1937

Scherhag, R., (1937) ‚Die Erwärmung der Arktis',

in: Cons. Intern. Expl. Mer. Rap. Proc.- Verb., Copenhagen, Vol. 12, p. 263-276.

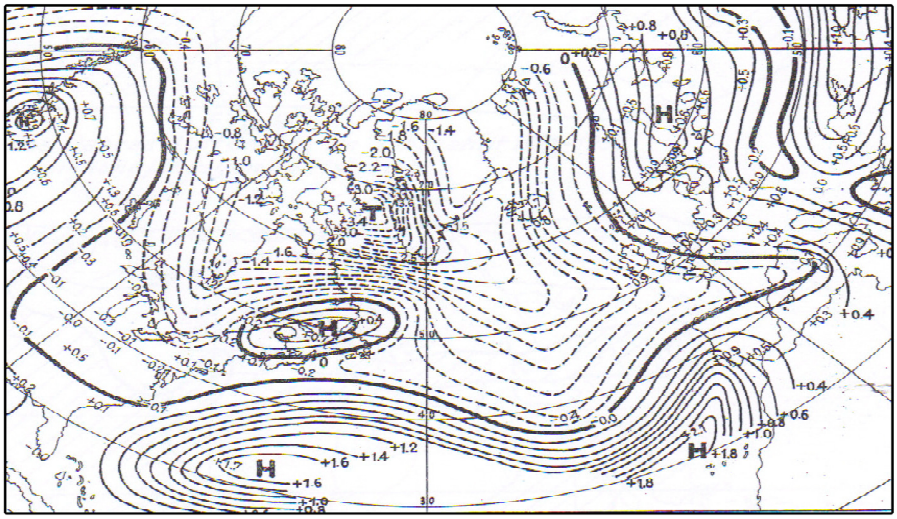
SUMMARY in ENLISH

The greater mildness of winters observable in the temperate zone during the last hundred years, accompanied by an increase in atmospheric circulation, has, during the last fifteen years, led to an extraordinary rise in temperature in the arctic regions, which in its turn has been accompanied by a corresponding retreat of the ice and a higher temperature in the sea. Just as, in the region from which the Gulf Stream springs, measurements of water temperature indicate a rise of about 0.5°C in the last ten years, there has also been found a like increase in surface temperature in the English Channel. Fifty-years series of temperatures from off-lying Norwegian coastal stations clearly manifest a similar warming, and it is therefore indubitable that the transport of the warm water of the Gulf Stream from Florida to its entry into the arctic has increased to a noteworthy extent. In this respect it appears to be a question of a secular period in the variation of atmospheric circulation of some 225 years duration, which seems at this juncture to have attained its maximum.

Tabelle 3.
Mittlere Abweichung der Eisgrenze (in km.) im Ostspitzbergenmeer (30° bis 50° Ostlänge) im Spätsommer.

Jahr	Abweichung	Jahr	Abweichung	Jahr	Abweichung
1898	-140	1911	0	1923	-210
1899	-100	1912	+110	1924	-100
1900	-50	1913	+160	1925	-170
1901	-60	1914	+120	1926	-50
1902	+40	1915	+30	1927	-10
1903	+80	1916	+320	1928	-70
1904	+10	1917	+140	1929	-10
1905	-110	1918	+100	1930	-290
1906	-150	1919	-30	1931	-270
1907	-240	1920	-140	1932	-100
1908	-230	1921	-120	1933	-280
1909	+70	1922	-270	1934	-180
1910	+80				

Late summer: plus = more ice-cover; minus = less ice-cover
EAST-SPITSBERG-SEA; 30° to 50° East



Deviation from long-term mean of winter air pressure during the decade 1921-1930.
Scherhag, R. (1936/Sept.); "Die Zunahme der atmosphärischen Zirkulation in den letzten 25 Jahren"; Annalen der Hydrographie und Maritimen Meteorologie, p. 397-407, Fig 7 (here reduced and streched)