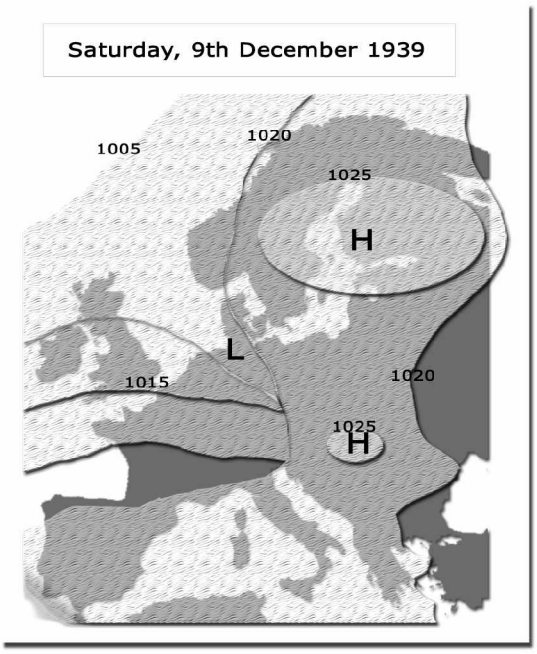
The reaction of the North and Baltic Seas

North and Baltic Seas play their role according to the physical laws. By the end of August, they had reached the highest seasonal heat capacity. At this time, the upper water column (down to 30 meters depth) is about 10°C warmer than six months later, in March. If no unnatural phenomena come up to stir the seas, then only usual winter winds and storms make waves and only the internal currents exchange the cold water with warm water at the surface of the sea. In this case, seasonal cooling (from September to December and to March) occurs gradually, but close to long term statistical average. That is what climatology tells ever since: "climate is average weather over a long period of time".

However, statistics become useless if a spoon stirs forcefully a cup of hot soup or if naval forces interfere and turn seas up side down. Warm water starts to steam. The more water is turned and twisted, the more steam goes up. This is exactly what happened in autumn 1939. Seawater around Britain (particularly in the southern North Sea, Helgoland Bight, and Baltic Sea) was forced to evaporation at a rate above any other climate data average. Air above the seas became 'thin' and needed replacement with 'heavy' air, which was abundantly available in Northern Russia and in the Arctic region. Consequently, cold air travelled from North to Eastern and Western Europe. Prevailing north-east winds should be regarded as strong evidence that naval warfare acted in North and Baltic Seas the same way a spoon rapidly mixes the hot soup in a cup.

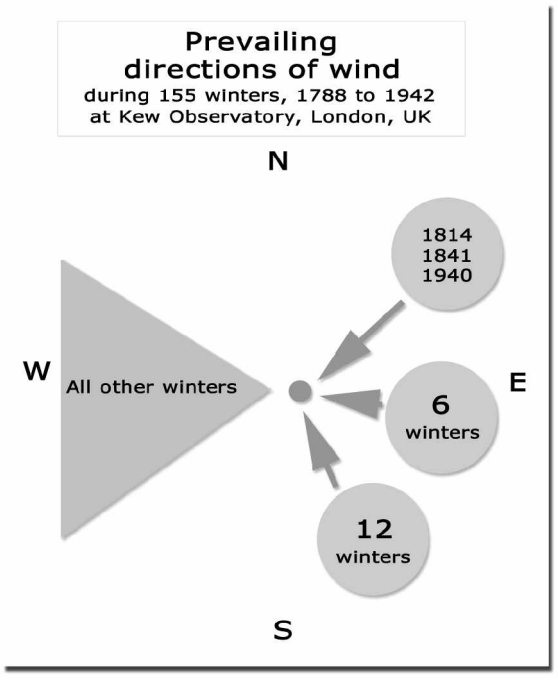


This phenomenon became evident the moment the German weather service reported that the wind direction has changed dramatically (the 2nd of November 1939). Based on immediate observations in Northern Germany, meteorologists noticed that the wind blowing from North-East had almost doubled its presence, while the most prevailing South-Western wind (usually 24%) accounted now for only 9%. This is a very strong and clear indication that huge air masses moved towards the North Sea and to the southern part of the Baltic Sea, phenomenon caused by unusually high evaporation in this area of the sea. While the North Sea water was 'stirred and turned', 'steam' rose upwards into the sky and determined air from the north-eastern area to flow in, thus preventing low-pressure cyclones to travel along the west-wind-drift channel via the North Sea to Central Europe and further on to Asia.

During the first days of December, we witnessed the last weak attempts of the cyclones to reclaim their common path of travelling east. By the 7th of December 1939, a high pressure coming from Belgium to Norway served as the last stitch for the installation of severe winter conditions. Humid Atlantic air seemed to have lost the game. The 'Neue Zürcher Zeitung' (the 14th of January 1940) analysed the situation as it follows (extract):

> *"The severe cold which invaded the whole Europe this week was by no means an accidental phenomenon that settled in by surprise. It rather represents the peak of a gradual process which had its beginnings during the first week of December. Towards the end of the phenomenon, high pressure began to stabilize in Northern and Middle Europe, keeping away the low Atlantic cyclones from the continent and diverting them mainly through Greenland and Iceland waters to the Sea… As soon as occasional Atlantic depressions moved East through the North and Baltic Seas, they were immediately replaced by cold air coming in from the Greenland area."*

This is an impressive analysis. What the weather expert did not realise is the fact that the 'blocking' of the western winds had occurred since September 1939 and that war at sea was to be blamed ever since.



At this stage, it might be worth mentioning that a research conducted by Kew Observatory (London) in the early 1940s mentioned that prevailing wind directions in South-Western England during 155 winters (from 1788 until 1942) had only 21 easterly resultants, whereby the few winters 1814, 1841, and 1940 had resultants from NE to E-NE. Another few winters after 1841 (1845, 1870, 1879, 1891, 1895, 1904, 1929) were characterized by prevailing winds coming from S-SE to E-SE, but during all the other 130 winters the westerly wind prevailed. The exceptional situation of the first war winter (1940) is thus clearly underlined.