



SCAR Sub-Group

SG / SC

Person  
Responsible:

ANGWIN

PS

Tracy Moffat-Griffin

**XXXVII SCAR Delegates Meeting  
India, September 2022**

**Antarctic Gravity Wave Instrument  
Network (ANGWIN)  
2020-22 Report**

**Summary**

**Report Author(s)**

Mike Taylor (Utah State University, USA), Takuji Nakamura (NIPR, Japan), Tracy Moffat-Griffin (BAS, UK), Damian Murphy (AAD, Australia), Jose Valentin Bageston (INPE, Brazil), Geonhwa Jee (KOPRI, South Korea)

**Summary of activities from 2020-22**

**Key challenges:**

Our activities have been severely impacted by the COVID-19 pandemic. Restrictions on travel has meant that our regular workshops have not taken place. Additionally, restrictions on who can travel South over the past seasons has meant that, for some of our instruments, they have either not been deployed on time or had maintenance delayed.

**Highlights:**

Airglow imager gravity wave analysis software now publicly available (M-Transform, Website: <http://polaris.nipr.ac.jp/~airglow/M-transform/> , Program language: Interactive Data Language (IDL))

Instrument deployments/upgrades in 2022: At Comandante Ferraz (CF) station and Halley station there are new all-sky airglow imagers deployed. Upgraded meteor radar at CF station. Wind profiling (MST) radar at Davis upgraded.

**Upcoming activities:**

Instrumentation: A new airglow instrument at King Sejong Station, Antarctica for the observations of the mesospheric temperature and gravity waves. Rayleigh LIDAR at South Pole. Upgrade of Meteor radar at Davis

SCAR OSC session: *Polar atmospheric processes: water cycle, snow, clouds, aerosols, radiation and gravity waves*

ANGWIN workshop, hosted by KOPRI, October 2022

2023 IUGG assembly joint symposium on Polar regions instrumentation that

**Summary Budget 2021 to 2024**

	2021	2022	2023	2024
	Spent	Allocated	Request	Request
(US\$)	\$0	\$3432	\$1500	\$1500

## Progress to date

### Sub-group Outcomes Summary

Sub-group	Activity/Outcome/Benefit/Achievement
ANGWIN	Airglow imager gravity wave analysis software now publicly available (M-Transform)

### Sub-group Cash Flow

(Since previous report to Delegates in 2020)

We will spend our rolled over allocation on supporting ECRs at the ANGWIN workshop in October 2022

Sub-group	Allocation	Amount spent		
		2020	2021	2022
ANGWIN	\$1500	0	0	0

## Future plans

### Planned activities in 2022 to 2024

Sub-group	Planned activity
ANGWIN	ANGWIN workshop 2022 at KOPRI
ANGWIN	Participation at SCAR OSC 2022/2024
ANGWIN	Participation at IUGG assembly 2023

### Planned use of funds for 2022 to 2024

Year (YYYY)	Purpose/Activity	Amount (in USD)	Contact Name	Contact Email
2022	Travel and subsistence for early career scientists to ANGWIN workshop	3432	Dr Geonhwa Jee	ghjee@kopri.re.kr
2023	Travel and subsistence for early career scientists to present ANGWIN work at an international/national conference	1500	Dr Tracy Moffat-Griffin	tmof@bas.ac.uk
<b>Total</b>				

**Any additional detail on funds usage and desired results/outcomes**

We plan to use our funds to help support early career scientists to present ANGWIN related work at relevant conferences. We want to encourage as wide a participation from scientists from as many countries as possible.

**Percentage of the budget to be used for support of early-career researchers**

2022: 80%

2023: 80%

2024: 80%

**Percentage of the budget to be used for support of scientists from countries with developing Antarctic programmes**

We will try to overlap this by prioritising early career scientists from developing Antarctic Programmes but this may not always be possible.

## Membership

### Leadership

**The science committee is run jointly by the following people:**

- Mike Taylor (Utah State University, USA)
- Takuji Nakamura (NIPR, Japan)
- Tracy Moffat-Griffin (BAS, UK)
- Damian Murphy (AAD, Australia)
- Jose Valentin Bageston (INPE, Brazil)
- Geonhwa Jee (KOPRI, South Korea)
- Mitsumu Ejiri (NIPR, Japan)
- Dominique Pautet (Utah State University)

Role	First Name	Last Name	Affiliation	Country	Primary Language	Email	Date Started

*(Please identify early-career researchers with \* in first column)*

### Other members

We have 99 members on our mailing list, around 1/3 of which are early career researchers. Further details can be provided on request (contact [tmof@bas.ac.uk](mailto:tmof@bas.ac.uk))

First Name	Last Name	Affiliation	Country	Primary Language	Email

*(Please identify early-career researchers with \* in first column)*

## **Additional information (optional)**

### **Outreach, communication and capacity-building activities**

*(Brief highlights of any activities undertaken since the last report to SCAR Delegates in 2020).*

A YouTube video introducing people to ANGWIN was posted to coincide with the 2020 SCAR OSC: <https://youtu.be/KZ1trlDa2bM>

### **Contributions to equality, diversity, and inclusion (EDI)**

*(Any specific actions the group has undertaken to advance EDI within the group and/or within SCAR)*

We are an international group and always work to ensure that we can support early career researchers/those from countries with developing Antarctic programmes