

# 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 19<sup>th</sup> 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

1<sup>st</sup> digit: ice conditions  
2<sup>nd</sup> digit: impact on navigation

### 1928 / 29 1<sup>st</sup> Baltic Sea Ice Code

1<sup>st</sup> digit: ice conditions  
2<sup>nd</sup> digit: navigation

### 1952 1<sup>st</sup> WMO Sea Ice Nomenclature

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

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

### 1968 2<sup>nd</sup> WMO Sea Ice Nomenclature

### 1980 WMO Ice Symbols

### 1981/82 3<sup>rd</sup> Baltic Sea Ice Code of 1980 (B = Baltic)

1<sup>st</sup> digit (AB) = quantity and arrangement of ice  
2<sup>nd</sup> digit (SB) = stage of ice development  
3<sup>rd</sup> digit (TB) = topography and form of ice  
4<sup>th</sup> 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: