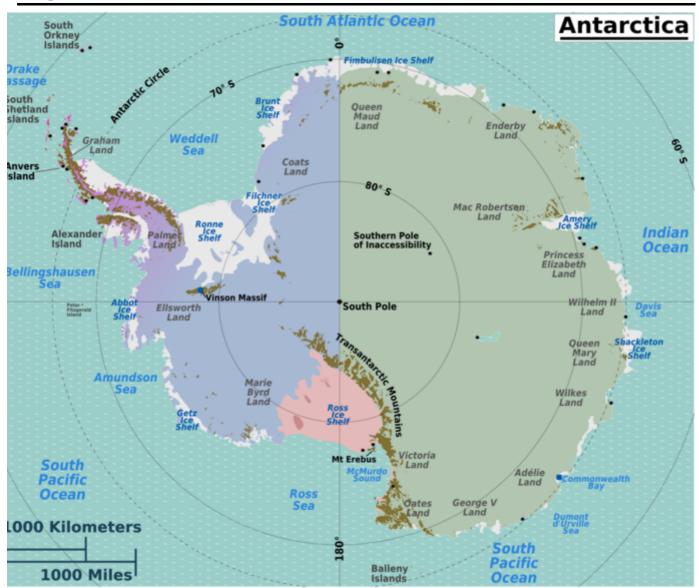
# **Antarctica**

**Antarctica** is the coldest place on Earth, and surrounds the <u>South Pole</u>. Tourist visits are costly, demand physical fitness, can only take place in summer (from November to February), and are largely limited to the Peninsula, Islands and Ross Sea. A couple of thousand staff live here in summer in some four dozen bases mostly in those areas; a small number stay over winter. Inland Antarctica is a desolate plateau covered by 2–3 kilometres (1.2–1.9 mi) of ice. Occasional specialist air tours go inland, for mountaineering or to reach the Pole, which has a large base. Wildlife needs access to the sea and is confined to the coasts.

# **Regions**



#### **Antarctic Peninsula**

The main cruise destination, with seas that support wildlife and are navigable in summer, and with the shortest crossing from temperate climes. The impressive heights of the Antarctic Andes and many research stations are here.

#### **Antarctic islands**

These are widely separated across the wild Southern Ocean. The only ones routinely

visited are the <u>South Shetland Islands</u>, but as these are close to the Antarctic Peninsula they're described there.

#### **East Antarctica**

This vast ice desert is seldom visited. But cruises to the Ross Sea sometimes follow the coast as far as Commonwealth Bay, where Mawson's Huts are the legacy of the 1911-13 expedition.

#### **West Antarctica**

This is barren and empty, with only a handful of research stations. But it does contain the continent's highest mountain, which you can climb on a guided expedition. You can also run a marathon here.

#### **Ross Sea**

Ross Island has the largest settlement on this continent, McMurdo Station. The island has several historic camp sites and Mount Erebus, an active volcano that you can climb. This is the usual destination for cruises from New Zealand or Australia.

#### **South Pole**

The furthest south you can go.

All dots on the map represent inhabited research stations.

## **Understand**

### **History**

About 15 million years ago, the mountain chain connecting South America to Antarctica sank under the ocean, and a new continent was born. Cold sea currents now enclosed Antarctica completely and its climate became intensely cold.

18th century explorers probed the dangerous southern oceans only to encounter a vast barrier of ice: they could hardly tell what was islands, what was a larger land mass, and what was just ice. The first sure



Transantarctic mountains

sightings of the mainland were in 1820, by Russian, British and American ships all at about the same time. Whaling and sealing vessels began to hunt in the seas here, and explorers mapped the coast. In 1897, a Belgian expedition overwintered in Antarctica and this was the start of the "Heroic Age of Antarctic Exploration", culminating when Roald Amundsen and his crew reached the South Pole in December 1911. Robert Scott arrived a month later but never made it back to the coast.

Nations began setting up bases and claiming parts of the continent, while conducting scientific work. There was a particular effort at collaboration in the "International Geophysical Year" of 1957/58, and this led to the Antarctic Treaty of 1959. The Treaty makes the continent a scientific preserve, suspends all territorial claims, and prohibits military activity here. This Treaty has stood the test of time, and today Antarctica has no border controls, mines or quarries, missile silos, fish canneries, or any settlements beyond small collections of prefabs. Some four dozen bases are occupied year round or seasonally by a transient population, numbering a few thousand in summer and perhaps a couple of hundred in winter. Only 10%

could be described as "researchers"; the great majority are support and logistics staff to make the research possible. A couple of settlements style themselves "towns" and children have been born there. One base, McMurdo, even has a bus service; its route passes close to where Scott and his men perished in 1912.

#### Climate

Antarctica is a desert: the winds are cold, so they carry little moisture, and inland precipitation averages 50 mm (2 inch) a year, the same as the Mojave in California. And yet Antarctica is covered in ice 2–3 km thick. In a warmer climate the snowfall would run off in streams or evaporate, but here it just builds and builds. As Antarctica also has the strongest and most persistent winds of any continent, the snow (or bits of ice small enough to be carried by wind) is constantly moved around and as research stations act as artificial impediments to the free movement of air and snow, there is always the danger of those becoming "buried" by snow, requiring various techniques to avoid or at least delay this process. The bedrock beneath the ice is mostly low-lying (though there are several mountain ranges) – in fact some of the rock is actually several hundred meters below the sea – but add all that ice and most of the continent is at high altitude; the South Pole itself is 2835 m (9301 ft) above sea level. This makes a very cold climate colder still, with inland summer highs of -15°C (5°F) and winter lows below -80°C (-112°F), and thin dry air. The icecap is moving, very slowly on the plateau, faster as it descends to the coast to form glaciers and floating ice sheets which calve into county-sized icebergs.

The coast, especially the Peninsula and its nearby islands, have a slightly less harsh climate, which means their seas are not frozen in summer. This is crucial for wildlife: penguins, seabirds and seals all depend upon open water. It also means that ships can approach, bearing supplies and tourists, from November through February.

#### Read

Films and TV documentaries show Antarctic scenery and wildlife, but don't get you into the minds of the early explorers. The following are all available to order online.

- Alone: The Classic Polar Adventure, by Richard E Byrd, 1938.
- At the Mountains of Madness by HP
  Lovercraft, 1936. The earliest science
  fiction/horror story to take place on the
  continent, detailing the adventures of a
  geological expedition to Antarctic Mountains,
  where the researchers discover something so
  inconceivable that they lose their minds.



Amundsen checks that he's at the South Pole

- Antarctica, by Kim Stanley Robinson, 1997. Science fiction account of 21st-century Antarctica and the impact of global warming.
- Endurance: Shackleton's Incredible Voyage, by Alfred Lansing, 1959.
- Endurance, by Caroline Alexander, 1998.
- A First-Rate Tragedy: Robert Falcon Scott & the Race to the South Pole, by Diana Preston, 1999.
- Mawson's Will, by Lennard Bickel, 1977.
- North Pole, South Pole: Journeys to the Ends of the Earth, by Bertrand Imbert, 1992.
- Scott's Last Expedition: The Journals, by Robert F. Scott and Beryl Bainbridge, 1996.

- Shackleton, by Roland Huntford, 1975.
- South Pole: 900 Miles on Foot, by Gareth Wood and Eric Jamieson, 1996.
- *The Worst Journey in the World*, by Apsley Cherry-Garrard, 1922.
- Terra Incognita, by Sara Wheeler, 1997.
- South, by Ernest Shackleton, 1919.

## Get in

Antarctica has no immigration or <u>border controls</u>, but visitors to any land or sea south of 60°S need permission from an Antarctic Treaty member country. Your tour / cruise organiser will take care of this but those travelling independently should apply six months in advance.

Taking off at Union Glacier

## By plane

Only five places in Antarctica can handle large, wheeled aircraft suitable for intercontinental flights in potentially hazardous conditions:

- <u>Villa las Estrellas</u> (<u>TNM</u> IATA) on King George Island, 200 km north of the Antarctic Peninsula. This has a gravel, all-seasons runway, and receives flights from <u>Punta Arenas</u>, taking about four hours. This is a common transfer point for visitors joining small-ship cruises of the islands and Peninsula.
- Marambio Base (http://www.marambio.aq/bases/marambio.html) is on Marambio Island in the Weddell Sea, some 100 km south of the tip of the Peninsula. It's open year round, though it's prone to fog in December and January. This large base acts as the support centre for all the Argentine stations in the region.
- McMurdo Station on Ross Island has two such airfields, receiving flights from Christchurch New Zealand that take four hours, but the strips are only open in November and December. It was intended that the newer "Phoenix" airfield would have a longer season than the "Ice Runway", but this hasn't worked out. McMurdo is a transfer point for visitors from Australia and New Zealand heading to the South Pole, using ski planes from its third airfield "Williams".
- Union Glacier is a privately-run summer airfield on the desolate plateau of <u>West Antarctica</u>. It receives flights from Punta Arenas and from <u>Cape Town</u>. Most visitors are transferring to and from the South Pole, but this airfield is also a base for climbing Mount Vinson and for the Antarctic Marathon.
- Wolfs Fang (WFR ATA) is a privately-run summer airfield in Queen Maud Land, East Antarctica, which receives medium-sized business jets from Cape Town. Guests transfer via Whichaway Camp to ski-aircraft to the Pole and elsewhere.

In 2023, there are no standard commercial flights to any of these airfields, but see their details above for flight package tours. Onward flights into Antarctica use various small to medium aircraft such as the Twin Otter. All the bases have access to a ski runway or at least a helipad.

**Sightseeing overflights** from Australia by <u>Antarctica Flights (https://antarcticaflights.com.au)</u> spend three hours over the continent. Prices range from A\$8000 for first-class down to \$1200 for a centre economy seat with no guaranteed window access.

The Qantas regular flight between Sydney and Johannesburg passes close enough for a glimpse of Antarctica.

### By ship

Ship is the most common method of visiting the Antarctic, with a sailing season Nov-Feb. The vessels are usually ice-strengthened rather than icebreakers; the latter are stronger but round-bottomed, so they heave about more in the massive waves of Drake Passage. Most itineraries are to the Antarctic peninsula and nearby Antarctic islands, and they often also take in more northerly islands such as South Georgia and the Falklands.

Smaller ships (less than 100 passengers) can go where the big ships can't, getting you up closer to the nature and wildlife. Larger vessels are less prone to rough



100-passenger icebreaker in Grandidier Channel

seas but have more limited landing options; both will use RIBs (powered dinghies) to get you ashore or close in among the ice floes. Big ships may have 1000+ normal capacity but be limited to 500 on Antarctic trips. IAATO rules say that at most 100 people may be ashore at any one time: that's mainly so that everyone can be swiftly plucked to safety when (not if) conditions turn dangerous. Larger ships therefore have to segment their landings, so those passengers might only get a couple of hours per day off ship. Smaller ships can get their shore parties out and back in one operation then move on to visit a second location same day. Everything is very dependent on the weather: an onshore breeze (which in these climes will be going on a gale) will send furious breakers pounding onto the landing beach. About a third of landings have to be called off.

Even on a cosy cruise ship, you need warm clothing just to stand on deck let alone get ashore: boots, hoods, glove, water repellent pants, parka, and warm underwear. Most of these items can be bought or hired in Ushuaia, but they might not have your size. So bring whatever you can from your own stock.

Many shipping companies also offer fly/cruises, so you fly one-way or round-trip from mainland Chile. These cost more but save a couple of days each way upchucking across the Drake Passage.

As of 2020, a couple of dozen companies offer trips to Antarctica: others simply act as agents, selling you on to another company and charging a mark-up for their labours. Those listed here are understood to be direct operators, though they may be hiring the vessel with crew and sharing it with other companies. Supply outstrips demand: there is a lot of last-minute availability, but don't be *too* last-minute as even reaching the port of departure is a major trip in its own right. These companies all sail from Ushuaia unless otherwise noted:

- Abercrombie & Kent (https://www.abercrombiekent.com/) sail on Le Lyrial (200 passengers max).
- Antarpply Expeditions (http://www.antarpply.com) on Ushuaia (90).
- Aurora Expeditions (http://www.auroraexpeditions.com.au) on Greg Mortimer (126).
- Bark Europa (https://www.barkeuropa.com/) on *Europa*, a square-rigged sailing ship.
- Cheesemans Ecology Safaris (http://cheesemans.com): flying into King George then onto the 12-passenger *Hans Hanson*.
- Compagnie du Ponant (http://en.ponant.com/Destinations/Antarctica) on Le Soleal, Le Boreal and L'Austral (all about 260 max).

- Expedition Cruise Specialists (http://www.exp editioncruisespecialists.com/destinations/ant arctica) on Expedition (134) and Sea Spirit (114), also from Invercargill on Spirit of Enderby and Spirit of Shokalskiy (both 50), or flying into King George then onto 100passenger Magellan Explorer.
- G Adventures (http://www.gadventures.com/e xpedition-cruises/) also sail on *Expedition*.
- Heritage Expeditions (http://www.heritage-ex peditions.com) also sail from Invercargill on Spirit of Enderby and Spirit of Shokalskiy.
- Geographic Expeditions (http://www.geoex.co m) sail from Ushuaia or fly into King George or to the South Pole.
- Hapag-Lloyd Cruises (http://www.hl-cruises.c om) on Bremen (155), and from 2021 on Hanseatic Nature and Hanseatic Inspiration.
- Hurtigruten (https://global.hurtigruten.com/des tinations/antarctica/) sail from Ushuaia and Punta Arenas on Roald Amundsen (500), Fridtjof Nansen (500), Fram (250) and Midnatsol (500).
- Intrepid Travel (http://intrepidtravel.com) on Ocean Endeavour (100).
- Quark Expeditions (http://www.quarkexpeditions.com) also on Ocean Endeavour.



- Lindblad Expeditions (http://www.expeditions.com) sail on the same vessels.
- Oceanwide Expeditions (http://www.oceanwide-expeditions.com) sail from Ushuaia and Bluff NZ on Plancius (108), Ortelius (108), Janssonius (170) and Hondius (170).
- Polar Latitudes (https://polar-latitudes.com) on Hebridean Sky and Island Sky, plus Seaventure from 2021.



Lake Fryxell in Victoria Land

## By sailboat

About a dozen charter sailboats, many of them members of IAATO, offer three to six-week voyages to the Antarctic Peninsula from South America. Most offer "expedition style" trips where guests are invited to help out, although usually no prior sailing experience is required. Yachts take individuals on a "by the bunk" basis and also support private expeditions such as scientific research, mountaineering, kayaking, and film-making. Compared to the more popular expedition ships, a small yacht can be more work and significantly less comfortable, but typically allows more freedom and flexibility. For the right people, this can be a far more rewarding experience.

- Ocean Expeditions (http://www.ocean-expeditions.com/). Expedition support yacht Australis purpose-built for high latitudes. Specializing in private or commercial expeditions involving film making, scientific research, adventure activities, wildlife enthusiasts or just an intimate experience of the Antarctic.
- **Expedition Sail (http://www.expeditionsail.com/)**. Sailing yacht *Seal* is a purpose-built expedition sailboat offering private expeditions, support for research, filming, or climbing

- projects, and also offers "by the bunk" trips for individuals.
- Spirit of Sydney (http://www.spiritofsydney.net/). Australians Darrel and Cath own and operate Spirit of Sydney, an expedition support yacht for film crews, mountaineers, skiers and snowboarders, sea kayakers, dry suit divers, scientists, sailors of all experience levels, and whale watchers. They typically carry kayaks on board and offer private charters and group trips for individuals.

### Get around

Skis, skidoos, tractors, snowcats, helicopters and ski planes are all used to get around Antarctica, and McMurdo on Ross Island even has a bus service. Cruise ships use RIBs / zodiacs (sturdy inflatable powerboats) to ferry tourists between ship and shore; bases close to open water also use these. Bring your own fuel!

The last of the pony- and dog-sled teams retired in the 1980s. It would be neat to bring a few teams over for a "heritage" run, but given the logistics and paperwork necessary, it would probably be simpler to run an old steam locomotive here.



Zodiacs get you ashore

## See and do

Antarctica is an amazing place just to look at, with its enormous calving glaciers, icebergs the size of cities, penguin colonies and towering snow-clad mountains. But even just standing there looking is going to involve exertion on your part, elaborate preparation, and a degree of risk. The distinction between seeing and doing is a fine one in many locations, and here it vanishes altogether.

- In that spirit, the prime thing for you to do in Antarctica is come home safe. Don't do anything, not even just standing there, without having that in mind. How are the sea conditions and the weather? How is your body faring? What about the other people in your group, is everyone accounted for? And what if, what if?
- The southern aurora, but not in summer. You need full darkness to see it, but in summer the sky is bright even if the sun has briefly dipped below the horizon. You may have more chance on the homeward sailing, as your latitude decreases and the nights lengthen. The same applies to other dark sky sights such as meteors.
- The midnight sun in midsummer, but only within the Antarctic circle; most of the Peninsula and all of the Antarctic Islands lie north of it. Actually you're going to get fed up with the sun, since it's broad daylight at 02:00 when you need your sleep.
- **Deception Island**, one of the <u>South Shetland Islands</u>, is a remarkable natural amphitheatre with an equally remarkable show within. It's an active volcano, last erupting in 1970, and the deception is that it looks like a normal mountainous island. But its flanks are just the rim of a great flooded caldera, entered via the narrow channel "Neptune's Bellows" into a sheltered natural harbour. Its main sights are the scenery, a large colony of chinstrap penguins, geothermal hot springs (so you can swim in Antarctica), and the remains of an old whaling station and bases wrecked by eruptions.
- Lemaire Channel is a spectacular section of coastline along the Peninsula. It narrows to 1.6 km, and cruise ships sail through a canyon of cliffs and towering ice. Its waters are remarkably still and populated by whales. It's close to other attractions such as Port Lockroy,

Cierva Cove and Paradise Bay so it's on many cruise itineraries, but the channel is sometimes blocked by icebergs, so the ship has to back up and seek another route.

• Old camps and bases that have been abandoned. Some (such as on Paulet Island) were refuges built by shipwreck survivors, others (as on Deception, above) were summer camps for whaling and sealing. Port Lockroy on the Peninsula was the main British base until they moved to Rothera. It's been converted into a museum. There's a particularly rich collection on Ross Island, as this was historically the main base for exploration towards the pole.



**Entering Lemaire Channel** 

- Penguins are the signature beasts of Antarctica, yet most penguin species live much further north.
  - Emperor penguins (*Aptenodytes forsteri*) are the 1.2 m creature that stays and breeds here during the harsh winter. Its habitat is stable pack ice within waddling distance of open water though they may waddle for over 100 km. The largest colonies are on mainland sites that are hard to visit, but there's a small but accessible colony on King George Island, and a larger one at the tip of the Peninsula.
  - Adélie penguins (*Pygoscelis adeliae*) are the ones 50-60 cm tall in badly-fitting tuxedos. They live at the edge of the ice and forage for krill, but in spring (October) they move to ice-free land to breed. Their largest known colony is in the Danger Islands at the tip of the Peninsula, with 1.5 million birds.
  - King penguins (A. patagonicus) are about 70-90 cm tall, like a slimmed down Emperor with bright orange cheeks, but the biggest difference is their habitat. King penguins are sub-Antarctic not continental, and only nest on dry land, so you're most likely to see them on South Georgia.
- Gentoo penguins (P. papua) are 60-80 cm tall with a distinctive white band on the head and trumpeting call. They're mainly sub-Antarctic but are found on the Peninsula.
  - Chinstrap penguins (*P. antarcticus*) are 70 cm with an obvious chin-strap and harsh stroppy call. They're mainly sub-Antarctic but are found on the Peninsula and South Shetland Islands.



Leith whaling station, South Georgia

- Tangerine penguins 50-60 cm high, are they Adélies? There are penguin colonies all round the Antarctic coastline, but viewing them from close-up needs a colony near a safe landing beach; so these attract a stream of visitors. You'll smell them first and hear their grating *kra-kra kraa?* before you see their orange line along the shore. Then as the boat draws closer you realize the orange things are *traffic cones*. They are there partly to show you the trail (you may be trying to return in poor visibility), but mostly to indicate the line that you must not cross to avoid disturbing the colony. Expect grief if you transgress, and if you do so in January when the eggs are hatching and the chicks are most vulnerable, you'll be busted off further shore trips.
- No penguins at all at the South Pole, or anywhere on the remote plateau.

- Other wildlife includes Humpback, Minke, Blue and Orca Whales; Crab-eater, Weddell and Leopard Seals; and Blue-eyed Shag, Southern Giant Petrel, Cape Petrel, and Kelp Gull.
- Climb an active volcano, Mount Erebus at 3794 m on Ross Island. It's a Stromboli-type volcano so it erupts continuously but without great violence, so you can reach the summit crater with its lava lake.
- Climb the Seventh Summit, Mount Vinson at 4892 m. The "Seven Summits Challenge" is to climb the highest peaks of all seven continents. The list of seven is disputed: which continent does Elbrus belong to, and does Puncak Jaya in Indonesia supplant the Sunday afternoon stroll that is Kosciuszko? What is universally agreed is that Everest is the highest in Asia and Vinson the highest in Antarctica, and that these two are the most difficult and perilous. Vinson is much less of a technical challenge, you spend little time in the "death zone" above 4000 m, but it's the isolation, the logistics, and the literally perishing cold.

# **Buy**

There isn't much to buy in Antarctica, and most of the shops are small gift shops and souvenir shops. The largest shop is McMurdo's General Store, which would probably provide you with just about anything you will need in Antarctica.

Coming to the Antarctic marks you as a high-roller; at the very least you'll get some surprising junk-mail and pop-ups. Some cruise passengers have experienced "presentations" that were just pressure-selling of flaky investments, fine wines the quality of filling station Chardonnay, and kitsch artwork and antiques. This is not common on Antarctic cruises, whose passengers are more savvy than most, but as ever *caveat emptor*.

### **Eat**

Take advice from your trip organizer on what supplies to bring. You need sufficient and some spare, but not excess which creates deadweight. Take suitable nutritional advice before extended shore trips. The main risk to the average cruise passenger is pigging out at the ship's buffet. If you're living and working on land, though, you'll find you have quite an appetite; the extra manual labor and cold temperatures result in average calorie intake nearly double of normal.

Most food at bases is frozen, dried, canned, or otherwise preserved. It's all ordered in advance and delivered just once a year around January. Fresh produce is limited, and is typically flown into bases



Don't eat penguins, that's the leopard seals' job

weekly for around two months (around Nov-Dec). A large station may have a cook who can work wonderful variations on the same old pasta; small places may just have a microwave. A few bases are experimenting with indoor greenhouses where they grow fresh produce to prepare future long-term space missions or the supply of Moon or Mars bases. While the food produced is a very welcome break from the same-old for the crew, it's far too little to last the winter.

In the field, food must be carried or otherwise transported. It needs to be compact, energy-rich, and dry; anything liquid will freeze solid. Re-hydrating it may be a bigger challenge than heating it. Large campsites may be set up with a makeshift "kitchen" using camping equipment, or even more complete facilities

including a range, oven, and even a grill; food at these will be improvised but still pretty decent. The smallest campsites and mobile teams will have to subsist on camping rations including energy bars, pemmican (a dried paste of meat, fruit, and animal fat), and highly-coveted chocolate bars.

**Don't eat the wildlife:** penguins, seals, bird's eggs, anything... even if it was already dead when you found it. It's illegal due to the treaty, which seeks to protect Antarctic wildlife after 200 years of over-hunting and environmental damage. Equally, don't feed them, however woebegone-cute they look, though there's no rule against leopard seals (*Hydrurga leptonyx*) eating you. It's very rare for them to try, what they're more likely to do is attack and puncture the pontoon floats of your RIB, mistaking their cylindrical black shape for seals.

## **Drink**

**Drinking water** requires forethought. In summer near the coast there may be freshwater lakes, but they're full of bird poop plus the odd decomposing penguin. Most of the continent is covered in snow and permafrost, but it must be collected and thawed, both of which take a lot of energy. Meltwater is low in minerals and tastes very flat; you may prefer yours with a dash of salt or syrup.

As in any cold climate, **never drink alcohol until you are safely in shelter**. It's notorious for generating a false glow of warmth and well-being while your core body temperature ebbs away. Rules for alcohol vary by base, but it's usually available at bases' general stores and bars.



"Any note you can sing, I can sing higher"

# Sleep

Antarctica has very long summer days, 24-hour long within the Antarctic circle. Try to maintain regular sleeping hours, as this continuous daylight disturbs the body clock. There are no hotels or lodges, and research bases won't house tourists. Most visitors sleep aboard their ship, while inland trips (e.g. to the Pole) have camps set up.

## Work

It is possible to obtain employment with scientific expeditions and research bases in Antarctica, but there's stiff competition for the small number of posts, only open to citizens of the relevant country. Posts are fixed-term contracts with induction and training before departure for Antarctica. Most positions are summer-only, and less than 10% of staff stay on over winter.

Staffing agencies include Antarctic Support Contract (https://www.leidos.com/antarctica) for the US, the Australian Antarctic Program (https://jobs.antarctica.gov.au/) for Australia, British Antarctic Survey (http://www.antarctica.ac.uk/employment/index.php) for the UK, Antarctica NZ (https://www.antarcticanz.govt.nz/jobs) for New Zealand, and South African National Antarctic Programme (https://www.sanap.ac.za/tag/jobs) for South Africa. They also recruit for Subantarctic sites such as South Georgia, Gough and Macquarie.

# Stay safe

See also: Cold weather

Antarctica is an extreme environment, and accidents are unavoidable. Weigh up the risks and your own abilities before committing to a trip.

By sea is how most visitors arrive. The southern oceans are never calm, and often very rough even in summer, with hurricane-force winds and 20 m / 70 ft waves. The ship is designed to handle this so your main risks are three days of upchucking, being thrown about, falling down a stair well, or having heavy doors or items crash into you. Always have one secure handhold, and in severe weather stay in your cabin. Trips won't venture ashore in poor weather but it may



**Eruption of Mount Erebus** 

deteriorate: be extremely cautious when returning in a zodiac and follow crew instructions on when to hold still and when to cross onto the landing stage. If you fall in, your survival time in these waters is less than a minute.

It's cold even on the continental fringes where most visitors go. Most cruises focus on the Antarctic Peninsula and only travel during the warmest months (late October to March). Temperatures are typically around freezing and can drop much lower, so be prepared. Standard cold-weather gear won't suffice for polar conditions: it needs to be thermally protective, wind- and water-proof, yet still allow good mobility. Seek advice from the trip organiser, and don't assume that anything will be available on ship. But conversely, the operator may prefer to issue everyone with standard kit that they know is reliable. Keeping feet warm is important on a cruise, especially when taking zodiac cruises where you won't be moving very much, taking plenty of wool socks is recommended.

**It's even colder and at high altitude inland**, even if you're not mountaineering: the South Pole is at 2835 m / 9301 ft.

**Intense sunlight** and no shelter from it: you need sunglasses and 40+ factor sunblock.

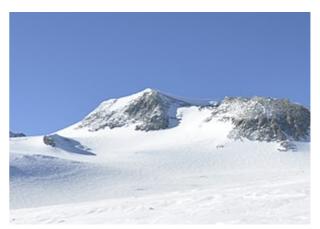
**You need to be healthy and moderately fit.** If you have a long-term condition such as diabetes it needs to be very well controlled: you're going to be in a stressful environment with lots of disruption to diet, activity, and day / night cycle. A medical evacuation could take days to effect and costs could approach US\$1 million.

**Altogether, it's hazardous yet safe**, so to speak. For sure you need adequate travel / medical insurance, and an annual multi-trip policy is often the best value. This will exclude various hazardous activities, and "winter sports" are usually an extra charge. But travel insurers are generally relaxed about Antarctic tourist trips - indeed in early 2020 one insurer offered the chance to win such a trip if you took out a policy with

them. So they're not seeing many claims. Antarctic travellers are healthy and switched on, they pay attention to safety briefings and are not befuddled by alcohol, herbal tobacco or hormonal bravado - altogether they're a safer group than the average ski chalet party.

# Respect

Antarctica has a **very fragile environment**. Penguins live at the very limit of what is survivable and are especially vulnerable in the brooding / hatching season. Some habitats have extra protection and you may not enter these. **Interfering with wildlife** is illegal and discouraged. Unless you're a trained researcher, don't approach wildlife closely, and even when viewing from a distance try not to surround animals which might confuse or frighten them. At the same time, **don't feed or help animals** even if they would die without your help; if you did, it would interfere with the "survival of the fittest" and would have negative long-term consequences.



Mount Vinson, the "seventh summit"

**Leave no trash.** Antarctic treaties require the equivalent of <u>leave-no-trace camping</u>. Waste disposal and sewage facilities ashore are severely limited and restricted to permanent bases; researchers in field campsites must pack everything out, including human waste. Practice good hygiene and follow any bio-security advice given, e.g. on boot washing. There's scant risk of introducing a blight upon the Antarctic apple harvest, but you don't want to be trailing penguin poop back to the ship's buffet, or catching norovirus in the washrooms.

The <u>International Association of Antarctica Tour Operators (http://www.iaato.org/)</u> (IAATO) is a voluntary organization of tour operators which promotes safe and environmentally responsible tourism in Antarctica. It publishes standards for its members on responsible conduct of visits.

## **Connect**

The top-level Internet domain for Antarctic sites, .aq, is assigned to organizations that conduct work in Antarctica or signatory governments to the Antarctic Treaty. Generally, its servers are hosted elsewhere as Internet access in Antarctica is quite limited. There are no undersea cables to Antarctica; all Internet is provided by satellites, which have limited bandwidth and high latency. Bandwidth is prioritized for scientific research (and even so, for large scientific uploads it's faster to mail a thumb drive), leaving even less for personal use. All websites are slow (especially social media sites, which are throttled because they're in such high demand). Uploading selfies is okay, but video calls, streaming video, and most online gaming is impossible.

Only a few sites in Antarctica have **mobile phone service**. Argentina's Marambia Base has 4G LTE, while the Chilean, Uruguayan, Australian, and Finnish bases have 2G GSM. Everywhere else, you would have to rely on satellite phones. Along parts of the coast, some services like Inmarsat would work, but as you get further inland, most satellites drop below the horizon. At those latitudes, Iridium <u>satellite phones</u> are the only ones that will work, and they should work excellently since the poles are where the orbits of every satellite overlap. Globalstar does not work (as of 2020) as its satellites can only relay to a nearby ground station, of which there are none close enough to the South Pole; even coverage near South America has been out of commission since 2015.

**Post offices** are few and far between, but you can send home a postcard (with a truly unique postmark) from the Chilean town of Villa Las Estrellas on King George Island, or from the former British base of Port Lockroy, or from the US or NZ post offices at McMurdo on Ross Island.

Retrieved from "https://en.wikivoyage.org/w/index.php?title=Antarctica&oldid=4609080"

This article is partly based on Creative Commons Attribution-ShareAlike 3.0 Licensed work from other websites. Details of contributors can be found in the article history.

Text is available under the Creative Commons Attribution-ShareAlike License; additional terms may apply. By using this site, you agree to the Terms of Use and Privacy Policy.