

EXTRACTS FROM PAPER

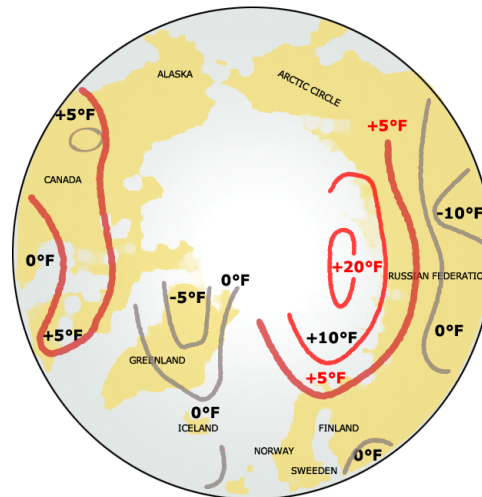
In recent years attention is being directed more and more towards a problem which may possibly prove of great significance in human affairs, the rise of temperatures in the northern hemisphere, and especially in the arctic regions.



- The Spitsbergen branch of the North Atlantic Current has greatly increased in strength and the surface layer of cold water in the Arctic Ocean has decreased from 200 to 100 metres thickness.
- Attributing the recent period of warm winters to an increase in the strength of the atmospheric circulation only pushes the problem one stage further back, for we should still have to account for the change in circulation.
- Moreover, it is almost equally plausible to regard the change of circulation as a result of the warming of the Arctic, for open ice conditions in the Arctic Ocean are favorable to the formation of depression.
- More probably the increased circulation is both cause and effect of the warmed Arctic

COMMENT: C.E.P. Brooks was very close to the solution of the causation of the early Arctic warming. Remarkable is that he challenged already R. Scherhag's rational that the circulation had initiated the warming, which is still in use today. Brooks seem to have overseen the suddenness by which the warming started, because this would have made clear to him that atmospheric warming followed the ocean warming, and during the winter season it could only be provided by a sudden shift in the warm Spitsbergen Current. Brooks far-sightedness was lauded by J.N. Carruthers by writing in 1941:

DEVIATION OF TEMPERATURES FROM NORMAL
 JANUARY 1938



SOURCE: C.E.P. BROOKS, 1938
 2009/www.oceanclimate.de

Eight years ago, the very wide subject: "oceanography and meteorology" was treated expertly and in considerable detail in a 60-page paper which confer a real boon on the practitioners of both our sciences. The writer was the American meteorologist C.F. Brooks, who has had wide dealings with the sea and who made very extensive investigations on ocean temperatures among other things. In one section of his valuable paper (FN), entitled "Surface oceanography fundamental to world meteorology," C.F. Brooks treats the following subjects:

- __The ocean as regulator of the world weather.
- __The ocean and the planetary wind belts.
- __Seasonal abnormalities in centres of action.
- __Ocean temperatures in seasonal weather forecasting.(Carruthers, 1941) ¹;

¹C.F. Brooks "Oceanography and Meteorology", Chapter 14 (457-519) of Physics on the Earth-V. "Oceanography" Bull. Nat. Coun., Wash., No.85, June 1932.