PAUL COSLETT

Edited transcript of a recording of Paul Coslett, interviewed by Chris Eldon Lee on 17th June 2011. Transcribed by Andy Smith, 16th May 2012.

Track 1 [0:00:02] Chris Eldon Lee: *This is Paul Coslett, recorded by Chris Eldon Lee, on the 17th of June 2011. Paul Coslett.*

Track 1 [0:00:10] Paul Coslett: I was born in Coventry on the 1st of June 1944, and just after my arrival, everybody disappeared off to Normandy.

Track 1 [0:00:19] Chris Eldon Lee: *What is your full name?*

Track 1 [0:00:22] Paul Coslett: Paul Hugh Coslett.

Track 1 [0:00:23] Chris Eldon Lee: *And your time in the Antarctic? When were you there?*

Track 1 [0:00:26] Paul Coslett: I sailed in December '66 and got to Halley in January '67 and left Halley in February '69 and then travelled back through South America, getting back to UK in May '69.

Track 1 [0:00:48] Chris Eldon Lee: *And what was your trade or profession?*

Track 1 [0:00:50] Paul Coslett: I was down South as a glaciologist.

Track 1 [0:00:52] Chris Eldon Lee: *Right OK. So let us go back a bit then, to your early days in Coventry. Despite the fact that you seemed very lonely having lost the entire family to Normandy …*

Track 1 [0:01:03] Paul Coslett: No, no, I was thinking that it was the Forces that went off to Normandy 5 days later, on D-Day.

Track 1 [0:01:10] Chris Eldon Lee: *Yes, of course. What sort of education did you have, Paul?*

Track 1 [0:01:13] Paul Coslett: I went to a small preparatory school, Coventry Prep School, and then I went on to Bromsgrove, where I studied for five years. Then I went off to Imperial College in London, to the City and Guilds part of it, where I did a degree in Civil Engineering.

Track 1 [0:01:36] Chris Eldon Lee: *Was engineering a childhood passion, or why did you choose to do it?*

Track 1 [0:01:40] Paul Coslett: No. I was interested in engineering. I was always interested in how things were put together. We had an old family friend, a neighbour who had moved up to Merseyside area, and we always used to go and visit them at Easter. He always said that I was always asking questions. He was a water engineer, a senior water engineer. I suppose my father was an accountant and I did not want an office job. My brother went in for farming, and working on site appealed to me.

Track 1 [0:02:24] Chris Eldon Lee: *There was no university training. It was more of a vocational training that you did?*

Track 1 [0:02:30] Paul Coslett: Oh no. I went to college and did what should have been a 3-year course, down in London, but I got involved in a lot of other things at university. I thoroughly enjoyed my time there and did not do enough work in the second year and fell foul of the examiners. So I was going to work during the summer holidays with a contractor, Kier, and so I stayed with Kier through to the following Easter, before going back to college to repeat the summer term and take the exams. Having done that, I passed them that time and went on to complete my third year.

Track 1 [0:03:18] Chris Eldon Lee: *You were also developing an interest in outdoor pursuits, weren't you?*

Track 1 [0:03:23] Paul Coslett: At school I joined the Scouts and they encouraged me in outdoor walking, hiking as it was called in those days, and liking of the hills. I got my Queen's Scout badge, but it was a case that often I was out going to the Lake District with friends from school or with the Scouts. I also went up into the Scottish Highlands a couple of times with another organisation I was a member of.

Track 1 [0:04:03] Chris Eldon Lee: *Were you a competent mountaineer?*

Track 1 [0:04:04] Paul Coslett: No. I mean most of my time was walking and scrambling rather than climbing. I did join the mountaineering club at Imperial in my last year. I had a friend who had been a keen climber, who had been killed on the Matterhorn. He was somebody that I had been very close to at Bromsgrove. We had started in the same form on the same day in the same house and he was also very keen on outdoor pursuits and at the end of my second year at Imperial, he was actually killed climbing with the IC Mountaineering Club on the Matterhorn. I knew quite a lot of the mountaineering club and I went a few times with them climbing on the cliffs down at Swanage or up in North Wales.

Track 2 [0:05:13] Chris Eldon Lee: *I was going to say that kind of experience can have one of two effects can't it? One is you stop it altogether, or you become more determined to get it right.*

Track 2 [0:05:21] Paul Coslett: I think it is probably a case of getting it right. Yes, he fell at the end of a very long day and his companions did not have the strength to pull him up, and so he died at the end of a rope which compressed his chest.

Track 2 [0:05:45] Chris Eldon Lee: *That did not put you off?*

Track 2 [0:05:49] Paul Coslett: No. Before I joined BAS, in the previous 12 months, there were three who were killed at Halley Bay, including Jeremy Bailey, who were in a 'Keg that dropped down a crevasse. And in the month before I joined, there were two others who died down in Grahamland. I suppose it was the case that I thought 'Well there are a hundred people down there. Five have died in the last year. There is a chance if getting killed.' But equally, on construction sites at that time, it was often considered that there was a … you got a death for every million pounds worth of

work. When I had my year out, I was working on a site in Nottinghamshire which was valued at a quarter of a million. It was quite a big site in those days. I thought 'Well, there is 1 in 4 chance that while I am on this site, somebody might get killed.' Obviously things have improved very much since then.

Track 2 [0:07:09] Chris Eldon Lee: *So did that kind of fatalistic approach, did that come through time or was that something you think you were born with, or was it just a case of having to deal with it really?*

Track 2 [0:07:23] Paul Coslett: No, I think that probably it was just part of life, that if you were going to go to some interesting places, do interesting things, there sometimes was more of a risk than if you had an office job and the biggest risk was stabbing yourself with a sharp pencil.

Track 2 [0:07:47] Chris Eldon Lee: *The biggest risk was boredom?*

Track 2 [0:07:50] Paul Coslett: Mm.

Track 2 [0:07:52] Chris Eldon Lee: *Tell me a bit about the surveying training you had then, because you were training to be a surveyor at a time when things were changing quite a lot in technology, weren't they?*

Track 2 [0:08:00] Paul Coslett: Well the time at Imperial, we did not do any survey training in the first year but it was a fairly large part of the second year, both with the course work in it and the lectures. As well as the normal operational survey equipment, part of the course included first year astro-surveying. But when I came back to the course after my year out, astro had been dropped, and photogrammetry had been brought in instead. Probably the amount of astro work that civil engineers had needed to do was very decreased. The Reader in Surveying, who did the astro and photogrammetry lectures, was Alfred Stephenson, who had been South with BGLE and was one of the grand old men of Antarctic exploration. I came into contact with him especially in my repeat year, because he gave me and somebody else who repeated the exams almost private lectures on photogrammetry. It was a quirk, almost, in the fact that when I joined BAS, and went on courses, the aerial survey type, the astro, the star shots training was actually given by Alfred Stephenson to Derek Postlethwaite and I, who were the ones who were going down the next season and would be using astro. Derek was the only surveyor who was recruited that year.

Track 3 [0:10:28] Chris Eldon Lee: *Was Stephenson an inspirational man?*

Track 3 [0:10:31] Paul Coslett: He was. He was also senior tutor responsible for student discipline and so various clashes that he had with the student body on the whole when we were in our 'oik' behaviour mood. But he was a very good man to chat to, and he it was who encouraged me to go South.

Track 3 [0:11:02] Chris Eldon Lee: *Well how did that come about? You saw an advert, didn't you?*

Track 3 [0:11:06] Paul Coslett: Yes. On the Mountaineering noticeboard, which was next to the YHA board which I also was a member of, there was an advert from BAS

for various people, which included surveyors with a civil engineering degree or a geography degree with a major in surveying. I wrote off and applied as a surveyor. It was also advertising for physicists and other things, but it was the survey aspect that attracted my attention.

Track 3 [0:11:47] Chris Eldon Lee: *So you got an interview with Bill Sloman?*

Track 3 [0:11:50] Paul Coslett: I got an interview with Bill Sloman who said 'We are not employing many surveyors this year. Are you interested in glaciology?' To which I replied words to the effect of 'Yes. What's glaciology?' As many say, they will do anything to go down South. He then arranged an interview with Charles Swithinbank in Cambridge, at Scott Polar. Then I had to go and have another interview with Charles, Gordon Robin who was Director of Scott Polar and also Stan Evans who had been to Halley Bay and he was an assistant director at the Scott Polar. They had to approve anybody who was going to work in Scott Polar. It was not entirely just up to Charles Swithinbank, and so after that I was offered the job.

Track 3 [0:12:52] Chris Eldon Lee: *Had you, in the meantime, tried to find out what glaciology really was, or were you playing* [?? inaudible]*?*

Track 3 [0:12:59] Paul Coslett: No. I think I probably did know a bit more about it but at that time BAS had not got a glaciological unit. The previous year Bob Thomas had gone to Halley Bay as a glaciologist, but he trained or studied before going down with the geology section at Birmingham University. Bob who had previously been down South as a met man, had spent quite a lot of time doing glaciological work on the Antarctic Peninsula, and had also driven dog teams and things like that. So he knew what he was going down to, and he developed his theme before Charles Swithinbank became the head of the glacio section for BAS. At that time of course BAS's office was in London and they did not have their brand new offices in Cambridge which drew together all the various departments under one roof. The geologists were in Birmingham, the geophysics I think was in Edinburgh and Sheffield. Zoology was in Queen Mary, London. Botany I think was also in Birmingham. So it was spread around all round the country.

Track 3 [0:14:48] Chris Eldon Lee: *How did you get on learning about glaciology, because it is not something you can mug up on in the field in Britain, is it, really?*

Track 4 [0:14:55] Paul Coslett: No, I spent a long time reading all the reports. I suppose the big report was the Maudheim reports that were from the Norwegian Swedish British Expedition in the late '40s to the very early '50s, on which Charles Swithinbank had gone. Gordon Robin had been there and Walter Shute of Sweden had been the three glaciologists, and a lot of the techniques for glaciological investigation in the field had been developed on that particular trip.

Track 4 [0:15:54] Chris Eldon Lee: *So it was a fairly infant science, then was it?*

Track 4 [0:15:49] Paul Coslett: It was. There were not that many people who had studied it. One of the textbooks, almost, was a book by Bagnold (I think it was), something about the physics of blown sand. This was something that had been developed by Bagnold who had been in the Long Range Desert Corps, driving over

the Sahara, and had developed an interest in the way that the blown sand formed sand dunes and how they moved around. Of course a lot of what he found with sand was also similar to what had been found with snow when it is being blown around and you get the sastrugi, which are similar to sand dunes. That was a book that was written, I suppose, in the 1940s after the War. There were not many textbooks around. I remember that there was one book that Charles had … He had produced a list of books that he thought it would be useful to have on site, and one of those was by a Frenchman, written in French. I did take my *Petit Larousse* (or my father's *Petit Larousse*) down, but I did not get very much beyond halfway through the Introduction.

Track 4 [0:17:46] Chris Eldon Lee: *Does that perhaps explain to some extent why a surveyor was asked to become a glaciologist, because there was a shortage of glaciologists?*

Track 4 [0:17:54] Paul Coslett: Well there weren't. Bob Thomas had done a physics degree. Charles had done a geography degree at Oxford just after the War. It did tend to get people from all aspects. With BAS, they seemed to like two glaciologists working together, one in his first year and then in the second year. Bob was a physicist, I was a civil engineer. When Bob went out, Andy Wager came down, and then when I went out, another engineer came down, George Kistruck who you probably met.

Track 4 [0:18:58] Chris Eldon Lee: *More than once, yes.*

Track 4 [0:19:00] Paul Coslett: On the MB-2000. I think that Charles's thinking was that possibly by having an engineer and a physicist together you tended to get possibly two different ways of looking at the same problem.

Track 4 [0:19:22] Chris Eldon Lee: *What were you trying to find out about glaciers? I guess almost nothing was known, I presume, when you started?*

Track 4 [0:19:28] Paul Coslett: Well a certain amount was known. There were theoretical, almost, mathematicians working on the way that ice moves. Nye in Bristol was one of those. He would come up with an idea. Ice is an interesting material because it is possible to study it close to its melting point. We had a metallurgist working at the Scott Polar when I was there, who had come over from … He had done his undergraduate degree at Oxford and was working on a PhD in Cambridge. He was interested because ice is a subject you can study close to its melting point, whereas trying to do experiments on iron or steel close to its melting point is very difficult, because you won't get creep coming in. The nearer it is to the melting point, the more it is likely to creep, and he was doing his PhD on that.

Track 5 [0:21:05] Paul Coslett: Bob was basically doing a triangulation survey of the ice on the Brunt Ice Shelf, and he had a series of triangulation stakes along a flow line, and I was involved in going and doing a profile along the flow line with a level, because where you have got ice coming down off the inland ice, and it is resting on the water, you have not got any friction at the bottom. It can spread under its own weight easily. With measurements of accumulation at the top, you can then start thinking in terms of how it spreading, as to whether or not you have got bottom

freezing or bottom melting. At that stage, the calculations as to whether or not the amount of ice in the Antarctic was increasing or decreasing, it was very difficult to tell because each year you got accumulation on the surface, you got icebergs breaking off from the edge, and a certain amount of melting from the underneath of the ice shelf. But the figures were so big that when you started taking them away, one from the other, to try and work out whether you got accumulation or decrease of ice, what you were left with was probably less the amount of error you have got in measuring the big figures.

Track 5 [0:23:22] Paul Coslett: Of course, in the Antarctic you have got: about 90% at that time of the world's ice is in the Antarctic, and 90% of the world's fresh water is in ice, both in Greenland and the Antarctic. So you have got something like 80% of the world's fresh water is actually frozen in the Antarctic. So you are generally looking at trying to find out more about ice and how it moves. There are various techniques for trying to work how much ice has accumulated each year. It was one of these things that you just … . I suppose it was science and you did not know exactly what was coming out. One of the other things that people did at Halley Bay was measure ozone, and probably the people that I was down South with, the geophysicists, never realised how important the measurements they made of ozone were going to be until Joe Farman said 'We have found a hole.' They had been doing the base measurements onto which the … where it was found that the hole had appeared.

Track 6 [0:24:56] Chris Eldon Lee: *And has the glaciological work you did, or you and your generation of glaciologists did, has that also acquired a more compelling importance in recent years, to do with global warming and the melting of the icecaps?*

Track 6 [0:25:10] Paul Coslett: I think studying the way that the ice performs probably has. I went down, did measurements, came back and after about 18 months went back into civil engineering, whereas Bob Thomas who was South with me, has spent his whole career in glaciology. Andy Wager, who was a year behind me, he came out and he then in fact went down South again and did some more glaciological work, but he then also left the glaciological industry and went and worked for Rolls Royce I think it was.

Track 6 [0:26:08] Chris Eldon Lee: *But my point is: the work you did then, and of course the work that is being carried out now, it is because you have got those two extremes, we actually have been able to calculate how fast the icecaps are melting.*

Track 6 [0:26:22] Paul Coslett: Well it helps. You get the people who have come up with the ideas of how ice moves. They come up with a theoretical idea and then they feed in actual measurements. It is a bit like soil mechanics, which again, having been at Imperial, it had got a well-known head of department, the Head of the Civil Engineering Department, Skempton, and he had a very practical point of view. When I went to Cambridge, it was suggested that I had a few months in Cambridge before going South and it would be helpful. It might be interesting for me to go along and listen to some of the seminars in the Engineering Department on soil mechanics. Now that had got various people there who became very well known in soil mechanics but they were trying to do a more theoretical approach to how soils react to pressure and water content and things like that. They were coming up with their theories which

then they tried against the practical findings of Skempton in London, and then modified their ideas to take account of what he had actually found in the field. And so it was two ways of looking at a thing to bring together a better fundamental knowledge of how things react. I have not kept up with the latest glaciological theories in the same way that I have not kept up with the latest theories in soil mechanics.

Track 6 [0:28:45] Chris Eldon Lee: *Let's get you South, because we are talking and we have not even got you past the Equator yet.* [laughs]

Track 6 [0:28:50] Paul Coslett: Have not even got me aboard the …

Track 6 [0:28:53] Chris Eldon Lee: *The Kista Dan, wasn't it? No the Perla Dan?*

Track 6 [0:28:55] Paul Coslett: The *Perla Dan*. Yes, this was the first year that the *Perla Dan* was used.

Track 6 [0:28:58] Chris Eldon Lee: *There were some quite famous names on that boat at the time: Ricky Chinn, Jim Shirtcliffe, 'Dad' Etchells.*

Track 6 [0:29:03] Paul Coslett: Yes.

Track 6 [0:29:05] Chris Eldon Lee: *How did you get on as a group?*

Track 6 [0:29:06] Paul Coslett: Oh we got on pretty well. I did not appreciate it at the time. There were a number of people who had been South before and they gave a certain amount of talking to us on the way down. Some of them had got slide shows of their time down before. It was three weeks that we were on the ship to Montevideo, going through the tropics, when there was not much to do other than a bit of Keep-fit, that Ricky Chinn was keen to get us on. The odd First Aid talk that the doctor who was going to Adelaide with us, Dick Williams, he was there. We also spent a bit of time practising sunshots and things like that with the officers, We got on very well with the officers. We did not tend to fraternise with the crew so much, although the Crossing of the Line ceremony was a notable exception. I think we crossed the line on a Friday evening but we had the actual celebration on the Saturday afternoon, and then quite a lot of drinking, as was the wont. The ship was well supplied with Carlsberg and Tuborg.

Track 7 [0:30:53] Chris Eldon Lee: *Being Danish?*

Track 7 [0:30:55] Paul Coslett: Being Danish. Little stubby bottles, and some of the crew I do not think were fit for work on the Monday morning.

Track 7 [0:31:03] Chris Eldon Lee: *What is this about building a swimming pool on the deck?*

Track 7 [0:31:06] Paul Coslett: Yes, well between the hatch covers and the bulwark, the likes of Jim Shirtcliffe and helpers built a couple of barricades I suppose, between the two, to hold a canvas which was then filled with water. Probably it was only about 8 ft. square, 3 feet deep, but it was enough to actually get in and cool off. One of the

effects was that when we filled it, the ship's officers complained that it was distorting the angle of the ship. So they had to pump fuel around to correct the trim of the ship.

Track 7 [0:32:05] Chris Eldon Lee: *Let's get you to the Antarctic, because you went into Port Stanley. I was intrigued by your description of the Falkland Islands Company Stores in the mid 60's. What was it like?*

Track 7 [0:32:22] Paul Coslett: Well there were only about half a dozen shops in Port Stanley, and the big Falkland Islands store – I think it was known as the West Store – it was not much more than just a shed, sort of a church hall, with various tables dotted round. At one table you might be looking at top of the range cameras, bearing in mind that most Fids who went South had a lot of camera gear, and you were looking as up to date as you could find in Wallace Heaton in London. But at the next stall, you might have somebody who was buying seed potatoes or fertiliser, and it was so incongruous that you got top of the range photographic gear that they thought was as high a prominence as what they would be selling to the local people as basically an agricultural merchant. It was a bit like going into Mole Valley Farmers and buying top of the range computer gear.

Track 7 [0:33:46] Chris Eldon Lee: *I am sure you can. So tell me about your first impressions of Halley, because you had been told about it?*

Track 7 [0:33:53] Paul Coslett: Yes. When we got there, we were taking in the building materials for the new base, as it was called. It subsequently got known as Grillage Village. This was Halley II. We went in with a building team of about 8, led by Jim Shirtcliffe, The original concept, I think, had been we would get up as much as we could very quickly, because the *Biscoe* also went South basically carrying extra people to give a bigger labour force. We went in with the idea of getting as much of the base up as we could, and then leaving the building team once the shells of the hut were up, to get on with the building. But shortly after getting there, and the ships had sailed, we had one of the generators on the old base fail, and so as opposed to having three generators, two of which were running at any time, we had one running and one on standby. It meant that the power available for heating and things like that had to be drastically reduced. So heating was switched off in all but the office block and the scientific programmes were put on hold a bit, when all available labour was used to carry on getting the new base habitable, so that everybody could move up there as quickly as possible. That was probably achieved April/ May time, such that we were all up there, apart from the static scientific crew, by Midwinter. There were about 12 of them stayed in the old base, in the old office block.

Track 8 [0:36:13] Chris Eldon Lee: *Below the ice?*

Track 8 [0:36:14] Paul Coslett: Oh below the ice, yes. The original IGY hut was about 50 feet down, and that had been abandoned apart from storage. There was a walkway from that, a Dexion ladder that had been built at a staircase type angle. You went up that to get into the main living and dormitory block, and then a few years after that, the new office block had been built further up. When I arrived, and we had got full heating in the dormitory and living block, those huts had been crushed under the weight of ice and any waterproofing had deteriorated. There was enough water dripping down through the roofs such that in each bunkroom we had to provide a bit

of polythene across the roof which discharged into a gutter that was made out of old cans to run alongside the bed, and we had to empty that, a five gallon drum twice a day. So that was the amount that was dropping, dripping down. The whole thing was moving. One day somebody went and put a Dexion ladder to get up into the loft space and left it there and when he came to take it down, something had settled onto the top of it and it was trapped. He did not like to cut it out or take it apart, just in case something came down, and it had become structural.

Track 8 [0:38:22] Chris Eldon Lee: *Colin Baldwin, who was responsible for designing Halley II, have you actually come across him at all?*

Track 8 [0:38:26] Paul Coslett: Oh yes, he came down on the ship.

Track 8 [0:38:30] Chris Eldon Lee: *He was working side by side with you, was he?*

Track 8 [0:38:32] Paul Coslett: He took charge while the ships were there, of one shift, and Jim Shirtcliffe took charge of the other shift. Of course we were working 12-hour shifts on the site, or unloading depending on where you were allocated to be that day.

Track 8 [0:38:54] Chris Eldon Lee: *Was he stressed, Colin Baldwin?*

Track 8 [0:38:56] Paul Coslett: No because they had erected one of the huts in the UK with the building team, and so they knew how it was going to go together. Now they had got a lot of unskilled labour, but there was nothing very sophisticated about the design. It was basically portal frames that were at 8 ft. intervals, and there were beams and purlins that connected these, and then to the outside of those was fitted 8 ft. wide plywood panels, one on the roof and one on the side. Or one at each slope on the roof, and one on each side, and they were fitted together with a water bar between them to drain any drips out to the sides of the hut, and then there was a waterproof membrane, a bitumen type membrane, put over the top of the hut that was not a lot of flexibility, with the hope that as the hut got squashed, the bitumen would keep it waterproof on the outside.

Track 9 [0:40:42] Chris Eldon Lee: *So there was no hope that it would not sink like its predecessors? You were building it knowing it was going to go down under the ice?*

Track 9 [0:40:51] Paul Coslett: Yes. There were no windows. The IGY hut that had been taken down had got windows in it, which as the snow built up outside, my guess is that they probably went and put timber, a piece of ply over the windows to try and make it so the glass was not cracked. But it was the case that when they took that down in ‘55/’56, that they thought that the hut might stay on the surface. The normal accumulation on that part of the Brunt Iceshelf was about a metre of snow accumulated each year but of course, where you have got the huts, you are getting drifting, and so within probably not much more than a year you had got the snow accumulated round the huts so that the snow was pretty well up to the roof line. Which made life easier in many ways because our water supply was from frozen snow and when we built the huts, the only holes in the roof of any of them was: I suppose we must have had a vent for the smoke coming out of the kitchen but that might have been in the end rather than the roof, but the three holes that were made so we could

drop snow from above down into the water tank in the kitchen and in the two dormitory blocks.

Track 9 [0:42:55] Paul Coslett: These were extended upwards by cutting top and bottom out of 45-gallon oil drums and putting some legs in so that they could be dropped onto the one that was already there. So these could be extended up however far it was needed, and until the huts were covered, you had to cut a block of snow and then there was a almost a walkway that was made up the side and then the roof of the hut to get to the hole to drop it down through the roof. The water tank had immersion heaters in it so that the snow could be dropped into it even though it was a cold water tank it was warmed up so that it would melt and it was the job of the people who were on gash each day to fill the water tanks. And it made it easier when the snow was above the hut; you could just shovel it in. You did not have to cut reasonable sized blocks with a saw and then carry it up.

Track 9 [0:44:17] Chris Eldon Lee: *Do you remember whether the construction of Halley II went smoothly or whether there was a hiatus or unexpected problems arose which had to be dealt with 'on the hoof' so to speak?*

Track 9 [0:44:28] Paul Coslett: I do not think there were any real problems. I think initially trying to get a level area for the huts, I seem to recall that they spent a few hours trying to do it and then decided that what they had done was not very satisfactory. So they moved a couple of hundred yards away and started again, but that was right at the first shift, when they would have been trying to level it up, and probably had not even got any building materials delivered to the work area at that stage. We built the hut, the new base, it would probably be about a couple of miles away from the old base. The estimate was that that part of the shelf was moving at about 350 metres a year (about a metre a day) and hence, as it had been there for ten years, the optimum place to build the new base was exactly where the old base had originally been built. So from the point of view of measurements that the geophysicists were making, the met men, they would be comparable as much as possible, with those that were done ten years before.

Track 10 [0:46:14] Chris Eldon Lee: *So Halley II was being built on the footprints of the IGY hut?*

Track 10 [0:46:18] Paul Coslett: Ah, where the IGY hut would have been, but of course that had moved a couple of miles away from …

Track 10 [0:46:28] Chris Eldon Lee: … *where it would have been when it was first built? Yes, I understand. And how long did that go on for? That was couple of years work was it, or just the first season?*

Track 10 [0:46:35] Paul Coslett: What, building the new base?

Track 10 [0:46:37] Chris Eldon Lee: *Building Halley II?*

Track 10 [0:46:38] Paul Coslett: Oh no. As I say, we had … Other than the static science staff, everybody had moved into the new base April/ May time, which is about when the sun went down. The initial effort was to get the huts up, so that they

were weatherproof and the snow did not get inside them. Then there were tunnels to be built and things like that, to connect them up. Once we got to March/ April time, things were getting a bit further forward and so Bob Thomas and I were able to get out into the field to do a bit of glaciological work, and Mike Skidmore, the geologist, was released from the building team to come with us. We went off and did about a month's work a few miles away from the base. By Midwinter the base was pretty well built and had got most of the services installed inside, apart from the office block. That had got some basic lighting in but all the partitions had not been put up in that, and so we were able to use that as a small little theatre for a sort of revue that was put on at Midwinter, for the entertainment of the majority of the people at Midwinter.

Track 10 [0:48:55] Paul Coslett: The met balloon was I think flown on Midwinter's Day, and at 10 o'clock, the observations would have been transmitted out by the radio operator, but then things would have stopped for the next 24 hours and everybody came up to the new base. We had a few drinks before lunch. Midwinter is Christmas and New Year rolled into one, plus a bit more. I remember the cooks had been on nights (or one of the cooks, because we had three cooks: one down at the old base, one at the new base, and one having his week off) but in the run-up to Midwinter, that cook went onto a night shift to prepare food. I remember we had a turkey for the Midwinter meal, but for the buffet that night, I think there was something like 130 lbs. of meat, cooked for 38 of us. There was duck, there was chicken. They cooked everything to give us an absolutely fantastic buffet. Basically that saw us through the next day, and probably the day after that we were still eating that, rather than the cooks having to actually cook anything different.

Track 11 [0:51:00] Chris Eldon Lee: *Famous Christmas leftovers isn't it really?*

Track 11 [0:51:01] Paul Coslett: Mm, yes.

Track 11 [0:51:03] Chris Eldon Lee: *Let us look at some of the incidents that happened whilst you were down there. You were there at the time when John Brotherhood had his accident?*

Track 11 [0:51:09] Paul Coslett: I was not on base at the time. This was about December '67. I had been out in the field and I had been working with people who had come out on holiday with me. We were levelling and I was coming back to change over the holidaymakers. I came back to be told that John had fallen over this cliff and they were waiting to determine what was to happen. I was not able to leave base until things had settled down but I think probably later that night, Ricky Chinn came back after the 10 o'clock sched when the radio operator transmitted out the met obs that had been taken during the afternoon and early evening. Ricky said there was a plane on its way to fly out John Brotherhood. We were told that we had got to mark out some means on the ground to give a guide to the aircraft which way the sastrugi were running (these are the snow formations that are in line with the wind) and also to go and raise 40 45-gallon drums of aviation kerosene to refuel the plane, and that it was due in about 6 hours. It was on its way via the Pole.

Track 11 [0:53:31] Paul Coslett: We did not have a windsock to use because we had never had plane fly from outside, and so somebody had the idea of marking out the wind direction with cocoa on the snow, which showed up very well and we went and

raised so many drums of fuel. It was something that was frequently done on site, the fact that you raised dumps. They used winches to help pull the drums out, because often if a drum is put down on the top of snow, you will get a certain amount of ice forming round it because it will absorb any rays of the sun, and will cause icing up. So raising drums is quite difficult. It was a couple of sledge loads worth were loaded up and pulled into position ready to be pulled up to the plane.

Track 11 [0:54:43] Chris Eldon Lee: *But you had to prepare yourselves for a potential emergency landing?*

Track 11 [0:54:46] Paul Coslett: Yes, we thought that, and all that we had got: the skidoos were the fastest vehicles and so we put a sledge behind each one, and put a couple of fire extinguishers (handheld), a couple of fire blankets on each one and an axe and that was the most that we could provide as fire tenders. As the plane came down we followed a parallel course.

Track 12 [0:55:23] Chris Eldon Lee: *You raced it?*

Track 12 [0:55:25] Paul Coslett: I think it was going very much faster than us.

Track 12 [0:55:28] Chris Eldon Lee: *A bit like Thunderbirds, isn't it?*

Track 12 [0:55:29] Paul Coslett: Yes, the rate that a skidoo could do normally was about 7 miles per hour. It could probably get up to 15 if it was without a sledge or a very lightly loaded sledge. The skidoos that we had were the first that had been used in the Antarctic by BAS, and they were more personnel carriers as designed, although we did pull loads of up to 1100 lb. with them, which was about the same as a dog team could pull. Sometimes we could pull two sledges if the ground was firm and it was level and we got a good run at it. But with the skidoos we used to, if we came to a hill, we would relay up the hill. We would drop one sledge off, pull one to the top and go back and pick up the other. We used to refer to the big hill up to Flag 17, and when I came to level it, it was a height difference of probably about ten feet over half a mile.

Track 12 [0:57:01] Chris Eldon Lee: *Did the skidoos have any teething troubles you remember, or did they all work perfectly from day one?*

Track 12 [0:57:08] Paul Coslett: Well they went in on the same ship as us.

Track 12 [0:57:12] Chris Eldon Lee: *Oh right. So you really were pioneering?*

Track 12 [0:57:14] Paul Coslett: Yes and because of other things, they were left in their boxes until taken into the garage over the winter. When Bob and I and Mike went out, we used the old Eliason sledge, known as the 'Elsan', which Bob had resurrected. It had been written off by BAS years before and so no spares had been sent down. So he made spares and got it running and that sustained him because there were no dogs available for him, basically for his glacio programme the year before. With the two skidoos that went down, it was earmarked that one would be for Bob and one for me, although Bob tended to carry on with the Eliason. The skidoos: they did have problems. Some of the belts did not last very long, and also engine mounting

bolts had to be frequently replaced. We got them up and running over the winter but often when we started using them, we would find that modifications were needed. I was looking at one of our reports last week which said that while so and so was in the field, Joe Porter took the skidoo back to the base for ten days of modifications.

Track 12 [0:59:21] Paul Coslett: When they sent the spares down at the end of the first year … When we were there during the first year, we got very very few spares – a few bearings and a few spark plugs. But we found that we were using spares and when they came down, the spares that we had asked for, at the end of the first year, unfortunately the spares that came were for a 300cc twin engine and we had got 300cc singles. So in particular, the piston rings were a bit small, and at the end of the two years that I was there I think each engine was running on about one and a half piston rings rather than three and whereas in the early stages we were getting possibly 7 miles to the gallon, we were now getting about 2 miles to the gallon, which made life very difficult for travelling distances in the field.

Track 13 [1:00:42] Chris Eldon Lee: *I gather you struggled to start them sometimes as well?*

Track 13 [1:00:44] Paul Coslett: Yes. They were very prone to icing up and we often used to finish up turning a blowlamp on them to warm them up. The problem with them icing up or getting any contamination in the fuel supply was that the filters that were in the carburettor would pick up any ice, and unfortunately the easy way to do it was to take the carburettor off. But one of the snags was that in not being designed for easy taking off, and the flange that … There were two bolts that held it on and the flange that held it on was such that when the bolt projected fully through, it was very close to another part of the body, and you could not put the nut on in that position. So you had to offer it up, put each nut on and do it up for a turn and then push it further on and do the nuts further up, which was very difficult with gloves on.

Track 13 [1:02:13] Chris Eldon Lee: *And the Eliasons were not exactly 100% reliable as well, I gather? They had a habit of running away, didn't they?*

Track 13 [1:02:22] Paul Coslett: Oh yes, that one. We were going out to the inland ice in the second year. Keith Gainey joined me for that particular trip, and we had got the Eliason and the skidoo. We were going to go through the Bob-Pi with the main tractor party because they had been probing it. They knew the General Assistants had been out and had marked the route through, so we were going to go through it with them. But when we were partway out, the journey to the start of the crossing which was about 30 miles from base, it was realised that the main tractor party had forgotten something that was small. So they said 'Can you travel light with the toboggans, go back and pick it up from base, and come and join us at the camp site this evening?'

Track 13 [1:03:27] Paul Coslett: But as we were travelling, Keith Gainey got thrown off the Eliason. All the toboggans we had so that you set the throttle and did not have to hold it. In cold temperatures, having your thumb holding a button down would not have been very convenient. So I had to stop, unhitch my trailer, the sledge I was pulling, and then chase after it. It went in a big circle and after about a mile and a half, having already crossed its own tracks a couple of times, I eventually caught it up and managed to stop it as it was heading towards the ice front. We were still probably half

a mile away from the ice front, but if I had not caught it – if mine had stalled or something like that – and the Eliason had got away, there was a chance that it could have gone over the edge.

Track 13 [1:04:35] Chris Eldon Lee: *So did you have to leap from your vehicle to it or …?*

Track 13 [1:04:39] Paul Coslett: No, it was a matter: the method of stopping it was that there was a piece of metal which was suspended over the spark plug so you had to push that and hold that down, which then shorted out everything and it would stop. So I had to come along on my skidoo, put my hand out and try and push this thing down. Then it leaked away because it changed direction. So it took two or three goes to stop it. Then I went back and picked up Keith Gainey who was solidly plodding along the route of the tracks. We then went back, picked up the sledge, and went and joined them ready to go through the Crossing.

Track 14 [1:05:41] Chris Eldon Lee: *We are running a bit out of time, so I am going to pick on two or three things which* you *highlighted in your notes. One incident which initially does not sound surprising and in fact has got quite an interesting story behind it. You found some rocks actually on the surface of the ice, which I suppose at first you would not be particularly suspicious about until you start thinking about it?*

Track 14 [1:06:00] Paul Coslett: These were … It was Golly (John Gallsworthy) and I were out in January doing some late glacio work. One of the things that had transpired was that the glacio work was being transferred for next year from Halley Bay through to Fossil Bluff. It was tied in with an international scheme for what the glaciologists were looking at in particular all around the world for the next couple of years, and it was thought that Fossil Bluff was a more appropriate place for measurements to be taken than at Halley Bay. So just finishing off the work I was doing and making sure that the glacio triangulation flags were extended and had their new flags added on so that the triangulation scheme would not be lost.

Track 14 [1:07:13] Paul Coslett: We travelled out later in January when normally most people would be on base or right out in the mountains. So it was probably the first time anybody had been in this area at that time of the year and whilst we were looking at the flags, we noticed that in the bottom of a hollow between two ridges there were what looked like rocks. We went down and there were various rock and sand type materials, pieces of rock up to about a foot across, that were near the surface. It was obvious that there was snow above them, immediately above them had melted, because anything black tended to attract the sun and melts down into the surface. We brought various samples back and it was obvious that ice had been formed around these from melting but also it must have been probably at the bottom of the inland ice sheet as it came to the hinge zone. Ice which was at the bottom must have somehow broken off and been floated up to the surface and then as you get the ice shelf forming from the inland ice, you must at times get areas which form icebergs, and these bits float up between them. You have hence got the ridges and the hollows.

Track 14 [1:09:10] Chris Eldon Lee: *There was a rather special glaciologist request. David Peel in particular was trying to study particles carried in the air to the*

Antarctic and sent you off to get some snow for him, which again proved to be more complicated than first one might think.

Track 14 [1:09:29] Paul Coslett: Yes. The brief was to, so that he could find what order of quantities he was looking at, we were asked to send back blocks of snow about a foot cubed that went into the fridges in the *Perla Dan*, so they could be carried back to the UK. There were various ways of … Halley Bay by this time had been occupied for ten or twelve years, and hence if we had dug down close to the base, we would have found it could well have been contaminated by ourselves. So what we had to do was either go somewhere quite away from base and drop down in a crevasse, and dig out some snow from the side of the crevasse, or dig a very deep pit – would have been 30 feet deep to get there – or cut into the side of the cliff of the ice front. Go far enough back that any sea spray that was there would not have contaminated it. This was the course that we chose to do.

Track 15 [1:10:49] Paul Coslett: They sent down some equipment for us to try and maintain as sterile an environment as possible. They sent down a saw for cutting the snow, which was clean and had been degreased. They also provided boiler suits and gloves and shower caps. But they did not provide anything for our feet so we got this nice sterile atmosphere or look, but with our boots that were covered in bright debris, including probably seal blood where we had been in sealing. We worked at this each day for a few days to cut it out, right next to the ramp where they were bringing the stores up from the ship. So we used to get a certain amount of ribald comments.

Track 15 [1:11:56] Chris Eldon Lee: *What about the record player in the next cubicle, the next door record player? On base in 1967 you had an office at the end of the dining room and there was a record player on a bench on the other side of the wall. If you did not like the record they were playing, …*

Track 15 [1:12:18] Paul Coslett: Well there were various things. There was one record that was not very popular on site, that was *Salad Days*, and it went missing. It went missing and a few weeks later somebody found it in one of the water tanks. Was that the one you were thinking of?

Track 15 [1:12:42] Chris Eldon Lee: *No. You had a record called "Blood on the Saddle"?*

Track 15 [1:12:44] Paul Coslett: That is not a story that I remember, but certainly the glacio office was actually in the hut that was used for the kitchen, the dining room and then the glacio office. At the side of it was where we all kept our windproofs. So certainly the record player was against the glacio wall, but I do not remember *Blood on the Saddle*. [laughs] Whether or not that refers to Andy Wager or somebody like that …

Track 14 [1:13:29] ENDS

Snippets:

- Lecturer in Surveying was Alfred Stephenson (BGLE). Track 2 [0:08:00]
- Impressions of the West Store, Stanley. Track 7 [0:32:22]
- Leaking bunkrooms. Track 8 [0:36:14]
- Tank filling easier after huts drifted up. Track 9 [0:42:55]
- Midwinter buffet. Track 10 [0:48:55]
- Brotherhood evacuation. Track 11 [0:53:31]
- Keeping the Eliasons going. Track 12 [0:57:14]
- Wrong spares for the skidoos. Track 12 [0:59:21]
- The Eliason sheds its driver. Track 13 [1:03:27]
- Rocks found in the hinge zone. Track 14 [1:07:13]
- Sterile clothes but dirty boots. Track 15 [1:10:49]