



National Scientific Conference

**„NAO – its essence, causes
and consequences”**

ABSTRACT BOOK

Wrocław, Poland

8-10 March 2018

Editors:

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ISBN: 978-83-62673-64-3

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Uniwersytet
Wrocławski

Wrocław 2018

This book was prepared on the basis of abstracts sent by the Participants of the National Scientific Conference "NAO - its essence, causes and consequences", Wrocław 2018. Editorial staff is not responsible for their content.

THE ROLE OF THE NAO IN SHAPING AIR TEMPERATURE IN THE ARCTIC

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Keywords: Arctic, air temperature, NAO, ETCWP

The role of the North Atlantic Oscillation (NAO) in shaping the air temperature of the Arctic – defined after Atlas Arktiki (1985) – and of the Sub-Arctic has been investigated. Monthly air temperature data from 37 Arctic and 7 Sub-Arctic stations have been taken. For the period 1951–2015, monthly air temperature anomalies with respect to 1981–2010 have been calculated. Monthly and winter (DJFM) NAO indices were taken from Hurrell (2017). The analysis is based on the comparison of composite fields of air temperature representing NAO plus (NAO+) and NAO minus (NAO-) conditions, selected by using all winter months (December, January, February, March) or winter seasons (DJFM) that equal or exceed 90% and 10% from the 152-yr long-term index series. Moreover, the influence of the NAO on changes in air temperature in the Arctic and Sub-Arctic during the Early Twentieth Century Warming Period (ETCWP) has been analysed. For this purpose a few existing observational long-term air temperature data series have been used from the stations (Archangelsk, Vardø, Malye Karmakuly, Svalbard Lufthavn, Byørnøya, Jan Mayen, Angmagssalik, Godthåb and Point Barrow) and their nearest gridpoints, which were taken from the Twentieth Century Reanalysis (20CRv2c, Compo *et al.* 2011) and CERA-20C reanalysis (Laloyaux *et al.* 2016).

The research work was supported by a grant entitled ‘*Causes of the early 20th century Arctic warming*’ funded by the National Science Centre, Poland (Grant No. 2015/1.9/B/ST10/02933).

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