The IceKites Expedition to Antarctica

by Brian Cunningham

June 22nd 2002 was a particularly beautiful day. The sun was bright and a steady 15 knot wind was blowing in from the Irish Sea across the warm sand at Lytham St. Annes. I had just had a brilliant spin in my kite-buggy when the idea hit me. Why not convert a buggy to run on skis and kite downhill with the wind behind me from the South Pole back to Patriot Hills?

Kite buggy testing at Les Diablerets in Switzerland. ***Photo Hill & Knowlton***

Right from the outset, the Ice Kites idea felt like a winner. Everyone I talked to agreed, irrespective of whether they were interested in the Polar Regions or not. Heartened by this enthusiasm I threw myself happily into planning the expedition. There was lots to do and not much time. Key to selling the idea was the buggy and my first task was to get it designed.

Before long I'd tracked down a buggy designer called Kieron Bradley. Kieron and I went through several design concepts before plumping for a scaled up version of a conventional kite buggy. Kieron's design was absolutely amazing. Most people thought it looked like something from Star Wars.

The 1000 km route I chose from the South Pole to Patriot Hills was in the opposite direction to a conventional expedition. This was for two very practical reasons. First, the infamous catabatic wind in Antarctica blows

from the high, cold centre of the continent out towards the edges. Instead of fighting these feared winds, the plan was to use them. Second, the South Pole lay at an elevation of approximately 3,000m above sea level. It was downhill all the way from the Pole to Patriot Hills. Travelling downhill with the wind from behind for 1000 km seemed like a very good idea.

In stark contrast to a conventional sledge-hauling expedition, this expedition depended on skill, speed and innovative technology. I hoped we would be gliding across the ice, effortlessly covering up to ten times the distance per day that a sledge-hauler could hope to make – and enjoying every minute of it. The wind would be from astern so the risk of getting frostbite would be dramatically reduced. The wind would be a friend, not an enemy. It might even be quite pleasant.

Kiting requires much less energy than sledge hauling so proportionally less food and fuel would be required. Also, because we wouldn't be exercising so hard we would not be sweating as much. 'Moisture management' is the modern term for the process of minimizing the impacts of sweat and thereby avoiding its deadly consequences. I didn't anticipate having much of a problem with moisture management.

Towards the end of July 2002 Kit Kat agreed to become our title sponsor. Thereafter potential sponsors were almost queuing up. Typically all that was required was a single phone call or e-mail. Advance kites heard of the

Kite buggy testing at Les Diablerets in Switzerland. ***Photo Hill & Knowlton***

expedition independently and made an unsolicited call to offer us all the kites we needed. Hardly believing my good fortune I quickly switched from selling the IceKites Expedition to making it happen.

Typically, a conventional expedition to Antarctica takes a minimum of a year to organise. I had not much more than five months and this expedition was attempting to break new ground. The earliest opportunity to test the buggy on snow was in early November at Les Diablerets in Switzerland. Unfortunately, and not for the last time, we were bedevilled with fickle winds. Despite the poor test conditions we discovered a major problem with the buggy skis. For what seemed compelling reasons I'd chosen to go with snowmobile ski runners on the buggy. However, it was immediately apparent that although they tracked perfectly and provided excellent direction control, they didn't glide on the piste as I'd hoped. Even pushing the empty buggy required an alarming amount of effort.

By the time we returned to the UK it was obvious the skis needed modifying. This was a non-trivial task. Kieron and I worked non-stop until the last moment shaping and fixing PTFE strips to the skis on both buggies. It was a drastic modification which we hoped would improve the glide without sacrificing too much directional control. However, the modified skis would remain untested until we actually set off from the South Pole. We had run out of time. The job was completed after an all-nighter in Kieron's garage. The next morning we packed the buggies into the giant expedition packing case and hastily dispatched it to Heathrow for shipment to Punta Arenas.

Three weeks later Jamie and I arrived in Punta Arenas and after a frustrating delay we eventually flew out to the Patriot Hills base in Antarctica. Two days after that we were flown to the South Pole in the tiny Single Otter which Adventure Network International (ANI) operated out of Patriot Hills. When we arrived, a small knot of base workers quickly assembled around the buggies, chatting and taking photographs. The atmosphere was very friendly and supportive. Indeed we drew the conclusion that for the most part the base workers were unable to relate to the sledge-hauling community. By contrast what we were doing was considered 'cool' and our buggies 'looked the business'. Also, when they discovered we were Irish and not British, the mood lightened further. Meanwhile, what little wind there was began to fade.

'We'd better get out of here while we can.' Said Jamie. 'The last thing we want is to get becalmed.'

'You're dead right.' I replied without hesitation. 'Do you think there's enough wind? I'm not keen on making a fool of myself in full view of the base.'

'That's never bothered you before, Brian. Why should it bother you now?' He responded.

I ran out the lines and within a couple of minutes my biggest kite was in the air. The assembled throng was impressed. The buggy lurched forward as the kite entered the power zone. A few sweeps later and I was travelling at about 10 mph down the main runway. My heart leapt. We'd taken that all-important first step. Worried about Jamie I brought my kite down after about a kilometre to wait for him. Even from that distance it was clear that he was having difficulties. I could see him wrestling with the kite as he tried to maintain momentum and sufficient direction control. Rather than heading down the prepared runway, he decided either voluntarily or involuntarily to take a more direct route. A Twin Otter aeroplane was parked about 50m off to the side of the main runway. From a long way off it was clear that Jamie was destined for a close encounter with the unsuspecting plane. Wondering if our BMC insurance would cover the accident, I watched mesmerized as he homed in on the plane with all the precision of a slow-motion cruise missile. At 50m it looked as if he would hit the front undercarriage of the Twin Otter. I should never have doubted him. With a deft flourish he swung the buggy past the nose of the aircraft, even managing to avoid tangling his lines in its propellers. The crisis had passed.

Jamie passed my parked buggy some way off and still moving well he headed on down the runway into the distance. I jumped back into my buggy, lifted the kite and set off in pursuit. We sailed in formation about 200m apart to the end of the runway. It was looking good. Towards the end of the runway we altered course onto the snow-covered sastrugi and the added resistance quickly brought the buggies to a standstill. We waited for about a half hour but instead of gaining strength, what little wind there was faded away completely. 'I think we should camp here for a while.' I suggested as I began unpacking the tent. 'There doesn't look like much chance that the wind will return.'

With little choice Jamie agreed and soon we were ensconced in a limp tent, lying on our sleeping bags and listening to the purring stove. It was warm in the tent, warm enough to lie on top of our sleeping bags, but outside the temperature remained at minus 28° Celsius. We lay on our backs and chatted about our first kiting in Antarctica. Soon we were enjoying our first meal of the expedition. It was a fettuccini dish and it tasted delicious. We were both tired. It had been a very long day. But sleep didn't come. Meanwhile the sun circled the breathless sky and the 'night' passed. Even if we didn't sleep much, we rested.

The tent hung limply throughout the whole of the next day. I switched into fester mode while Jamie gradually became more agitated. Eventually

he decided to lengthen the control lines on the big kite and see if he could get it into the air. He pulled on his intermediate layer and left me alone in the tent. At first I heard a lot of scuffling, then there was a quiet period when I assumed he was running out the kite lines. Then came more scuffling with the occasional expletive. Soon there was nothing but expletives. Then silence. Then more scuffling as he stowed the kite. He grunted as he re-entered the tent. 'No wind.' Was all he said.

The day dragged on without a breath of wind stirring the tent. It became overcast and the cold drove us into our sleeping bags where we slumbered fitfully. Another discussion by Iridium phone with the Meteorological Officer at the polar station gave a bleak outlook. He remained very pessimistic about the prospects for wind. The weather pattern at the South Pole is normally very stable and his view was that it was most unlikely to change much in the next couple of weeks. He repeated what he'd told us on our arrival at the South Pole. The wind had been extraordinarily light at the South Pole this season – in fact the lightest since records began.

All through the next day and most of the night we lay in the tent, eating, snoozing and discussing our situation. It didn't look good. The tent hung limply above us. In time I began to feel claustrophobic as though the stillness was pressing in on me.

'I'm going out for a pee.' I said, as I crawled out of my sleeping bag.

Outside it was overcast. Everything was uniformly greyish-white. It was as though I was suspended in the centre of a soft grey goldfish bowl. The stillness was absolute. I could drown in this stillness, I thought. Looking at

Kiting away from the South Pole. ***Photo Christine Cunningham collection***

the tent and the buggies brought no relief. They too were engulfed by the silence. Shadowless and still, they seemed to have lost their third dimension and had somehow become a painting. I wandered aimlessly around the camp, welcoming the soft, crunchy noise my boots made in the snow.

'What's it like out there?' Called Jamie from inside the tent. 'Still as the grave.' I replied. I walked over to the buggies and sat on the small foam patch I'd stuck to rear beam. It felt warm. I traced a question-mark in the snow with my boot and tried to think through the alternatives.

If the wind came up then obviously we would sail off in the general direction of Patriot Hills. At least the kiting systems had worked well, in fact better than I'd expected. If no wind came then all we could do was wait. We'd already established that it was physically impractical to man-haul the sledges. In a perverted way I was thankful about this. Had we been able to haul our buggies, we might have been tempted to start an epic haul out of the windless zone around the South Pole. Also, I wasn't sure how Kit Kat

Windless at the Geographic South Pole. ***Photo Brian Cunningham***

would react. We were in Antarctica to revolutionise polar travel. Reverting to man-hauling was very much against the grain of the expedition.

It was apparent that I'd miscalculated the wind. The Met. Officer's words echoed around in my head 'You can't expect much more wind than this until towards the end of the season, towards the end of January.' We were trapped in a large windless hole, at least 200 km across. It wasn't like being in a yacht in the doldrums. Our predicament was worse. The becalmed yacht will ghost in the faintest of zephyrs. Progress might be slow but eventually a yacht will get through the doldrums. Our buggies remained glued to the snow and would not move an inch until the wind was strong enough to overcome the static friction, or stiction. Our preparation had all been based on the assumption that we were more likely to have too much wind than too little.

'What do you think?' Jamie grunted as I climbed back into the tent.

'I think we're stuffed.' I said as I pulled my sleeping bag over me.

'We have to make our daily call to ANI soon. What are you going to say?'

'Don't know. I fancy a kip. Wake me an hour before the call is due and we'll talk it through.' I replied, hoping desperately that some sleep might clear my head. Sleep didn't come. I lay still with my eyes closed but thoughts swirled around in my head. It was beginning to look like the most responsible thing to do was to abandon the expedition sooner rather than later. I felt sure we would be able to hitch a lift back from the Pole at a fraction of the cost of a full-scale rescue. To sit it out for another week or ten days waiting for wind would leave us in a desperate dilemma. We would be setting off for Patriot Hills with perhaps only ten days food and fuel. This would be foolhardy and even if we wanted to push ahead, ANI would most surely pull the plug on the expedition. It was time to talk to Anne Kershaw, the boss of ANI. I switched on the Iridium phone and dialled straight through to Anne's office in Boca Raton, Florida.

'Hi Anne, Brian here' I said 'We've got a problem.'

'I don't know what the problem is, Brian, but the answer is an awful lot of Kit Kats!'

I exploded into laughter and the tension that had been building up inside the tent dissipated immediately. I explained our predicament. When I'd finished, her first comment was 'Brian, I think you and Jamie are being very responsible. Doing the heroic thing when you don't think you'll make it would be crazy.'

In the next couple of hours I made lengthy and difficult satellite phone calls to Kit Kat, Christine, Jamie's wife Mary, Patriot Hills and then once again back to Anne. Kit Kat were adamant. For them, the worst outcome for

the expedition would be a 'slow death', either waiting for wind at the South Pole or in a heroic man-hauling attempt to escape from the wind hole. They preferred a clean, sharp end.

It was still breathless the next morning as Jamie and I quietly packed up our camp and began the long haul back to the South Pole. It was tough going. With Jamie pulling on a rope attached to the front forks and me pushing on the rear beam, we could manage only 100 steps between rests. It took us an age to get both buggies to the edge of the runway where the going improved. Thereafter we were each able to haul our own buggy, albeit with a rest every 100 steps. After a gruelling day we pitched camp back at the Amundsen-Scott base and the following day we disassembled the buggies in preparation for the flight back to Patriot Hills.

Time drifted by and it remained windless. I did a live interview with a Northern Irish radio programme. It was hard. At times I was close to tears. I felt that I'd let down countless supporters who had taken an interest in our expedition. I apologized on the air for this. The interviewer generously said we hadn't let anybody down, rather that the weather had let us down. He closed by saying we'd given a lot of inspiration to countless people in the UK and Ireland. I was very moved by his sincerity and warmth. It could have been a rough ride. We were abandoning the expedition after only a few days, something that was unthinkable on a conventional expedition. Ironically, we were quitting in perfect sledge-hauling weather. We needed the Polar trekker's most feared enemy, the wind.

On our fifth and still utterly windless day at the South Pole, the Single Otter arrived from Patriot Hills. Before long we were thundering down the runway past the sprawling mass of the incomplete accommodation block and its surrounding buildings. We soared aloft, wheeled to starboard and headed off into the emptiness.

We talked little on the flight. My nose was glued to the large cabin window, looking at the surface and imagining how it might have been. The plane flew at 300m above the ice so its patterns were easily discernable. For a while the surface had little relief, suggesting that it was covered in a layer of soft snow. Soon the occasional patch of sastrugi drew wispy lines of shadow across the vast whiteness. I tried to prepare myself for what lay ahead. From the start, our expedition had been a light-hearted adventure. In many ways it had been defined by humour. The Ice Kites expedition always brought smiles to people's faces, where a conventional sledge-haul expedition brought at best puzzlement and at worst horror. I resolved not to nurse my disappointment.

There were plenty of sympathetic hands to help us unload the buggies when we arrived back at Patriot Hills. I tried to behave normally, as did our

helpers. Commiserations were sincere and I was particularly touched by a silent hug from the female pilot of the Twin Otter. She had taken a real interest in what we were doing and had helped us load the Single Otter before the flight to the Pole.

Despite my early fears, there was a reassuring sense of warmth and sympathy in the mess tent. The following morning the Illushyn arrived to take us back to Punta Arenas. It was a beautiful day with only the barest whisper of wind. We loaded the buggies and our gear and then climbed into the dark and cavernous interior. The huge ramp closed behind us and a few minutes later we were on our way back to Punta Arenas.

A week later during a spell of unusually warm weather I went for a run on Winter Hill. With no specific run in mind I drifted up to its summit and stopped to admire the view. As I turned slowly in a clockwise direction my eyes swept across some of Britain's most beautiful scenery, from the Yorkshire Dales across the broad sweep of the Pennines around to the misty mountains of North Wales and on across the Irish Sea to the Lake District. 360° of incredible beauty. A gentle westerly brushed my cheek – 'welcome back' – it said. I lay down in the sun and closed my eyes in perfect peace. A clump of tall grass nearby said 'Shussh' to the wind and a cloak of contentment wrapped softly around me. I was home at last.

Footnote. In September 2004 we successfully completed the first kite-powered traverse of the Gobi Desert in Mongolia.