Excerpt from iUniverse book: "Booklet on Naval War changes Climate" by Arnd Bernaerts

CHAPTER C, The three years cold package & the war, page 59

Three ice winters in the Baltic Sea

Sea icing on the German coast

An accurate indicator of the severity of a winter in the Baltic Sea and in its bordering countries is the annual icing phenomenon. Taking into account the extent of the icing phenomenon during the three war winters of 1939-42, it is possible to provide ample proof that this extraordinary situation could only have been generated by intensive military activities in these waters, over the time period in question. The main aspects can be summarised as it follows:

The first and the most significant argument: the suddenness and the severity of each of these ice winters for which we could find no other cause but the war at sea.

It is possible to establish a direct connection between the extent of the activities in the Baltic Sea and the degree of the icing phenomenon and of the arctic winter conditions:

1939/40: intensive military activities, the battle at Gdansk, the mining of the western Baltic Sea and of the Gulf of Finland, Finnish-Russian war at sea - all these resulted in very heavy ice.

1940/41: there were only general naval activities, so the icing was less serious than that of the previous year. Yet, it was a severe ice winter.

1941/42: the Germans invaded Russia and fought with the Russian Baltic Fleet in the Central and the Northern Baltic Sea for five months (June-December 1941). This event had as consequence the most extended and heaviest icing ever.

Another significant proof is the fact that such a severe icing has never been seen before. It should be mentioned that, over the observation period, the general average temperatures in Sweden and in the Northern Hemisphere rose roughly with one degree, while the winter temperatures in Stockholm had risen with about 2°C since 1761. This comparison of the extreme winter conditions of the late 18th century-the early 19th century to the similar events from the mid-20th century will underline the extremely severe character of the latter.