



Expedition Log

Antarctic Peninsula

10th – 20th March 2008

M/V Grigoriy Mikheev

ГРИГОРИЙ МИХЕЕВ



MV Grigoriy Mikheev was a research vessel used by the Russian Academy of Science, now under a long-term contract to Oceanwide Expeditions. The ship was built in Finland in 1990 and is an ice-strengthened vessel. The Mikheev is 210 feet (66 meters) long, has a draft of 12 feet (3.5 meters) and can reach a top cruising speed of 12.5 knots. The passenger capacity is 48, in addition there is a Russian crew of 19, three international hotel and catering staff, five international expedition guides and polar experts and one emergency doctor.

With

**Captain Andrey Khoroshaylov
and his Russian Crew of 18**

including

1st Mate: Stanislav Nedelko
2nd Mate – Alexey Nazarov
3rd Mate – Alexander Nozdryukhin
Radio Engineer - Zodiac Driver: Oleg Orlik
Boatswain: Yuriy Sabol
Able Seaman - Zodiac Driver: Dmitriy Ivanov
Able Seaman - Zodiac Driver: Vitaliy Zuev
Stewardess: Lina Tishchenko
Stewardess: Nina Ivanova
Stewardess: Yulia Tuchkova
Stewardess: Elena Petrova
Stewardess: Irina Kortikova

and

Expedition Leader – Rolf Stange (Germany)
Waterproof Expeditions representative/Lecturer/Dive Master – Göran Ehlme (Sweden)
Lecturer/Dive Master – Mike Murphy (Great Britain)
Lecturer/Dive Master – Jonas Sundquist (Sweden)
Lecturer/Dive Master – Francois Deriberolles (France)
Hotel Manager – Jan de Ceuster (Belgium)
Sous Chef – Hazel Kitto (New Zealand)
Head Chef – Marcelo Canel (Argentina)
Ship's Physician – Dr. Dierk Ronneberger (Germany)
Esquort/Translator – Dmitriy Orlov (Russia)

**And 44 of us from Argentina, Australia, Canada, Great Britain, The Netherlands,
Norway, Russia, Spain, Sweden and the United States**

10th March 2008 – Ushuaia / Tierra del Fuego, Argentina

16:00 Position 54°45' S / 68°30' W

Air temperature: 12°C, Water 8°C,

Lightly overcast, later rainy.

We landed in Ushuaia, the place which markets itself as “El Fin del Mundo” (The End of the World). The rugged spine of the Andes stretches the entire length of the South American continent, coming right down to meet the sea here at the southern tip of Chile and Argentina. The four-hour flight from Buenos Aires over the flat, dry Argentine Pampas and Patagonia was highlighted by the plane's steep descent over the snow and glacier-capped peaks to the airstrip which projects straight out into the Beagle Channel. The scenery includes extensive fjords reminiscent of parts of Norway. At four in the afternoon the staff and crew were ready to welcome us on board, where we had time to find our cabins and to unpack and rest a little.

With a rapidly growing population of 55,000 people, **Ushuaia** is a flourishing duty free port with a fishing industry particularly famous for its crabs (centolla). There are other new industries as well, notably electronics. The new buildings and roads give the appearance of a latter day “frontier town” and one of the few remnants of the last century is a beautiful Victorian timber building right on the harbour. Its first owner purchased the so-called Casa Beban building through a catalogue over a hundred years ago. The museum in the former prison had a fascinating and well-arranged series of displays.

At 5.30 p.m. we met in the dining room for the first time, where we were welcomed by Göran Ehlme (Sweden) on behalf of Waterproof Expeditions. Göran is one of the top polar underwater photographers and filmmakers of the world, his films for BBC and National Geographic are legendary and it was an honour to have him onboard. Rolf Stange (Germany), our Expedition leader gave us a short introduction to the ship, followed by Mike Murphy, the lead divemaster, introducing himself and his team of dive guides. The polar bug had long ago bitten all members of the expedition staff. Rolf trained as a geographer, is the author of several books and a seasoned guide and expedition leader in the Arctic, Antarctic and South Atlantic areas. Our dive masters Mike, Göran Ehlme, Jonas Sundquist (Sweden) and Francois Deriberolles (France) also possess years of experience in expedition cruising. Mike Murphy's polar experience dates back to 1984, where he had first joined the *Lindblad Explorer* as a Zodiac driver and guide. He now also leads diving expeditions in both polar regions.

The hotel department on board the *Grigoriy Mikheev* was led by Jan de Ceuster from Belgium. The cooks, who would take care of tasty meals during our voyage, were Hazel Kitto (New Zealand) and Marcelo Kanel (Argentina). Dr Dierk Ronneberger, the ship's physician, had been working and travelling with Oceanwide before, in Arctic waters, and therefore came with a wealth of knowledge about cold climate, emergency medicine and motion sickness remedies. But of course we hoped that we would not have to consult with him too much!

Captain Andrey Khoroshlaylov was still busy on the bridge, but we would see him later. He had an experienced crew of 18 Russian officers, sailors, engineers and service personnel on board. Just prior to sailing, Stanislav Nedelko, our first officer, gave us an important safety briefing on the upcoming lifeboat drill. Shortly after, the ship's alarm sounded a signal for us to practice this emergency evacuation drill. Moving to our cabins, we donned warm clothes and life jackets and proceeded to our muster station, behind the bridge. Most of us completed the exercise by climbing inside the egg-shaped lifeboats. We all felt quite safe inside, although certainly not overly comfortable, and happy to return to our cabins. Finally, the ships docking lines were hauled in at around 20:00 and we set sail out of the harbour. Dinner awaited us, giving a chance for everybody to get a little more acquainted. The last official event of the day was an introduction of our staff to our Russian-speaking passengers after dinner.

Our Antarctic adventure was about to start!

11th March 2008 – Southbound in Drake Passage

Position at 08.00h: 56°10' S / 66°03' W

420 nm to the Antarctic Peninsula

Air temperature: 10°C, overcast, light westerly wind and some swell

Today we could relax and recover from our flights in the Drake Passage, which presented itself in an average mood, considering the season – a fact that did not keep some of us from not liking it.

A first good *Mikheev*-style breakfast was followed by an appetizer for diving at the cold ends of the world that Mike offered in the restaurant, which was quickly turned into a lecture hall with a large and two smaller screens. Göran followed later with a stunning presentation of his amazing shots of marine wildlife in Arctic and Antarctica, and finally Mike invited us for an introduction to the seabirds of Antarctica and the Southern Ocean. And indeed, we had already seen a veritable choice of these: the great Wandering Albatross was around our ship for most of the day, constantly accompanied by several smaller Black-browed Albatrosses and the odd Grey-headed Albatross, to mention the most important ones. Giant Petrels were seen several times, and smaller birds included Prions with their elegant, swallow-like flight. Even a first whale was seen in the afternoon, although it could not be identified.



In the evening, we rounded the day off in the *Mikheev*-cinema with the first two parts of *Life in the Freezer*, the famed documentary, presented by our cinema-master Francois. Our appetite for Antarctica grew with every mile that we sailed southwards!

The Drake Passage

The Drake Passage geologically opened about 22 to 30 million years ago, and connects the Atlantic with the Pacific Ocean, south of Tierra del Fuego. The South Shetland Islands lie south of this strait, which is here about 800-900 km wide. The Drake played an important part in the trade of the 19th and early 20th centuries before the opening of the Panama Canal in 1914. The stormy seas and icy conditions made the rounding of Cape Horn through the Drake Passage a rigorous test for ships and crews alike, especially for the sailing vessels of the day. Though bearing the name of the famous 16th-century English seaman and explorer, the Drake Passage was, in fact, first traversed in 1616 by a Flemish expedition led by Willem Schouten. Sir Francis Drake sailed through the Straits of Magellan to the north of Tierra del Fuego, although he was subsequently blown south into the more extreme latitudes west of the passage by a Pacific storm. The passage has an average depth of 3400 m (11,000 feet), with deeper regions of up to 4800 m (15,600 feet) near the northern and southern boundaries.

The winds through the Drake Passage are predominantly from the west and are most intense in the northern half. The mean annual air temperature ranges from 5°C in the north to -3°C in the south. Cyclones (atmospheric low-pressure systems with winds that blow clockwise in the Southern Hemisphere) formed in the Pacific Ocean traverse the passage towards the southern end. Surface water temperature varies from near 6°C in the north to -1°C in the south, with the temperature altering sharply in a zone near 60°S. This transitional zone is known as the Antarctic Convergence, or Polar Front. It separates the sub-Antarctic surface water from the colder and fresher Antarctic surface water. At depths of between approximately 500 to 3000 m there occurs a layer of relatively warm and salty deep water. The maximum extent of sea ice occurs in September, when between 25% and 100% ice cover extends as far as 60°S. Ice floes occasionally reach Cape Horn.

The water within the passage flows from the Pacific into the Atlantic, except for a small amount of water in the south that comes from the Scotia Sea. The general movement, known as the Antarctic Circumpolar Current, is the most voluminous in the world, with an estimated rate of flow between 950 to 1500 Mio cubic metres per second.

12th March 2008 – Southbound in Drake Passage

Position at 07:30: 59°58' S / 63°56' W

300 nm to Melchior Islands

Air temperature: 5°C, Wind force 5-6 from W, mostly overcast, swell

Most of us would remember this night as a moving experience, as the swell had reached considerable size despite of only moderate winds. Bed was certainly not a bed place to be under these conditions, and anybody who might have seen us from outside would probably have suspected us of major take of stimulating liquids – but really, the liquid that made us move was everywhere outside the ship, rather than inside.

We had crossed the Antarctic convergence during the night, the invisible boundary zone that separates more temperate waters in the north from the cold Antarctic water body that surrounds the last continent. In other words: we had entered Antarctica, ecologically speaking. The political dimension followed soon, as we crossed 60°S during breakfast, thus entering the area that is governed by the Antarctic Treaty.

Chess was played, books were read, birds were observed and lectures were attended during the day. Rolf called us together for a mandatory introduction to rules of *Good Behaviour in Penguin Country* ("*IAATO-briefing*") – after all, these polite creatures would meet us in in tailcoat, so we simply had to live up to Antarctic standards of etiquette. This, by the way, also included some remarks on distances that we had to keep and other measures to make sure we would not molest any wildlife and some important information to make sure our operation would be safe. Mike added some information about our plans for the days to come.

After lunch, Rolf continued with an introduction to *Plate Tectonics*, a rather solid matter that was received warmly by those who were delighted by the thought of good, solid continental crust of granitic composition rather than the solid, ever-moving liquid that we had everywhere around us. In

the later afternoon, Mike made sure the divers were updated with all information that was needed for the days to come, and even some non-divers (rumour had it that some evil soul would call them the "normal people") were said to have attended this event out of sheer curiosity for all the exotic gear that was to be used for purpose that no mere mortal could ever understand.

Another good dinner and *Life in the Freezer* (Part III and IV) rounded the day off.

13th March 2008 – Drake Passage, Melchior Islands

Position at 07:30 a.m.: 62°48' S / 63°34' W

90 nm to Melchior Islands

Air temperature: 3°C, largely overcast, gentle breeze, decreasing swell.

We woke up after another lively night to be delighted by the first glimpses of Antarctic land on portside, as the steep and forbidding slopes of Smith Island were coming into view at a distance of 28 nm. Göran offered a talk about the art of photography in polar areas, and we were looking forward to using what we had just learnt from him soon. Due to the strong wind of the last days, we had lost a bit of time, but we had still hopes for a first dive and Zodiac cruise in the afternoon at the Melchior Islands. During the day, however, the wind picked up again and finally it had to be decided that the test dive had to be postponed until we would reach Cuverville the next morning. This enabled us to fully appreciate the unexpectedly fine weather in protected Dallmann Bay, in the heart of the Palmer Archipelago between the islands of Brabant and Anvers.

The Melchior Islands were a little group of rocks and skerries, most of them covered with snow



crowns and miniature ice caps. The first Penguins – the very first ones had actually been seen several hours ago, out at open sea – were swimming around the ship, as we sailed through a strait that separated the eastern and the western half of this beautiful little archipelago. Several red huts were clustered on a small rocky islet: this was not the local holiday village, but an Argentine research station that was occasionally staffed during the summer, although our staff knew that it had been deserted for several years until it was re-occupied recently for the current IPY (International Polar Year).

It did not take long after the passage through the Melchior Islands until we saw two or possibly three Humpback whales peacefully migrating westwards. The mighty animals surfaced repeatedly, every time blowing the famous column of water and smelly air up, and the Captain turned the ship so we could enjoy the spectacle for some time.

The divers made use of the calm conditions to set up all their gear, so tomorrow we would be able to start without any further delay.

The wind picked up a little bit again when we crossed the larger Gerlache Strait that separates the Palmer Archipelago (Brabant and Anvers Islands) from the Antarctic Peninsula, approaching the

Errera channel, where we anchored during the night, awaiting tomorrow's adventures and certainly appreciating a good sleep on a calm ship!

14th March 2008

Errera Channel: Danco Island, Cuverville Island / Neumayer Channel

Position at 06.00h: 64°40' S / 62°37' W

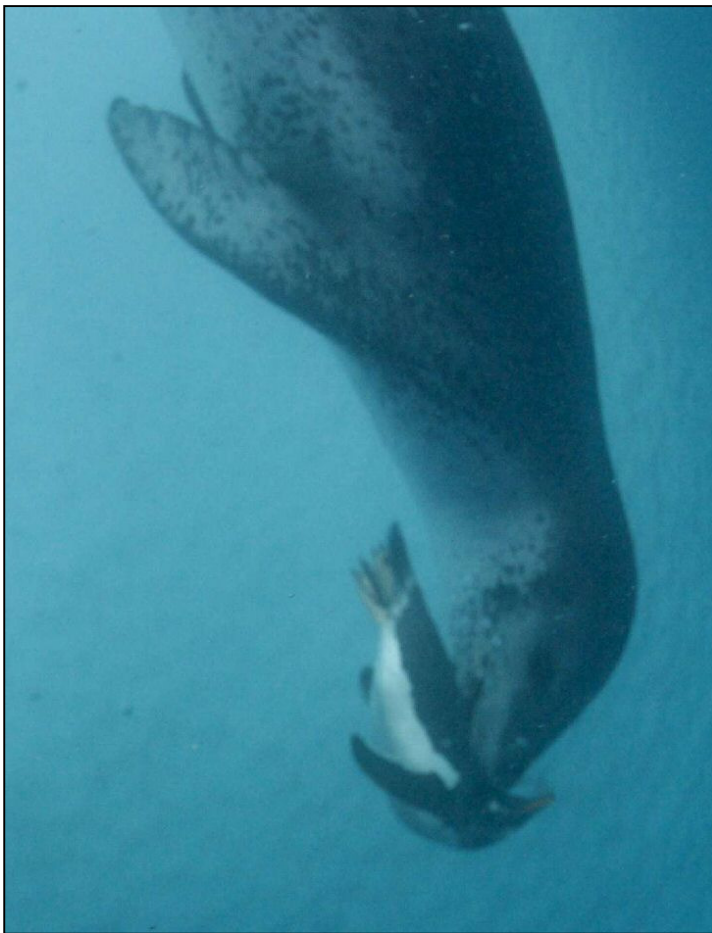
Air temperature: 5°C, no wind

When the expedition crew crowded through the ship, we awoke at a time that most of us deemed so ungodly that it shall remain unmentioned here. We were anchored off Cuverville Island, named after a minor French admiral, in the entrance to the Errera Channel. Most of the rest of the scenery here was named by, and largely after, the *Belgica* expedition of 1897-99. It was an international team led by the Belgian Adrian de Gerlache (Gerlache Strait) and sponsored by Madame Errera (Errera Channel) and Monsieur Rongé (Rongé Island). Their magnetic expert, Emile



Danco, was one of the first to die, of a heart condition exacerbated by his refusal to eat fresh meat to combat scurvy. He swore he'd rather die than eat penguin and seal meat: and that's just what happened. Danco Island and Danco Land remember him. Further south is Wiencke Island, named after the youngest seaman on board, Carl Wiencke, who was washed overboard in the Bransfield



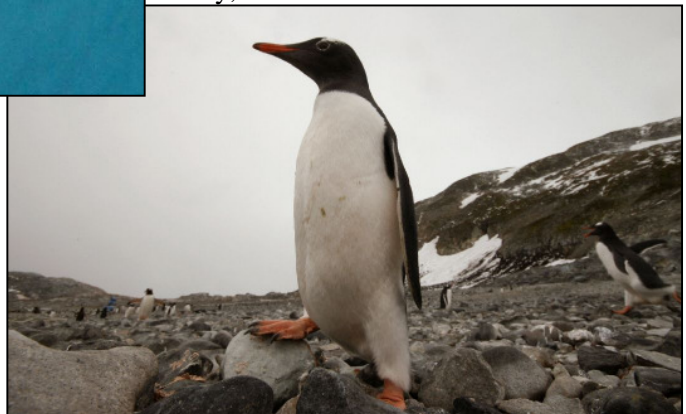


Strait, on a deck overloaded with badly stowed cargo, which he was trying to make safe.

After an early breakfast, the long-awaited moment had come, and everybody, first the divers and soon afterwards the "normal" people, boarded the Zodiacs, a swift operation that would soon be a natural habit for all of us.

There were 32 divers in four zodiacs, all eager to get into the water and within minutes they were on their way to their first dive site, the beach at Cuverville, to perform the checkout dive. The first leopard seal was sighted, cruising along the penguin colony, it was a good omen, for leopard seal dives would be the ultimate goal for everyone. The zodiacs beached themselves and the divers geared up and swam out to deeper water, where they could adjust their new weight belts and equipment. Unfortunately the leopard had moved away, but we knew it would not be for

too long. The checkout went extremely well and before long the divers had returned to the zodiacs and were taken off to two different dive sites. Göran and Francois anchored their zodiacs off the east side of Cuverville, and performed a dive on the gradual incline. The slope was rocky, with large boulders and kelp in between. Visibility was reasonably good and it was a great dive to start the trip. Sea



urchins, Estreallas (35 arm stars) and anemones were scattered everywhere and several large cod were sighted. Meanwhile, Mike and Jonas took their zodiacs in search of leopard seals amongst the icebergs. This was also the first chance to dive ice, but for Mike, his leopard did not show, Jonas was luckier and his divers were visited by a large female leopard, inquisitive and friendly and spent much of the dive just circulating between everyone.



The non-divers went with two Zodiacs, piloted by sailor Dmitry and our expedition leader Rolf respectively, deeper into the Errera channel towards Danco Island. It was a distance of just over three miles, a piece of cake for the 40 horses that we heard neighing under the lids of the outboard engines, but it was to take us more than one hour, due to several Crabeater seals, one of these lazing on a small iceberg and two others being rather uncomfortable about the

presence of a Leopard seal that was lurking just behind another iceberg. The Leopard soon diverted his attention towards us, obviously the more fascinating attraction at the moment (or maybe just the bigger bite?) and we were amazed by the size of the powerful, yet elegant animal with its snake-like head. We had difficulties to decide where to look: the Crabeater seals, the mighty Leopard seal or the Minke whale, which was quite close at the same time ...

Finally, we left and set our feet for the very first time on Antarctic ground: Danco Island. We were greeted by a welcome committee of Gentoo Penguins and enjoyed the presence of these fantastic and rather inquisitive creatures for some time, before we ventured to climb the summit of the island, no less than 1500 decimetres above sea level – where were the oxygen bottles? The view rewarded us greatly for the effort of the ascent, which was mostly after several days on the ship anyway. The Antarctic Peninsula and Rongé Island were towering with mighty mountains and wildly crevassed glaciers to both sides of the Errera Channel.

Some of us made use of a snow slope for an accelerated descent to the landing site, before it was finally time to get back on board for another good and well-deserved *Mikheev*-lunch.

It was time for a second dive, and the four zodiacs took off again, this time swapping sites they had done in the morning's excursion. Both dives went well, but no show with leopards, possibly it was their siesta time!!!, nevertheless, both dives were enjoyed.

As soon as the divers had left, we boarded the Zodiacs once again for a landing on Cuverville Island.



This rocky island with the shape of an elephant back was home to the largest colony of Gentoo penguins of the whole area. Most had actually already left the breeding sites, but many hundred were still present. Most of us chose to sit down just somewhere on a convenient whalebone or rock to observe silently, and patience was always rewarded with fantastic observations of interesting



behaviour, including curious individuals that actually came towards us to try the taste of our boots! But it did not seem to serve them any better than it would have for us, and soon they went their ways.

Meantime, the weather had picked up and turned more towards real Antarctic mode. A fresh breeze was blowing snow around our red noses, and the Zodiac-ride back to the ship was a bit choppy, but everybody did well when it came to negotiating the gangway.

Dinner was well received after such an eventful day. The evening passage of Neumayer Channel got

somewhat lost in a real snowstorm, which cleared the last doubts as to where we really were.

15th March 2008 – Port Lockroy/Damoy Point, Neumayer Channel, Paradise Bay

Position at 06.30h: 64°50' S / 63°30' W

Air temperature: 1°C, wind force 6 (stronger in gusts), snowfall

Wake-up call was originally scheduled at 06.00, but our expedition leader, who otherwise had a reputation as being truly merciless, spontaneously allowed 1 ½ hours more sleep when he saw that the weather conditions had not yet improved. But finally luck was on our side, and after a good 8 o'clock breakfast we could grab flippers and rubber boots. The 'dry' folk went in to nearby Port Lockroy, Base A in the wartime Operation Tabarin. It was a monitoring station until 1945, then became a meteorological base, studying the ionosphere, and in particular, phenomena known as 'whistlers', radio noises that result from lightning discharges from all over the continents to the north being channelled down the earth's magnetic field. It is a convenient way of monitoring huge areas for atmospheric electrical activity from a small number of bases. As the equipment became more sophisticated, the base fell out of use, out of repair, and became a hazard to wildlife. The United Kingdom Antarctic Heritage Trust was set up to



restore this and other sites, furnishing Lockroy in the style it would have been around 1962. It was an excellent little museum, and we could visit despite of the staff already having gone home this season. Nevertheless, some of us sent some postcards that would

probably be delivered near christmas!

The historic British 'Base A', **Port Lockroy**, is located at 64°49'S, 63°29' W on the tiny Goudier Island, just off Wiencke Island, on the Antarctic Peninsula. The Base has been designated as an Historic Site and Monument under the Antarctic Treaty. It is owned by the UK Natural Environment Research Council, of which the British Antarctic Survey (BAS) is a component body. It is operated by the BAS during the austral summer under the guidance of the UK Antarctic Heritage Trust (AHT), and is currently one of the most visited sites in Antarctica.

History

During the Second World War, the British Government dispatched a secret mission, code-named 'Operation Tabarin', to establish small bases on the Antarctic Peninsula. Its task was to report on enemy activities and to gather meteorological data. 'Base A', Port Lockroy, was built on Goudier Island in February 1944. Some of the timber used in the construction of the building was salvaged from the abandoned whaling station at Deception Island. The eight man wintering team was led by Commander James Marr, who, as a young Boy Scout, first visited Antarctica under the leadership of Sir Ernest Shackleton.

After the war, the base was handed over to the civilian Falkland Islands Dependencies Survey (FIDS), which became the major international scientific organisation that is now the British Antarctic Survey (BAS).

From 1948, the station played an important scientific role, including the first measurements of the ionosphere, and the first recording of an atmospheric whistler, over Antarctica. Port Lockroy was a key monitoring site during the International Geophysical Year of 1957/58. When BAS re-located its science to other sites on the Antarctic Peninsula, the base closed in January 1962 and subsequently fell into disrepair.

Following a conservation survey by the UK Antarctic Heritage Trust (UK AHT) in 1994, Port Lockroy was recognised for its historical importance and designated as Historic Site and Monument No. 61 under the Antarctic Treaty. A conservation team undertook the renovation in 1996.

Wildlife

Between 700-800 pairs of Gentoo Penguins (*Pygoscelis papua*) nest on Goudier Island. The population, and breeding success, of this colony is monitored by BAS (see below).

Small numbers of Snowy sheathbills (*Chionis alba*) also breed on Goudier Island, and Dominican gulls (*Larus dominicanus*) and Subantarctic skuas (*Catharacta skua*) nest on the nearby Bills Island.

Blue-eyed shags (*Phalacrocorax atriceps*) and Antarctic terns (*Sterna vittata*) breed at Jougla Point, and Crabeater seals (*Lobodon carcinophagus*) also breed locally at Port Lockroy.

Environmental Monitoring

When the base re-opened in 1996, an environmental monitoring programme was established to investigate potential visitor disturbance to the resident colony of gentoo

penguins on Goudier Island. Results show that the large numbers of visitors have had no discernable impact on penguin breeding success, which is more closely linked to local environmental conditions, such as snow cover or the availability of krill.



On the way back, we made a short landing on near-by Jougla Point to have a look at the "open-air whale museum" that had a complete skeleton on permanent display (probably put together from bones from several individuals).

Many of the divers opted to visit the museum, as the weather was a little uninviting to be diving on an exposed shoreline. Nonetheless, Mike and Francois took two zodiacs to Damoy Point, just a five minute ride from the mothership. The wind was blasting directly onto the Point, which was bewildering, as 30 minutes earlier, the dive site was fully protected in the lee of the shoreline. That's Antarctica for you!!! You can never dare guess the weather, it changes constantly and you must always

have an alternate plan in mind. The wind seemed it's calmest just around the point, into Port Lockroy Bay, so anchors were dropped and the divers slipped into the cold waters, ready for an interesting 'critter' dive. While Stacy



and Linda, the last two divers, entered the water, Mike spotted a leopard seal honing in on the event. For 30 minutes the leopard stayed with the girls, face to face, swirling in and out between them and just having a wonderful time, they girls never got deeper than seven meters, just too much fun.



Occasionally, the seal would leave them and join the other divers, which was absolutely fantastic, so that everyone had chance to experience this magnificent creature. Everybody agreed, it was one of the best dives they had ever done, but a few a little disappointed that they had the wrong lenses, (thanks to



Mike's advice) set for small macro marine life. Mike compensated them by saying, it's better to have the wrong lens and enjoy an incredible experience, than to have the right lens and see nothing !!! At least it made him feel better !!!!

We enjoyed another passage of the Neumayer Channel, this time with better visibility, and then had lunch whilst sailing eastwards, to the coast of

the Antarctic Peninsula proper at Paradise Bay. This place had obviously got its name for good reason: being surrounded by steep mountains and wildly crevassed glaciers, it seemed as nature had put all its strength into creating this one place with all the beauty Antarctica could possibly have. Most of us had never seen anything like it before.

For the afternoon dive, the Zodiacs split up, two diving beneath the Blue eyed shag colony, just next to the abandoned Argentinean station and the other two, one kilometre to the north, good vertical walls on both dive sites. Before visiting the dive sites, a leopard was spotted, lazing on a small ice floe. Quietly, all zodiacs approached the animal, engines shut down, and drifting within five meters. The leopard seemed unperturbed at our presence and continued its interrupted snooze. The dives on the walls went well, reasonable visibility and lots of marine life to see. Again, many of the amazing 35 arm stars were seen, together with beautiful sea anemones, soft corals, gorgonians, urchins and the occasional nudibranch. After crawling back into the zodiacs, everyone headed over to the glacier face and cruised amongst the brash ice, marvelling at the stunning scenery. This was followed by a quick landing at the Amirante Brown Station, our first and only chance to set foot on the continent of Antarctica.



Neither did the land folks loose any time, but boarded the Zodiacs for a long cruise, starting near the abandoned Argentine station Almirante Brown and then continuing deeper into Skontorp Cove, one of several side bays. Lots of icebergs of all colours, shapes and sizes were drifting in the bay, we found Leopard seals on the ice, several Crabeater seals and even a Minke whale. Finally, we found a small, rocky point where we could set foot on the Antarctic continent – good continental crust and geographically part of the coastline of the last continent, to satisfy all possible demands that might result from different definitions of the term "continent".

It turned out to be perfect timing, as snowfall soon set in again once we were back on board, where we enjoyed a calm evening whilst sailing towards an anchoring position near Wauwerman's Islands, north of the famous Lemaire Channel.

16 March 2008 – Lemaire Channel, Pleneau Island, Booth Island

Position at 07:00: 64°54'S / 63°45'W (anchoring near Wauwermans Islands)

Air temperature: 0°C, calm, cloud cover, good visibility

Breakfast was scarcely over when we entered the Lemaire Channel. The Lemaire is a beautiful narrow channel between the mainland to our port, and Booth Island to our starboard. A light dusting of snow picked out the grain of the rocks. The waters were almost wholly ice-free, allowing us to choose our course beneath mountains rising to about a thousand metres to either side. At the southern end we turned into



Pleneau Harbour and anchored in a sheltered bay on the other side of Booth Island.

The morning sky was gradually clearing, with sunshine breaking through the clouds, as the divers all set off on their first dive of the day. Pleneau is renowned for leopards, or at least, usually is, so with high hopes, the search began, each zodiac exploring their own areas amongst the ice. 'Leopardman Göran' and Jonas were the first to find a leopard, and within minutes had all their divers in the water. Unfortunately, once again, the leopard was not in the mood to play, so by the time the divers entered, it had moved onto quieter grounds.



Mike and Francois spotted several crabeater seals on ice flows and hurried over to investigate. Behind the first crabeater, laying on the rocks, was a large sleeping leopard. He was a magnificent brute and this was really the first time anyone could get up real close and personal with the creature. After a while, the

seal slipped into the water and was joined by a second leopard as they patrolled among the few small grounded 'bergs'. It was the ideal opportunity to snorkel with the beasts, but unfortunately only two of the divers got to see the seals underwater before they moved off into the bay. Francois's group donned tanks and dove around the same small bergs, really enjoying themselves, and finding two small walls and lots of marine life on the seabed. Meanwhile the weather was deteriorating, the temperature dropped and the wind picked up, it was time to return to the ship.

The non-divers ventured on a Zodiac cruise to explore the "iceberg graveyard", a shallow area where icebergs had got grounded to die in beauty over years. The variety of shapes, sizes and colours was endless, and both Leopard and Crabeater seals were not far away. We also briefly enjoyed the opportunity to make a short landing on a very small rocky island – not many tourists would have been ashore there before us, if any at all!

During lunch, the weather worsened, with strong catabatic winds well over 30 knots sweeping the whole bay. It was decision time, what dive to do, and after a somewhat disappointing morning, as far as leopard seals were concerned, it was a hard call. Göran was convinced he could find a leopard and decided to take just snorkelers with him. With a full zodiac, he headed downwind towards the Pleneau islands and searched in amongst the rocky islets. Success !!!, finally, a hungry leopard, patrolling the Gentoo penguin colony. It was hungry and tore into several penguins, giving the snorkelers a dramatic display. It was time to enter the water and swim alongside the seal and experience its full power and

fury. For almost two hours the leopard stayed with the snorkelers, everyone getting maximum close up shots, it swirled and leapt, dove and swam, continuously in and out of everyone in the water. This was an encounter to end all encounters, an experience most would dare dream about, what an incredible afternoon !!!

Further to the north of the bay, Mike and Jonas took seven divers over to Port Charcot, a well known hunting ground for leopards and also partially protected from the strong winds by a small snow cap. The wind was howling, nearing 35



knots, truly unpleasant conditions, much better underwater. So they dropped anchor just off the colony and set the divers in the water, with the hope that a leopard might show. Gentoos were everywhere and very excited when they saw the diver's bubbles, and entering into the water by the forties and fifties and visiting the divers. It was a great dive, good bottom life and many curious Gentoos kept the divers happy and interested, but sadly, the leopard never revealed itself, had it done so, the probability of seeing so many Gentoos underwater would have been slim.

The land-lovers went ashore at a narrow isthmus on Booth Island in wind and weather conditions that were approaching truly Antarctic standards. On the northern (far) side of this isthmus was Port Charcot. This wealthy Frenchman invested his own fortune in two Antarctic expeditions, one in the *François* and another in the *Pourquoi-pas?* – the *Why Not?* He overwintered in this little cove and undertook studies of penguins, an interesting place to do so, since it is almost at the southern limit of



the gentoo's range, and studies have continued in the past few summers on nearby Peterman Island, to look at how the colony there is prospering. There is evidence that both gentoos and Adelies are moving south, possibly in response to warmer temperatures on the Peninsula. We were lucky and found not only one or two lonely Adelies, but also a lone Chinstrap Penguin that was normally to be expected further north.

We did not spend too much time ashore, as the wind was picking up nearly every minute, until it had reached almost 20 metres per second (force 8) when we went back to the ship. A truly Antarctic adventure, but we were nevertheless happy that we did not have to spend the winter on Booth Island.

But there was another adventure to come tonight. Regardless of the inhospitable weather conditions, our hotel staff Jan, Hazel and Marcelo, with help of our Russian crew, had set up a real Antarctic BBQ on the back deck! All sorts of different goodies from the grill were enjoyed together with various salads and drinks that were on the

house, and it did not take long until dancing rubber boots were put into good use.

17th March 2008 – Vernadsky, Lemaire Channel

Position at 06:00h 65°04'S / 64°02'W

Air temperature: 1°C, breeze.

For most of the night, strong winds were howling around the *Grigoriy Mikheev*, but luckily it calmed down noticeably towards the morning. During breakfast, a short cruise took us to an anchorage some distance off the Ukrainian Vernadsky Base, a closer approach being impossible in poorly charted waters full of reefs and shallows. Vernadsky was to be our furthest south position at 65°14'S/64°15'W.

At the base we were greeted by scientists who undertake year-round research at the base. Up until 1996 it was the British Faraday Base and, along with Halley in the Weddell Sea, was responsible for discovering the sharp seasonal decline in the intensity of the ozone layer, a band of unstable heavy oxygen molecules containing three atoms instead of two. It plays a vital role in blocking out harmful solar radiation. Man-made chemicals are now known to promote the breakdown of the molecules back into ordinary oxygen, lowering the level of protection from radiation. On the lighter side, the base also has one of the better retail opportunities in Antarctica, including a Post Office and bar, with home-made vodka distilled from potatoes. This is where most of us suddenly found themselves after the guided tour through the station had finished.

Around the corner was a historic building known as the Wordie Hut after James Wordie, the geologist on Shackleton's 1914-17 *Endurance* expedition. Built in 1947, and extended in 1952, it was closed in 1954, except for emergency use as a refuge. It is now preserved as a monument to the meteorological and other research carried out there, and is a fascinating time-capsule, including an unopened packet of Pemmican, felt bootliners, a crystal ball to measure sunlight, and records of the dogs kept and bred there.

Most of us decided that the calm and pristine surroundings of Wordie House were more of a proper ending to an Antarctic voyage than the Vernadsky bar and we spent some tranquil minutes getting lost in the beauty of the place (although some of us were said to have been busy being photographed in



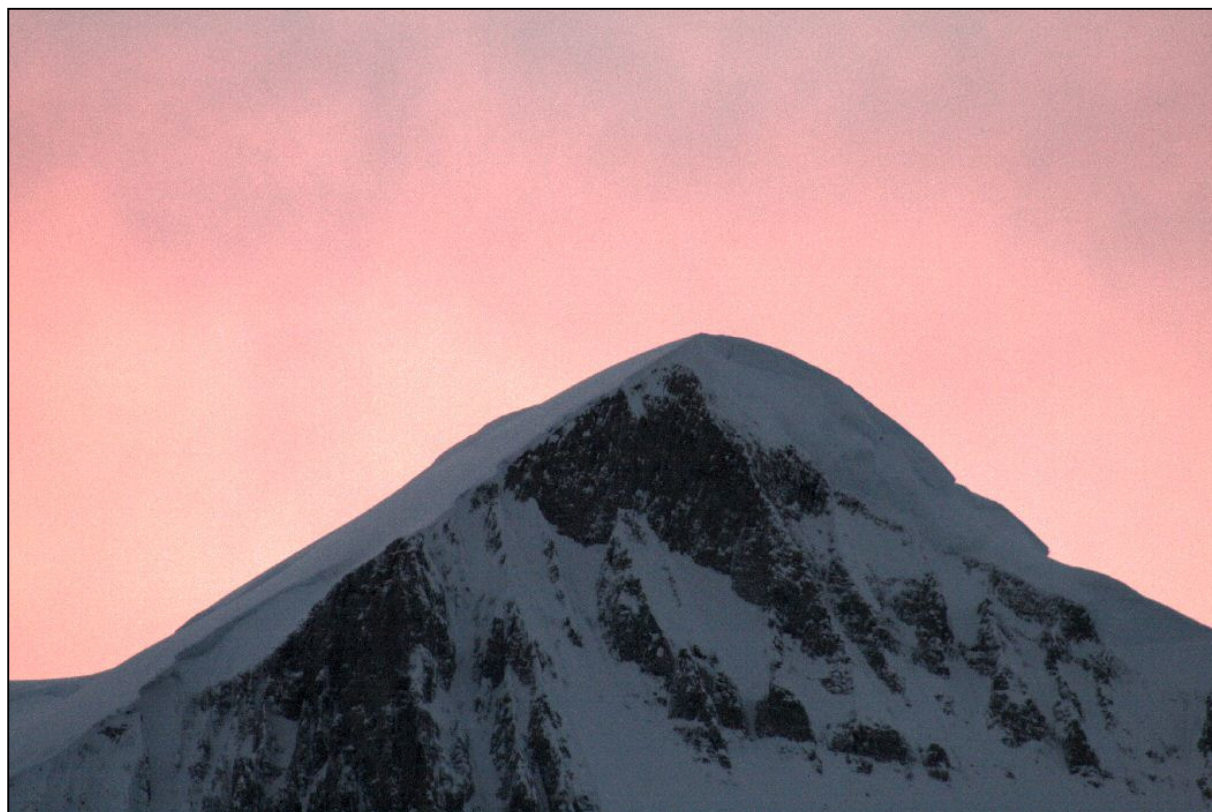
running gear on the little ice cap!). Mike, Göran, Jonas and Francois, took half the divers over to the walls at Vernadskiy to dive, while the other half were probably sleeping off their late night performances at the BBQ. Francois took his zodiac



into a small channel just past Wordie house, totally protected with a beautiful wall running down to almost 20 meters. All his divers were ecstatic, for these walls contain amazing marine life, giant isopods and nudibranchs, sea urchins, sea stars and small fish. Meanwhile Mike and Göran, separated their boats along the wall opposite the station. Their dive was equally exciting and once again, luck was with 'Leopardman Göran', as his divers had a leopard seal join them. Mike finished his dive and came over to join Göran, the leopard was still in the vicinity, so Mike's divers leapt in and snorkelled for 20 minutes with the magnificent creature. A superb way to finish the Antarctic dives, with almost 100% of the divers having fulfilled their dreams of diving with leopard seals. Finally, there was no way around it: the distance from Vernadsky station to Ushuaia was 639 nautical miles – as the crow flies, so it would have to be even more for us. Time to get back on board

and prepare for a long journey home. The first leg took us through some wonderful passages, retracing part of our route down south. Especially the Lemaire Channel, this time even partly in sunshine, made jaws drop all over the ship.

Later in the afternoon, snowfall set in again, obscuring the scenery of Gerlache Strait and Dallmann Bay, as we headed out into the open sea. Several interesting wildlife sightings were made by those who stayed on watch on the bridge, including a pod of at least 10 Orcas in the Gerlache Strait. Most of us had chosen to recharge batteries by sleeping all through the afternoon – we felt that we certainly had deserved it after our Antarctic adventures, and who could know what the Drake Passage had in stock for us? It might be good to sleep in advance. Rolf decided not to disturb us with any on-board programme such as lectures, this could just as well wait until tomorrow.



18th March 2008 – Drake Passage, en route to Ushuaia

Position at 08:00h 61°25'S / 64°09'W (almost 400 nautical miles to the Beagle Channel)

Air temperature: 3°C, cloud cover, light breeze, swell.

It was good to have a wake-up call beginning with a nice number, like 8, especially as a time change had made last night's sleep one hour longer. The Drake was still being relatively kind to us, despite some swell. At 1030, Rolf opened the *Mikheev*-university with the second part of his talk about plate tectonics, this time focussing on the break-up of Gondwana that finally led to today's constellations of continents and oceans in the southern hemisphere and the dramatic implications the creation of the Southern Ocean had on the global climate.

Before lunch, Dmitriy Orlov presented footage taken on diving excursions in Russian waters. In the afternoon, our "extremely intelligent and handsome divemaster Mike Murphy" (O-tone Mike) continued with a talk about his good marine mammal friends, the cetaceans, before fellow passenger Keith Hiscock informed us about potential consequences of climate change to sea-bottom life in the Antarctic Peninsula. After all, this is the area which has so far experienced the most pronounced warming on the globe, recorded by stations such as Vernadsky base.

The day was rounded off by Francois who invited us to the *Mikheev*-cinema for Shackleton, a dramatic film about the famous *Endurance*-expedition starring Kenneth Brannagh.

19th March 2008 - Drake Passage, en route to Ushuaia

Position at 08:00h: 57°03' S / 65°33' W

130 nm to the Beagle Channel

Air temperature: 4°C, almost no wind, moderate swell

Another civilized wake-up call introduced us to an overcast but fair day. This was our last day at sea, so Rolf gave us some disembarkation instructions, including details on our arrival and transfer times, and luggage handling. Several lectures and presentations followed during the day, starting with Francois and his slides from Kerguelen. Jan kindly invited us to settle our accounts, and later Rolf showed images from dog-sledging tours in East Greenland, and finally it was time to wrap the voyage up with a slideshow to which many of our keen photographers had contributed. It was hard to believe we had seen and done all this within just a couple of days!

We ended this day at sea with one final dinner in the *Mikheev* dining room.

20th March 2008 – Ushuaia

Position at 0900h: 54°50'S / 68°20'W

Temperature: a lot warmer than Antarctica!

In the morning, the *Grigoriy Mikheev* reached the pier in Ushuaia and our journey to Antarctica came to an end. We left our luggage outside our cabins ready for collection and had our final breakfast together, then went down the gangway for the last time, saying farewell to our fellow travellers and our hotel and expedition team who had been looking after us for the past days. Some of us left directly for the airport and further connections home, while others headed for hotels and tours in South America.

Total length of this trip:
1,507 nm = 2,971 kms = 1,735 statute miles

**On behalf of Oceanwide Expeditions &
Waterproof Expeditions,
we wish you a safe journey home
and hope to see you again sometimes,
anywhere between the poles.**



Please visit us at

www.waterproof-expeditions.com

Log, maps, layout by: Rolf Stange

Dive log: Mike Murphy.

Images: Different photographers – thanks to all of you!

Lecture and presentations list

Russian translations were offered before or after each lecture / briefing by Dmitriy Orlov together with the lecturer.

10 March	Safety Briefing	Stanislav Nedelko (1 st Mate) Translated by Rolf Stange
11 March	Diving Beneath Polar Seas	Mike Murphy
11 March	A Life In The Freezer	Göran Ehlme
11 March	Seabirds of Antarctica	Mike Murphy
11 March	Life In The Freezer (Parts I and II)	Documentary
12 March	Good Behaviour in Penguin Country ("IAATO-briefing") / Zodiac information / Our diving plans in Antarctica	Rolf Stange, Mike Murphy
12 March	The moving Earth. Plate tectonics Part I – an introduction.	Rolf Stange
12 March	Dive briefing	Mike Murphy
12 March	Life In The Freezer (Parts III and IV)	Documentary
13 March	Photography in polar waters	Göran Ehlme
18 March	Plate tectonics Part II – Gondwana, Antarctica and the Southern Ocean.	Rolf Stange
18 March	Diving in Russian waters.	Film, presented by Dmitriy Orlov.
18 March	Cetaceans.	Mike Murphy
18 March	Climate change and sea-bottom life in Antarctica.	Keith Hiscock
18 March	Shackleton	Film
19 March	Kerguelen	Francois Deriberollos
19 March	Scoresbysund Hot Dogs (Dog-sledging adventures in East Greenland)	Rolf Stange
19 March	What have we done? Slide show of our journey	Images from various photographers, presented by Mike Murphy

<i>Pygoscelis papua</i>	Gentoo Penguin
<i>Pygoscelis adeliae</i>	Adelie Penguin
<i>Pygoscelis antarctica</i>	Chinstrap Penguin
<i>Diomedea exulans</i>	Wandering Albatross
<i>Diomedea melanophris</i>	Black-browed Albatross
<i>Diomedea chrysostoma</i>	Grey-headed Albatross
<i>Phoebastria palpebrata</i>	Light-mantled Sooty Albatross
<i>Macronectes giganteus</i>	Southern Giant Petrel
<i>Macronectes halli</i>	Northern Giant Petrel
<i>Fulmarus glacialis</i>	Antarctic Fulmar
<i>Daption capense</i>	Cape Petrel
<i>Pterodroma mollis</i>	Soft-plumaged Petrel
<i>Pachyptila desolata</i>	Antarctic Prion
<i>Procellaria aequinoctialis</i>	White-chinned Petrel
<i>Puffinus griseus</i>	Sooty Shearwater
<i>Oceanites oceanicus</i>	Wilson's Storm-petrel
<i>Fregetta tropica</i>	Black-bellied Storm-petrel
<i>Phalacrocorax atriceps</i>	Blue Eyed (Imperial) Shag
<i>Chionis alba</i>	Pale-faced Sheathbill
<i>Catharacta maccormicki</i>	South Polar Skua
<i>Catharacta antarctica</i>	Brown Skua
<i>Larus scoresbii</i>	Dolphin Gull
<i>Larus dominicanus</i>	Kelp Gull
<i>Sterna vittata</i>	Antarctic Tern

Note:

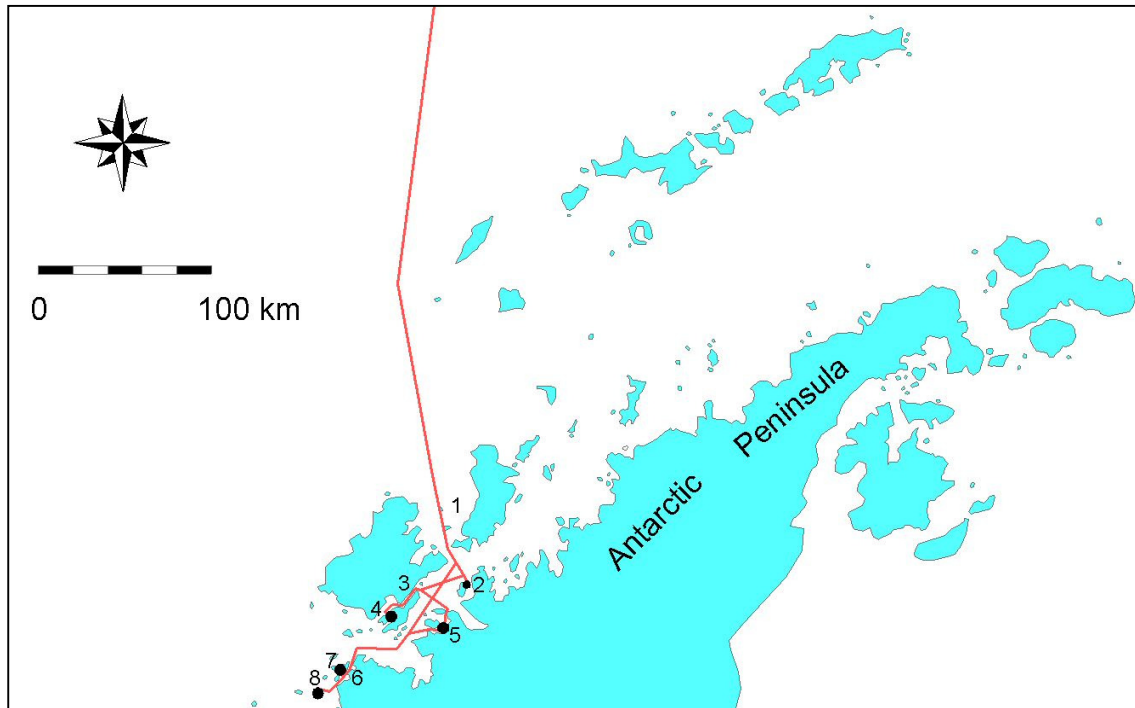
Wandering Albatross, Grey-headed Albatross, Light-mantled Sooty Albatross, Northern Giant Petrel, Antarctic Fulmar, Soft-plumaged Petrel, Antarctic Prion, White-chinned Petrel, Sooty Shearwater, and Black-bellied Storm-petrel were only seen during the crossings of the Drake Passage.

Marine Mammals:

<i>Balaenoptera bonaerensis</i>	Antarctic Minke Whale
<i>Megaptera novaeangliae</i>	Humpback Whale
<i>Hydrurga leptonyx</i>	Leopard Seal
<i>Leptonychotes weddellii</i>	Weddell Seal
<i>Lobodon carcinophaga</i>	Crabeater Seal
<i>Arctocephalus gazella</i>	Antarctic Fur Seal

Dive Sites

Dive #	Date	Location	Latitude S	Longitude W
1	March 14, 2008	Cuerville Island, Check Dive	64°41.045'	62°38.168'
2	March 14, 2008	Cuerville Island, Iceberg dive	64°41.046'	62°38.165'
3	March 14, 2008	Cuerville Island, Wall dive	64°41.331'	62°36.727'
4	March 15, 2008	Port lockroy	64°49.180'	63°31.270'
5	March 15, 2008	Paradise Bay	64°52.681'	62°50.897'
6	March 16, 2008	Pleneau	65°05.427'	64°02.352'
7	March 16, 2008	Pleneau (Port Charcot)	65°04.106'	64°01.767'
8	March 17, 2008	Vernadsky Station	65°14.836'	64°15.329'



1. Dallmann Bay / Melchior Islands
2. Danco Island / Cuverville Island
3. Neumayer Channel
4. Port Lockroy / Jouglia Point / Damoy Point
5. Paradise Bay
6. Lemaire Channel
7. Booth Island / Pleneau Island
8. Argentine Islands (Vernadsky Base)