



SCAR Sub-Group
SG / SC
Person
Responsible:

ACA
PS
Tom Lachlan-
Cope

XXXVII SCAR Delegates Meeting
India, September 2022

Antarctic Clouds and Aerosols (ACA)
2020-22 Report

Summary

Report Author(s)

Tom Lachlan-Cope (UK)

Summary of activities from 2020-22

The development of a database of cloud observations (starting with ceilometer measurements) is now under the leadership of Adrian McDonald in New Zealand.

There was a meeting to discuss coordination of observations of clouds and aerosols over the Antarctic Peninsula. This includes the UK Southern Ocean clouds project which is taking ground-based measurements at Rothera, the Chilean observations being taken at Marsh, Dan Lubin's proposed project at Palmer (called Alcina) and a Spanish cruise in the 2022/23 season. Cooperation has been organized between the Spanish cruise and aircraft observations BAS plans to make from Rothera. In the 2023/24 season BAS will have a planned cruise concentrating on aerosols and clouds and it is hoped that Lubin's project will be funded by then. There is a lot going on over the Peninsula and ACA is proving an effective forum for coordinating this work.

Summary Budget 2021 to 2024

	2021	2022	2023	2024
	Spent	Allocated	Request	Request
(US\$)	0	1500	1000	1000

Progress to date

Sub-group Outcomes Summary

Sub-group	Activity/Outcome/Benefit/Achievement
ACA	Facilitation of cloud and aerosol research in the Antarctic Peninsula

Sub-group Cash Flow

(Since previous report to Delegates in 2020)

Sub-group	Allocation	Amount spent		
		2020	2021	2022
ACA	3000		0	0

Future plans

Planned activities in 2022 to 2024

Sub-group	Planned activity
ACA	Facilitation of cloud and aerosol research in the Antarctic Peninsula region will continue.

Planned use of funds for 2022 to 2024

Year (YYYY)	Purpose/Activity	Amount (in USD)	Contact Name	Contact Email
2023	Meeting	1000	Tom Lachlan-Cope	tlc@bas.ac.uk
2024	Meeting	1000	Tom Lachlan-Cope	tlc@bas.ac.uk
Total				

Any additional detail on funds usage and desired results/outcomes

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

2022:

2023:100%

2024:100%

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

2022:

2023: 50%

2024: 50%

Membership

Leadership

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

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

Other members

First Name	Last Name	Affiliation	Country	Primary Language	Email

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

Additional information (optional)

Notable Papers

1. Moore, K.A., Smythe, P.H. & Hui, C.W., et al. 2017. Remote sensing using remotely piloted aircraft systems in Antarctica. *Frontiers in Remote Sensing* **62**, 102-136.

This work provides a comprehensive overview of developments in remote sensing based on RPAS in the Antarctic region. It was the outcome of the AG-Remote Sensing's meeting in Kuala Lumpur, October 2016.