2005 British Antarctic Expedition

WIENCKE, ANVERS AND BRABANT ISLANDS

(ANTARCTIC PENINSULA)

EXPEDITION REPORT

Gambo and Mt Francais (Anvers Island) Photo: Phil Wickens

December 3rd 2004 – 23rd February 2005

Contents

Summary

The expedition sailed to the Antarctic Peninsula, where we climbed a number of peaks on Anvers Island, Wiencke Island and Brabant Island. The primary plan of exploring the Arrowsmith Peninsula was modified due to very heavy and impenetrable sea-ice, which extended as far north as the Lemaire Channel until well into February. Five peaks were successfully climbed, but poor weather, unstable snow conditions, extensive crevassing and dangerous seracs, all of which are typical in this region, prevented further summits from being reached. In addition, the expedition successfully made the first paramotor flight in Antarctica, and gathered data for an on-going bird study.

Summary Itinerary

TOTAL DAYS	66
Sailing	21
Climbing	16
Lie-Up (Bad Weather)	23
Rest	3
Other (packing etc)	3

DATE	LOCATION	ACTIVITY
December 14-18 2004	Ushuaia, ARGENTINA	Preparations
December 19-27 2004	Drake Passage	Sailing
December 28 2004 – February 8 2005	Wiencke Island/Anvers Island	Climbing
February 9–10 2005	Antarctic Peninsula	Sailing
February 11-14 2005	Brabant Island	Climbing
February 15-23	Drake Passage	Sailing
March 1st 2005	Ushuaia, ARGENTINA	Arrive

Mountains Climbed/Attempted

Mt Français (Anvers Island)	First attempt. Reached 1000m via new line (SE face). Retreated due to very severe (category 5) avalanche danger on upper slopes. All other lines on this face were seriously threatened by unstable seracs.
Mt Français (Anvers Island)	Second attempt via Mt Rennie. Aborted due to very deep unconsolidated snow and prolonged storms.
Seven Sisters of Fief (Wiencke Island)	3 attempts at the traverse were unsuccessful due to very poor weather.
Noble Peak (Wiencke Island)	Completed a new route via a gully on the NW side (AD+). This was successfully descended on ski (200m of 45°).
Mt Wheat (The Wall Range, Wiencke Island)	Completed a new route via the E face/N ridge (AD-).
Mt Williams (Anvers Island)	New route via NE slopes. Turned back 100m from summit due to impassable crevasse/serac.
Shewry Peak (Anvers Island)	Attempted possible first ascent via E face. Turned back 50m from summit due to fragile and overhanging cornices and summit mushroom.
Mt Bulcke (Brabant Island)	Attempted first ascent via South face. Route established through the icefall on third attempt, but aborted due to very poor weather.
Mt Cherry (Brabant Island)	Completed the second ascent via the south face.
MINOR PEAKS:	
Stokes Hill (Doumer Island)	East Ridge (PD).
Jabet Peak	Several ascents and ski descents (SW face – PD; Couloir on East Face – AD).

Introduction

Our plan was to sail to Antarctica by yacht to independently explore and climb mountains along the Antarctic Peninsula. Using Alun Hubbard's yacht 'Gambo' (both veterans of polar sailing/climbing adventures) to reach and travel around Antarctica, we initially planned to visit Anvers and Wiencke Islands and then, if the sea ice broke up sufficiently and the weather allowed, to travel further south.

Map 1. Map showing the location of Anvers, Wiencke and Brabant Islands on the Antarctic Peninsula

As it turned out, the 2004 austral winter produced very extensive sea ice along the Antarctic Peninsula, which remained heavy as far north as the Lemaire Channel throughout the summer. This prevented us from travelling further south and so we remained around Wiencke and Anvers Islands for the entire expedition.

After dropping 5 members on Wiencke Island, together with a RIB to allow boat access to surrounding islands and mountains, Gambo and the remaining 3 sailed to the Falkland Islands to pick up a British military expedition, and to drop off one team member. The military team were then deployed on the Reclus Peninsula before our full team was again reunited on Wiencke Island. We continued to climb on Anvers and Wiencke Islands during very brief periods of good weather, ending the season with several days climbing on Brabant Island.

Members

2005 British Antarctic Expedition members Photo: Alun Hubbard

From left to right: Nico Lhomme (climber), Andy Kerr (crew), Alun Hubbard (skipper), Alastair Gunn (Crew), Tim Hall (Paramotoring), Alan Geer (Climber), Colin Souness (Crew), Phil Wickens (Leader)

Dr Alun Hubbard
SKIPPER
NATIONALITY: Welsh AGE: 35
OCCUPATION: Geologist/Lecturer
PREVIOUS EXPEDITIONS: Canadian Arctic, Alaska, Patagonia, Swedish Arctic, Iceland, New Zealand, South America, Antarctica, South Georgia, Svalbard, Iceland.

Dr Phil Wickens
EXPEDITION LEADER
NATIONALITY: English AGE: 34
OCCUPATION: IT Consultant.
PREVIOUS EXPEDITIONS: Peru, India, Pakistan, Tajikistan, Greenland, Canada, Caucasus, Antarctica.

Dr Nicolas Lhomme
CLIMBER
NATIONALITY: French/Polish AGE: 30
OCCUPATION: Glaciologist/Climatologist
PREVIOUS EXPEDITIONS: Canada, Yukon

Alastair Gunn
CREW
NATIONALITY: Scottish AGE: 22
OCCUPATION: Student.
PREVIOUS EXPEDITIONS:

Tim Hall
PARAMOTOR PILOT
NATIONALITY: English AGE: 47
OCCUPATION: Professional Photographer/IT consultant, retired Fleet Air Arm RN.
PREVIOUS EXPEDITIONS: Antarctica, South Georgia, Norway and Canada, Zimbabwe.

Dr Alan Geer
CLIMBER
NATIONALITY: English AGE: 30
OCCUPATION: Meteorology Research Fellow
PREVIOUS EXPEDITIONS: Kirghizstan, Nepal, India.

Dr Andy Kerr
CREW
NATIONALITY: English AGE: 37
OCCUPATION:. Environmental Consultant
PREVIOUS EXPEDITIONS: Australia, South America, Alaska, Arctic, Svalbard, Iceland..

Colin Souness
CREW
NATIONALITY: Scottish AGE: 22
OCCUPATION: Geology Student.
PREVIOUS EXPEDITIONS:

Journey to Antarctica

Sailing to Antarctica by yacht demands a degree of self-sufficiency rarely encountered on any other sailing trip. This journey started in early November, when skipper Al Hubbard and two crew, Colin Souness and Alastair Gunn, flew to Uruguay to prepare the yacht Gambo. After an intensive period of preparation they sailed the boat from Montevideo south to Tierra Fuego and up the Beagle Channel to Ushuaia in southern Argentina; no mean feat given the inexperience of Colin and Alastair at ocean sailing.

Sailing across Drake Passage Photo: Phil Wickens

The remainder of the crew and the climbers joined Gambo in Ushuaia during the second week of December. The following few days were spent purchasing food and necessary equipment, making running repairs and undertaking the typical upkeep necessary for a sustained period away from builders yards and chandlers. For this type of activity, Ushuaia is a gem; being of sufficient size to cater for long lists of specialist gear but small enough for friendly acquaintance and referrals.

Packing the expedition gear was an art in itself. Gambo is a 45' steel ketch, designed for ocean cruising and containing ample storage space. But add a crew of 8, with food for over 3 months, expedition kit, thousands of litres of fuel and spares for every conceivable eventuality, space became a premium. The need for ensuring sailing food, which can be eaten at any time and in any sea conditions, is accessible without disturbing off-watch crew trying to sleep became apparent to all within the first 48 hours.

After the final rush of preparations we departed on the evening of 19th December, sailing overnight sail to Puerto Williams, a small Chilean town further along the Beagle Channel. After clearing customs and a celebratory beer, we headed out along the Beagle Channel before turning south past Isles Picton and Lennox, then sailed on a southerly course to the east of the Wollaston Isles, with Cape Horn a fang in the distance, and Drake Passage ahead.

Colin and Alastair enjoying their watch Photo: Alun Hubbard

We soon slipped into typical long distance sailing routines; we broke into four watches of 2 people, dependent on experience, and operated on 2 hours on-6 hours off. With self-steering, Gambo needed only a watchful eye and the odd adjustment to maintain a good course south. Off-watch time was spent eating, reading, listening to the extensive music selection, and general hibernation; sometimes on deck but increasingly below decks once we crossed the polar ocean convergence. At this point the clear polar waters replaced the grey threatening water of the south Atlantic, with air and water temperatures dropping towards zero degrees and crew keen to avoid the chilly 12-4am watches.

Winds across the Drake Passage were either W to NW 3-5 with the occasional Force 6; easy sailing and, when winds dropped too far for the skipper's liking, use of the motor to keep us moving.

Christmas Day saw the first giant tabular ice bergs – more akin to small islands – and the first of numerous whales sighted on the expedition. We soon sighted Smith Island off the Antarctica coast, a spectacular mountainous island with reputation for wild weather, followed by Brabant and Anvers Islands. We were aiming for the Melchior Islands, which lie between Brabant and Anvers Islands. As we approached, a storm blew out of nowhere and instead of a gentle sail in for Christmas dinner, we found ourselves tacking in all night in dismal conditions, slowly reaching quieter waters in the early hours of Boxing Day morning. This early in the season every nook and cranny of rock had metres of wet snow perched on top, gleaming blue in the early morning light. We eventually moored adjacent to the abandoned Argentinean base on Lambda Island for a well-earned rest. As with all anchorages in Antarctica, Al Hubbard took the precaution of laying out 4 equidistant mooring lines to shore; time-consuming to setup but, from experience, critical against the often brutal winds which sweep down from the local mountains unexpectedly.

Entering Dorian Bay. The narrow channel is extremely close to the rocks! Photo: Nico Lhomme

Christmas lunch, a day late, was a feast of our fresh lamb. Unfortunately, just as we started to relax the wind changed direction and picked up dramatically, leaving our anchorage exposed. We turned the yacht around on its mooring lines in increasingly stormy conditions and departed for the Gerlache Strait – notwithstanding an unexpected soaking in sub-zero temperatures for one of the crew. This soaking reinforced the impression that only the modern drysuit weather gear is appropriate for these conditions. The Gerlache Strait is a spacious body of water between the main Peninsula and the outer islands. It provided ample sea room to hove-to – drift in controlled fashion with the icebergs – while the storm raged through the night. We also took the precaution of alerting any passing cruise ships of our actions. The cruise ship radio net was a useful source of information throughout the trip.

The following morning we made our way to Dorian Bay on Wienke Island, after making our introductions to the three BAS personnel at the Port Lockroy base nearby. Dorian Bay is a very sheltered anchorage, entered by a channel only a few metres wide, lying opposite Mount Francais on Anvers Island. We found it completely chocked with brash ice. Fortunately, we had a bold skipper with a steel boat and a good engine. This allowed us to work our way through the ice to anchor at the best spot. Once the mooring lines were laid, our sailing trip to Antarctica was completed.

ADDENDUM

After unloading stores and dropping the climbing team, skipper Al Hubbard and crew Colin Souness and Andy Kerr departed for the Falklands Islands to pick up and transport south a British Army expedition aiming to cross the Forbidden Plateau on the Antarctic Peninsula.

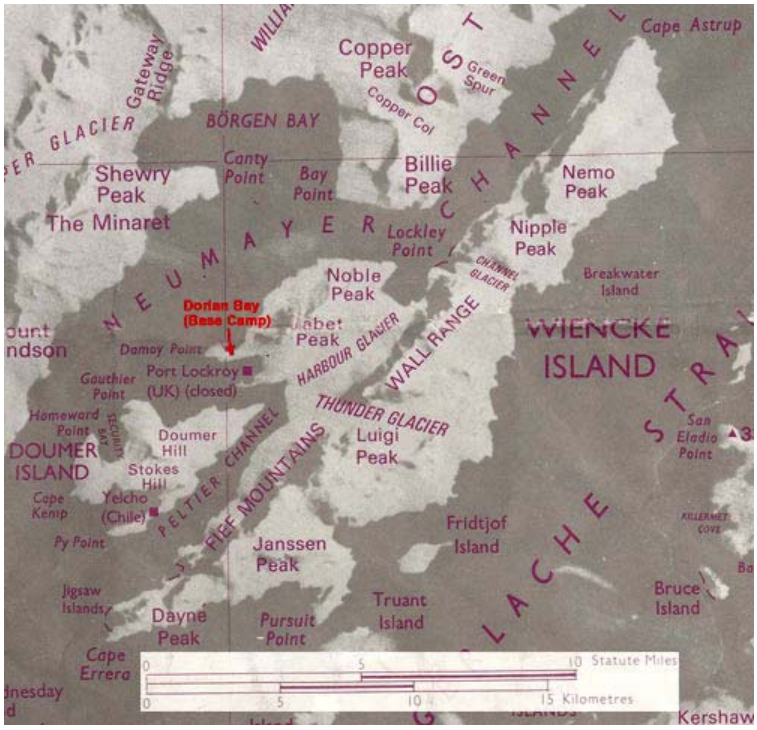
Gambo was taken north through the Gerlache Strait. An intention to visit Deception Islands was aborted as a big storm blew up, with winds reaching up to 60kts for 12 hours and seas building fast. Instead, we ran off the wind under a reefed staysail between Snow Island and Low Island, avoiding sperm whales and fast-moving icebergs.

The 3 crew were operating a 3 hours on-6 hours off routine for the trip, which took a full week because of adverse wind conditions – either too much or not enough, or blowing directly from our intended destination. Gambo arrived at Mare Harbour (Falkland Islands) in the early hours of 5 January 2005, and, after picking up the British Army expedition, prepared the yacht for another journey south, said farewell to Andy Kerr, and headed back to the Antarctic Peninsula.

Wiencke Island

Access, Travel and Camp Sites

We based ourselves in Dorian Bay, which is a sheltered cove behind Damoy Point. This provides a very safe and secure anchorage, and gives easy access, via a raised shingle beach and glacial ramp, to the mountains of Wiencke Island.



Map 2. Map of Wiencke Island

From the glacial ramp above Dorian Bay we accessed the mountains by traversing the Harbour and Thunder Glaciers. These glaciers are moderately crevassed above the ice cliffs and below the flanks of Jabet Peak and the Wall Range. We flagged a route on our first recce across these glaciers to make our return to base safer in poor conditions.

Wiencke Island NW side, as seen from Shewry Peak (Anvers Island). Noble Peak (left front), Wall Range (left middle), Antarctic Peninsula (rear), Thunder Glacier (centre middle) and Mt Luigi (right middle). Damoy Point is front far right. Photo: Alan Geer

Mount Wheat (Wall Range)

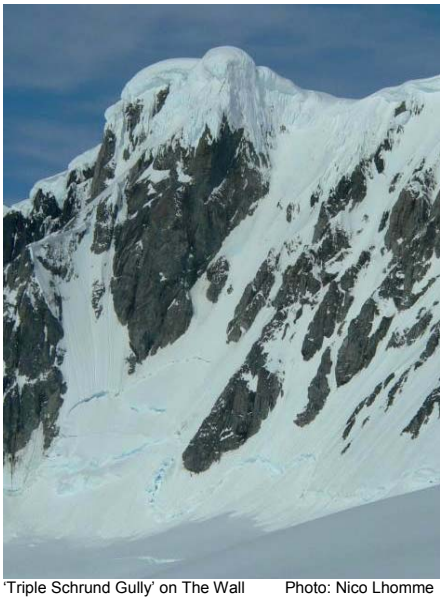
(3592ft)

The Wall Range runs NE to SW along the eastern side of the Harbour Glacier. Consisting of a sharp ridge with 3 distinct summits, it has a steep mixed NW face and a gentler, but heavily glaciated SE face. The highest point is Mt Wheat (named after Lt. Cdr. Luther William Wheat of the U.S. Advisory Committee on Antarctic Names), which rises immediately N of the Thunder Glacier. It has had previous ascents from the N side by Jia Condon (1997) and an Italian (siege) expedition in the 1970s; another summit on the ridge ('Mushroom Peak', 900m) was climbed by Hubbard et al. (2002).

SUMMARY (NW FACE)	SUMMARY (SE FACE)
Route: Attempted 'Triple Schrund Gully' on NW face. **Date:** 4/1/05 and 18/1/05 **Personnel:** Nico Lhomme, Alan Geer, Phil Wickens	**Route:** Completed new route via the SE face/N ridge (AD-). **Date:** 23/1/05 **Personnel:** Phil Wickens, Alan Geer

DETAILS (NW FACE)

Two attempts at climbing a gully, nicknamed 'Triple Schrund Gully' due to the three distinct bergschrunds at its base, on the NW face of the Wall Range were aborted due to deteriorating weather conditions. This obvious 500m (approx. 50°) line emerges at the lowest point on the main ridge. The approach to the route (in white-out by the time we had reached it on both attempts) was studded with rocks and snow-ice blocks (presumably from cornice collapse). However the gully, when observed from below and from Jabet Peak, appeared relatively safe and not threatened by cornices or seracs.



'Triple Schrund Gully' on The Wall Photo: Nico Lhomme

DETAILS (SE FACE)

We dug a snow-hole at the base of Mt Luigi above the highest point on the Thunder Glacier, and from here traversed to below the SE side of The Wall. Since the lower third of the face is an unbroken band of unstable seracs and ice-walls we assessed the route from the summit of a nunatak to the east of The Wall (very loose rocks!). We then climbed the line that was least threatened by serac-fall, but which was very heavily crevassed, to reach the upper bowl below the highest (western) summit, and from there reached the SE ridge. Skis were carried to below the ridge, but were only used for part of the bowl. A large snow-bridge, composed of wind-slab, failed while crossing the bergschrund immediately below the ridge, resulting in a large crevasse fall. After extraction from the crevasse we followed the N ridge to the summit and descended via the same route.

SE Face of Mt Wheat. Photo: Phil Wickens

Noble Peak

(c.2500ft)

Noble Peak lies to the north of Jabet Peak on the west side of the Harbour Glacier. It is the highest summit of a steep and heavily glaciated ridge that runs parallel to the Wall Range. It was first climbed (as a traverse to Jabet Peak) by FIDS in the 1950s.

SUMMARY

Route: Completed new route via a gully on the NW side (AD+). This was successfully descended on ski (200m of 45°).
Date: 3/2/05
Personnel: Nico Lhomme, Phil Wickens

DETAILS

Approach was made on ski along the small ice piedmont that runs NE from Dorian Bay, passing Jabet Peak to reach steepening and crevassed slopes. These led into an upper cwm immediately to the south of the main summit. At the head of the cwm we crossed a large bergschrund and climbed the most central of three large gullies (200m, 45°) to reach a col between the main summit and a subsidiary summit. The exposed but wide and easy angled ridge was followed to the summit. The whole route was descended on ski, using ropes to descend the very narrow and rocky initial 30m of the gully.

SW side of Noble Pk (left) & Jabet Pk (right), as seen from Dorian Bay. Photo: Al Hubbard

Seven Sisters of Fief

Named by Gerlache after Jean DuFief (the then general secretary of the Belgian Royal Geographical Society), this stunning ridge runs NE to SW along the southern third of Wiencke Island, forming a magnificent backdrop to Port Lockroy. The highest and northern-most peak is Mt Luigi (4708ft, also known as Mt Savoia), which was first climbed by members of Charcot's 1903-5 expedition and has had several subsequent ascents. Although the next 2 summits were climbed in 2002 by Hubbard et al., the remainder of the ridge, which is exposed, narrow and inescapable on both sides until after the final summit, remains unclimbed.

NW side of the Seven Sisters of Fief, as seen from Shewry Peak. Mt Luigi is the left-most peak. Photo: Phil Wickens

SUMMARY

Route: 3 attempts at the traverse, starting from Mt Luigi, were unsuccessful due to very poor weather.
Date: 30/12/04, 23-24/1/05 and 5-6/2/05
Personnel: Alan Geer, Phil Wickens, Nico Lhomme

DETAILS

We approached the first peak, Mt Luigi, via the Thunder glacier to reach the SE ridge. Each attempt was aborted, after snow-holing, due to very poor weather.

Jabet Peak

(1788ft, Minor Peak)

Named after Jacques Jabet, boatswain of Charcot's ship 'Français', this small peak is at the SW end of the ridge that extends from Noble Peak and which overlooks Dorian Bay. The SW face has had numerous ascents by previous expeditions.

SUMMARY

Route: In addition to several ascents and ski descents of the SW face (PD) a couloir on the east face was climbed (AD).
Date: 4/1/05
Personnel: Phil Wickens, Alan Geer, Nico Lhomme

DETAILS

This summit, which is easily reached from Dorian Bay, is a great vantage point, and its SW face gives a good ski descent (max 30°)(see photo of Noble Peak). The gully on the East face was probably a first ascent. Approach was via the Harbour Glacier, then by ascending steepening slopes to reach an obvious narrow couloir, which emerges through a small notch in the ridge at a col to the NE of the summit.

Stokes Hill

(c.1800ft, Minor Peak, Doumer Island)

Doumer Island has an easy hill which provides a great view and, being low, can be safely climbed in relatively poor weather. This has almost certainly been ascended in the past.

SUMMARY

Route: East Ridge (PD).
Date: 7/1/05
Personnel: Alastair Gunn, Alan Geer, Nico Lhomme, Phil Wickens

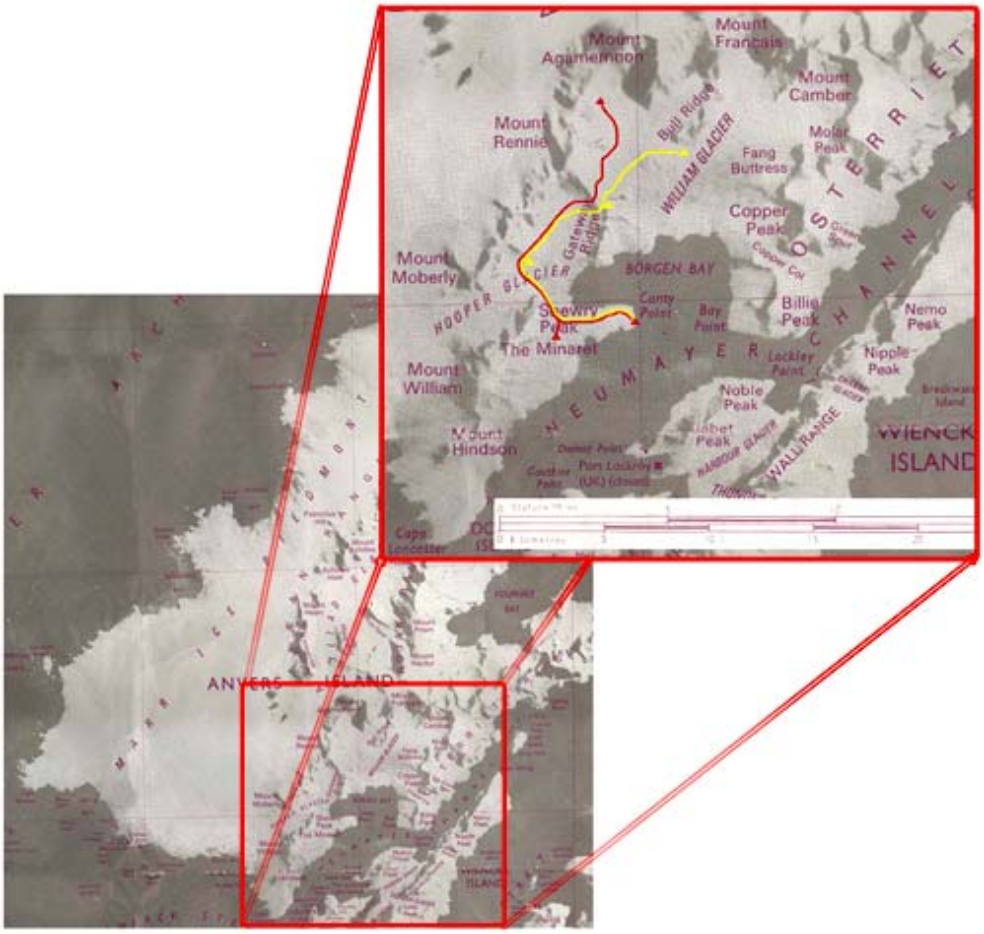
DETAILS

We landed, after a 10 minute boat journey from Dorian Bay, on a shingle beach opposite Port Lockroy and at the end of a long shoulder extending NE from Stokes Hill. This shoulder provided easy ski access to the East Ridge, which was then followed on ski to 150 below the summit. Since visibility was poor, and the ridge steepened and was criss-crossed by numerous poorly bridged crevasses, we continued to the summit on foot.

Anvers Island

Access, Travel and Camp Sites

We investigated 15km of the coast of Anvers Island opposite Dorian Bay by RIB for possible landing spots from where the mountains could be accessed. This coastline is almost all unstable ice cliffs and safe landing areas are very few and far between. Although we managed to land on rocks at several points (SE of Mt William, E of The Minaret, Canty Point, Bay Point and a small rocky outcrop in Börgen Bay (nicknamed 'Umlaut Point' since it is above the "ö" in Börgen on the map), only Canty Pt allowed easy access to the glaciers above the ice cliffs. Canty Point also has the advantage of a good campsite close to the landing where a depot could easily be left, and usually has at least one side that is not full of brash ice.



Map 3. Map of Anvers Island, detailing the area visited (ski route and camps marked).

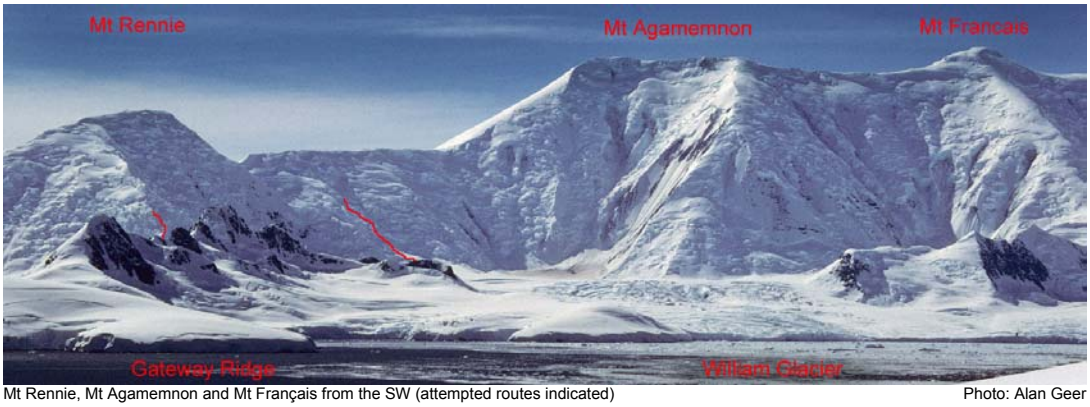
The ski route into the mountains from Canty Point proved to be straightforward and relatively safe, following a broad shoulder to the base of Shewry Peak, then traversing the base of Shewry Peak to reach the Hooper Glacier. This is criss-crossed by large crevasses (an area we nicknamed 'The Chequerboard'), but an easy line existed through this that avoided most crevasses. The northern bank of the Hooper Glacier was very straightforward and led to Gateway Ridge, which was easily crossed by the most central (first attempt) and right-hand (second attempt) cols. An easy ski descent onto the William Glacier then allowed access to the base of Mt Français.

Camps were placed during the first attempt at Canty Point (water available), below Shewry Peak and below the Agamemnon-Rennie col, and during the second attempt between the 'Chequerboard' and Gateway Ridge. All camps were in flat areas that we felt were safe from avalanche and serac fall (both of which were very common on Mt Français).

Mt Français

(9258ft)

The highest mountain on the Antarctic Peninsula, Mt Français dominates Anvers Island. Its faces rise over 8000ft from the surrounding glaciers. Named by Charcot after the expedition ship, it was first climbed by BAS personnel while undertaking geology field work from Anvers Island Base N in 1955-57 and has had several subsequent ascents.



Mt Rennie, Mt Agamemnon and Mt Français from the SW (attempted routes indicated) Photo: Alan Geer

SUMMARY (FIRST ATTEMPT)	SUMMARY (SECOND ATTEMPT)
Route: We climbed to 1000m via a new line on the SE face with the aim of reaching the south ridge. We retreated due to very severe (category 5) avalanche danger on the upper slopes. All other lines on this face were seriously threatened by unstable seracs. **Date:** 10-14/1/05 **Personnel:** Phil Wickens, Alan Geer, Nico Lhomme	**Route:** A route was attempted via the SE ridge of Mt Rennie, but had to be aborted due to very deep unconsolidated snow and worsening weather. 8 days were spent in a tent sitting out storms. **Date:** 27/1/05 to 3/2/05 **Personnel:** Alun Hubbard, Colin Souness, Alan Geer

DETAILS (FIRST ATTEMPT)

The Hooper Glacier, showing the 'Chequerboard' (left), Mt Rennie (centre left), Mt Français (centre right) and Gateway Ridge (right). Photo: Phil Wickens

After 2 days of bad weather at Canty Point we made our way around the Hooper Glacier to the base of Mt Français, placing a camp below Mt Agamemnon. In overcast conditions we started up the safest line on the SE Face of Mt Agamemnon. Several short steep pitches (up to 70°) were climbed to pass seracs, but most seracs were easily avoided, and the majority of the climbing involved wading through knee-deep soft snow. Although we felt this to be the safest line, it was still threatened, to some degree, by what appeared to be relatively stable seracs high on the face. After 800m of climbing the seracs ended, and the slope opened out, on our right. The snow, however, remained deep, and several avalanche tests all revealed it to be highly unstable (Category 5 – failure at 1m while digging the test). Considering the size of the slope and the volume of unstable snow we decided that this was too dangerous, and so we investigated two other possibilities. The line to our left, although possible, was threatened by a long line of unstable and active seracs. We continued straight up over small seracs for 2 pitches, but further progress was stopped by a large crevasse capped by more unstable seracs. After performing further avalanche tests on the main slope we reluctantly retreated back down the face. With

insufficient food supplies allow us to move camp and attempt a different line we headed back to Canty Point, attempting a peak on Gateway Ridge, Mt William and Shewry Peak *en route*.


Mt Agamemnon SE face. Our line ascends the far left end of the long face. Photo: Phil Wickens

Given good snow conditions the line up Mt Français via the SE face of Mt Agamemnon would certainly go. At our hight point we had reached the end of the difficulties, and from where most of the remaining slopes could be climbed on ski to reach the SW ridge of Mt Agamemnon, which could be traversed to the summit of Mt Français. We also looked at a stunning and steep 1000m gully on the NE face of Mt Rennie. Although this would be a very long and circuitous route to the summit of Mt Français, it is free from seracs and cornices. Virtually all other faces and ridges, including the obvious S ridge of Mt Agamemnon, are seriously threatened by serac bands.

DETAILS (SECOND ATTEMPT)

The three of us landed at Canty point and skied around to a camp on the flat glacier between "the chequerboard" and Gateway ridge. There was an unbroken layer of cloud at about 1000 feet and many of the crevasses were open far wider than on the previous trip. We spent 2 nights in the camp in nearly continuous snowfall and whiteout. In a short period with some visibility we moved up to the easternmost col on Gateway ridge. The route follows a gentle glacier and it has no bergschrund problems. We were stopped in whiteout at the top, and camped on the col.


Mt Rennie SE spur from Gateway Ridge Photo: Alun Hubbard

January 30th was windy and cloud was piling up on the piedmont side of the Anvers mountains, but our side was clear. We made an attempt on the SE ridge of Mt. Rennie, starting where Gateway Ridge joins the mountain. The first section is a knife-edged cornice. This proved to be very slow, hard work due to waist-deep loose snow lying on a 50° slope on the S side of the ridge. After some time spent floundering in this deep snow we decided to retreat.

In the remaining hours of good weather we moved as far as possible along the glacier below Bull Ridge before making a camp in whiteout. We spent three nights there, with near-continuous snowfall and whiteout. In a period of slightly better visibility, we investigated the lowest section of Bull Ridge, where an avalanche pit revealed a thin unstable layer. There were crown walls on many of the lower slopes indicating previous avalanches. We spent our final night on Anvers Island at a col at the bottom of Bull Ridge, and from here we investigated access to the eastern arm of the William Gl. (to the N), without finding a good route. We then returned to Canty point in further thick cloud and blizzards, and were picked up that evening. During eight days we'd had only two 6-hour periods of good visibility and a little sun.

Shewry Peak

(c.3000ft)

At the SE end of Anvers Island, bordering the south side of the Hooper Glacier and overlooking the Neumayer Channel, is a 10km serrated ridge of mountains. The highest of these is Mt William, with Mt Shewry at the northernmost end.

Shewry Peak (left) and Mt William (right), as seen from the north Photo: Nico Lhomme

SUMMARY

Route: Attempted possible first ascent via E face. Turned back 50m from summit due to fragile and overhanging cornices and summit mushroom.
Date: 14/1/05
Personnel: Phil Wickens, Alan Geer, Nico Lhomme

DETAILS

From a camp at the base of the SE side of Shewry Peak we ascended gentle slopes on ski to reach a bowl on the south side. Skis were left where the slope steepened and is crossed by several large crevasses.

The upper slopes were relatively avalanche prone (category 3-4), and a direct line to the summit, via an open couloir, was avoided due to deep, poorly bonded soft slab.

SE Face of Shewry Peak. Photo: Phil Wickens

Alan and Phil below the summit mushroom of Shewry Peak Photo: Nico Lhomme

We therefore made our way towards the obvious col between the Minaret and Shewry Peak, then headed up towards the summit. After admiring a curious ice cave that led right through the mountain, we climbed to the summit mushroom. This was composed of overhanging fragile rime, above steep laden slopes. Despite being tantalisingly close to the summit, and in perfect weather, we decided that these slopes (parts of which had slab avalanched recently) were far too dangerous to cross, and so started our descent.

Mt William

(5249ft)

Mt William is the highest of the peaks on the ridge that runs SW from Shewry Peak. Named in 1832 by John Biscoe (who believed it to be part of the mainland of the Antarctic Peninsula) after William IV, then King of England, it has had one previous ascent from the SE side by Julian Freeman-Attwood and Chantal Mauduit in January 1994. The north-east side is split by a large glacial ramp, perched above an immense ice cliff and impressive cliff band.

SUMMARY

Route: New route via NE slopes. Turned back 100m from summit due to impassable crevasse and serac band.
Date: 15/1/05 **Personnel:** Phil Wickens, Nico Lhomme

DETAILS

Mt William from the east, showing SE (left) to NE (right) slopes. Photo: Phil Wickens

From our camp below Shewry Peak we worked our way towards the Minaret until we were established on the glacial ramp. Rapidly crossing several areas of ice blocks from recently collapsed seracs, we followed the ramp to its end, where the slope steepens and narrows. Several steep pitches were climbed up glacier ice to reach an open bowl, which is overlooked by a cirque of tottering seracs on the right, and ends at a steep cliff on the left. A careful and rapid ascent then took us to the open upper slopes, which were easily climbed, within view of the summit, to a surprise crevasse. Spanning the whole face between two steep icefalls (both of which released while we were standing there!), 15m wide and with a 10m overhanging headwall, this was impossible for us to cross.

Nico at our high point on Mt William Photo: Phil Wickens

Gateway Ridge

(c.2346ft, Minor Peak)

Gateway Ridge splits the William and Hooper Glaciers. At its southern end are several small, attractive peaks, perched in a dramatic setting above Börgen Bay. Surveyed by FIDS in 1944 and 1945, the name originated from the snow col at the northern end of the ridge which provides the only sledging route between the Hooper and William Glaciers.

SUMMARY

Route: North Face of unnamed peak.
Date: 14/1/05 **Personnel:** Phil Wickens, Alan Geer, Nico Lhomme

DETAILS

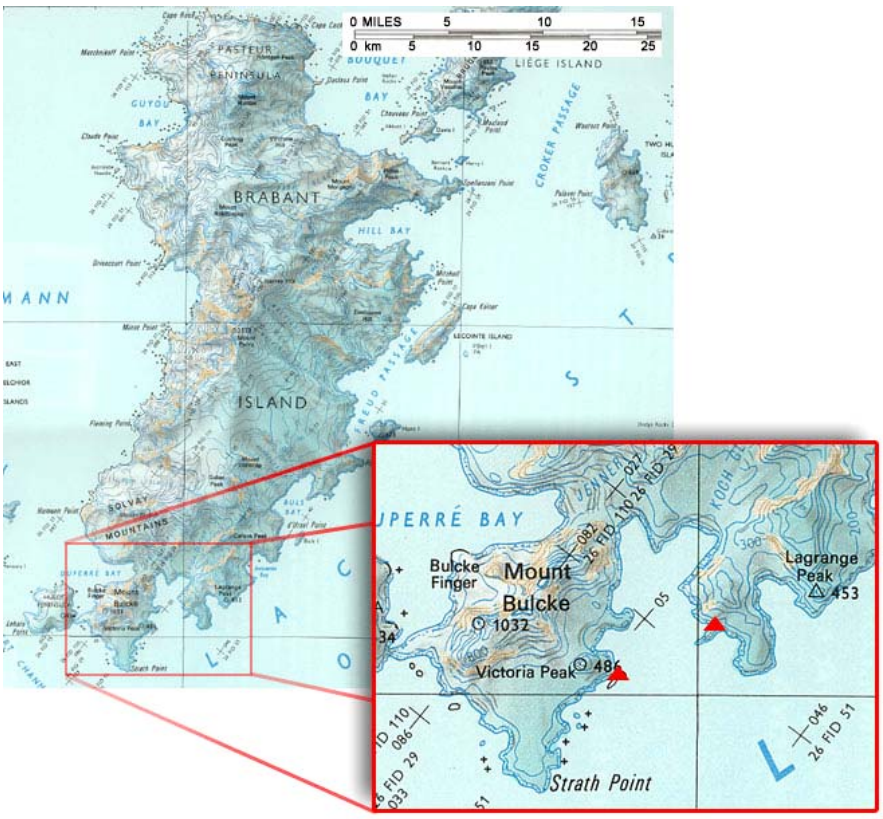
During our return from Mt Français, while crossing Gateway Ridge, we took in this obvious pointed summit to the SE of the central col. A narrow bergschund and 35° slopes led to a fine, narrow summit. The ascent route was descended on ski.

Brabant Island

Access, Travel and Camp Sites

Tim Hall spent a lot of time on and around Brabant Island during the 1985 British Joint Services Expedition to Brabant Island (JSEBI). He knew that Mt Bulcke remained unclimbed, and that it had a relatively safe and sheltered bay (Chiriguano Bay) below its east side. Two teams were dropped off: one below Mt Bulcke, and one below Mt Cherry.

The Mt Bulcke peninsula is protected by an almost continuous line of impenetrable ice cliffs. The Bulcke team was dropped off on a very small rocky beach below Victoria Peak and, to keep a distance from the resident fur seals, dug a camp into the glacial ramp 50m above the beach.



Map 4. Map of Anvers Island, detailing– area visited (ski route and camps marked).

The Cherry team was dropped off on the opposite side of the bay, and established a camp on flat ground at the base of a small headland ('Welcome Point').

Gambo maintained daily radio contact with both teams while she returned to Paradise Harbour to support the British army expedition. Both teams were picked up 4 days later in worsening conditions to avoid a massive storm that was approaching.

Mt Bulcke

(3386ft)

Named by Gerlache after one of his 1897-99 expedition sponsors, Mt Bulcke lies on its own small peninsula at the southern end of Brabant Island. It remains one of only two unclimbed mountains on Brabant Island.

Mt Bulcke from the SE. Bulcke Finger can just be seen left of centre. Our Camp was on the shore directly below this. Photo: Alun Hubbard

SUMMARY

Route: Attempted first ascent via South face. We found a route through the icefall on our third attempt but very poor weather meant our summit attempt had to be abandoned.
Date: 10-14/2/05
Personnel: Nico Lhomme, Phil Wickens, Alan Geer

DETAILS

From our camp, and after 3 days of strong winds and heavy snow, we had a 15hr weather window. We traversed around the east and north sides of Victoria Peak to reach the south face of Mt Bulcke. Although not steep, this face is heavily crevassed, particularly in the bottom third. We started up a possible line on the east side of the face, but after several pitches of very interesting glacier climbing were stopped by a monster crevasse. We descended and spied out another line, taking an obvious depression up the centre of the face. Although an obvious avalanche trap, this seemed to offer an almost continuous line between seracs and would soon lead to safer slopes. This line proved tricky and, after releasing several small snow slides, we came to a 15m gently over-hanging serac wall. We spent over an hour trying to work our way up and over this, but were unable due to poor and rotten overhanging snow and ice.

Working our way through the icefall on Mt Bulcke Photo: Nico Lhomme

Looking down we saw another, devious, line that looked hopeful, so we descended the central depression for 100m, then headed down and over ice blocks until a short climb led to open slopes. These were the slopes above the lower seracs, and were heavily cut with crevasses. We worked our way up the slope, around and over several crevasses, to reach a large crevasse that split

The S face of Mt Bulcke, showing routes attempted through the icefall (central route successful). Photo: Alan Geer

the whole face. In failing light Alan managed to cross this via a narrow and massively sagging snow-bridge. Having cracked the route up the first half of the mountain, we knew that we had a very good chance of summiting if the weather remained good for another day. This was not to be, and during the night a violent storm moved. We were picked up the following day in marginal conditions.

Mt Cherry

(1500ft)

First climbed by Tim Hall, R. Clements & A. Moffat on 22/1/85 during the JSEBI, this peak was named after Tim's then girlfriend (now wife, and mother to his two sons). It has not been climbed since.

SUMMARY

Route: SW Face following the obvious route up a ramp through the ice fall overlooking 'Welcome Point'.
Date: 13/2/05
Personnel: Tim Hall, Colin Souness

DETAILS

Our plan had been to launch the paramotor from our camp site at what was named by the 1983-84 JSE Brabant Is. Expedition as 'Welcome Point' (Navy Point on Argentinean maps). The aim was to fly over Mount Cherry to photograph it as well as to film and photograph the upper reaches of Mount Bulcke and the surrounding area to the West. Following 3 days of strong winds, rain and snow the winds were not calm enough for a safe flight.

Mt. Cherry, as viewed from the south. Photo: Phil Wickens

We took advantage of the afternoon sunshine & good visibility to climb to the high point, Mount Cherry, to the NE of our camp site. Welcome Point is almost an island, joined to the mainland only by a narrow isthmus which, until recent times, was difficult to cross as it was covered by a knife edged layer of ice. This has now almost entirely melted, revealing an easy rocky causeway below. Either side of the causeway is a small cove beneath the ice cliffs which can afford safe landing for inflatable boats or kayaks on the southern shore.

Having gained the glacier from the isthmus we traversed the lower reaches of the mountain on skis, picking our way between enormous crevasses which, in the past 20 years, have widened very considerably. Higher on the mountain the route was more difficult than it had been in 1984 as the crevassing and ice fall had become much more broken. After detouring around impassable sections of the ice fall we gained the obvious ice ramp which leads to the easy upper plateau of the mountain.

Having visited the summit we briefly skied west and then east so as to enjoy the views in those directions and to photograph the surrounding glaciers, bays and mountains before retracing our route back to camp.

Paramotoring

Tim flying above the Harbour Glacier, Wiencke Island Photo: Nico Lhomme

The paramotoring aspects of the expedition were undertaken by Tim Hall as a part of his Antarctic Paramotoring Expedition project. Much of the detail of this project is beyond the scope of this report. In brief though this is a programme of foot launched powered paragliding extensively supported by equipment companies from Italy, France, Spain, USA and the UK. The primary aims being to fly a paramotor in Antarctica and to facilitate its use as an expedition aerial photographic/filming platform. The potential for using this equipment for aerial reconnaissance of Mount Bulcke on Brabant Is. was also recognised, though due to the unsuitable flying weather this potential was not realised.

Tim made the first successful paramotor flight in Antarctica on 29th December 2004. Numerous flights on and around Wiencke Island followed as and when conditions permitted and by the time the team were picked up again on 12th February a total of 23 flights totalling some 15 hours duration had been made. Throughout the flights a program of High Definition Video filming was successfully undertaken. 25 hours of video was compiled of the expedition's activities, both from the ground and from the air. Aerial stills photography of the area was also undertaken. The flights climaxed in the aerial filming of the climb to the summit of Mount Noble (2500ft) when Tim flew over the mountain 3 times while a team of 2 made a successful climb of this spectacular mountain.

Despite the many difficulties Tim's longest flight lasted 1 hour 10 minutes and to a maximum altitude of 4500ft. Freezing temperatures and localised winds were always a problem and a restricting factor in all flights. Due to local weather conditions the potential for extended cross country flights in the Antarctic environment is extremely limited, though not impossible. Having a backup team in support is imperative as the potential for landing out in adverse weather is very high, and the consequences of landing in the sea are very serious. All flights were undertaken following an agreed flight plan either with a safety boat or yacht in the water and/or a mountaineering party on the ground that could rescue the pilot if the need arose. All flights were monitored continuously from the ground by a dedicated radio operator.

On January 6th, whilst making an early morning test flight following a mechanical repair, Tim crash landed in the sea whilst making a low level approach across Dorian Cove to his landing site. Cold air sinking over the adjacent ice cliffs is thought to be the cause. After some 10 minutes in the freezing water Tim was assisted to the shore by the crew of the yacht SV Zazie, who were anchored in Dorian Bay and witnessed the incident. Tim´s survival in this

potentially fatal situation is attributed to prior planning for such an event, which included developing his unique buoyancy and safety equipment.

Following the incident all of the equipment was rescued and bought back into service with 24 hours. The paramotor engine continued to perform well and the communications equipment was bought back into service following the renewal of several corroded solder joints.

Paramotoring above Dorian Bay, Wiencke Island Photo: Nico Lhomme

Throughout the expedition the pilot was sensitive to the perspective that visitors to the area might take on the activity so no flying was undertaken when a cruise ship was off Damoy Point without the prior consent of the ship's captain or expedition leader. In all cases the visitors were intrigued by the project and showed incredulous and enthusiastic interest. Whenever the opportunity presented itself or invited to do so the pilot gave an illustrated presentation to the visitors about the program and demonstrated the equipment. This generated considerable interest and good PR between the expedition and the frequent visitors to the area which was a previously unforeseen bonus!

Bird Count

Nesting Gentoo Penguin Photo: Phil Wickens

Damoy Point is home to large breeding colony of Gentoo Penguins, plus breeding South Polar Skuas, Kelp Gulls and Antarctic Terns. A comprehensive survey of the birds at Damoy Point, including accurate mapping of the area and nest sites, was completed during bad-weather days in January 2005 as part of long-term studies by BAS and Oceanites.

Using a hand-held Garmin eTrex GPS to measure latitude and longitude, an initial perimeter survey was carried out by walking around the coastline of Damoy Point and recording latitude and longitude every 20m.

Gentoo Penguins nest in distinct groups. The latitude and longitude of each group was noted, together with the number of inhabited nests and number of non-nesting individuals. To ensure accuracy, each survey was carried out by 2 people, counting exactly the same groups. Groups were re-counted if there was any more than 5% difference in numbers.

The numbers and locations of all other nesting species were also recorded.

A summary of findings is given below.

DAMOY POINT

SPECIES	GROUPS	NESTS	INDIVIDUALS	NOTES
Gentoo Penguin *(Pygoscelis papua)*	55	2228	3030	First hatchling 9/1/05.*
Kelp Gull *(Larus dominicanus)*	1	1	3	All 3 defended single nest with 1 chick (hatched 1/1/05).
South Polar Skua *(Catharacta maccormicki)*	4	4	8	Also 6 individuals not associated with nests. Each nest had 2 eggs.

* this was almost 2 weeks later than Port Lockroy and is probably due to late snow covering the nesting sites, preventing egg-laying, until later in the breeding season.

CASABLANCA ISLAND

SPECIES	GROUPS	NESTS	INDIVIDUALS	NOTES
Gentoo Penguin *(Pygoscelis papua)*	5	138	198	

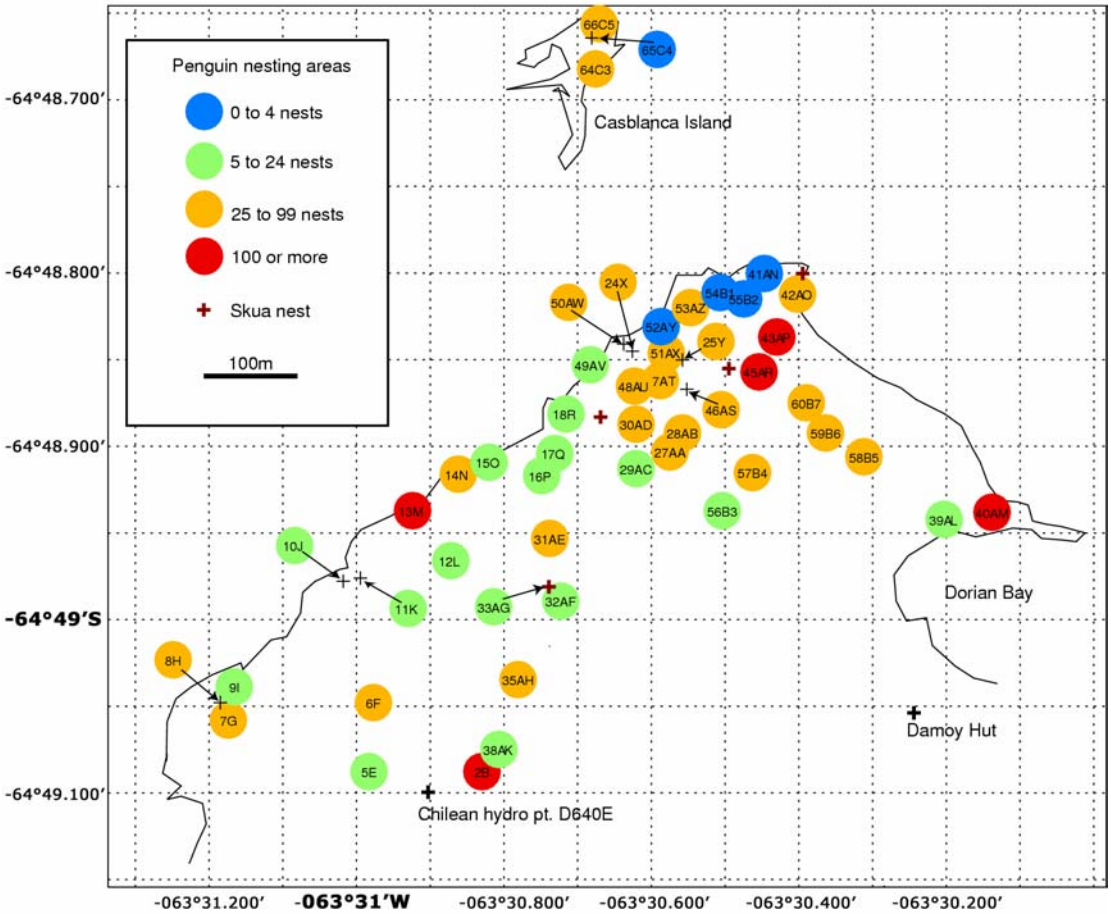
DORIAN BAY EAST SHORE (boulders below ice cliffs)

SPECIES	GROUPS	NESTS	INDIVIDUALS	NOTES
Antarctic Tern *(Sterna vittata)*	1	16	29	

The following birds were also occasionally present, but were not breeding, at Damoy Point: Adelie Penguin *(Pygoscelis adeliae),* Chinstrap Penguin (*Pygoscelis antarctica*), Snow Petrel *(Pagodroma nivea)*, Snowy Sheathbill (*Chionis alba*), Blue Eyed Shag (*Phalacrocorax atriceps*), Giant Petrel (*Macronectes giganteus*).

Figure 1 shows a plot of the location and density of nesting Gentoo Penguin groups and skuas against a map compiled from the perimeter survey.

Figure 1. Map compiled using IDL from our perimeter survey data and nesting bird survey data showing the coastline of Damoy Point and distribution of Gentoo Penguin nests (blue) and Skua nests (red). Numbers refer to nesting group numbers in the raw data. Map: Alan Geer



For a full set of results please contact Phil Wickens (contact details at end of report).

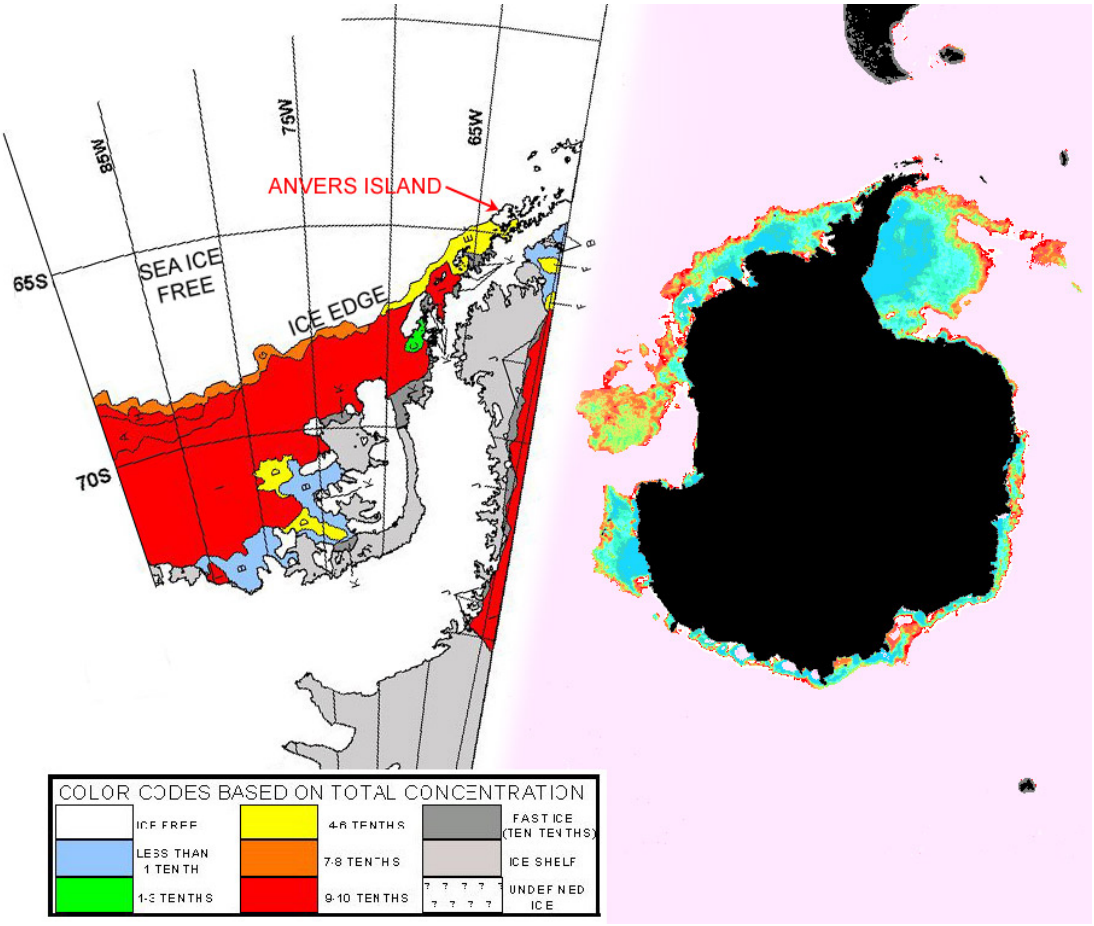
Weather & Sea Ice

Sea ice

Our original plan was to go as far south as Marguerite bay, near the BAS base at Rothera, but the Antarctic summer of 2004-05 was particularly bad for sea-ice (see Figure 2). Instead, we stayed in the region of Wiencke Island, and we could not have got any further south during January.

Throughout our stay in the region of Wiencke Island, we encountered scattered bergs and brash ice. Brash ice moves around with the wind and tide, and it can block landing sites, potentially trapping people ashore. Our anchorage at Dorian Bay was often affected by brash, but not seriously, apart from the day of our arrival, when Gambo had to become a mini-icebreaker. From time to time our access to Anvers Island via Börgen Bay would be partly blocked. However, travel by yacht or RIB in our local area was not seriously affected by ice. Ice charts show that this year the Antarctic peninsular north of Wiencke Island was largely clear of pack ice from mid-December onwards.

Figure 2. Maps showing ice distribution around the Antarctic Peninsula for mid January 2005. Left: National Ice Center chart for 10-14 January 2005. Right: SSMI satellite ice analysis, giving a rough idea of ice cover for 15/1/05.



The Lemaire channel, just to the south of Anvers Island, is a normal part of cruise ship itineraries. However, for most of January it was blocked by ice and impassable to yachts and even most cruise ships. One adventurous yacht did manage to follow behind an icebreaker, but then it had to follow it right back out again. The ice charts show that south of us, along the

pensinsula, ice cover was typically 6/10 through January. From the mountains we climbed, we could often see the edge of the pack ice, with its yellow-white "ice sky", not very far to the south.

Access to Marguerite bay was blocked by 9/10 pack ice until February. An ice-strengthened BAS ship (RRS James Clarke Ross) normally visits the base at Rothera (in Marguerite Bay) in early to mid December. This year it was unable to get through the pack to Rothera until January, but penetrating the pack ice would have been dangerous in a yacht.

Sailing weather

Gambo in a snow storm Photo: Alun Hubbard

Our trip south across the Drake passage was straightforward. We caught N to W winds up to about 30kt from the front of two depressions, but for most of the time things were much calmer. From 19th-25th December, modeled wave heights at our location (from website link below) were little more than 2m. However, on Boxing Day a storm caught us among the islands of the Palmer Archipelago. Gambo's instruments showed gusts of up to 50kt (probably due to the nearby mountains) and we had to hove-to in the Gerlache strait for much of the night.

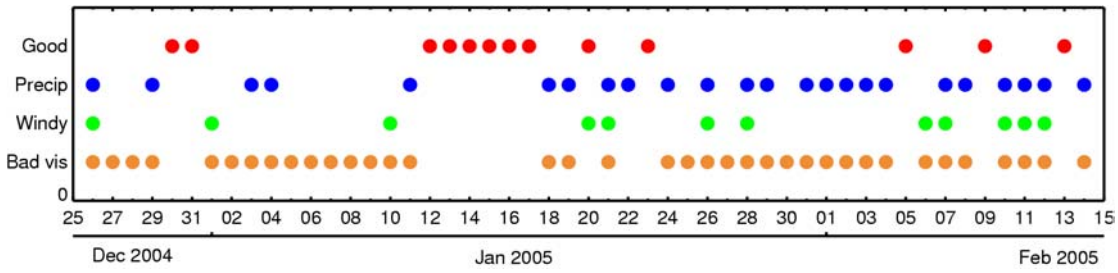
We encountered heavier weather during our return passage, and from 15-19th February we were continuously close-hauled heading into 35kt W-NW winds with a swell of up to 5m. Things calmed down a bit for the final few days, though we had further strong winds on 21st February, which dismasted one yacht in the area.

Climbing weather

Figure 3 shows a very subjective analysis of weather during our time on the peninsula. "Bad visibility" is defined as cloud bases lower than about 700m, but often the cloud was much lower. "Precip" indicates days with quite a lot of snow or rain. "Windy" indicates days where the wind felt strong, as in strong enough to unbalance a skier, perhaps corresponding to gusts of 30kt or more on Tim Hall's paragliding wind-meter. "Good" are days with good visibility and good conditions for most of the day, the kind of days required for getting up one of the bigger mountains in the area.

Typical low cloud starting starting to break up on Mt Luigi. Photo: Phil Wickens

Figure 3. Chart illustrating the distribution of good, precipitation, windy and bad visibility days.



Typical weather around Wiencke Island featured light winds, solid cloud starting at between 100m and 500m, and occasional rain or snow showers. Temperatures at sea level were either a little below, or a little above, freezing. Strong winds were rarely a problem. Our low-level access routes across the glaciers of Wiencke and Anvers Island (altitude 200m or so) were often affected by whiteout.

There were sometimes 6 hour periods of better weather in amongst the bad, but to get up a mountain during that time requires being in the right place at the right time.

We had two periods of stable good weather: a few days before New Year's day, which we used to explore Wiencke Island, and which in retrospect we should have used more intensively. There was nearly a week of mostly blue skies in mid January during which we made our first trip to Anvers Island. There were also a couple of weeks where the bad weather was almost continuous.

Towards late January and February, things became less stable. We began to be affected by passing depressions and frontal systems, which brought stronger winds and snow. Periods of good weather typically lasted from 6 to 12 hours before another front came through with more cloud and snow.

Sources of weather information

A yacht or climbing party in the Antarctic can get weather information either directly from satellites passing overhead (some yachts are equipped to receive information from them) or via the internet using a satellite phone and a laptop, or via satellite phone to a volunteer monitoring the weather from home. It might be possible to radio a nearby science base, but typically they do not want to encourage climbing parties to rely on them.

There are many free internet weather sites, but they rarely cover anywhere further south than Cape Horn, and even that is rare. Commercial services for yachts are available, but at a price. There are only a few useful free sites for real-time (and sometimes archived) Drake Passage and Antarctic weather and ice conditions, but they require quite a lot of weather knowledge:

Ice analysis charts ("egg charts") are produced once every few weeks:

http://www.natice.noaa.gov/pub/antarctica/bellinghausen_west/

Satellite ice analyses are available daily:

http://polar.ncep.noaa.gov/seaice/

Forecasts of sea-level winds and wave heights:

http://polar.ncep.noaa.gov/waves/

Forecasts of sea-level pressure; other parameters available:

http://nomad5.ncep.noaa.gov/ncep_data/

On our small, low-budget trip, barometers (and the usual procedure of sticking your head out of the boat or tent door) were the main source of weather information.

Return Journey

After picking up both teams from Brabant Island, and with a large storm developing, we headed to Enterprise Island (immediately north of Nansen Island in Wilhelmina Bay), where there is a safe anchorage beside the wreck of the whaling supply ship ‘Gouvernøren’. Once the storm had passed we headed west, past Smith Island, and into Drakes Passage. Throughout our crossing we had an almost constant NNW to NW breeze (20kts to 50kts), with 5-10m swell. This made progress slow, but after 8 days we rounded Cape Horn and, after a brief stop at Puerto Torro (Chile) we continued into Ushuaia (Argentina).

Communications

In addition to the SSB radio and short-wave radios on the yacht, the expedition had the following communications equipment:

ITEM	USE
1x Portable SSB Radio (Yaesu FT-817ND)	Base Camp radio for contacting Gambo, ships and local bases
4x 2-way short wave radios	Contact between climbing/boating/paramotoring parties and base
2x Iridium Satellite Phones	1 each for base camp and yacht for contacting home, and between base and yacht if no other comms are possible

When Gambo was away from base camp we scheduled daily radio communications at 0000 UTC on a primary (3750 USB), secondary (7250 USB) and tertiary (10 000 USB) radio frequencies (each separated by 5 minutes). If no communications could be established the satellite phone would be used on the second day at 0030 UTC.

Contact between climbing teams and base was scheduled at 2100 UTC on VHF Channel 6 (this is a listening channel, so once comms was established any conversations were carried out on Channel 12).

When parties were boating/paramotoring base camp stood by on Channel 6, with a check every 30 mins, until completion of the activity.

Clothing, Equipment and Food

Clothing and Equipment

The climate of the Antarctic Peninsula in summer is similar to that in Scotland in winter. Frequent storms bring high winds, snow, sleet and rain. Temperature generally ranges from -5°C to +5°C. Clothing was selected that was suited to these damp, cool conditions.

We used sturdy mountain tents, pegged with long snow pegs, skis, ice axes, etc., and rocks (where available). Very strong katabatic winds or sudden storms can materialise with very little warning, so tents were generally taken down if they were left for a day and weren't weighed down with rocks. Due to the dampness we all used synthetic sleeping bags.

The high temperatures mean that snow is usually deep and wet, so skis were essential for almost all glacial travel. Since many of our ski descents were relatively technical, or with a large rucksack, we used ski mountaineering skis and boots or modern telemark skis with plastic telemark boots. Due to the heavy crevassing and soft snow conditions, virtually all glacier travel was carried out roped up.

Food

Other than pre-packaged mountain food, which was taken for emergency use, all food for both mountain and base camp use was purchased in Ushuaia. Almost anything is available in Ushuaia, except dehydrated meals and chocolate. Of particular note is pre-packaged sirloin steak, which lasts several months, cheeses and fresh sheep, which we hung in the rigging of the yacht to cure.

One of our tastier meals Photo: Nico Lhome

Planning and Permits

Being a British expedition, we required a permit for activities from the Foreign and Commonwealth Office in accordance with Section 3 of the Antarctic Act 1994. Permit applicants need to demonstrate that their project is very well planned, with in-depth consideration given to health, safety and emergency plans. An understanding of the Antarctic Treaty is also required, and throughout the expedition members must adhere to its guidelines, including management of wastes.

We applied for our permit 2 months in advance, which was later than recommended. No objection was raised with respect to our notice in the London Gazette (a requirement when applying for a permit) and a permit was issued to us 2 weeks prior to departure. We would like to thank the Foreign and Commonwealth Office for dealing with our application swiftly.

Permission for use of the BAS hut was granted by the Director of the British Antarctic Survey.

Finance

EXPENDITURE		INCOME	
Food	£1308	Mount Everest Foundation Grant	£600
Group Kit	£870	Gino Watkins Memorial Fund	£1200
Maps, Permits & Report	£224	BMC Grant	£1400
Fuel	£452	**(TOTAL GRANTS**	£3200)
Yacht parts, mooring & repairs	£6884		
Flights	£6968	Personal Contributions*	£17,482
Insurance	£2176		
Accomodation, local food and local travel	£1800		
TOTAL SPENT	**£20,682**	**TOTAL INCOME**	**£20,682**

* This does not include personal equipment or clothing

Our expenditure was a little more than expected due to cost of repairing and replacing yacht parts, with the largest costs being flights, yacht maintenance and insurance. These costs are still very low for an expedition of this nature visiting Antarctica in a private yacht. This can be largely attributed to the generous supply of the yacht by Alun Hubbard. The cost of group kit was minimised by members sharing kit they already owned, begging for it from friends and strangers, and possibly by rummaging in dustbins. In addition we are grateful for the supply of clothing and equipment from a number of suppliers and manufacturers at a reduced cost. The cost of food was also minimised by buying virtually everything in Argentina, and again begging for it from friends, strangers, and rummaging in dustbins. As a consequence we ate like kings.

The expedition was awarded generous grants from the British Mountaineering Council (funded by UK Sport), the Gino Watkins Memorial Fund and the Mount Everest Foundation. We are extremely grateful for this support, which supplemented our personal contributions. All other funding was met by the expedition members.

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MEF 00/1 - British Cape Renard Tower 2000 - Julian Freeman-Attwood (with Crag Jones and Skip Novak). February-March 2000

MEF 96-1 - 1996 British Pelagic Antarctic Expedition (Julian Freeman-Attwood, Caradoc Jones).

Joint Services Expedition to Brabant Island, (1985), Furse.

Maps

Anvers/Wiencke Island:

British Antarctic Territory - Anvers Island (Graham Land) 1:250 000, Series BAS 250P, Sheet SQ 19-20/3, Edition 1-DOS 1979.

British Antarctic Survey – Anvers Island (Graham Land) 1:250 000, Series BAS 250P, Sheet SQ19-20/3, 1979.

Brabant Island:

British Antarctic Territory - Graham Land 1:250 000, Series BAS 250, Sheet SQ 19-20/4, Edition 1-DOS 1974.

Nautical Charts

Anvers/Wiencke/Brabant Islands:

UKHO Admiralty Chart – Brabant Island to Adelaide Island 1:500 000; Sheet 3570, Edition 10 2003.

Useful Links and Contacts

Sea Ice Conditions (see also 'Weather& Sea Ice' section):

National Snow and Ice Data Center: http://nsidc.org/data/sea_ice.html

National Ice Center: http://www.natice.noaa.gov/

National Ice Center Sea Ice charts:
http://www.natice.noaa.gov/pub/antarctica/bellinghausen_west/

Satellite ice analyses: http://polar.ncep.noaa.gov/seaice/

Weather and Sea Conditions in Drakes Passage:

Ocean Weather: http://www.oceanweather.com/data/South-Atlantic/index.html

Forecasts of sea-level winds and wave heights: http://polar.ncep.noaa.gov/waves/

Forecasts of sea-level pressure and other parameters:
http://nomad5.ncep.noaa.gov/ncep_data/

Antarctic Travel, Policy and Information:

International Association of Antarctic Tour Operators: http://www.iaato.org

Foreign and Commonwealth Office: http://www.fco.gov.uk

British Antarctic Survey: http://www.antarctica.ac.uk

Antarctic Names Information Service: http://geonames.usgs.gov/antform.html

Antarctic Heritage Trust: http://www.heritage-antarctica.org/

Grants:

Mount Everest Foundation: http://www.mef.org.uk/

British Mountaineering Council: http://www.thebmc.co.uk/world/exped/general_grants.htm

Gino Watkins Memorial Fund: http://www.spri.cam.ac.uk/about/funding/ginowatkins/

Communications:
Iridium Satellite Phone free text messaging service: http://messaging.iridium.com/

Insurance:
Ault Insurance can arrange cover for Antarctic mountaineering and sailing expeditions. (http://www.ault.co.uk/)

Food Wholesalers in Ushuaia:

Gualdesi HNOS S.R.L., Gob. Campos 745, 9410 Ushuaia, Tierra del Fuego, Argentina
(gualdesi@speedy.com.ar)

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The Mount Everest Foundation

The British Mountaineering Council

Alun Hubbard and his yacht Gambo, for allowing us to realize our dream

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G3 (bindings and skins)

Osprey Rucksacks

Dynastar (skis)

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Beyond Extreme (UK)

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Cors-Air Motors (Italy)

ConAir Sports (UK)

Sup'Air (France)

Flytec (USA)

Insite Ltd (UK)

Antarctica Tents (UK)

Salomon (France & UK)

Ushuaia Aero Club (Argentina)

EWS Ltd - Laird Securities PLC

Ice Cliffs on Anvers Island Photo: Phil Wickens

Gino Watkins Memorial Fund

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