

FRED JOHNSON

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Edited transcript of interview with Fred Johnson conducted at his home in Darwen by Chris Eldon Lee on 3<sup>rd</sup> February 2009, BAS Archives AD6/24/1/65. Transcribed by Allan Wearden on 13<sup>th</sup> October 2015

[Part 1 0:00:00] Lee: This is Fred Johnson recorded at his home in Darwen Lancashire by Chris Eldon Lee on the 3<sup>rd</sup> of February 2009. Fred Johnson, part 1.

Johnson: Yes, my name is Frederick Johnson I was born at Retford in Nottinghamshire in 1929 on the 27<sup>th</sup> of November.

[Part 1 0:00:24] Lee: Yes, you worked on 2 bases, what years and what bases?

Johnson: My first base was Signy Island base H where I arrived just before Christmas 1951 and departed later at the end 1952 via Port Stanley and South Georgia *en route* for base F Argentine Islands.

[Part 1 0:00:47] Lee: And you were 2 years down south?

Johnson: Yes, 2 seasons 2 winters.

[Part 1 0:00:53] Lee: Tell me a little about your background, what were your parents?

Johnson: My father was an engine driver on the railway, I didn't go to grammar school I failed the 11+ but I did go to technical college, till I was 16 at Worksop and which oddly enough was a junior building course so I learned bricklaying and all that kind of thing! But thereafter I got a job as a lab assistant in a refractory brick company near Worksop, but after 6 months I left that and came back to the technical college to do a matriculation course. After that of course I immediately went into the RAF because I had turned 18 and...?

[Part 1 0:01:46] Lee: Did you choose the RAF?

Johnson: Yes, yes. [Lee: That was National Service?] National Service yes, which was 2 years at that time, and I finished up in Singapore, where I was given a number of aptitude tests and the education people recommended I apply for a job with the Air Ministry in the Meteorological Office. Which I did, took their advice and got a job, and returned and did the course at the training school in London and then got posted to RAF Hemswell. Which strangely enough was where I had also served as nursing orderly in the sick quarters for over a year, so it was familiar surroundings. Anyway after a few months there I was posted to RAF Bawtry which was the headquarters of Number 1 Group Bomber Command in those days! And I didn't like that very much it was all plotting work head down over the charts, teleprinters going all day long churning out information. No observation work at all in fact if you got the chance to look outside during your shift it was a miracle! The night shifts were 11 hours which didn't go down very well and when I saw the Air Ministry order going up on the notice board, for volunteers for FIDS I was very quick to put my name down and that's how I got involved with FIDS!

[Part 1 0:03:29] Lee: Let's just backtrack slightly, your interest in meteorology that something from childhood or was that just one of those things?

Johnson: It was a fairly long standing thing, when I joined the RAF I was asked to choose 3 trades and that was actually one of them, but I didn't actually get it at that time I got the nursing thing instead. Which actually came in quite handy later on?

[Part 1 0:03:54] Lee: Did you know why you were interested in the weather so much?

Johnson: Well I've always been interested in scientific subjects and course the weather is one of the more obvious things, because you are in contact with it every day. And the other thing was I was offered the opportunity to join the Met Office, so I was stuck in Singapore at the time and not knowing what I was going to do, and when this was suggested it seemed a good thing!

[Part 1 0:04:30] Lee: Which leads me on to my second backtrack question, which is what's your first connection with the Antarctic, what was your first brush with it, had you heard of this before you saw the notice go up?

Johnson: Yes, I'd read a book on FIDS from the local library, (What was it called? I've forgotten now), but it was about the early days of FIDS I had also read about Captain Scott and Shackleton of course, I was always interested in those.

[Part 1 0:05:00] Lee: Were they heroes?

Johnson: Yes, yes they were then but nobody seems that bothered these days!

[Part 1 0:05:05] Lee: Why were they heroes?

Johnson: Well they just struck me as being heroes, they were up against it all the time and well Scott didn't come through really, but the way he died was heroic and I've always thought so!

[Part 1 0:05:24] Lee: When you say you saw the notice go up on the board for recruits for FIDS, it was a straight forward obvious thing to do was it, you didn't you have any second thoughts at all?

Johnson: No I didn't have any second thoughts I was pretty fed up with the situation in Bawtry Met Office! I didn't like the work and was thinking of having a look round elsewhere and this seemed an ideal opportunity!?

[Part 1 0:05:51] Lee: So in a way you knew what you were letting yourself in for?

Johnson: Oh yes, yeah!

[Part 1 0:05:57] Lee: So you sent off your application? [Johnson Yes!] What happened next?

Johnson: I got a message to go down to London for interview, which was Frank Elliot and one or two others, Papa Fuchs as well I think, it's a bit difficult to remember all this time back!

[Part 1 0:06:14] Lee: Bill Sloman?

Johnson: Pardon? Might have been yes, there were 2 or 3 of them anyway. And then they said 'We want you to go for a medical', so I was told to hurry up because I was going to London Clinic and it was getting late in the afternoon and I had to do quite a bit of running to get there on time! Anyway I seemed to have passed that alright, and I didn't hear any more till a few weeks later then I got a letter saying I had been accepted and would I join the *John Biscoe* at Southampton on some date or other which I have forgotten! Think it was sometime in October, anyhow that was put off for another week and I had a week off!

[Part 1 0:06:00] Lee: Do you remember much about the interview was it tough, was it very...?

Johnson: They wanted to know what I did in my spare time, I don't think there were any questions about meteorology, I think that was taken for granted that I would be up to the mark on that! Yes, it was about potholing and climbing about in the Peak District and all that kind of thing.

[Part 1 0:07:33] Lee: Do you remember any questions that might have been psychological questions about your temperament and so on?

Johnson: No really.

[Part 1 0:07:40] Lee: Were they trying to suss you out?

Johnson: Not really, I can't remember it's such a long time ago of course.

[Part 1 0:07:48] Lee: OK so how did this go down with your parents, when you told them what you were going to do?

Johnson: When I mentioned the Falkland Islands they thought it was in Scotland so they weren't that bothered!

[Part 1 0:08:01] Lee: What was your dad's reaction towards this?

Johnson: I don't think I remember much, I don't think he was too concerned, I can't remember really, I don't think they was a lot of fuss made over it, I think mother was a bit concerned when she found out where it was!

[Part 1 0:08:26] Lee: So you had a bit of a slight gap between being appointed and going south, was there any training you went on?

Johnson: No, none whatsoever.

[Part 1 0:08:37] Lee: No crevasse rescue, no health and safety?

Johnson: No, oh no, they didn't even want to know if you could tie knots properly.

[Part 1 0:08:45] Lee: They didn't? So you turned up, I think from your booklet you suggested you sailed in December '51?

Johnson: Yes that's right we landed December '51, the ship had to call at Punta Arenas to pick up a new scow so we were there for a couple of days, then to the Falkland Islands. Then from there we sailed down the coast to re-open Port Lockroy which had been closed for a year or two, maybe one year maybe two, I don't know. They were re-establishing it as an ionospheric station then, so we had to get some new generators ashore, and fettle the place up a bit since it had been unoccupied for a time, anyway it was in quite good nick!

[Part 1 0:09:42] Lee: So you were installing the new equipment to do the very first ionospherics?

Johnson: Yes that's right, yeah, yeah!

[Part 1 0:09:48] Lee: So what do you remember, there was a 'Beastie' wasn't there I think!?

Johnson: That's the 'Beastie' yeah.

[Part 1:0:09:51] Lee: What do you remember of that?

Johnson: Well I only saw it, it was an electronic box of tricks as far as I was concerned! I knew what it was for, but I didn't know any of the details of how it worked!

[Part 1 0:10:08] Lee: You were only 6 years after the war so you were travelling to the Antarctic, shortly after Operation Tabarin?

Johnson: That's right yes.

[Part 1 0:10:17] Lee: Was there any kind of hangover from those Operation Tabarin or war years?

Johnson: Well all the huts had been built by the navy, they were still more or less as they left them as far as I'm aware. The base at Hope Bay of course had burned down a couple of years previously and that was to be re-established on the second trip of the *John Biscoe*, which I wasn't on because I'd already been dropped off at Signy at the end of the first trip.

[Part 1 0:10:56] Lee: Did it still have a kind of military feel to FIDS in those days, because of Operation Tabarin?

Johnson: Well, we were all wearing a sort of collection of military type uniforms I had on a battledress top which had Royal Marines on the shoulder and was dark blue, that the trousers were khaki army issue, so it was all ex-government surplus stuff as far as I'm aware that we were issued with.

[Part 1 0:11:22] Lee: Would you say it felt like being in the forces still?

Johnson: No, nothing like being the forces!

[Part 1 0:11:30] Lee: In what way, how do you mean?

Johnson: It was a lot more chaotic! Nobody was issuing orders and saying 'You do this' and 'You do that', it was all more or less you saw what wants doing and you got on with it.

[Part 1 0:11:50] Lee: So to a certain extent you were just left to your own?

Johnson: Well landing supplies from the ship everybody mucked in and got the stuff out of the hold, all into the scow and up the rocks into the shore and up to the hut. On the landing at Signy Island and it was just before Christmas, I think we were still working Christmas morning. [Lee: Oh right] And the ship sailed on Boxing Day and left us to it then! And there were only 4 of us then because 2 new boys and 2 of the old ones, and we were short of a diesel mechanic at the time which it didn't seem to matter all that much.

[Part 1 0:12:35] Lee: So you'd passed through Stanley hadn't you at Christmas time?

[Johnson: Yes] What do you remember of that, was it a Christmassy place?

Johnson: Well we weren't actually there at Christmas, because by Christmas we'd already re-established Port Lockroy and called at Deception Island and oh, (What's the other one?), King George Island...Admiralty Bay! [Lee: Yeah.] We'd relieved those bases so we must have left Stanley quite early on in December.

[Part 1 0:13:13] Lee: Yeah, so you'd sailed from Southampton in the autumn?

Johnson: Yeah it was October when we sailed.

[Part 1 0:13:20] Lee: What was your first feeling about the Antarctic when you got there did it live up to expectations?

Johnson: Yes I think so, it was hard work carrying bags of coal, well anthracite really all of which had to be taken out of the ship and loaded on to the scow, then loaded on to the shore and then up to the hut, which at Signy was quite hard, because it was a 70 foot climb from the beach up to the hut! And there was quite a few tons of anthracite to go up, but we got it all there!

[Part 1 0:13:55] Lee: What was Signy like in those days, can you paint me a little thumb nail sketch?

Johnson: Well the first thing you saw was the 2 lines of dogs which were chained up along, half way up the hill 2 spans with I don't know maybe a couple of dozen dogs and then the hut was right on the skyline, very draughty place as it turned out! And in the place where the new base is, there was the old whaling station with the digesters and other paraphernalia that had been left behind by the whalers. It seemed quite an attractive place because you had views of Coronation Island to the north across the Normanna Strait and of course there was the Orwell Glacier and the peaks across from the base, which then I think were called Spark Peak and Stidigen, but yeah it was quite good I was quite impressed with it!

[Part 1 0:15:14] Lee: What was it like inside?

Johnson: Quite cosy actually, there was the main room with the Esse stove in the middle and the bunks all around. Most of which had a window, so you could lie in bed and look out! I quite enjoyed it, and then there was the kitchen of course, which had the Esse cooker which we all had to get to know eventually! Because we didn't have fulltime cooks in those days, it was a week on and 3 weeks off at the start, there only being four of us you were on cook every fourth week. Because when we got the diesel mechanic there was five of us, and it was only one week in five then which was quite a bit better!

[Part 1 0:16:16] Lee: You mentioned the wind, which I guess in some respects it was a benefit and in some respects it wasn't?

Johnson: Well it was a benefit in that the hut didn't get buried in snow because it all blew away! But it could be quite frightening. There was a time when we had a real hurricane, the barograph pen went right down to the bottom of the chart and then fell off! I re-set it about 20 millibars higher but it still kept going down and [Lee: So you knew what was coming?] Oh yeah, no doubt and this was the time the *John Biscoe* arrived with the last, the last members of our crew 'Lofty' Worswick was the last one of the old party, he went out to the ship on his way home. This was before it got really rough and then it was obvious it was getting worse and the ship sailed during the night. So we didn't actually see it go, that was on the last visit and all the stuff that was put ashore was landed on the far side of the bay, because they couldn't get in on our side the sea was far too rough, waves coming up the beach well over the rocks, it wasn't really a beach!

[Part 1 0:17:51] Lee: At the height of that tempest as you refer to in your booklet, there was quite a bit of concern at the time wasn't there, is that right?

Johnson: Yeah, the roof was flapping up and down, you could see it! If it hadn't been for steel cables holding the roof down I think it would have gone off because it was well over a 100 knots at times!

[Part 1 0:18:14] Lee: Did you have confidence in those steel cables or...?

Johnson: Yeah...I mean they were quite thick ones, they were an inch thick but you begin to worry when the roof is visibly going up 5 or 6 inches at a time! And you can't hear yourself talk for the noise!

[Part 1 0:18:36] Lee: I see, you measured at the one point at 118 knots!

Johnson: Well that was what the system would measure, course it never got up to that. But the standard meteorological anemometrical instrument goes up to 90 knots and we had 2 of these connected in series, which if you switch them in series each one would record roughly half of the wind speed. So at 90 knots you get 45 knots on each one if they were evenly matched.

[Part 1 0:19:08] Lee: I don't understand, I don't know how that works Fred could you?

Johnson: Well they are electrical instruments and the anemometer that's a little windmill thing which measures speed, whizzes round and generates a current and if it goes through one instrument it records the wind speed in knots. But if you put 2 instruments in series the voltage is divided so each one has half the voltage, so you can measure over 90 knots then, by adding up the 2 so potentially you can measure up to 180 but of course it never got anywhere near that, but on the other hand it did get well over 90!

[Part 1 0:19:54] Lee: But it did some damage I think didn't it?

Johnson: Yes it did, we had a thing called the 'Lucas Freelite' generator which was a 12 volt windmill thing with 2 blades, and the blades were made of wood and you could feather it by pulling a lever at the bottom of the mast which turned the windmill at 90 degrees to the wind, it had like a tail fin on it which you could adjust so it was at right angles direction of the windmill blades and it still blew the blades right off, there were no blades left, they'd gone!

[Part 1 0:20:31] Lee: Were you able to repair it or what?

Johnson: We got some new blades sent down on a later trip, which we were OK then because we'd did another gale of that intensity during the winter, so we *were* all right!

[Part 1 0:20:48] Lee: And the greenhouse did that survive?

Johnson: The windows and the glass part all disappeared and we never actually got it repaired!

[Part 1 0:21:06] Lee: The greenhouse was for growing your own veg is that right?

Johnson: Yeah, we were supplied with packets of seeds, lettuces and mustard & cress fairly primitive crops like that and I think the only thing we ever grew was the mustard & cress!

[Part 1 0:21:21] Lee: Oh right, so it wasn't quite banana belt?

Johnson: Not really, no you couldn't grow bananas that was a complete myth!

[Part 1 0:21:33] Lee: What was the weather like there generally, was it a manky kind of environment or what?

Johnson: It was really dull a lot of the time in summer, the cloud base was quite low so that you could look across to Coronation Island, you could see Cape Hansen but you couldn't see much of the higher parts. But we did get some quite reasonable days and in winter of course I think we got more of these bright sunny days, we seemed to get more those in winter than in summer?

[Part 1 0:22:08] Lee: So was the meteorological work of interest, or was it all a bit routine?

Johnson: We did get some interesting orographic clouds over Coronation Island, I've got a photograph of them somewhere but?

[Part 1 0:22:22] Lee: Can you describe them for me?

Johnson: Various layers of....wave clouds, lenticular clouds basically but multiple layers of them like a series of cocked hats one on the top of the other at one stage, which was quite impressive! That was over Mount Nivea.

[Part 1 0:22:50] Lee: What was the importance of doing all these readings?

Johnson: Well the whaling stations on South Georgia were going full blast at the time and they needed weather forecasts and we were part of a network which supplied that need, the observations were broadcast to Stanley 3 times a day and they of course were doing weather forecasts for Stanley and shipping in the South Atlantic. So it was all part of the worldwide network of weather stations.

[Part 1 0:23:32] Lee: So you were sending the information back to Stanley by Morse?

Johnson: Yes, that's right about 3 schedules a day

[Part 1 0:23:40] Lee: Yeah, 50 years later of course the information you collect is a bit more valuable isn't it?

Johnson: [Laughing!] Yes it's all to do with global warming now isn't it! The observations that we took are instrumental in showing that the Antarctic used to be colder then, than it is now by a degree or two whatever.

[Part 1 0:24:06] Lee: When all that started to happen, I think it's 25 years ago when the announcement was made about the ozone hole, which is not exactly the same?

Johnson: The ozone hole, yes!

[Part 1 0:24:16] Lee: When the news about global warming started to emerge, what were your feelings, did you think back to your time there?

Johnson: Oh yes yeah it, well the rise in temperature in the Antarctic was one of the first bits of evidence that was put forward wasn't it?

[Part 1 0:24:35] Lee: So unwittingly you were there on the ground floor of the global climate change debate?

Johnson: Yes, that's right!

[Part 1 0:24:44] Lee: Do you believe it?

Johnson: Yes,..it's a bit difficult to know once the politicians and the spin doctors get involved, course it's hard to know what the truth is any way isn't it? It's in the nature of the thing it's a large percentage of lies anyway, well that's what I always think!

[Part 1 0:25:07] Lee: Tell me about your colleagues that first year the 3 chaps you were with, what sort of chaps were they?

Johnson: Well when we took the base over there were 2 new boys myself and Tony Wilson who was the wireless operator, and the 2 remaining were John Cheal who was the Base



Leader, he was a surveyor and meteorologist, and then 'Lofty' Worswick who was 6 foot 7, he was senior meteorologist and he was the last one to go home from there, so for a few months they was just the 4 of us and we got on very well! John Cheal was a very easy going fellow and 'Lofty' he was quite genial character as well so we all got on very well, like a house on fire really!

[Part 1 0:25:11] Lee: Was John Cheal a natural leader?

Johnson: Yes I think he was yes, yeah he didn't assert himself very much but then he didn't have to, you know everyone just got on with it, there was no sort of 'Why haven't you done this or you done that'! You knew when your shift was on the, we did 24 hours on as the met man, as the duty observer so there was 3 of us doing that and we agreed when you were cook, you would still continue to do your normal shift and the cooking as well, which was only fair because you'd only got 1 wireless operator and he had to work on that basis anyway!

[Part 1 0:27:08] Lee: So when you say 24 hour shift, you mean staying awake for 24 hours?

Johnson: More or less yeah.

[Part 1 0:27:15] Lee: Was there time for a nap?

Johnson: Yes, because the observations were only every 3 hours, so there was plenty of time in between but you used to supposed to keep a note of course of what was happening in, between the official observations, possibly fit in a pilot balloon ascent.

[Part 1 0:27:36] Lee: Well tell me a bit about the pilot balloons, because that was also interesting in the book, flying them because, would be this be at Signy or was it later at Admiralty Bay [note: That should be Argentine Islands] when generating hydrogen?

Johnson: Well at Signy we had a small hydrogen generator, which was like to 2 tin cans fastened together with a few pipes and the idea was to immerse magnesium iron pellets in a solution of caustic soda and then use the resulting hydrogen to fill your balloon! I didn't use it all that much, because we had plenty of gas in the cylinders, which was a lot easier! But you'd fill the balloon and then balance it, so it lifted a certain brass weight which was attached to the neck and when it would lift that brass weight, without any excess buoyancy, in other words it would neither go up or go down it would just stay put where you'd left it, more or less. Then you knew if you tied the neck off and removed the brass weight it would rise at a certain speed, which was 500 feet per minute or a 1000 feet a minute if you used one of the bigger balloons. And then the height of the balloon was the basis for measuring the wind speed, you had to measure the angle of the elevation with the theodolite and also the azimuth angle and then you had a big slide rule, there was no pocket calculators in those days [laughter!] And you had to work out how far away the balloon was and what height it was at and how far it had moved and in which direction in the previous minute and that gave you the wind speed and direction at whatever height the balloon was at, which was a bit tedious!

[Part 1 0:29:39] Lee: But actually getting the hydrogen to put in the balloon, was not tedious, I understand that you had some fun and games with that?

Johnson: Well if you got it out of the cylinder it was quite straight forward.

[Part 1 0:29:48] Lee: They were limited supply weren't they?

Johnson: Limited supply yes, but the generation method by chemicals was a bit messy and the hydrogen tended to be a bit damp, course coming from a caustic soda solution it fizzes and bubbles and all that sort of thing and it wasn't all that pure. But it did work you could fill the balloon with it!

[Part 1 0:30:15] Lee: You are I think under estimating how much trouble it was, aren't you, to create hydrogen?

Johnson: Yeah, my second year I was given the job of commissioning the 'Gill Hydrogen Generator' which was different thing altogether! That was a device that had been developed in Canada for filling the big radio sonde balloons up in the Canadian Arctic so of course FIDS thought it was highly suitable for them to have one and use it for filling the radio sonde balloons. Which they were going to have at the Argentine Islands and that was supposed to work by dribbling a caustic soda solution on to pure aluminium pellets, but of course FIDS being FIDS didn't have the pure aluminium pellets because they thought they'd got plenty of other chemicals that they could use! Which gave me a rather interesting time?

[Part 1 0:31:18] Lee: How do you mean?

Johnson: Well some of the mixtures I used were quite explosive! And I had a couple of big bangs with the hydrogen generator, the idea of dribbling caustic soda in the solution didn't work very well, because it kept freezing up in the pipes, so I decided to just use hot water and put the caustic soda in with the other chemicals inside the bottom of the machine. But that probably wasn't too good an idea, as things happened I tried the magnesium iron pellets first and the reaction was very, very difficult to control so I abandoned that and started work using another chemical. Which was the ferrosilicon and caustic soda reaction, the ferrosilicon was like a black powder which was I believe used in the steel industry in this country, so it was used for making silicon alloys, steel alloys, we'd got plenty of it at the Argentine Islands it came in steel drums and so I loaded some of this into the Gill generator and watched the pressure build up very rapidly! And underneath the thing was a big lever about 3 foot long that you could jump on if you had an emergency!

[Part 1 0:33:03] Lee: A safety valve?

Johnson: Yes, that's right it was a dump valve actually, there were other safety valves but the dumping lever was the thing of last resort! Because it jettisoned all the contents of the chemicals out of a 3 inch valve at the bottom so it all shot in a heap when you pushed the valve down, and I'd watched the pressure rising very rapidly so I thought it prudent to jump on the lever and a load of flames came out! And all the contents came out of course and the actual structure of the generator was bent because of the explosions that occurred inside, fortunately it was very strongly built and the pressure gauge got blown out because with its thread stripped, it's a good job I wasn't in the way of it!

[Part 1 0:34:10] Lee: Was this indoors or outdoors?

Johnson: It was outdoors [Lee: That's a relief!] Yeah, yeah they assembled it quite close to the pilot balloon shed, which was used for filling pilot balloons, you could get the balloon inside the shed and fill it, then open the doors and let it go! Whereas if you tried to fill the balloon in the open when there's a bit of a gale blowing it would whizz around all over the place and be a bit out of control! And particularly of course you had to balance it with the brass balancing gadget, and you couldn't do that if a lot of wind blowing!

[Part 1 0:34:53] Lee: Was there one occasion when you actually had to hit the lever, when the dump lever was frozen?

Johnson: No the ordinary safety valve was frozen [Lee: So that froze?] Yeah but the dump valve wouldn't freeze because it was too big and the contents that were sitting above it of course rather too hot!

[Part 1 0:35:15] Lee: All this doesn't sound too satisfactory does it Fred?

Johnson: No, I'd two explosions with the thing and I did a lot experiments using tobacco tins, cigarette tins actually and the kitchen scales to weigh out the materials. Eventually I discovered that the ferrosilicon if it got hot and the caustic soda would react without any water if it got hotter enough and that of course was what had caused the explosion! [Lee: Right.] Limited amounts of water so eventually they decided to get the proper chemicals!

[Part 1 0:36:01] Lee: Well they hadn't sent you any of these aluminium pellets had they so?

Johnson: They hadn't got the aluminium pellets no!

[Part 1 0:36:04] Lee: So some were sent were they?

Johnson: Yes, they would order those.

[Part 1 0:36:08] Lee: Were you in touch with Stanley about all this?

Johnson: Yes I had a radio schedule and to discuss the explosions and the cause thereof, of course the people I was talking to were the forecasters in Stanley, (Oh what was his name?), Mac, McNaughton, he was I think the second in command then and he didn't know much about chemistry! Anyway he decided I shouldn't do anymore work on the thing, and take any more risks so I then confined myself to these experiments in little tobacco tins and see what happened with different mixtures? And eventually found that ferrosilicon and caustic soda would go off by themselves if you got them warm enough!

[Part 1 0:37:02] Lee: So there was no training on this, no manual, no guide book?

Johnson: There was a manual from Canada with the 'Gill Hydrogen Generator', but it only mentioned the pure aluminium pellets and emphasised they should be pure aluminium and not contaminated any way with magnesium. [Lee: Right] Which of course the machine was, because I'd used magnesium iron pellets in it in my earlier experiments, and I discovered the

presence of magnesium caused ignition, whereas if there was no magnesium you got the explosion from the ferrosilicon and caustic soda, but it didn't ignite!

[Part 1 0:37:48] Lee: Were you injured?

Johnson: No I just got the ringing in my ears, that's all and a bruise on my head!

[Part 1 0:37:54] Lee: Oh you were hit on the head?

Johnson: Yeah, when the water tank fell off, which stood on brackets quite high up on the front of the generator, it's quite a big water tank and that hit me on the head!

[Part 1 0:38:12] Lee: So we are talking about the second year at Base F aren't we?

Johnson: That was at base F, yes when we had the...!

[Part 1 0:38:17] Lee: So you had a shortage of hydrogen, therefore did that interfere with your programmes measurements and readings?

Johnson: No because the Gill generator, the Canadian device, was for the radio sonde balloons and we weren't actually operating them at this time. They sent the thing down for me to play with and to get to know how to operate it or not operate it as the case may! And it was a year or two before they actually had the radio sonde balloons. They had to build a new base on Galindez Island first and that was still under construction when I left.

[Part 1 0:38:59] Lee: OK, let's go back to....sorry that was all on Argentine Islands wasn't it, what you were talking about?

Johnson: Yeah, the Gill hydrogen generator yes!

[Part 1 0:39:11] Lee: So let's go back to Signy because we're jumping about a bit?

Johnson: Yes, that's right!

[Part 1 0:39:15] Lee: It doesn't matter at all as long as we make it clear in the story.

[Johnson: Yes!] You were kind of on the very fringes on this incident at Hope Bay weren't you?

Johnson: Yes, yes.

[Part 1 0:39:27] Lee: The Argentine, the machine gun story, I just wonder what you, talk me through that story as you experienced it?

Johnson: Well I was on Signy Island at the time and the *John Biscoe* had gone back to Port Stanley and to pick up this prefabricated buildings for the Hope Bay reopening, and they sailed from Stanley and the first we knew of anything amiss was when we got this coded signal from Stanley and it said, I can't remember the actual words but to effect was we should be watching out for hostile action by Argentine forces!! [Lee: Imminent!?!] Imminent yes, that's right so that was as a result of the 'Hope Bay Incident' which we knew nothing about at the time!

[Part 1 0:40:20] Lee: So you didn't understand the message at first?

Johnson: Well we thought the Argentines were coming to invade us and perhaps kick us off the island something like that, but we didn't have any hard information and nobody told us anything until we got the press release! Most of what I know about it is what I was told afterwards you know when I met up with people that had been there at the time.

[Part 1 0:40:52] Lee: Was it a period of real concern, even though you were not particularly well informed was there a nervousness of it all?

Johnson: Well there was because it was a top secret coded message and you know we wondered what the heck was going on!

[Part 1 0:41:12] Lee: One of those messages which is difficult to actually respond to isn't it really?

Johnson: Yes it didn't say what we were supposed to do or anything, it just said expect!! So anyway nothing happened.

[Part 1 0:41:24] Lee: How did you find out what had happened?

Johnson: Well the press release which we received was one that was put out by the Falkland Island Government or Colonial Office or somebody and it was just what had been released to the papers. And it said that a landing party at Hope Bay had been warned off by Argentine forces and shots had been fired, but it played it down really and said it wasn't very much!

[Part 1 0:42:03] Lee: Was it more than that?

Johnson: Yes, I believe quite a few shots were fired! And they were fired over the heads of the landing party, some probably a bit too close for comfort and I think some of them were quite scared, think I would have been!

[Part 1 0:42:23] Lee: Yes, this was a moment where Clifford Miles showed his valour!  
[Note: He means Sir Miles Clifford]

Johnson: Yes there is actually an account of this incident in Dr. Fuchs' book isn't there? And that was mainly in line with what I understood at the time that happened, but if you read the history of the Falklands War in 1982 that gives quite a different story and that's the official war history. And that makes out that the Governor was reluctant to do anything and had to be prodded by the Colonial Office, so which is the truth I don't know?

[Part 1 0:43:11] Lee: You don't know one that said he ignored the Colonial Office and went in and solved the problem?

Johnson: Well that's what I understood at the time and this other thing I happened to read in a bookshop I haven't got a copy of it, is the official history of the Falklands War and that does refer to the 'Hope Bay Incident' but gives a quite different take on it.

[Part 1 0:43:35] Lee: How did you get on with the Argentines?

Johnson: I never met any!

[Part 1 0:43:39] Lee: At all?

Johnson: No, no there was an Argentine base not far from Signy actually, what about what 20 or 30 miles away, which had actually been in existence since the Scotia Expedition the Scottish National Antarctic Expedition in nineteen-0-something or other.

[Part 1 0:44:03] Lee: Was there anyone there?

Johnson: Yes the Argentine station was running on Laurie Island, but what had happened was that the Scottish Expedition had established it and then offered it to the government, which turned it down, weren't interested, so then offered it to the Argentine government, they said 'Yeah we'll operate it', so they've run it ever since!

[Part 1 0:44:31] Lee: So you were quite close to them, but there was no communication, but 30 miles is a long way in the Antarctic?

Johnson: Yes, it was quite a long way, yeah I think our radio operator got in touch with them on one occasion and had a bit of a chat and things were quite friendly at that time!

[Part 1 0:44:50] Lee: Were you much of a dog man?

Johnson: Yes I was interested in the dogs, yes we had quite a few at Signy but when the Hope Bay base opened up, most of them were removed and sent back to Hope Bay. That was on a navy ship which came for them HMS *Burghead Bay* and I think they took 18 dogs from us to Hope Bay.

[Part 1 0:45:24] Lee: Which left you with a handful?

Johnson: Yes, yeah.

[Part 1 0:45:26] Lee: One of which was quite a character?

Johnson: Yes, yeah Susan the old bitch!

[Part 1 0:45:31] Lee: Tell me about her?

Johnson: Well she was an odd body, because all the other dogs were chained up on the span and Susan ran around loose. And all efforts to keep her on the span were frustrated because she was good at getting out! She would back away from her collar and put it off that way, and she was quite good at doing it and also she was the right shape because she didn't seem to have much of a neck, it was sort of carrot shaped and if she pulled backwards against her collar of course, over her head and her muzzle and away! So eventually we gave up trying but she was a great one for bullying the other dogs, and starting fights and she did sustain rather a nasty injury on one occasion, when her jaw got broken! And some of her teeth were sticking out sideways, because the jaw was not only broken it was displaced and like twisted and looked pretty awful! So we did, Arthur Mansfield who was then the Base Leader, he was a zoologist and we thought we would try to straighten this jaw out and so we tried to get her

unconscious with whisky and various other things and none of it worked! And although she guzzled all the whisky and whatever was to hand, she was still strong and agile enough to get away, when we got down to the 'nitty gritty' of trying to examine this broken jaw! So she disappeared and kept out of the way for a day or two and then came back and started trying to start fights again on the span, and well we thought if she is fit enough to do that and isn't bothered about this jaw, we'll just leave it! So she went right through the winter with this broken jaw and seemed to thrive all right and she was still running around when I left to Signy! But the next Base Leader he decided she wasn't fit and so he put her down!

[Part 1 0:48:06] Lee: Oh, right, so how did you hear about that was it on the 'goon show' was it or...?

Johnson: I can't remember how I heard about it, [Lee: Were you disappointed?] well yeah, I was rather, she was a bit of a pet really in spite of her being something of a nuisance as well!

[Part 1 0:48:32] Lee: So she managed to carry on normally with this broken jaw?

Johnson: Yeah, trying to start fights and? [Lee: Eating OK?] Yes I think she managed to eat yeah.

[Part 1 0:48:42] Lee: Did you go sledging with her?

Johnson: I did yeah, that was before she had the broken jaw incident, Tony Wilson and I decided we'd like to go for a sledging trip as soon as there was enough snow to allow it. And we were told to put Susan as leader and some of the younger ones with her as well and we took the Greenland sledge and at that time Susan had a pup, which she had to leave back base. And we went for a trip on this sledge over the ice cap and down the far side which is opposite the base and then we turned round to come back, Susan thought she knew the quick way home which was a straight line across the bay! But unfortunately there was an ice cliff in the way, which would have been pretty lethal if we had gone over it! And she was determined to go and I was driving the first time I'd ever attempted such a feat, and she wouldn't take any notice of the instructions of which way to go and she decided to go straight back to base!

[Part 1 0:50:02] Lee: Over the cliff!

Johnson: Over the cliff yes, I was standing on the brake and the icecap, the snow had blown off it and it was just ice, solid ice and I had to really stand on the brake, which had steel teeth on it which ground into the ice and I managed to slow it up enough so we didn't run over the dogs! Which I manoeuvred so it would go past them and eventually we managed to steer it round, I don't know how! But I got them going up the hill instead of down it. [Lee: Like a U turn!] Yes but I looked at the cliff afterwards and if we had gone over it, well I don't think any of us would have been alive to tell the tale!

[Part 1 0:50:58] Lee: Was that the end of Susan's sledging career then?

Johnson: No, no we had her around a bit more yes.

[Part 1 0:51:03] Lee: Interesting to do that again.

Johnson: Yes, yes Arthur was, Arthur Mansfield the Base Leader was doing a research project on Weddell seals and we had a Nansen sledge, which we rigged up as a mobile laboratory with jars of preserving fluid and so on, to put the bits of seal which were dissected to preserve them so he could examine them back in Cambridge. And we did use Susan a few times on that for pulling the sledge and then unfortunately this project involved killing the seals, at various intervals after they'd given birth! So we had to kill both the seal and the pup, which you wouldn't do nowadays you'd think it a pretty horrible thing to do wouldn't you? But in those days I suppose people weren't sensitive to wildlife issues and it was more or less a routine thing to do. So Arthur had to locate all these seals and number them which he did with a long paintbrush! Had some special paint supplied by ICI which wouldn't wash off allegedly, but of course once the seals had given birth they didn't go back in the water anyway. And then we had to note when the seals gave birth and then unfortunately kill them at certain intervals afterwards to get the right samples that were for the biological investigation.

[Part 1 0:52:57] Lee: What were they investigating?

Johnson: It was the life cycle of the Weddell seal [Lee: Right] and I've got a copy of it somewhere, it's quite involved, I don't understand much of it! Arthur wrote that while he was working his results up in Cambridge making tissue slides of the samples that we had collected.

[Part 1 0:53:22] Lee: So he was doing all this biological research actually on the base, he was?

Johnson: Yeah, we were collecting the specimens, but he worked up the results like making the microscope slides and things to look at the tissue samples in Cambridge afterwards.

[Part 1 0:53:39] Lee: So they were taking carcasses back to Cambridge or parts of carcasses?

Johnson: Yeah, we dissected the seals on the spot, there was the pituitary gland and various bits of the reproductive system, that were collected.

[Part 1 0:53:59] Lee: And you were killing the pup, because the pup wouldn't survive?

Johnson: That's right yeah, we'd kill the pups and of course they all came in handy for dog food anyway! Which was a reason why we would have been killing seals anyway although they would have probably been elephant seals for preference rather than Weddell seals?

[Part 1 0:54:21] Lee: Susan your sledge team leader all through that?

Johnson: No she wasn't the sledge team leader all the time, we gave her the occasion run, but usually I think she got left behind most of the time, we had about, oh I don't know, 6 or 7 other dogs that we could use and...



[Part 1 0:54:47] Lee: What sort of background was she brought into the Antarctic or brought up?

Johnson: I think I was told at one time she was one of the original dogs that came from Newfoundland. But then I was talking to someone that was doing a project on dog history and according to them she was one of the first generation of dogs to be actually brought up in the Antarctic from original dog parents that had come from Newfoundland.

[Part 1 0:55:19] Lee: When she had a litter the survival rate wasn't very good is that right?

Johnson: No she only ever seemed to rear one I don't know what happened to the others. They must have been others and she was suspected of eating them, but I don't know whether that was right or not? But we never saw any others, so perhaps she did eat them!

[Part 1 0:55:39] Lee: The ones that survived, the one that survived turned out to be a good dog, is that right?

Johnson: Yes, that's right yeah, yes she had 2 while we were there one called Podge and the other called Amber I think and they both grew up to be good dogs.

[Part 1 0:56:00] Lee: Whilst we are talking about events at Signy, I think you did a bit of skiing as well didn't you at Signy?

Johnson: Well we always went around on skis, Arthur had a sealing base on the far side of the island and used to camp out there, and his original batch of seals were over there but unfortunately the sea ice went out and took the seals with it and very nearly Arthur as well!

[Part 1 0:56:31] Lee: These were crabeater seals?

Johnson: No Weddells!

[Part 1 0:56:34] Lee: Weddells OK.

Johnson: So we had to get some more, which were round a new batch which were closer to base and...round by Pearl Harbour more round that side!

[Part 1 0:56:50] Lee: So Arthur had a close call did he?

Johnson: Yes I believe so, yes he was on his own as well, he would go and spent his time over there on his own, watching these seals and the sea ice went out quite suddenly, and he was quite fortunately he wasn't on it at the time!!

[Part 1 0:57:12] Lee: Oh really?

Johnson: I had a quite similar experience myself when I lost my skis, when the crabeater seals were arriving on the eastern side of the ice there was open water out there at the time. Which was giving rise to sort foggy weather occasionally, when the water smoke drifted in and I went out photographing these things and got some good photos, came back to base and left my skis down on the sea ice, because I was going to go out again the following day and

the following day there was no ice!! No seals and no skis, the whole lot had gone just clear water!

[Part 1 0:58:03] Lee: You use this phrase 'grasshopper' skis, what do you mean by 'grasshopper' skis?

Johnson: The binders were a special Norwegian brand, most of the skis that we had were Kandahar bindings which were spring loaded. But these particular skis didn't have any spring loading they were, they had a leather strap they didn't have any spring in it hardly and that held your foot in the ski and even if you came a cropper the ski wouldn't come off!

[Part 1 0:58:41] Lee: Was that good or bad? [Johnson: Bad!] Tell me the story?

Johnson: I'd been over with Arthur to his camp on the far side and we were returning down the slopes facing the base on the far side of the bay, and it was quite a run down, you just weren't doing anything fancy just cruising down and Arthur was in front and it was getting twilight, and my right ski the points on it weren't turned up on it all that much, the skis were pretty ancient and in a bad state of repair. The ski tip dug into a snow hummock which like a sastrugi thing and the ski, I carried on going and the ski tip stayed stuck and I resulted up on one ski facing forward, that was the left one and the right ski facing backwards! And if you can imagine being in that position!

[Part 1 0:59:55] Lee: It's the opposite of doing the splits really?

Johnson: Well both legs were in contact with each other, but parallel and sort of facing opposite directions and I was lying on the snow unable to move because, I couldn't reach the release clips on the skis! And of course they wouldn't come off otherwise Kandahar binding the spring loading would have thrown the ski off before I got in that position! But these ones where the ski went your foot went with it!

[Part 1 1:00:31] Lee: How did you get out of the situation?

Johnson: Well Arthur realised I wasn't with him and turned back, he'd gone a couple of hundred yards down the hill I suppose when he realised nobody with him, I had been behind him anyhow before he observed what had happened. I was there struggling to reach this release lever on the side of the binding and I couldn't, because I couldn't bend either knee because both knees were straight and there was no way I was going to get at anyhow, anyway fortunately Arthur came back and got the ski off which was quite easy to do when you could reach it! But when you couldn't reach it, it was quite impossible!

[Part 1 1:01:21] Lee: What was the consequence of that?

Johnson: Well I had a very nasty ankle, I thought it was broken because you can imagine having one foot twisted right round in the reverse direction it's quite a strain, well on the whole joint! The knee as well actually, but the ankle was the one suffering the most and he managed to get me back to base, I was sort of skiing on one leg keeping the other one as little loaded as I could and on a tow rope. How we got up the hill I don't know, but eventually got

to the hut and there was this magnificent red ankle which was swollen to a huge size! And I was convinced it was broken, anyway don't think it was in the end, but we would have been trouble if it had been because of course you couldn't get a doctor or anything. So I got the medical kit had some stuff called 'lead lotion' which was lead acetate I think, to put on it to take the swelling down to bandage it up with that, but it was still several weeks before I could get mobile again!

[Part 1 1:02:52] Lee: Were you of any use to the base in this time at all?

Johnson: Not very much at all, no!

[Part 1 1:02:56] Lee: So your work was being shared by the other 3?

Johnson: Yes, that's right the other 2 observers had to do all the obs and....

[Part 1 1:03:06] Lee: Sounds like you actually had quite a lucky escape isn't it?

Johnson: Yes, I was lucky that Arthur was with me at the time!

[Part 1 1:03:13] Lee: And it wasn't broken?

Johnson: Yeah, I don't think I would have got out of the position I was in, on my own unless I could have got my ski stick and poked the clip with the tip of the ski stick. That was only thing I thought of afterwards, I thought I might have escaped that way but I don't know.

[Part 1 1:03:37] Lee: Would you have gone skiing on your own?

Johnson: Oh yeah, when I went to see the crabeater seals I was on my own, and probably 3 or 4 miles out on the sea ice at the same time!

[Part 1 1:03:50] Lee: All of which of course was not really the right thing to do was it?

[Johnson: No!] In later years they would never have allowed that?

Johnson: No, I was the ice observer as well I had these duplicated maps of the island and I had to go to a suitable vantage point and sketch in the position of the pack ice. Not so much in the depths of winter, when it was all iced up anyway 100% ice all the way around, when you couldn't see anything else no open water. But once the ice started to break up I was compiling these maps every week or so, and then I would go up on my own to whatever vantage point I chose and on one occasion I decided to go to Coronation Island and do the observation from the top of Wave Peak! Which meant I could see the other side of Coronation Island, and I could see the Atlantic and sketch in the position of the pack ice there which was quite a novelty!

[Part 1 1:05:03] Lee: Was that the first ascent of Wave Peak?

Johnson: Yes, the first ascent as far as I know!

[Part 1 1:05:09] Lee: How's that feel, [Johnson: Er'...m!] the first man to step foot?

Johnson: Well I wasn't aware, I wasn't sure it was the first ascent at the time it only turned out afterwards that it was! But it was a spectacularly nice day with a brilliant blue sky and sun shining and you could see for miles! So I managed to sketch in all these details and also take panoramic photographs, which might have come in later on to help people who were going to have a go at climbing Mount Nivea which wasn't too far away. I could see the approach to that quite comfortably from Wave Peak.

[Part 1 1:06:04] Lee: Was it exhilarating?

Johnson: It was yes, but the... it was exhausting as well because the snow up there wasn't really snow, it was almost like the consistency of talcum powder! And it was knee deep and more and even on skis you just sank into it and I'd never seen anything like it!

[Part 1 1:06:29] Lee: So coming down was as hard work as going up was it?

Johnson: Yes, because I was up to the knees in this stuff and the skis were covered in it as well, so there was no sort of gravitational assistance you would normally get on skis or very little if you stopped pushing you just came to a halt!

[Part 1 1:06:49] Lee: Good trip then!?

Johnson: Oh yes, yeah yes it was very interesting and strangely enough the second chap to go up there, (Which was Lance?), Lance about 2 or 3 years after, Lance I forgotten his name now! [Lee: Don't worry] [Note: It would be Lance Tickell]

Johnson: Anyway I spoke to him, and he said the snow was normal when he was up there, so he didn't have this powdery stuff then!

[Part 1 1:07:21] Lee: We'll take a break Fred and come back and we'll do some more.

Johnson: Yeah OK.

## Fred Johnson Part 2

[Part 2 0:00:00] Lee: This is Fred Johnson recorded at his home in Darwen Lancashire by Chris Eldon Lee on the 3<sup>rd</sup> of February 2010. Fred Johnson, part 2.

We were talking about your interest in ice observation and taking photographs and one of your photographs became quite important photograph didn't it?

Johnson: Yes the photograph taken from the top of Wave Peak or near the top of Wave Peak, as it turned out! Was used in Arthur Mansfield's thing, the published work about Weddell Seals and also in *The International Atlas of, what is it, Ice?*

[Part 2 0:00:47] Lee: *International Ice Atlas!*

Johnson: Yes, that's right it's used in that as an example of fast ice, because it shows the, what I call the ice bridge between Signy and Coronation with open water on either side.

[Part 2 0:01:04] Lee: Were you ever paid for those pictures?

Johnson: No, no my name doesn't appear on!

[Part 2 0:01:12] Lee: I'm intrigued you mentioned in your booklet why the photography is black and white, because colour had obviously been invented hadn't it?

Johnson: Oh, yes. [Lee: Or did Fids prefer black & white?] Well if you were using colour film, you'd have to post it home and I wasn't sure how well it would travel? Unless it went by air mail, which it probably wouldn't anyway so nobody really wanted to use Kodachrome at the time or whatever other colour film was available because for one thing, you'd be a long time before you actually got to see the results since you couldn't process it yourself, so it might be a year or more before you actually saw what you'd got.

[Part 2 0:02:01] Lee: And you weren't sure that colour film would cope with going through the tropics on a ship?

Johnson: Yes, that's right it might deteriorate and you know it was very much an unknown quantity, whereas black & white photograph was fairly straight forward and you could do it on site.

[Part 2 0:02:20] Lee: But by definition quite a bit of the photograph would be white anyway wouldn't it?

Johnson: Yes, the only thing was you wouldn't get the blue sky!

[Part 2 0:02:28] Lee: Ha-ha! So you were developing your own were you was there a little room for doing that?

Johnson: Yes, a little darkroom, all the bases had one as far as I know.

[Part 2 0:02:34] Lee: Was this a skill you had before you went or did you develop it?

Johnson: I could actually do it before I went, but I didn't have an enlarger I only did contact prints previously, but when I got on the base 'Wink' Mander arrived at Signy and he had an enlarger which would take 120 size negatives which was quite good, so we were able to do enlargements on that.

[Part 2 0:03:05] Lee: So you have got one or two photographs of yourself on the walls here?

Johnson: Yes the one up there is taken over on Graham Land opposite the Argentine Islands and that was taken when we were trying to get some geological specimens from a peak that you could see from the base and through binoculars it appeared to have green streaks on it, so we thought it was probably a deposit of copper? But when we got up to it, we found it was too hard to get up to so we never got any specimens we just had a good day out climbing!

[Part 2 0:03:52] Lee: So you never found out if it was copper or not?

Johnson: No, we don't know, no as far as I know nobody has ever a look since?

[Part 2 0:03:59] Lee: Now I'm fascinated about this story about trying to collect snowflakes?

Johnson: Oh yes!

[Part 2 0:04:07] Lee: I'd love to know, anyhow tell me the story!?! Tell me why on earth you were trying to collect snowflakes?

Johnson: Well there's a chap in Cambridge who was doing work on cloud physics, and of course this involves the mechanism of the formation of snow flakes and he wanted some replicas made, and sent us some microscope slides and a kit for doing the job! Which was a piece of black velvet on which the snowflakes could be caught and examined, a pair of tweezers with which to pick them up! Fat chance!! [Loud laughter from Lee!!] And these solutions of polyvinyl alcohol in methanol or ethanol and the idea was that you collected the snowflake, put it on the glass slide and then put a drop of this solution on to it, which would then cover the snow flake entirely and eventually dry out and create a replica of the snowflake!

[Part 2 0:05:17] Lee: Like a fossil snowflake?

Johnson: That's right yeah, I tried this I thought 'This sounds alright I'll have a go at this'.

[Part 2 0:05:26] Lee: Had it been tried out before?

Johnson: I don't know I never actually got to discuss other peoples' results, but I know mine were a failure!

[Part 2 0:05:37] Lee: Tell me what happened?

Johnson: We had this pilot balloon shed which had a hatch in the roof from which you could observe the pilot balloon. And I put the kit in the pilot balloon shed, which was totally unheated and you could open the hatch in the roof very slightly so the snowflakes would come in and land on the black cloth. And I tried this and the snowflakes duly came through the slot in the hatch and landed on the black cloth, but as soon as I looked at them they started to melt! And I never got round this problem actually I tried allsorts wrapping my head in a towel to keep the radiation off the things, but no matter what I did they always melted!

[Part 2 0:06:27] Lee: You thought it was your body heat that was doing it?

Johnson: It must have been, yeah there was not any other heat source at -30, well you think that snowflakes would stay frozen, but they didn't! I would like to know what experience other people had, but I never got round to asking them, it's one of the things I'd like to know actually whether it was just me or it was a thing that plagued everybody!?

[Part 2 0:06:56] Lee: Did you try various ruses?

Johnson: Well apart, yes we were supposed to catch the snowflake on the black cloth and then select which ones you were going to preserve, but as there was no time to do this I just put the glass slides out in the hope that a snowflakes would land on them! And if one landed

in the middle I would get the solution and quickly dab the liquid on, but I don't think I had a great deal of success even with that method! 'Course we are supposed to accompany each specimen with a full weather observation as well, ha, ha! Which I tried to do, but really I think the quality of the samples that I took must have been so poor that it wasn't really worth doing it.

[Part 2 0:07:57] Lee: So you did get something?

Johnson: I did, but when I looked at the results when they had dried out, they were only vaguely snowflakes and you couldn't see any fine detail, a much better system would have been to photograph the things! I did have a close up attachment for my camera, which would have enabled me to take pictures from about 8 inches. And if I had thought about it, taking those pictures I could have photographed say maybe a dozen snowflakes at once with a lot less trouble than going through all this chemical process!

[Part 2 0:08:38] Lee: But you never really understood why you were being asked to do this?

Johnson: No, well I it was a study in cloud physics and of course the way snowflakes crystals form is, has always been a source of interest to meteorologist not least because it's said that no two are ever alike? And how anybody can prove that statement I don't know, because in order to prove it you'd have to examine every snowflake that ever fell!

[Part 2 0:09:11] Lee: Every school boy knows it's true don't they?!

Johnson: [Laughter!] Yes!

[Part 2 0:09:14] Lee: Was it just you or were there met men at other bases doing the same thing or trying?

Johnson: I think they sent the kit to every base.

[Part 2 0:09:21] Lee: With similar results?

Johnson: I don't know, I never found out what other people did, I think I must have lost interest eventually!

[Part 2 0:09:30] Lee: Let's move you on to Base F then, to Argentine Islands, and you got there late in the summer? [Johnson: Yes] That would be the early part of '53 wouldn't it?

Johnson: That's right yes.

[Part 2 0:09:42] Lee: There's a mention here of Booth Island, the 'Booth Island Blues'?

Johnson: Yes, well we were very short of dog food when we came to examine the pile, the stock pile and the *John Biscoe* had taken most of the stock pile to Hope Bay where they had a shortage. In fact some of the dogs we sent there from Signy had died of starvation! So they were really stressed for dog food, of course they were using the dogs to do the exploration down the East Coast of Graham Land, so they needed the dogs and they needed the food, so it wasn't surprising that they pinched most of the food from the Argentine Islands. The theory

being we could get plenty more, because seals were always plentiful round there, but this particular year the, well when the *John Biscoe* left the sea was already freezing and shortly after she had gone you could walk on the ice, on the sea ice it was that thick!

And they were looking frantically around for seals and they'd all gone under the ice, the Weddells and so you could hear them occasionally because they had to come up and breathe through these holes that they kept open. But you couldn't catch them when they were under the ice, because if you shot them while they were breathing they would sink to the bottom and you would lose them anyway, it'll be a waste of time! The crabeaters they floated around on the pack ice, so they came and went but with the fast ice forming the pack ice couldn't move in so the crabeater seals never appeared I don't think we saw one! And we got quite desperate, we were having to feed the dogs on whatever we'd got, the tins of meat & vegetables and things like that, and we decided we'd have an expedition and see if we find any crabeaters farther north. So 3 of us set out man hauling the sledge, myself, Derek Clarke and David Barrett who was the Base Leader and we man hauled as far as Booth Island, which is what 20 miles north from base and never saw any seals except the occasional hole where the Weddells were living, but that was no use to us at all! So eventually we were looking for a camp site and we stopped on the sea ice, got near Booth Island and one of my skis suddenly went down a couple of inches and when I looked down the ski was over a hole in the ice and a big chunk of black water was underneath me! So the other 2 spotted this and immediately instead of standing there wondering if we were going to camp, whoosh and away!! [Loud laughter!] And we went to the nearest bit of land and camped there, which was fortunately a good site anyway it was quite suitable for camping on, so it didn't matter but it was certainly a dodgy moment looking down and seeing I don't know how many fathoms of black water down there!

[Part 2 0:13:27] Lee: So the health and safety rule about not camping on sea ice was not in force at that point?

Johnson: Well, we weren't going to camp on it we were moving on it, we were looking [Lee: Oh right!] we stopped and looked for a site on the island and because this chunk suddenly disappeared, it was never mind where we are going, we are going to land!

[Part 2 0:13:44] Lee: Oh changed your mind?

Johnson: Took the shortage route to the shore, we weren't far actually from open water the following day when we went for a look, we were only a mile or two from water that was ice free, there was not ice on it whatsoever! Even the temperature was I don't know what, well down in the -20's anyway it would have been, and this water was steaming like water smoke I think they call it and it was generating this foggy atmosphere which made everywhere feel cold and clammy! And gave the place a sort of weird aspect and I didn't like it at all, it was, well it wasn't very pleasant I was glad to get away from the place!

[Part 2 0:14:40] Lee: So you didn't find any seals there?

Johnson: We didn't find any seals, no nothing!



[Part 2 0:14:45] Lee: Who was it that was saying there were some?

Johnson: Well erm, what was his name? [Lee: Green!] Tony Green [Lee: Johnny Green!] Johnny Green yeah, he'd been at Signy and Base F and they'd always had plenty of seals crabeaters mainly and we never saw one, but he said because there'd been a lot when he was there, there should have been a lot when we were there! But we couldn't find any and the pack ice never came in it was just the fast ice that was there, and eventually we had to turn round and go back but we did find Charcot's monument there. Which I have recently acquired a map, a set of maps from the...Friends of the Antarctic whatever they called [Note: This would be UKAHT]? And on it is marked this monument I think it is number 28 on the map.

[Part 2 0:15:55] Lee: This is what, describe it to me?

Johnson: It was a cairn, but not just a rough cairn and it was like a cylindrical monument.

[Part 2 0:16:10] Lee: Like a trig point?

Johnson: Well it was bigger than a trig point and in the middle was a wooden mast and we couldn't find any plaque or anything there, we had a look round it and decided it was Charcot's monument probably to guide people back to base, projected up into the air quite a long way and you'd be able to see it from quite some distance. Think it was erected probably as a homing beacon, but it is marked on the map now.

[Part 2 0:16:46] Lee: This is 1904 or thereabouts?

Johnson: Yes, that's right. [Lee: *Francais!*] Yes that's right, yeah.

[Part 2 0:16:55] Lee: So you think it's a mast from the *Francais*, the ship?

Johnson: Probably a spare one they carried, yes.

[Part 2 0:17:01] Lee: And you were the first people to see that for 50 years I would think?

Johnson: Well I would think so yes, I never heard of anyone going that far.

[Part 2 0:17:14] Lee: Now you tried to head back, you were heading back to base from Booth Island and a figure came towards you?

Johnson: Yes, that was Harold and the 3 of us had set out, and we'd taken the radio set with us, the "18 set" which was one used extensively by the army during the war. And it didn't work, we couldn't get in contact with them so we had agreed to broadcast at certain hours, but when we tried it nothing happened! So they never heard from us and there was only 2 of them left at base, there was Bill Kelly the Wireless Operator and Harold Smith, who was doing all the met obs and eventually he decided he'd set out and try and look for us and see where we'd gone, and he got a few miles from base before he ran into us.

[Part 2 0:18:11] Lee: Was he following your tracks I presume?

Johnson: Yes, yeah the tracks were still there.

[Part 2 0:18:19] Lee: So you still had lots of hungry dogs on your hands didn't you?

Johnson: Yes that's right, but we did manage to get a seal in time to save them from having to be shot!

[Part 2 0:18:30] Lee: You had considered shooting the dogs? [Johnson: Pardon?] You had considered shooting the dogs?

Johnson: Only briefly, we decided we wouldn't until it was the very last resort, but it would have been!

[Part 2 0:18:48] Lee: And the seal you found, that was a bit of a farcical moment I believe?

Johnson: It was yes, I took the .45 revolver which was the first thing that came to hand from the base when Derek came and told me the seal was there. And I'd never used it before on that base, but at Signy I used a similar weapon for killing elephant seals which we used for dog food whenever we could, and the Weddells we only shot because of Arthur's seal research project, but I never liked killing the Weddells but I didn't mind killing the elephant seals! Because they were such nasty looking things, and at Signy the bullets were nickel jacketed ones for use in the war, when you couldn't use lead bullets because they were illegal. But they'd started buying lead bullets which are a lot cheaper I suppose than the nickel coated one, and I'd never used these before and.

[Part 2 0:20:06] Lee: These were the ones at Argentine?

Johnson: Argentine Islands yes, the ordinary lead ones and they turned out to be useless for killing Weddell seals!

[Part 2 0:20:19] Lee: How did you find out? [Laughter!]

Johnson: Well I shot this one expected to kill it with one bullet and nothing happened it jumped up and started making off! So I fired the remaining 5 and still didn't make much difference and then I had to shoot it in the neck eventually to be sure of killing it! And it was a pretty bad experience for the seal and it wasn't too good for me either, but it did save the dogs from starvation! So it was essential to kill that seal otherwise we would have been in real trouble.

[Part 2 0:21:05] Lee: You also came across a leopard seal at one point, as well which I'd like to hear?

Johnson: Yes, during the building of the new hut on Galindez Island for the new base I was working on my own at the old base, everybody else had gone helping to build the new base and I was just doing the observations by myself, and also being Senior Met I had a lot statistics to compile and year end records to do. And I was working on those and they sent a chap round from the base construction site, to tell me there was a seal on an ice floe and could I go and collect it?

Because as they hadn't got a boat round there, no firearms or anything I'd got the boat and the outboard motor and everything, so I set off to get this seal took the rifle which was the Lee Enfield .303, and got round and when I came to where the seal was on this ice floe it was asleep, but I could it was a leopard seal! So I thought 'Well I'm not going to get out of the boat on to the ice floe with a leopard seal', so I shot it from inside the boat and the fact that the boat was on the water and rocking about a bit might have put my aim so not quite as good as it should have been. In fact I thought I'd killed the seal because it stayed there motionless and there was blood on the ice, so I thought 'That's alright then!' Jumped out of the boat got my knife and everything ready, to gut the thing and take it ashore, and it suddenly moved, lifted its head and reared up! So knowing the reputation of these things, I was a bit put out so I made a mad dive for the rifle, and shot it two more times before I'd sort of come to rest almost! Of course, it had been I think, it would have died from the first shot, but I don't know whether if it was some sort of dying reflex or something of the sort that made it rear up, but it hadn't actually moved in my imagination and I thought 'Well it's going to chase me round this floe', and it was only the size of a boxing rink, I was quite worried!

[Part 2 0:23:48] Lee: There was an audience as well I believe?

Johnson: The people on shore had sort of downed tools to have a look and see what was happening, and by the time I'd got out of the boat they'd all turned round to get on with the job, so they didn't actually see the panic! [Loud laughter!]

[Part 2 0:24:11] Lee: They were building a new base on Galindez Island for the IGY weren't they?

Johnson: Yeah, that's right and the radio sonde balloon programme as well.

[Part 2 0:24:23] Lee: OK and this is where eventually the ozone hole was actually discovered from?

Johnson: Yes, that's right yes.

[Part 2 0:24:30] Lee: But whilst you were there they discovered they created and cast these concrete pillars in the wrong place, what's the story behind that?

Johnson: Well we'd been late in arriving, the ship had been delayed. There should have been 3 trips south from Port Stanley, the first one I was picked up from Signy Island because the ship had done the Graham Land bases first and then across to Signy, South Georgia and then to Stanley. So I would have gone down then on from Stanley the second trip, but the second trip got cancelled because the *John Biscoe* was used to take some goods to Goose Green, which was a private arrangement between the Governor and somebody or other, and anyway it was nothing to do with FIDS! At Goose Green they backed on to some rocks and knocked the rudder post up through the deck, so I was told, I wasn't on board at the time because there'd been a diphtheria panic in Stanley and all the Fids had to go and have a swab taken and mine was positive(!) along with 2 others, so they said 'Well you can't go south till everyone has been immunized, so you 3 we'll put you in Mrs Brecon's lodging house and you'll stay there till the next trip!' So for us the second trip was cancelled and we were to go

down on the third trip. Well this second trip was interrupted by the journey to Goose Green when the damage was incurred and the ship had to go up to Montevideo for dry dock for repairs. So that virtually wiped out the second trip, there was no second trip there was just the third trip that was planned so we did go down on that. Which meant the whole thing was very much later than it should have been, so they were there mixing concrete putting these concrete pillars up ready for the new base and the ground was frozen hard and it was mistaken for solid ground! And it wasn't it was frozen gravel, so they put all these pillars up and the following year, when the hut should have been built they had first of all relocate the concrete pillars!

[Part 2 0:27:17] Lee: They moved them, did they?

Johnson: I think they removed the gravel from underneath them, and filled it with it with grout, grouted them in, with a fresh lot of concrete so they did get built eventually but it was very much later than it should have been.

[Part 2 0:27:38] Lee: So they weren't moved in the end they were?

Johnson: I think they were built on the original site yes.

[Part 2 0:27:43] Lee: On better foundation yes, right OK that's good, a good story! There's a lovely account of also this swimming scallop that nobody else has ever mentioned to me in all these years in doing this stuff, nobody's ever mention scallops in the Antarctic, but you saw one swimming?

Johnson: Yes that's right it in boat channel, we were returning in the dinghy from, I think we'd been out to *John Biscoe* which was anchored in between the Argentine Islands and Graham Land, and we were returning to base through boat channel, and this thing was on a parallel course with us flapping along going almost as fast, and as we overtook it I put my hand in the water and scooped it out! And I took photographs of it and then took it on board the *John Biscoe* and the FIDS doctor was on board and he was very interested and undertook to take it to the Natural History Museum, because at that time FIDS didn't have any marine biologists, they hadn't been invented at that time! But I never heard any more about it and I wrote to the Natural History Museum years later and they never replied I wrote them to ask if they'd got it and what they thought of it, and told them its history and all that and nothing! So eventually wrote to the BAS Club magazine and got a response then from, was it Bob Burton and he'd seen one near Deception Island, but the marine biologists never recorded them as far as I know?.

[Part 2 0:29:36] Lee: So you think, they are quite a rare event scallops?

Johnson: I mentioned it to Allan Wearden and he said actually cooked some [Loud laughter!] When he was at Marguerite Bay some diver had brought some up from the bottom, so maybe they're too common for anyone to bother with!?

[Part 2 0:29:55] Lee: Well OK, good story though, brilliant story! Tell me a bit about some of the people you met down there, you mentioned Johnny Green and his insistence that there were seals, when there were no seals?

Johnson: Well he was Assistant Sec FIDS in Stanley.

[Part 2 0:30:10] Lee: Did you meet him?

Johnson: Yes but only in Stanley, yeah he was on the *John Biscoe* at one time as well.

[Part 2 0:30:16] Lee: What did you make of him?

Johnson: Not much really! I don't really know I didn't have that much contact with him, I suppose I only spent probably less than 2 hours in his company altogether!

[Part 2 0:30:34] Lee: OK, tell me about the chaps on your second base, Harold Smith in particular who you kept tabs on for some time afterwards?

Johnson: Well I was at his funeral, yeah he went to Signy Island as Base Leader after he had been on the Argentine Islands with me.

[Part 2 0:30:56] Lee: What sort of man was he?

Johnson: Well he was a few years older than me, quite a bit overweight I would say but he was a Yorkshire man as he always liked to point out to everybody! Yeah a nice chap, easy to get on with and sort of very laid back.

[Part 2 0:31:31] Lee: Was he a good Base Leader?

Johnson: Well I don't know, that was at Signy after I'd come home, but he got on alright there I think, yeah.

[Part 2 0:31:44] Lee: Were the chaps on your watch at Argentine Islands any particular, anybody that stands out?

Johnson: Bill Kelly was the wireless operator he'd been there the year before, and spent a second year there with us. He was older than anybody else on the base, again yeah he was alright, I think one of the [things] about wireless operators in general that they had contact with the outside world! And they could chatter away to other bases and some of them, they were allowed to use the set, the equipment, for amateur radio and they could contact people in America and South America and South Africa and all over the place! Some even got in contact with stations in this country which was very difficult to do, because the regulations for British radio hams specified a low, very low powered equipment, so made it difficult for them. But the radio operators could always chatter to the outside world and were more in touch with outsiders, as the rest of us were a sort of tight closed community really.

[Part 2 0:33:08] Lee: So would you say that made radio operators stand aside, apart from the rest of the gang?

Johnson: Well slightly different, yes in some cases I think yeah.

[Part 2 0:33:21] Lee: Was it, the radio sets OK in those days or was it a bit hit-and-miss?

Johnson: Well, they were a bit dodgy for voice communications, but alright for Morse Code which is what they were mainly used for. I attempted voice communication with Stanley after the 'Gill Generator' affair and it was pretty difficult, having to say everything two or three times [Lee: OK] reception was very dodgy!

[Part 2 0:33:57] Lee: Your, you were transferred eventually back to Stanley, which I don't think you were particularly enthused about?

Johnson: No I didn't, I was told suddenly that I was, myself and two lads from Port Lockroy, from base A, who had been helping with the building, were all being picked up by the Navy at Deception Island and go back to Stanley for various jobs. There was a lot of statistical work to do on the meteorological side and apparently I was considered quite capable of doing it! Not that I enjoyed it, but anyway we got to Deception Island, the *John Biscoe* took us up to Deception Island and we were supposed to get on the Bay class frigate, which one was it? Was it the *Burghhead Bay*? I can't remember now, I think it was. But the ship was there, but it took off after an Argentine ship it was supposed to escort, the Argentines had a base at Deception as did the Chileans, these were in addition to our own base of course. And this Argentine ship was there and it was going to take a government minister on a tour of the Argentine territories in the Antarctic, which happened to be the same as our territories in the Antarctic!? [Lee: Yes!] Anyway this ship took off in the middle of the night hoping to evade its escort! And of course the escort set off to escort it, as it was supposed to do and we were left behind on Deception Island, the 3 of us along with the base crew and a party of Marines, I think there was about 15 Marines staying at the base at the time. Because there'd been a bit of trouble with the Argentines, they'd built a hut on land close to the British base and it was actually a piece of land they play football on, I think it was flat piece. And the Argentines had built this hut in the middle of it, and this frigate had brought the local policeman down from Port Stanley to arrest them for trespass or whatever(!), and deport them, so there was a bit of friction there and so these Marines were left as a sort of garrison and it was quite crowded actually, because the Marines, the FIDS normal crew and 3 lodgers, if you like waiting for onward transit and it took a week or two for them to get back and take us to Stanley, so we were stuck there for a while! And Deception Island is, well it wasn't one of my favourite places!

[Part 2 0:37:27] Lee: But eventually you got to Stanley and you were given met work to do there?

Johnson: Yes, I got all this paperwork to do then, and well I just got on with it. They wanted me to go back again as Senior Assistant in the Stanley Met Office, but I didn't want to do that and I got overtures from FIDS to come back the following year. I was wondering to or not and eventually decided not! Because I wanted to continue my education a bit farther and that meant goodbye to the Antarctic unfortunately!

[Part 2 0:38:15] Lee: You say that even now with a heavy heart?

Johnson: Yes!

[Part 2 0:38:23] Lee: Was it a difficult decision to make?

Johnson: It was rather yes, I wanted to go back you know, it was good fun and enjoyed it but it wasn't a very good idea for a long term future! To progress through the hierarchy of the scientific civil service I would have to start by getting 'A levels' which I hadn't got and then normally it would have been a 2 year course. But when I went back I persuaded Doncaster to fix me up with a 1 year course and passed the required exams and then I thought, 'Well I'll not go back to the Antarctic I'll see what else I can find', and started applying for other jobs, other than the Met Office and eventually took the job at Metropolitan Vickers in Manchester which seemed an interesting thing to do.

[Part 2 0:39:40] Lee: Just to backtrack slightly you're one the few people to talk about the ladies, the women on the Falklands, there's a couple of names here Valerie?

Johnson: Oh yeah Valerie Hackett yes, I think she eventually married one of the forecasters at Stanley.

[Part 2 0:39:58] Lee: And Coleen from the FIDS office, who was she?

Johnson: Yeah, Coleen Rowlands she worked as a secretary in the office, but her dad was ship's cook on the *John Biscoe*.

[Part 2 0:40:11] Lee: And of course Una, who was a Met Office secretary?

Johnson: That's right yes, yes she was I don't know!? Quite an attractive girl, but a little bit standoffish I think, so?

[Part 2 0:40:40] Lee: I've heard it before there is a part of the Antarctic named after her?

Johnson: That's right yeah, yes 'Una's what's it', a couple of peaks on the coast of Graham Land yeah!

[Part 2 0:40:57] Lee: Is that on the map now?

Johnson: I don't think so, no?

[Part 2 0:41:02] Lee: It's just Fid law is it?

[Note: In fact it appears in the Antarctic gazetteer as Una Peaks.]

Johnson: I've got a photograph of it somewhere!

[Part 2 0:41:09] Lee: Did she ever find out?

Johnson: I don't know I never asked her!

[Part 2 0:41:16] Lee: You mentioned also there's, when you went back the Air Ministry tried to invite you back to join them again did they?

Johnson: That's right yeah, yeah I had a letter from them, yeah, I didn't take them up on it!

[Part 2 0:41:29] Lee: Why didn't you choose not to go back to the Air Ministry?

Johnson: I didn't like the Civil Service environment, it was a big bone of contention I joined a union called the IPCS, Institute of Professional Civil Servants. And one of the main things they were campaigning for was parity between the scientific civil service and the clerical civil service, because the clerical civil service was appreciably higher paid, than the scientific one! And yet the qualifications for the grades were quite similar and actually I thought the technical work in the Met Office, was probably more complicated than anything that the clerical department had to deal with, and quite put out that they weren't paid the same! And that was one of the reasons I wouldn't go back and as far as I know they never did achieve parity!

[Part 2 0:42:41] Lee: You made your decision not to go back to the Antarctic in the Bay of Biscay?

Johnson: Yes, I was debating 'Shall I shan't or shall I shan't'!

[Part 2 0:42:49] Lee: Tell me about that debate, what were the pros & cons, what was it that eventually dissuaded from, that eventually persuaded you to say goodbye to the Antarctic?

Johnson: Well if I'd gone back another time for another 2 years, and then gone back to the Met Office I would have had to get in the queue, to get part time release for doing the 'A' level course which some people were doing when I was at Bawtry, that the ones that were selected there was only 2 or 3 of them that could be released to go on this 'A' level course, the rest of us had to fit our shifts round their absence if you like. And of course there was a queue to get on this scheme, you could join it but only so many could be on it, if everybody was on it you'd all be off at the same time and so that wasn't practical! I reasoned that if I went back there, I'd be at the bottom of the pile waiting again for several years to get in on the 'A' level course, which was the requirement for promotion to the next grade!

[Part 2 0:44:10] Lee: So spending too long in the Antarctic would actually hamper your future?

Johnson: It would have hampered my future career in the Met Office, if I'd gone back to the Met Office, so I decided I would go fulltime and I'd got plenty of money of course, through not being able to spend it! And eventually decided I would spend a year, getting these qualifications, only I'd do it in 1 year instead of the 2 that were normally recognized and in fact if you are doing in part time it will take you 3 I think! So I did it in 1 and then several things had happened: I was courting Marjorie for one thing which is a deterrent to going back to the Antarctic! And so I decided that I would look round and see what else was going, I was interested in ceramics and electronics and various other scientific things. I managed to get this job in the research department of Metropolitan Vickers, working on ceramic resistors,



they would give me day release to do a degree, external London B.Sc. and so I decided I would do that instead!

[Part 2 0:45:35] Lee: Any regrets now?

Johnson: Not really no.

[Part 2 0:45:38] Lee: No, people sometimes say their 2 years in the Antarctic was the best 2 years of their life.

Johnson: Well possibly yeah, 2 of the best anyway!

[Part 2 0:45:45] Lee: 2 of the best?

Johnson: Yeah, the funny thing was I knew Marjorie before I went south because when I was at the station at RAF Hemswell I used to lodge in Kirton Lindsey where she lived. So I got to know her there and we got going together and when I came back home again, I written her a few times and I went to see her and she was a hairdresser. And she worked in a hairdressing place in Kirk Lindsay so I called at the house and her mother said, 'Oh she's at work. It's up on the market place', told me where it was, so I went and she was busy with a client doing somebody's hair so I thought well I'll just sit down and wait until she is finished and I sat there, and watched her finishing this ladies hair and she'd no idea who I was!

[Part 2 0:46:43] Lee: [Laughter!] So you had a beard then?

Johnson: No, I didn't have beard, no apparently a bit bigger and heavier!

[Part 2 0:46:54] Lee: You write quite interestingly at the very end of your booklet about remembering, what you do and don't remember about your time in the Antarctic. What I have noticed in doing these interviews is that even if it's 60 years ago the memories are clear and sharp. I wonder whether you can explain why that is the case, why do some memories stay so sharp?

Johnson: I don't know, it's one of the big mysteries, I have a copy of the base journal from Signy and when I was writing this story I referred to it and found loads of things, I'd not the slightest memory of, like the sledge race between myself and 'Wink' Mander at Signy! On the sea ice to see who could get the dog team going the fastest, and I've no recollection of that at all, not the slightest!

[Part 2 0:47:50] Lee: Yet you're time in the Antarctic is very deeply etched in your mind isn't it?

Johnson: Oh yes, yeah! There are specific events which I can read about, in fact letters home for example I have still got all those because mother kept them and I read through those and they refer to events and I thought I don't remember that at all! You know it's just gone, yet other things you know I can remember quite clearly!

[Part 2 0:48:20] Lee: And are they happy memories?

Johnson: Mostly yeah, yes.

[Part 2 0:48:27] Lee: Should we stop there?

Johnson: Yes, if that's satisfactory yeah?

[Part 2 0:48:30] Lee: Was there anything else you particularly wanted to say?

Johnson: No, I don't think so.

[Part 2 0:48:34] Lee: Fred, thank you very much!

Johnson: Yeah you're welcome!

Interesting clips:

- [Part 1 0:30:05] "Gill Hydrogen Generator" perils of making hydrogen!
- [Part 1 0:39:27] Watch out for hostile action!
- [Part 1 0:52:57] Looking into the life cycle of the Weddell seal?
- [Part 1 0:59:55] Heavy ski crash!
- [Part 1 1:05:03] First ascent of Wave Peak on Coronation Island 1952.
- [Part 2 0:05:37] Collecting snowflakes?
- [Part 2 0:21:05] Shooting a leopard seal.
- [Part 2 0:27:43] Collecting swimming scallop?

