB, TB, KB

The fairway districts (AA, BB, ...) in the individual countries are sorted regionally from north to south and east to west, and the fairway sections (1,... 2,...) from onshore (harbour) to offshore (sea). The code numbers AB, SB, TB, KB define the following conditions: