

Polecam is 'Called to the North'

Steffan Hewitt, the inventor and owner of the award winning Polecam has recently returned from a 2 week demo trip to the Canadian Arctic for National Geographic filming walrus. If successful, the shots would be used in a feature film, due for cinema release in 2006, 'Call of the North'.



Adam Ravetch of Arctic Bear Productions saw Polecam at the Wildscreen Show in Bristol 5 years ago and ever since has wanted an opportunity to use the Polecam. He saw the Polecam showreel and specifically a shot of the start of an Iron Man Triathlon with Polecam in a boat and all the swimmers running from the beach, into the water and under the Polecam.

'I have worked in the Arctic since 1998 filming walrus and polar bears. The logistics of taking a crane up there are impossible. Just getting it to the location would be a nightmare but then having to move it....well forget it. We tried it once, spent thousands of dollars, too much time and what did we get...a big fat zero!'

'The Polecam seemed to be the answer to our problems but we needed HD quality. The standard definition wouldn't cut the mustard when put alongside 16mm film. Now with the Ikegami HDL-20, there is an opportunity to realise the shot I have had in my mind for the past 5 years.'

Steffan flew with his Polecam to Ottawa, Canada, changed planes and onward to Iqaluit. After another change on to Igloolik (yes it's a real place!) and Hall Beach. At that point he met Adam for the first time and had just 30 minutes to change into Arctic gear, dump what was not needed and then load up into the boats for the trip south to where the walrus' were supposed to be. After 2 hours, the 5 man crew consisting of Steffan & Adam along with three Inuit guides, Pakak, Sam & Laimiki arrived at a small deserted coastline where there was a small abandoned, and recently polar bear molested, cabin. Cabin is a very loose word. It was quite literally 4 walls and a roof with nothing else. No electrics, no heating, no running water or sanitation. A call on the sat-phone informed the crew that a storm was due and they would have to make camp for a few days. The island where the walrus were was 7 miles due east of their location and easily visible but not for long. However, the camp needed setting up, and the boats were pulled out of the water to above the high tide mark. By 3am, and with the use of pulleys, ice cut from a nearby lake, a lot of brute force and in freezing conditions, the boats were secure.

For Steffan, this was a unique experience. Having spent 5 years as a skiing cameraman on the snowboard world tour, cold was not an issue. However, he was used to getting home at the end of each day to a nice warm hotel or chalet. The Arctic was very very different. First of all there was shotgun training. No-one was ever more than 5m from one of the three pump action Remingtons or a rifle. Polar bears are not the cute and cuddly things we imagine them to be and at this time of year they were particularly dangerous as the ice had not formed for them to hunt on. An Englishman would make a tasty meal.

And talking of food, the first thing Steffan was offered was freshly caught Beluga whale and Caribou (a cross between a Moose and a Reindeer). Raw! The locals really did live off the land and used and ate everything they caught. Caribou comes highly recommended but even a sushi lover would have second thoughts about the Beluga. Stick to the caviar!

As night drew in, the 5 man crew settled down in their 5x3m cabin, sleeping on Caribou skins, thermarest mattresses and sleeping bags. The Coleman stoves and lamps, powered by naphtha, were the only source of light and heat.



The next day saw a spectacular sunrise, but the wind was up and there was no way that the boats were going to make the 7 mile journey across the water to a small isolated island north of 60 degrees, which was now shrouded in a dark black cloud. Steffan was relieved, the first nights sleep was not great. The temperature had dropped to a balmy -15 degrees centigrade and the bed was not exactly comfortable. 'Adam the Grouch' as he became known, due to his mood before he had drunk his morning coffee, had warned Steffan that if he needed to pee in the night, to keep an eye over his shoulder. Steffan did get up and quickly learnt that peeing in a circle was the easiest way to keep an eye out for Mr. Bear. Getting back to sleep was not easy. Sleeping fully clothed on a piece of fur was not exactly comfy but it was surprising how quickly one got used to it. Once home the bed and the sound of a Coleman stove being pumped was strangely missed.

Steffan once asked what to look out for with an approaching Polar Bear. 'It's a big white furry thing with a black nose!' Adam replied somewhat sarcastically. That wasn't particularly obvious!

Every day was about survival. That is the way they live in these parts of the world. Water is either cut from ice or melted from snow. Safety is always an issue. An Inuk (a male Inuit) never makes a decision quickly. It is thought about slowly. There's not a great deal of talking. The lead guide, Pakak, probably spoke a dozen words during the whole time to Steffan. Lots of knowing smiles, but little talk.

Three days of being holed up and hearing lots of stories being told from how Pakak had recently hunted and killed a walrus with just a spear, to Adam having spent 6 weeks staking out a walrus colony, waiting for a bear kill, and got nothing. He then filmed unique underwater footage of a mother walrus and her calf nursing. As well as an endless stream of stories from the Englishman, as Steffan became known, of where he had stuck his stick, the 60 cases of equipment including an SRII film camera, stock, Panasonic Varicam and its underwater housing, a complete Polecam system, food, fuel and a small 1kW generator (used only for charging batteries), were loaded on to the two boats and the team set off to the island.

Even from 7 miles away, they could see what looked like a large stretch of shingle beach, washed clean of snow by the storm, but as the boats got closer Adam and the guides soon changed their mind. This was a 1km stretch of beach covered by approximately 2000 walrus. They had seen this sort of thing many times before. To an untrained eye it still looked like a beach full of shingle but swimming offshore were Steffan's first site of the walrus. As the boats closed even further, the massive colony on the beach came into view. It is quite incredible how agile these amazing animals are in the water compared to how they lumber about on the land.

Adam was ecstatic; Steffan was eyes wide open and jaw on the floor. The InnuIt just looked on quietly.

The decision was made to go around the other side of the island and set up camp there. Again the team went through the lengthy process of unloading all the equipment and supplies and then hauling the boats out of the water. A somewhat compact 3x2m canvas tent was erected for the 5 man crew to create a home for the next 5 nights. What seemed like tonnes of shingle was put around the outside of the tent. The rocks for the guy ropes were also covered with shingle followed by melted snow to freeze the shingle into place.



There's nothing more dangerous than having your tent blow away in a sudden storm, leaving everyone with no shelter whatsoever. This is a frozen desert. No grass, no trees, no hills, no cover or shelter at all. Just snow and ice, and lots of it.

That night the charging station was rigged, film magazines were loaded and the Polecam built to its full size with a reach of 6m. The crane would need every bit of reach for filming on the beach and from boat.

Now for the techie bit!

For those who do not know, Polecam is a lightweight, portable jib-arm and broadcast camera system with a 1½-6m reach, weighing a maximum of 22 kg, which packs away into two bags with a carrying weight of just 35 kg. It can be rigged and de-rigged quickly

- average rig time is just 10 minutes, and de-rig in 5 - and is unique in that it requires no setup tools. Smooth, floating crane shots can be made quickly and efficiently with fast relocation.

The boom is made from lightweight carbon fibre tubes, which slot easily together. It can be rigged using from one to five tubes, with or without the unique elbow joint which can be used to get up and over obstacles.

Polecam provides innovative and unique shots where often other cranes could not go. Polecam enhances production values for virtually any type of programme.

The camera used on the Polecam was the Ikegami HDL-20. This is a remote head 2 x 2/3" camera with a 1080i HD-SDI output. A problem with this camera is that 2/3" c-mount, prism corrected lenses are as rare as rocking horse sh*t. Polecam make a 7.5mm lens but Adam wanted a wider field of view than this. The only other lens available was the 4.8mm lens from Fujinon specifically made for this camera. However, it has a price tag of ~£5,000. Unfortunately there were no lenses available in Europe for rent but the nice people at Fujinon were very helpful and understanding and agreed to loan Polecam a lens from the factory in Japan. It was an awesome piece of glass, super-wide with negligible distortion.

To record the signal a Panasonic AJHD130dc DVC-Pro HD portable recorder was used. One of very few high quality 12V HD recorders available.

The Polecam would be run from PAGlok 8Ah NiMH100 batteries, four in total, charged from a Quasar charger. CP Cases had custom made thermal covers for the batteries and the electronics on the back-end of the Polecam. The thirsty Panasonic portable DVC-ProHD recorder (AJHD130dc) was run from Cinepower Mega-D batteries whose charger very cleverly heats the batteries before charging them. This helps the battery attain max power in all temperature conditions.



All equipment lived outdoors at all times. There was a second tent for all the kit if the weather really closed in. The kit could never come in to the main tent as the humidity from the stoves would have 'killed' the equipment instantly. Polecam had already been used for the World Cup Skiing events so was tried and tested in those conditions. What was different was not having a lovely warm crew room or hotel room to charge all the batteries. Adam ran the SR11 from one-shot lithiums, years of experience at very low temperatures had showed him that lithiums were the best. But, the power requirements of an Arri SR11, compared to a Polecam with a portable HD recorder were very different.

A 1km hike across the island with Polecam on his shoulder was the start of the filming day for Steffan. From this distance the unique smell of the walrus was wafting over the snow. Pakak was happy, the team were downwind of the walrus so the approach was made much easier.



Adam explained to Steffan that one shot he was looking for was a reveal of the walrus over the cliff. He wanted the camera to skim across the snow and over the 4m cliff to reveal the walrus herd. This all had to be set-up and achieved without the walrus getting any sight of the team. On hands and knees edging forward through the snow Steffan reversed the Polecam up to the edge of the cliff. The recorder was fired up, the zebra checked for exposure and the Polecam made its first journey across the snow and over the edge to reveal

the walrus. Adam was already wriggling in the snow with joy but it only got better. After a few more goes at the same the walrus didn't seem too bothered so off the Polecam went again. This time at high speed across the snow and then high up in the air. This did startle the herd and when 200 walrus, who have been snuggling together for warmth get going, a cloud of walrus steam started to rise and momentarily the picture went white. Adam had wriggled himself a big hole now and decided he should do some work.

After a while the crew moved over to a gully and by slowly edging forwards over about an hour, the Polecam was able to get within a metre of a dozing walrus. The sun was dropping rapidly and with it the light. The team had to get back across the island to the camp. A few bits of cheese and some peanut butter biscuits for lunch as well as a good dose of adrenaline for Steffan (having nearly slipped off the cliff and onto the walrus from a snow fall) and everyone was tired and hungry.

That night, the fried pork chops were welcome but they would become an all too often regular meal on the menu. Still they haunt the Englishman who has not eaten them since, he says it will be a while! The generator ran through the night charging up batteries until it ran out of fuel and a 4am trip out to fill it was not easy, looking over your shoulder for a black nose and freezing at the same time.

After a breakfast of bacon butties, it was another long hike back over to the other side of the island. The wind was now blowing from behind us. We were downwind of the herd. The guides were not happy. By the time we got there, a lot of the walrus had left but there were still a few small groups on the beach. Steffan & Laimiki spent an hour just getting 20m to the beach and then another 2 hours slowly edging forward inch by inch to get closer to the herd. 50m in two hours, it put a new definition to the word patience. This time ground level shots were required. It became apparent to Steffan and Laimiki as they edged forward that as soon as the boom went above 1m in height, the animals became nervous. This didn't make it any easier but slowly slowly they edged forward. Some of the juveniles were in the water and were fascinated with

the Polecam, but still very wary. The adults slept, grunted and farted, but always had one eye on the camera. The Polecam was now able to reach to within 3m of the herd, and started to get interesting shots across the shingle and out over the water, when something on the cliff startled the herd and in 30 seconds, the whole lot were in the water and gone. Steffan stood up, legs numb and covered in walrus sh*t, despondent. 'It's the way it goes' said Adam. Don't forget he had just spent 6 weeks staking out a colony, to film a bear kill, and got nothing. It's the way it is.

The next day, the Polecam was mounted to the front of the aluminium boat still at a full 6m reach. This time the team were off to film walrus swimming in the water, hoping to get a mother and calf together. Flat and overcast, the light was not great, but in the arctic you take what you can get. Adam wanted his 'triathlon' shot; the walrus coming off the beach and into the water, with the Polecam above them. The boats headed round to the other side of the island. This time there were even less walrus (should that be Walri?), but the guides



eventually found a herd of perhaps 60-70 animals and approached the shore at a 45 degree angle. The camera got to within 5m and then the herd started moving off into the water. A blind man couldn't fail. Everywhere Steffan put the camera the frame was filled with walrus, some reaching up to the camera. Steam, tusks and a lot of splashing - it was perfect.

Next up - to follow a small herd out in the water. What a transformation from land to water - these animals are quite graceful in the water. Steffan wore a safety harness to stop him falling in the water. Folklore says that Walrus are aggressive, but that does not seem to be the case. In these conditions it is said that you have just two minutes if you want to stay alive, the cold will get you before a walrus.



Again, lovely shots skimming across the water, chasing the bow wave created by the submerged walrus was the prime directive. As they surfaced, the Polecam would rise up and look down on the group. They swam surprisingly close together, with the calves protected by the main group. The only scare was when the boat got a little close to a mother and calf and the mother turned back towards the boat, raised her head out of the water and 'tusked' the side of the aluminium boat missing Steffan's overhanging leg

by inches. Wide eyed and with his legs safely tucked inside, the filming continued

A very successful day followed by another meal of pork chops, a nights sleep, which was becoming easier and easier, and the next day, with everything re-charged and reloaded, the team were off again.

You never know how long you have to film in these parts of the world. The weather alone is the main determining factor, but you also have to know where the animals are. Local knowledge is key. Using locals is not only politically correct but vital to getting the job done.



This time the HD minicam was put in an underwater housing and by use of a carbon fibre sound pole from Panamic, the idea this time was to get underwater tracking shots right in amongst the herd. The water was not so clear so it was vital to get close to the animals. All was going well until the group turned and went under the boat. Steffan could not get the camera out of the water in time and there was a loud snapping noise from the carbon fibre pole. As he pulled out of the water what was left the camera was missing. Fortunately, the missing part still underwater, was attached by the camera cable. Slowly, the cable (£1000 for 10m) was brought to the surface with what was left of the Polecam and the camera housing. That was end for the Ikegami mini-cam.

Adam donned his dry suit and went over the side with the Varicam in its water housing. After 2 hours of moving around, in and out of the water he'd had enough. He came up with some lame excuse to blame the Englishman, muttering something about always wanting to stop for tea at 4 o' clock - but the reality was that the water was just not clear enough. The storm had stirred things up and a couple more days were needed.

Adam wanted some underwater shots and had what he wanted from the Polecam. So the team headed back through the thickening ice to Hall Beach. Adam wanted to re-supply and head out again. Steffan would catch the next plane to Iqaluit, then on to Ottawa and home to England. A shower, shave and change of clothes for the first time in 8 days was very welcome. A night's sleep in a bed alone was total luxury, although

the window needed to be open - it was too hot!

Having spent nearly 2 weeks travelling and on location, filmed a total of two hours of material, the Polecam footage would probably only make 1 minute of the finished film, if it was lucky. These shots were for the autumn sequence. However, the idea of this was a test and what a success it was. With the arrival of new HD mini-cameras and smaller recorders, the door is now well and truly open for Polecam to enter the world of Natural History as well as film. Light, portable and unobtrusive, Polecam added production value, as well as getting shots that were, in the past, just not possible. The new 'FishFace', a fully submersible, down to 10m, Polecam head, due on the market in 2006, will only open more doors for Polecam owners and operators around the world.

For further details on Polecam visit www.polecam.com and for Adam Ravetch visit www.arcticbearproductions.com

'Call of the North' is due for a US cinema release in spring 2006

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