



Australian Academy of Science

Ian Potter House, Gordon Street, Canberra ACT 2601

3 November 2017

Mr Ben Morton MP
Chair of Joint Standing Committee on the National Capital and External Territories
PO Box 6022
House of Representatives
Parliament House
Canberra ACT 2600

Dear Mr Morton,

QUESTIONS TAKEN ON NOTICE AT THE INQUIRY INTO AUSTRALIA'S ANTARCTIC TERRITORY

Thank you once again for the opportunity to provide evidence to the Joint Standing Committee for the Australian Capital and External Territories' *Inquiry into Australia's Antarctic Territory*. As stated in our appearance before the Committee and in our submission to the Inquiry, the Australian Academy of Science is a strong supporter of Australia's Antarctic science programs. We trust that the information we were able to provide at the hearing was helpful to the Committee.

At the hearing we undertook to provide further information on notice. In discharge of that undertaking, please find attached the requested information, as follows:

1. Australian universities currently undertaking Antarctic research
2. Chinese access capabilities and infrastructure, current and in development
3. Russian access capabilities and infrastructure
4. Joint projects between Australia and China, Russia, and India
5. Brochure from the Council of Managers of National Antarctic Programs with information on all Antarctic stations

Please note that with respect to point 4, we were unable to provide a comprehensive list of such joint projects, and were unable to ascertain any information about joint projects with India. As we have now discovered, and to the best of our knowledge there is no readily available mechanism to prepare such a list without months' worth of in-depth research. We have provided the information readily available to the Academy. However, all of the countries listed are members of the Scientific Committee on Antarctic Research (SCAR) along with Australia, and collaborate on SCAR Scientific Research Projects.

If you have any further questions about our evidence, please do not hesitate to contact
Dr Stuart Barrow at the Australian Academy
of Science.

Yours faithfully,

Professor Steven L. Chown
Chair, Australian Academy of Science National Committee for Antarctic Research



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A list of Australian universities undertaking Antarctic research

Tasmania

University of Tasmania

including

Antarctic Climate and Ecosystems Cooperative Research Centre

Institute of Marine and Antarctic Studies

South Australia

University of Adelaide

University of South Australia

Victoria

Deakin University

La Trobe University

Monash University

RMIT University

University of Melbourne

Victoria University

ACT

Australian National University

University of Canberra

New South Wales

Griffith University

Macquarie University

University of New England

University of New South Wales

University of Newcastle

University of Sydney

University of Technology, Sydney

University of Western Sydney

University of Wollongong

Queensland

James Cook University

University of Queensland

Northern Territory

Charles Darwin University

Western Australia

Curtin University

University of Western Australia



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2. Chinese access capabilities and infrastructure, current and in development

Stations/bases

Great Wall Station (Antarctic Peninsula Area, 40 beds, 4082 m² under roof)

Zhongshan Station (East Antarctica, 60 beds, 7436 m² under roof)

Kunlun Station (East Antarctica, 20 beds, 558 m² under roof)

Taishan Station (East Antarctica, 20 beds, 710 m² under roof)

An unnamed but planned fifth station – see

https://news.cgtn.com/news/3d4d6a4d3249444e/share_p.html

Ships

MV Xuě Lóng (1993)

MV Xuě Lóng 2 planned for 2019

Haibing 722 of the military is sometimes reported to have Antarctic plans, but no verification available.

Aircraft

Basler BT-67 'Snow Eagle 601'

Airstrips

Kunlun

Taishan

An airfield is planned for Zhongshan station, see:

http://www.chinadaily.com.cn/china/2017-04/12/content_28885840.htm



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3. Russian access capabilities and infrastructure

Stations/bases

Bellinghshausen (Antarctic Peninsula Area, 40 beds, 1500 m² under roof)
Druzhnaya IV (East Antarctica, 50 beds, ??? m² under roof)
Leningradskaya (North Victoria Land, 10 beds, 800 m² under roof)
Mirny (East Antarctica, 50 beds, 3000 m² under roof)
Molodezhnaya (Enderby Land, 15 beds, 7000 m² under roof)
Novolazarevskaya (Dronning Maud Land, 70 beds, 1000 m² under roof)
Oazis (East Antarctica, 10 beds, ??? under roof)
Progress (East Antarctica, 50 beds, 1500 m² under roof)
Russkaya (Marie Byrd Land, 10 beds, 800 m² under roof)
Vostok (East Antarctica, 30 beds, 600 m² under roof)

Ships

Akademik Fedorov
Akademik Tryoshnikov
Akademik Aleksander Karpinsky

Aircraft

Ilyushin IL-76TD
Bassler BT-67

Airstrips

Novolazarevskaya (Takes Ilyushin IL-76TD 76 Cargo Aircraft operated out of Cape Town by ALCI)
Molodezhnaya
Progress
Vostok



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4. Joint projects between Australia and China, Russia, and India

(Please note that this list is not comprehensive; we do not have a ready mechanism to provide such a list.)

The countries collaborate indirectly through the Scientific Research Projects of the Scientific Committee on Antarctic Research since all of them (and Australia) are members of SCAR – see www.scar.org

China

Joint Committee on Antarctic and Southern Ocean Collaboration established under the China-Australia Memorandum of Understanding on Cooperation in the Field of Antarctic and Southern Ocean Affairs in November 2014. Inaugural meeting in February 2016. A further workshop held on 27th September 2017 in Hobart with 30 scientists. Discussions included those on ICECAP, of which both countries are part. ICECAP is a multination project to map the thickness and underlying bedrock topography of the East Antarctic Ice Sheet.

The joint China-Australia Centre for Southern Hemisphere Oceans Research, launched in 2017, has a mission to “further scientific understanding of the southern hemisphere oceans and their role in global and regional climate.”

Russia

The Antarctic Circumnavigation Expedition funded by the Swiss Polar Institute was supported by the Arctic and Antarctic Research Institute's *Akademik Tryoshnikov* and included multiple Australian projects (<http://spi-ace-expedition.ch/>)

India

No information available.



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5. Brochure from the Council of Managers of National Antarctic Programs with information on all Antarctic stations

Please see attached.

URL:

https://www.comnap.aq/Members/Shared%20Documents/COMNAP_Antarctic_Station_Catalogue.pdf