



SCAR Sub-Group

SG

ANGWIN

PS

Person
Responsible:

Tracy Moffat-
Griffin

SCAR Executive Committee Meeting 2019

Plovdiv, Bulgaria, 29-31 July 2019

ANGWIN (ANTarctic Gravity Wave Instrument Network) 2018-19 Report

Optional additional information

Outreach, communication and capacity-building activities

Upcoming ANGWIN workshop: Hosted by KOPRI, Spring 2020

ANGWIN has partially sponsored two scientists to give ANGWIN related talks at International meetings:

- Dr F Mulligan to the Network for the Detection of Mesospheric Change (NDMC) meeting. The aim of this was to advertise ANGWIN to this community with whom we have some overlap scientifically.
- Dr Kogure to IUGG general assembly. An early career scientist doing key ANGWIN research.

ANGWIN Journal of Geophysical Research joint special issue (Atmospheres and Space Physics) fully launched in January 2019: 10 papers on ANGWIN science: [https://agupubs.onlinelibrary.wiley.com/doi/toc/10.1002/\(ISSN\)2169-8996.ANGWIN1](https://agupubs.onlinelibrary.wiley.com/doi/toc/10.1002/(ISSN)2169-8996.ANGWIN1)

EOS article: Atmospheric Gravity Wave Science in the Polar Regions, April 2019: <https://eos.org/editors-vox/atmospheric-gravity-wave-science-in-the-polar-regions>

Updates for your group's SCAR web page

No updates needed

Notable Papers

1. Moffat-Griffin, T. (2019) An introduction to atmospheric gravity wave science in the polar regions and first results from ANGWIN. *Journal of Geophysical Research: Atmospheres*, 124. 1198-1199.
<https://doi.org/10.1029/2019JD030247>

This paper introduces the JGR ANGWIN special issue (that came about as a result of the 3rd ANGWIN workshop), it also provides an overview of ANGWIN.

2. Giongo, G. A., et al. (2018), Mesospheric front observations by the OH airglow imager carried out at Ferraz Station on King George Island, Antarctic Peninsula, in 2011, *Ann. Geophys.*, 36(1), 253-264.
<https://doi.org/10.5194/angeo-36-253-2018>

This work utilises instrument data from ANGWIN to study gravity wave fronts in the middle atmosphere and associates them with their likely source. Identifying gravity wave sources in different parts of Antarctica is one of the main objectives of ANGWIN.

Other information for publicity purposes

Summary of research:

The importance of gravity wave activity over Antarctica and its contribution to global circulation is well known, although there is a lack of comprehensive observations in this region. Gravity wave activity over Antarctica needs to be studied in a joined up fashion, continent wide and through all levels of the atmosphere in order to fully understand their impact and to constrain modelling work. By combining our resources through broad collaboration, and standardizing our analysis techniques we can achieve this.

Any other information or issues you would like to raise

None.