

## THE HOPE BAY FOUR

Edited transcript of interview with the 'Hope Bay Four' conducted by Chris Eldon Lee on the 19th of October, 2009, at the Hope Bay reunion in Coniston. BAS Archives AD6/24/1/50/2. Transcribed by Allan Wearden, August 2019.

[Part 1 0:00:00] Lee: The Hope Bay Reunion group interview, Part 1.

Hanson: I am Tony Hanson. I was born in Marple, Cheshire, 31/3/36. So that puts me to coming up to 74 now, and I went to local school in Marple. Do you want me to go through? [Lee: Yes]. Then King's School Macclesfield, and then Birmingham University where read civil engineering and my first job was an appointment to Crown Agents as an assistant surveyor in actual fact!

[Part 1 0:00:40] Lee: Not in the Antarctic?

Hanson: Yes, and later to be in the Antarctic. So we straight after, well fairly soon after graduation our training at Tolworth started and there I met Don McCalman and a couple of others - Peter Forster and John Martin. I don't know where John Martin went to, but Peter Forster has long since expired hasn't he?

McCalman: Has he?

Hanson: Yeah he has. He went to Stonington. Anyway so is that enough for the moment?

[Part 1 0:01:19] Lee: That'll do for the time being and I'll come back to you. Don, tell me about yourself.

McCalman: Donald McCalman born in Glasgow on the 26th of September 1927, so that makes me 81. So I was the oldest, no second oldest on the base when I was there, the oldest was Denis Wildridge if you remember him?

Hanson: I do remember Denis yes.

McCalman: I trained as a teacher, went to Glasgow University with a Degree in chemistry, then a Master's Degree in education the year after. Then I went abroad to work in the overseas civil service as an education office in Kenya. Before I'd gone there I'd tried several times to go abroad, I'd tried to go to FIDS and I'd failed or I was turned down, that was it! When I was working abroad the local District Commissioner was Colin Campbell, a keen piper, and I was a piper so got to know him very well, and it transpired that he had been a Foreign and Colonial Secretary of the Falkland Islands in his younger days, and he said 'If you're interested to go there I'll put a word in with the Governor', no less! So he did. What he wanted and I was asked if by FICAL at that time 'Can't guarantee you anything of course, Donald, but we'll give you a sympathetic hearing if you turn up'. So I gave up my job in East Africa and went back into Glasgow and applied and was accepted for FIDS.

[Part 1 0:02:47] Lee: Did you ever find out why they turned you down the first time?

McCalman: No, I never knew.

[Part 1 0:02:50] Lee: And you became a Base Leader didn't you?

McCalman: I did.

[Part 1 0:02:53] Lee: A bit of a mistake wasn't it?

McCalman: Well it was Hope Bay's gain later on [laughter]. Well they offered me a job as some kind of an instructor at an outdoor mountain school in the Cameroons, which I turned down, so that's when I went to Tolworth and I met Tony and I met Peter Forster and John Martin and we all trained together as surveyors. I didn't volunteer as a surveyor I was more or less told 'You'll be a surveyor!' and that was it! And I was very glad as I thoroughly enjoyed my stay.

[Part 1 0:03:29] Lee: Chris Brading?

Brading: Chris Brading, yes I was born in Portsmouth in October 1932. During the war got moved with the family, so I then lived in Godalming and went to Godalming grammar school, and from there I had to do National Service which I did in the Middle East with an infantry regiment, and then went to university where I read geography with geomorphology and a botany subsidiary. And in my third year there, I think, I was the vice president of the Geographical Society and invited Professor Gordon Manly down to give us a lecture on the glaciology of Iceland. And I happened to mention to him that I'd seen this advert for FIDS for a glaciologist and I'd applied for it, and I think in retrospect he was gently pumping me, because when I eventually got an interview I walked into the interview room and the chairman, I think it was Quintin Riley, introduced Professor Manly, and he said 'Mr Brading and I already met'! It was still a searching interview but I got offered a job as a surveyor because the glaciology job didn't turn up, but I just wanted to go to the Antarctic, and I was trained at Tolworth and went down and joined Don McCalman at Hope Bay in 1959.

[Part 1 0:05:19] Lee: Quick supplementary - why, why did you want to go to the Antarctic?

Brading: I think it was Mallory who said 'Because it was there', but in fact I loved the mountains. I was a mountaineer and snow and ice it was just a magnet it was just so attractive! And in fact I had been climbing with a person that had been down as well, a chap called Ray Tanton who was tragically killed in an industrial accident sometime later.

[Part 1 0:05:46] Lee: Number four!

Harbour: Number four, yes, least but last. Well I'm the young one, I'm Richard Harbour, or Dick Harbour to everybody in the Antarctic circles. I was born 15th of August, 1936, so I'm the young one out of these!

Hanson: Only just!

Harbour: Yes only just but I am. I was born in Dulwich and I lived locally and then I went to Epsom Grammar and from there to Birmingham University, the same as Tony, and I read also civil engineering.

[Part 1 0:06:22] Lee: Had you met?

Harbour: No we didn't, no I don't think we did, if we did, no, no Tony was ahead of me I think so he looked down on me!

Hanson: But in actual fact, Dick, in the list of passes for MICE I notice that your name precedes my name.

Harbour: Oh does it! [Loud laughter]

Hanson: Right again, I noticed it the other day.

Harbour: Oh right. So anyway my situation there was while I was at the university on a Tuesday through the term time, they had a series of very interesting, well they could be lectures they could be recitals, it was open to the whole university and it was meant to give us a bit of culture! That was the idea from all the studies we did; the culture bit came with people like Elisabeth Schwarzkopf and Gerald Moore giving us a recital, which I have to say in those days would have sort of cost us an arm and a leg if we'd had to pay for it! Well among the people invited was a gentleman called Ray Adie. Now those Antarctic folk will know Ray very well, he had all sorts of nicknames, but he was the gentleman who in Fuchs' book of the Trans-Antarctic Expedition it opens with Ray Adie and Fuchs in a tent deliberating about whether they could do this expedition? Well Ray Adie was a lecturer in the geological faculty and we took geology in civil engineering, so I met the man there although he didn't actually give me at that stage any details of the Antarctic. What happened was he was invited to give a lecture, which he did on one of these Tuesdays, which was in the great hall with all slides and everything dancing away, and that gave me an idea - that looked to me as though that would be a very interesting thing to do. So I went up to see Ray afterwards and as I say I knew him then I suppose as Mr Adie and I said, 'Well I'd like to, I'm very interested in this and how do I go about doing this?'

[Part 1 0:08:35] And he said 'Well come back when you've finished your degree and I'll tell you'! So I did just that, so I went back to see him when I got the degree and he said straight away 'Right, fill in this form and I'll send it down for you', which he did. I then got an interview in London, I always remember that it was at Church House, in those days it was the famous Crown Agents. Unlike the gentlemen on my right I didn't get any esteemed person, I got two people who first of all asked me if I wanted to go to the Solomon Islands, and I said 'No, I think I'm here for the Antarctic or the Falkland Islands Dependence Survey'! So having sorted that out they then interviewed me and then I just had to wait and eventually I got the OK and I joined. Interestingly enough two other chaps, one was Frank Preston who's actually going to be joining us this weekend, he is a geologist from Bristol, and the other fellow was Howard Chapman, whom I actually knew from the civil engineering department

at Birmingham. So there's three people I know that have been spawned out of the civil engineering department that went down south!

[Part 1 0:09:53] Lee: OK. I think Ray Adie played a part in your life as well didn't he Tony?

Hanson: Yes he was known to me but also Raymond Priestley I believe was the Vice Chancellor of the university in those days.

Harbour: He was.

Hanson: And he was a Scott man I believe, so there was little bit of interest there.

[Part 1 0:10:10] Lee: What sort of man was Ray Adie?

Hanson: Well I was, don't think he was a lecturer as Richard said - he didn't lecture to us did he? - it was Professor Shotton who gave us ours.

Harbour: Oh well I can't remember now, can't remember.

Hanson: I think he was more of a Research Fellow.

Harbour: Well he was in charge of the Antarctic [Hanson: Yes] geological survey because in those days the FIDS spread their sciences amongst the various universities. Cambridge wasn't the forefront as it is today, for example I know the upper atmosphere was at Edinburgh, I seem to remember that's one at least.

Brading: Botany or biology was at Birmingham as well, [Harbour: Was it?], because I got involved with that.

[Part 1 0:10:56] Lee: I mean I was wondering what kind of man he was?

Harbour: Well Ray, I actually had a very good relationship with Ray, but then I wasn't a geologist and I think that it's important to say that, in other words I didn't have to produce a report for him so he didn't actually threaten me in any way, but actually he was very helpful to me and I think to a certain degree was probably responsible for my getting down there. And so well I think he was a good geologist I would say to be honest, but he was, I think, was very exacting to the people that worked for him; I think he believed in perfection and sometimes that wasn't easy. But the only thing is he had one important factor which I think is important, that he'd been down and done it, so that when they came back they couldn't pull the wool over his eyes, and I suspect that's another reason why they found it a bit tricky!

[Part 1 0:12:01] Lee: Generally speaking people of your generation seemed to feel the interview process was a bit vague, was that your experience Tony?

McCalman: Oh no, I never had an interview!

[Part 1 0:12:10] Lee: You never had an interview!?

Hanson: It wasn't very demanding at all. It wasn't they weren't asking searching questions, I think it was more about your temperament and how you were going to get on with others, rather than your ability.

[Part 1 0:12:26] Lee: Well so how were you selected then, Don, what do you think went on behind the scenes?

McCalman: Well it was really just the influence of Colin Campbell. He knew them at a high level, but nobody interviewed me because, I wondered, because in my degree in education there was psychology. Now I was thinking, now it might have been about something psychology maybe, 'Oh God, if you start to do that carry on you'll be shot!' [laughter] And I thought 'How do they select, how do they bear up and so forth?', but oh no I got too wrapped up I can't see it being very well received!

Harbour: I think one of the factors that was invaluable for them, not the people doing it is that all four of us, and I can say most of the people I know in those days went down because we were genuinely interested and we didn't go down because we wanted to survey, we did that as a means to an end!

McCalman: Oh agreed!

Hanson: But I think in the case of you and I Dick, and Howard Chapman, I think the survey course at Birmingham was very strong wasn't it?

Harbour: Yes it was.

Hanson: So I think that was probably an added.

Harbour: They knew they had some idea of what we were likely to be when we turned out, yes.

McCalman: Who did the interviewing Frank Elliot, do you remember him?

Harbour: Oh yes Frank Elliot, oh yes.

McCalman: Oh he was a building with bricks type was Frank Elliot.

Harbour: That's right he was.

[Part 1 0:13:52] Lee: And would you all say you were impeccably trained for your time in the Antarctic?

McCalman: As surveyors I was certainly very well versed!

[Several voices agreeing!]

Hanson: I think Norman Leppard did a very good job.

Harbour: Again, see, a man who had been down there and done it! And I think that there's no substitute!

Hanson: You almost felt we knew where you were going to before we got on the boat didn't we?

Harbour: Well he went to Hope Bay anyway.

McCalman: Well he knew the name of the job and he told us the aerial photography, where we'd do the triangulation, and he took us out to Epsom Downs!

Brading: That's right.

McCalman: At the race course there, and we triangulated the race course there.

Hanson: And still got that wrong! [laughter]

Hanson: But he invited us to his home and we really met him personally.

McCalman: Did I go to his home?

Hanson: I think you did, yes, and met his wife.

Brading: Ah, he didn't have a wife then!

Hanson: Well he had a girlfriend then!

Brading: Ah, he may have been married when you came back, but not before you went down.

McCalman: No I don't think so.

[Part 1 0:14:45] Lee: So do you feel you had a good basic training in surveying in the Antarctic before you departed at all?

McCalman: In fact one of the first jobs I did when I went down Port Stanley was to carry out a wee training course on mountaineering techniques, even though on dry land style because no ice, because I felt I was very keen mountaineer and we just felt we should do this on some of these rock crags outside of Stanley, do some practising rope work, that's all we ever got - all I ever got anyway!

Hanson: You remember in St Helena you did.

McCalman: Oh St Helena, oh yes!

[Part 1 0:15:23] Lee: Sorry Tony, go on. St Helena, what was that?

Hanson: Well we stopped at St Helena on the way south, and Don - I don't know whether you were by yourself or not - but he ascended the volcano.

McCalman: No that was Tristan da Cunha!

Hanson: Tristan da Cunha, I'm sorry yes!

[Part 1 0:15:39] Lee: You went up the side of the mountain did you?

McCalman: We walked up the hill there, I'll call it a hill!

Hanson: It was 3,000 or 4,000 feet or something, it took all day.

McCalman: Three or four of us started and I was the only one who finished! But then we came down and the weather changed, the wind got up and the boat took off! What was she called now?

Hanson: What the *John Biscoe*?

McCalman: The *John Biscoe*, she took off because she could only anchor off the shore that day and we had to be billeted on some people on the island, and when we went back on board again - was it Bill Johnson the skipper?

Hanson: He was yeah.

McCalman: I know he called me in, because I was so called King, what they used to call King Fid, the one who used to carry out the skipper's opinions for the sake of the Fids you see. And he said he wanted to see me and said 'What have you been up to?' and I said 'What are you talking about?' and he said 'They're asking these questions about your health', I said 'All I did was walk up the hill and I can't change the weather!' Bill Johnson said 'Oh don't worry about that they don't know what they are up to, just forget about it!' And so that was the last I heard about it!

Hanson: Yes.

[Part 1 0:16:44] Lee: Were you, I know you went at separate times, do you feel as though you were briefed about the job you had to do adequately? Were you told before you left Britain what you would be doing when you got south?

Brading: I'd say that we weren't, not compared to today. We were very lucky in that we had this chap Norman Leppard who'd spent three or two years and additional summers down there, and he was Ordnance Survey trained so he trained us very well, but he also was able to tell us a lot of about what we were going to encounter. And I think in fact in those days people were selected more for their, if you like, their interest in the Antarctic and their background of mountaineering and interest in the snow and ice, as much for their technical ability. We were all fairly - I was going to say fairly clever people - so we could probably pick up the survey and so on relatively quickly and easily, which I think we did. But I also do recall subsequently, because I spent the rest career in maps and surveying, 'Gosh, if I'd known that technique I could have with the air photographs have made a better job!' One in particular was on a day when the cloud was obscuring all the stations that I wanted to observe, if I'd only put vertical angles into known points that I could see low down they would have acted as height controls for the photography. Now I heard that later from somebody who had done it in polar regions before, and I didn't know it at the time, nobody told me it, wasn't written down in books! But we did pretty didn't we!?

[Part 1 0:18:34] Lee: What exactly were you supposed to be doing, what the point in going down and surveying the Peninsula?

Brading: Well it had only been mapped in reconnaissance to mapping with sledge wheel and traverse and there were big gaps in it, and it wasn't well controlled, it was, if you like, it was a bit floppy! [laughter] So when they flew this photography in order to make a map from it you had to have a rigid network of control points which you could identify in the air photography, which would allow you to actually produce accurate positions and contours from that photography, and so that's what we were charged with. We had copies of the photography and we fixed these points at roughly 20 mile intervals which rigidly fixed those photographs down, and there's some very nice 25,000 scale maps been produced from it. Nowadays it's done totally differently by satellite and the satellite photography that you know exactly where it is and so our effort wasted - not wasted but redundant now!

[Several voices: Not agreeing.]

McCalman: Well we achieved our dream of living and working in the Antarctic!

[Part 1 0:19:52] Lee: Well they are redundant now but were they redundant shortly after you did it in fact?

McCalman: Not really.

[Part 1 0:19:58] Lee: Not for some time?

Brading: Not really for another 20 or 30 years!

McCalman: At our time we were probably the last of the old fashioned surveyors and we used theodolite and triangles, you weren't there, maybe you people were using tellurometers?

Brading: Oh yeah we had seen them.

McCalman: I'd never seen a tellurometer.

[Part 1 0:20:14] Lee: Let's come back to that.

Brading: Yes let's come back, it's worth coming back to.

[Part 1 0:20:16] Lee: Let's, just tell me about the equipment you were using Don, because you were?

McCalman: We were using a traditional theodolite that meant in theory you observed three angles of a triangle which should add up to a 180 and you plotted that, and you got one point fixed and you had a base line, a triangle, and fixed the third point, and you did that over the whole country. But we did it manually with a theodolite whereas just when I was leaving and you were coming down they came up with these gadgets that you just shot rays across the space that measured how accurate was it.

[Part 1 0:20:54] Lee: So theodolites were using wheels on the back of your sledge or...?

McCalman: Oh no.

Brading: Not with the theodolite, no, because we were travelling with it, we in the areas where we had the reconnaissance mapping we didn't always use the sledge wheel but?

McCalman: Did you ever use the sledge wheel?

Brading: I did.

McCalman: As part of your survey though?

Brading: It wasn't part of the surveying no.

McCalman: No, just part of the navigation?

Brading: Because we did have these reconnaissance maps, but so I've lost the thread!  
[Laughter]

Hanson: But I think just to go back a little bit the principle of forming triangles and surveying was relatively simple.

McCalman: Only the concept.

Hanson: The concept, I think the hard part was the weather, finding your station, finding an accessible point, access to these points and inter-visibility and that sort of thing, which you you couldn't learn how to do, that it was just a little bit of experience, you had to build on your experience to do that I think.

McCalman: You had the triangles over the area and then one key place, you had to fix a surface, that meant astral navigation, you had to shoot up the stars and locate your position on the face of the Earth, therefore when you fixed your base line you had to fix that by shooting up the stars and that was a very cold and miserable occasion doing that! [Laughter]

[Part 1 0:22:20] Lee: By definition this was at night?

McCalman: Oh yes, very much so. I did it at Brandy Bay, Brandy Bay I did it with Sam Blake, remember Sam Blake?

Brading: Yes.

McCalman: Sam Blake, yes.

[Part 1 0:22:33] Lee: What do you mean by shooting up the stars?

McCalman: Well you shot up the attitude and the azimuth at the same time that gave you the material then to calculate the lat/longs from the stars!

[Several voices: Taken with a sextant and a time signal.]

Brading: It's traditional navigation but much more accurate for a surveyor because you are on a fixed position, but even then it can be anything up to a mile out, not because of your

observations, because the Earth is not perfect and you get anomalies of gravity in it which can pull the plumb-bob which you level your theodolite with out to the extent that you can be a mile off!

Harbour: Well I'm glad to hear that's why I was because I remember right, in this training course we were trained by, we were I suppose these chaps were the same, we had a gentleman called Stephenson or Professor Stephenson, he was the Professor of Surveying at Imperial College. And after Norman Leppard had done his thing on Epsom Downs we all got sent up to, I think its Silwood Park I think is the name of it, which was a field station for Imperial College, and he stayed in the college and we were up under canvas at this place, and among other things there were people rushing around with butterfly nets in the middle of the evening catching butterflies! Somebody else was busy picking, I remember, seeds out of pods and all sort of things. Everybody was doing their thing and we were required to do for Professor Stephenson we were required to do an astro-fix you see. So he was standing by, so we gazed up at these stars and logged them all on and then the next day we sat down to do the calculations, and when we'd finished that he checked them over and he said 'Well that wasn't too bad as I had a lot of people, but the only thing is you landed you reckoned you're in fact somewhere near Truro', which is about I don't know is about, Tony will tell us 500/400 miles away, 200 miles!?

Hanson: Oh no 150!

Harbour: Well 150, well then apparently he told us that was quite good, he'd had other people on the training courses who weren't quite so close as that! So I'm afraid this business of astro-fixing was a skill and I think my own personal thing is we didn't have a lot of practice at it. So I did an astro-fix at actually on James Ross Island and so on further south and I'm not quite sure whether my point landed in the right area or not.

[Part 1 0:25:19] Lee: But how can an astro-fix go wrong?

Harbour: Well the interesting thing about astro-fixes is when you look through your theodolite everything is upsides down. I remember being on Epsom Downs and apparently there used to be in couples on Epsom Downs [Brading: says something but can't catch it] - are you interrupting me Mr Brading? The thing on Epsom Downs as I remember it when we used to turn our theodolite around, there were people who in the springtime or in the summertime feeling a bit frolicky and they did take a very dim view of us gazing at them with a telescope while they were in the grass! I remember that, do you? But what they didn't realise was they were upside down, so the detail wasn't easy to see! And the same applies to the star, whereas the star in fact if it was rising when you look in the theodolite its actually falling, because it's upside down you get the opposite view, and to identify the star first of all with the naked eye and then to work the one you're looking at, because whereas you can see the heavens in your eye, when you look through a theodolite you only see a very small area, and you can't see the other stars to make sure you're on the right one. So star identification is not easy it takes a bit of skill, I don't think I actually had that skill!

Hanson: But for the sake of our triangulation in the Trinity Peninsula presumably one good astro-fix was sufficient for the whole lot, that would control everything? And presumably if you did it at Hope Bay and you do a 1000 observations you get a pretty good reading?

McCalman: I don't know if it was done.

Hanson: I thought Wally Herbert did it.

Brading: Well we could get technical about suggesting triangulations, you do need regular triangulations.

Hanson: Oh do you?

Brading: And so that you actually adjust the whole lot together.

McCalman: You said something that surprised me that I didn't know about, the accuracy of the triangulation, what did you say the accuracy of the triangulation was?

[Part 1 0:27:17] Lee: About a mile out.

Brading: Oh an astro-fix?

McCalman: No, no triangulation, triangle with ordinary theodolite you suggested you could be quite a bit out?

[Several confused voices!]

Brading: The mile out was if you do an astro-fix its true absolute position which you get nowadays from...GPS you could be a mile out quite easily and that's because of the deviation from the vertical by the degree.

Hanson: But your triangulation presumably is only a few yards out it not?

Brading: No, no if you fix it with that triangulation that astro-fix on that bit of the triangulation and you go 50 miles or a 100 miles further down, and you do another astro-fix it could be a mile out the other way!?

McCalman: But Chris I was going to ask you about the technical side of it when we were doing it, we were told by no less than Norman Leppard that when you do your triangulation you sum your degrees up and how many seconds a mark were we at?

Brading: Oh we had to, it was ten seconds!

McCalman: Ten seconds of arc?

Brading: Ten seconds, yes.

McCalman: And if it was over ten seconds you go back and do it over again!

Brading: Except that you had too. As I recall it you had to get four rounds within ten seconds.

McCalman: That's quite an accomplishment to me!

Hanson: It was an accomplishment and then you had to calculate your triangles and you had to make an allowance for spherical excess.

McCalman: We never did that!

Hanson: Which could be anything up to three or four seconds to make sure the triangles were within I think ten seconds?

McCalman: Ten seconds I remember that! As I say Bill, Bill Mitchell you'll see him this weekend [Brading: yes] he was with me booking and went back to the tent and totted them up and they didn't add up and had to do them all again. Bill was most annoyed at that at the actual fact we had to do them all again! [Laughter]

Brading: And we'd come down to our tents after doing this observing and would calculate and just check everything out and when we would build up a full triangle by three make sure it added up 180 degrees, but we also had this thing called spherical excess because any triangle on a sphere actually adds up more than 180 degrees! So we had to, well on a normal triangle its four or five.

Harbour: I think you're getting carried away with your professional experiences and not when you were in BAS!

[Lots of voices: Impossible to make out the comments!]

McCalman: More than was expected of us down there!

Hanson: We left that all to Anne Todd didn't we?

[Lots of voices: Again impossible to make out!]

[Part 1 0:30:03] Lee: It's a very good point Don how accurate, what kind of accuracy was expected of you?

McCalman: Ten seconds!

[Part 1 0:30:09] Lee: Ten seconds?

Harbour: Of closing a quad.

[Part 1 0:30:11] Lee: Well let's move forward slightly and tell me how the, Chris describes it as revolutionary the tellurometer?

McCalman: The tellurometer!

[Part 1 0:30:19] Lee: The tellurometer, what, how did it differ from what you were doing and how much better was it?

Brading: Well it was developed in South Africa in the, - I was going to say in the late '50's - and it was a radio system, a radio magnetic wave system, which actually measured the distance and very accurately in reasonable atmospheric conditions and literally it had never been used before and the Directorate of Overseas Surveys bought three of these instruments and they gave them to us for a short training course. To take this was this chap Norman Leppard in particular because he came down with us for that first summer, first we went to the Falkland Islands where with the two resident Overseas Survey surveyors, we measured lines and learnt how to use these instruments in the Falkland Islands. Then we went south on the Royal Navy ship, the HMS *Protector* with her helicopters, and we used them for the first time in a polar climate to measure across the Bransfield Strait from the South Shetland Islands to the Gerlache Strait and subsequently connecting to the main land, which couldn't be done by conventional triangulation because the distances were too great and we had all sorts of problems with these. But same as you can if you've got three sides of a triangle measured you know what the angles are as well, so you can use trilateration which is what we called it as opposed to triangulation to carry a scheme through. And the other beauty of it is you can put a line here and a line there and it controls the scale of your triangulation and much better than the old method, which Don did for Hope Bay originally which was using an invar tape to...

[Part 1 0:32:41] Lee: A tape measure?

Brading: What? A tape measure effectively! As a tape measure but it was very tedious!

[Part 1 0:32:49] Lee: So was the new-fangled equipment infallible?

Brading: Not entirely infallible. We had all sorts of problems with, if you had very nice weather you would get still calm cyclonic conditions you could get temperature inversions and if you had a temperature inversion it distorted the radio waves, and could get spurious measurements, but they were more or less nonsense so you had to wait till conditions were better to do it. But the real beauty about them is they operated through cloud they operated through light snow and you didn't have to, you had to have inter-visibility but not actually optically only electronically!

[Part 1 0:33:29] Lee: Right.

Hanson: I thought you didn't have inter-visibility because it would take the curvature of the earth into effect like from Deception to Tip or something on the West Russell Glacier, didn't you get that long sighting, that long descent?

Brading: Well we did get.

Hanson: And nothing was visible.

Brading: But it was a long sighting but in fact that measurement wasn't reliable!

Hanson: It was erroneous, oh wasn't it?

[Part 1 0:33:55] Lee: Did you ever compare a map with your more recent equipment to maps made in Don's day and see how much the difference was?

Brading: We certainly compared them with regard to where ice had moved and so on, you could tell the difference there. I don't recall we did any rigorous analysis of them, of how accurate the position was. But one of the most significant things was there were gaps in the old maps which were roughly sketched in and we got there, there were nunataks and glaciers that weren't shown at all. So it filled in the detail, it was more accurate I can't give a figure on it! [Laughter]

[Part 1 0:34:50] Lee: What was your clothing like, Don, in your day [McCalman: Well] custom made?

McCalman: Oh it was custom made I think, yes.

Hanson: The fabric was called ventile.

McCalman: Ventile yes.

Hanson: Know whether it still exists?

Brading: Oh ventile still exists!

Hanson: Is it used there now?

Brading: Actually I'll say it is used for certain purposes, both the tents and the outer windproof clothing was called ventile, and it is very, very good. What was less good and is interesting is most of the other clothing that is issued was ex-WD, it was from navy stores and things like that, so we had ordinary navy jerseys and we had string vests.

Harbour: And we had long white socks, submariners' socks, not quite sure - obviously they felt that we were going to fall in the water I think. Yes we had long socks I remember those and they were very good to keep your feet warm but also a bit cumbersome and that sort of thing. But I think the clothing, the essence of the four of us has survived I think that speaks. I mean I think now when I look at the clothing, now very envious of course, but they look like moon men! When you see them clad up you can go round you see and they've got about four grades of clothing now, depending on which base you go to. If you came round the BAS office this year, which all of you didn't I know but Chris did, and they showed us the four grades. You see if you go to Halley Bay if it's summertime you wore grade two, and if it was wintertime you wore grade four! Well all I can say is, if you wore grade four - mark you in Halley Bay in the darkness you certainly wouldn't be doing any surveying - but if we'd have been given grade four we would have struggled to do anything! [Brading: I think.] I think you'd you walk round like a Michelin Man really, and if you remember when you say, Don, when you had to twiddle the old theodolite well all we had was silk, silk gloves, then all the concession they did they put little chamois leather, little socks or little caps over the metal bits so you didn't actually lose your fingers, as you were doing it!

Hanson: So your fingers didn't stick.

[Other voices: Can't make out the comments!]

Harbour: So your fingers didn't stick there and you could get them off. But that was the difference, but I think myself that as today since their activities are quite different, they sit on machines now and roar along at sort of 60mph! So actually at that speed I guess you would need to be clad in number four, but if you were travelling with dogs and running you weren't quite at the same speed!

Hanson: You'd throw off the clothing!

Harbour: You'd throw off the clothing yes!

Brading: But there is one thing we did get - or I did - get very cold sometimes on a survey station because it was often windy and you could, I recall that sometimes I had spent up to eight hours to get observations at survey stations and I got very cold! So I made myself a duvet jacket out of a sleeping bag, and apart from the fact I was unpopular from all the feathers that flew around the base when I made it, but it did help observing! Now that is an interesting fact because duvet jackets were never issued to us but I think they were available at the time, but with clothing, apart from our windproof clothing and our tents, a bit shoe string!

[Part 1 0:38:30] Lee: Do you have any?

McCalman: I was very happy with what I was given, I never felt that I was short of anything!

Hanson: The mukluks that we had were very simple but very effective unless you got them wet, but in dry conditions very good.

Harbour: You see I mean one of the clues...

Hanson: A lightweight canvas boot.

Harbour: Yes that's right.

McCalman: With rubber soles, cleated soles.

Harbour: I mean one of the clues of it was to get air trapped all over you, and that's I think our loose clothing. I mean looking at them today, again I haven't experienced that obviously different but looking at the clothing today, it seemed be much more cumbersome and tight on them.

Hanson: And we were free.

McCalman: To run with your sledge!

Harbour: We were free to run with your sledge, that's right sledge. Yes if you're running with your sledge you got almighty warm, and if you perspired inside....

Brading: If you pushed it you got very warm!

Harbour: Yes, yes, especially if you fell over. So I don't know, I think really its ironical I think at the end of the day that the clothing we had oddly enough was probably suitable for the life we had, but I do agree that today with sitting on a machine, as Chris got cold with standing around for eight hours, sitting on one these put-puts that go roaring along the snow I think you'd get mighty cold! So perhaps you know that's reason why you got.

McCalman: I used my windproof for many, many years after I came back from the Antarctic on climbing trips and I've still got some my heavy mitts, very thick!

Harbour: Have you?

McCalman: Thick heavy mitts!

Harbour: The only thing I've got is the Shetland-looking or Norwegian-looking jumper! And I've brought it this time to wear specially [laughter] and the moths haven't got at it yet so I'm alright!

Hanson: I think probably one of the advancements now is they are more colourful, aren't they!?

Harbour: Oh gosh yes!

Hanson: But in our time [Harbour: Oh yes.] it was khaki and dark blue!

Harbour: Absolutely, yes! And their what do you call it, and when you look at Halley Bay, the new Halley Bay, by the way I went to Halley Bay the 50th reunion of Halley Bay, and I saw the slides of the building there and I tell you what, I couldn't live in it! It looks like a sort of McDonalds or somebody's burger bar, its brilliant colours now just imagine having to live with these stark yellows and oranges and things!

McCalman: As you said earlier on you were talking about why you went down and that applied to all of us. We had memories and stories about the days of golden exploration, and to some extent our kit copied that, our tents were the same, the pyramid tents that Scott used, maybe better quality material but same shape the same structure, the sledge were the same thing and didn't alter one iota! So we were still living in the way we expected to be living, and we were very happy with that combination!

Brading: And we were, we were definitely happy with that, and there were certain things that, I think we were a certain in between period between the heroic era and the modern era, and but things we did have radios but they were very poor radios! They were '68' sets and very heavy that were used by the soldiers, but although we modified them to a certain extent they weren't very reliable and often we would go for three or four weeks because the radio wasn't working without contact with our base so.

[Part 1 0:41:56] Lee: Did you worry about that, or was that just par for the course?

Brading: Sometimes it was a relief we didn't have to bother about it! [Laughter]

[Part 1 0:42:03] Lee: You were using Morse weren't you, Chris?

Brading: Oh yes we did. The base could talk to us with its powerful set but nearly always we had to reply in Morse, because they couldn't hear our voice on the phone. Occasionally you got very good radio conditions and you could talk on the phone but mostly it was Morse.

[Part 1 0:42:25] Lee: Do you think, I mean not just between base and field, you can now pick up the phone and ring the Antarctic, just dial the Cambridge number and get through to Halley Bay, has that changed the way Fids are today?

Harbour: Oh yes!

Brading: Oh yes, Fids today are totally different. As you know to be able to pick up a phone in the middle of an icy waste somewhere and talk to somebody back in England for 12p a minute is - and know its reliable - is quite different!

Harbour: I think what we feel is they are not Fids now; you see they are BAS now! I've got to be very careful about this, oh yes, you've got to differentiate they're definitely BAS!

[Part 1 0:43:04] Lee: What's the difference then?

Harbour: Well I think we've just summarised it, FIDS was perhaps a more casual and not quite so scientifically regimented, BAS today are. I think the difference is we went down to enjoy the Antarctic didn't we?

[Voices agreeing!]

Harbour: And we went down we did the job that we could get down.

Hanson: To the best of our abilities!

Harbour: And also the one that would allow us to get there! Today I think it's the other way round. I think they have a job and have a research project, the Antarctic gives them an opportunity to research something.

McCalman: For a Ph.D!

Harbour: So it's a means to an end for their career. It wasn't - I know Chris was lucky he held on to do surveying - but Tony and I and Don we didn't go back to surveying at all, so for us it was just a spell, again an interesting one of course, and very enjoyable.

[Part 1 0:44:00] Lee: So do you think that the cosseted communication available to the modern day BAS operatives, the people going now, means it is a different kind of person going?

Harbour: Oh there's no doubt about it, and as I say I think the other important thing to is, that we went down - I mean these chaps will agree with me I think - we didn't want to be in communication every five minutes. In fact we had these famous situations where the BBC would give you a message once a year from your dear ones.

Brading [?]: Once a month, Dick!

Harbour: Yeah, not your message you'd have a different one from different people, my parents only went up to the BBC once when did yours go up, every month?

[Part 1 0:44:48] Lee: So it was a monthly programme?

Harbour: [Very loudly] A monthly programme and one of us got a message!

Hanson: [Amongst others] A message each wasn't it?

Harbour: Well yes that's right, one a year or maybe two or three, but I know chaps that would actually go out and avoid it because it was so embarrassing! It was dear Auntie coming on and saying 'Oh now Johnny did you get my cake?' and Johnny would wince and everybody would shout 'Where's the cake then?!' [Laughter] We missed out on that and this sort of attitude and so most people winced and went away. Well of course we didn't tell our parents that, when we said 'Lovely to hear your voice', but many of us I know felt very embarrassed!

Hanson: One of them said 'Well now we know what your job was like!' [Laughter]

Harbour: Yes, that's right. Yeah it was a bit of a giggle. So the thought today that you phone up, gosh no way! After all it's a bit like everything else, when you go on holiday you don't really want to phone up Piccadilly or the local shop round the corner to find out whether they'd got your order or something, you go on holiday you want to leave it behind!

[Part 1 0:45:54] Lee: You weren't on holiday you were working. I was surprised to hear Don say he was grateful he couldn't get in touch with London.

McCalman: I didn't worry about that, never even thought about it again. The difference then and now is it was more physical than their life down there - we had to fight to keep ourselves warm, to do anything you had to battle the elements! But now they try to keep you separated from the elements, but we did, we revelled in that kind of thing. Popped out of the base one time to see, to experience a 100 mph blaster wind. Yeah, that's the kind of thing we did it was physical, but as now you get the impression you're not doing the job properly if you get too cold or whatever. You expect to feel cold at times you expect to be miserable, we expected to have difficulty with your colleagues, you had fights and all that kind of thing, in the end it never happened!

[Part 1 0:46:52] Lee: How much attention would you say you paid to health and safety in your day?

McCalman: Nil!

Brading: We'd never heard of it!

Harbour: We paid commonsense, and self survival is what we worked on and you don't need health and safety! As a construction man in civil engineering all I can tell you is that health and safety half the time is actually an inhibitor and not a - agreed Tony? [Hanson: Yes] - and

not a help, and it inhibits! I'll tell, you why it does that: if you haven't got health and safety round your ear holes every five minutes you are much more alert to what's happening to you and where you are, and you're much more aware of what's going on! If you have today's closeted games then people just shut their eyes and ears and they just blunder around!

McCalman: There are some rules for example - you were discouraged, you were forbidden from making any dangerous sledging trip with less than two people on it, but we always had to have three and maybe two sledges for the simple reason.

[Part 1 0:47:52] Lee: Three men and two sledges?

McCalman: Three men and two sledges or sometimes four men and two sledges depending on where they were going to do it, because that...

[Part 1 0:48:01] Lee: Was that Fuchs' rule?

Brading: Well no. It was actually, it was because of a tragic accident on King George wasn't it, when Tink Bell went down a crevasse - and that's another story - but he did die in the crevasse and there were only two of them, and the one person had tried to rescue him, but it had gone wrong so he fell down a second time and died! But as a result of that I think it was the Governor said that we all, if we were travelling on the mainland and we ought to be travelling in at least three, because then hopefully you've got two people [Lee: Effect a rescue?] to rescue the other person. It's very difficult to get somebody out of a crevasse who's been injured with one person because if they can't help themselves!

[Part 1 0:48:55] Lee: Did you always follow that rule or did you break it?

Brading: Are we allowed to say that we didn't!? [laughter]

[Part 1 0:49:01] Lee: 50 years later!

Brading: Well yeah, I mean we didn't always but we were aware of the dangers but there were certain things, for instance...

McCalman: You took them in your stride yes, you certainly took them in your stride.

Brading: Yes, and because we were travelling in crevasse country and we were putting our feet and our ski were sometimes breaking through crevasses, but most of the times we got across them but...

McCalman: You'd never bother, going from Hope Bay to View Point, and we seldom kept to that rule.

Brading: Yes.

[Part 1 0:49:34] Lee: You did actually between you effected two or three crevasse rescues didn't you?

Brading: Yes.

[Part 1 0:49:41] Lee: Ian Hampson, Ian Hampton rather, tell me that story. Who was involved in that?

Brading: Well I was involved in it and so was Dick. We were in fact two survey parties that met up at a point on the mainland up in the mountains, and so that we both knew which point it was so that we could share later to make observations to it. And we'd finished reconnoitring this and we were on our way down the glacier and Ian was, the conditions were very bad and Dick will tell you we shouldn't have been travelling and with hindsight he's probably right! But Ian was leading with one sledge and the dogs sheared - they saw a crevasse and they sheared and went sideways and then went across it, and the sledge went sideways and went down the crevasse and Ian came off, and although he had safety line that came off as well and he fell about 70 feet down the crevasse, and he was still conscious. He'd actually dislocated his arm - we thought it was broken - and had a severe scalp wound and was semiconscious, and I skied up to him and so did drop a rope which he was able tie on to, which was fortunate, and I anchored him with an ice axe. And then we proceeded to sort of rig up, we put a sledge across the crevasse with a pulley on it and a rope and put a second rope down to him, which he was still able to tie on to and we were able to pull him out! Now we were a party of six so there were five of us to get him out which helped no end, and then meanwhile the other guy was putting up a tent, and put him the tent, and Ron Tindal sewed his scalp back on which was quite a number of stitches and....

Harbour: He was the dog man who would normally patch a dog up you see! [Laughter] So he was! Well the dogs did need some treatment but they'd treated Ian first, so he'd used the needles from the dog pack to help sew his skin back up on his head! But then after that the dogs, we did have problems with the dogs, some dogs got caught with the rope.

Brading: Yeah. What happened was, the sledge went down and was just hanging vertically in this 70 foot deep crevasse by the main trace, and the rear two dogs acted as chock, the rope pulled into the ice or the snow, and so the sledge was swinging there, and these two dogs were jamming it! And so we secured the sledge with another rope, and cut the trace and released the dogs and one of them actually died - obviously it had internal injuries - and then I tried to, I was lowered down to the sledge and tried to unload it box by box and it was quite impossible, so I came back up and we lowered the sledge to the bottom of the crevasse, and then I went down on the rope and unloaded one box at a time and they were pulled up, and I crept off sideways along the crevasse so that the chunks of ice that were falling down from the top weren't going to hit me! And so we eventually unloaded the sledge and got the sledge and all the bits and pieces out.

[Part 1 0:53:29] Lee: How was Ian's arm repaired?

Brading: Well at the time we had, I think, it just strapped up. The head wound was the most serious thing and that first night he was, he was hallucinating and semiconscious, and Ron Tindal, who was sharing the tent with him, said at one time he thought he wasn't going to survive the night! But in fact he did and then gradually got better. He had bad concussion but the....

[Part 1 0:54:02] Lee: In the case of the arm, was there somebody to put it back?

Brading: That happened later not for - the first thing was, we tried to get in radio contact with the base and although we had a slot for emergency purposes the base didn't hear us! But fortunately 600 miles away at Signy, Ron Pinder, the radio operator there, actually heard us, and he relayed the message to Stanley, and Stanley consulted a doctor and told us to treat him for a fractured skull basically. Meantime they also managed to get in contact with base - we were 120 miles from base with mountains in between which was a problem, and they found our doctor but he was out in the field! So a chap called Keith Allen went out and found him, also made what we called an ambulance sledge, with mattress on it, and they did what we called 'the mercy dash' down to where we were - took five days. Dick and I went to meet them and led them in to where the tent was with Ian in it, by which time he was very much recovered. He was - apart from his painful arm - in fact he was weak and had a headache a bit and then he was sledged back to base, and it wasn't until we got back to Hope Bay, or they back to Hope Bay, that Neil Orr was able to borrow some X-ray equipment from the Argentinian base which was also at Hope Bay, and discovered that it was only a dislocation and it was the elbow and was able to reduce it and....

[Part 1 0:55:55] Lee: How did you know what to do because you had not had crevasse training had you?

Brading: Well! That's not quite true. We didn't have crevasse training back here, but I was a mountaineer and mountaineers know roughly what to do even if they haven't had specific training, and Keith Allen who had been in the mountain rescue during his National Service so he was very good at it and we learnt from each other, we taught each other, and we swapped ideas around so we knew the techniques and it was just a question of putting them into practice.

[Part 1 0:56:41] Lee: There was somebody else wasn't there at that time?

Harbour: Yes I was there!

Brading: Dick was there, he was there at the time yes.

[Part 1 0:56:47] Lee: Do you want to add anything to that account?

Harbour: No I think that is very, very complete really. All I can say about that thing, it's quite an important one thing which you haven't mentioned but others may have done, and that is this business of switching or taking out half the base each year and bringing half new chaps in and that actually worked very well. That was just common sense but it was just perfect because the second year folk, or put it this way this way, the first year you were the junior and commonsense, again without health & safety, meant that if the second year chaps gave some good advice you usually took it - you were a bit silly if you didn't. There was one or two people that were a bit hot headed, but usually found out at the end of it that the advice was better! Then the second year you were able to, this is as Chris said you see, you were able impart this knowledge that we'd gained the first year, and as Don said 'It's a hard taskmaster down there, doesn't allow too many mistakes'. So that's very important, and I

think in this case the fact that Chris was a second year and I was a first year, and that applied to Ian Hampton who was a second year, so that helped a lot, and so there was a lot of mixed experience there and I gained, in my first year, I gained then a lot of instruction on useful things about crevasse rescue! And there's nothing like being on actually in the event you learn the quickest that way, so I think that's a good example of how things went and I think that it worked well like that. I don't think training - training is very good - but I'm a bit sceptical about training. People that go on training courses are the people usually you can least useful so you can expend them, so you send them on training course and the rest of us do the work! [Laughter] But there's no doubt about it, if you are actually on an experience, right in the midst of it and you have to be, we were told roughly what to do us chaps, do this do that, which we did, there's no substitute for that!

[Part 1 0:59:07] Lee: There was another rescue of a chap called Bill Mitchell?

McCalman: Oh yes.

[Part 1 0:59:11] Lee: That was you, Don, was it? Is that a different story?

McCalman: Oh yes. It went more like clockwork with us, it was a classical rescue! We were camped at overlooking Jacquinet and I told you about Bill was annoyed when he was told he would have to wait that night, we had to wait because my figures didn't add up and we would have to up again. And then I asked Bill if he would fix up the aerial, I said 'Put it out that way, Bill', and away he went off with the pole and this cable, and left him to it. And because then we were doing our inside work getting the tent ready and suddenly we wondered 'Where's Bill?' And so looked out and no sign of Bill, then we saw the post cut at an angle and over there we saw a very small, little hole there by the big stick, and 'Where's Bill?' was down there, about 20 or 30 feet down. He was stuck in a crevasse, he wasn't hurt he was able to talk to us and then we already practised, I was a mountaineer did several seasons in the Alps, and we had prusik loops with us, so we got the prusik down to Bill, he was a mountaineer as well, he clipped on, we ran a safety line up to the sledge so it was well anchored and then he prusiked most of the way until we got a rope down to him again over the top, and two of us leaned over the lip and up there no problem at all, it all went very smoothly!

Harbour: Then you had a good cup of tea I hope!

Hanson: Was it a wide crevasse?

McCalman: Pardon? Oh, no it wasn't very wide crevasse, probably at the bottom 20 or 30 feet?

[Part 1 1:01:08] Lee: You each of you seemed have had at least one near miss yourselves, each of you seems to have one moment when a lesser man would have feared for his life?

McCalman: Well I thought that certainly, it was my first season down there and we were landed on Livingstone Island, when we went to Livingstone Island that I was landed with the

geologist round the corner dumped on the piste there. Does anybody remember Graham Hobbs?

Brading: Yes, yes.

McCalman: He was pretty clueless, was Graham!

Brading: Was he? Yes!

McCalman: Oh aye and we were, my task was to fix some stakes in the glacier. He was doing geology and I was to put these stakes down and shoot up the ice and see how fast it was moving, and we were crossing the glacier and it was summertime, warm, and it was dangerous because we were breaking through! And I put Graham in the lead and he carried on and he always kept going the wrong way. I thought he was breaking through the crevasses and I was getting a nervous wreck following up on the rope and watching breaking through the ice, and I said 'Stop now Graham, I'll take the lead and make sure I don't go through a crevasse'. So I went on my way and what happened was I went into a crevasse and I vaguely remember the crevasse cracking, me leaning forward and then I was down and leaning forward, and my stick came up and I was left dangling with one arm because my ski stick was across the mouth of the crevasse, my legs and skis down below! And I yelled to Graham 'Belay me, belay me Graham!!' So he belayed me and got the ropes out, took my skis off and just dropped them down the hole and left them there, and we got the rope out and he managed to pull me up using prusik techniques again and I got out, I wasn't down it I was just stuck on the surface and he got me out, and I tested his belay just pulled and he kept on pulling [laughter]. Oh dear I could tell you another story about Graham but that's not fair! [Loud laughter]

Part 2:

[Part 2 0:00:00] Lee: This is a group of four Fids recorded at the Hope Bay reunion in Coniston by Chris Eldon Lee on the 19th of October, 2009. From left to right they are Tony Hanson, Don McCalman, Chris Brading and Dick Harbour. The Hope Bay Reunion group interview, part 2. which starts with Tony Hanson.

Hanson: My first year was spent at base 'J' which is....

[Part 2 0:00:30] Lee: Prospect Point!

Hanson: Prospect Point, Graham Coast, yes just south of Argentine Islands, and there was some little islets just off the base and I think the currents there didn't allow the sea ice to form properly, or if it did it thinned itself. There was always a weakness there, and we were making a journey across the sea ice. At that time we were exploring routes up to the Plateau and we had, I think there was three of us, and so we were obeying the rules, [laughter] and a chap - Ken Kenyon I think his name was, - yes, he went through the sea ice and when you do that you get, well the sledge kept going fortunately though you keep paddling with your feet

and he got very wet! And although we camped fairly soon the frostbite set in and fortunately we made a rush back for base, and he recovered 99% at base.

[Part 2 0:01:39] Lee: How do you dry out a Fid who gets into cold water?

Hanson: Well it's difficult because once you take your clothes off, your boots off, you are even more exposed! You had to get the Primus going and heat up the tent and get them huddled round the Primus as quickly as possible!

[Part 2 0:01:57] Lee: So you're drying your clothes round the Primus stove?

Hanson: Yes, well I suppose you get into your sleeping bag once you've got your wet boots and socks off, get into the bedding if that's still dry, and well I think that's how it was at the time as I remember correctly.

[Part 2 0:02:18] Lee: Dick, I think there's a helicopter involved in your near miss isn't there?

Harbour: Oh yes, two!

[Part 2 0:02:21] Lee: Two!?

Harbour: Yes, yes. I only had two, I think I've got seven lives left! [laughter] Oh that was inevitable really I suppose. The *Protector*, as Chris had said earlier, every summer we did a summer survey which was again was very interesting. It was an extra perk we got, I think, in our years because of this concentrated survey work. What they did is this business of in-tying islands, the sort of islands that Tony was working at, these islands and the South Shetlands, trying to get these tellurometer lines across and so on and they weren't all successful. So every summer *Protector* came along and I was involved in two summer surveys - yes that's right - so they would land us on islands which otherwise very nearly impossible to get to, even with mountaineering techniques, because you got sort of 200 foot of ice and snow wall you see, so they would land you on the top! Well in this case actually I think was on Nelson I dare say, the facts don't matter but I think it was Nelson - I can look it up - but what we did then there was two of us in the helicopter - now this is where health and safety makes an appearance, you see? Because as I understand it today if you fly over water in anything, even if you are flying with your micro-light if I guess you can do it, you have to wear a wetsuit! But in our day seeing as you were going to be dumped on top of an island and you're not quite sure how long you are going to be there it wouldn't be very practical to have a wetsuit, and so we actually just had our Antarctic gear, so that would obviously not be possible today! But we were there, and the tent itself used to go into the helicopter and was very fortunate it went in a special way then it wedged, and it wedged in the cabin below and you sat sort of very closely round it. And that really saved the day to certain extent because we approached this spot, it was rocky knoll really actually up on, I think again, as Tony had said earlier and Bob to find the right place you can make a cairn on, it's not easy, so this was one case where there was some rock, so we approached it. Now the helicopter pilots are extremely skilled, one can only say one had tremendous first of all admiration for them and secondly we implicitly entrusted ourselves to them! And they trained and trained and had all sorts of great fun in dropping blue bags out of the plane on to the snow and practising

landings they were down there for training as well, and that was good. So anyway in we come and what they would never do is never land, well would land on a flat surface but when it came to come little knolls and things they'd never land, they'd put their front wheels up against the rock and then you'd jump out!

[Part 2 0:05:36] So you could sometimes jump quite a distance but that's the way it was and you'd hand the stuff out quickly as you can, and they would keep the engine revving and the attitude of the helicopter would be slightly forward, so anything that was wrong they could lift off and try again. So there we were doing, well we came into this place before I'd actually slid the door open ready to do this jump, but obviously a gusty came round the corner, round the top of this thing, which we weren't ready for, nor was the pilot, so it threw us to one side! Well he put full power on, well unfortunately by that time we were at an angle so our blade hit the ground, and that sent us spinning, so we spun down the mountainside for a bit. What happened inside was I revolved round the tent, as the helicopter went round I went round the tent literally, I mean I got shoved around, but because it was all confined didn't actually get hurt which was a miracle!

[Part 2 0:06:38] The only thing was, because I landed upside down - well the helicopter was upside down - and when we stopped and eventually by luck it was upside down because the underneath of the helicopter is where the fuel is and the one great thing you worry about in helicopters is catching fire, because they have magnesium in them, anyway they go up puff!! So the engine revved, I remember hearing that, it then seized because what happened is when the rotor head got stuck in the snow because it couldn't revolve so everything snapped and the engine then just raced and eventually it just seized! And there was dead silence and fortunately for us by the will of God the fuel ruptured underneath and ran down the opposite side of the engine and so it didn't catch fire! Well anyway it was then dead silence and I was upsides down and my chum who I'm happy to say is still alive jogging along that's dear old Jim Franks.

McCalman: Oh yeah!

Harbour: Your neighbour Don, well he was with me there. Well Jim is renowned for being - I can say this with pride - he's a very cool man, he doesn't get excited quickly which was just as well really! [Laughter] You could say on certain occasions you might want him to act a bit quicker but this was good, but you see he was very calm so he was hanging upside down in his seat with his straps on and I, because as I say was about to jump out, I had taken mine off so ended upside down, we were upside down. The door - and that was another great thing - the door had been opened by myself because when we eventually finished we couldn't open the door any more so there was a gap, just enough. So I shouted to Jim 'I think we ought to get out Jim, as fast as we can!' At least we knew that but of course he couldn't move, so I knocked his - on these harnesses like on a plane you bang the thing and that releases it - so I banged it and of course he was upsides down so he bumped his head so he wasn't too pleased!

[Part 2:08:38] Anyway that woke him up pretty quick so he and I got out, by which time the pilot was still, he was shocked, he wasn't concussed because he was all strapped in with his head gear and everything. But he's seen it all happen, we hadn't we'd been inside, so he was really very shocked to say the least! And he didn't move, he wasn't hurt but he was just simply stunned! So we got up quickly when we realised the thing wasn't going to catch fire, we scrambled up again. Being upside down he was difficult as well but thanks to Jim we opened his door and we helped him out - his name was John Hedges, always remember that name, and we sat him on a rock because he really, really was completely puzzled. But he had a bleeper on his side, which is one these things and he managed to tell us, and we banged it and it bleeped! The only thing at that stage was that *Protector* was at lunchtime [laughter] so actually while they were eating their soup there was nobody to listen to this helicopter which was rather unfortunate! So we sat there and we kept him, he was alright he was clothed fully and kept warm and eventually they realised, as Don did with Bill, that the helicopter hadn't come back, so they suddenly thought, 'Oh!', so they sent another helicopter in search so it came round and then we had to give some waves and so on halfway up the mountain!

[Part 2 0:10:07] And eventually, they didn't recover the helicopter it's still I guess it's still there. They, first of all they wanted to take all the goodies out of it, obviously as much as they could, so they anchored it with ropes and when we'd taken all the stuff out, all the marines came ashore. This was a great exercise, great fun for them, travelling up and down picking these bits up! But when they'd finished they thought it the right and proper thing to do - even in those days we weren't environmentally conscious - rather than have this conspicuous helicopter on the hill, the idea was take the ropes off and push it. [laughter] Well everybody pushed and it wouldn't go, so it stayed there and it was firmly, but just beyond where we were there was another fall of round about 40/50 feet, which again by good luck we didn't do that because that wouldn't have done us any good to go over there as well!

So there we are, and the second time was similar, but I was in the sea! It ingested a piece of ice when it was landing which went into the turbine, well the first one was a petrol driven one, the second time they were turbo, they had turbines and the ice stripped the turbine blades, so again super pilot which actually his name was Bob Balls, I remember that name too! He got an OBE or some recognition for saving people in the North Sea, he got them off the oil rig when it caught fire! He got an award for that because he actually left the navy and joined one of the oil rigs, obviously better money I should think, but he was brilliant, he just sat there and shouted sort of 'Mayday, Mayday', very quietly about it, landed the helicopter! Because they have floats they can inflate round the wheel floats which they did, so landed on the water. The trouble is it's not very stable and as the water moves it tends to do a bit of a wobble. Anyway they got out and because in those days, by this kind of stage more modern, we had what they call a winch-man so he organised us inside, because we weren't upside down or anything like that, so we all got into little dinghies, rowed away, and then slowly the helicopter sort of went upsides down and you could see the four wheels in the water. So they sent the divers along, the ship came as near as it could and then they went off and the divers went down and fixed a rope, put a crane over and they hauled it up! The only thing was as it came up as there was a lot of water in of course, and the tail dropped off because it wasn't

strong enough with all the water inside so they lost the tail, but they got the engine. That's how they know when they got back to Portsmouth as they checked up and they found one of the blades in the turbine that was stripped!

McCalman: That wouldn't have happened with dog sledges!

Harbour: No, no absolutely no! [laughter]

[Part 2 0:13:02] Lee: We were discussing near misses Chris Brading, and you've got one story to add haven't you?

Brading: Yes. We were depot laying and it was in the winter up the Russell Glacier and we'd had great difficulty with the surface, it was really bad, and we got halfway up and dumped one of the loads then the weather deteriorated and we went back to our tent. And we went back to a campsite area and we were misted in I think for two or three days and then it was a really beautiful day. So we decided incorrectly to, as it was only about four or five miles we had to go, that we would leave most of the camp standing, just take one small emergency pup tent, and we had three sledges and four men, and all this equipment was on the sledge with the two men and the other sledges were full of the depot. So we got up to our depot area, we found a place to put it, and we were unloading the sledges and putting it on the rock when the weather suddenly deteriorated as it does in mountains! And before we knew where we were going it was doing about 40 or more knots and drifting snow way above our heads and so we dumped the remains of the depot on the snow and the two man sledge led off down the glacier and I was second and chap called Keith Allen was third with the third dog team. Well we couldn't see a thing, and dogs going downhill with the wind behind them and an empty sledge, I mean it's almost incredible to describe, it's a rollercoaster ride, [Laughter], and I had great difficulty in controlling the sledge and eventually managed to stop the dogs, and I'd no idea where I was - four miles is a long way - and managed to stop the dogs and picket them, and thought 'What on Earth am I going to do?' Then miraculously, perhaps following the dogs' trail or something, Keith Allen arrived with the second sledge and he'd overturned and been dragged two or three hundred yards along with the sledge until he'd managed to stop the dogs! So there we were standing there wondering what on Earth we were going to do, we didn't even have a shovel between us to dig a snow hole! Then almost miraculously there was a slight lull in the wind and about quarter of a mile away we caught sight of the tent and although the weather deteriorated again the dogs had seen it as well and they got us back to the tent, and I think the significance of that is that the temperature was -27F which is, well, 50/60 degrees of frost, and if we'd been caught out that night we would have been in real trouble!

[Part 2 0:16:20] Lee: Don McCalman there's a story to do with HMS [Note: RRS] *Shackleton*?

McCalman: Well that fact not quite accurate, it's to do with the extra bodies. I thought that story stemmed from the accident to the *Shackleton*?

Hanson: You mean the holing of the *Shackleton*?

[Part 2 0:16:34] Lee: Tell me first of all about the problem with the *Shackleton* please.

McCalman: I don't know anything about that!

Hanson: No I wasn't, I only know that the *John Biscoe*, I think I must have been on the *John Biscoe* at that time, that was called to assist the *Shackleton* which had hit an ice berg just north of South Georgia on its way into Leith. And I think it was very serious at the time and I remember....

[Part 2 0:17:01] Lee: This was in '57?

Hanson: It would be '57 probably.

[Part 2 0:17:07] Lee: Yeah and you were all on the *Biscoe* going to the rescue?

Hanson: Well we were called to transfer the cargo and pick up some of the Fids I think, but Denis Wildridge was the man of the moment, though in the way he tells the story! Can you remember that Don?

McCalman: No I cannot!

Hanson: Oh well, he, Denis, was a carpenter and when they realised water was coming into the hold and very quickly they manned the pumps, but they weren't able to, they just managed to contain the inflow of water! And Denis got his little team together and I think they threw some of the cargo overboard and found some of the timber for the base hut, and used that to shore up the hole from inside the hold and jammed it with cement bags and hessian and stemmed the flow! And I think that was sufficient to enable to limp into, it would be Stromness or Grytviken or something like that.

McCalman: How was Denis involved?

Hanson/Brading: He was onboard!

McCalman: How was he onboard then?

Hanson: Well he was on his way south.

McCalman: No he couldn't be not that time because he was down with me in my first year, and this happened during in the summer of my two years, it must have been another incident.

Hanson: '57 it was on our, weren't you on the *John Biscoe* at that time, didn't you go there?

McCalman: No I don't remember that being with the *Shackleton*.

Hanson: Well perhaps you'd been dropped off at your base then?

McCalman: No it couldn't have been, not on the *Shackleton*, but that wasn't the same as I thought the *Shackleton* was in my second. During the first summer I was down there and that's where the *Shackleton* had the trouble, a lot of the goods were lost because of the water and so forth, and there was a lot of extra bodies around then because they had no place to put

them, and an SOS came out from headquarters from SecFIDS about accommodating people and any other ideas? And I remember talking to a group to try and see if we could get some extra bodies and extra stores and so on. I remember discussing that to share the hut and there was a bit of reluctance to accede to it! But saying we could use hot bunking and using View Point and we put in a bid for another six people, that's when people like Bill Murray came.

Hanson: Yes.

McCalman: Bill Murray, who else now?

Hanson: But I was in that group too, that's how I came to Hope Bay!

McCalman: You came, yes.

Brading: That was a year later!

Hanson: Yeah that was a year later.

McCalman: Well it must have been a separate thing.

Hanson: I thought the reason we came to Hope Bay it was because we couldn't relieve base 'W'?

McCalman: Because you were almost redundant almost at that time I guess.

Hanson: So?

McCalman: You were looking for a home!

Hanson: We had *Edisto* and *Northwind* both trying to get into 'W' and we were about 20 miles off, do you remember that Chris, because I think you were...?

Brading: Yes that's right and also the helicopter.

Hanson: The helicopter, the *Protector* was there possibly.

McCalman: Do you remember when Bill Murray joined us?

Brading: Yes the same time as Tony did!

McCalman: That's right they were released from their own future because of the ice.

Hanson: Because it was base 'Y' and base 'W'.

McCalman: Yes.

Brading: And 'E', Stonington, wasn't relieved. Three bases weren't relieved so there were all these spare bodies that had to come out then, but the *Shackleton* was the year before actually when you went down and you couldn't have been on the *Shackleton*?

McCalman: No I wasn't on the *Shackleton*!

Hanson: No we were on the *Biscoe*.

Brading: But, so?

Hanson: You were you were with me! [Loud laughter]

McCalman: No I wasn't with you that time!

Hanson: When you went down!

McCalman: Oh when I went down yes, but that's not the story I'm telling you!

Brading: Oh you're telling a different story!?! [laughter] The story I've heard about the *Shackleton* was definitely from Denis Wildridge and....

Hanson: Well have you heard Denis repeat that?

Brading: Oh yes.

Hanson: Yes?

Brading Yes, numerous times!

[Part 2 0:21:30] Lee: This is when the *Shackleton* was holed?

Hanson: Yes, and from his account he more or less saved it!

Brading: Yes he saved the ship, yeah. He built effectively a coffer from where the water was coming in and they had these cement fondu quick drying cement and they just piled these, and of course they set and effectively....

[Part 2 0:21:55] Lee: Plugged the hole!

Brading: Plugged the hole, and the business about the pumps because they were having problems with the pumps, because of all the cargo floating around in the water kept blocking the pumps!

Hanson: Yes.

Brading: Yes, Denis was always telling that story, yeah!

[Part 2 0:22:09] Lee: So was the consequence of that, it is before your time the year before you Don?

Brading: No it was the year he went down!

[Part 2 0:22:15] Lee: Right.

Brading: I think?

McCalman: It's a separate issue then, when was our numbers increased from 12 to 18 then?

Hanson: The next year. [McCalman: Why?] Not your first year the second year!

McCalman: Oh my second year, yes!

Brading: The second year when I first came down.

McCalman: But you came down through the normal channels didn't you?

Brading: Yeah and I was stuck on Deception Island for six weeks not being able to get into Hope Bay because of all the ships were frozen in down south, further south, till eventually *Protector* flew me in in the middle of March, and you sent me out straight away to Broad Valley, to do the Broad Valley survey! And while I was out the refugees came in, which was Bill Murray, Tony, and Ted Clapp!

McCalman: Ted Clapp, yes.

Brading: And?

McCalman: And another meteorologist chappie - what was his name? - there was six.

Brading: There were four, there were four extra which went from 15 to 19.

McCalman: Oh I thought we went from 12 to 18?

Brading: I think we went from 15 to 19? [Laughter]

[Part 2 0:23:17] Lee: Well according from the notes I have here the increase at Hope Bay from 15 to 19 was in 1959.

Brading: That is correct, yeah.

[Part 2 0:23:26] Lee: So maybe there was a problem in '58 as well?

McCalman: No, I can't remember, not that I'm aware of.

Brading: No, there was a problem in the '60 as well, and we had only two extra then!

[Part 2 0:23:34] Lee: How did the base cope with more men than bunks, that's the question isn't it?

McCalman: Oh easy, we used View Point.

Brading: Well there wasn't really Don, everybody was out in the field even in the middle of the winter.

Hanson: When somebody goes out in the field their bunk is empty so someone else can use it

Brading: And we call it the hot bunk system actually! [Laughter]

[Part 2 0:23:51] Lee: So you were doing more field work and more surveying because you had too many people?

Hanson: Yes.

Brading: That's a good way of putting it!

McCalman: Yes, that's why we had them!

Hanson: That's why we made good progress in the triangulation!

McCalman: We volunteered to take them you see!

Brading: They were halcyon years from the sledging point of view and getting the work done!

Hanson: Because the extra people brought in dogs and sledges as well!

McCalman: Brought everything, yes!

Brading: And Don may have forgotten this but I remember this - I remember Don swearing that there would never be more people on base than there were bunks, and he really kept his word!

Hanson: He achieved that, yes!

Brading: As it was at Mid-Winter that we referred to just now that there were only four people on base, 13 in this little sub-base called View Point which actually had four bunks there. It was set up for the IGY but it wasn't normally occupied but it was where we kept depots and so on. And we were all sleeping in tents and we had our Mid-Winter festivities, our Mid-Winter party in this little sub-base, and it was!

McCalman: That wasn't the planned!

Brading: No it wasn't planned it wasn't planned at all it was just ad hoc. We thought 'Let's not go back', we didn't even plan it among ourselves it just happened!

[Part 2 0:25:05] Lee: And you were listening to the radio?

Brading: Yes, we were listening to the radio, of Bunny Fuchs giving his Mid-Winter broadcast to us and he commented, as I recall it, that how resourceful we must be coping with the overcrowding that we had at Hope Bay, but we didn't have overcrowding at Hope Bay we had it at View Point! [Laughter]

[Part 2 0:25:36] Lee: So what kind, were you actually almost creating records in the amount of surveying you were doing, because of overcrowded and being sent into the field?

McCalman: We did more of it, we started a system of doing more summer work, summertime used to be avoided for sledging because it was particular dangerous but we got more and more of that done.

Brading: We got more and more done. They really were halcyon years in which there was tremendous enthusiasm on the base, and we really got a lot of survey done! In fact between

we four and the surveyors no longer with us we actually completed the triangulation as far as the normal Peninsula was in three or four years, because Dick and first off we three were together, then Dick and I were together, then the following year after I'd gone home Dick and another surveyor, who's unfortunately dead, carried the triangulation down as far, we could go as far as the air photography was concerned.

Harbour: About Seal Nunataks as is the case.

McCalman: That was another surveyor on the base, Lee Rice, do you remember him?

Brading: Yeah.

McCalman: He was a surveyor with me.

Brading: Yes that's right.

[Part 2 0:26:53] Lee: I understand that you did 10,000 sledge miles!?

Brading: That was it was over 10,000 sledge miles for the base as a whole and I've actually got a diagram in the house which shows all these sledge journeys, and a lot of us did well over a 1000 miles in that time! We, a lot of it is down to depot laying, but we were working quite a long way from base.

[Part 2 0:27:19] Lee: Did you want to do that? Were you happy to be so far from base? Was there an extra buzz or was it a bit worrying?

Brading: Well to be honest the whole experience was, we'd forgotten about the biting winds and the cold and so on, the whole experience we were really I think enjoying ourselves! We were working hard, sometimes 18 or more hours a day, because we had this regime in the summer, where we would work for 8 hours, sleep for 8 hours and work for 8 hours or travel, and so we were making the most of the daylight! But it was, it really was we loved what we were doing!

McCalman: Yes, but there was also another change because I think it was probably due in the year before me, the last of the sort long sledging journeys from Hope Bay took place. That was to the Detroit Peninsula.

Brading: Yes, Wally Herbert's trip.

McCalman: That was the last long one The rest with a relative short things to do the surveying depot laying and so forth that's all. I knew there was never any suggestion of any long trips right down the coast, no.

Brading: No we had to.

Hanson: They said the photography didn't go all the way down so?

Brading: No.

Hanson: So there was no point to do triangulation!

[Part 2 0:28:36] Lee: So how was the coordination with between yourselves and FIDASE?

McCalman: Who?

[Part 2 0:28:38] Lee: FIDASE?

Brading: Oh FIDASE!

[Part 2 0:28:40] Lee: FIDASE I beg your pardon!

Brading: Well FIDASE had done their triangulation with their air photography.

[Part 2 0:28:47] Lee: And you were left to pick up the pieces?

Brading: And we....

[Part 2 0:28:49] Lee: To tie it in?

Brading: Yeah, they had done some triangulation but that was all in the Gerlache Strait and South Shetland area, the mainland peninsula hadn't been done at all and yet the photography covered it, and the only way to do that was to control it by, well we did it by travelling with the dog sledges.

Hanson: Would it be right to say the limit was just about the Russell Glacier?

Lots of voices: Oh no! It went down to Seal Nunataks!

[Many voices: Impossible to hear what is said!]

Harbour: Well it went down the Nordenskjold coast.

Hanson: Was that beyond Russell Glacier?

Harbour: Oh yes, beyond Longing!

Brading: Beyond Longing!

Brading: You didn't go down that far?

Hanson: No.

Harbour: Cape?

Brading: Dick and I extended it to Sobral, and then Dick and Tony Edwards extended it down to the Seal Nunataks.

[Part 2 0:29:38] Lee: Looking back at it you were busy surveying Graham Land. Do you think you were doing it purely to get a map or was there another political reason for doing all this? This was the time when the Chileans and the Argentineans were being a bit uppity weren't they!? And was there some kind of great political plan behind it?

McCalman: Long term, if I remember, we'd just inherited the attitude from our predecessors when they went down there, was it '46?

Harbour: Yeah, well '44 yes!

McCalman: Operation Tabarin, [Harbour: '44], when it was a wartime episode because the Germans were messing about down there and it was a big show of pre-empting anything of that nature, and that's when it started and it continued politically. You couldn't stop it then and you had to use us, use people, so what more than the scientific programme of survey work physiologically and all sorts of things done that's what we inherited that!

[Part 2 0:30:29] Lee: And so were you aware at the time you were doing this and the fact you were mapping it, in order to lay a stronger claim on the territory for the crown?

McCalman: I don't think we knew it then, because the history of the Tabarin has never really been written about at the time and still relatively quiet.

[Part 2 0:30:44] Lee: Right now looking back at it now is that you were doing in fact?

Harbour: Oh I think that is true, I think all of DOS's work was in the colonies and the idea is that you need, you're supposed to have a map if you own the land, or put it this way its jolly useful in a court of law! And I don't think there was any change about that, and after all when you chaps went down you were helping the DOS surveyor in the Falkland Islands, now those maps....

Hanson: George Reed!

Harbour: George Reed and the other chap?

Brading: John Evans!

Harbour: John Evans, there you are! And those maps were absolutely imperative when the war came. The maps that they had, that the Brits had, of the Falklands were of very high standard, higher than the Antarctic maps because the two people, the surveyors, were professionals, they used tellurometers!

Brading: That wasn't the reason, Dick, that they were better. A) It was larger scale, and B) It was a lot easier to survey! [Laughter] Secondly there was a civilian population!

Harbour: Well alright, OK, well that didn't, well anyway the fact remains that maps were invaluable at the end of that.

Hanson: I think their geologists required maps didn't they to do their work?

Harbour: Not probably such good maps, and it's interesting to see that the DOS, or at least should we say BAS, have produced maps since, some beautiful maps that we've seen but they are all interestingly of strategic areas! For example they haven't produced one of the Nordenskjold coast which I finished off down there, it's in the can but it's not been done because it isn't particularly politically important. Whereas those that have got American

bases, Uruguayan bases, they appeared and they are beautifully done and we've all got copies of them.

[Part 2 0:32:32] Lee: Did you suspect when doing Antarctic mapping that there was a grander reason?

Harbour: Oh yes, because the Argentinians as Don said, what was it '52? I don't care about that fact, but the Argentinians fired on the base on Hope Bay - in those days there was actually a gun battle - so really way back and the Argentinians, not the base by the way not the base itself but the country itself, was always in contest with us, with the Brits! And there's no doubt about it, but the base themselves, the Argentinians we all had down the road from us, the relationship with them when I was there was very good!

McCalman: Oh yes, there was some barter going on, we gave them whisky and they gave us fresh meat!

[Part 2 0:33:23] Lee: You gave them what, sorry?

Brading: Whisky!

McCalman: Whisky, we had a ration of whisky!

Harbour: They weren't allowed to have it because they were military and we weren't you see, we had the navy rum.

Brading: They had plenty of vino so they weren't dry like the Americans!

Harbour: No, no that's true.

Brading: Because we used to swap vino. They once gave us a barrel of wine, a real barrel of wine actually! [Laughter]

McCalman: We weren't supposed to sort of fraternise with them in theory but in practice we did!

Harbour: Oh yes.

Brading: Don, did you ever, it certainly happened at Deception Island, the Base Leader would go down to, go to the Chilean base or the Argentinian base there with a protest in one hand and bottle of whisky in the other, did you ever have to do that!?

McCalman: No, oh no.

Brading: Because it did happen previously?

McCalman: No, the nearest we ever came the base leader came up and had a wee word to say 'One of our parties is missing in the field and we might want to get a bit of help if needs be', and I said 'OK if it seems to be likely', and then I contacted SecFIDS and told them what was happening, and he came out with the usual bland remark 'If it does not prejudice the work of the base or endanger the staff you may help them'!

Brading: Cover myself! [Laughter]

[Part 2 0:34:38] Lee: And did you?

McCalman: We were never asked, no they got them.

[Part 2 0:34:43] Lee: They found them.

Harbour: But in my year, the second year, they were invaluable. There was a major, he was a very small man and I always find that small men make a big noise! But this chap was a very good, he admired us for what we were doing with limited.... They had Sno-cats - which Fuchs had used - and they had three of those and they had a Muskeg which they used, the original ones they used to use on the ski slopes, so they were mechanised up to the eye balls! But they never went anywhere apart from, they brought the Sno-cats up to our base Sunday evening, it was about as far as they went. Well he got fed up with this and he could see the base, this is in my second year '61-'62 isn't it? He came up to us and said 'Now look' - they at that stage had put two aeroplanes on the top of 433 which is our hill above our base, they'd flown them down to Seal Nunataks and set up Matienzo which was going to be a tin base down on Seal Nunataks. And they'd flown the aircraft to established these bases which took us weeks to get there but they'd just flown down. Well they'd lashed the aircraft on 433 and then a big hooley came up as winter came on and tipped the airplane upsides down and they were no longer able to fly!

[Part 2 0:36:05] So they couldn't fly and they had these, and he came up to see us and he said 'Now look, our base needs exercise and we're very happy to do this, but we don't know where to go. We don't how to go so if you give us the maps and allow us and show us how to do it we'll run you down a depot'. So the only reason I could do that trip right down, which is as you say 110 miles to Sobral and is about 200 to where I finished up! And he got his Sno-Cats with these big sledges on the back, piled it with dog food and our MRC boxes and towed them off. We gave them the maps, in fact showed them, in fact one of our chaps drove with them all the way down, they drove overnight because he said - this is the middle of winter - he said 'In the daytime the ice will give way or the snow will give way so we'll only go at night, when it's cold'! So they used to drive down with these, big light on and it was a non-stop drive for these chaps, but the only thing is that they used to follow, we'd put pegs out for them and we were down on the sea ice and they only stayed on the sea ice, when they crossed over a bit of land but the sea ice and the biggest worry was when they powered along they followed our routes. [Laughter] So if we were camped overnight and all of a sudden in the middle of the night [laughter] there'd be a big light shining on the tent and we could hear this rumbling noise, and we'd all get out because we were always worried in case they went over us!! And they never did, but anyway they....

McCalman: That why you're still here!

Harbour: But anyway they rumbled by with these sledges and they put this base, they went to Seal Nunataks but put the bases, the depots for me and without those depots I would never had been able to maintain the time out there to stay in the area and do the survey!

Brading: And that's geology as well.

Harbour: Yeah, he was delighted because he could then actually get the base going, and the morale of their base shot up!

[Part 2 0:38:00] Lee: Because they were doing something?

Harbour: Because they were doing something and they felt it worth doing, but no problem in assisting us and what we did actually, (I don't think I should record that bit?) but we actually gave them the maps. They weren't the ones that were subsequently published from our work because they weren't ready, but we gave them the outline maps we had and that's all they ever had, never had anything before! So it was. No I they were excellent.

McCalman: We had the same relationship with the Chilean one although we didn't see them so often, they were crossing Jacquinet or what do you call it?

Harbour: That's right.

Brading: Yes, Legoupil

McCalman: They were Uruguayan?

Brading: Chilean base!

McCalman: Chilean base. One time we had trouble, we had a fight with the dogs and sledge [tent?] was completely ripped, and we tried to get a new one in and there was ground mist over the whole surface, and it must have been a helicopter tried to get to us, and they couldn't see us and we could see them and they didn't want to drop anything till they found where we were. So we decided to rendezvous at the Chilean base and there must have been some special do there because the military uniforms! [Laughter] Not sure it must have been Bill Graham on the same trip I was telling you about earlier on.

Brading : Yeah Bill Mitchell?

McCalman: I said to Bill Mitchell and company 'We've got to fly the flag here ourselves, I'm supposed to be leading so give me some respect!' [Loud laughter] So I was received by the commanding officers and it really was a splendid sight and then down the road there and got the tents out by the base there and got our tent out.

[Part 2 0:39:45] Lee: Did you respect have for them or were they a source of amusement to you?

Brading: Oh no, I think we got on extremely well with them!

Harbour: Well you had to because if we'd ever been in a fix [McCalman: They would have helped us.] we would have relied on them. In their case they could have helped us, so certainly wouldn't be disrespectful.

McCalman: Oh no.

[Part 2 0:40:04] Lee: Did you find yourself fraternising in your time, Tony?

Hanson: Yes. I remember going down Saturday night to visit Dr Baeza [McCalman: Oh yes I remember him, yes]. In fact Mike Rhodes and I visited him, Dr Baeza, there in Buenos Aires on the way home, so it was that sort of friendship, yes.

[Part 2 0:40:24] Lee: Speaking English presumably?

Hanson: Yes, largely.

Brading: Largely, but we did speak a bit of Spanish.

Hanson: We tried to learn a bit of Spanish.

McCalman: I believe they've got families down by Esperanza now?

Harbour: Children have been born there!

Brading: They've got a church, a hospital and a school!

[Part 2 0:40:43] Lee: Kitted out a maternity ward!

Brading: Yeah, all these things, yes.

[Part 2 0:40:46] Lee: We saw it ten years ago.

Brading: Yes, that's right.

[Part 2 0:40:49] Lee: Let me ask you, Tony, when Fuchs had done his famous crossing of the Antarctic, he then went on tour of the bases didn't he?

Hanson: Yes I think he did.

[Part 2 0:40:58] Lee: Did he come and see you?

Hanson: Well I think I happened to be on the ship with him at one period, yes.

[Part 2 0:41:05] Lee: What was the story?

Hanson: Well I think, as you say, he was wanting to see how FIDS operated right on the ground, and he would go to as many, he was trying to get to as many bases as possible!

[Part 2 0:41:21] Lee: So you met himself?

Hanson: Well he was in the wardroom and we were down in the Fiddery! He was with the officers, but yes he would walk around and he would mix with us!

McCalman: He came down on the *John Biscoe* one these times to relieve our base, and I've got a picture of him humping coal up the base same as everybody else!

Hanson: I think he tried to muck in. I remember once the Otter plane landed close to base 'F' on the ice and he came out and was inspecting the skids and cleaning some of the snow that had stuck on to the wheels, yes.

Brading: He had been a Fid himself, he'd been on a base for three years wasn't it?

Hanson: Yes, yes.

Brading: So he knew the ropes.

[Part 2 0:42:19] Lee: Was he revered by the Fids?

McCalman: Revered is too strong a word I would think.

[Part 2 0:42:23] Lee: What would you say?

McCalman: Respected for what did, because he explored a lot before he went down south. He did a lot of work in Abyssinia, Lake Rudolf, a lot of exploratory work because I think he was a geologist?

Hanson: What, with the Cambridge University team?

McCalman: Yes. So I think he was respected as a scientist first and foremost, how good he was as an administrator I don't know.

Brading: Yeah he was.

McCalman: He was very good at organising things.

Hanson: I think another point was the planes. These Otters and the Beaver had just been taken down south at that point [McCalman: Yes, wanted to see] and he wanted to see, I think maybe he flew in them I can't remember but he wanted to see how the system operated.

Brading: But in both years that I was down there, they wrecked the aircraft! [Laughter]

Hanson: Yes!

Harbour: I think that's an important point.

Brading: They wrecked one.

Hanson: Well one of them landed on the sea ice and half an hour later it had disappeared!

[Part 2 0:43:26] Lee: This was at Argentine Islands?

Hanson: Yes.

[Part 2 0:43:27] Lee: Were you aware of that happening?

Hanson: We saw it happen, yes!

[Part 2 0:43:30] Lee: What did you see? [Laughter] I was there 50 years ago or something!?

Hanson: No, it's a bit hazy. Well I think nobody thought anything of it at the time, it was a lovely sunny day, and there was this plane glistening in the sunshine and I think we were probably having lunch at the time and all at once the ice broke and down it went!! [Laughter] And I don't think there was anybody - the people that had come in to have something to eat at the time, there were two or three ships there and the plane was just adjacent to the ships.

[Part 2 0:44:09] Lee: Was there any theories as to why the ice broke, was the plane...?

Hanson: Well I think like base 'J' area round those islands the ice is variable thickness, currents don't allow it to freeze, well they allow it to freeze but then they disturb it.

[Part 2 0:44:28] Lee: The FIDS have a very poor record with keeping aeroplanes going don't they really, it seems to me?

Hanson: I think another time we....

Brading: Well that's true at the time, but not sure if it's true today?

Hanson: We had one of the aircraft on board and it's quite narrow in the Argentine area and one ship came, the wind got up and one ship came close to another ship and it, what do call them the stay wires?

McCalman: The rigging.

Hanson: The rigging just clipped the wing of one of the planes and whipped it off! And that fell into the sea from what I remember.

Brading: Yes, so those were the two years!

Hanson: And the planes were based at Deception and it was a long way from their base when the accident happened.

[Part 2 0:45:15] Lee: What's the story of Prospect Point because you're the first Fid I've met who's been to Prospect Point, which didn't last very long did it?

Hanson: No, about two years I think.

[Part 2 0:45:22] Lee: What sort of work were you doing?

Hanson: Well it was set up to try to be an access point to the Plateau area, which would be south of where the Hope Bay people would be working, trying to get a quick route up to link in with the triangulation there. And well it looked as though routes would be good, but we tried two possibilities and the crevassed area was so bad that we were turned back on both the routes and that was really the end of it!

[Part 2 0:46:02] Lee: So how did you fill your time if you couldn't do any work?

Hanson: Well just living is fairly full time isn't it? Feeding dogs and making the radio contact and helping the diesel operator operate his machine and perhaps a bit of skiing now and again and collecting seals. We didn't have a geologist with us so there was no, the

geology work had already been done, and well previous there were two surveyors there that I replaced, and in the summer when I arrived they went off with John Wynn Edwards and Ted Clapp and another two names that I remember. Brian Holmes was the surveyor I think and did some island hopping during the summer period and did their observations assisted by this, by this John Wynn Edwards launch, but I wasn't invited to do that! So I don't really know what happened, I just know that how some of the survey was filled in, but being stuck on the base we couldn't do very much at all!

[Part 2:47:22] Lee: Frustrating?

Hanson: A wee bit yes, but I suppose you get of plenty of local sledging just for the fun of it really and for exercise, and skiing and dog feeding, and so you're well prepared for the next year I suppose!

[Part 2 0:47:40] Lee: Did you all form relationships with dogs, with packs of dogs?

Brading: Oh yeah.

[Part 2 0:47:47] Lee: Were they important to you?

Harbour: Well they were your lifeline full stop, and the only means doing your job full stop!

Brading: But more than that they psychologically they I think they were you know.

Hanson: If you were feeling a bit low you could go out and talk to them!

Brading: Yes, talk to your dogs!

Harbour: Maybe the only friend you have at that time [Loud laughter] if you've fallen out with the rest of them! But they'd always wag their tail it didn't matter what you said to them you see. No I think that's true, I think that's very important, you see I think I feel very strongly, that it's interesting because I didn't actually ever stay at a static base like Argentine Islands, Deception Island, Signy Island, I never stayed there. So I'm not, but I've heard stories, other people have told stories and it's inevitable, and Don said this in fact, that Don said earlier you're inevitability going to fall out with people on various issues, but I think at a static base these issues could be enlarged and get out of proportion. Now we certainly fell out on issues in Hope Bay without a doubt, but as Don said, but it never, I mean NEVER, he said they never had any fights.

McCalman: Oh no!

Harbour: Nothing at all and I think that the dogs helped.

McCalman: We only ever had strong words and then very rarely.

Harbour: Oh yes, you could say what you thought, but....

McCalman: And if it was going well everything was fine.

Harbour: But I thought the dogs actually were a key to it you see. Well I think the answer is that they were an opportunity to let off steam, you could go and talk to a dog and say your thoughts on so and so was a bit of idiot and the dog would wag its tail! And so you got a feeling that it was saying 'Yes', and so on, [Laughter], and that made a big difference. And also you could, I used to take, and again you listened to a lot of rubbish! I actually had one dog, Chloe, and she wasn't interested in the gents in the team, but she was really more like a domesticated dog in some ways. I took her out for walks and I could take her across the penguin rookery - there was an Adelie penguin rookery alongside Hope Bay, which is one of the very largest - I could take her for a walk there and she would totally ignore the penguins, and I could take her for a dog walk round Boeckella Lake, and again it's another outlet and that's the sort of, I think that's very important to get a balance of life and the by the time you'd got back any issues fell into more perspective. So I think that's what missing, do truly today! I think that could be, you see it's interesting that Fuchs....

Hanson: They don't serve so long now do they?

[Part 2 0:50:34] Harbour: I mean Fuchs had a row with his mate on their trip it seemed to be he then, what do you call it, all these other people, Fiennes had a row with his bloke, they all had and the German famous climber, is he German? who he did this walk across, you must know him Chris, you're the climber?

Brading: I know who you mean?

Harbour: Anyway we can't remember!

Brading: Messner! [Note: He is actually Italian]

Harbour: Yes something, what do you say Messner? Messner that's it! Well he had a row with his chap and whether they did that just to write a book I think?

Brading: I suspect there is a certain amount of truth in it.

Harbour: It's interesting they never had dogs, and actually I've got to ask my chums here of the books that I've read, now I've not read every one, but books I have read I don't think that those that had dogs ever had a very serious eruption, had problems I'm not sure but certain?

McCalman: Dogs no, the nearest one is the one who wrote about Hope Bay, was it Bill?

Harbour: Oh, Bill Anderson!

Brading: Bill Anderson, that was a good book.

Harbour: Yes.

[Part 2 0:51:40] Lee: What sort of things did you fall out about, or maybe you don't want to say, what sort of issues would spark rows or words?

Harbour: Oh!

Hanson: I can't recall.

McCalman: I know what sparked a row, or not a row is too strong a word, but we had a doctor on the base the first time, you would know him, Noel something.

Brading: Oh yes I know who you mean, but I can't....

McCalman: I remember an occasion Denis came off a sledging trip and didn't have a shower and Noel took, he was medical officer, 'That's not right you're nasty and smelly' [laughter] he said! So he put a notice up on the board 'Everybody returning from a trip ought to be washed'! And I said 'No you can't put that up, you'll no put that up'! So I gave him an ultimatum: I said 'Take it down by so and so or I'll take it down for you'! So he didn't take it down and so I had to take it down for him, so I never fell out with Noel but he knew how far to go, and for that matter he felt that was part of his responsibilities of hygiene, but I didn't agree with him on the one!

[Part 2 0:52:43] Lee: Is it not up to a Base Leader like yourself to actually lay the law down about that kind of thing?

McCalman: Oh no, no, very little. I never had to anything like that at Hope Bay. I tried it once to change things and I lost! [Loud laughter!]

[Part 2 0:52:57] Lee: What were you trying to change?

McCalman: Breakfast in the morning. Breakfast in morning when I first went to that base was chaotic! [Laughter] It was - whether it still is I don't know - timing was chaotic if you got the wrong time and I suggested we all start at the right time and at a certain time have our breakfast together instead of this higgledy-piggledy time for breakfast, and tried to push it through and I realised very shortly, after a few days, I was losing the battle here. Just one of those things!

Harbour: Well I can tell you a story about that because when I went on to base, I came in late because I'd done this summer survey each time. So I arrived on the base almost two weeks or something before you, Don, set off and left. Well I was on, very early on, in fact talking about before Fuchs arrival I was actually on cook when the *Biscoe* came to pick you up, or I think so, and Fuchs was aboard if that rings a bell?

McCalman: Can't remember!

Harbour: Well he did, he came up to base and I was expected to produce biscuits or something more important than that on my first day. The first day was a Sunday, and when you're on cook week you finish Saturday night. Now I had a bunk, that was alright, and you were on base and I didn't have a clock and I was sleeping away and I remember a chap coming up for his dog, tapping me on the shoulder and saying 'I think you're on cook this week aren't you?' I said 'Oh yes I am!' And being the new boy leapt out of the bed and Don had kindly already put the kettle on to the boil and got it going, and it was a part of his idea to

think 'Well you've got to get it going as you've got to make the bread and get everything going', so really the cook had to get up if nobody else did!

McCalman: That was OK.

Harbour: Yes, and that was very good yes, I appreciated that because you were very polite about it but you had actually started the thing going for me, and I remember the cook week, and I have to say cook weeks - by the way you haven't got the notes there, but crevasses we can contend with, cook weeks we couldn't!! [Laughter] If you've got to be recorded very clearly in this microphone that of all I'm told, and I'm sure these chaps can perhaps endorse this, I'm told they took blood samples. They did take blood samples out of me, took to work out the stress levels of the, what do you call it, you know the famous thing you get stressed with?

[Part 2 0:55:19] Lee: Cholesterol? Blood pressure?!

Harbour: No-no, you get this chemical in your....?

Brading: Eosinophils or something?

Harbour: No it's the common one - anyway it'll come to me in a minute, my memory it'll come back! And I'm told that they took blood samples in the field and I had blood samples taken off me I was in mechanical and metal vests and all sorts! Well, they did it on a base with the cook and they found that the highest stress level ever recorded was on the cook on a Wednesday, which is halfway through the cook week!

[Part 2 0:55:53] Lee: Adrenaline!?

Harbour: Adrenaline that's it! His adrenaline levels were higher then, than at any time than anywhere else in base life!

Brading: People were always critical weren't they?

Harbour: Yes, to feed 14 people!

McCalman: 30 years later when I entertained the boys up at my place....

Harbour: Oh you mean at Aviemore, when we all came up to see you?

McCalman: Yes, Fritz then spoke up and talked about my cooking.

Harbour: Oh Fritz Koerner?

McCalman: Yes that's him. My daughter stood up and defended me! [Laughter]

Brading: Don, so did quite a lot of other people. I think Fritz Koerner was out of order with what he said there!

Hanson: Argentine Islands was the lucky base wasn't it because they had a permanent cook?

McCalman: Yes, yes, that's right.

Hanson: Gerry.....Cutland?

McCalman: Oh yes, he went down with us on the *John Biscoe* didn't he?

Hanson: I think he did yeah.

[Part 2 0:56:42] Lee: Final question really. Looking - and I'll ask you each to answer in turn - and looking now through your life, how important a part has the Antarctic played in your life? Was it special to you in some way and if so what way?

Hanson: Well I think when Dick said that we've not used our surveying experience, apart from Chris, I think in civil engineering I have used my surveying experience a little bit, and I feel I was well grounded and I've always been able to outshine anyone else in the civil engineering field when it came to survey.

[Part 2 0:57:22] Lee: And you went on to build motorways didn't you?

Hanson: Yes, but in the early stages I was, when I did the surveying at Ferrybridge, at the power station, I felt although I was a quite a junior at the time I was well.

[Part 2 0:57:42] Lee: So you?

Hanson: So that's one aspect in my case, but initially I suppose one was quite happy to talk about it and perhaps show a few slides, but as the years have rolled by one's a bit reluctant - well I find - to raise the subject. You try and avoid it because the questions, when it's just chatting to lay people, the questions keep repeating, and you think 'Oh gosh, yes, I've answered that a hundred times'! You know, 'What's the temperature?' 'What do the dogs eat?' and 'What do you eat?' and so that's sort of the impression it might have.

[Part 2 0:58:19] Lee: But do you regard it as being a special time?

Hanson: Oh I think, oh yes, yes, and I was quite young at the time because I think I was 21. I did feel I was one of the younger ones!

McCalman: Well you'd be the baby of the base that year!

Hanson: I suppose so yes.

[Part 2 0:58:37] Lee: Don, what are your abiding thoughts?

McCalman: Well it was the most absorbing most interesting two years of my life I think down there! When you went back into a normal life you were different now, no matter what anyone said you were different, because whether you told people or not it crept out sooner or later that you had been in the Antarctic, and that in itself made a difference because they'd ask you questions about it. People knew you'd been in the Antarctic and say 'Well what's it like down there?' So I know, daft questions, but it was a tremendous asset I thought. It went

in your CV maybe didn't do you any harm putting it in your CV that you'd been down to the Antarctic!

[Part 2 0:59:21] Lee: Were you a different person what you came back?

McCalman: Oh yes most certainly!

[Part 2 0:59:23] Lee: In what way?

McCalman: More self-reliant. For some time there you lived with a crowd of men and no harm had come to you sort of style! You'd accomplished something and you could say 'Well I made a major part of that map there, I played a major part see all these wee crosses in Brandy Bay I laid them with my own hands', that kind of thing!

[Part 2 0:59:43] Lee: You were mapping God's country weren't you?

McCalman: I beg your pardon?

[Part 2 0:59:48] Lee: You were mapping Gods creation!?! [Laughter]

Hanson: Yes!

McCalman: I find a very tremendous comment!

[Part 2 0:59:56] Lee: Chris?

McCalman: And another thing, it was because of that I was giving a talk on the Antarctic and, you remember the BGLE....?

Hanson: British Graham Land Expedition!

McCalman: Yeah, British Graham Land Expedition, well one them was in East Africa where I was working and he and I gave a talk to the mountaineering club on the Antarctic as he saw it in the 1930's and I saw it when I was there, but the important thing is that is where I first met my wife! [Laughter] She was there at the mountaineering and climbing club of Kenya!

[Part 2 1:00:28] Lee: Chris you stayed in surveying after you came back.

Brading: Yes, not initially in the the physical sense of surveying that we'd done in the field, but I joined the Ministry of Defence in military survey and in fact we were very much involved in the Cold War trying to work out positions all over the places we couldn't get to! [Laugh] So I was in a....

[Part 2 1:01:02] Lee: So you were looking for weapon installations?

Brading: Well we weren't really looking, what we were doing is we were trying to fix the positions of places for navigation purposes and weapon delivery in the Eastern block area and beyond, perhaps I shouldn't record that but it's a long time ago! And so we were involved actually in recalculating all the old surveys of the old Tzarist triangulation of Russia and all the European ones which surprisingly were in libraries all over the place, so we were

recalculating these and using it to support navigation of there, and also to subsequently to produce mapping. And so I progressed from there to all other aspects of surveying and mapping.

[Part 2 1:02:04] Lee: How did the Antarctic experience influence you as a man as opposed to a work man?

Brading: Well when I was listening to the others talking I was thinking. One thing that I think that I carried right the way through, firstly it was a tremendous experience, which no other experience in my career has given quite so much satisfaction even other people might think it was probably more valuable, but to me personally that was so, and the other thing is I think it certainly made me a more confident person and I've always felt that I learnt about risk analysis! Everything we did we at least mentally calculated the risk as whether it was worthwhile to take the risk to achieve the object that we wanted! And I think that has stood me in good stead in later life. It was a marvellous experience and one doesn't forget it, because it was so formative!

McCalman: It will never be reproduced because we found out it's not the same job now!

Brading: No!

McCalman: It will never be replicated!

Brading: No, it was a unique experience which no longer exists for people. I actually have met and swapped ideas with and shown pictures with a chap who went down in the last 10 years as a general assistant/ mountaineer, who looks after a client these days and his experience is just no way near the same as ours! And consequently he has no real friends in the Antarctic sphere, yet we lot can get together and feel it was like yesterday and we've kept those bonds!

McCalman: You find that you meet somebody elsewhere that has been in the Antarctic and something clicks!

Brading: Yes.

Harbour: That's very important I would put that up high. I would say two things, first the experience is unique. I certainly I would not have had the same satisfaction if I was to go down or had gone down in later years, that's the first thing. The second thing is I think that point comes in most of all, I've ended up by having friendships, I think it is analogous to the army or military, maybe army or air force, you find that they worked or fought together in war and they have associations to the end of their life! They have their regiments and they can meet and so on, well we didn't fortunately have to do any fighting but I think the Antarctic experience has cemented the same ability. We can meet, we are particularly close the Hope Bayers and proud of that! We are the only base, I think we should add really the only base that can hold a reunion, because the Marguerite Bay and the other bases I mean obviously some of them are very small so with due respect to them it's slightly different. But we finished in '63 and other bases have gone on, but we're the only base because in

Marguerite Bay that encompasses Stonington, Adelaide and Rothera of today so it's a big group, but we're just Hope Bay and that's it, and that said something about it - we are very lucky I think. We shouldn't, we're not gloating about it, we are just very grateful! But that produced friendships which have lasted 50 years and we don't all agree with each other. I wrote something in my diary about dear Chris that I've let him read them [laughter] now and he's alright, and he got something in his diary about me too, but I haven't read it yet! [Laughter] But that is, I think, gives something that is unique and as Don said when we meet people and that sort of thing that's very important. So yes I think it has actually changed us all in some way, which I feel sorry and in fact if in a way I simply have sympathy for today's people are not going to get the same out of it. They can't, it's not their fault it's the circumstances are not there!

[Part 2 1:06:31] Lee: Gentlemen thank you very much.

Interesting clips:

- Climbing the volcano on Tristan da Cunha on the way south! [Part 1 0:15:23]
- Doing astro-fixes on Epsom Downs and upsetting courting couples! [Part 1 0:25:19]
- The new survey equipment, the tellurometer, and how it helped! [Part 1 0:30:19]
- Listening to the BBC midwinter broadcast and how some people reacted to it. [Part 1 0:44:48]
- A crevasse rescue with lots of people involved and the recovery of the patient afterwards. [Part 1:00:49:34]
- Another crevasse rescue and the recovery of the unharmed victim! [Part 1 0:59:07]
- Some time spent at base 'J', Prospect point. [Part 2 0:00:33]
- A helicopter crash during an island survey trip and the loss of the aircraft! [Part 2 0:02:21]
- Another helicopter crash this time into the sea, and their rescue! [Part 2 0:11:06]
- A problem while depot laying and how bad it could have been? [Part 2 0:13:02]
- The record mileage done by the survey teams due to extra Fids on the base! [Part 2 0:26:53]
- Taking the offer of help from the Argentinians using their tractors for depot laying, which also helped the Argentinians' morale that season. [Part 2 0:36:43]
- The loss of the FID plane through the sea ice at Argentine Islands during a lunch hour! [Part 2 0:43:30]