

CAPTAIN CHRIS ELLIOT

Edited transcript of a recording of Captain Chris Elliot interviewed by Jack Tolson on the 17th October 2011. BAS Archives AD6/24/1/137/1/1. Transcribed by Chris Smith, 18th January 2019.

Part One

[Part 1 0:00:06] Elliot: My name is Chris Elliot, I was born in Emsworth Hampshire on 6 December '45.

[Part 1 0:00:23] Tolson: Just tell me a little bit, briefly, about your childhood, parents and siblings.

Elliot: Well siblings first, I had a younger brother who very sadly died in a road accident when he was in his early thirties. We started life in Gosport, my father was a solicitor there and my first memories we lived in a flat in Gosport, my father had a house built in Alverstoke, we moved there, we gradually seemed to move ever further westward from Alverstoke to Stubbington to Warsash. Inevitably we got into sailing in that area and my father bought a yacht when I was only 11 or 12 years old, but that was always the love of my life being on the boat. I always went to boarding schools. I started off in a local school where I greatly enjoyed life but didn't learn much, so I was moved down to another school in Bournemouth and finished up at a Jesuit public school in Windsor and from there I started my sea training at 17 by going down to Warsash Nautical College.

[Part 1 0:01:41] Tolson: Did the fact that you were a pleasure boat sailor influence your going to sea commercially?

Elliot: I think it did, although it wasn't my original plan, I was really quite interested in teaching, believe it or not, but then I changed tracks and decided that yes I would go to sea. I was always very interested in the sea but thought I'd keep that, from the point of view of sailing, as fun, but I thought to learn to navigate properly the only way to do that is to join the Merchant Navy.

[Part 1 0:02:27] Tolson: Picking up on the idea of going to sea, so you decided you would go to sea commercially. Any particular type of shipping that you had in mind or was it just going to sea?

Elliot: No not really, when I thought I'd go to sea then there was the obvious choice whether to try and go into the Royal Navy or Merchant Navy and I remember receiving tremendous opposition from the school being told I was the first person ever to go for the Merchant Navy and really I should go for the Royal Navy which I suppose was my little bit of rebellion, determined that I should go into the Merchant fleet rather than the Royal Navy and then investigating that a bit led on to going to the nautical college at Warsash to do pre-sea training and it was from there where you started thinking about which company you might apply to and I ended up with choosing Shaw Savill running to Australia New Zealand and they took me on as an apprentice.

[Part 1 0:03:41] Tolson: Just jumping ahead a few, quite a few years, and very briefly. Do you have any regrets that you joined the Merchant Navy and not the Royal Navy?

Elliot: No I don't think so, no not at all. No I think I was very fortunate because I saw the last days when the British merchant fleet was still the leading fleet in the world but it very quickly came to a very abrupt end sadly and it was so fortuitous really because I certainly didn't foresee that and when I joined basically a Government outfit it meant I could continue with my career where a lot of my contemporaries all ended up redundant.

[Part 1 0:04:24] Tolson: You choose a wonderful company to do your time with, Shaw Savill they really did have some excellent runs. What type of shipping were you on?

Elliot: Well they were all what's called refrigerated cargo liners on a fairly regular run and you used to generally take general cargo out to Australia sometimes do a bit of loading in Australia but what I remember mostly is loading in New Zealand where we loaded lamb and butter principally, wool of course as well, and I have a very soft spot, I really enjoyed New Zealand far more than Australia and, oh yes, apples I remember we loaded a lot of fruit too. Yes, happy memories of that time.

[Part 1 0:05:23] Tolson: And you finally finish your cadetship and I suppose you were at a point of looking around for another type of sea-going job. What was it that drew you towards the British Antarctic Survey?

Elliot: Well when I finished my apprenticeship Shaw Savill were quite prepared to keep me on a salary and see me through second mates and for me to stay on and that was tempting to quite some degree. But I felt it was time for a change and I really wanted to get into small working ships rather than cargo carrying ships so my mind immediately went to salvage and ocean towing as something that would be very interesting but I couldn't find any work in that direction. I remember getting in touch with a company called Risdon-Beazley who were involved with that type of work in Southampton and it was visiting their offices in Northam at the time when I spied these two small red ships sitting at Northam yard. I had no idea, I'd never given the Antarctic a thought. I thought well what the hell are they and so I wandered in over the bridge and went up to the gate at Northam and asked the gateman 'What are those red ships sitting in the yard here?' and he said 'They go to the Antarctic' and I thought 'that sounds different' and that's how (...). I was allowed into the yard and he said 'You'd better go and speak to some of the officers who are here' and I did that and ended up by applying and being taken on.

[Part 1 0:07:14] Tolson: Tell me then, when you applied and got an interview, can you remember where the interview was and who was conducting it?

Elliot: Yes I can. My interview was in London at 30 Gillingham Street that's where the Survey was based in those days in small offices. I was interviewed by Bill Sloman and Captain Tom Woodfield and I have some recollection but I could be wrong that Ted Smith was there as well who was in charge of biological sciences at the time, or that might have been later when I met him. But I do remember coming in the front door of the building and up a lift because the offices of the British Antarctic Survey were on the second or third floor as I recall, then you went in the door, and being confronted by a pyramid tent. Then I was being asked what I thought of this tent

and then eventually someone said 'Well what are you here for?' and this was Sir Vivian Fuchs who was inspecting one of the latest tents at the time and he said 'Ah well then you need Sloman' and I was pointed to a door. It seemed a bit different from the norm let's put it that way.

[Part 1 0:08:43] Tolson: Did that make you feel comfortable, this unusualness?

Elliot: I'm not sure that it did really. Anyway the interview went and then I have some recollection of not hearing anything for quite some time. I'm not sure I've got this exactly correct. Then a phone call came through from home it was Malcolm Phelps who I'd not met before, he said 'Well I'm Mate of the *Biscoe* aren't you joining? I really need some help here on the ship' and I said 'I don't know if I've been taken on yet' he said 'Well I think you have, perhaps you could come in because we've got the lifeboat survey coming'. So I think I started work before I officially knew I had been taken on.

[Part 1 0:09:40] Tolson: So you joined the *John Biscoe*, presumably in Northam, as fourth officer?

Elliot: That's correct, yes.

[Part 1 0:09:49] Tolson: Just briefly tell me a little about life on board at this very early stage before a voyager set out, what were you doing, what were conditions on board like?

Elliot: I seem to recall I actually joined the ship then working from home for a good month or possibly even 6 weeks before the ship finally sailed for the Antarctic and I just got involved in normal work often associated with the third mate - because of the special equipment or lifeboat survey it was preparing that. I can't remember in great deal but there was a finishing up of the annual refit there. Of course I was very new to it all and then we went round Southampton docks and loaded and I remember then there was a big departure party where all suppliers and people involved in supplying equipment were entertained to an evening cocktail party before the ship sailed and that was an annual event. It used to be quite a good party actually, it wasn't one of these polite cocktail parties, well it started that way, but usually ended up (...) and it was quite good because all the various officers were allowed to invite two or three either next of kin or girlfriends or wives. I don't think many people had wives in those days I think we all had girlfriends, it hadn't got to the wife stage except maybe the Captain or one or two of the senior officers.

[Part 1 0:11:45] Tolson: So you finally got to sail on this little ship the *John Biscoe* before the voyage South presumably you had these characters onboard called Fids?

Elliot: Well they joined right at the last minute, they joined the very day we sailed. I think they joined the ship about two o'clock in the afternoon [and] were signed on. The ship used to be utter chaos; because you've got 30 Fids joining, all with their parents and girlfriends and brothers and sisters so you'd have probably up to 100 people trying to walk up and down the small internal corridors on the *John Biscoe* all carrying trunks and cases. It was quite a chaotic scene and then all this had to be resolved for about a 5 o'clock sailing. It was different from the life which I'd been used to but also a lot of fun and the excitement. To me it was all very new of course as it was for all the Fids that joined.

[Part 1 0:13:13 Tolson: Yes you were going into something totally new and it was a period of anticipation for everybody.

Elliot: Yes, Absolutely, I do remember there was the Press down. Sir Vivian was always there to see the ship off; so from top to bottom it was all the new guys the anticipation, you had all the old guys. I remember one occasion there was the electrician on board, done many voyages, Gordon Lewis and the catering officer Gerry Cutland by the gunwale of the ship as we sailed and one saying to the other as the ship sailed 'Well here we go again for another 200 days'. All the new guys with the anticipation of the unknown.

[Part 1 0:14:14] Tolson: How did you get on with Captain Tom Woodfield?

Elliot: Very well, I found him very easy to get on with, not everyone found that, no difficulty at all. I think he was fairly demanding, but not in an unfair way. He liked, especially when you were coastal on the Antarctic peninsula, he expected to see evidence of careful a watch being kept by regular fixes on the chart at even intervals. He demanded a good attentiveness of the Officers of The Watch which was quite correct. I admired his ship handling skills which I always used to try and study to see how he did things because it was evident he had a lot of skill and I thought one day maybe I'll be in his shoes and rather than stand there and not taking a blind bit of notice it's better to pay attention to what's going on and I learnt a lot from him. Also I later served with him as Chief Officer and I found he was someone, if I was concerned about something, I could always go up and have a quiet word with him, even if we didn't agree, and he would always listen to what you had to say. No, I was very happy working with him, and did so for a quite number of years.

[Part 1 0:16:01] Tolson: So on your first trip you finally get to Port Stanley. Now anybody getting to Port Stanley for the first time that's pretty quaint too; but what initially struck you about entering it? What in fact goes on in those days, in the late 60s? What would go on once the ship was docked? You had certain formalities to do and Fids had to be kitted out, Governor's parties.....

Elliot: Yes, well that's right, at that time the British Antarctic Survey had an advance office in Stanley and that employed or had more people working in it than the London Headquarters because a lot of the pre-fabrication for buildings was all organised there but all the clothing kit was kept there. A all the Antarctic kit was there and so once the ship got to Stanley that's where all the Fids on board were kitted out according to which base they were going to. Still at that time the Natural Environmental Research Council, of which BAS was part, was fairly new. The head of BAS was for all intents and purposes, before BAS became part of NERC, was the Governor of the Falkland Islands and the tradition whereby all new recruits had an interview with the Governor still went on. I remember we were all expected to go up to the back porch of Government House and sign our names in the Governor's book and then all new recruits were called forward for about a 15 minute interview with the Governor. The first call in Stanley we were generally in for, I can't remember exactly, but generally speaking we were in for a minimum of five days whilst the kitting out was done and there was generally a certain amount of sorting out of cargo, there was quite a bit of kit probably accumulated in Stanley to come on the ship to go to the bases as well. Then of course there was a fair amount of social activity we

often used to have football matches or cricket matches against Stanley teams and for many of the people who had been on the ship for some time they knew a lot of people in Stanley and they used to introduce people like me, who was newcomer, to quite a number of the Falkland Islanders and over the years Stanley in the Falkland Islands became almost a home from home.

[Part 1 0:18:52] Tolson: Just getting back to the Governor's interview, I've not heard about this before, what do you recollect as a junior ships officer, was it just an acquaintance, was it getting to meet you or did he actually question you in any way?

Elliot: Do you know it's strange, I don't remember, I know all the Fids had to have a short interview but I'm not sure I actually had an interview as such. Maybe it was just for those going South. However the Governor of the Falklands Islands then was Sir Cosmo Haskard who I always remember because he used to entertain the ships company for various occasions and strangely enough I still actually am in touch with him having visited him years ago in 2009. He's still alive and well living in Southern Ireland and we actually exchange letters once a year, but I don't recall a personal one on interview with him. I might be forgetting it but I don't recall it, but I do remember all these appointments for guys to have to go up for interview.

[Part 1 0:20:16] Tolson: So the Fids the young guys going to the different bases they'd all march up to the BAS office in Stanley and collect all their items of clothing. In those days the majority of them were going for two and a half years.

Elliot: That's absolutely right, they were all going, practically everyone, for two and a half years. There was no summer only or year only it was all two and a half years. The main office was what is now Cable and Wireless which was a modern prefabricated building adjacent to Government House. However BAS had stores down by what was the Company jetty which was right the other end of Stanley in those days. BAS was a very integral part of Stanley in those days and they had various buildings scattered around but the stores I remember were quite separate from the actual administrative building. The stores actually were very near where the ship berthed which was probably quite convenient from that point of view.

[Part 1 0:21:27] Tolson: Was it Ted Clapp in charge?

Elliot: Ted Clapp was in charge then there was [Ray] Clements, we used to call him Clem so I can't remember his proper first name and his wife Sadie. He used to deal with the logistics he dealt with the clothing store, he ran the carpenters shop which was where a lot of prefabrication for BAS building was done so he was more on the practical side and Ted ran the admin side and of course all BAS communications from the Bases in those days went through Stanley it didn't go back direct to the UK.

[Part 1 0:22:13] Tolson: So after a few days of various things, getting together and socializing, you headed off South in general terms.

Elliot: That's right, yes generally it would be South Georgia probably for our first run.

[Part 1 0:22:26] Tolson: And now this was a heightening moment of anticipation both for

yourself and for obviously all the new scientists who were slowly getting dropped off. What was now beginning to go through your mind?

Elliot: Oh.....[Pause]

[Part 1 0:22:45] Tolson: Approaching somewhere like South Georgia and the potential for ice.

Elliot: Yes, I don't know. Tom Woodfield would brief us pretty well and as I say I started as Fourth Officer so I was on watch with Malcolm Phelps who was Chief Officer. I can't really remember but in some ways up to then it had been a bit like my previous ship doing your watch taking sights and everything else like that. By this time of course having sailed down all the whole length of the Atlantic with all the new Fids who were going to go to all the various bases . All the same age as me or very close to we were all in our very early twenties, I was 21 at that stage. They made quite a few friendships there. There was a good social life on board and yes there was anticipation looking forward to getting there. I'm almost sure the first place we went to was King Edward Point and I know especially all the Fids were by this time aching to get off and be able climb up a mountain or something and I do remember that we got into berth in King Edward Point where there was still snow on the ground and of course Fids getting real itchy feet to get off and have a chance to walk were told that King Edward Point was a great place to go for walks from. So all the guys are out there in their anoraks and their ropes and everything else ready to go when the first thing we saw on the jetty was about two or three young girls about 8 years old in their summer dresses, which was rather incongruous, which were the Biggs children in those days.

[Part 1 0:24:48] Tolson: Just paint me a picture, you go through the narrows the approaching King Edward Point into the Bay you've got the whaling station on the left (.....)

Elliot: The whaling station basically dead ahead as you go in and yes I remember being out there thinking 'where the hell's this ship going to go?' There's a little jetty on the right hand side of the point as you go in and I think that must be suitable for a boat, then suddenly the ship swings hard round and you find out that's where you're berthing. I was quite amazed, being used to commercial ships and tugs and everything else, well there's nothing like that of course. Though *John Biscoe* was really quite a small ship, some of the places she was squeezed into from being used to commercial came as quite a surprise. Well that was the case for Stanley as well, the tiny little jetty we used to moor on there and it was the same when we got into King Edward Point this old rickety little wooden jetty. You mainly tied up to strong mooring points, big heavy chains set into the ground along the beach. The jetty itself you might put a couple of lines on it but you wouldn't want to pull on them too much because the jetty would probably (...) The jetty served its purpose to keep you just off the beach it wasn't something you could moor to as such, you moored to chains on the beach.

[Part 1 0:26:23] Tolson: I suppose this must have in some way heightened your belief in Captain Tom.

Elliot: Yes it did. I suppose because you'd say it's primitive in nature compared to big commercial ports. To me it made life more interesting, you were far more self-reliant and I could

see that, although I was just a very junior member of the team at that stage, you realised that decisions had to be made on the ship; it wasn't such a controlled environment as the commercial shipping from where I'd come from.

[Part 1 0:27:18] Tolson: So you spent I think it was three years or so on Tom's *John Biscoe* as a junior officer.

Elliot: That's right, I started off as Fourth Mate but for the next two voyages I was actually third mate. The Third Mate who had been with me on the first voyage, he resigned at the end of that voyage, so I was made up to third mate which meant I then had my own watch, the 8 to 12 watch, which to me made life a lot more interesting for me. I think I probably overall enjoyed my second and third voyage more than my first voyage although my first voyage was all so new.

[Part 1 0:28:13] Tolson: So now in these early but subsequent years you found your feet you've got your own watch you're elevated officer level and you'd fitted in; you'd meshed into BAS life. What were your duties at sea, were they any different?

Elliot: Well at sea as Third Mate I kept the 8 to 12 watch. When we were at any base you were out on deck working. The Chief Officer would instruct you what he wanted you to do, you might be working in the boats, be in the boats going from the ship to the shore or you might be down the hatch supervising the loading of the nets and making sure the tallies were kept. And then of course when you've been on anchor watch, because generally speaking there was few places where the ship could actually go alongside. Besides that you had peripheral little duties like as Third Mate you generally had to keep an eye on all the ship's safety equipment fire-fighting equipment and other little jobs like looking after the ships library and of course when I first joined the inflatable craft were introduced and these came under the Third Officer's job to have them ready and generally look after them for the work that they were used for and that was something that I really took to heart and enjoyed doing.

[Part 1 0:30:07] Tolson: The inflatable boats, you became very big in that, working with the RNLI and to some extent having the boats adapted for safe operation in the Antarctic. Can you tell me in general your involvement there and how you saw the boats being used?

Elliot: Well they were actually first introduced first on my first voyage. We didn't sail with them, they were passed over to us from the *Perla Dan* in Stanley. Anyway the first boats we had were ones that the RNLI had discarded so they'd already had a pretty rough use but it was very quickly realised they were brilliant boats for landing small remote parties and even doing coastal surveys where we were landing geologists and botanists who were working from the ship. Within a fairly short time it was completely new form of travel for which some expertise had to be built up. How to drive the boats, how to maintain them, everything else like that and I think it was on my second or third voyage that I was approached to write a small manual for these boats and I did. I think it was called '*Care and Maintenance and use of the Geminis*'. Over the years it all developed, obviously there wasn't an endless source of old RNLI boats and anyway they weren't ideal. These sorts of boats were being developed all the time and one of the best designs at the time that the RNLI used were what were called the RFDPB16 which we had. After a few years we were having trouble with these boats because I felt they were going out of

shape, they were hogging and RFD maintained that this was nonsense that their boats didn't do it. I forget how, but I ended up speaking to the inshore depot in Cowes that looked after all their inshore rescue boats and to a man called Evans, a Mr. Evans there, who I subsequently learned was probably one of the world's experts on inflatable boats. He told me 'Yes indeed they did hog', I was quite right and that he had a method of overcoming it by doing a modification on them when they were new boats. I said 'how marvellous, could we possibly get this done for our boats' and yes sure enough for a whole number of years we purchased our boats through the RNLI and they were adapted to their standards and that was a marvellous set up. Eventually they wouldn't do it anymore, they said they had to step aside and just look after themselves and also that that particular class of boat they ceased to make. By this time I was Master of the *Biscoe*, we had to look elsewhere and we went to a company called Humber Inflatables and they produced a boat that would be very suitable for us but we wanted certain modifications to it and up to the time I left there was still such a thing as a 'Humber Boat - BAS specification' that I had a hand in. So throughout my time with BAS I always took a great interest in small boats and from a Junior Officer just operating them, to being Master and overseeing boat operations, I was always keen that a high standard was maintained both in the maintenance of the boats and in how they were used, in a good seamanlike fashion.

[Part 1 0:34:23] Tolson: Over the years there have been some pretty hairy moments in inflatable boats haven't there with the incredible weather conditions that they (...)

Elliot: Well, sometimes they were out in (...). Touch wood I don't know of (...). The weather can change so very quickly. We developed means of safe operation, for instance, apart from harbour use, two boats would always operate in company and also if you were landing a depot you always took a tent in first and a tent out last such that if the weather suddenly changed, rather than making a hazardous trip back to the ship or something like that the boats could just be left ashore and people would have the wherewithal to camp onshore. Simple things that you might not otherwise think of, but these were all developed, basic rules of operation were developed and improved over the years and when you think of the huge amount of work that has been done with those small boats and consequently how much they've enabled good research to be done by being the tool to get people in it's been a great success. There haven't been any major accidents that I'm aware of in all that time.

[Part 1 0:36:15] [Short interruption for change of tape]

[Part 1 0:36:31] Tolson: We'll go back now to your early days. You got promoted to (..). After the *Biscoe* you then went to the *Bransfield*.

Elliot: That's right I went as Second Mate

[Part 1 0:36:47] Tolson: You started as Second Mate but you had a privilege, a professional privilege, certainly for seeing the ship having its final moments in the builders yard.

Elliot: That's right, I joined the *Bransfield* in something like the August of 1970 and she eventually sailed, in the end, just after Christmas, around new year time in 71. She was later than hoped for sailing but I was working by the ship for about 4 to 5 months before she departed for her first Antarctic voyage and that was a very interesting time. It was incredible actually that

they managed to get the ship out. I remember joining her, there seemed to be so much work to be done. I remember the wheelhouse was virtually empty and all the cables that came up you thought 'How the hell could this ever be sorted out in time'. I think some of the electricians especially were virtually sleeping on the job towards the end. But going back, one of the reasons it was so much behind time is that unfortunately *Bransfield* which was I remember ship was 508, Robb Caledon ship building number 508. She should have been 507 I believe, but because of the contract to build, they just missed out and the ship called the *Lloydsman* was built as 507 and Government, or whoever was responsible, *Bransfield* slipped to the next one, so it meant was she was rather late coming out for the 70/71 season. But even so we got away and then it was a fast sail South to get to Halley for the relief of Halley.

[Part 1 0:38:50] Tolson: Coming back to the first voyage on the *Bransfield*, before we even head South. The chaos of a builders yard and the minds must be terribly focused because Tom Woodfield was the Captain. The *Bransfield* was in a sense his brainchild wasn't it?

Elliot: Yes definitely.

[Part 1 0:39:13] Tolson: What do you remember in that short time that you were onboard of the frantic focus that Tom had?

Elliot: Well he divided up responsibilities. I remember we had to get a chart outfit and I went up to Second Mate. It was my responsibility to make sure we had all the charts that were required, all the Pilot books, of course we were used to joining the ship and it's all there, suddenly I was starting from scratch. That was quite a shock to me but again quite a challenge. I remember Lillie and Gillie, I think it was in Leith, were the chart agents. It was like going into somewhere in the Victorian era with a little bogie stove in the middle. They were very helpful pulling all that together. Tom was very keen with everything being very well organised and I remember there was one store right aft and all spare crockery was to be stowed in there and he said I was to oversee that and make sure that proper racking was built. I ended up by seeing the joiners and they said 'Well you'll have to tell us what you want'. I remember drawing up racks of plates and deciding how it's all going to fit and you first think about going round the perimeter of the room and I thought 'Well this isn't going to work'. Then we built a big island in the middle, I remember that, I sort of designed this as the way to do it. It's only a very small part of it but these were the sort of jobs that the Chief Officer would be probably be involved in, it was John Morton at that time, but he was obviously involved in more important things. Of course I'd been given numerous other things to do at the same time but those I mainly remember getting the chart outfit ready. Of course towards the end it was so important to get the ship away, not that it was my decision, they decided what parts of the ship it wasn't necessary to complete. For instance when we sailed the whole poop house was empty. What was going to be the laboratories that wasn't finished at all and there were other little areas. As it turned out the Chief Officer on the maiden voyage had a bad accident and I ended up as Chief Officer and I ended up on the homeward-bound run having to do the refit list. This has to be broken down into three parts, work necessary to finish the ship, guarantee work i.e. things the shipyard should be responsible for, plus standard refit work. I never remember working so hard in all my life as to prepare this enormous document and then I saw the ship right through her first refit, completion of build and that was a very interesting time. I'm sorry that's moving on a little bit from where you asked from.

[Part 1 0:42:41] Tolson: Just getting back to the first voyage itself you went down to Halley

Elliot: Yes

[Part 1 0:42:49] Tolson: And this would have been probably your first experience in Weddel Sea pack ice?

Elliot: No not quite. My first voyage on *John Biscoe* we went down to Halley, that was when Halley 2 was being built. It had started the season before and the *Perla Dan*, this was prior to *Bransfield* days, was chartered to take cargo, BAS ships weren't big enough but *Perla Dan* didn't have the capability of carrying more than 12 additional personnel. So *Biscoe* went down to take all the necessary personnel for the building work and finishing work, yes I went down to Halley then, it would have been my second time to Halley in actual fact. Incidentally when we went down to Halley in the beginning of 67/ 68 season the *Biscoe* departed South Georgia for Halley ten days after the *Perla Dan* and we got to Halley before them. I remember Tom being very proud of that but it was the first time that we were getting some guidance from satellite imagery. It didn't come direct to the ship it went to the London Headquarters and Sir Vivian was advising Tom Woodfield where the slacker areas of ice appeared to be laying. I always remember that. We were down at Halley waiting for the *Perla Dan* for about 48 hours before she came in. So he was very happy about that. But coming back to the *Bransfield* that would have been my second trip into Halley.

[Part 1 0:44:35] Tolson: You actually worked with Tom Woodfield quite a bit alongside him on the *Biscoe* and now on the *Bransfield* working ice. Were you noticing the same styles of operation in ice between comparing the *Biscoe* to the *Bransfield* ? The *Bransfield* a very different ship.

Elliot: Yes the *Bransfield* was a very different ship. She was a lot heavier than the *Biscoe* so the sheer weight of the ship [meant] she was more ice capable. The power was still fairly moderate for the displacement of the ship. The way of operating, how you drove the ship, really didn't vary much from *Biscoe* to *Bransfield*. *Bransfield* was more capable, she was a much tougher ship, she had an ice belt right round her so I think one could relax a little bit knowing that she wasn't as vulnerable as *Biscoe* was in some ways, especially if you were backing down in ice. *Biscoe* had pretty thin plate so although she was tough around the stem she wasn't anywhere else particularly, and also her propeller wasn't so ice resistant as *Bransfield's* propeller.

[Part 1 0:46:14] [Pause]

[Part 1 0:46:19] Tolson: We continue Chris with comparisons with the *Biscoe* and *Bransfield* in ice.

Elliot: I think the difference is the general handling and what to take care of didn't change that much but you could be a lot more brutal with the *Bransfield* and get away with it because she was massively built, far more so than the *Biscoe*. You're far less likely to (...) I don't think any propeller damage was ever done to *Bransfield* although *Biscoe* I think on several occasions

ended up with bent props. But the general way of handling was similar, you could get away with being far more brutal with the *Bransfield* and she could plough through ice that *Biscoe* would not have been capable of doing.

[Part 1 0:47:20] Tolson: Tom Woodfield said to me that the *Bransfield* should have had more engine power but Sir Vivian Fuchs wouldn't allow him to have it because in Sir Vivian's mind seafarers would just use it crudely and smash his ship up.

Elliot: Well Tom was right and Sir Vivian was wrong. We ended up with the same arguments when *James Clark Ross* was built and I advocated that we should have two horsepower per displacement ton which would have put her at 12 to 14000 horsepower. *James Clark Ross* came out at 8500 horsepower for a displacement of 7000 odd tons, *Bransfield* was the same displacement with 5000 horsepower. If you've got more power you can push through ice, every time you get stuck and you've got to back and ram it's far more brutal on a ship far more likely to cause damage. I don't hold with the view that if you've got more power you're just going to break it up. I just totally disagree, in fact you're more likely to get yourself in trouble with lower power. So Tom was right and *Bransfield* would have been a better ship in ice for more power, no doubt about it. The hull would have taken it and you could just force your way through just by pushing rather than having to ram so much.

[Part 1 0:49:14] Tolson: Going back to *Bransfield* and Halley, always an exciting place for Captains in particular and for everybody, finding a spot to put your cargo ashore. Do you have particular good or bad memories there?

Elliot: Well when we went down in the *Biscoe* it was lovely because you used to look for somewhere where there was a natural slope coming down off the ice shelf and then the ideal was that off that you had a good sheet of fast ice alongside of which the ship could lay. Then the vehicles could come to the ship, load, drive across the fast ice, you'd build a bridge over the tide crack at the bottom of the ramp. That was ideal and it was perfect when I went down in 68. However when we went down on the maiden voyage of the *Bransfield* there was no fast ice. There was a bit of a ramp but between two ice cliffs like in a very narrow bay and unfortunately the ship was 300 feet long and the width of the bay must have been about 300 feet. In order to get alongside we ended up with the bow shoved into a cliff ahead and the stern virtually shoved into a cliff astern and I remember Tom working her into there, he actually bent all the rails on the helicopter deck trying to force the ship into the berth and bent a little bit of front bulwark, but anyway we got into the berth and enabled us to discharge. It just had to be done if you were going to get on with the job.

[Part 1 0:51:10] Tolson: Yes, health and safety in those days didn't stand for a lot did it? So one could get away with virtual murder in cargo operations.

Elliot: Well it's true that we didn't have health and safety in the way we have it now. I always maintain Tom was very careful about what he did and he would never (...). In all operations you had to be mindful of what you were asking people to do and had to read the conditions and he was brilliant at doing that as were the Fids ashore. I think in the major operations, deciding whether you can put the ship here or put the ships there, or where the boats go, I don't think that

has actually changed really. I think the way we operated then, to way we operated up to the day I left, was no different. Certainly a lot of our operations had to be formalized we had to write down how you do them for health and safety.

[Part 1 0:52:35] Tolson: A subject we'll touch on later. [short pause]

[Part 1 0:52:42] Tolson: I just want to go back to, perhaps it was a slightly earlier period. You chose to take part in the Trans-Atlantic Race and you took up an unpaid time out from BAS to do that. Tell me how that came about and the lead up to it and a little of the race itself. It's a fascinating, completely different thing to what you were doing, one moment you are in the Antarctic and the next you were hurtling across the Atlantic on your own.

Elliot: I think throughout my time at school the only books I read were the accounts of voyages in yachts, starting with Joshua Slocombe's '*Sailing Alone Around the World*'. There was a thing called the Mariner's Library where all such books were numbered 1,2,3, 4 and I'd read many of those. Then when Francis Chichester raced Haslar in the first single-handed Trans-Atlantic race in 1960, as a schoolboy that really caught my eye and I thought 'One day I must do that' and that was always a quiet ambition. I had hoped to do the '68 race, which would have been the third Trans-Atlantic race, but there was nothing really I could do then. Then my father had a boat built in 1969 and I thought 'This is it' and I remember down South one year I wrote to my father in some trepidation because it's something I'd kept to myself that I'd had this desire to do this race and I said 'Look I'd really like to do it, can I use your boat to do the Trans-Atlantic race?' and he said 'Yes' and things started moving from there. The next thing I had to arrange if I was to do the race, was how do I prepare and do this race. I realised I couldn't do it a normal leave period so I then wrote to British Antarctic Survey and said 'I want to do this race'. I didn't want to leave the survey, I was really enjoying the work and I said 'Would you grant me unpaid leave so I could do this?' It was the sort of thing actually that Sir Vivian really loved so he agreed to it and it was on my second voyage on *Bransfield*. I did the full maiden voyage, and it was arranged that for the subsequent voyage I would do the first half of the voyage and then I could commence my unpaid leave to take part in the single-handed Trans-Atlantic race, which I did.

[Part 1 0:55:47] Tolson: Tell me a little bit about the race.

Elliot: My unpaid leave started, I can't remember, February March time. I flew home and then the first part was preparation of the boat. I did a few modifications basically to make sure that if the yacht was really severely knocked down no hatches were going to open. We had extra strong bats [phonetic] and things made over hatches. Then I had to do a qualifier to be allowed to enter the race officially. I think it was in April time I sailed from Plymouth down to Vigo single-handed and then sailed back single-handed and submitted my log book and when that passed muster they said well I'm an official entry to the race, that was great. I remember then I got back and was further developing the boat for the race. I remember when *Bransfield* came home I made a point of being out sailing in Southampton Water at the time and they were tooting like mad. I seem to remember I was outside the channel and the ship seemed to be following me in the channel and hooting as if I was in their way and I came to the conclusion that if they came much closer to me they'd be running aground themselves; poor old Pilot on the ship must have wondered what the hell was going on. Anyway later on, the race was due to start in June, and I

suppose it was about May-time when the ship came home, so it was getting within a month of starting. My father came home one day and said 'I've arranged a medical for you'. I said 'I don't need a medical, British Antarctic Survey give me medicals'. He said 'If you're going to use my boat you're going to go for this medical'. So I set off to Haslar hospital and they were suddenly started getting concerned a little mole or something I had on my foot and they decided this must be taken out and I thought 'Alright let them take it out'. A few days later I was informed that it was a malignant melanoma that had to be operated on straight away. So unfortunately I actually missed the start after all this preparation and there was no way I was able to start with everybody else. But having done all the preparation and the boat was sitting there I realised I was going to be discharged a fortnight or so after the race had started so I thought 'Why don't I go now?' although my foot was still healing from a major bit of surgery. The Royal Western Yacht club of England decided that they'd give me an official start and let me be an official starter. I started, I think it was something like a fortnight after everybody else and I still got to Newport Rhode Island before some of those that had started on time believe it or not. I completed the race and my official race time was 51 days because my time had to be counted from the official start but in actual fact I did it in 34 days, I would have been third on that timing. It was a bit of a disappointment, but at least I did it and it was a great experience and from that my unpaid leave was over and I went back on *Bransfield* for voyage three.

[Part 1 0:59:57] Tolson: Going back, writing to Sir Vivian Fuchs asking for time off has reminded me of another occasion when you were a junior officer on the *Biscoe* further South and there had been a problem with one of twin Otters at Adelaide Base and you volunteered yourself to Winter over at Adelaide to help out with lack of numbers.

Elliot: That's correct. I think that was my second voyage on the *Biscoe*; no it might have been my first voyage, it was probably before the Twin Otter incident. A plane had nose-dived or done something at Fossil Bluff and consequently extra staff were forced to winter at Fossil Bluff, this reduced the numbers at Adelaide Base and was going to pose a problem for doing all the Met observation work. I was very friendly with all the Fids at that time, we were all about the same age and I thought 'This is an opportunity'. I approached the Captain Tom Woodfield and said 'Look', yes I'm sure this was still when I was Fourth Mate, and I said 'Why don't I Winter and then you can pick me up next year'. He seemed to think 'Well do you want to do that?'. So the request went in but Sir Vivian Fuchs turned it down saying 'Seamen should stay on ships'. The twain shouldn't be mixed.

[Part 1 1:01:58] Tolson: You've had some lovely memories; but one of them I've personally missed, and I must say I'm rather pleased I did. People speak very highly of going sealing, a job that the officers mainly on the *Biscoe* I think had to do. Memories of going sealing?

Elliot: You might recall early in the interview I mentioned Ted Smith and I think he was at my first interview and this was because it was one of the jobs of the Third or Fourth Officer of the *John Biscoe*, when the ship went sealing, to collect samples for scientific research. Subsequent to being taken on by BAS and working by the *Biscoe*, before we ever sailed on the first voyage I went up to attend the Cambridge conference. The Cambridge conference is where all new recruits were lectured on all aspects of the survey so had a broad knowledge other than their own particular role. During that week I did meet Ted Smith and I was taken down to Monks Wood

the biological research station near Cambridge and taught how to dissect a seal. I don't think many mariners had to (...). The idea was that there wouldn't be biologists on board, but the ship took upwards of 500 seal every year for dog food and they wanted certain parts, jaw bones and genitalia removed and stored for scientific research and this was my task. So when we went sealing and that was quite a thing in itself, the ship would either go into fast ice or onto floes and there would be ladders down off the ship and someone would be at the bottom of this ladder as the ship went from one floe to another, jumping off with a rifle, shooting the seal and then the seals were gutted and loaded on board. My job was to measure them, cut out the bits that the scientists wanted, put it into muslin bags which were then put into formaldehyde and were eventually shipped back to the UK. But it was a very mucky and smelly business. Certainly, you mentioned health and safety, the way we used to go about sealing probably, if you wrote a risk assessment, it would probably have to be considerably modified to the way that we did it in those days. People used to quite to enjoy it in some ways, you didn't like killing seals but, it was very active and really quite hard work too. Like everything it had to be done in a fairly short period. I remember it was quite long days, you'd start sealing very early in the morning and often go 'til quite late in the evening, but then it was usually quite a nice evening because then the ship would plough into some fast ice somewhere for a quiet night hopefully and away again sealing the next morning.

[Part 1 1:05:40] Tolson: This was a little job of perhaps three or four days if you were lucky?

Elliot: Yes, I think that was about the normal amount of time by which time you'd have the required numbers of seal. But certainly the Falkland Islanders could gut a seal in seconds and took great pride in getting the job done quickly. I was just a real annoyance in that I was slowing up the work because I had to carefully remove these bits before the seal carcass could go down in the stow and of course they were ready with the next load of seal to come onboard and I was having to say 'Hang on, hang on, we haven't finished with these yet' before the next lot were landed on the hatch to have all the particular parts that were required removed. I did that for about three years and I think when I moved on to *Bransfield* my role as seal sampler went to the next third mate who did it very well for a number of years called Malcolm Shakesby who's another fairly well known character in the annals of BAS.

[Part 1 1:06:48] Tolson: Another great character I think is Frosty Turnbull, Captain Turnbull

Elliot: Oh yes, yes.

[Part 1 1:06:55] Tolson: I think in one of your memories, one of your stories, this is of Deception Island, Captain Turnbull's invitation to lunch?

Elliot: It was well known that there was an uneasy relationship, let us say, between Captain Tom Woodfield and Captain Frosty as he's known, Turnbull. However both ships ended up on this occasion anchored at Deception and Tom Woodfield decided that he would invite Captain Turnbull, Frosty Turnbull, to lunch. So the invitation was issued and he'd agreed to come and it was agreed that the *Biscoe* would send a boat for him. Come lunchtime Malcolm Phelps who was Mate of the *Biscoe* sent me in one of these new Gemini craft across to the *Shackleton* to pick up Captain Turnbull. I get alongside the *Shackleton* and the Mate, John Cole, was just at the top

of the ladder, there was very low freeboard on that ship, and I said 'I've come to collect Captain Turnbull for lunch'. Whereupon John Cole looked up and there, no more than 15 feet above him, was Captain Turnbull on the bridge wing of the *Shackleton* and John Cole said to him 'The boat from the *Biscoe* sir, come to collect you for lunch'. Turnbull then spoke back to the Mate on deck saying 'Yes, well you can tell that playboy in his French letter that if I am going to come to lunch he'd better go away and get a proper boat'. Whereupon John Cole turned to me and said 'Captain Turnbull would prefer to travel in the launch and not in your rubber thank you'. I know they were regarded with great scepticism these rubber boats in those days and they only existed on the *Biscoe* then, not on *Shackleton*. So I had to return to the *Biscoe* and inform Captain Phelps that Captain Turnbull was not going to come unless we sent the launch for him. Yes, this was the first year of such boats and they were treated with great scepticism.

[Part 1 1:09:33] Tolson: Dunking of the VIPs?

Elliot: Oh yes well that was a later event. We'd gone into Deception and again both ships were in. *Biscoe* was just swinging round her anchor, *Shackleton* was moored with stern lines onto the old dock and we'd gone in with some VIPs. I think it was Sir Vivian Fuchs and it might have been Admiral Irving, I can't remember. But again lunchtime and they'd all been ashore and Malcolm Phelps found out they were coming back along the foreshore and all the crew were having lunch and he said 'Will you jump in the launch and bring them off for lunch'. So I jumped in the launch and thought 'Well the easiest way of doing this is to pick up one of *Shackleton's* stern lines nose the launch in and something to pull out on and something to hold onto to stop the boat possibly swinging beam onto the beach without having to put an anchor down'. So that was great, I went in right by this stern line from *Shackleton* which was ideal. All these VIPs, about three of them, jump onto the bow of the launch, that's fine, and I proceeded to put the engine astern. They start sort of pulling on the line to be ever so helpful and I give it a good 'whoosh' at the stern and there's this thing called transverse thrust whereas the launch immediately starts a sort of hard turn. The stern line of *Shackleton* which was lying down our starboard side rapidly crossed to the port side fetching all three of them off the bow of the launch straight into the water. All I can say is, after that they promoted me! I got away with that one. I think luckily they probably didn't get too wet but they did all go over the side.

[Part 1 1:11:55] Tolson: Of course in those days Deception had either just had its eruption or was about to.

Elliot: Both those little stories would have been pre-eruption. But the eruption did take place on my very first voyage. The latter part, the very last job of the season, we took a volcanologist into Deception to carry out an initial study of what had happened. I remember that we took *Biscoe* up to the top end of Port Foster and we set about just mapping the new islands that had been formed up there. The ship was at anchor and we took horizontal sextant angles and Tom Woodfield loved this sort of thing and we drew in the extent of the islands and everything. Then we went back, we spent some days there and I remember ferrying this team of volcanologists, I'm trying to remember the name of the volcanologist, around Port Foster during a number of days that he carried out his study. While the ship meanwhile, with the launch and the scow, were salvaging materials after the eruption, salvaging materials from the destroyed base.

[Part 1 1:13:50] Tolson: Of course in those days there was an aircraft hangar there wasn't there?

Elliot: Yes, in fact in the beginning of that season we had taken down material to extend that hangar. There were big RSJs, only at the beginning of that season we had discharged for an extension that was going to be built on that hangar. Which of course never happened.

[Part 1 1:14:15] Tolson: Was it the Argentinians or the Chileans who had a base also or was it both?

Elliot: They both had a base. The Chilean base was also totally destroyed, the Argentinean base less so because it was on the other side of Port Foster. The Chilean base was on the, if you like, on the same side as the British base but further up in Port Foster. That was destroyed completely.

[Part 1 1:14:44] [Pause]

[Part 1 1:15:06] Tolson: After a few very enjoyable trips you decided to leave BAS and go elsewhere. Why was that and where did you go?

Elliot: I was really enjoying my time with BAS but the basic trouble was that all my life was BAS, there was nothing else. I'd actually had very little leave, for instance after my first voyage, I took my Mates ticket so I studied. When I went from *John Biscoe* to *Bransfield* I was asked to stand by *John Biscoe* after the voyage and within a month I was requested to go up and join *Bransfield* and then I did the main voyage with the *Bransfield* and I virtually did the whole summer on *Bransfield* and then sailed to the next voyage. So with the years going past and girlfriends and one thing and another I decided too much time was being committed and I wanted to have more leave basically. I mentioned this to the Survey and they said 'Well there is nothing we can really do about it, that's the way things are'. But they did change; but anyway in the meantime I did leave and I joined Ocean Inchcape and worked in the North Sea which I really enjoyed as well. I think my experience in the North Sea again was a great experience for my time when I rejoined BAS. I think it was a very valuable experience that helped me in my latter career and helped in some ways too, in the conceptual design of the *James Clark Ross*.

[Part 1 1:17: 16] Tolson: Did it also give you greater depth of, or sense of feeling you weren't just doing this BAS life, but there was another life, albeit a marine life outside of BAS that you had touched upon? Yes it was a wonderful learning curve but again you reminded yourself there were other things.

Elliot: Yes, At that point I'd greatly enjoyed my time at BAS. It was the amount of time away plus the amount of time I was still working on the ship in the UK that prompted me to leave BAS. It wasn't dissatisfaction with the work so much, it was just that the amount of time I had to myself on leave was getting very little and then I realised I could work in the North Sea doing six weeks on and three weeks off, well sometimes I was barely getting three weeks off in the whole year so this was incredible. Also I realised it was the kind of work I liked, small ships working doing interesting things where a high degree of seamanship I think is required and ship handling work. So I ended up working a year in the North Sea and would have continued there, I mean I

was really loving the work, and I was quite surprised when I was invited to come back to BAS.

[Part 1 1:18:46] Tolson: You'd had a very interesting and very useful time with Ocean Inchcape but then you decided to come back to British Antarctic Survey, tell me the circumstances that led to this.

Elliot: Well, I'd been with Ocean Inchcape just on about a year and it was possibly around May 75 I received a letter from British Antarctic Survey inviting me, I think, to apply for the Master's job of *John Biscoe* and explaining they were setting up a relieving system so each ship would have two Masters, two Chief Engineers and two Chief Officers. You might recall that I left because really I wasn't getting any time to myself. Various things had changed, one of them was that the ticket structure for officers had been completely revamped meaning that study time was considerably longer and the Survey now had to recognise ticket leave. The system under which we were working before was just no longer tenable and eventually BAS won the argument with the powers that be, that further officers could be employed. So then I had this choice, this came as a complete surprise to me. I wasn't expecting a complete turnaround from BAS like that and I was really very happy where I was in the North Sea. In fact I was just on the verge, I'd been what they call probationary Master for some time, and I know I'd been told that I was taking over as Master of *Prospector* doing a very interesting job running pipes out from Rotterdam to a pipe laying barge and this did actually require some fairly nifty ship handling to get it onto the pipe laying barge and I was really looking forward to that and then I was suddenly confronted with this, so what should I do? I thought about it for quite some time, I was on the verge of turning BAS down because I did enjoy my North Sea work it was really exciting and I was enjoying the shorter periods of work. But then I suppose what really tipped the balance was I thought 'Well if I decline BAS that opportunity won't come again but I could, if I so wished, probably go from BAS back into the North Sea operation'. So I resigned from Ocean Inchcape writing rather a humble letter because I thought I was being a bit naughty, but I got a very nice letter back from them saying they quite understood and thanking me for my services and we parted on very good terms and I ended up back as Master, sharing the job of Master, with Malcolm Phelps on the *John Biscoe* which continued that for another 15 years.

[Part 1 1:22:09] Tolson: You'd been away just over a year were there any noticeable changes in your absence in the way things were working within BAS?

Elliot: Well change had already started because the Directorship of British Antarctic Survey changed from Sir Vivian Fuchs to Dick Laws in 1972. I can remember Sir Vivian being on the maiden voyage of *Bransfield* when I was on there and that was really his swansong, I think it was his last visit to the Antarctic, certainly with BAS. Then Dick Laws took over and of course, then it was a time of change. One of the most noticeable changes was it was deemed not cost-effective always having people down for two and half years and aircraft operations, aircraft were being used more and more. Charles Swithinbank was in charge of the Earth Divisions and he was keen on getting his people down to do a piece of work and coming back immediately to write it up. I say immediately it was often a year or summer only. Yes, a lot of changes. If Stonington hadn't been closed then it was about to close, mainly because the ramp from Stonington Island was deteriorating rapidly and also we were then beginning to move away from using dogs more to skidoos. So yes there was rapid change taking place. Whereas it was still

let's say of an exploratory nature, BAS was rapidly having to change to stay in business as it were, it had to be more productive on scientific reports and Dick Laws was the one who had drive that forward which I think he did very very well. I'm only speaking as a seaman but I think we owe him a lot, he was a very effective Director. So it was a lot of change taking place.

[Part 1 1:24:43] Tolson: Did you notice within the ships structure, the dynamics with having two Masters, did this change things to you? The perception of the other officers and the crew they weren't getting changed out but you were?

Elliot: I suppose a certain amount of jealousy arose, 'Why these senior officers they have to do 4 months we have to do 7 months', but on the other hand those that had been there before knew that not only did you do the full voyage [but] that you stood by the ship during the time in the UK. Of course that went, so if you did the full voyage you then had the full period of leave free. The likes of those, the [junior] officers up to the level where there were two in the Survey previously, there was a big change for them as well; they were guaranteed the summer period when the ship was back in the UK as a leave period. Leave in the UK Merchant Navy generally had improved quite considerably so one was entitled to. I think it was accepted, the system ran then for a long time, right up to the time when *Bransfield* went out of commission which was into 2000 or something. It worked well, yes, it was some change, but I think everyone quickly settled down to it and it was a successful system.

[Part 1 1:26:50] Tolson: Your early trips as Master or let's say your first trip as Master presumably this was before OBP proper, the *Biscoe* was still being used to do general carrying around of cargoes and people and the occasional landing on beaches. It was still a working ship wasn't it?

Elliot: Yes, however we had what we called the benthic programme, this was almost a forerunner of OBP where the ship did spend probably a month per season working round the coast of South Georgia putting various nets down and doing biological and oceanographic research, but close into South Georgia. She didn't carry a CTD for measuring ocean currents in those days because to use one of those you really had to keep the ship stationary. That wasn't possible with the *Biscoe* with no bow thrust, just propeller. I recall there was still quite a lot of landing work, still quite extensive biological and geological work going on and putting parties in with the inflatables so *Biscoe* probably did more than that than the *Bransfield*.

[Part 1 1:28:27] Tolson: You had an incident with the *Biscoe* going aground in Bellingshausen what occurred there?

Elliot: Well what occurred was relying on memory when I shouldn't have been. We had to call into Bellingshausen and I had been there either on my first or second trip which by this time would have been 10 or 12 years before and I was convinced we had anchored further in. It was high water and the appearance in that area, I know it very well now, is very different high water to low water and suddenly I'd just gone too far and I realised, but it was too late. The ship touched bottom and she wouldn't readily come free again and it would have been a mistake to go on churning, we were on a falling tide. Embarrassingly I had to send a message to BAS that we were aground and of course they were very concerned, you know ship aground. However we

immediately set about making sure we would come off on the next high water so an anchor was taken from the ship with a length of cable and laid way out in deeper water with lines on to it. The ship was lightened very rapidly, as quickly as possible water pumped out and cargo was discharged. The Russians helped, they had these big barges which meant we could discharge very rapidly onto these big barges quicker than we could have done by scow. We put the lifeboats down just to lighten ship as much as possible. As the water came up, by heaving on the stern lines, immediately pulled her out into deeper water and got had the engines going and could then pick up the anchor and got our cargo back. The damage was actually very minimal, we had a leaking tank where she was resting on an uneven bottom, had marginally punctured one tank . A diving inspection showed just small rips around rivets, pretty insignificant, so luckily got away with that. I remember being called to account when I got back. I tried to concentrate on how we got off. I think Tom Woodfield was there. They probably didn't think much of me getting myself in that position in the first place but I think we got over that by the means by which we got off, I'm trying to find the right words there.

[Part 1 1:31:53] Tolson: They were impressed with how you got off..

Elliot: They were impressed I think that was (....)

[Part 1 1:32:02] Tolson: Do you think you got some mental assistance from your time with Ocean Inchcape in this?

Elliot: Well we did a lot of anchor work and that. Probably not so much directly in that, the measures we took I would have done anyway. Not directly, not so far as that's concerned.

[Part 1 1:32:27] Tolson: So unlike the Royal Navy where you would have been court martialled for touching the bottom you managed to escape that?

Elliot: No we didn't have an official court martial, but I was still a bit concerned. BAS had it in their power to say 'Well you shouldn't have done that' and they might have considered saying 'You'll go back as Chief Officer' or something like that. It was a bit of a worrying time but they gave me a second chance and I made sure I kept the ship off the bottom in the next voyage

[Part 1 1:33:01] Tolson: The *Biscoe* really did continue to work all the bases, all the bases that were left during the 1970s?

Elliot: Yes, except Halley.

[Part 1 1:33:20] Tolson: I recall working with you after we'd done the, should we call it the relief of Grytviken, where we had to take a whole lot of steel plate and lathes and anything we could lay our hands on. Tell me what your memories of that and then what we did in the two days after that laying the buoy.

Elliot: Yes, well I think what had happened there was the lease of Grytviken whaling station had expired and the Falkland Government then had ownership of a lot of the left over equipment and they'd come to the conclusion that a lot of the stuff that was there would be very useful back in

the Falklands. They persuaded BAS that we should uplift this equipment and take it back to the Falklands and you remember it because the chosen equipment was pretty hefty equipment. You would have had to rig the 10 ton gear to get some enormous lathe and also a matter of getting it around the station to the ship in the first place to be lifted. I remember for the first time there were two jetties at Grytviken and generally we lay port-side on what would have been the Eastern jetty but we went starboard side to the Western one having surveyed it and had a diver down to check that we could lie there. In actual fact it became quite a snug berth and subsequently we used it quite a lot.

[Part 1 1:35:10] Elliot (Contd.): We referred to earlier the rather rickety wooden jetty at King Edward Point. It was one thing *Biscoe* laying against it, it was quite another *Bransfield* laying against it and although it was very convenient for *Bransfield* it was frightened that the jetty might collapse. So a means of putting lines from the *Bransfield* to take some of her own weight, offshore by means of lines rather than lying against the jetty [was sought]. A heavy mooring should be laid and we'd spoken about this at a Masters meeting, I think the year before and I foolishly said 'We can probably arrange something with the *Biscoe*'. So we picked up all this old whaling chain and mapped out a scheme for putting a mooring buoy down and you were very much part of that. I gave you a general plan and left you to get on with it and we ended up with all this chain and anchors all slung down the starboard side and we laid it. Though again it was quite an interesting little exercise and actually proved very successful for a whole number of years. I think that mooring was used for five or six years and then the Royal Navy lifted it in the end when they put the garrison into South Georgia. It was after 82 that that mooring went and they beefed up the jetty anyway which meant that it was no longer necessary.

[Part 1 1:37:02] Tolson: I never forget we started off laying the mooring by which time, when we started of course we were committed, the weather got really bad and you completed that in probably 50 knots. Can you remember that? Do you remember some of the details of that and what was going through your mind at that point, you were firmly attached to lots of chain?

Elliot: Funnily enough I wouldn't have remembered apart for the fact that prior to coming here to meet you today I'd hunted out some of my old voyage reports and that's one little account that I read, the account that I put down in the voyage report. We'd layed one leg and the weather started getting up but we had no choice, we couldn't get out of it because we were attached to (...). It was quite complicated because we were laying a three-legged mooring, we had our own anchors down, we had our own stern lines ashore plus a chain from the mooring ashore. We got a little bit of a twist in something at one stage but it was sorted out wasn't it. I don't think I was too concerned because at least the way we were laying the mooring, the way we'd layed the ship, we were actually head to wind. It would have been a different matter if the wind had been coming across the ship, thank God it wasn't. I think we were all very pleased when it was down, felt we'd done a good job actually and it was something that involved everyone onboard, it certainly involved all the deck officers and all the seamen. I think we were quite glad, having got it all down, to lash the ship back alongside somewhere and drink a pint of beer, one or two, and think that was job well done. Yes, it was hampered by weather towards the end.

[Part 1 1:39:08] Tolson: When we went alongside the jetty then we used our own mooring didn't we. That must have been some help you got from Ocean Inchncape on that operation?

Elliot: Yes, I suppose that's true. I mean it was the sort of work that you did there. I remember we had to build a slipway on the starboard side to slide some of the things off, a bit like how things used to be slid off the back end of a supply boat, so just we had slide launching rather than stern launching.

End of Part1: 1:39:59

Part Two

[Part 2 0:00:00] Tolson: Then we got back to Stanley and of course you had another bit of an adventure when you got a request to go and do the wool run and I'm very envious, I had to go on the *Bransfield* at that point to relieve Nick who had damaged his knee. Fantastic, the wool run, tell us about the wool run.

Elliot: I remember we got into Stanley and a message came to the ship, could I call on the manager of the Falkland Islands Company which was a chap called Harry Milne a very nice guy. So I went to see him and he said 'Look we've got a problem' he said 'the *Monsoon* has broken a crankshaft' and she was a local trading vessel that went round the farms and took out supplies and brought in the wool. They had a charter ship coming out from the UK that was due to come into Stanley, pick up the wool from the wool store in Stanley and then go back. She wasn't due to go around the stations picking the wool up and the wool of course was out there, so this was a big problem. I saw this as a delightful opportunity again to do something different, but I said 'Harry, I can't just go off and do it of course' and he said he was just asking did I think it was feasible and I said 'Yes I think it's quite feasible'. I suggested that the best thing would be if he asked the Governor to put in a request to British Antarctic Survey for the ship to do this. Sure enough that happened and I said 'Oh don't mention me because they'll probably think "Oh God, Elliot he's just off for another jolly we're not having anything to do with this" '. About a day or so later I got a telegram from BAS saying 'We've had this request from the Falklands you'll be surprised to learn of, as we've had this request do you think this is feasible?'. So I went back and said 'Oh this is a surprise and after careful consideration, yes, I think this is quite feasible' but of course I was well advanced in ideas about this and I said 'I will ask Jack Sollis', who was held in very high esteem in the Falkland Islands and who I count as a good friend at that time, 'to come onboard as Pilot'. Of course I'd already spoken to Jack about it. Sure enough BAS agreed that it should happen on the proviso, as I seem to remember, that the Falkland Island Company or the Government had to insure the ship for doing this because it wasn't Government business any longer and I believe it took them another day and a half to get that suitably sorted.

[Part 2 0:03:13] Elliot (Contd.): Then the ship departed and we went to Port San Carlos, San Carlos, Port Howard, Fox Bay East and West and Port Stephens by which time she was absolutely crammed full. We'd already made sure, stowed the ship in such a way, that we had no cargo on board but you might recall that the fore end of the 'tween deck in *Biscoe* was full of all sorts of equipment, spare ropes, all sorts of spare gear. So I discharged all this to make room for wool and the ship was loaded right down to her marks. I'd been told we mustn't carry wool on deck. Also we got wool into the after-hatch and the after 'tween deck which had all the ship's storerooms around it, normally you left a passage way. I got everyone to clear out the stores that

they would require for a number of days and we just filled that complete with wool right up to the locker fronts. The Falkland Island Company were very pleased. We got it back into Stanley I think early on Christmas Eve morning. All the wool was discharged, a hard day's work going on into the evening, they managed to get the ship discharged just before Christmas Day. It was great experience going all round the islands. I remember we went into Port Howard. To help work the ship we had some Falkland Island Company stevedores on board and they were moaning at me because the ship wasn't any nearer the jetty in Port Howard. They couldn't quite get their head round the fact that *Biscoe* had much deeper draft than even the old *RMS Darwin* that used to work (...). Getting fed up with this moaning I went down and said 'Look if any of you think you can get the ship closer to the jetty please do, as long as you can guarantee you can get it back out again' and Jack Sollis was there with me saying 'Will any of you take (...)'. The Falkland Islanders were quite good at having a good grumble but it was great fun and great experience for myself and the rest of the ship's company and also helped bond the relationship generally between the Falklands and BAS.

[Part 2 0:06:07] Tolson: It was certainly something I was most envious about, being carted off the *Bransfield*. You also, over the years, talk about an improved relationship with the Hydrographic Department, this may be going back a little bit earlier now to the start of the collector sheets.

Elliot: That's right, partly the grounding had something to do with that. Tom Woodfield had his own charts and whenever there was an opportunity we went somewhere that wasn't well charted and if there was time, we would sketch out the coast using the radar and send a launch round to do sounding runs and make up our own little chart of a bay. Each ship had its own hand-drawn little chartlets of where they had been, but there was no mechanism to make sure this was recorded in any official way or passed from ship to ship and I remember that although we did have a fairly close relationship with Taunton we felt something better could be formalised. I was down in Taunton with Stuart Lawrence. If we were using an area fairly frequently and the chart was a very small scale we often used to scale it up, but doing this by hand on the ship was a quite a labourious process to do it carefully, drawing out a large graticule and make a chart so that we could put our sounding runs on it. We wondered whether the Hydrographic Office could do this for us and we choose areas where we would really like enlarged charts and we felt that if we had these enlarged charts and did sounding runs we could send them back to Taunton and they could take the information off them and send them back. This became known as the collector sheets. They were at first reluctant because there were some dangers with liability. They were used to the fact anything they published they stood by and there was an amount of indemnity or such and they had to be sure they could do this. So they all had to be stamped 'Not to be used for Navigation'. The collector sheet system came into use; they were on a perspex type material [Ozatex]. We got enlarged charts and if we went anywhere over particular areas where these collector sheet charts were made we would record sounding runs. Each ship had a set of these charts and we had them for round South Georgia, South Shetlands all the sort of places we used to work, but where the published charts were quite a small scale. At the end of the voyage, *Endurance*, *Biscoe*, *Bransfield* would send these charts back into Taunton and Taunton would update their master copy from information that each ship had put in and would return us copies of the master copies. So we would get back a chart that if *Bransfield* had done a run that season we would have that back on board. We started off with some areas were very very sparse,

especially the South West coast of South Georgia, became really far better known by the collector sheet system. It worked brilliantly, it was still being used when I retired, probably to a slightly lesser degree because the ships weren't spending so much time in unsurveyed areas and *Endurance* in the meantime had done a lot more survey, but the system was still running.

[Part 2 0:11:04] Tolson: I want to move on now to a very important part of the *Biscoe's* transformation and your involvement and this is the Offshore Biological Programme known as OBP. You and Barry Heywood worked very closely together on this project to bring the *Biscoe* into some shape. Can you just tell me a little about your involvement working with Barry and in fact, obviously, the involvement that you had to undertake with the refit yards?

Elliot: Yes certainly. Just very briefly to lead up to it, trying to put it into context. Dick Laws had become Director we had the brand new *Bransfield* that was 72 and with the advent of the *Bransfield*, *Biscoe* if you like was a little bit spare because you didn't need two ships on full time logistics. The scientific output was being improved all the time, there had been a lot of research done on Bird Island and it was beginning to be realised more and more that there could be some very valuable deep sea research that could be done and *Biscoe* started doing this in a minor way in late 70s. But to become a really useful scientific platform she would have to be modified and we would need a capability of trawling scientific trawls and we'd need the capability of doing CTDs. The ship was also getting fairly elderly so the two things came together, one a refurbishment of *Biscoe* to extend her life and a conversion of the *Biscoe* to enable offshore biological and oceanographic work. She went into refit in I think it was 78 or 79, she did a half season I think and then went into refit at Liverpool. The poop house was cut off, the midship accommodation was extended to provide laboratories. With the poop house cut off it gave us a level and clear after-deck for a gantry to be put on the after-end and the stern slightly modified to enable nets to be pulled over the stern. A mid-ship gantry put on to enable deployments of the conductivity temperature depth, the CTD, the oceanographers' main tool. The accommodation was upgraded and slight alteration [made]. The crew used to live aft on the main deck and the Fids, as they were then, lived forward. We moved to the bow so the scientists would actually live more or less under their laboratory. So all the scientific accommodation was gutted, that half of the ship, and new accommodation was put in there. As I said the crew moved into the old Fid accommodation which had been double berth but a lot of them then got single berth cabins, so improved for the crew. The Officer accommodation basically stayed as it was although there were a few changes made. The ship had new engines put in her. She had a variable pitch propeller put on. Before she was a diesel electric with a fixed pitch propeller which meant that actually she had a minimum speed, when that propeller was turning in smooth water, of 4 knots. That wouldn't have enabled holding position, but a variable pitch propeller did, so she had a variable pitch propeller and she had a bow thruster and this enabled the CTDs. This was all done up in Liverpool and for a further ten years then every season she did approximately two months work dedicated to the Offshore Biological Programme. It was an immensely successful programme. Also it gave us tremendously useful experience for what would be required of a replacement for *Biscoe* that became *James Clark Ross*. So not only was it valuable in being able to do the work we did, it was invaluable experience for BAS in knowing what our true requirements were for a replacement vessel which was going to be primarily a research ship with a logistic capability rather than a logistic ship that had a scientific capability.

[Part 2 0:16:31] Tolson: Well lets carry on on this theme, I know we are slightly jumping ahead but we are on the theme of what comes next. You were the Captain with all the practical working experience. The *James Clark Ross* did become your baby to a great extent, what were you able to throw into the design concepts on the *James Clark Ross*?

Elliot: Towards the end of the late 80s, Dick Laws was Director asked everyone 'We hope to replace the *Biscoe* what are your thoughts? Put down on paper what you think we require'. I really took this to heart and with the help of other officers on the *John Biscoe*, namely John Burgan and Ron Plumley we wrote quite a paper. First of all you have to start with a basic concept and I remember talking to Dick Laws the Director and it was agreed the basic concept should be better laboratory space, so basically she would continue to be a research ship, a better research ship for the offshore biological and physical oceanographic work. The logistic capability should be what the *Biscoe* had before she was converted and the number of people she should be able to carry would be about the same as the *Biscoe* used to be able to carry, probably up to about 40 scientific or personnel in transit. She was going to be primarily a research ship but with a logistic capability and 40 personnel. The first thing we had to say was 'What size?' My idea was, 'What size of ship do we need for that?' We came to the conclusion amongst ourselves that it would have to be a ship probably not as big as *Bransfield* but certainly bigger than the *Biscoe*. So let's say we were going to have a ship of 4000 or 4500 tons displacement, then we said a normal block coefficient for such a ship is this, so normally a ship would be this long, this wide and then you need an engine. Without being naval architects we could begin to see how much space we had, so just sort of saying we need 500 square meters of this or 200 square meters of that, we could see that what we were going to put down in paper actually made some kind of sense, because anyone can call for the world but you know you had to try and make sure (...). I was insistent we should try and draw it out, without claiming to be naval architects, at the same time and this also made the whole project more interesting. Over the course of time we did this and this was sent in.

[Part 2 0:20:25] Elliot (Contd.): But then things were changing and it became apparent that the ship should be multi-disciplinary and this actually changed the concept quite considerably. It was NERC that decided that BAS must also do geosciences and quite rightly so. We were talking about having a seismic capability. Well I immediately realised that that wasn't going to fit in to what we had drawn up so we started again and I called the first proposal and drawings put forward 'new ship one' and it was totally modified into 'new ship two' and it became quite apparent that we needed a ship the size of *Bransfield* or even a bit bigger to fit all this requirement in and things started developing quite quickly. This is where some of my experience in the North Sea came in useful because we were going to have this big open after-deck. One thing to maintain, the ship should be very manoeuvrable and I also maintained that the ship should be capable of dynamic positioning and these were new ideas. There was some little resistance from some people saying 'Well why do you need this you didn't have it before'. My argument was that for Christ's sake we're building a new ship for the next 30 years. The argument came about because I thought the ship should have a stern thrust which she would need to be capable of dynamic positioning or she'd have to be twin screw and we'd gone through that argument quite a bit and it had been established for other reasons that it would be best to stay to single screw. The ship had to be configured that, even if we didn't have dynamic positioning initially, the ship must be fitted with the major units that could (...). So new ship two came about

and they were just proposals that went forward. Once it had been agreed at much higher Government circles that they would indeed build a new ship for BAS an official steering committee was put together, chaired by Brian Hinde from NERC, David Jones who worked in BAS and basically was the nearest to a Superintendent I suppose, he was the finance officer, but his duty was also to oversee the running of the ships from the office point of view and myself were on that steering committee. By that time Burness Corlett had been chosen to be the consultants with Wartsila so they worked together. Wartsila were in charge of advising on the ice capabilities of this ship. It was decided right at the early stage that, as wonderful as our drawings were and everything else like that, we mustn't try and influence the consultants so Brian Hinde said 'They must be cast aside, it was a useful exercise but (...)'. The steering committee job was to put a statement of requirements to the consultants who were then to design us a ship and that's what happened.

[Part 2 0:24:27] Elliot (Contd.): However that ship was very very close to our proposals that we had drawn out, very very close indeed. The bridge was totally identical to our drawing, so I'm proud to say we moved very much in the right direction. One of the arguments for instance was how the bridge should be organised and how are we going to control the ship when the scientific operations (...). The consultants wanted the easy way out and wanted a little hut on the back as a control point for the ship which I was dead against because you would still need an Officer of The Watch up in the wheelhouse, the main part of the navigational area, to maintain watch for ice and birds and everything else like that and somebody else has got to be down in this hut and I said 'No it must all be in one space' as it was from my experience in the North Sea where you had the fore-end of the bridge and the after-end was used for operations and eventually we got that. And then there was an argument about how the controls should work, well my experience in the North Sea came in useful there. Also, whether it would have happened or not I don't know, but I certainly was pushing for a ship that could be retro-fitted with dynamic positioning. The other major change for BAS was putting the ship's officers and scientists as one mess. That received a certain amount of opposition but I was convinced that this was the right way to go and I think that's been proved the case. One had to look ahead not to just build a super *John Biscoe*, it had to be more than that and I think really looking back on my career, the thing I'm most proud of, is the development of the *James Clark Ross*. She's proved herself to be an immensely successful research ship with a logistic capability. We pushed for more power so she'd be more capable in ice. She didn't come out as powerful as I would have liked, mainly because the ship grew in size but the power got set at one stage, I think they realised the final design deserved (...). They had to add more beam to the ship, in actual fact I think her load displacement tonnage is 500 or 600 tons more than *Bransfield* but compared to *Bransfield's* 5000 horse power, *James Clark Ross* had 8500 and she was certainly more capable of dealing with the ice that you often get on the Antarctic Peninsula, that ghastly porridge which needs so much power to push through. She was that much more capable, that meant she carried out her early season logistic capability more quickly and more safely with that additional power.

[Part 2 0:28:24] Tolson: Were there, after her first voyage, were there big things that needed attention, things that you'd either realised or (...).

Elliot: No, not really, in actual fact we took the ship away finished, unlike *Bransfield* had to go back and they still had to do a lot of finishing work. Two big things that happened subsequently

to *James Clark Ross* was yes, dynamic positioning. She had a form of joystick control when she came out but it was quickly realised that to deploy a lot of the different scientific equipment for both biological and geophysical work, dynamic positioning was the way to go and indeed dynamic positioning was fitted to the ship and I had a big hand in that. That was a very interesting period because when it was first put on I realised it wasn't as capable as it could be and we carried out a lot of tests in a flat calm conditions in Cumberland Bay when we had a quiet moment and we sent all that back to Kongsberg whose gear it was was put on. Then I went over to Kongsberg because they found this very useful and they adjusted all the settings to considerably improve the capability of the DP system. They were quite impressed by the feedback that they got from the ship. Well we've never looked back because we just use the DP in one form or another for so many operations, it's absolutely fantastic. The ship wouldn't have been half the ship without it that's for sure.

[Part 2 0:30:35] [Pause to change tapes]

[Part 2 0:30:45] Tolson: Chris just tell me, what is DP what does that mean and what does it allow you to do?

Elliot: Dynamic positioning that is what DP is, dynamic positioning. It enables the ship to keep position in the open ocean by using thrusters, rudders, propellers but you must have a position reference system be it GPS or taut wire to the seabed. The ship is put in to a required position and the dynamic positioning controls desk is set up and then it controls the ship's machinery, the thrusters, rudders, propellers to hold that ship on the desired heading in the desired position.

[Part 2 0:31:35] Tolson: Why would you want to keep a ship in position all the time?

Elliot: Well it's used extensively in the North Sea for work; it's used even on tankers for picking up oil from one point moorings, it's used on research ships now because so much scientific equipment is either done stationary or you want to crawl along, maybe advance at no more than a meter a minute or something like that. The degree of control you can have of the ship is much finer than could be done by manual control. Once a DP system is set up you can get a ship to creep in all different directions or stay stationary or go on various headings and it's extensively used now for all sorts of work.

[Part 2 0:32:51] Tolson: After you'd had the DP system installed you had another thing called swath.

Elliot: Yes, this was initially in the early design, she was going to have a swath mapping system, a system of mapping the seabed as the ship goes along. Because of the initial expense of the ship came out higher than the Government had hoped for, certain things had to be cut out when she first came out. So she wasn't fitted with a swath system but the bottom of the ship was designed in such a way that it could be retrofitted. When arrangements were made through Bristol University I think were involved, to fit a swath system the size of the transducers, transmitting and receive transducers, were much larger than those originally conceived and a very complex refit modification was done to the ship to put a very advanced seabed mapping system in called the swath bathymetry system which was fitted into the ship around 2000. I was on the refit when

it was fitted and obviously saw it in subsequent use. A most marvellous tool where basically the ship maps a width of seabed about five times the depth of water, so if you're in 1000 meters of water in one pass you're mapping in 3D a 5000 meter wide swath so you can very rapidly build up a fantastic map of an area of seabed. Besides the hydrographic work that that gives you, old hydrographic ships used to go down with a line of soundings and here you are doing a swath in one pass. It's absolutely fantastic but for the scientists it's so valuable because they're looking for particular areas to core or to look for all sorts of features and by using this system you very quickly can hunt out areas of interest which would have taken much longer than before, if indeed you would have ever succeeded. It's been extensively used and still is being used. That really has enhanced the ship's capability. The two great things that were fitted subsequently to the build is the dynamic positioning and the swath mapping system.

[Part 2 0:36:07] Tolson: Of course the ship was a great expense and therefore NERC had to make use of her in the off-time and she started to look for contracts in the Arctic region. Who was that with and through and was it indeed very successful?

Elliot: It was within NERC basically that because when the ship was built it was decided that rather than it being exclusively for BAS, BAS would run and man the ship, she should be available for other NERC institutes with an eye to work, particularly in the Arctic for two months of the year and indeed that is what she has done and every year now. Virtually every season she goes up to the Arctic for two months on various scientific research projects up there. These projects have been led by SAMS which stands for Scottish Affiliated Marine Scientists, by Scott Polar, Cambridge University, Bristol University and one cruise actually we supported a team of oceanographers from Woods Hole America. I believe there is like a points system between American scientific institutes and UK and of course I dare say that we owed America a tremendous amount. But basically I had a team onboard from the Woods Hole Institute one year for research because they wanted to do work on the East Greenland coast, close into the shore where you get heavy ice flowing down and they'd never managed to get CTDs in this area before on the kind of ships they had been able to charter. They got hold of the James Clark Ross and we managed to do what they wanted and it was a very interesting cruise. Incidentally it's where the dynamic positioning came in because they had a very valuable oceanographic mooring somewhere in the Denmark Strait where they were trying to work out where water sinks, it's all to do with ocean flow and this particular mooring would not release from its release mechanism the year before. So they joined the James Clark Ross with an ROV, remotely operated vessel, with the idea that it would go down and get hold of this mooring and pull it off the seabed complete with its sinker. The ROV had 100 meters of cable and they reckoned that the head of this mooring was some 60 meters below the surface. Well of course when we located it, it was actually bending over in the current and it was 100 meters and we had a 100 meters of cable. So using the dynamic positioning we managed to get over this, but then we lost sight of it because we were looking at it using the omni-directional sounder that the James Clark Ross has and that would show it up. Anyway to cut a long story short we actually got hold of it and we got it back and they were absolutely delighted. You wouldn't have done that with a less capable ship. But yes she's done a lot of different work in the Arctic. I remember doing a cruise in the Kangerlussuaq Fjord where ice was breaking out and that was one of the most taxing bits of work I remember because we were just working in a fjord of fast moving water absolutely smothered in what we know as bergy bits, just glacial ice, there was so much of it and it was all

zooming all over the place, it was quite a taxing time.

[Part 2 0:40:34] Tolson: You've had a fascinating career in BAS and outside of BAS, you've had some pretty scary moments and some unpleasant moments. Your involvement with the James Clark Ross, the design and build you put high on the list of achievements. Can you single out happy memories, moments? Some isolated areas of (...)

Elliot: [Pause] I should be able to shouldn't I. [Pause]. A lot of us had a lot of fondness of course for the old *John Biscoe*. Of course those with enough history would talk about the old *John Biscoe* would talk about the first one but I'm talking about the second one. On her very final voyage the *Bransfield* had engine trouble, we were in Stanley about to start our voyage home. At the same time Rothera was having its airstrip built and a considerable new building was going on and a wharf that ships should lie alongside was being built at Rothera. In order to complete this work *Bransfield* was due to take some heavy vehicles into Rothera for the very beginning of the next season. With the unavailability of the *Bransfield* BAS looked to be able to charter a ship just to get these vehicles down. Well I felt that we had always justified the existence of two ships on the fact that one could back up the other and I said 'Why aren't you using the *Biscoe*, well here we are' and they said 'Well you can't get these big vehicles down' and I said 'No, but we can get everything else down that is required' and he said 'Well I don't think you can'. I said 'The big vehicles can go out on the *James Clark Ross* the ship that's due to come out at the beginning of next season, well they don't need them now", that's what I believed. Anyway they couldn't charter a ship so the *Biscoe* had to be used to do another run down the Peninsula when everyone thought they were going home. There were big grumbles at first and I said 'Come on guys that's what you're here for you know' and everyone quickly forgot about that and we loaded the ship to go down to Rothera. There was all sorts of gear that the *Bransfield* had been due to pick up and I was very determined 'We'll show these people who thought we weren't capable'. Robin was Chief Officer and between us the ship was absolutely full to the gunnels when we sailed from Stanley. What they imagined we could get onboard and what we actually got onboard were two different things and they were quite amazed. We got down to Rothera and got alongside the new wharf there which hadn't been completely infilled so part of it had some infilling and part of it was open steel structure. So *Biscoe* was the first ship to use this new facility so it got named as Biscoe Wharf. When we sailed to come up the Peninsula and this was going to be the last (...). We came up through The Gullet; it was one of the most beautiful mornings I can ever recall. The effect of the sun on the Peninsula coming up from the East and I think we had moonlight to the West it was absolutely stunning. We came up past and called into Faraday Base, up through the Lemaire Channel and I thought for a final run that was quite fantastic. We were the first ship into the new Rothera as it were and everyone had forgotten about their grumbles. In fact some comedian had brought out a T-shirt 'The *John Biscoe* goes where other ships can't' which was a bit of a dig at the *Bransfield* at the time. The spirit then rallied people round, even though they were expecting to be homeward bound, that was a great time.

[Part 2 0:45:43] Elliot (Contd.): But bringing out the *Bransfield* [*James Clark Ross*] of course was a fantastic experience. The maiden voyage we had the Director onboard who by that time was David Drury because although the whole ship was conceived and I think all the signing for the build was done whilst Dick Laws was Director he retired and then David Drury came

onboard. We had what was then known as the Secretary of NERC onboard, Eileen Buttle. She was a fabulous character; they later changed that position to Chief Executive. On the maiden voyage we got well stuck in the ice going down to Adelaide. So there we were, maiden voyage of the *James Clark Ross* stuck in ice again. They were just about to give up, the Directors, and say 'We'll have to fly people down'. He said to me 'If we persevered with this, how many days do you think it will take us to get into Rothera?' and I said 'Well it's impossible to give a guarantee, but I think there's a good chance we'll make it in 5 days'. I'd explained that once we were heavily committed to the ice you can't always, at will, just come out again. In five days we got to Rothera. That was also memorable, the pressure on the ice then was something the *Bransfield* couldn't have got through so the ship got a true testing on her maiden voyage and that was good.

[Part 2 0:47:46] Tolson: Chris, all the technological changes through the years, whether it's been equipment, transport, management. I think you've singled out GPS perhaps as being the most important for shipboard operations.

Elliot: Yes, I mean, there was always a difficulty in navigation, because of the conditions down there on any ocean passage you couldn't rely on (...). Sights were few and far between, you could go three or four days without a getting a sextant sight. All that time you were on DR or estimated position and even when you're coastal in thick fog you might be just working off radar and if you weren't careful it wouldn't be that difficult to mistake one area for another. As you know when you've got ice laying off the coast even radar navigation isn't always very easy. From the point of view from making the mariner's life easier GPS transformed it. But it didn't just transform our life, it transformed the understanding of ocean currents because when you knew exactly where the ship was your understanding of currents and your scientific work was also far more valuable. When you could only approximate where the ship was, it had nothing like the value of knowing exactly where you were. So GPS, I think of all the innovations, has not only benefitted the mariner and made the operations safer for the mariner and the ship, it also has enhanced the value of the scientific work conducted from the ship.

[Part 2 0:50:10] Tolson: How do you think that the thought processes of the modern mariner have changed, evolved, presumably become better, from people of 30, 40, 50 years ago? A modern navigating officer today with all his electronic tools and his enclosed wheelhouses how is he better or worse or different?

Elliot: *James Clark Ross* didn't have an enclosed wheelhouse, that was another argument. We still had open bridge wings which were on occasions very useful, that was one thing that we fought for. That was a controversy, the open wing argument won, which I personally was in favour of as well. Well of course prior to GPS when I and you started to go to sea, as a Merchant Navy Officer, one of your principle jobs was navigation and it still is of course, but navigation has changed. Our navigation was first coastal navigation, chart work, radar and sights, sometimes with Decca. Now it's principally GPS this has, I was going to say de-skilled navigation, but to use modern electronic equipment or radar I would say the modern navigator was probably better than we were at using radar. Radar in many ways became easier to use with automatic plotting. The job has changed and whereas taking sights was just second nature to us, the modern navigator it wouldn't be second nature, yes, he'd scratch his head and go out and be

able to take a sight. There are other skills that we didn't have. One of the things is the mountain of legislation is so much heavier now and that affects everyone on board. Health and Safety legislation, pollution legislation all wrapped up basically in the International Safety Management System, the ship's Safety Management System. There's far more record keeping than had to be done before. It doesn't mean just because you've got GPS and things like that (....). I think actually a ship's officer is actually harder worked today than we used to be quite honestly. I think we were probably able to enjoy life a bit more in the past than is possible now. It's not impossible, I, and I think all my officers, certainly enjoyed the voyages on James Clark Ross certainly up to the time I retired, even though schedules were perhaps a bit tighter. We still kept a fun element in it which I think made people work better. It wasn't just a matter of skiving, I think it was necessary for everyone's wellbeing to not get too bogged down. If people aren't enjoying what they are doing they are not going to be as productive. To work hard there needs to be a certain amount of play as well, that doesn't necessarily mean loss of time that could be otherwise used.

[Part 2 0:54:41] Tolson: When you came to retire what did you think you were going to miss most about not being there in the Antarctic?

Elliot: The camaraderie, I think amongst the ship staff and the base staff and the organisation generally.

[Part 2 0:55:10] Tolson: Did you ever fear that you had perhaps gone too close to the edge on occasions? With your skill and I use that word.. ?? [inaudable].

Elliot: There was always a fine line, always a very fine line. You think of getting the job done and not endangering the ship or personnel. When you think of Bird Island, that could be a very difficult place to work. It wasn't just Bird, I mean that's a good example because the ship's working in basically a pretty open area where the ship rarely is still, there is swell coming in so you always got to make decisions. Quite often you were working in what I might called marginal conditions. Sometimes you were blessed with absolutely ideal conditions but if you waited for the perfect conditions you wouldn't get the job done but you've got to know when it's time to call a halt and say 'No, this is where we must stop doing this now', there is always that fine line, which is part of the challenge of the job. It's the same when you are pushing a ship through ice to get somewhere, there is a fine line to how much you should push, but that's part of the challenge of the job isn't it?

[Part 2 0:57:04] Tolson: It is indeed. Thank you very much Chris Elliot.

[Part 2 0:57:11] Tolson: This is tape 5 with Chris Elliot and by mutual consent and agreement we've decided to talk a little bit longer. It's going back again to the 70's and on the Bransfield there was the bulk refueling of Adelaide Base which signified an enormous change in how gasoline was transported.

Elliot: Well this is right. Basically gas oil or diesel for the bases and aircraft fuel, all that fuel went down in 45 gallon drums. Generators were tending to get bigger and more powerful as bases were upgraded; aircraft were being used more extensively so the amount of fuel being used

obviously increased and it was apparent that it wasn't the best way really with these 45 gallon drums. As far as the diesel was concerned, gas oil, we used to re-use 45 gallon drums. The drums used to come out to the ship empty and we'd put them onto the deck and we had, from the ship's storage tanks, we actually had like a petrol station on the ship if you like with a trigger and we used to fill the drums up, put their screw bungs back in and they'd be taken ashore for the winter. I forget how many Adelaide used to use, it went into the hundreds and all these drums would be on the ice and then they'd have to be dug out and they might leak. So towards modernisation really it moved towards bulk re-fueling. The bulk refueling the first time it was done for diesel at Adelaide was *Bransfield's* maiden voyage. By this time I was Chief Officer as I already mentioned and we had these inflatable rubber tanks that would take about four or five ton of fuel. The idea was that we filled those from the ship, they were laying in a boat and they'd transferred to shore and be pumped out into the storage tanks. We had things called 'flubbers' then, you might remember them, large inflatable craft very long and quite narrow, huge inflatable tubes around them which were initially used by MOD for bridging rivers. They would be the floats to put a planks or platforms across so that tanks or vehicles could get across and bridge a river. But BAS had at some point realised that these were also very useful for putting cargo in and what operated quite well, in place or alongside the scows. The idea is the flubber tank would lie along the centre of these ex-MOD flubbers as we called them.

[Part 2 1:01:02] Elliot (Contd.): The year we did it, maiden voyage of *Bransfield*, we had appalling difficulties at Adelaide. First of all the weather was appalling there was a heavy swell running. There was bergy bits all round the jetty and in our endeavours of getting these flubbers into the base the bottoms got torn out of them and we had to arrange nets to support the fuel tanks and then when the ship was threatened and ice came down the side of the ship we had no means of lifting these things on deck. Anyway needless to say, with tremendous difficulty, half the time swimming around actually waist deep in sea water, we managed to get enough fuel into the base for the winter. It was quite a struggle, one of the most difficult and probably dangerous, operations I can recall in relief operations. Subsequently we thought we must do something about this before the next voyage. I put my mind to it and decided that if we had a steel cradle that was built that sat across the perimeter of the flubber boat and it had a net that supported the fuel flubber, one with wire strops off the metal cradle so designed that we could lift a fully laden [flubber boat] so that would get over the problem for the ship. But also if there was any rip in the bottom of the fabric of the [flubber boat] it didn't really matter because it was supported by this net. Two of these cradles were built in a shipyard when the actual dimensions of the steel had been worked out by an engineer. The subsequent voyage the operation went very very smoothly, just with this modification. So that as I say from a very hazardous and difficult time we developed a system that worked very well and was used for a long time. In fact it worked so well we actually used these cradles and nets in these big inflatable flubber craft for landing major field parties sometimes because you were more guaranteed of getting their equipment ashore dry than in the small Gemini. You'd use the Gemini for doing initial landings and then put these big flubber craft, lay out an anchor and pull them into the beach and as Chief Officer of *Bransfield* I remember using them quite extensively along with the cradles that were designed after the maiden voyage.

[Part 2 1:04:25] Tolson: Yes, I remember Stuart at that a lot.

Elliot: You probably remember those cradles.

[Part 2 0:04:31] Tolson: I do, I do , now I understand where they came from.

Elliot: Because they were lashed down to boat so if you lifted the cradle and lifted the boat or lifted whatever was in it, the system worked very well.

[Part 2 0:04:50] Tolson: This sounds like something out of the steam age; deep sea sounding sheets on ocean passage runs and problems. But you got that wonderful Professor Piggot to come to your rescue.

Elliot: *John Biscoe* had two echo sounders on her, one a standard Kelvin Hughes navigational echo sounder and she had another one actually for those days actually could go down to about a 1000 fathoms or something, I can't remember exactly what, but deeper than normal. But of course when *Bransfield* came out one of the ideas was to have a sounding machine that could sound to the deepest part of the ocean. She had this piece of equipment that I think had been, well I'm not sure exactly who developed it, Kelvin Hughes, but we had this machine anyway that was meant to be able to sound down to 5000 meters or fathoms I can't remember and it did work, but it was a bit temperamental. Tom Woodfield who was very keen on all kind of survey work and sounding runs and I was staffed off as second mate so it was my job in those days. In any ocean run we did he would try and steer a course where there were very few soundings and this machine was churning away and at the end of a particular voyage and of course we didn't have GPS then, but from the time we got fixes and we had the sounding rolls it Second Mate's job to rework it all the way back to get best position from known positions and put soundings on it and all this information went back to the Hydrographic Office at the end of the season. A lot of valuable work was done this way. I know on the ships there are plotting sheets with sounding runs on that were done in this way and it was a very time consuming and laborious business. However as I said the echo sounder itself was temperamental and on one occasion we had Professor Piggot onboard and [Tom] Kaiser, two of the top men. Kaiser used to refer to Sir Bernard Lovell as 'his boy' who he taught and Piggot as we all know was in the forerunner of the invention of radar. With these two great brains onboard on one occasion the echo sounder wasn't running and Tom Woodfield said 'Go down and see if you can do anything about it' and they went down to the main box of tricks which was somewhere down in the 'tween deck and got lost down there for a day. I remember them reappearing on the bridge probably sometime in the early evening, dropping a box down onto the chart table and saying 'Well switch it on, it should work now'. Sure enough it did work and I said 'What's in the box?' and they said 'Well we've actually modified it a bit, these bits are no longer necessary'. Consequently any latter maintenance by Kelvin Hughes or whoever had put this in were completely baffled and scratching their heads because they'd decided that, having worked out how the whole machine had worked, they'd completely modified it. But I don't think they ever got round to giving a story or fully explaining what they'd done to it. [Pause] Fid mods!

[Part 2 1:09:10] Tolson: I remember doing the deep sea sounding runs, as you say it was so much work, ghastly, awful. You took down the British Grahamland Expedition's 50th Anniversary, you took down the Director Colin Bertram and Stevie Stephenson.

Elliot: Yes, this was 83. Dick Laws was still Director and it was the 50th anniversary of the BGLE and he invited Colin Bertram and Steve Stephenson, in commemoration of that expedition, to do a Peninsula voyage on the *John Biscoe*. They joined the ship in Punta Arenas, it was during my period in command, and they came onboard along with Adrian Berry who was a science correspondent for the Daily Telegraph, Stanley Johnson, whose son is Boris Johnson, who was an MEP and subsequently wrote a book about his time. Also it was about the time of change where it was now accepted that female staff should (..) I think they'd worked on the OBP programme on this ship but they hadn't actually wintered on bases up to that point, they'd come down for summer only. We had on board Rowena Harris, Anne Todd, Myriam Booth. We set off, basically it was all part of the ships programme, but having Colin Bertram and Steve Stephenson on board was just fantastic, I so much enjoyed talking to them especially Colin was so full of stories and interest. Steve was a quieter character, it was just marvellous having them onboard. We got down to Rothera and they went up in the aircraft and flew over all the areas in which they'd worked. Emotionally it was quite something for them, especially when they went up in the aircraft; for me it was just fantastic having them onboard.

[Part 2 1:12:05] Elliot (Contd.): When we left Rothera and we went up to Faraday, we had to refuel Faraday and we had a very difficult time because there was an unusual mass of bergy bits and we couldn't get in Meek Channel from Penola Strait, because it was blocked and from Drum Rock going down towards Channel Rock we also couldn't get in and so we were at anchor for a (...). We did I think have another means of getting in but it would have been much more cumbersome. Eventually we managed to get the ship into the normal refueling berth in the channel, having gone out and actually measured the distance between two bergs to make sure the *Biscoe* could actually fit between them to get down, this was on the passage down to Channel Rock, to moor alongside and we moored alongside. But when we came to leave and the refuel had been completed, we'd already had quite a bad time because we'd had some very strong winds and the refueling continually had to be broken off for ice flowing up and down the channel. We'd finished the fueling but there was a strong wind blowing and again the East end of Penola Strait that had opened up had blocked again and then about two o'clock in the morning, we'd been up on the bridge because conditions were bad, this berg moved away. The base had agreed to keep a watch and come out quickly if needed and I said 'I want to go now' and they quickly came out, cast off the stern lines and they'd no sooner cast off the stern lines and we were moving down the channel and the berg that had been hovering around the entrance came into the entrance of Meek Channel again. As you know there was no way of turning the ship round when you're in that channel. So we went down and sort of lent on this berg and eventually squeezed out between it and Grotto Island going ever so slowly because literally I could see the rock and the bilge were just there and I was just waiting to feel if the bilge of the ship was going to contact with the rocks, but we just squeezed out bumping the bit of ice on one side. Of course Colin Bertram, Steve Stephenson and Todd were all up on the bridge witnessing all this, thinking 'This is what the Antarctic is all about, it throws up it's odd challenges'. It was a marvellous occasion and subsequent to that voyage I remember Colin invited me to his house for lunch one day which was very nice. But it was just so marvellous having them on board listening to their stories. One of the things I remember was that Colin Bertram was one of the inventors of the string vest apart from anything else. During the second world war he ended up to research clothing for cold temperatures or something like that, he was associated with string vests, it was one of his stories I can't remember it fully.

[Part 2 1:15:29] Tolson: As you say the Antarctic is all about ice and bergs and nasty experiences and good experiences. You had one probably rather unpleasant, very worrying experience, when you did get beset in the *Biscoe* on one of your voyages as Master and you were in danger of drifting onto a reef.

Elliot: As was normal at that time of year we'd started the season by going to Damoy and people were flown. We were working summer only, a lot of scientists were working summer only so they had to be got into the field quite early and the only way to get them in generally, was to fly them from Damoy. The ship would get them as far as Damoy and not being able to get any further because of ice, the aircraft would take them South. On this occasion I think there were problems with the aircraft and it looked as if we could get through with the ship. We got everyone onboard who were due to flown down, the ship was full, and we went into the ice and what appeared to be quite a narrow band of ice and shouldn't have been too difficult. Unfortunately we became beset when a Northerly wind got up. The ship was then drifting down onto a grounded berg which obviously can be a pretty dangerous situation. *Polar Duke* a ship was servicing a Canadian (...), an ice strengthened ship, about the size of *Biscoe* but had the power that *Bransfield's* got, was in the vicinity and so I spoke to them about my concern of going down the berg and could they just keep in touch with us. They were somewhere in the Gerlache Strait and they said 'We'll come down towards you' so I said 'Thank you very much but at least I want to know you'll keep in touch'. They came down towards us, I can't remember, some twelve hours later the ice conditions eased and I said 'Look don't worry we're coming out, we're now working the ice, the main concern is over' and they said 'Well we'll continue coming down towards you' and when they got down towards us and saw what the situation was, the weather by that time had improved, they said 'We'll come down to Rothera as well, we'll lead the way and you just follow us in'.

[Part 2 1:18:36] Elliot (Contd.): So this seemed like too good an opportunity to miss. We set off following the *Polar Duke* and all went well and a bloody northerly wind got up again and I called *Polar Duke* and said 'Look ice conditions are actually deteriorating, I think we ought to call a halt to this', or words to that effect, 'I'm a bit concerned'. *Polar Duke* came back saying 'Absolutely no trouble, don't worry about it, if anything happens we can circle round, get you out, no problem at all'. We went on a bit further and *Biscoe* got stuck in the wake of *Polar Duke* because she was creating (...). So they said 'Well it's alright we'll come round' and then they suddenly realised they couldn't turn either. Conditions then were worse, we had a full gale and both ships were well beset, basically where I had been when I first asked *Polar Duke* to be on standby. A night fast, the following day I think the conditions eased slightly, *Polar Duke* got herself turned round came in round behind and started breaking up the ice beside of the *Biscoe*. We got lines from her stern onto the bow of *Biscoe* to try and get *Biscoe* round, pointing out, so we could both get out but the gale heightened again and we both became beset again and then we both got swept down on the berg. The *Biscoe* was actually closer to the berg than the *Polar Duke*. As we were going down the berg, having had an experience, we got swept round a berg in the *Bransfield*, I said 'Please what we must do as we go round the berg as we go round the berg let's try and get in behind it' because the berg was grounded there would be a little pool of water behind it. However as we came down on the berg the Captain wasn't on watch but the Officer of the Watch, she was right by the *Biscoe*, suddenly steamed away which was a shame.

They steamed away because obviously they were concerned about the proximity of the berg, well we were closer still, but I wanted them to stay with us, I wanted to get in behind the berg. He thought the best thing was to get well away from the berg.

[Part 2 1:21:33] Elliot (Contd.): We got swept round the berg and there was indeed a bit of open water behind the berg but I couldn't get the *Biscoe* into it, with all the power we had she wouldn't get through. But the ice was broken up, we were being swirled round the side of the berg but I couldn't (...), it was so frustrating it was one, two ships length but we could just not move the *Biscoe* with her power. *Polar Duke* in thicker ice had actually moved away, I think she could have got us into there. He said 'If I came alongside you we'd damage the bulwarks' and I was thinking 'Sod the bulwarks'. If we'd get away with just a broken bulwarks(...). They had got away from us then, I couldn't get behind the berg, I knew that beyond the berg the next stop was the Amiot Reef. Whilst we were in this broken ice I said 'Let's see if we can get the anchors down'. We were dropping an anchor and it was disappearing from view into the ice but not going through, gave you some idea of the depth of broken ice. The anchor was actually going and we were losing sight of the top of the anchor but it still wouldn't go. Robin who was on the fo'c's'le was continually picking up the anchor and dropping it again. On about the third attempt I said 'Let about three cables of shackle just run with it, just keep running the cable out' and he did that and then suddenly it went, well I knew it went, everyone on the ship knew it went, because the anchor then dropped with all this spare cable there and of course they'd put the brake on by then. There was an almighty bang, luckily the windlass stayed on the fo'c's'le head but it was down and it was through. So we just kept it there at about three shackles so it was off the bottom but as we got on down towards the Amiot's we payed out all the chain, we had 12 shackles, the whole lot went down and it gripped the bottom because we were going sideways and it turned her in the ice. *Polar Duke* was still about half a mile [away] she was in much thicker ice we were still in a bit of a stream of the berg but we couldn't move but she was in thicker stuff. Eventually she worked her way back to us but when she got near us she was having difficulty working the ice and we were by this time, I can't remember exactly, you could see the reef and you could see the ice going onto the reef. I think were about, if the drift continued, we were going aground in about four hours time. At that situation I spoke to the *Polar Duke* and I said 'It's bloody silly to have two ships on it, I want you to take all my guys off and get the hell out of here' and he agreed with that. We were going to keep a nucleus, I was going to stay on board with a reduced crew. In the meantime I was in communication with Dick Laws and he said 'Well what are you going to do if you stay onboard' and I said 'There is nothing we can do but if conditions ease we can motor out' and he said 'What if conditions don't ease how do you (...)?'". I said 'Well (...)' he said 'I prefer you didn't stay onboard'.

[Part 2 1:26:09] Elliot (Contd.): So we all went, the ship was totally abandoned. It took quite some time to get everyone on the *Polar Duke*. *Polar Duke* then fired up and she could just work the ice and she got out. In the meantime *Polarstern* was in the vicinity, she came down so we decided we would rendezvous with the *Polarstern* and a limited crew would go onto the *Polarstern* to go back in to see whether the *Biscoe* still existed. *Polar Duke* with all these people onboard was going to go to Palmer Station and people were going to be put on Palmer Station temporarily. We got on *Polar Duke* [*Polarstern*] and we went back to *Biscoe*. I remember the following morning being out on the bridge first thing and thinking 'Are we going to find this ship on the reef' in which case she'd be finished and be gone and she was still swinging to her anchor.

Well she wasn't swinging she was still in ice but the ice pressure had gone but the anchor had kept her there. We jumped back on board, fired her up, and the ice was still fairly heavy, but not so heavy, we followed the *Polarstern* out of the ice. From the time we first went into the ice to the time we took the *Biscoe* out behind the *Polarstern* was 5, 6 days. I don't want to repeat it, it was a very stressful 5 or 6 days.

[Part 2 1:28:01] Tolson: I was just going to ask you as Master in a situation like that you've got a job to do, but also you've got an emotion, how do you deal with that?

Elliot: It's difficult, you couldn't sleep, you feel very responsible and also knowing that I got myself free and I'd said to *Polar Duke* 'Don't worry', I'm not blaming them. Then we went back in, which wasn't a bad decision, the bad decision is when I first said 'Look I don't think this is a good idea' and they said 'No, no it's OK' I should have said 'No'. That was where I think I maybe made the mistake. Having a go the first time wasn't in itself wrong and we got out of that, following the *Polar Duke* wasn't wrong but when I first realised that it was actually getting a bit difficult I should have been more forceful, that was the mistake I made, and we just got ourselves in a complete bugger's muddle which could have led to a loss of life, very nearly led to the loss of ship but luckily (...). That was the sequence of events, I only remember it because I've read it before I came here. The worst of it is, you're drifting down on an iceberg and not being able to do anything; just seeing this possible impending huge danger with all the people on board and then buoyed up thinking 'We'll get in behind the berg we'll be alright' and then not managing that. No it wasn't a good time.

[Part 2 1:30:18] Tolson: But of your, I won't say many, but of your several unpleasant experiences as Master are there other occasions? Can you keep your emotions aside and just totally focus on the job is that you as individual operates?

Elliot: I don't think you can keep your emotions (...). I mean you've got to concentrate on the job haven't you, but all the time you've got your own turmoil that you've got to cope with haven't you. You've got to cope with it. You hope a point doesn't come (...) where you are still thinking logically controlling the situation (...) but it is difficult, very difficult. I must say that incident was made easier by having such a bloody good Chief Officer. He was great because, when we couldn't do anything, the fact he'd just come into the cabin and we could talk, it was nice to have the company and not just to help control [the situation] and that helped tremendously. There was someone you could at least talk to, someone you could relax with a bit and you know you've got their full support. That was a great help at that time and the Director was fantastic, Dick Laws he was really brilliant.

[Part 2 1:32:16] Tolson: There have been some pretty amazing office people haven't there, over the years, the greats of empathy; you think of Eric Salmon and other great characters that helped to carry (...).

Elliot: When I joined, Sir Vivian, Bill Sloman, Eric Salmon and Derek Gipps, I don't know if you knew Derek Gipps, all real characters.

[Part 2 1:32:49] Tolson: I know you've been out BAS now a few years, but is modern BAS

completely different company?

Elliot: What, from when I left?

[Part 2 1:32:59] Tolson: No, from when you were in your junior days.

Elliot: Yes different, obviously, but not in every aspect. BAS's strength was in its basic ethos. That was still there and I always felt that had to be protected. It was sometimes difficult when new people came in in quite senior positions and they probably got a bit fed up with me when I'd been there for bloody ages saying 'If we lose that, then we lose one of the greatest strengths that BAS has'. The fact that everyone wanted to do their best, help each other, over and above anything else. I think that was the most valuable, the greatest strength that BAS has because if everyone is doing their best, by producing scientific papers with support staff doing their best to enable that. It's the output of BAS that presumably protects its funding, to an extent, I mean Governments' have to cut down; if the output is poor then it's less likely to get funded. I think in a way I tried to put that across in a way to all ship's company. Everybody, to an extent, becomes responsible for their own job, like you've seen with Health and Safety everyone is responsible to an extent for their own safety, it's not for the next person, it's not your job to look after them. People are to an extent responsible for their own safety. I used to put across that they're responsible to an extent for their own job, if they do their own job well then they are protecting that job, all right they are protecting themselves against being dismissed in the extreme, but they're also protecting it from the point of view being seen worthwhile and it getting funded. After all we are a funded organisation.

[Part 2 1:35:41] Tolson: Well Chris, we've come to the end of another tape so we'll call a day and thank you very much.

End of Part 2 1:35:47