



**Abstract (Extract):** A meridional pattern was also seen in the late 1930s with anomalous winter (DJFM) SAT, at Spitsbergen, of greater than +4°C. Both periods suggest natural atmospheric advective contributions to the hot spots with regional loss of sea ice. Recent warm SAT anomalies in autumn are consistent with climate model projections in response to summer reductions in sea ice extent. The recent dramatic loss of Arctic sea ice appears to be due to a combination of a global warming signal and fortuitous phasing of intrinsic climate patterns.

**3. Northern Hemisphere climate patterns (Extract):** The only major departure in the 20th century was during the 1930s when SAT observations at Spitsbergen had an extended interval with winter (DJFM) anomalies above +4°C relative to a 1912–2002 baseline (Fig. 7a). Maximum temperatures were toward the end of the decade with composite SLP (sea level pressure) anomalies for winter 1937–1939 showing strong meridional flow towards Svalbard.

(NOTE: Fig.7a indicates a temperature difference between 1917 and 1920 of 11°C. The mean level remained zero until 1925, turned to about –3° until 1930, to continue on a ca. mean level of +2° until WWII.)

**6. Conclusions (Extract):** The SAT and SLP patterns in the central Arctic at the beginning of the 21st century (2000–2007) were unique compared with most of the 20th century and are labeled the Arctic warm period.

The winter/spring SLP anomalies for 2000–2007 often have a pressure dipole/meridional geostrophic wind pattern with some resemblance, but different orientation, to the pattern in the 1930s, when the AO (Arctic Oscillation) and PNA\* (Pacific North American-like) were also small.

#### Question:

Why is no attention paid to the fact that the warming occurred more than 10 years earlier than the researcher mention, namely “during the 1930s” as they did also in previous work. See: Overland, J.E. (2005) and Muyin Wang; ‘The third Arctic climate pattern: 1930s and early 2000s’, when saying: “The period from 1928–1935 also had a dipole structure in SLP, which contributed to the interdecadal arctic-wide warm temperature anomalies in the first half of the 20th century.”

