

Interactive comment on “The early twentieth century warming and winter Arctic sea ice” by V. A. Semenov and M. Latif

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Historical sea ice data (1-5) show decrease winter sea ice in the Barents Sea in 1920-40s that is less decrease after 1990s. Vinje (2001) found uniform negative trend of April ice edge during 1860-1990s. Zakharov (2003) estimated the shift of ice edge to north in the Barents Sea in April about 3 degrees of latitude during 1921-38. Maximal change of ice edge is observed in summer and its influence on winter edge. Maximal correlation between monthly SAT and SIE in the Arctic is estimated in 6-11 months. The decrease of winter SIE could be a consequence of warming in 1920-40s but it could amplify one. Bitz et al (2003) considered the maintenance of ice edge under impact of external forcing 1. Vinje, T., 2001: Anomalies and trends of sea ice extent and atmospheric circulation in the Nordic Seas during the period 1864–1998. J. Climate, 14(3),

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