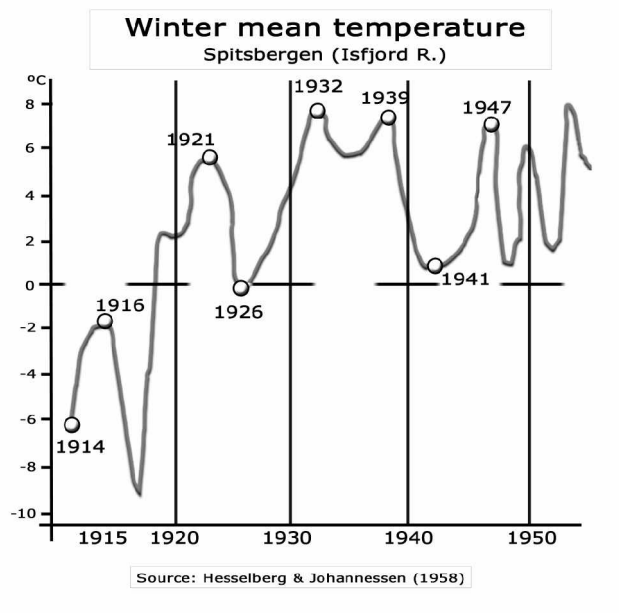


WWI ended with the Big Warming

From a climatic point of view, World War I ended with a severe “bang” during late 1918. At Spitsbergen, the winter temperatures jumped up by 8°C in a few years. The Northern Hemisphere became suddenly and significantly warmer. The terms “Greening of Greenland” and “Warming of Europe” became common expressions.

The starting point of the “big warming” coincides with the end of WWI, in November 1918. There was no earthquake, no major volcanic eruption, no particularly intense sun spots, no meteorite fall at that specific time. Only one major event could explain the “big warming”: the devastation caused by the naval war at about 2000



kilometres further in the south, around the British Isles, for four years. As the warming lasted two decades, until the end of 1939, the longevity of the warming process could be explained through the geographical positioning: the huge and deep Norwegian Sea, which permanently receives plenty of water masses that have passed the British Isles, either on its Atlantic side or coming from the North Sea.

During WWI, the naval war never extended at a global level, but was fought mainly around Britain. In fact, the naval war seriously started only in the

autumn of 1916 when new naval weaponry became fully available and devastatingly effective: submarines (U-boats), depth charges, and sea mines. In 1917, German U-boats alone sunk 6,200,000 tons of enemy ships and vessels. That means that about 10 merchant ships were sunk every day. The total war damage was of 12 million tons: 5200 ships, plus about 650 naval vessels. Most merchant vessels were fully loaded with cargoes of all kinds, from grain, ore, coal, crude oil to whatever war parties needed. All that stuff polluted the sea and was taken along by the Gulf Current and by the Norwegian Current up to the North, going either into the Barents Sea or, as most of the water flowed, into the basin of the Arctic Sea, after passing Spitsbergen at 79°N latitude.

After presenting a brief comparison of the weather during WWI and WWII, we will outline the impact of the naval forces unleashed during the last two war years, from the autumn of 1916 until 1918, then we will focus on the ‘big warming’ of Spitsbergen

and on the arguments that support the theory that WWI is the main factor that determined this significant warming.