## Chapter D. $20^{\text{th}}$ Century Climate changed by the Naval War

## A century of climatic perspective

We have seen how quickly and decisively a few months war at sea completely changed winter conditions in Northern Europe. Mild winters were suddenly replaced by the harsh conditions of the Little Ice Age, conditions the Europeans had not experienced for more than 100 years. This happened not only once, but three times in a row, namely during the first war winter (1939/40), the second war winter (1940/41) and the third war winter (1941/42).

During the winter months, average temperatures dropped severely in the entire Northern Europe. Meteorology commonly referred to that period in the following way: 'climate changes were the average weather for a long period of time'. This may raise the question whether, during the three war winters, there had been an important "climate change" or just some insignificant climatic changes. As there is significant evidence that temperatures turned down into what was called a cooling trend and that they remained at that level for four decades, we can dismiss from the beginning the latter assumption.

Actually, the 20<sup>th</sup> Century global temperature statistics indicate three significant trend alterations:

- The first occurred during the winter 1918/19, at the end of the First World War. A fierce naval war, fought near the European shores for four years, resulted in a strong warming trend which lasted for two decades, until 1939.
- The second alternation occurred during the winter 1939/40. A four months war at sea in Northern Europe and a global naval warfare between 1941 and 1945 resulted in a cooling trend which lasted for four decades, until about 1980.
- The third change of temperature occurred around 1975, when the cooling trend which started during the winter 1939/40 came to an end, and the previous trend (1918-1939) replaced it. Temperature evolution after 1975 indicates that there is a strong, mutual relation between the climate and the naval warfare during WWI.

In the following section we will focus on the warming trend (1918-1939) and on the cooling trend (1939-1980), and will provide strong arguments that the three initial arctic winters in WWII were war caused. At least at first sight, naval warfare had been the driving force for global temperatures changing direction twice, in 1918 and then in

1939. It will certainly not be possible to provide a 100% reliable proof, but, after carefully reading and evaluating the facts, you will be astonished by how deeply and convincingly  $20^{\rm th}$  century naval warfare and global climate trends are interconnected.