

## Antarctica and the Southern Ocean

# The perfect Antarctic Gateway

Hobart provides natural access to the Southern Ocean, sub-Antarctic Macquarie Island and the vast east Antarctic region.

The city's deep-water port is 2 575 km from the Antarctic mainland and 3 429 km from Australia's Casey Station. Summer flights link Hobart Airport to Antarctica.

Tasmania is the powerhouse driving Australia's activities in Antarctica, the sub-Antarctic islands and the Southern Ocean. It is the preferred location for Australia's assets relating to the Antarctic, including Australia's icebreaker, *Aurora Australis*. More than 850 Tasmanians are employed in Antarctic and Southern Ocean science, research and support activities.

A thriving coalition of local businesses, research organisations and government agencies, the Tasmanian Polar Network (TPN), collaborates to support and promote the sector, and provide specialised products and services for Antarctic programs.

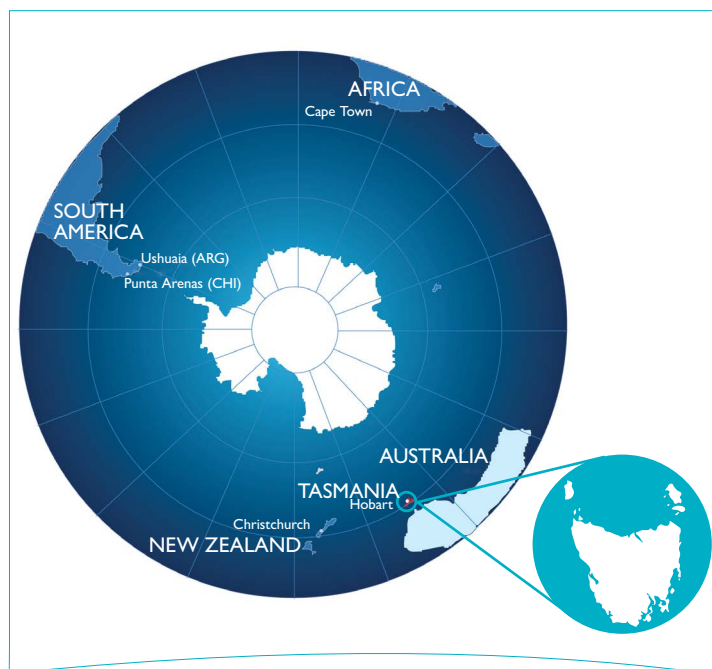
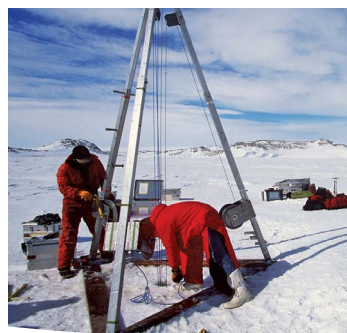


The French Antarctic organisation, Institut Polaire Français Paul-Emile Victor's expeditionary vessel *l'Astrolabe* uses Hobart port as its summer base.

Antarctic and Southern Ocean research programs from China, the USA, Italy, South Korea and Japan visit Hobart regularly for science collaboration or logistics support.

## Why choose Tasmania for your Antarctic needs?

Hobart is an international centre of Antarctic and Southern Ocean expertise, home to the vast majority of Australia's Antarctic and Southern Ocean scientists. It also hosts a number of international Antarctic secretariats and project offices. The sector is well organised and works collaboratively on internationally important science.





## Hobart's scientific research and education institutions

### Australian Antarctic Division

The Australian Antarctic Division (AAD) leads Australia's Antarctic program. Its charter is to ensure Australia's Antarctic interests are advanced. AAD personnel have specific expertise in Antarctic policy, science, logistic support, polar medicine and administration. The division:

- » administers Australia's Antarctic territories
- » conducts and promotes Antarctic and sub Antarctic science
- » coordinates and manages Australia's logistics program in Antarctica
- » develops policy and provides advice on Australia's Antarctic interests
- » promotes Australia's Antarctic interests within the Antarctic Treaty System
- » maintains permanent stations and field bases and provides transport, communication and medical services.

### Commonwealth Scientific and Industrial Research Organisation

The Commonwealth Scientific and Industrial Research Organisation (CSIRO) is Australia's national science agency and one of the largest and most diverse research agencies in the world.

CSIRO's Hobart division includes its Oceans and Atmosphere division, home to staff and visiting scientists who work in the areas of large scale, multidisciplinary research in marine, ocean, atmospheric and climate science in collaboration with leading science agencies from around the world.

The laboratories are adjacent to Hobart's deep-water port, which is also home to Australia's new state-of-the-art research vessel *Investigator*.

CSIRO in Hobart houses collections of national significance, including the Australian National Fish Collection and the Australian National Algae Culture Collection. CSIRO and the Australian Bureau of Meteorology jointly supervise the research program at the Cape Grim Baseline Air Pollution Station in north-west Tasmania.

### Institute of Marine and Antarctic Studies

The Institute for Marine and Antarctic Studies (IMAS) is an internationally recognised centre of excellence for temperate marine, Southern Ocean and Antarctic research at the University of Tasmania. IMAS research spans three key themes: fisheries and aquaculture; ecology and biodiversity; and oceans and cryosphere.

The institute is housed in a purpose-built facility on Hobart's waterfront, bringing together many of Tasmania's researchers in marine and Antarctic studies in one precinct. This offers opportunities for collaborative research of state, national and international significance. IMAS delivers research to users across governments, industries, institutions and communities.

### Australian Antarctic Program Partnership

The Australian Antarctic Program Partnership (AAPP) is an Australian Government funded initiative through the Antarctic Science Collaboration Initiative program to better understand the role of the Antarctic region in the global climate system and the implications for marine ecosystems.

The core mission of the AAPP is to:

- » Support research that aims to understand the role of the Antarctic region in the global climate system and the implications on marine ecosystems;
- » Enable the AAPP to undertake collaborative science, research and innovation activities under the Australian Antarctic Science Strategic Plan and Australian Antarctic Strategy and 20 Year Action Plan; and
- » Secure Antarctic science jobs in Hobart.

Core partners of the AAPP are the Australian Antarctic Division (AAD), CSIRO, the University of Tasmania (UTAS), and the Bureau of Meteorology (BoM). Other partners include Geoscience Australia (GA), the Tasmanian State Government and Australia's Integrated Marine Observing System (IMOS).

The AAPP will work closely with Antarctic scientists based at other research agencies and universities in Australia, and continue to enhance and expand collaboration with international research agencies.



### **Integrated Marine Observing System**

Australia's Integrated Marine Observing System (IMOS) is a nationwide collaborative program that uses the latest technology to observe the coastal and deep-ocean waters around Australia. The University of Tasmania leads the IMOS program on behalf of the Australian marine and climate science community.

IMOS coordinates a multi-institutional ocean observing capability in the Southern Ocean. Data is collected through the deployment of instruments including Argo floats, satellite tags on marine mammals and deep-water moorings as far as the East Antarctic shelf.

The Australian and international marine and climate science community can access the data via a web portal, which provides a scientific basis for informed decisions about Australia's vast and valuable marine estate.

### **Southern Ocean Observing System**

IMAS hosts the International Project Office of the Southern Ocean Observing System (SOOS), with additional support from the CSIRO, the Tasmanian Government, the Scientific Committee on Antarctic Research (SCAR) and the Scientific Committee on Oceanic Research (SCOR).

SOOS is dedicated to coordinating and expanding international efforts to monitor the Southern Ocean by coordinating the collection of essential observations on dynamics and change of Southern Ocean systems and the delivery of the data to international stakeholders (researchers, governments, industries).

### **Australian Bureau of Meteorology**

The Bureau of Meteorology's Tasmania and Antarctica Regional Office is located in Hobart.

It provides a range of specialised Antarctic forecasting services to the Australian Antarctic program, including supplying meteorological observers and engineers to all Australian Antarctic bases and providing weather forecasts for all the program's air, sea and land-based operations.

The Bureau also provides comprehensive information on Antarctic climate data, weather forecasts, warnings and observations for the region. It can provide specialist weather and ice forecasting services to international and commercial vessels at rates negotiated on a case-by-case basis.

### **Australian Maritime College**

The Australian Maritime College (AMC) is a tertiary education and research facility located in northern Tasmania. An Asia-Pacific centre for maritime education, training and research, it provides high-quality education, training and consulting services to the maritime sector and conducts internationally recognised research. The AMC is among the world's 10 leading maritime training organisations and one of the best equipped.

The College undertakes research and education in ice navigation and underwater technology for use in polar waters and gives Australia and the wider Asia-Pacific region access to some of the world's best-qualified specialists in maritime engineering fields. These include naval architecture and ocean engineering, as well as maritime business, logistics management, fisheries and marine resources, marine and coastal conservation, aquaculture management and maritime operations.

### **Antarctic Gateway Partnership**

The Antarctic Gateway Partnership is an Australian Government funded initiative to build further polar research capability in Tasmania. The Partnership also aims to reinforce the Tasmania's recognition as a global leader in Antarctic and Southern Ocean science and as a gateway for Antarctic research, education, innovation and logistics.

The Partnership is a collaboration between the University of Tasmania, the Australian Antarctic Division and CSIRO and has a focus on four research areas:

- » cryosphere - ocean interaction,
- » open water and under ice food webs,
- » solid earth - cryosphere interaction, and
- » marine technology and polar environments.



## International Secretariats

### Commission for the Conservation of Antarctic Marine Living Resources

The international Antarctic secretariat, the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) was established by Antarctic Treaty signatories to provide critical support in the global effort to eliminate illegal and unregulated fishing in the Southern Ocean. It administers a world-leading marine conservation program to conserve Antarctic marine life through an ecosystem-based management approach.

One of the largest international organisations in the Southern Hemisphere, CCAMLR attracts nearly 200 delegates from 31 countries to its annual meeting in Hobart, held at its customised and specially renovated headquarters.

### Agreement on the Conservation of Albatrosses and Petrels

The second international Antarctic secretariat based in Hobart, the Agreement on the Conservation of Albatrosses and Petrels (ACAP), aims to achieve and maintain a favourable conservation status for albatrosses and petrels by coordinating international activity to mitigate known threats to these vulnerable seabirds.

## Infrastructure and services

### Hobart Port

Hobart has a natural deep-water port, which is easily accessible to all marine vessels. TasPorts provides full port services for Antarctic research and supply vessels through a dedicated Antarctic and cruise facility, and the port is home to the Australian and French research and supply vessels.

Vessel operators have access to a network of service providers/contractors with experience and expertise in supporting Antarctic-related activities including pilotage, towage, fuel, provisioning, stevedoring, secure expedition storage facilities, cold storage, quarantine, engineering services as well as plant and machinery. Registered bond facilities are also available onsite.

### Fuel

Fuel bunkering is currently available 3 km upstream from Hobart Port, at Self's Point. Marine Gas Oil to a DMA 2010 classification and Special Antarctic Diesel (enabling operation in -35 °C) are both available on order, ex pipe. Ground fuels and Jet A1 aviation fuels are available in drums and through bulk supply.

Storage tanks that meet Antarctic safety regulations are also available for purchase. International Antarctic programs purchasing fuel bound for Antarctica are not required to pay goods and services tax.

### Shipping agents

Tasmanian shipping agents have extensive experience in servicing marine and Antarctic science, research, re-supply and expedition vessels as well as road, sea and airfreight services and customs brokering. Hobart based shipping agents have supported the Australian, Chinese, French, American, Norwegian, Italian, Japanese and German research programs in the Antarctic and Southern Ocean over the past thirty years, ensuring smooth port turnaround and successful expeditions.

### Hobart International Airport

The Hobart International Airport, 17 km east of Hobart, is home to the Australian Antarctic aviation program. The Airbus A319 intercontinental air link service operates regularly from Hobart to Wilkins and McMurdo runways in Antarctica and the airport can also accommodate C-17/B747/B777/A330 aircraft.

The recently extended runway is capable of accommodating a full payload for C17s travelling to Antarctica

The airport has no curfew, provides on-site aviation rescue and firefighting services and customs and immigration and has further potential for Antarctic aviation development with land available for the development of additional facilities.



## Specialist goods and services

Hobart is unique among Antarctic gateway cities because along with the Antarctic institutions it has the infrastructure, logistical expertise and businesses with years of experience supplying the needs of any organisation venturing into the Southern Ocean and Antarctica.

### The Tasmanian Polar Network

The Tasmanian Polar Network (TPN) is a unique network of more than 70 Tasmanian organisations providing specialised products and services to Antarctic nations in areas as diverse as scientific instrumentation, ship outfitting and provision of food, technical and mechanical products and services, waste management, medical services and marine engineering. No other Antarctic gateway hosts an organisation like the TPN, with its diversity of membership and range of capabilities.

### Engineering and manufacturing services

With more than 100 years of cold-climate expertise in project management, engineering, manufacturing, ship fit-out and building construction, Tasmanian companies can custom make, maintain and repair a wide variety of equipment suitable for Antarctic conditions.

### Specialised polar equipment and services

Tasmanian companies provide a huge range of specialised equipment and services for polar expeditions and research activities, including scientific and communications supplies, power generation, building supplies and traversing equipment. Tasmanian businesses can also repair, maintain, design and construct polar equipment and deliver specialist training required by expeditioners.

## Waste remediation

Tasmanian-based businesses can organise the remediation of Antarctic waste to a controlled site in line with Antarctic and Australian environmental and quarantine standards.

## Medical services

The AAD employs three fulltime doctors in its Polar Medical Unit. Hobart's public and private hospitals are experienced and available to deal with both routine medical requirements and emergencies from Antarctica.

The University of Tasmania offers a specialist course in remote and polar medicine.

In 2019 the Tasmanian Government, AAD and the University of Tasmania announced their future-oriented collaboration in the Centre for Antarctic Remote and Maritime Medicine, which provides a new focus for extreme medicine capability development in Tasmania.

## Conference facilities

Hobart has a range of conference facilities, regularly hosting conventions, major international scientific conferences and meetings, and the annual meeting of the Commission for the Conservation of Antarctic Marine Living Resources. In 2012, Hobart hosted the 35th Antarctic Treaty Consultative Meeting (ATCM); and in 2020 it will host the concurrent Council of National Managers of Antarctic Programs (COMNAP), Scientific Committee on Antarctic Research (SCAR) meetings and Tasmania's own 4th International sub-Antarctic forum.

## Accommodation

Hobart has a range of quality 3, 4 and 5 star accommodation in the city centre and waterfront areas, within walking distance from the Hobart Port and a short taxi ride to the Hobart International Airport.

## Community involvement

In 2016 the inaugural Australian Antarctic Festival was launched by Mawson's Huts Foundation in Hobart. The festival was highly successful and is being held on a bi-annual basis, bringing the community together to explore Tasmania's connection with Antarctica.



## The Tasmanian advantage

Tasmania has a number of natural advantages as an Antarctic gateway. Hobart is large enough to provide for infrastructure needs, but small enough to ensure minimum bureaucracy and warm hospitality. A preferred choice for small and large-scale conferences, Tasmania provides diverse tourism and cultural activities, including spectacular natural wilderness, rich cultural history and gourmet food and wine.

Government recognises the importance of continued investment in the Tasmanian Antarctic Gateway to accommodate growth. The Hobart Airport and the Hobart Port are continuing to invest in their infrastructure to prepare for the future.

The Port is investing in wharf improvements to accommodate more large icebreaking and research vessels. An exciting Antarctic and Science Precinct concept is currently being considered for a development at Macquarie Point. This will provide scientists and visitors with further exciting opportunities to collaborate on, and better understand, Antarctic and Southern Ocean research.

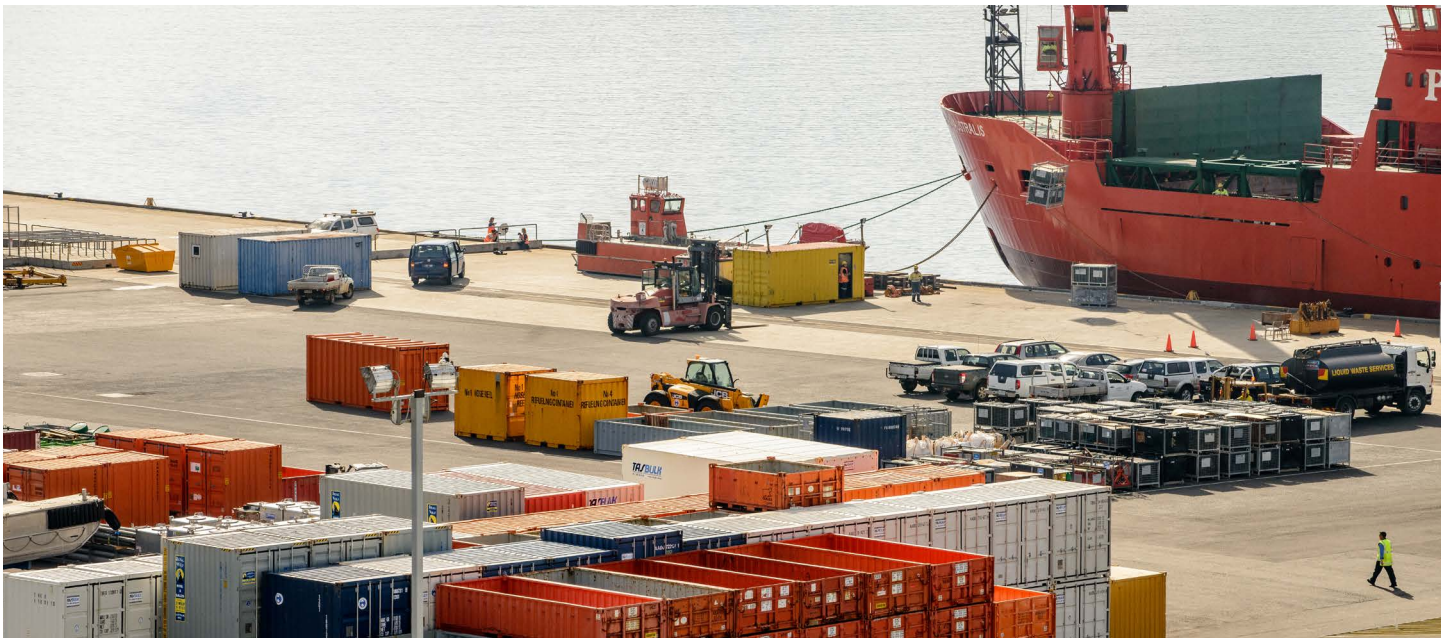
### Cooperative Gateway Arrangements

The Tasmanian Government has a number of cooperative agreements with international Antarctic programs using Hobart as a gateway for their activities. The Tasmanian Government is working to increase such arrangements with other nations operating in East Antarctica.





Stations on the Antarctic Continent in relation to Hobart.





Aerospatiale AS 350 BA Squirrel and Tabular berg, Mawson. Photograph by Unknown, Australian Antarctic Division, © Commonwealth of Australia

## Quick facts

- » From the mid-19th century, trail blazing expeditioners such as Jules Dumont d'Urville, James Clark Ross, Carsten Borchgrevink, Roald Amundsen, Louis Bernacchi and Douglas Mawson have relied on the port of Hobart and the expertise of skilled Tasmanians to mount their expeditions to and from Antarctica.
- » Tasmania has over 60 businesses experienced in supplying the needs of Antarctic expeditions.
- » Supporting international Antarctic business is a priority for the Tasmanian Government.

## Useful contacts

The Tasmanian Government is committed to providing a high level of support to the Antarctic sector. Our dedicated office, Antarctic Tasmania, can provide a tailored and personal local service to assist your operations.

### Antarctic Tasmania

Phone: +61 1800 030 688

Email: [antarctic@stategrowth.tas.gov.au](mailto:antarctic@stategrowth.tas.gov.au)

Web: [www.antarctic.tas.gov.au](http://www.antarctic.tas.gov.au)



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