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Missing the Point on Arctic Warming, Ø. Nordli, IPCC, NASA ?

By <http://www.arctic-warming.com>, August 2008



“The Arctic ocean is warming up, icebergs are growing scarcer and in some places the seals are finding the water too hot”, reported the The Washington Post, on November 2nd, 1922. B.J. Birkeland (1930) saw the temperature rise, as “*probably be the greatest yet known on earth*”, and few years later A. W. Ahlmann (1946) called the event a ‘climatic revolution’¹. This site explains this sudden warming since winter 1918/19 in a detailed step-by-step approach (<http://www.arctic-warming.com>).

Since about the 1980th it is evident that the arctic is warming, after a colder period over four decade again. It

SPITSBERGEN, 1912 TO 1926

Temperature deviation of monthly mean from a 15-year average

Year	Jan.	Febr.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly
1912	-8.4	-7.3	-3.4	-6.2	-1.2	-0.1	-1.3	-2.0	-2.9	-2.9	-1.2	+1.8	-3.1
1913	+0.3	-1.7	+0.7	+3.8	-0.4	-1.8	-0.8	+0.6	+0.6	-2.8	+4.0	+1.1	+0.2
1914	-5.7	-4.9	-1.4	+3.0	-0.4	-0.2	-0.5	+0.2	-1.0	+1.2	-1.5	-3.6	-1.3
1915	+1.8	-0.5	-3.1	+2.5	+4.0	+0.4	-1.4	-1.0	-0.6	+0.9	-0.0	-8.3	-2.0
1916	-8.6	+2.1	-2.3	-3.0	-1.2	+0.4	-0.4	-0.9	-0.2	-1.3	-5.9	-8.4	-2.5
1917	-7.4	-10.3	-8.7	-9.2	-4.8	-1.4	-2.1	-2.3	-2.8	-2.7	-2.6	-5.4	-5.0
1918	-10.1	-0.4	-0.1	+0.8	+2.4	+0.8	+1.9	-0.1	-0.4	-1.8	+0.9	+7.4	+0.1
1919	+8.6	-4.7	-6.9	-6.3	+3.3	+0.7	-1.1	+0.2	-0.6	+1.0	-4.0	+0.8	-0.8
1920	+3.8	+1.4	+8.9	+0.8	+1.9	-0.5	-0.5	+0.7	+0.4	+3.5	+4.3	+3.8	+2.3
1921	-0.8	+0.1	+2.3	+2.5	-0.2	+0.5	+1.0	+1.2	-0.9	-2.1	+1.3	+2.5	+0.6
1922	+10.5	+6.9	+0.1	-0.5	+1.1	+1.7	+2.1	+1.2	+1.4	+1.8	+5.0	-0.9	+2.5
1923	+3.3	+4.8	+5.9	+3.8	+2.3	-0.1	+1.4	+1.5	+1.5	+3.0	-3.9	+4.5	+2.9
1924	+5.7	+8.1	-1.9	+2.3	+2.6	-0.6	+2.1	+0.8	+0.9	+2.3	+3.1	+5.3	+2.5
1925	+4.3	+6.3	+7.7	+2.1	-0.9	+1.4	+0.1	+1.4	+3.1	-0.7	+1.7	-3.1	+1.9
1926	+2.2	+0.5	+1.5	+4.0	-0.8	-0.5	+0.1	-0.8	+1.5	+0.1	-0.7	+2.5	+0.8

Source: B.J. Birkeland, Meteorologische Zeitschrift, June 1930, p. 234

is good that this trend receives attention since recently. IPCC has little problems to assert²: *The Arctic is expected to experience the greatest rates of warming compared with other world regions*. However, the early warming is not explained, and the little they say is inaccurate³. Other title it in this way: “NASA’s Earth scientists think ice is hot - a hot topic, that is⁴”, but fail to explaining anything either.

That is a big surprise as there are few, but reasonable data documented. Ø. Nordli, a scientist at the Norwegian Meteorological Institute, confirms the reliability of the data taken at Spitsbergen⁵, stating: *An abrupt change of temperature occurred at the end of the 1910s transforming the Svalbard climate from a cold phase (1911-1919) to a warm phase (1920-1930)*. Evidently Spitsbergen saw a temperature increase of more than 10 degrees Celsius from winter 1916 & 1918 to winter 1922/23. Despite this fact, Ø. Nordli made a statement concerning the period 1911 - 2004⁶: “During winter (DJF) no significant trend in the data is seen, whereas in spring the trend is highly significant, 0.42 °C per decade.” It seems Ø. Nordli missed the most interesting and important point: What cause the temperatures to ‘explode’ in winter 1918/19?

Also IPCC is too superficial in this respect (see above). At least they should have paid attention to the advise, V.F. Zakharov submitted to the World Meteorology Organization (WMO) in 1997⁷, asking:

- (1) *Why are the maximum climate fluctuations confined to the Atlantic sector of the Arctic?”;*
- (2) *Why are these fluctuations pronounced, first of all, right here?”;*
- (3) *Should the Atlantic sector of the Arctic be considered as a center of some kind, a source of climate change over the Hemisphere?”*

Also a work from Sergey V. Pisarev (1997)⁸ indicates that the impact of the sea may require more attention. Actually, this site is carefully elaborating the reasons for the sudden commencement of the arctic warming since winter 1918/19, concluding, that the source had been the seas around the Spitsbergen archipelagos as far as not covered by sea ice according the seasons. When Ø. Nordli observes: “*The cold phase was characterized by clear sky and pronounced inversions, whereas the warm phase was characterized by overcast sky and weaker and rarer inversions*”⁹, the answer is easy, for the winter season at least: It is the sea.

¹ See Chapter A. Introduction, <http://www.arctic-warming.com/introduction-the-scope-of-this-investigation.php>.

² IPCC, 2007a: Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [Solomon, S., D. Qin, M. Manning (eds.)].

³ Diitto: Average Arctic temperatures increased at almost twice the global average rate in the past 100 years. Arctic temperatures have high decadal variability, and a warm period was also observed from 1925 to 1945.

⁴ http://www.nasa.gov/vision/earth/environment/Arctic_Warming_ESU.html;

⁵ Øyvind Nordli, Year ?, “Temperature variations at Svalbard during the last century” at: <http://www.nordicspace.net/PDF/NSA106.pdf>.

⁶ Øyvind Nordli, 2005, “Long-term Temperature Trends and Variability at Svalbard (1911 – 2004)”, Geophysical Research Abstracts, Vol. 7, 06939, 2005.

⁷ Zakharov, V.F.; 1997, ‘Sea Ice in the Climate System’, Arctic Climate System Study, WMO/TD-No. 782, in the section “On the nature of ‘polar forcing’”, p. 71.

⁸ Sergey V. Pisarev, 1997, “Arctic Warming” During 1920-40: A Brief Review of Old Russian Publications, http://mclean.ch/climate/Arctic_1920_40.htm

⁹ Øyvind Nordli, 2005, “Long-term Temperature Trends and Variability at Svalbard (1911 – 2004)”, Geophysical Research Abstracts, Vol. 7, 06939, 2005.