

MIKE BURNS

Edited transcript of a recording of Mike Burns interviewed at his home at Culbokie, Scotland by Chris Eldon Lee on 13.04.11. BAS archives AD6/24/1/119. Transcribed by Allan Wearden, March 2017.

[Part 1 0:00:00] Lee: This is Mike Burns recorded by Chris Eldon Lee on the 13th April 2011. Mike Burns, part 1.

Burns: Prof Mike Burns, family name is Frederick Michael, born in London the 16th of December 1942, war baby!

[Part 1 0:00:22] Lee: So you are now?

Burns: Coming up to 68 last year, so 69 this year.

[Part 1 0:00:28] Lee: What sort of education did you have Mike?

Burns: Well I went to the primary school and we left London in, probably when I was about 3 or 4, and went north to where my mother came from - she was from County Durham - and went to the local primary school in a town called Sunderland in the north east of England. I always recall having got to the 11 Plus exams and we eventually got the results. My father had promised me, like a true Scot, that he'd buy me a bicycle if I passed my 11 Plus, and hence the day that the letters came round, I was obviously overjoyed as the bike was going to come as I'd passed the 11 Plus. And I recall going back to, going into school that day, the primary school, and there was obviously quite a kuffle with kids in the class and our form teacher sort of told us all to shut up! 'And why were we so noisy', and so 'Please sir we've got the results for the Bede', which was the Bede Grammar school for boys in those days and it was just referred to as results to Bede! 'And who's passed he said?' So I put my hand up and two other lads put their hand up and I just recall him looking at me and saying, 'Burns you've passed !?', with pseudo astonishment! And so I went to grammar school. I think in those days, there were 4 streams, there was an A and a B and a 1 and a 2, which was sort of pleasantries I think the A and the B were probably languages and the 1 and the 2 were probably the technical studies, for the different aptitudes or IQ? And I think I got to the third or the fourth year at the grammar school and had managed to catch up the other two lads that came from the initial primary school, and having done that I just switched off completely, so I left school at 16!

[Part 1 0:02:24] Lee: So you are not really an academic kind of guy?

Burns: No, no! But I think I was bored. I'd obviously set myself a target to catch these other two lads, and after that it was, dare I say it, was wine-women-song! That appealed to me more so I left school at 16. My father refused to sign me off for the RAF which was sort of, 'Why not?' was my approach, and he organised that I'd do an apprenticeship. However I think after two years of the apprenticeship, 3 years of the apprenticeship, what with day release which was one day a week and three nights at college it was pretty hard work! And

so at that point I decided the best way out of this was to try and do a sandwich degree course. So I applied for it and got on to a sandwich degree course.

[Part 1 0:03:20] Lee: We are talking about engineering are we?

Burns: That I think was called applied physics, so it was mainly maths, physics and electronics were the disciplines that we did and it started off, in those days there was the Council for Academic Awards and I think in my third year on the course it became BSC*, and in the final year it became BSC Honours! Which was great because obviously in later life, when the BAS Scholarships, the MSC course came up, I was obviously qualified to apply for that. So, left school early but relieved the pressure of doing day release and evenings class made me think. No, no, finger out and get down to it!

[Part 1 0:04:11] Lee: Oh right you went for it?

Burns: Oh yeah!

[Part 1:04:13] Lee: And got it!?

Burns: Yeah.

[Part 1:04:15] Lee: And how old would have been when you got your qualifications?

Burns: Probably I would think about twenty two or three is when I came out with the 1st degree, which as I say was in applied physics.

[Part 1 0:04:32] What did you do with it!?

Burns: Well it was a sandwich course so I think the first two periods, six months at college and six months in industry. So the first two periods I was actually sponsored by a company called Fullan AEI that made television tubes at Sunderland in a production factory, so the first two summers I obviously went to them and variously did quality controlling engineering in the fabrication of TV tubes. Spent some time in the glass technology, because the factory was sub-divided into two, one of them used to make the television envelopes the tubes, and they effectively used to sell them to the manufacturing company that put it all together that made the TV set! So that was two years I decided I didn't think the training was that good, industrial training, so I applied to the become college based and went to the local authority for a grant. So my third and fourth year I actually became grant aided rather than a salary, which obviously was a drop in salary, and the first industrial period on my own was at Chapel Cross which was a nuclear power station near Annan in Dumfrieshire. And I joined the Health Physics Department there, went back to college for the final year and after my final year at college, did another six months of industrial training which was in Appleby Frodingham United Steel Company in Scunthorpe, which is the worst job I've ever had in my life! And it scared the pants off me!

[Part 1 0:06:32] Lee: Why was that?

Burns: Well I guess it's part of Appleby Frodingham developing this steel works, the local council said, well there's a lot of land there which is on an estate, and I think the main old house was called Brumby Hall, so Appleby Frodingham had to do this old house up and turn it into apartments for apprentices. So I found myself driving to work probably four or five miles from this Brumby Hall, into the steel works and all you could see was just a huge great cloud of muck rising up into the sky above this facility! So that was fairly depressing, but my duties were to do ultrasonic testing of steel plate which started off as about metre by metre, by about three metres ingot size and either turned out from the rod and bar mill probably the size of your small finger as a rod, having started as about half a mile an hour it used to come out of the other end at about 60 miles an hour! And frequently the expression was it might 'cobble', which was as it increased its speed it would get to the next set of rollers, which were obviously reducing it in size and it wouldn't go through the rollers and it would just burst out like spaghetti! Which was probably 20 foot high and probably in expanse of 20 or 30 foot wide fairly sort of hot orange coloured steel! The other thing was the ultrasonic testing of steel plate, where I used to wear clogs and go on top of these steel plates from the mill and test them for air, or imperfections in the plate.

[Part 1 0:08:33] Lee: While they were still hot?

Burns: Whilst they were still hot hence the clogs. To do the ultrasonic testing I obviously used to go on with a water source that would give me coupling between steel, the hot steel and the ultrasonic transducer but while doing this they'd be overhead, cranes going around with magnetic couplings carrying plate that had already been made. And unlike Micky Mouse or Donald Duck that you used to see in the cartoons, I didn't think if I came out sort of if I got squashed to a quarter inch size I would just re-inflate! So I was scared in that job!

[Part 1 0:09:17] Lee: What year was this?

Burns: Well, without sort of looking at notes it was probably around '66/'67.

[Part 1 0:09:30] Lee: That seems quite late for a complete disregard of health & safety regulations?

Burns: Yes, yes!

[Part 1 0:09:34] Lee: So that's what they were doing?

Burns: I mean some industries in those days it was neglected, in the coal mines people were expended!

[Part 1 0:09:43] Lee: Was there a recognised injury rate?

Burns: Oh, I don't think there was any statistics!

[Part 1 0:09:49] Lee: Right but?

Burns: Certainly in my level in the engineering side of it, it was never aware of the statistics!

[Part 1 0:09:58] Lee: So how did you get yourself out of that rather awkward corner?

Burns: Well, one of the wonderful things at this Brumby Hall was that as well as the dripping and bread sandwiches that we used to have in an evening which was quite archaic, we used to get daily newspapers and we used to get the *Daily Telegraph* delivered, and I still have the advert which I copied out from the *Daily Telegraph* and it was in the 'Scientist and Technologist Vacancies' section. And I believe the advert read something like 'Ionosphericist required for British Antarctic Survey. Research facilities available, graduates wanted for research, facilities available. Salary approximately £997. Apply to Bill Sloman, British Antarctic Survey, London'. So I quickly went to the library found a dictionary and looked up to see what the hell an Ionosphericist was because I'd no idea, and wrote off in the post. So I got a very pleasant letter back from Bill Sloman saying that the post had been filled, however there was a post for a Marine Geophysicist and might I be interested? So I went back to the same library and looked up to see what a Marine Geophysicist was! [Laughter!] And duly applied for that job!

[Part 1 0:11:27] Lee: Had you actually, what kind of knowledge did you have of the Antarctic at that point?

Burns: Schooling!

[Part 1 0:11:33] Lee: Where had it come from this?

Burns: Well I think probably the first recollection would be around the time of the John Mills movie.

[Part 1 0:11:42] Lee: *Scott of the Antarctic*?

Burns: *Scott of the Antarctic*, and I can't quite remember but I think probably we either had a trip out from the grammar school to church to commemorate a particular anniversary of Scott, or we were all trudged along to the local cinema to actually see the movie! So that was the first sort of images and interest.

[Part 1 0:12:09] Lee: Were you in, did it impress itself in your mind at that point, or was it just another film?

Burns: No, I think it impressed myself here are these guys doing this for their country and glory! Not that I would probably have put it in those words at the time, I just sort of found it quite a good thrilling story!

[Part 1 0:12:29] Lee: So when you saw the advert in the *Telegraph*, you knew roughly what the Antarctic was like?

Burns: Well yes. There are obviously, if it was going to be identical to the John Mills movie, but yes I know when I finished my degree course, there was about 10 or 12 of us on this sandwich course, probably half had come in from industry and half straight from 'A' levels which was quite a mix on intake. And after the final exams we all went around to the local pub or the students union bar, and obviously had a few beers and the lads were sort of saying

‘What are you going to do? And some of the lads were sponsored by the Coal Board so there was one lad, ‘Oh I’m really looking forward to going back to the Coal Board, I’ve a career for life there!’ So of the guys were thinking they wanted to go and work in one of the high tech yards on the Tyne, because in those days I think ship building was beginning to go on its uppers on Tyneside and Wearside. One of the lads was very keen on driving his car, which was a Morris Minor split windscreen car, vintage obviously nowadays! He wanted to go and work at the road research lab at Crowthorne, testing cars, and I think somebody said to me, ‘What do you want to do Mike?’, and I said, ‘Well I wouldn’t mind going on an expedition somewhere like the Antarctic or somewhere like Everest or doing a bit of climbing!’

[Part 1 0:14:07] Lee: This is before you saw the advert?

Burns: Yes, but I’d been interested in climbing and I think probably about two or three years earlier, I’d come up to the north of Scotland for my first winter of snow and ice climbing and just thoroughly enjoyed it! So I met up with some guys that were ex-Glasgow University and we just had a great time!

[Part 1 0:14:30] Lee: So you applied for this job as a geophysicist having checked out what it...

Burns: What the hell it was!

Lee: ...what it was and I guess you got an appointment?

Burns: Yes basically. I think what happened was I went down to London somewhere near I think it was Victoria, just round from Buckingham Palace.

[Part 1 0:14:48] Lee: Gillingham Street?

Burns: Yeah, Gillingham Street, that’s it! So obviously saw Bill and had to go and see the old doc that used to do the medicals in those days. So I went through all the formal interview process, I was then, I think Bill Sloman had wrote back to me, either Bill or Eric Salmon, wrote back to me saying they were prepared to offer me the post but one final thing had to be done. And would I go to Birmingham University and just have a chat with the guy Professor Griffiths at Birmingham in the geophysics department, which was a sub department of geology, because basically I was being seconded from BAS being paid by BAS, but seconded to work for the geophysics department in Birmingham University! So from Appleby Frodingham in Scunthorpe it was probably about a two or three hour drive across to Birmingham and had, let’s say, a very, very informal interview. They were so pleased that BAS were going to fund somebody to assist with their research programme in the Antarctic!

[Part 1 0:15:51] Lee: But why you? Did you ever work out why you were selected!?

Burns: Well probably because the position was to go offshore and be involved in collecting data, physical data, and there were two particular techniques we were using. One was a gravimeter, which was a standard piece of kit which you can buy off the shelf from manufacturers, which measures the earth’s gravitation attraction and you can make

inferences to the geology, by doing a gravity survey. The other instrument we used was a thing called a proton-magnetometer, and that happened to have been built by a company called, I think it was Cambridge Consultants. They'd built this device, it was semi-sophisticated in the fact that it was supposed to be, or have a capability of auto-tuning. I think they'd endeavoured to use it for one season, doing marine geophysics in the Scotia Arc area and it had been a bit of a nightmare trying to keep this thing going! So they were looking for somebody to probably spend about two or three months in the geophysics department, refurbish the bit of electronic kit and also to get involved in seismic work, which was the first single ship seismic work they going to be doing using what was called 'Airgun Technology'! They had used a lot of dynamite before and things called sonar buoys, but this was going to be a new venture for BAS, well for the geophysics department. So I think clearly with a degree in Maths/Physics and Electronics, I seemed to fit the bill, and when I mentioned I'd been working up in Appleby Frodingham, I didn't say I hated it, but I'd been using ultra-sonic testing, this here comes the sound - the sonic - part of it, and obviously the electronic part of it.

[Part 1 0:17:58] Lee: So actually you were pretty ideally qualified for this rather unusual post?

Burns: Academically yes.

[Part 1 0:18:04] Lee: And obviously you liked rock climbing!

Burns: Yes, yes. But as far as sort of aptitude and mentality this was all going to be an unknown really!

[Part 1 0:18:13] Lee: But did you not sense that Bill Sloman and whoever else was interviewing you was actually sussing you out, at the time or later on?

Burns: I didn't, I think at that time. I think it was the second time that I went south, because that was obviously as I referred earlier was a summer 'charlie' going down on the *Shackleton* to do the work! I think I had to stay back and I missed the *Shackleton* sailing from Southampton and went and flew down to Montevideo.

[Part 1 0:18:48] Lee: Second time or first time?

Burns: This was the first time - [Lee: Yeah.] - first time I'd ever flown in an aircraft 22 or 23 hours, never flown ever before, and I recall the coffee from Heathrow to, I think the first stop was probably Paris, Madrid, Recife, Rio and then Montevideo, the coffee got smaller & smaller and stronger & stronger and I kept on thinking, 'How on Earth can this plane stay up having these engines must be getting pretty hot!' There was another lad that came down with me or I went down with him, he'd been down several times before, a guy called David Petrie who was involved with Charles Swithinbank doing the glaciology, the sounding programme. So we joined I think the *John Biscoe* in Montevideo then went south and did all the marine geophysics work, and then back to Birmingham. And for my second trip which was clearly then going to be a wintering trip, I went down to Cambridge, I think it was Corpus Christi where it was more or less a bit of an indoctrination! Bunny Fuchs would give us lectures on

how to be safe, how to cross crevasse bridges and things, and think there was quite a culture of ‘Let’s get some beer down these lads, and see you they how they fit!’ No aptitude testing or psychological testing just to see how they behave. So yeah, quite interesting just the way BAS put people together.

[Part 1 0:20:32] Lee: Let’s backtrack slightly, what was the salary like compared to Scunthorpe?

Burns: Oh probably about 10 or 15% more so it was good! And I think the figure of £997 by the time I actually joined probably had gone to £1100 or something, so it was a good job! And for me it looked like I could go and do this exploration thing, and travel the world thing that I was clearly affiliated or involved in my professional and academic qualifications!

[Part 1 0:21:09] Lee: So you were earning a living and also improving your saleability for later!?

Burns: Yes, precisely! Although I always recall having finished completely with BAS and meeting up with some old colleagues, and one of them who had come from the oil industry and had gone to Birmingham to do a Masters Degree in geophysics, he had done that solely for his career advancement in the seismic industry and always recall having finally finished with BAS meeting up with him for an evening meal and a few drinks with some other friends and his first opening gambit was, ‘So that must he been three or four years wasted, Mike!’ [Laughter] In other words ‘You should really have joined an oil company straight away!’

[Part 1 0:21:58] Lee: And what was your view on that?

Burns: I said ‘I don’t think you could have bought that experience!’ It really was a life changing experience, but I think I went down to the Antarctic as a boy and came back as more of a man!

[Part 1 0:22:16] Lee: Well let’s look at what you did when you were down there, that first the so called summer challenge was actually a proper job?

Burns: Oh yes!

[Part 1 0:22:23] Lee: Even though just for a summer season, you were on board *Shackleton* what kind of things were you doing?

Burns: Well basically the *Shackleton’s* main task was obviously was resupplying the bases, but...

Lee: But there was also research, wasn’t there!?

Burns: Oh yes! But the research was done. We probably had a two week research programme sort of allocated to us. When we not be resupplying bases it was dedicated to doing the marine geophysics. However in between this two weeks, we were obviously trying to encourage the skipper, Captain Turnbull, Frosty, Frosty Turnbull as his name was to deviate slightly. For instance leaving Port Stanley going down to or across to South Georgia,

or leaving Port Stanley and going down to Deception Island because we'd obviously got survey tracks in, and we would be trying to persuade him to go about 50/100 miles farther west or farther east, so we were getting a series of profiles.

[Part 1 0:23:26] Lee: You were literally mapping the bottom of the ocean weren't you?

Burns: We were doing fundamental things like the symmetry, just the water depth, with an echo sounder driven by valves, enormous probably about four foot high these valves and in those days the biggest valve I'd ever seen was probably about four or five inches high! These things you know were four or five feet high, so big power and we were talking something like 6000 fathoms of water of the depth at the most! So primarily the symmetry survey, very often because of the position of the leads, which were sun shots so if the weather was poor we were just on dead reckoning! Very often during the interpretation we would actually be repositioning lines on the bathometric contours, you know on the water depth. So whilst doing this we were also using the magnetometer and measurements of the earth's magnetic field, and this was all worked up later at Birmingham and two, I think there was a couple of universities I think, Lemont in the States and Birmingham were at the forefront of what was termed as 'cross hill spreading' which was obviously plate tectonics and...

[Part 1 0:24:44] Lee: Right so the sub text was to see if you could work out what had happened thousands of years ago?

Burns: Millions of years ago!

[Part 1 0:24:49] Lee: Millions of years ago.

Burns: Basically there is this 'cross hill spreading' centre in the Scotia Arc, and so as the molten mantle material got up to the surface it then spreads out to either side of the fissure. And over millions of years there have been what they call 'magnetic reversals' where the North Pole became the South Pole and the South Pole became the North Pole! So you can actually map these 'magnetic reversals' on either side of the central ridge. The seismic work, obviously what we were finding from that was in shooting seismic work sediments were very, very thin near the centre over the ridge because it was relatively young material, whereas farther out from the ridge the sediments would become thicker. And obviously some of the work we did later became of major use for seismic exploration in the Falkland Islands.

[Part 1 0:25:54] Lee: At the time you were doing all this was the plate tectonics theory fully accepted or was it still debatable?

Burns: No it, I would say it was strongly believed, but the finally positive proof, there was still doubters to it. But the final proof came out, and then obviously things like Gondwana and the whole movement of continents around the surface of the Earth, although appeared crazy it could be shown to be feasible because of the geophysics and obviously palaeontology showed that these plates, these continents, had been in different climates!

[Part 1 0:26:41] Lee: And animals were migrating from one to the other?

Burns: Correct!

[Part 1 0:26:42] Lee: Without having to get their feet wet!

Burns: Exactly!

[Part 1 0:26:46] Lee: you must have been learning a hell of a lot while all this was going on!?

Burns: Yes, I mean at this point the degree was not, it didn't sort of lead me into questioning things. I guess I was very much a technologist maintaining the equipment and operating the equipment, but obviously seeing the quality of the data! But the main learning academically came out on my subsequent trip south, where I went down for two years, having completed the MSC course at Birmingham.

[Part 1 0:27:28] Lee: So when you were on board the *Shackleton* that summer, were you not picking up from the scientists you were working with their thinking?

Burns: Oh yeah, yes.

[Part 1 0:27:39] Lee: In the bar that night, you were 'What does this mean then!?'

Burns: Yes, oh yes there was clearly those styles of conversation, but when you're working shifts you know there's a limit to how much you can take in, and if stuff breaks down then it's 24 hours a day trying to get it fixed!

[Part 1 0:27:58] Lee: And did it break down?

Burns: Frequently! I think if you stick anything that's electronic in water, salt water - even nowadays - it's a common problem that mix salt water and electronics you are looking for problems!

[Part 1 0:28:16] Lee: What sort of lengths did you have to go to to get things back on the road again? To get it fixed you mentioned the equivalent of burning the midnight oil!?

Burns: Oh yes, definitely burning the midnight oil and we had...

[Part 1 0:28:26] Lee: Did you have to be inventive?

Burns: Yes, yes.

[Part 1 0:28:31] Lee: Can you give me an example of that?

Burns: Well yes, sort of rebuilding bits of the system on the magnetometer, trying, having to fathom out how particular circuits worked and having to rebuild them, such as they were more stable or wouldn't suffer the glitches that we were finding! So at times one of the things was this auto-tuning facility - I remember we just removed it all! - and just hand tuned. But at least that just got us back on the road and we were collecting data again!

[Part 1 0:29:07] Lee: Did you, was there a sense of excitement? Were you aware that you were actually making new discoveries, it was new science on new territory was that?

Burns: No I don't think so. The new territory was pretty awe inspiring, things like just drifting on the *Shackleton* and making explosions! And finding a school of whales coming up and sort of touching the side of the boat, the environment was just mind blowing! But I don't think I was particularly at that point, on my first trip, was that enamoured with the geophysics of discovery!

[Part 1 0:29:52] Lee: Can you elaborate on that, what was putting you off? Or just, not just you're cup of tea?

Burns: Probably not my cup of tea at the time yeah!

[Part 1 0:30:08] Lee: How Frosty was Captain Turnbull, was he willing to deviate to satisfy your requirements?

Burns: Occasionally. There obviously were routes to go and see the first mate, like John Cole, who let's say was more malleable, so you could approach John to get the idea. I mean Frosty was frosty enough. If I was standing a watch in the wheelhouse at the echo sounder I would have to knock on the bridge door, open it, go in and say 'Permission to come in the wheelhouse'!

[Part 1 0:30:44] Lee: After you'd gone on to it!?

Burns: Yes! [Laughter!] Which having worked offshore in the oil and gas industry was, you know things like that just don't happen!

[Part 1 0:30:54] Lee: So there was a bit of 'old school' about him was there?

Burns: Oh very much so yes!

[Part 1 0:30:58] Lee: Did you respect him?

Burns: Oh yes, yes!

[Part 1 0:31:04] Lee: What was it about him that you found respect for him?

Burns: He was obviously was very, very capable, but he obviously had mistakes. I remember him coming in, I guess it wasn't a mistake in the circumstances, there was one trip we came into Port Stanley, and I don't think the BAS office in Port Stanley had informed him that they'd done some dredging around the end of the jetties, and he came in his normal style at probably about 6 knots, slowed down to about 6 knots thinking because of the tidal state he'd just be driving the bottom of the boat on to the mud. But obviously clearly they'd dredged it and he took out quite a bit of the end of the jetty! [Laughter!] I also recall him, he was a sailor as in a yachting sailor, and I also recall him carrying as deck cargo his own sailing yacht, which he took down south with him!

[Part 1 0:32:01] Lee: Oh did he?

Burns: Yeah.

[Part 1 0:32:03] Lee: To go round the Antarctic?

Burns: Well obviously he didn't go round the Antarctic, he offloaded it in Port Stanley and whenever we were in Port Stanley with a bit of time to spare he used to go off sailing around!

[Part 1 0:32:17] Lee: OK so that kind of stuff was OK in those days?

Burns: Yeah!

[Part 1 0:32:19] Lee: You could get away with that kind of stuff?

Burns: Yes, I think communications were obviously sparse, yeah.

Lee: Which is very helpful?

Burns: Yeah, compared to nowadays you see blogs and webs!

[Part 1 0:32:33] Lee: What was the *Shackleton* like for doing science from, it wasn't designed specifically for that kind of thing?

Burns: No, effectively totally unmodified apart from the fact, I think it was cabin 34 at the back of the boat, the aft end, we I think that it still had the two berths in, but we more or less had nights in each rack of equipment. I think possibly they had put some cleaner, 2 x 40 volt generators on her, and I think, I'm trying to remember if it was my first trip doing marine geophysics or my second trip when I went down to winter, whether we actually had a compressor room. I know one of the trips I went down, I had to go down to Southampton and be trained on how to service an air compressor. And there was a little cubical, let's say, or compartment built in the main ship's hold to house this compressor. Certainly we could get compressed air and run these things called air guns over the stern, but apart from that it was all pretty basic!

[Part 1 0:33:48] Lee: And was there a regular or constant conflict between the practical needs of supplying bases, and the logistical needs of supplying bases and the scientific ambitions of the scientists onboard?

Burns: I don't think so.

[Part 1 0:34:01] Lee: Did it come to blows!?

Burns: Not that I recall. I mean clearly there would be times when if we did deviate a line and the weather was bad, it suited us because we would be near hove to making very slow progress but getting much, much more data, and Frosty Turnbull frequently used to say to us, 'Is that bloody magnetometer still working!?' And we'd go 'Yeah it's working fine!', because obviously he was looking to go somewhere for shelter, whereas we were obviously still out there to try and get the data. But no, no great problem or conflicts!

[Part 1 0:34:45] Lee: You mean he wanted to run for port and you wanted to delay?

Burns: Yes.

[Part 1 0:34:51] Lee: Would he always?

Burns: No, no, his words were 'Is that dam things still working!?' and if it was then fine, if it had broken down obviously we'd get it back onboard and we'll go and shelter!

[Part 1 0:35:02] Lee: Was that risk-taking then from you all, or were you aware of?

Burns: No, no I think she was a fairly seaworthy boat. Well she was small by the standard of the ships I've been on since but, no, she was a fairly seaworthy boat!

[Part 1 0:35:18] There were times you worked side by sides with the *Protector* weren't there?

Burns: Yes.

[Part 1 0:35:19] Lee: Tell me about that.

Burns: Well when we worked with *Protector* she would actually fire dynamite for us. So we would drift and the *Protector* would shoot away from us as it travelled away from us, firing explosives probably the first one at a mile, the next one at 5 miles the next one at 15, 20, 30, 40 and this was a technique called seismic refraction techniques. Which where you do need a big distance and from that you can get what we call a velocity acoustic propagation in the subsea bed materials! So you can start to infer what the rock types are. So that was the *Protector's* duty, but again that used to be tight on what her commitments were and what the *Shackleton* could be doing. So there was obviously a bit of nitty-gritty in trying to put the two things together!

[Part 1 0:36:20] Lee: So one gets the impression that the science or the scientists was a bit of a hitch hiker!?

Burns: Oh yes, very much so. I mean Prof Griffiths I think when he first went south managed to sweetheart somebody within BAS, probably Adie (!), who was then the chief editor and was obviously great bosom buddies with Fuchs. So I guess Griff started working at Birmingham in the sub Department of Geology, which was where Adie, because in those days the research was not done like it is nowadays at one central facility like Cambridge. It really was farmed out to the different universities, so I guess Griff obviously got to know Adie as he would in staff house, and persuaded Adie 'You could have a free ride on the *Shackleton* and collect some data', so I guess that's how it started.

[Part 1 0:37:16] Lee: Was there anything else in that first summer on the *Shackleton*, that you think is ? [incomprehensible] at this point or should we move on? Is there anything I haven't asked you about that I should have?

Burns: Can't really think!

[Part 1 0:37:30] Lee: What kind of sailor were you?

Burns: The same sailor that I have always have been in life, probably takes me about, if it's flat calm I can get my 'sea legs' within about three, four or five days! If I go out to the

6,7,8,9,10 are terrible and after about probably after 10, 12, 14 days of bad weather I've actually got my 'sea legs'! [Lee: Right.] Soon as I get, if I stay offshore long enough and that's what I primarily used to do in my subsequent working, professional career, if I stay offshore long enough, get my 'sea legs' and then if I come home for leave I could probably risk losing my 'sea legs' in a period beyond three, four, five weeks and just have to start again! But the wonderful thing about it is, unlike the people that just do the cross channel ferry and just want to die, I do know that I can get over it and live with it and just no problem and can eat.

[Part 1 0:38:37] Lee: So you got to the end of that summer and came back to UK, and you're contract was up, that's when you began to find out about other possibilities?

Burns: When I got, I think before I went south to do marine geophysics there was obviously lots of people in and out of the Geophysics Department. Clearly one of the guys I met was Ian Flavell Smith, my brother-in-law, but there was another guy Geoff Renner. And Geoff had only just got back from Hope Bay and Stonington, where he did Hope Bay the first year and Stonington the second year. [note: He only actually did the one winter at E] And Geoff, like self, was a Geordie and think he was from Whitley Bay, and Geoff just recounted these dog driving stories to me, and I just got hooked! I'd never had dogs as a pet at home but it just, Geoff's stories about driving dogs in the Antarctic made me think this is wonderful! And then having met my brother-in-law Ian Flavell Smith, discovered that he was doing the MSC course in geophysics being paid by BAS as a scholarship, I thought 'Well that's the sure fire way of going down there!' And guaranteeing of getting a dog team if you are doing geophysics there's only one way that you can do it, and that's to travel, so I guess those two things combined before I actually sailed south to do the summer work, I'd actually applied for the BAS scholarship in geophysics which would be starting on my return. Because they already had a candidate which was Ian Flavell Smith, so I thought this could be worth it, if it turned out that I didn't like it there was obviously an opportunity of withdrawing! But when I got back the marine geophysics programme was building, and I certainly went through a conscience pricker. I remember Griff the Prof calling me in to his office one day, and trying to explain to me that BAS and the Geophysics Department at Birmingham were all one big happy family, and that he really did think that I should not withdraw my application for the BAS Scholarship, and they would find a replacement for me and manage without me. I think that what Griff knew was that fortunately for me I'd been the only applicant for the perishing scholarship!

[Part 1 0:41:22] Lee: It seems that in your era not that long ago that actually BAS were struggling to recruit people, weren't they? While today there are hundreds of applications for every single post, [Burns: Yeah] not the case in your day?

Burns: Yeah, well I'm obviously not aware of the current regime, yeah it could quite possibly. If you are in geophysics then you should really get into the oil and gas exploration, that's where your bread and butter would be! Join Shell or BP, be there for life a long contributory pension scheme...

Lee: Maybe not for much longer!

Burns: ... well obviously things have changed!

[Part 1 0:42:01] Lee: So actually then you were shore based in Birmingham for a whole year then were you?

Burns: Yes. Basically I think I fulfilled probably at least 12 months, if not some small extensions of the original contract to assist in the geophysics department, and then I guess there was the logical start for the MSC course, which I assume was probably going to be the September/October time at university. So I just stayed working in the geophysics department until I just stopped working there and became a student there, to do the MSC course!

[Part 1 0:42:43] Lee: How was that course, was it challenging?

Burns: It was, it was most challenging. Again it was, as I said, there was an intake, either from people who had done geology degree or people who had done physics degrees, maths degrees and also people that were coming in from industry, but usually the ones coming in from industry were paying for themselves for career advancement. And things that I had never understood, I'd never had any formal education in geology so there were certainly some items that were just beyond me! And I did struggle with the geology and I always remember we had an external examiner, which Professor Martin Bock from Durham University came down and he almost lectured me towards the end of my interview with him, and saying that I was in danger becoming a geophysical technician rather than a true research geophysicist! And I think I quipped back at him, well I didn't see anything wrong in becoming a geophysical technician! But yes, the course was, I found, fairly hard work!

[Part 1 0:44:02] Lee: But you passed!

Burns: Yes just! [Laughter!] Well there was a bit of a complication there was, the course was obviously by, there was a series of lectures on various topics in geophysics, but then there was a programme of field work which probably lasted two or three weeks, and towards the end of the course. And we all went up to the Fylde area in Lancashire and we were assisting in the Fylde Water Board, in trying to define the aquifer in the water supply which is used in places like Blackpool. It was obviously reservoirs and rivers, if you are going to supply Blackpool in the summer you're pretty soon going to run dry! So the Fylde Water Board had quite a few bore holes that they would extract water from, some of these were beginning to dry up so we went up there using various geophysical techniques, in my particular case I used gravity techniques to try and delineate where faults were, which obviously might be a hole where water might just not get into aquifer and go off elsewhere. And I think I probably was very slow in getting my dissertation worked up and presented, to the extent that I was completing it when I went south! [Laughter!] So I always remember when I got back Ray Adie having a go at me, saying I wasn't really fully qualified when I was a geophysicist in the Antarctic! I mean he said nothing whilst I was down there, but he was certainly using this against me when I returned to try and get me on to a different salary scale!

[Part 1 0:45:57] Lee: Oh right, a lower one you mean!?

Burns: Obviously, or not to put me on the next highest one!

[Part 1 0:46:03] Lee: This is a bolt from the blue, but was dowsing frowned upon as a technique?

Burns: No, Griff the Prof had used it in some of his work, because in using dynamite had in UK research projects felt that if he could find a dowser, and then there might be less damage to the pipe work, underground electrical cable and certainly in those days, in the seismic industry on land they used to employ dowsers! Again specifically for use in, when using explosive work for seismic.

[Part 1 0:46:47] Lee: Was there ever any use of dowsing in the Antarctic?

Burns: No.

[Part 1 0:46:52] Lee: OK, check! [Laughter!] So you were heading, alright you did this course and you eventually passed it one way or the other! [Burns: Yeah] And you were heading, obviously, heading south again which is what you wanted?

Burns: Yes.

[Part 1 0:47:06] Lee: What was your next dollop of southness?

Burns: Well the next dollop was this, the attending Corpus Christi for the weeks all having a drink and getting to know the BAS.

[Part 1 0:47:19] Lee: Was it Corpus Christi in those days? [Burns: I think?] Not Girton?

Burns: No, no it wasn't Girton I think it was Corpus Christi!

[Part 1 0:47:27] Lee: Well how was that for you, because suddenly you were in amongst peers?

Burns: Well yes, it was, I had almost been on the periphery of BAS, although I'd obviously got to know hundreds of Fids during the first summer 'charlie'.

[Part 1 0:47:44] Lee: Because you were stopping at every base?

Burns: Because we were stopping at every base, so I was meeting Fids that were going south and Fids that were coming back! And certainly after that first trip, as I said, I flew down to Uruguay at the start, but I came back on the *Shackleton* to Southampton, so you know you got to know all the Fids.

[Part 1 0:48:06] Lee: So at that conference you were actually being addressed by Dr. Fuchs himself?

Burns: Oh yeah, yeah!

[Part 1 0:48:11] Lee: What did you make of him because he was a different generation wasn't he?

Burns: Oh absolutely, I mean, well I think around that time he been caught in the press, or hounded in the press is probably a better way of putting, he'd been interviewed and some guy in the press had sort of said to him 'What a waste of public money this was', ending these guys down to the Antarctic! And Fuchs came out with what I think is probably a pretty typical comment from the man 'Far better we do things like that, than guys to be British gentlemen!' Which I think was his outlook on life! So he was very much old school.

[Part 1 0:49:03] Lee: Did he have a charisma which you recognized?

Burns: Oh yes, oh yes!

[Part 1 0:49:06] Lee: Can you describe that?

Burns: I just think his all presence, the beard and the stories, the E-type Jag! [Laughter.] The stories, the legendary story of the TAE expedition of where they'd collected seismic data and he'd travelled from Cambridge down to London, and there was a geophysicist on the TAE, I can't remember the name of this guy, the guy's name, but Fuchs wanted to get all the data from BAS back up to Cambridge for someone to start working on it. And apparently it was a lovely day in London, so he gets out from Gillingham Street with this old valise or something with all these seismic records stuffed into it, parks it by the boot of his E-type and takes his hood down and drives off, I think he got between London and Cambridge and realised he'd left all his seismic records! So had to go back down and get them. So ah yes, he was quite a legendary character!

[Part 1 0:50:11] Lee: So here you are then, you finished you're introductory course, [Burns: Yep.] and you are back on the *Shackleton* [Burns: Yep] heading south, did you have any idea where you were going and what you were going to do?

Burns: Oh yes, I knew that it was Stonington.

[Part 1 0:50:26] Lee: And what was your task going to be?

Burns: At Stonington, field geophysics. The brother-in-law Ian Flavell Smith, who was just another guy at the time, was already down there so I knew I was going to join Ian! I had quite a few of the scientific Fids, geologists and geophysicists the sealed orders from Raymond J Adie which were not allowed to open I think before we cross the Equator!

[Part 1 0:50:57] Lee: That's true is that!?

Burns: That's absolutely true!

[Part 1 0:50:58] Lee: Or is it legend!?

Burns: An absolutely true legend!

[Part 1 0:51:01] Lee: Were you ever tempted?

Burns: No, not really. I mean they were so nondescript! Burns you shall survey using gravimetric and magnetometer techniques areas banded by latitude & longitude, and latitude & longitude with four co-ordinates which was literarily ginormous! So it was completely free scope.

[Part 1 0:51:27] Lee: Right OK. What was he doing, did you ever get to the bottom of why Adie did it?

Burns: No, well he was a bit of a strange pernickety character!

[Part 1 0:51:37] Lee: Eccentric!

Burns: Yes, sometimes a pain in the arse! He would focus on minutia.

[Part 1 0:51:45] Lee: So your brief was actually very broad?

Burns: Yes, but the minutia would be you're not allowed to see this, because nobody must know this till you have crossed the equator, but I don't know whether the guy was a bit insecure, wanted to stay in control, so you weren't allowed to read it or tell anybody!

[Part 1 0:52:08] Lee: So how was that when you crossed the Equator, did you all then dive for your envelopes?

Burns: Well you dived for your envelopes so I think he might have given them to Frosty Turnbull, such as we would be handed them, so we looked at them read them had a giggle, had a few beers and got on with it!

[Part 1 0:52:28] Lee: Did you compare notes?

Burns: Not necessarily, but I mean I knew where I was going in any case because I think I was in correspondence with Ian Flavell Smith, via his family.

[Part 1 0:52:42] Lee: Right, so he was expecting you [Burns: Yes] to join him yeah?

Burns: Yeah, because I knew I wasn't going to go to Halley and the only other place on the peninsula that any geophysics was being done was Stonington.

[Part 1 0:52:53] Lee: When it got to Stonington, I appreciate you had been there before, when you suddenly found yourself living there what was it like?

Burns: Well again there was acclimatization of staying on the ship, because I was borrowed again by the geophysics department [Lee: On the way down?] to do marine geophysics.

[Part 1 0:53:12] Lee: So you did some more work?

Burns: Oh absolutely, oh yes! I think it was, I think Ian Flavell Smith was making noises like, 'Get your backside down to Stonington ASAP!' And the guys from Birmingham geophysics department, and the research fellow was a guy called Peter Barker, was onboard and he was trying to hang on to me for as long as he could, so.

[Part 1 0:53:41] Lee: So just to interject there you'd obviously spent some time in the Stanley hadn't you?

Burns: Oh yes, I think?

[Part 1 0:53:44] Lee: Because in Stanley there was a delay as well?

Burns: Yes, I think Stanley, I can't honestly think why there was a delay, but I remember getting off in Stanley and there was a surveyor called Paul Bentley and the pair of us, well I was his chainman and we went out and did a survey of what for a runway area. And I think the Falklands Government were looking into noise that had been made by the Argentinians of putting a runway in, which would be serviced by Aerolineas Argentinas or Argentinians. And the Argentinians were saying particularly you could go to Argentina, go to hospital there and it would be far easier than catching the *Darwin* up to Montevideo! So there was certainly that period in Port Stanley I think. I think in the first year I had a delay which was at Deception Island when I got off the *Shackleton* at Deception, and I think we had about 50 or 60 tons of naval demolition charges (!) which were, in true BAS or Birmingham University Geophysics Department, were stored in a couple of old whalers' wooden huts. So they dumped me off, probably to go and do some re-supply where they wouldn't be collecting data, and by hand myself and a guy called Shaun Norman who eventually became Base Leader at Stonington, he was a met man in those days at Deception that year at Deception. The two of us floored out one of the old whaling tanks, steel whaling tanks, fitted a door on it and manhandled all this dynamite into the whaling tank, so that was a strengthening experience!

[Part 1 0:55:47] Lee: Was it dangerous?

Burns: No, no it was just TNT! So we moved primers and detonators separately! We had actually had, I had been on a naval demolition course at HMS *Vernon* which was a naval facility, obviously the name of a boat but a shore facility down in either Southampton or Portsmouth, so we were let loose with navy charges and shown what to do with them!

[Part 1 0:56:25] Lee: Just going back to the Stanley runway [Burns: Yes] surveying at the time, were you fairly convinced that this runway would ever get built?

Burns: No, I had no idea. I mean frequently, I remember Chalfont, Lord Chalfont went down and at some stage I guess he was, I don't think he actually was the Minister for Foreign Affairs but he was fairly high up in the Foreign Office, and he went down. It was common knowledge he was trying to persuade the Falklands to accept more of Argentinian input or involvement in the Falklands, and I remember, I think this was my first hop back, jumping around a bit, but back to my summer 'charlie' trip on the *Shackleton*. I do recall Frosty Turnbull probably being at that time fairly keen that we stopped running the magnetometer, 'Hey we've got to get to Port Stanley quick'! And so Chalfont came down on the *Protector* and Frosty had us with loud speakers out of all the port holes on one side, playing Land of Hope and Glory as the *Protector* went in through the narrows into Port Stanley! [Laughter!]

[Part 1 0:57:38] Lee: So even then in the mid '60's there was a certain amount of political agitation between Britain [Burns: Yes] and Argentina?

Burns: Yeah; I don't think in my time offshore I never on the *Shackleton* never had any problems, but certainly two, three, four years later *Shackleton* was actually fired at by an Argentinian navy ship, which is what chronicled but I wasn't around!

[Part 1 0:58:09] Lee: OK, so you got to Stonington and you settled in at Stonington?

Burns: Well part and parcel of Ian Flavell Smith trying to get me off the *Shackleton* PDQ, pretty dam quick (!) was that he had got permission from BAS to do a winter programme, and so I got to Stonington, was only there about three or four days if my memory serves me correctly, whereupon I immediately turned around I think I was probably on the *Biscoe*, I think we must have transferred somewhere on to the *Biscoe* from *Shackleton* and the *John Biscoe* then took four of us, which was Ian Sykes mountaineer and general assistant, Pete Roe geologist who'd been at Signy his previous year, Ian Flavell Smith geophysicist, myself geophysicist, two dog teams and we went up to Horseshoe Island, where there was an excellent base and Ian Sykes had organised a hell of a lot of work with different teams going up there, refurbishing the hut. And so we had a winter at Horseshoe before, as I say, settled moved in to get myself a berth at Stonington. And that was a great trip being around the Fjords which was an introduction to sledging and sea ice which was fairly, relatively safe amongst the Fjords, and fantastic scenery!

[Part 1 0:59:49] Lee: How did you take to dog sledging?

Burns: Well it was fairly simple at that point because I didn't have a dog team for the first year, so basically I either travelled with Ian, or more often travelled with Ian Sykes, with the bits of geophysics being trailed or mounted on the sledge. So Ian obviously was doing the sledging but I just thought it was wonderful! Great fun to see those little tails bobbing up and wagging and happy dogs!

[Part 1 1:00:21] Lee: Are you a doggie man anyway or were you?

Burns: No. I probably when I was at home used to find stray cats like they were going out of fashion, my mother 'You're not bringing another stray cat into this house'! But just took to dogs and since coming back from FIDS, I think the first time we had a house with a fairly decent sized garden just went out and bought two dogs!

[Part 1 1:00:48] Lee: Not huskies!

Burns: No, no a couple of, no I think just a couple of bog standard working dogs, I certainly wanted to go for a working dog. No, I wouldn't have entertained really having huskies.

[Part 1 1:01:01] Lee: What is it about dogs and the Antarctic, why do grown men get all misty eyed?

Burns: Well I guess it's, once you get to the point of having your own dog team, it's I think it's the family thing - you're responsible you've got to look after this family of nine dogs! I

mean I know there have been occasions, especially at Horseshoe, when I think three dog teams and maybe three or four guys went off and major breakup of the sea ice, and search parties once the sea ice had refrozen and the dogs started coming back maybe three or four weeks later! So we know that they can survive, but you do feel responsible for them, stitching them up when the fights are too bad, feeding them and you might be down but if they're up and they're happy it just comes on to you!

[Part 1 1:02:00] Lee: So they are a psychological boost are they?

Burns: Absolutely, oh yeah! Yeah, great days where the long days and the dogs' tails are still up at the end of the day! Bad days are poor surfaces and rolling sledges over and scraping the ice off the runners, but the good days were just tremendous!

[Part 1 1:02:22] Lee: There is another mode of transport which perhaps wasn't completely approved of, was a certain canvas canoe?

Burns: Oh yes, well that was Horseshoe which, Ian Sykes being mountaineer and outdoor pursuits man, ex RAF mountain rescue, had built a canvas covered canoe at Stonington. Now how the hell he smuggled it aboard the *Biscoe* without the Skipper spotting it!?

[Part 1 1:02:58] Lee: It was in one piece was it?

Burns: Yeah, oh yes it was built, it was completed. So I always remember Ian when the first week at Stonington, coming along to me saying, I knew Ian Smith because I'd climbed with Ian and spent some time and shared a flat with him in Birmingham. But Ian as, let's say, the overall leader, the one fully qualified mountaineer guy with us was obviously sounding me out, as to how capable I was, whether I was going to be an absolute liability in climbing or walking up crevasse fields or whatever, and I remember him showing me this canoe that he'd made, and I said 'Oh it's a PBK15, I built one these when I was at school, and I built the PBK20'! 'Oh' he said, 'You've done a bit of canoeing? Well do you want a shot at it?' 'Yeah!' So I think I borrowed it, out we went and I can't honestly say whether we had lifejackets! Off we went and I think I was probably away for, oh a good 20, 40 minutes, maybe an hour. I can't remember whether, I think there might have been a flare go off back at Horseshoe base, there was a bang and I looked at this bright light in the sky, and 'Oh!' I thought, 'Better get back!' And I got quite a rollicking from Ian, as to how long I'd been away and that he was worried, I guess he probably was worried. Had there been an incident it would have all come out in the wash, as to who'd built this damned thing, and who was maybe sort of responsible for an incident?

[Part 1 1:04:48] Lee: So was it never used again?

Burns: I think it was used periodically, but as soon as the sea ice came that was it, it didn't get used again.

[Part 1 1:05:01] Lee: Let's just pause for a moment and then we'll pick up where we left off.

Burns: Right.

PART 2.

[Part 2 0:00:00] Lee: This is Mike Burns recorded by Chris Eldon Lee on the 13th of April, 2011. Mike Burns Part 2.

[Part 2 0:00:14] Lee: Let's talk a bit the about then the work you did at that period of time at Horseshoe, again it was to do with the ground beneath your feet wasn't it?

Burns: Yeah, yeah. We basically, again it was using a gravimeter and a Worden gravimeter and some back packable magnetometer which were called Elslack magnetometers and were the worst thing in the world!

[Part 2 0:00:38] Lee: Why is that then?

Burns: Well they had tiny lead acid batteries - as any electronic or motor mechanic will tell you that using lead acid batteries, once they start to lose their charge, they will freeze, the electrolyte will start freezing at higher temperatures, as in minus 12, minus 13. So they are difficult to use; you need a generator to recharge the batteries and in those days I guess technology was nowhere near as it is today, so the things were not microelectronics, but fairly big power eating electronics! And I think Ray Adie had got to know this company that made these Elslack magnetometers were based in Cambridge, and he seemed to have quite a learn to using these dam things! Whereas there were other manufactures around and notably from the States stuff was coming in, and being used again in the oil and gas industry was coming from Geometrics that made magnetometers, much, much more sophisticated than the old Elslacks than we used to use. We carried them around in a back pack if we were camping obviously we did some work from Horseshoe base itself. Either by walking around the island or when the sea ice became good, we went off sledging round the fjords and so the pain in the backside was - every night the Elslack magnetometer would have to come inside the tent and go up in the top of the pyramid tent to try and keep the batteries warm! And then periodically we would have to return to base to charge the batteries up or carry with us a petrol generator! So inevitable but that was the sort of thing we did. Magnetic was probably not an ideal geophysics tool for around the fjord area, because so much intrusive material - you really needed probably airborne programme, so the bulk of the work that was certainly published all the data was from the gravity survey.

[Part 2 0:03:00] Lee: Were you finding this interesting this work, because it wasn't exactly what you had in mind when you went the Antarctic was it?

Burns: No, no I just wanted to go sledging with dogs!

[Part 2 0:03:10] Lee: You wanted to be Captain Scott didn't you!?

Burns: Oh no, no he came to a shocking end!

[Part 2 0:03:16] Lee: Amundsen then! So how, I suppose my question is to do with, how much you enjoyed the work you were doing, or was it just a means to an end?

Burns: I thoroughly enjoyed the work, no I thoroughly enjoyed the work!

[Part 2 0:03:35] Lee: Despite the frustrations of being given equipment that wasn't quite right for the job?

Burns: Well I think that having had that first winter, I probably realised the value for geophysical analysis and interpretation of the problems that we were trying to address, would be better addressed using a Worden gravimeter which basically just takes two little AA pen cells to illuminate a very small light inside a unit a relatively robust instrument.

[Part 2 0:04:13] Lee: Did BAS eventually see the errors of their ways?

Burns: Yes, well in as much as I think the magnetic, I think they probably continued the magnetic from the wintering bases, with the geophysicists that were down on base. But right towards the end of my period with BAS, Adie offered me an extension of contract as I was completing, writing up the data to publish, he offered me an extension of contract for 6 months to go back south and I'd be involved the airborne magnetic survey, which was certainly the way I thought it should be done! I didn't take him up on the offer. Basically I'd got married, basically I think you have to pay much more tax in going south, and also having become a qualified geophysicist that was interpreting and publish my own data I wasn't that keen to just collect the data! My words to Adie were 'Well who is going to interpret the data, am I going to be involved in that?' And he couldn't offer me an assurance that I would, so I thought 'Well the time has come get out of playing around, with - well let's call it academic and Antarctic geophysics - and get into that big bad world of commercial geophysics oil and gas!!

[Part 2 0:05:50] Lee: Your summer programme that year, because you did that Horseshoe stuff in the winter [Burns: Yeah] and then in the summer were you elsewhere or ...?

Burns: Yes, the summer was, I can't remember when we left Horseshoe, but was probably there for three, four, five months there was a period where we had lots of visitors who would come up from Stonington. You could probably get up from Stonington to Horseshoe if the sea ice was good, probably in about 14 to 16 hours, so let's say in two days easily. So I think we had lots of visitors. I mean it had been a wonderful experience at Horseshoe, once again a tight knit group with just the four of us, so once you then get other folk in you know you can't turn round and say 'Oh don't do that', or 'Be careful about that door', or becomes a much bigger base and I think the time was right go down to Stonington and get ready for the big summer trip! The big summer trip was relatively inventive, it was to sledge from Stonington down to King George VI ice shelf, which had been done before and Ian Smith had attempted it the previous year but had been caught with really bad sea ice, and aborted and come back! So the innovation was that Shaun Norman, who was base leader, and myself formed one sledge party, so there was two guys, one dog team, one tent, and Ian Flavell Smith and a guy called Brian Gargate, who was an ex police constable from the North East of England, two dog teams and a tent and the geophysics kit. And we all travelled together on the sea ice down to King George VI Sound and then, I think, at a place called somewhere near Ball Point, we split up and Shaun and left, and off we went, the two guys the one dog

team the tent and we just took soundings or took measurements, gravity and magnetic measurements all the way down King George VI Sound all the way down to Eklund Island. Eklund Island in those days being know by Fids as where Fuchs and Adie, the farthest south that those two erudite guys had ever got to! And there was a story from Fuchs and Adie that they left a tin of Senior Service cigarettes, the tin but with some goodies in it, a message! Shaun and I got down to Eklund Island, climbed Eklund Island, looted their little message!

[Part 2 0:08:40] Lee: You found it?

Burns: Oh yes, and we left our own!

[Part 2 0:08:44] Lee: A polite one?

Burns: Oh yes, yes, we left our own and we took theirs and the last time I saw it it was up at the bar in Stonington base. I guess it's probably long gone from there, but we framed it and stuck it up there in the bar!

[Part 2 0:09:02] Lee: There was a crevasse incident wasn't there round about this time?

Burns: The crevasse was probably, the first one we had was not Shaun and myself. We left Eklund Island, came back up part of King George VI Sound and then sledged up on to Alexandra Island, managed to do a first ascent on Mount or Stephenson Nunatak - Shaun was like most general assistants dead keen on mountaineering and obviously so was I!

[Part 2 0:09:33] Lee: First ascents were a bit of a trophy were they?

Burns: Or tick, definitively a trophy to catch one!

[Part 2 0:09:39] Lee: Yeah.

Burns: So the pair of us did that and we sledged up over Alexandra Island and met up with Ian Smith and Brian Gargate, with their two dog teams, then as a convoy the three sledges all went down the Uranus Glacier and that was the first of the incidents, where I think Brian was probably lead sledge, popped most of the sledge. I don't think any of the dogs went down, but I guess with at the time the hindsight was clearly we were getting to the height of summer. And the crevasse bridges were getting much, much poorer, so I think that was a bit of a wakeup call to us! And we got out of the situation fairly easily, no damage, nothing lost and then continued on down to Fossil Bluff - at that point it was 'How are we going to get home?' I think one of the BAS aircraft had already crashed, that was the Pilatus Porter that I had helped in my summer 'charlie', first trip south, helped to build in Deception Island. Because it came down on the Perla Dan, was offloaded and then all hands on base whilst I was building the munitions store, all hands on base were out there holding aircraft wings up while the aircraft fitter did up the nuts and bolts. So I think when we were at Fossil Bluff, there was no way that we were going to get flown back out to Stonington! So there was a bit of a rehash of sledging parties and we sledged back from Fossil Bluff to Stonington, but going up on to what was called the Plateau, the Antarctic Plateau, the Peninsula.

[Part 2 0:11:35] Lee: The sea ice at that time was too risky?

Burns: It would, I'm sure Shaun would have, Shaun was, as I say, base leader and at times it used to be a pain! And found this in the second year as well, because I travelled with the base leader in my second year as well, geophysics was obviously the jolly, so I think Shaun and certainly Tony Bushell realised you could get some good sledging in with geophysics! You know, no huge cache of rocks or survey gear to hump up mountains etc, so I think probably Shaun, we would frequently would have to stop for skeds, radio skeds, which would be quite disruptive but obviously Shaun and Tony just had to keep abreast what was going on, and bless decisions or discuss decisions and occasionally do what a base leader has to do! So I think Shaun was aware probably that the sea ice, Marguerite Bay was just a no go so clearly the only way back to base was, with the fact the aircraft had crashed, was via the Peninsula.

[Part 2 0:12:54] Lee: And there was another crevasse incident on the way back?

Burns: Now let me think of that one.

[Part 2 0:12:59] Lee: Mike Bell?

Burns: No, that was in my second year, my second summer trip. This first summer trip as I said was just Shaun and myself.

[Part 2 0:13:10] Lee: I think my mistake then!

Burns: Not a problem, as I said I'm a bit remiss with jumping around, but I'll jump to that one. The second summer, and again guess this leads on from being with Tony Bushell, base leader had decided he would come with the geophysics group, so there was Tony with the Komats, the dog team, and myself with the Terrors, and the Terrors were the team that Shaun Norman had, so that first summer trip Shaun and myself, although Shaun's dogs, the dogs just got to know who I was and would respond to me! So like, and I'll digress, unlike some of the lads the old hand would pass on the dog team and just be unmitigated chaos, for me when I finally took over the Terrors it was just magic!

[Part 2 0:14:05] Lee: So there was a planned transition was it, succession planning?

Burns: Yes, yes I said to Shaun 'Can I have the dogs please?' As Shaun was preparing to leave base and go back to UK, 'Shaun it would be a good idea if I had the Terrors wouldn't it, really, so you know it would be better for the Terrors won't it Shaun!?' Anyway the second summer there was Tony Bushell, Mike Bell and myself with the two dog teams, Tony's team and my team and I think we really were in virgin territory. I think the previous year on Alexandra Island sledgers had actually been up the Uranus Glacier before, but our second summer in Alexandra Island.

[Part 2 0:14:53] Lee: This is the northern end of the island?

Burns: Well where the accident actually happened was probably about the middle, I think it was somewhere near the Beethoven or Bach Ice Shelf or somewhere. But it was, again it was getting towards the middle of the summer. I think another guy whose name escapes me may

have had a close escape with a crevasse, think he lost two dogs. But this particular day with Mike, Tony Bushell was leading and was probably about half a mile ahead of me to three quarters a mile ahead of me. Mike and myself were the second sledge with the Terrors, so I'm on one side of the sledge, the left, Mike was on the right side of the sledge, I can see Tony stop and wave at me as if he was waving go right, go right! So the dogs just follow the existing sledge tracks so kept on following them and eventually came up, and you could see the crevasse, the sort of hollow or the depression and you could see a place where there was some small holes. So I think I turned right as Tony had been indicating and probably ran 50 yards up the side of the crevasse depression, full of the snow depressed, looked at Mike and said 'Are you OK to go across?' I guess what I should have said to him, 'Look, this might not have worked out that well, can you put your dongler on?' because we used to carry a waistband with a loop, a back spliced loop that would actually slip over the top of the handlebars, sledge handlebar, so I put mine on and shouted at the dogs 'Huit dogs!' and off we went, and as we went across the crevasse there was just one almighty bang!

[Part 2 0:16:59] I remember shouting at the dogs 'Huit, huit' as I dropped, and sledge certainly point up at an angle of 15/20 degrees, so the back of the sledge was certainly falling, but the dogs managed to pull it out. I got a crack on the chest as I got dragged out of the crevasse, pulled myself together, stopped the dogs! Looked round to say to Mike 'Bloody hell that was a close one!' and there was no Mike Bell! So took the skis off went up forward and put the picket in to stop the dogs from turning, went to the back and started getting the rope out that we used to carry, it was probably 150 foot rope - it might have been longer - started getting that ready, lowered it down, tied it to the sledge lowered it down, by which time Tony Bushell came back up and he said 'What are you doing?' I said 'I'm going down and give Mike a hand', and I always remember Tony's words were 'No you will not! I will show what we do!' And at that point, and Tony and I had always had a, let's say, mostly a friendly rivalry when sledging, at that point I just capitulated and thought 'No, he's in charge, he's the GA, he can do what he wants!' So we lowered two ropes down to Mike Bell - I'd shouted down to him - and he said he'd stopped moving, he was OK. Shouted down 'Anything broken or are you hurt?', 'I don't think so, I've just lost 1 ski!' So we managed to get him up by using two prusik loops, or two prusik dumar clips on two ropes and just shouted red-white, the different colour of the ropes, and got him out and that and that was it! But with hindsight think that if Mike had been clipped on, put his dongler on over his side of the handlebar of the sledge, and just wondered whether the weight of both of us hanging there whether the dogs would have got us out, but we'll never know!

[Part 2 0:19:06] Lee: Did you change your sledging approach or your sledging techniques after that narrow squeak?

Burns: I think, I think we were probably more cautious because there was other stories coming out from other sledge parties of problems We also had adopted travelling at night time, [Lee: Right] because the daytime a lot of Tony's dogs were black and a lot of my dogs were black, and the dogs used to get exceedingly thirsty and the surface would be fairly frozen as, not like the névé, the dogs couldn't scratch and drink it! And the dogs were

panting like hell, certainly the black ones were so we used to actually switch to try and travel at night time!

[Part 2 0:20:07] Lee: And therefore the snow was firmer!

Burns: Yes and theoretically the crevasse bridges should have been more sound.

[Part 2 0:20:12] Lee: But that was already known wasn't it, that's old heroic Fids' [Burns: Yes.] strategy?

Burns: Yes, but I think we had just become, I think we had become complacent!

[Part 2 0:20:25] Lee: Yes, so that little accident was a reminder?

Burns: Yeah. Visibility on that occasion was perfect and like in the north end of Alexandra, we were, we sledged right up to the very north of Alexandra Island and on the way up north we dumped off quite a lot of supplies and made ourselves a little depot to pick up on the way back. And I remember we managed to do more work and get access to more of the area, because you couldn't really see - the maps were atrocious, the mountain ranges 30, 40 miles in a different spot! So I think we spent a lot longer in the north and had to come back down for some supplies, and I always remember that we'd put this depot on a small outcrop of rock and just as I was slogging away from it, and the conditions were quite whiteout, very, very poor visibility, there was an almighty bang! And probably about half of my sledge dropped into a crevasse on its side. I remember looking down the hole and thinking 'Bloody hell this is big!' And seeing, because the visibility was so bad you couldn't really see the depression, but looking down I could see the width of the hole, how far it went to one side, and it was a bit of a tricky deal trying to get the essential things like the Worden gravimeter off, the magnetometer off, my notebook with all the results in off in case the sledge did drop! But that clearly was just poor visibility on that occasion.

[Part 2 0:22:13] Lee: But so again I was slightly surprised that you were slogging at all in such poor visibility, particularly if you were slogging in virgin territory you had no idea whatsoever, the inherent dangers you didn't know where the crevasses might be!?

Burns: I guess, I guess you would probably say were we a bit gung-ho! I think we had probably become a bit over confident!

[Part 2 0:22:44] Lee: I'm just wondering whether the incident at that time, talking late '60's, yes, actually paved the way or indicated to BAS, that something had to be done about this and health and safety began to creep in, and that from then onwards greater care and attention was paid?

Burns: Well certainly, I mean we used to joke about Fuchs at the Corpus Christi lecture where he demonstrated crevasse crossing techniques, which was to take an ice pole and sound to see where the crevasse edge was, and then stuff under his arm a bit of 4 x 2 timber such that if you fell down the crevasse, you'd end up swinging with this piece of wood under your arm, so I guess, there was HSC was probably minimal, probably really was minimal!

[Part 2 0:23:45] Lee: Does it surprise you there weren't more serious accidents, and more deaths?

Burns: Well certainly in my period we didn't have deaths in any of the sledging parties, we never had a fatality! I don't honestly think we had an injury falling down a crevasse. The only sledging injury I recall was in my first summer. As I said we left Fossil Bluff to get back to Stonington via the overland route and we split up into Ian Smith and Brian Gargate, because they'd been travelling together and myself and Shaun with the Terrors, and Mick Pawley joined us. Now Mick had been I think with the survey team at that point and so there was three guys, one tent and two dog teams. So off we went and eventually split up from Ian and Brian Gargate on - can't remember the name of the glacier - going up from King George VI Sound up on to the Peninsula. But got up on top off this, split up, we decided to do a bit of a southerly detour because there happened to be a mountain called Mount Andrew Jackson down there which, I think, one maybe two ascents previously. So we wanted to have a look at it and get a bit more geophysical data!

[Part 2 0:25:17] Lee: Or knock it off!

Burns: Or knock it off, yeah! And Mick I think was probably second sledge one day, and Shaun and I were at the front and Shaun had, we had probably stopped for a smoko and Shaun had looked back at Mick said 'Are you OK for us to move off?', and Mick had said, 'Yeah, no probs', so off we went. A bit later we looked back and we could see Mick's dog team and sledge, but no sign of Mick! And what had happened to Mick Pawley was that, he'd been up unravelling the dogs because the dogs used to be on a centre trace with two, a pair of side traces and they used to get all twisted up, so Mick had been up untying the dogs and the dogs had suddenly taken off! So the last thing Mick wanted to do was to let go so he kept on holding on to the trace, and eventually got on to the side trace and as his hand slipped and slipped the dog clip punctured his hand, and went through one side of his hand and came out the other side! So that was a stitch up job - I think that was the only time we ever saw an injury and had to get the medical kit out and do it, for dogs often, injecting dogs or stitching them up or whatever.

[Part 2 0:26:45] Lee: Would you be doing the stitching or somebody else do that?

Burns: I certainly stitched dogs, even though I fainted once, way before FIDS, Emergency Ward 10 - once when somebody had an injection on Emergency Ward 10 - and also being in a pub somewhere round the Birmingham area when my brother-in-law Ian Flavell Smith talking about contact lenses, and that was enough for me! And I always remember at the indoctrination at Corpus Christi, having a blood test and talking to Pete Tilbrook and Pete looked at me and said 'You've gone ashen, you better get your head between your legs'! [Laughter] But I think once I was south things like killing seal, taking seal, gutting seal chopping seal, stitching up, was it just needed to be done!

[Part 2 0:27:30] Lee: Different reality!

Burns: Absolutely!

[Part 2 0:27:33] Lee: Yeah, there's a little note here about rather an unusual Christmas meal?

Burns: Oh yes, that was, well that was going up on to the Peninsula having left Fossil Bluff and we camped for Christmas Day, the weather was terrible visibility was atrocious! So there was the two sledges, two tents, there was Brian Gargate and Ian Flavell Smith in one, Shaun Norman, Mick Pawley and myself in the other and I think Ian had managed to save all sorts of goodies that his mother had sent him down, and I'd called in at the house taken some of this stuff down for him. But there was all sorts like cream topped whipping stuff and probably a little flask of brandy, all sorts of goodies. So the dogs were still fed and I went outside, I was probably on dog feeding duty, and suddenly I spotted miles away from the sea a skua! And I looked at this thing and I shouted 'Guys you'll never believe there's a skua out here!' So Mick Pawley came out of the tent, walked to the back of his sledge, opened up his sledge bag - handlebar bag - took out a '45 shot from the hip and got this thing! Then let one of the dogs off and said, like would to any dog, 'Go and fetch!' [Laughter!] Fortunately Princess, that was the lead bitch for the Terrors, actually went and got it so we had fresh skua for Christmas Dinner!

[Part 2 0:29:02] Lee: Cooked over a primus stove?

Burns: Oh yes, in butter I think, nothing else so.

[Part 2 0:29:05] Lee: What did it taste like?

Burns: Delicious!

Lee: Chicken, fish?

Burns: I remember not as salty as penguin, but oh yeah it was quite granular, it was nice. You have to remember we had been living on meat bar in those days. I don't know if sledging rations whether they have been improved, meat bar was legend!

[Part 2 0:29:31] Lee: I've got one or two things to ask you before we start looking at moving away from the Antarctic. And you came across this man Bill Tilman [Burns: Yeah.] and the *Mischief*? [Burns: Yeah!] I don't know much about this chap?

Burns: Ah yes, Bill Tilman is a legend [Note: see Addendum], I think he has a street named after him in Sicily where he stayed behind fighting the Germans. He had a crack at Everest, he was leader on an Everest expedition with Eric Shipton, and he had this Bristol pilot cutter called the *Mischief*. He'd been down to Heard Island, five, six, eight years earlier, with a team of Aussies and Kiwis and they'd all had a great time, and they'd done a bit of mountain climbing around Heard southern and the islands round there, the Sandwich Islands? So one of his next projects, he'd been up I think to Greenland, another one of his projects was to go down to Smith Island, which was not too far away from Deception. And he had a mate, a navigating officer obviously with good sailing experience, a mountaineer and a couple of other guys that had left summer in UK got down to Montevideo the mate was lost at sea on a night watch.

[Part 2 0:30:57] So Bill turned around tried to go back for him but never found him. So they got to Montevideo and he took on some more crew, some of the guys said they didn't want to go any farther! The guy was hard, rugged hard, so he picked up quite a motley selection of folk in Uruguay. There was a Uruguayan negro, there was some German guy who was heavily into drugs and eventually they pitched up at, we saw them going up to Punta Arenas sailing down the Straits of Magellan I think! This was him heading down to Deception and Smith Island. We'd gone into Punta, probably to drop off some of the marine geophysics guys to fly back to UK. So came back out went down to Deception and as we came into Deception there was the *Mischief* anchored in Frosty Turnbull's favourite spot, and he had this favourite spot because he had water hoses, he could get ashore to place where he could take on fresh water quite easily. So at the time, this I think was my second trip, the Fids used to have a King Fid onboard the boats, so I was the King Fid because I'd obviously had a whole summer 'charlie' working on boats, so I was King Fid on that trip south. So Frosty said 'This guy will have to move, once he moves we can invite him to tie up alongside if he needs to.'

[Part 2 0:32:34] So it became pretty apparent the crew was mutinous, these guys he had onboard! Eventually they'd gone to Deception, the base had opened the doors to them, got them into the bar given them whatever they wanted to drink, I think they'd all got pretty drunk, probably slept at the Deception base. I don't think Bill Tilman went ashore. I went aboard the boat and had a chat with Bill and invited him to come and eat on the Shackleton if he wanted to, if he wanted he could come and eat with us, stock up on the food before you leave south again, and obviously Frosty wanted to know how long he was going to be around for. So eventually with these drunken episodes from his crew they then wanted to go and mix with the Chilean base guys. So it was becoming a bit of a political issue, so eventually having been in a position tied up alongside the Shackleton, Frosty said to me 'That guy's going to have to go'! So I was tasked with going to see Bill and asking him to leave politely, so in one of his books, which I think might be called *Mischief* in Patagonia or something, goes on about the crisis of the British Antarctic Survey, running out of sausages and bacon for breakfast and we couldn't feed him anymore!

[Part 2 0:34:08] Lee: Did he go quietly?

Burns: He did, yeah!

[Part 2 0:34:10] Lee: And with his crew or did they ...?

Burns: No, eventually the crew went but the Smith Island thing I don't think ever happened.

[Part 2 0:34:18] Lee: What was it about him that was so different?

Burns: Well I remember him telling me a story, that he still reckoned Everest could be done without oxygen and he was going to go back and have a crack! I mean there's seven mountain series of books, there's two of them that were written, and a couple of smaller books of *Mischief in Greenland* or *Mischief in Patagonia*, but the stories the guy tells is just phenomenal! I mean I think Bill started off the Three Peaks Race from Barmouth, which is

where his sister lived. The guy never got married, never had a family but was just a hard guy!

[Part 2 0:35:12] Lee: A screw loose!?

Burns: No! Just, well a screw loose as much as World War 2 decorated, he must have killed people, don't know whether that makes you different, not sure. But an interesting guy!

[Part 2 0:35:33] Lee: But you would not have liked to be a crew member?

Burns: I wouldn't no, oh no that would have been far too hard. I mean I'm a sailor now I have got my own boat it's called Fram after you know who?

[Part 2 0:35:45] Lee: I have been on the original!

Burns: Lovely looking boat!

[Part 2 0:35:52] Lee: Tell me about Richie Hesbrook and the leopard seal, what was that about?

Burns: Oh that was, well that was the winter that we were up in, right my second winter - the first winter was Horseshoe, my first summer was King George VI Sound and Alexandra Island up on the plateau. My second winter having been up at Horseshoe, Ian Sykes I had learnt quite a bit from, he said 'You could come back up here for the second winter, you've got lots of experience. Pourquoi Pas Island would be a great place to come and winter, you could carry on the work.' So over the radio I mentioned this to Shaun Norman who was the base leader and Shaun was not that keen on the idea, and Ian Sykes turned round and said 'Well between you and me, you've seen more of these Fjords than Shaun has, so stick to your guns and keep at it'! So second winter was up in Pourquoi Pas Island, again on the *John Biscoe*, John Cole was the skipper so picked us all up from Stonington and there was five of us, Mick Pawley general assistant and overall in charge of the winter, under tents this time not in a base hut like Horseshoe.

[Part 2 0:37:13] So there's Mick Pawley, myself geophysicist another geophysicist called Pete Butler and that was his first, he'd just arrived down south, a geologist called Gwyn Davies and another geologist called Alistair Linn, so the five of us had turned up at Pourquoi Pas Island. Before we landed, we went and got as many seal as we could. Before we offloaded everything John Cole invited me up for a dram into his cabin, so go to his cabin and I'd got to know John the previous year with all the marine work, so John Cole poured me a pretty stiff dram and said 'Do you know I think you're crazy, you shouldn't be doing this! Why don't I just drop you at Rothera Point, you could still when the sea ice freezes get over here, and if anything goes wrong you can sledge over from Rothera Point and get over to Adelaide'! I said, 'No, no the plan is this', I mean the guy was really trying to talk me out of it! So we wintered on Pourquoi Pas, yet another first ascent on Mount Arronax it was there to be done! And then in towards the end of that winter again the field parties came across from Adelaide and also up from Stonington, to have a look round the Fjords because they'd been sitting on base not doing a lot! And so we split up different sledge parties and I think I

went off with Richie Hesbrook, myself and it might, can't remember who the third guy was, but the sea ice had actually broken out, I think we were on Pourquoi Pas still with tents. And we were going to sledge around on the sea ice and there was a big storm and the sea ice went out, so waited a day, two days the sea ice refroze and off we went to the new ice, the edge of the old ice and the new ice, just to check out how thick the ice was. Now Richie Hesbrook if you've not met him is a pretty big guy, he is the only guy I have seen at base being resupplied with a case of McEwans export under each arm, and one held in each hand! He is that big and that strong! So Richie parks the dogs, gets out his ice pick, skis on to the new ice and starts poking the ice to see how thick it is, and all of a sudden as he is doing this about two feet behind where he had been standing, a leopard seal breaks up through the ice and I don't think I ever seen a guy move so quickly as Richie did, back to the old ice!!! As this leopard seal certainly looked as though it was going to come out of the hole in the fresh sea ice and investigate big Richie!

[Part 2 0:40:09] Lee: He ran did he!?

Burns: He skied extremely quickly! [Laughter!]

[Part 2 0:40:16] Lee: We were talking about name places and there's somewhere in the Antarctic with the name Burns.

Burns: Well when I was, I think I'd probably left Birmingham and I'd finished writing up and published all the data, the geophysics, and I'd got into the big bad world of oil and gas exploration but Geoff Renner was still geophysicist, let's call it in residence, for the British Antarctic Survey in Birmingham. And I think Geoff sent me a fax which he put 'Top secret classified document'! I was up for something I think called Burtons Point which I think, was near where Shaun Norman and I had originally split up that first summer and had started just the two guys one sledge big journey then King George the VI sound. So up it came, that there was going to be this place called Burtons Point and it was this little promontory of rock or ridge, so that all looked very good and then I think many, many years later I went on to google to looked to see if I could find tribute Mike Burns, Burns Point and I think it's very apt it's Burns Bluff! So I think it's very aptly named!

[Part 2 0:41:34] Lee: As in *Call my Bluff*!

Burns: Yes, precisely!

[Part 2 0:41:40] Lee: When you came to leave the Antarctic after your experiences down there, what were your feelings like, were they mixed or were you glad to get out or sorry to leave?

Burns: Oh exceedingly sorry to leave the dogs, I passed them on to a geologist who'd just come down.

[Part 2 0:41:58] Lee: These are the Terrors aren't they?

Burns: That's the Terrors yeah. The geologist was the brother of one of the mates I think on the *Biscoe* or the *Shackleton*, Nick somebody I can't remember his name, Culshaw, Nick Culshaw! There was a mate, Simon Culshaw so passed them on to Nick.

[Part 2 0:42:16] Lee: Did you have that long handover period that you benefited from?

Burns: No, no. Again it went the same way as the first two winters, almost like Ian Sykes, Ian Smith had started this 'Why sit around on our bottoms at Stonington base during the winter with not a lot to do?' Other than rebuild sledges and get ready for the big summer journey, they'd started this ethos of 'Let's go somewhere for the winter', so that first winter was Horseshoe in the old hut, second winter was Pourquoi Pas under canvas and the third winter, and this is when I'm leaving we left them on what is called the Arrowsmith Peninsula, which is just north of Blaiklock hut.

[Part 2 0:42:59] Lee: So you were able to do a run with Culshaw?

Burns: Literally. The dogs, think in those days it was the *Bransfield* we went up on, the new ship at that time, so everything got craned off and yes, it was harness up the dogs and there was Nick and I said, 'Right we'll do a recce!' and ran them up, ran them back picketed them and that was it! A handover of about 20 minutes, 15 minutes!

[Part 2 0:43:28] Lee: And that's all!?

Burns: Yep! Plus the old dead slow one finger typing of about two pages of handover notes about the Terrors.

[Part 2 0:43:39] Lee: Do you know how he got on with them?

Burns: No idea, never seen him since!

[Part 2 0:43:43] Lee: Right.

Burns: I do remember an occasion in an Irish pub in Birmingham where I got so drunk that the barman just put me on a couch, because my lead dog Jet had died of a heart attack! And I think I managed to get a message to Nick to say 'How did he die?' And the message just came back, it was during the winter just 'Up dogs, huit!' he pulled and just dropped down dead a heart attack! So good old Jet was just thrown down the nearest available crevasse, so off I went to the Irish pub and drowned my sorrows in Guinness!

[Part 2 0:44:23] Lee: So even 8,000 miles and several months later it hurt!?

Burns: Yeah.

[Part 2 0:44:30] Lee: It probably hurt more because you weren't there!

Burns: I can feel it now as well!

[Part 2 0:44:33] Lee: Alright I won't probe, won't probe. What was the journey back, back to civilization like?

Burns: It was, it was interesting. We had one lad who got to Port Stanley and it was the first time that most of us had seen the fair sex! And I remember one of the lads took a fancy to an Argentinian girl, that her and her sister were living in the Falklands he took a fancy to her and she was having none of his advances, so he literally flipped! And so we were watching a movie on the *Bransfield* and in the middle of the movie the door opens to the lounge, and suddenly all the lights go on and it's this Fid on his way home standing there absolutely naked! And he'd obviously just gone, so we spent quite a bit of time thereafter having watches outside his cabin to make sure he was in his cabin, and stayed in his cabin or was supervised out for a meal or whatever, because the fear was that he was possibly going to go over the side of the ship! So, he got off the boat in Montevideo and one of the senior guys, Barry Heywood I think from BAS in Cambridge, again biologist or botanist maybe marine biologist, plus I think two other guys that were flying home from Monte, took this lad back home to UK and I think his parents, I won't say where his parents lived in UK, but I think his parents went down to Heathrow to take pick him up and back home. I've heard he's recovered since, but won't say where he is, but not in UK, think he's living in Canada, but I think is fully recovered!

[Part 2 0:46:42] Lee: You've not named him?

Burns: Oh deliberately!

[Part 2:46:45] Lee: OK, that's fine

Burns: I don't think it would be fair. I always I think I went south with him, when I did my two and half years to go down to Stonington and this guy was fine, he just literally flipped and it was the female thing!

[Part 2 0:47:04] Lee: Talking about female things, Ian Flavell Smith became a member of the family didn't he?

Burns: Well he did, this is the family story of we'd shared a flat during the Birmingham University days when he was doing the MSc scholarship geophysics, and I was working up the seismic and magnetic instrumentation before doing the marine geophysics and we got to know each other. And I think we'd gone down to an Irish wedding in London and I'd stayed with the Smith family and I guess Ian and I probably got to bed quite late, probably quite hung over! So we got up for breakfast probably a little worse for wear and these three female goddesses walked into breakfast!

[Part 2 0:46:52] Lee: These were who?

Burns: Ian's sisters, he had three sisters of varying ages, I think the eldest one Julie was probably a couple of years younger than me or close to my age, and Marion the one that I married was four, five, six years younger than me, and as you are probably aware Julie married Terry Allen that was the first involvement with the family. And I think probably at Horseshoe I was complaining about Ian not letting all these guys know that he had three gorgeous sisters! And I think he was a bit embarrassed and said 'Oh those blasted sisters' or something, 'As far as I'm concerned I could just auction them off'! And I said 'Well that's

fine, are you prepared to take bids?!" He said 'Yes', and I think I came up with two and ninepence - that was the currency of the day - and I'd hate to tell my wife but I think I was the sole bidder! [laughter] But there had to be, in my day, the courtship and the getting to know her properly, because I'd only seen her for about two or three hours, but I got back from - well it was fairly lengthy process of getting back, I had formally requested of Raymond J Adie permission to jump ship in Montevideo! I didn't quite fancy after, well the isolation or the Antarctic experience just going straight back to UK, so I felt I wanted to be footloose and fancy free, go and unwind or get to know the world again, the real world. So I actually got off with Paul Bentley who was a surveyor the same two years that I did at Stonington, and the pair of us I think we lasted probably about two or three weeks, he met a woman in Macchu Picchu and they went their way and I went a different way and so I think about five or six months later I finally got back to UK.

[Part 2 0:50:06] Lee: How did you fund that?

Burns: In those days we used to have a currency restrictions of £300, [Lee: Yeah!] so I, there was the equivalent of the Lonely Planet guide, there was the little red book The South American Handbook which I have still got. Obviously it's totally out of date but I also found out there was this Bank of London and South America organisation so I'd on my messages home, I'd my mother to get £300 and stick it into this bank account at the Bank of London and South America, put it in in my name so that I could collect it in Montevideo. And then it was a question, as we went through Stanley buying one or two cameras, getting off the boat with one or two bottles of whisky and bartering and selling these for what I could get! And getting cash to lengthen the journey, so that's how it was funded!

[Part 2 0:51:08] Lee: [Laughing!] OK, there's a couple of little bits and pieces to pick up one before we, before we close. There's an incident at Buckingham Palace concerning your father, I'm frightened to ask about this!

Burns: Yes, well it's at the time I was working for BP, British Petroleum, and I got a letter 'Dear Mr Burns, you are commanded to attend an investiture at Bucking Palace, by Her Majesty' and this was a Polar Medal! So clearly I'm now married to Ian Flavell Smith's, one of his sisters, his middle sister and you're only allowed two guests, so three tickets, so I tried to work out how to do this, so I thought 'Well who's going to give the biggest hassle!? The ladies', so I invited my mother and my wife and thinking my father could probably tolerate not going. So my mother kicked up a bit of a stink, said that 'If my father wasn't going then she wasn't going to attend'! So we managed at the last minute to persuade them to come down. I was living in Camberley in Surry, BP had just made me redundant so life was not looking that rosy! So I'd lost my company car, and we persuaded my parents to come down and stay with us, because we were going to go up to the investiture, we'd managed to get Buckingham Palace to, or the Admiralty who do the awards or recommend the awards, to get dates, that Ian Flavell Smith and his parents could come and also I could do the same dates, and so we'd have a family get together. So my parents were persuaded dutifully to come down and baby sit, and so we'd got people, a sitter organised locally so I said 'My mother will come round, she would come up'. So I managed to persuade my father to change and

put a suit on. So as we got up towards Buckingham Palace I just headed the car towards the gates, and kept on going, [laughter] and my father was saying in his broad Glaswegian accent 'Jesus bloody Christ lad you better let me out'! So we got across the forecourt and then you go under the balcony that you see the Royals on, under there to the main courtyard in the middle and I was beginning to get a bit worried as to what was happening, and then the police approached me, came up to see me and I thought 'Oh my god they're going to ask to see the tickets'! because all I'd done was to wave them at the bobby at the front gate, and this bobby that came up just said 'Excuse me sir' and I thought he's going to ask to see all the tickets, 'Excuse me sir do you mind if the dog just sniffs around the car?' And I guess in those days it was security.

[Part 2 0:54:05] Lee: IRA!

Burns: Yeah, so my father gate crashed and managed to back to his working man's club in March in Cambridgeshire, and explained to his mates there he'd gate crashed Buckingham Palace! [laughter!] He was so, really pleased!

[Part 2 0:54:21] Lee: Did the Polar Medal come as a surprise or what?

Burns: Yes, yes!

[Part 2 0:54:26] Lee: Did you ever find out why you got it?

Burns: Well, I often thought that Mick Pawley might have put in a word for me about it?

[Part 2 0:54:42] Lee: You hadn't been there for a very long time, you hadn't done extended service in the Antarctic?

Burns: No, no well I'd done the norm which was the two and half years, two winters but the list that came out that year, I think Mike Bell got one I think Mick Pawley got one that year, I think Mick was also at the investiture the same as Ian and myself. So out of the four of us, and I honestly can't remember how many there were that year, but although Mick at that point had certainly gone south, God know how many more times! And eventually or frequently had been base leader, base leader at the big one at Halley as well, so obviously a lot of organisation with rebuilding Halley.

[Part 2 0:55:30] Lee: So your citation didn't make it clear why you'd got one?

Burns: No, no they don't they just [Lee: Right.] a tour of duty or tours of duty or something.

[Part 2 0:55:39] Lee: There's a telegram from Wally Herbert?

Burns: Oh that was, now again goes back to the character of Geoff Renner, there was Geoff Renner, Ian Flavell Smith, myself and Peter Francis Butler, the geophysics that had been south, all in this little research room in Birmingham University. Geoff was certainly in charge of us all under Adie and one day Geoff was late in, and a telegram appeared and was, it was opened and put on Geoff's desk. So being generally sort of nosey(!), can't remember who was the first one of us to weaken and go up and have a look at this(), and basically it was

'Need you in Point Barrow', with a date, 'Journey will be two Europeans, two Eskimos, two months' sledging'. Now certainly when I left the Antarctic I did, I thought 'I don't want to go back down there, but I'd love to drive dogs again, I'd love to see a polar environment again', but it would be north, where real people have lived, as it were - the Eskimos! So when this suddenly appeared on Geoff's desk we all started thinking, 'Wow, who's this for?' and we were all sort of composing our replies I'm sure, all sitting, the three of us sitting writing our replies to Wally saying 'Yeah anytime at all please'! And then Geoff Renner came in, slightly late for work, 'Oh, yes, yes! Can you just keep that quiet for a week or so guys?' so obviously he had to go and see Ray Adie and ask for leave of absence to go this trip! [laughter!] It was for Geoff not us.

[Part 2 0:57:33] Lee: OK, there are two views about whether the Antarctic experience is good for your career or bad for your career, what was it for you, did it help? You talked about working for gas and oil companies after you came back from the Antarctic, did those two years help you get your career going?

Burns: I think so. I'd obviously seen a lot of the marine environment, indirectly the company that I went, first worked for was an American company. But it was a UK office and I would think three or four guys, at least two of them of senior management in that office were ex-Birmingham University, one an ex-Fid and one ex-, and both ex-Birmingham geophysics unit, so that was that, the call, 'There's a job here Mike, soon as you finish in Birmingham, there's a job here'! So I guess the marine geophysics, I'd now done two let's four months periods on the Shackleton the first time and Shackleton the second time, so I knew what I was letting myself in for, and got into it. I guess the FIDS experience of being onboard a boat, being with a limited number of all male, and in those days when I first went into exploration geophysics, ships, it was all male environment, just like FIDS was! Obviously things have changed.

[Part 2 0:59:05] Lee: Is that a career you stayed in for the rest of your whole working life?

Burns: Yeah, yeah I think immediately I finished with BAS, as I said Adie offered me this post to go down and collect airborne magnetic data, but I went and had an interview, couple of interviews for jobs and this American group, with the British office and all this ex-Fid connection or geophysics connection took up work with them, stayed with them I think for about six years. There have been numerous recessions in the oil industry, there was one so that the UK office had expanded to three offices, two of them were shut down which included head office that I was working at! So I was out of work, joined BP, was at BP for about two or three years again another recession - I got laid off by BP and five of us, one ex-Fid, myself and three other guys we just stuck a £1000 down on the table at Heathrow, a place we just happened to be able to meet up at, and formed our own company(!) and became survey consultants to the oil industry, and I think it all stemmed from the geophysics and FIDS! An ideal stomping ground for growing up, taking responsibility and just getting on with people, which in the exploration field, lots of stresses and strains on a job you have to get on with things!

[Part 2 1:00:48] Lee: It's been fascinating Mike you very, very much indeed.

Burns: OK, thanks for your time, I enjoyed it thank you.

Interesting clips:

- Seismic shooting with HMS *Protector*. [Part 1 0:35:18]
- Sir Vivian Fuchs leaving TAE data in London car park by mistake! [Part 1 0:49:06]
- *Land of Hope and Glory* being played to Lord Chalfont from RRS *Shackleton* as it entered harbour! [Part 1 0:56:25]
- Picking up message left by Fuchs and Adie on Eklund Island many years before, in 1969. [Part 2 0:08:40]
- Crevasse incident! [Part 2 0:14:53]
- Very unusual field Christmas dinner. [Part 2 0:27:33]
- Bill Tilman and his boat *Mischief*. [Part 2 0:29:31]
- Meeting his wife for the first time. [Part 2 0:47:04]
- His father gate crashing a Buckingham Palace investiture! [Part 2 0:51:08]

ADDENDUM

Provided by Mike Burns after the above interview.

Heard Island 1964, mainly Aussie team, boat was *Patanella*. Tilman initially invited by Deacock on this expedition as navigator but became skipper & navigator.

When I met Tilman at Deception he had hoped to climb Smith Island that season (near-ish to Deception) but he had lost his only other navigator in the Atlantic, i.e. man overboard, so had no one to look after the boat whilst he was to lead the climbing shore party. He also had the other major crew problems!

A private expedition, then, but Deacock had gathered men of great experience. Before arriving in Australia in 1959, he had been a major in the SAS, and was a mountaineer, having commanded the British Ski and Mountain School in Austria. Budd, 84, still the leading expert on Heard Island, was an explorer who had wintered there in 1954 as medical officer and expedition leader. The two men had also been part of a government-sponsored expedition to the island in 1963 and had almost lost their lives 450m from the summit of the 2745m Mawson Peak when a blizzard trapped them in their tents. Naturally (or astonishingly depending on your appetite for mortal peril), that failed ascent made them determined to return, but the government's Antarctic division had no funds for another visit. Deacock, marking time as an assistant gravedigger in the Northern Territory, decided they'd do it themselves.

They chartered a 19m gaff-rigged schooner, the *Patanela*, from Point Lonsdale in Victoria — ‘The price was based on the owner’s estimate of what he’d make in a season’s cray fishing,’ says Budd — and sailed it to Sydney’s Rushcutter’s Bay, where the Cruising Yacht Club had donated a berth. There, the boat’s hull was reinforced and comforts removed to accommodate scientific and survival equipment — plus an Ocean-Span radio donated by *The Australian* to allow progress reports to be filed to the paper by Morse code.

The skipper flew in from England: HW Tilman, a legendary mountaineer and deepwater sailor. Colin Putt, 87, surveyor and ship’s engineer, kept the *Patanela* in fine order as it battled gales that reached force 11, and fell in love. ‘She was just beautiful,’ he says wistfully.

They set sail on November 5, 1964; 10 weeks later Heard emerged from the low cloud. A dot in the South Indian Ocean, 43km long and 21km wide, it might have been invented to illustrate the term inhospitable.

Four thousand kilometres southwest of Perth and 1650km north of the Antarctic, it consists almost entirely of an active volcano, called Big Ben, whose caldera is filled with ice and snow.

From that 2285m frozen plateau towers Mawson Peak, about 500m higher than Mount Kosciuszko. Vapour pours from the summit and from vents on its slopes; eruptions and lava flows add to the fun. Glaciers cover four-fifths of the island, ending in walls of ice lashed by a violent sea; 200km/h gales stop the waterfalls that tumble over the cliffs from reaching the ocean.

It sounds harsh and brutal, but Deacock shakes his head and smiles. ‘It’s the most glorious place,’ he says.

His astonishing film shows vegetation of mosses and lichens, populated by fur, leopard and elephant seals, macaroni penguins, several varieties of petrels, albatross and skuas. On arrival, the shore party loaded supplies into their dinghy and headed to Capsize Beach, where their boat was immediately overturned by the surf. They struggled out of the freezing waters and set up camp.

The assault on Mawson Peak was held up for a week by foul weather; then they awoke at 3am to a brilliantly clear day.

‘We went for it,’ Deacock says. ‘When we got to the top we saw the fumarole: yes, it’s a volcano; yes we’re on top; yes, we’ve taken pictures — bang! The weather changed and it chased us down.’

