A Cat in the Arctic: leading a school mountaineering expedition to East Greenland.

In July 2009, I sat on the side of a mountain in East Greenland after watching my group of school pupils from Glasgow make a successful first ascent. I looked down on Faxa Sø. There were many stunning mountains surrounding this lake; however, there was no obvious way to access them, as they were blocked by impassable rivers and the lake itself. There was certainly no way that we could tackle these peaks on that expedition as the challenges were insurmountable. Whilst resting, I commented to my co-leader, Alan Halewood, about needing a sea plane and boats in future so that we could land on Faxa Sø. We then quickly left to catch up with the pupils who were already heading down to our camp in the valley – with an idea for adventure planted in my head.

I made some initial enquiries about taking a sea plane to Greenland when I got back to the UK a couple of weeks' later - initially still high on the excitement of the expedition and then slipping into the post-expedition doldrums. It became clear that modern sea planes are not capable of flying the distance required for a trip to Greenland nor capable of carrying the payloads necessary for an Arctic expedition. The thoughts of taking pupils on expedition to Greenland in a sea plane were therefore put to the back of my mind.

Three years later in Austria, I had a chance encounter with Paul Warren Wilson, who happened to have a part share in a Catalina and was the plane's Chief Pilot. I knew little about Catalina flying boats at the time – other than that they had been used extensively in East Greenland until the late 1960s. Conversations with Paul and his infectious enthusiasm re-sparked the idea of a Greenland sea plane expedition. I put forward my proposal to the recently appointed Headmaster of Worksop College, with whom I had previously worked. He needed little convincing that this was an outlandish educational experience for young people, permission was granted and funding secured.

Paul and I started planning in earnest to bring the expedition to fruition. There were numerous complicated logistics for us to consider. The destination was changed from the initial idea of Faxa Sø in Gaseland to Holger Danskes Briller in the southern Stauning Alps. The latter provided greater mountaineering objectives, as well as shorter flying times.

The aims of the expedition were clear. To fly pupils from Worksop College to East Greenland in *Miss Pick-up*, the UK's only airworthy WWII Catalina flying boat; land on Holger Danskes Briller; explore the southern Stauning Alps with the intention of making first ascents; and, throughout the expedition, equip the pupils with the skills and experience required to become independent mountaineers, leading to lifelong participation and a love of the Arctic. Simple then!

A superb team of staff was put together: mountaineers, pilots, a doctor and an engineer. All had an enviable track record in their respective fields. Each member of the leader team was involved in the preparations for the expedition and this was important for the success of a moderately complicated venture such as this one. Alan Halewood once again offered his services as the other Mountain Instructor on the expedition – his third such youth expedition with me - and took responsibility for the pre-expedition training in the UK.

Satellite imagery was obtained from the *US Geological Survey* in early June to assess the ice conditions in Holger Danskes Briller. These showed the lakes to still

be very much frozen. This was not a surprise as the historical imagery that we had gathered from the last ten years showed that these particular lakes almost always became ice free during the last week of June and the first week of July. The availability of an ice-free lake was critical to the success of the expedition and therefore satellite imagery was viewed as frequently as possible throughout June. All indications were that there had been a particularly harsh winter in East Greenland and that the big thaw in 2015 was indeed going to be late in its arrival. We already had a plan B in the event that Holger Danskes Briller still had surface ice: Faxa Sø in Gaseland. The last satellite photograph that we had access to was almost a week before the expedition's departure and this showed large chunks of ice on Holger Dankes Briller; however, by comparison, Faxa Sø looked like a tropical paradise.

At 10am on Tuesday 7th July, the Catalina departed from Loch Lomond in typically 'dreich' west coast weather heading for Akureyri in northern Iceland and, the following day, onward to the remote airstrip of Constable Pynt in East Greenland. There was lots of work to be done at the airstrip prior to going into the field the next day: all supplies had been sent by sea freight earlier in the year and these needed to be sorted and loaded onto the Catalina. Dinghies and engines had to be assembled and prepared for deployment from the blisters at the rear of the aircraft: this was, of course, the only way to get our supplies, as well as ourselves, from plane to shore once we had landed on Faxa Sø.

It was an ever so slightly ominous experience departing from Constable Pynt the next day on the first of two flights into Faxa Sø. We flew under the low cloud on a murky Arctic morning, sometimes only a very short distance above the partially frozen fjords, looking out as ice bergs passed by the windows. Landing, deployment of the dinghies and unloading went hitch-free and the Catalina returned a few hours later with the rest of the team and equipment: payloads meant that we had to deploy the team with their equipment on two flights.

The team of ten students, two mountain instructors, two teachers and one doctor spent the next three weeks exploring the Vinblœsdal valley using the dinghies to set-up satellite camps and access mountains on all sides of Faxa Sø. The Arctic in summer has to be the finest location in the world for a youth expedition: moderately-sized mountains so no risks from altitude sickness; twenty-four hour daylight so no risk of being benighted; no nasty creepy-crawlies or bugs so little chance of becoming ill; very sparsely populated so no chance of untoward encounters with locals. And, of course, a plentiful supply of unclimbed mountains, and unexplored glaciers and valleys.

One of the aims of the expedition was to provide training and experience such that the students could become independent mountaineers, going on to organise and participant in their own expeditions. There was therefore a substantial proportion of time allocated to training in mountaineering; campcraft; use of satellite phones, radios and EPIRBS, polar bear deterrents and the use of firearms; and first aid. The expedition doctor, Tariq Qureshi, taught a wilderness first aid course to the students whilst they were on expedition. One of the final days in the field saw the students participate in a scenario that required them to draw together skills from a number of different areas that they had learnt during the expedition.

The expedition was fortunate to be joined by four exceptional pilots. Our Chief Pilot was an ex-RAF Harrier Instructor who had extensive experience of both flying the Catalina across the globe and also training and assessing other Catalina pilots. Nevertheless, the flying component of the expedition was not without interest as Paul recounts in his flying report: "The last run of the day down the ski slope is often

judged to be the most dangerous one, and the most likely time for things to go wrong. And so it is with flying. Flying is not inherently dangerous, but is terribly unforgiving of any carelessness. On the last landing run at the lake, approaching from the east end, we had a tailwind of about 7 kt. Simple, then - we fly to the far end of the lake, turn around, and land. But wait - as we reach the far end, the 7 kt tailwind has turned into a 12 kt headwind! Now that is something quite hard to get one's head around… but of course, there are various valley effects. On this occasion, the wind was blowing into the lake from both ends. What exactly did it do when the winds met in the middle? Presumably, it went upwards! So there we were, on the last run, with exactly the sort of situation that if treated with complacency could lead to a major problem. Landing downwind in a seaplane is a highly undesirable thing to do: the hydrodynamic forces on the aircraft are much higher then normal, and can lead to instability, a water loop or a nose dive. So I made several runs along the lake in each direction, finally choosing to land from west to east, as this gave the longer run into wind. All was well, and loading was completed in good time, including the interesting sight of watching the expedition leader deflating a boat whilst still in it on the water, prior to loading it into the Catalina."

It has been said that the age of exploration is over and that there is nothing left to conquer. I passionately believe that exploration is alive and well, with thousands of unclimbed peaks in East Greenland alone. All that is required is imagination and a little day-dreaming. This expedition was real adventure for all its participants – students and staff.

So did this expedition achieve its objectives? We did fly to and from East Greenland in the UK's only airworthy Catalina flying boat and at least one student described this as the best experience of their life so far. We did climb some mountains: five Arctic peaks of which we anticipate that three are possibly first ascents. We did not explore the southern Stauning Alps, but we did explore the Vinblœsdal valley instead. Such is the nature of expeditions. We did equip the students with the skills and experience required to become independent mountaineers including, perhaps most importantly, exposing them to real risks and educating them about how to manage these risks.

Will this lead to students' lifelong participation and a love of the Arctic? Well, I hope so. This expedition has been described by some as the trip of a lifetime. I very much hope that it was not the trip of a lifetime, but rather an expedition to start a lifetime of adventure for these ten young people. I look forward to hearing what they get up to in years to come.