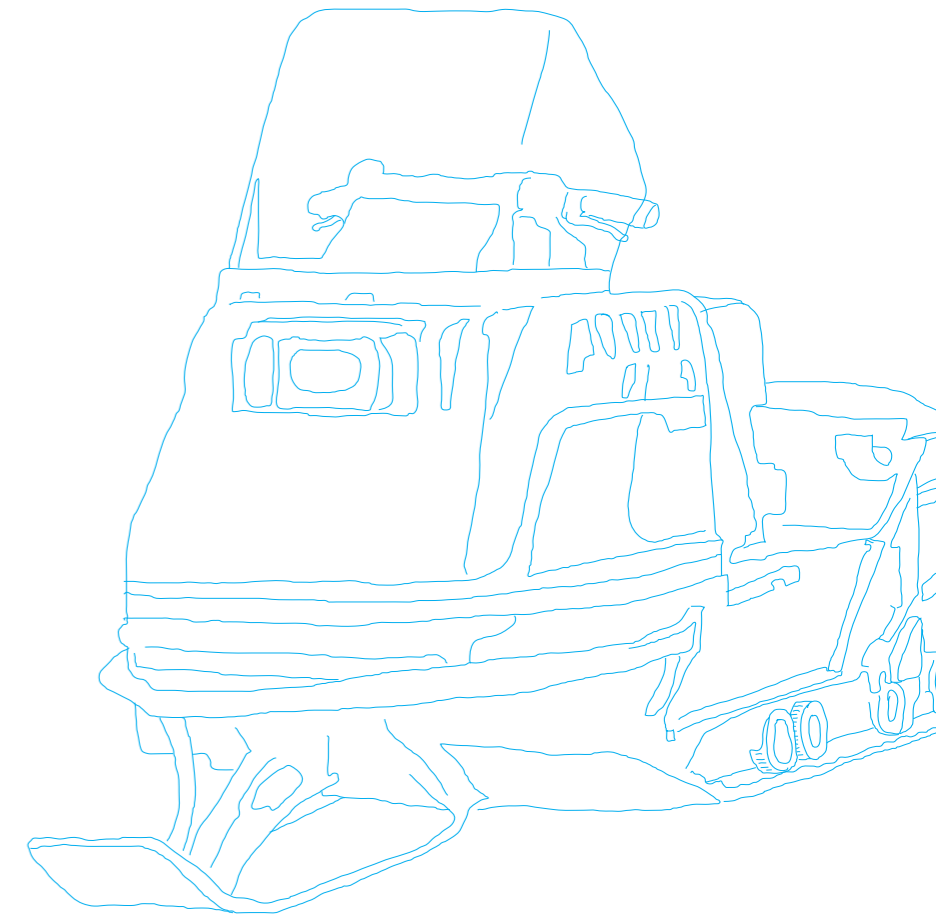


 **BLOG:**

IT'S HARD TO BELIEVE THAT THE LAST TIME WE SAW THE SUN WAS RIGHT BACK IN APRIL. Since then we've all been adjusting in our various ways to living in 24-hour darkness. This long winter night will continue until the first sunrise on 19th August, but thankfully next Wednesday, on Midwinter's Day, we will have reached half-way.



# Now to work

## Arriving

FINALLY, AFTER ALL THE PLANNING, medical checks and packing, you're here. You'll be excited you made it, that your dreams of working here and your research aspirations lie right in front of you. But, at the same time, you'll feel a sense of isolation. The goodbyes with family and friends linger, and the prospect of long-term separation from everything and everyone you have at home can be tough. Fortunately, there is a huge amount of work to distract you, so you're quickly swept up by the hustle and bustle of settling in and get down to it. You have to learn the routines for day-to-day living, familiarise yourself with safety issues and, most importantly, get to know your colleagues and learn to work as part of a team.



Only ski-equipped planes can land on the Amundsen-Scott South Pole station as it sits on 2836 m of snow and ice.

**SUMMER TEAMS OR OVERWINTERING** Most people experience the Antarctic for short stints and generally only between September and March. At many of the stations the population of people staying can quadruple within a few hours of the first aircraft or ship visit after the winter. Imagine the shock of spending the winter with just ten or 20 people and then all of a sudden having 100 new faces to deal with.



Increasingly, aircraft is used to transport scientists and equipment onto Antarctica.

Of all the researchers in all the bases dotted around Antarctica, the most hardcore are the overwinterers. They are the ones who have signed up to stay a complete year, sometimes two. They have to survive harsh Antarctic conditions, struggling with the physical and emotional extremes winter brings. A mixture of scientists, medical staff, field guides, cooks and others, overwinterers have the necessary practical skills to keep the stations ticking over during the coldest months. Everything from maintaining the plumbing and power supply through to fixing sophisticated scientific equipment, they do it. The population of Antarctica drastically reduces when winter hits. The American McMurdo Base for example, the largest base on Antarctica, has a summer population of more than 1000 people, reduced to 200 over winter. In smaller bases, that can be as claustrophobic as ten or 20 people. Major infrastructure work is left until the new summer teams arrive, when the experienced overwinterers can show them the ropes.



## BLOG:

**In Mac Town there is an ice pier. Instead of using concrete, each year they make one out of a big block of ice. They just spray it and spray it to build up the block and put gravel on top so it's not slippery.**

**Although never luxurious, on the whole living and working conditions are pretty comfortable. Space is often at a premium, so be prepared to share a small bedroom. You might get one to yourself if you overwinter, but you'll probably still have to share a bathroom.**

**YOUR NEW HOME** So what will your new home be like? Antarctic bases vary considerably from small summer huts to McMurdo Station, which is like a small town. Most are built on rocky coastal areas, but some stand on ice and create a challenge for engineers. Many older stations have been buried under snow and ice, some even crushed. So modern builds are a series of buildings, or pods, raised up on stilts several metres up, high above drifting snow. The platforms can be winched up if snow builds up underneath. You can even have buildings on massive skis. Too much snow? Just slide the whole building to safety, although this is not as easy as it sounds with a 50-tonne building.

You'll usually find the bedrooms, medical facilities (including operating room) and kitchens at the centre of the base. There are separate buildings for workshops, laboratories, food stores, waste collection and water-treatment plants, plus radio rooms and increasingly IT facilities. There are the latest technologies for insulation, heating and waste treatment, while fuel depots are kept away from the main building complex for safety. There also has to be provision for getting on and off the continent, so most stations have helicopter pads. Some also have runways, which if built on ice means the planes need skids instead of wheels.

**FLOATING BASES** Not all bases are on land. Research ships are effectively floating Antarctic stations, where modern ice-breaking vessels operate deep within the pack ice most of the year round. With about 50 crew and up to 50 visiting scientists, trips last between one and three months. They launch from South Africa, South America, the Falkland Islands, Tasmania or New Zealand and may take several weeks to reach the expedition region. Sea-sickness on the high seas of the Southern Ocean is a major early challenge they face.

The teams onboard include a mix of international scientists bringing together a host of skills and analytical tools to answer common questions. The stresses of being away are more intense than on land as you're confined to this floating home for several months with the same faces (plus the same jokes and at times the same annoying habits). The overwinterers would understand. Sampling work happens round the clock, and the working day is long, but there is generally a bar, and most ships have a small gym onboard to help you relax. On one research vessel there is even a small swimming pool.



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A huge amount of equipment is needed even for the most simple of field camps.

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Unloading equipment and vehicles needed for a winter on an Antarctic land base.