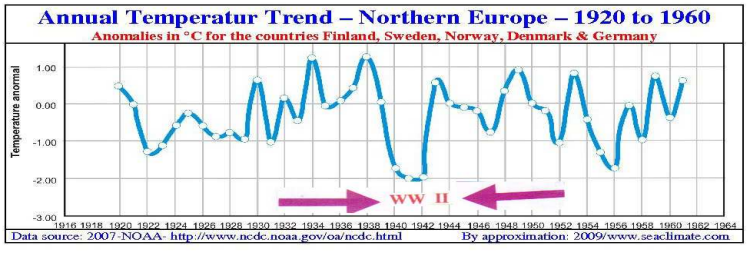
Is the climatic shift since winter 1939/40 a sea related matter?

Arnd Bernaerts: dr.arnd@gmail.com

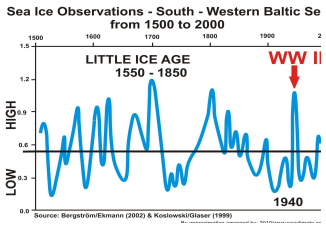


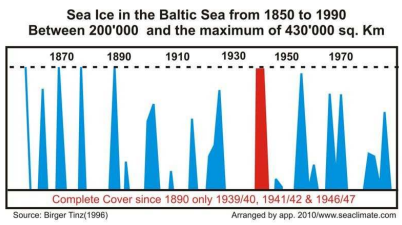
Did the naval war during World War II in Northern Europe waters initially and since 1942 all over the North Atlantic and Western Pacific played a significant role in most prominent climatic shift of the 20th Century, the global cooling from 1940 to mid 1970? A better understanding of the connection between these two events could highlight the role of the ocean and adjacent seas in climate change matters, and of anthropogenic activities in the marine environment.

Winter 1939/40

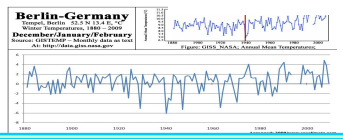
For Northern Europe the coldest for 100 years

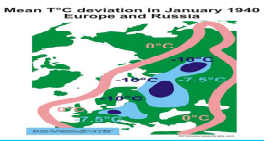
(Drummond, 1942)
The 'old-fashioned winters' seemed to have gone for ever. The sudden arrival at the end of 1939 of what was to be the beginning of a series of cold winters was therefore all the more surprising.





The early, extreme and long winter resulted from a to early heat loss in the North and Baltic Sea.







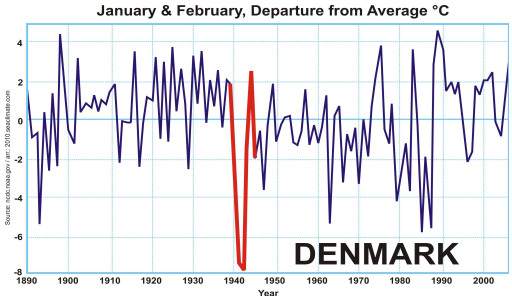
Areas close to major naval war activities were the coldest.

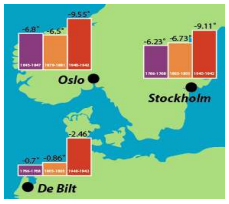


Record low DJF 1939/40 Berlin - Jan. deviation –10° Cold profile West-East - - Denmark Sea Ice Feb.40

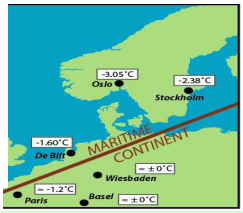
The three N-Europe war winters

1939/40 to 1941/42; the coldest ever observed



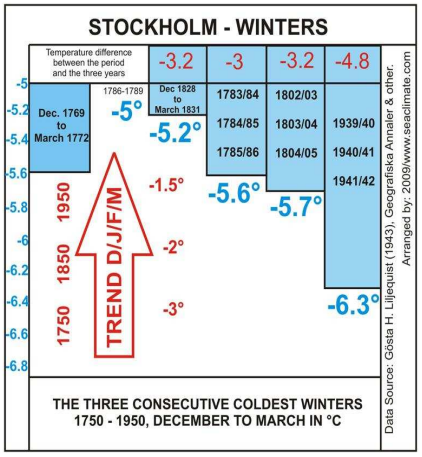


Throughout Europe these three winters were the coldest, and coastal cities superceded the continental



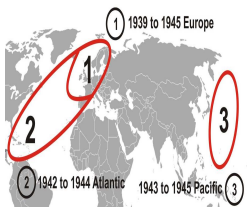
(Lilijequist, 1943)
__Three consecutive cold winters are scarce. in Stockholm. During the period 1757-1942 only three such cases occurred.
__Since the beginning of temperature observations from 1760 up to the decade 1931-1940 the temperatures of the winter have increased by about 2° .

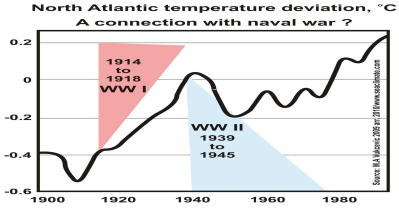




The global cooling started when the naval war went global 1942 to 1945

We need to know whether naval war contributed to the climatic shift during the early 1940s!



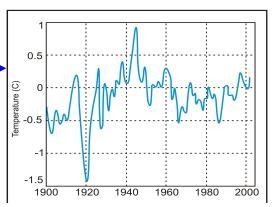


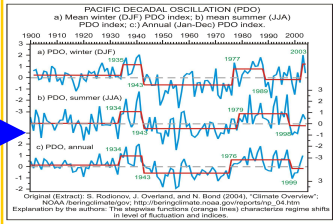
Global Naval war & Global cooling 1942-1970?

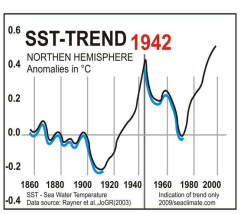
SST Faroe - Scotland

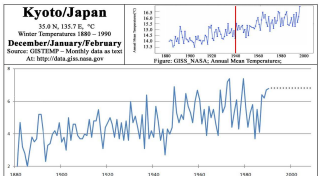
The ocean & Climate system took a shift in 1942/3

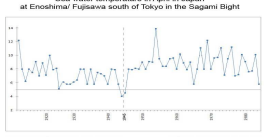
PDO Pacific











Pacific: Lowest SAT & SST – Japan 1944/45