Interview with Captain Anthony MacPherson Ross, F.R.G.S., M.I.N., Darnley, PEI, 1991

Captain Anthony Ross was retired and living in Darnley, Prince Edward Island when I met him in 1991. I visited Tony and his wife Jo on several occasions and this interview was conducted during two of those visits, 25 March and 28 June 1991. Linda Baerlocher transcribed the audio tapes and Captain Ross reviewed the transcript. His corrections were incorporated into the final version.

Around 1995, the Rosses moved to Saltspring Island, BC. I saw Tony in Bellingham Washington (we toured a US Navy guided missile cruiser together), but we lost touch after that. The interview was published in four parts in **Argonauta***, an affiliate publication of the journal* **Northern Mariner***.*

Cable ships are a fascinating type of vessel and they are commonly seen in Halifax to this day. As I have often said to my students, the origins of the Worldwide Web lie on the ocean floor.

– Jay White

BEGIN PART ONE

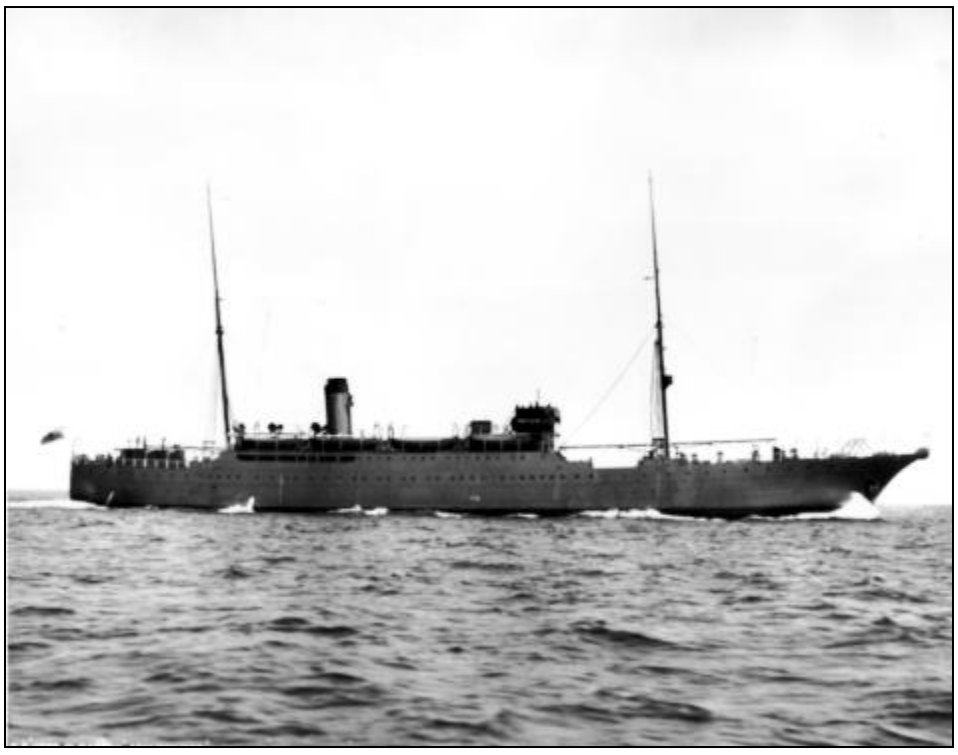

PHOTO: ***John W. Mackay on sea trials, 1922***

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AR: I started my sea career in the mid-thirties with the Ellerman and Bucknall Steam Navigation Company; that's a London company. The type of ship was sort of a genteel tramp which carried cargo anywhere it was being offered--though they did have some regular trades, notably South Africa from England. I served my complete apprenticeship with that company which came to an end just shortly before the war started. It's a four year thing. Some companies call them apprentices, some call them cadets, but, it's the same deal--cheap labour. Because you're supposed to be taught your job over a period of four years, in point of fact you're used as cheap labour. My first yearly wage was 10 shillings a month, which in those days was about $2.00 CND. Of course, I got my keep, but I worked 12 hours a day, seven days a week for that, I didn't get anything like a living wage until the fourth year, when we were paid a pound a week. It's still no great shakes.

JW: Yes, I know the wages weren't much more in the Canadian Merchant Marine.

AR: No they weren't, no I quite agree, but, I don't think they treated their cadets quite like that. In that four years, I was lucky because I just about got all over the world including Canada, and when the war started, like a lot of other kids, I got bright ideas of winning fame and fortune in the Navy. There was what was called an armed merchant cruiser being equipped in Bombay--a ship called the ***Maloja*** and I asked the Ellerman company to release me, so as I could join this ship because I understood they were looking for people. So I joined the ***Maloja*** as a midshipman. It was a strange sort of life on this ship because she was neither a merchant ship nor a warship. I spent less than a year on the ***Maloja*** in which time we caught one German freighter called the ***La Curruna*** in the Denmark Strait, in disgusting weather. Howling gales, snow and heaven knows what; so there wasn't any possibility of boarding the ship. But we trailed her all night until daylight when the wind was going down and we were able to get a boarding party off. It was my turn to board, but just before we actually left the ***Maloja*** in our pulling boat, they were seen to stop and abandon ship. She had pseudo-Japanese markings on the side of the ship and was showing a Japanese flag at the stern, but it was all a bit wasted because there were several fellows with blond hair and I have never seen a blond Japanese in my life; so that's why we decided to board the ship.

She was settling by the time I got aboard with the engineer and a signalman, and in the chart room, the deck was covered with burned paper, so they were burning everything they couldn't sink over the side, and of course we had to find out the name of the ship, at least we had to have some knowledge of what we were dealing with, so I searched the chart room, pulled up the padded seat on the settee and eventually there was an old cargo plan from a previous voyage, which gave the name of the ship and the owner's name. That's really all we wanted to know, but then our Engineer came up on the bridge. "She's sinking pretty fast there's a hell of a lot of water in the engine room--there is no way in the world we can salvage this thing," he said, "I suggest we

get out of here before it's too late." So we made a signal to our ship, we had a signalman with us and we made a signal with a light to the ship and told them the story and they told us to return to the ship. It's hard to believe, but we had barely pulled around the stern to pull back to our own ship and some clown gave the order to open fire on this wreck with our six inch guns, so we were caught in the middle of all this lot.

JW: Didn't they see you?

AR: Oh well, of course they saw us--it was broad daylight, but anyhow we got back on board and eventually the thing sank. We got under way and somebody on the bridge said to me, "This ship's got a crew of about seventy five people." We had them all on board by now, and I said "Oh garbage, couldn't possibly have, little ship about 5,000 [tons] dead weight; what the hell was she doing with a crew that big--shouldn't have any more than about forty-five at the most, maybe only forty." "Well, there's seventy five people on board." So the rest of the RNR's and me, we got talking about this and these people have been confined in a space set aside for them below decks and they were allowed on deck for exercise once a day. It was noted that a group of about fifteen or twenty of them were quite separate from all the others. They were well set up people who kept themselves well shaved and kept their clothes in good condition and all the rest of it, and they had a distinctly military bearing, no question about it.

So it was only a few months after the ***Graf Spee*** had been scuttled outside of Montevideo and we learned from the ship's master that he had come from that general area, and was trying to get back to Germany by going through the Denmark Strait and around the north part of Iceland. So everybody got very suspicious then; it was pretty obvious that we had some military people there. I was amazed to learn that our captain had asked to be relieved from patrol because he was a little nervous about these people being aboard. We had a ship's company of six hundred officers and men. I don't know why he thought there would be any trouble. Anyway, we were relieved, and we went back to Glasgow, [via] the tail of the bank.

Some people from naval intelligence came aboard and some army intelligence people too and they said, “Oh yes, all these fellows are ***Graf Spee*** people, survivors from the ***Graf Spee***." So they spent the rest of the war I believe in Canada, I think they were sent over here. Well I thought it was a bit strange that it hadn't been more thoroughly investigated on the ship. Anyhow as these people were going ashore into the drifter--an ex-fishing craft that was assigned to take them away, with an armed guard and all the rest of it. The German galley boy from the ships normal crew was just a kid. He was only about fifteen years old. He was crying piteously. He spoke a little English so the officer on watch asked him "What are you crying about? You're going to a nice safe prison camp--you won't be in any trouble." "Oh," he said, "I thought that you British people shot all prisoners." So I don't know who'd been filling him with bull---t but...

JW: Our soldiers thought the same about the Germans.

AR: I suppose, but he was only a Merchant Marine galley boy, he wasn't a military man at all. He was much relieved to be told he was just going to a prison camp and that's all. Then we got involved very peripherally in the second battle of Narvik, but we were a bit of a pain in the neck, we were far too big, and far too slow, so they told us to get the hell out of there and go back to Glasgow and they fought it out without us.

JW: What would have been the primary duties for an AMC [Armed Merchant Cruiser] in that area?

AR: Oh, just patrol for any ship trying to get through because there were many German ships in foreign ports during the first part of the war, where there was a certain amount of Nazi sympathy, particularly in places like Peru and so on. Some parts of the Far East [too], Japan in particular. People who were in ships like that tried their best to get back to Germany, and a great number of them did so by going North-about--way out into the bad weather and everything else. It was very difficult to stop them. We were also looking for German surface raiders like the ***Graf Spee***--trying to keep them from breaking through to the North Atlantic and attacking convoys.

After a year of this, I asked to transfer to the proper Royal Navy Reserve. I was told that this couldn't be done because merchant seamen were required to remain as merchant seaman even though I was acting as Royal Naval Reserve officer, so I said OK, if I can't transfer to the Royal Naval Reserve, what the hell am I doing here? Help me get back to a merchant ship where I know what I'm doing. So I was released and allowed to go back to merchant ships. From then on, I joined the Merchant Navy Reserve pool of officers. I found myself first of all in a remarkable old ship called the ***Keila***, she'd been built for Baltic trade. She was the last deep sea ship to be built in the British port of Whitby, where Captain Cook hails from. She was weird. The officers 'John' was up three steps like a throne, because of the shape of the ship and where this place was.

JW: You must have called it the 'Head' now, didn't you? Or did you call it the 'John'?

AR: You can call it anything you like on a merchant ship. She was a coal-burning steamship and she had a tail rod that came out of the low pressure cylinder, each stroke of the engine. It was about 20 feet long and eight or nine inches in diameter, and with each stroke of the engine came up through a hole in the skylight.. So there was no way that you could black that ship out properly. The hole had to be available for this tailrod to go up and down, it was part of the design of the engine. Instead of a siren, she had a whistle, like a railroad train. I had never been in a ship quite like her! If you blew the whistle in convoy, everybody picked up their binoculars on other ships, looking to see what the hell this weird thing was. I joined the ship in a place called Albert Harbour in Greenoch.

JW: They pressed every available ship into service, didn't they?

AR: Oh yes, well there was nothing wrong with her, she was just old, but built like a tank. You couldn't hurt that ship, short of having an atomic bomb. This skipper was a very fine old man. He had just been appointed too, and he didn't know anything about the ship. In fact, he and I joined the ship the same day. Two days later we were supposed to sail, join a convoy of ships going across the Atlantic. We were just getting ready to go have breakfast--the whole crew were from Glasgow, except me and a couple of others...

JW: Where is your family from? What part of England?

AR: Where do I come from? Well I was born in the Shetland Islands and I've lived in a great many places. Hence, I have very little Scots accent. I've got almost no Scots accent now. In fact, I sound more like an Australian. Anyway, we were all having breakfast, and the Chief Steward came in and he said "Captain," he said, "The Donkeyman (that's the senior P.O. in the Engine room) wants to see you." The Captain said "What, now?" "Yes," he said "He's got a complaint to make." So the old man, who was a very fine old fellow said "Yes, sure, OK, tell him to come in." Never dreaming, what was going to happen. This fellow had a great big metal tray about two inches deep which was filled with the crew's breakfast, or that part of the crew anyway. He marched up to the captain, where he was sitting at his table and he said "Captain," he said, "Do you think this is food for a man?" He had a broad Glasgow accent. So the old man picked up his fork and dug it into this horrible mess, it wasn't so much the food, it was the way it was put together. So he had this mouthful, and he said "Well it doesn't taste too bad to me, it's kind of messy looking, but as far as I can see it's all right." This fellow said "Well you can have the bloody lot." He emptied it over the old man's head! The pandemonium in that officers mess was something to see. We were all trying to mop the old man up and he strangely enough thought it was quite funny. I didn't , I thought it was disgraceful.

Anyway, off we went and we joined a convoy. We were going round the north of Ireland in this convoy and a couple of Focke-Wulf bombers showed up and just skirted round the convoy. They didn't seem to be interested in trying to attack us. They were there for some hours flying round and round the outside of the convoy. The escort I thought was wasting a lot of ammunition, popping off at this thing, two of them. Finally, a third one joined them. He meant business. He bombed a couple of other ships first and then caught us with a whole stick of fairly light bombs, they couldn't have been any more than about 100 or 150 pounds if that. That just about wrecked the upper deck. What a bloody mess! It jammed the steering gear. The engineers couldn't shut off the main engine because there was something jammed down there as well. So she was steaming around in a tight circle with the helm hard over. It was a hopeless situation and we couldn't do anything about it, besides which she had a split down one side under the bridge.

The old man was very badly injured in this bombing attack. So he gave the order to abandon ship. He died before we could actually get away. The convoy of course went on without us. One escort vessel dropped back to see what was going to happen. The ship, meantime, was slowing down. We had left her and she was slowing right down because there was no coal being fed to the boilers. In due time she stopped, but she didn't sink. The bomber had cleared off, he thought he had finished us. The old man had died and the chief officer had taken over. After a half hour or so, a Corvette showed up and said "Can't stay with you and we can't take you with us," but they gave us some food and odds and ends of medical stuff. A few people had minor nicks and whatever. He cleared off. A couple of hours after that the mate and the chief engineer were talking and I was sitting there listening. The conversation was going round about: “Let's try and get back aboard and see if we can do anything with her, she hasn't sunk, so can't be making much water."

So it was agreed after some grumbling from the crew, the Glasgow crew, [that] we would go alongside in the boats. The boat falls were dangling and just moving about with the ship rolling, and the Mate said to me "Third Mate," he said, "Get aboard and see if you can have a bit of a look round and take one of the engineers with you." "See if you think we can get this crate underway." So I climbed up one of these boat falls and it's hard to describe. Here is an empty ship, nobody aboard, and anything that is loose is rattling. Weird feeling going aboard a ship like that. I'm standing looking round the deck at this an awful mess all over the place. Something touched the back of my leg. I nearly took off! I nearly went into orbit! It was the little ship's cat. She had run for her life when the bombing started and found a nice quiet corner. She'd been by herself for several hours. Here's a friend. Every hair on my head was standing straight up on end! By this time the engineer was on board. I said, "You'd better have a look in the engine room to see what you think, if you think we can get her under way."

JW: Were there a lot of fires? Anything burning at that point?

AR: No, no everything had died right down. Oh you mean fires from the bombing? No, strangely enough there wasn't very much of that. As I say the bombs were fairly light , they just made a lot of mess, broken things and jammed steering gear and all the rest of it. That was the first big problem, getting that going. The Engineer came up after a half hour, and said he thought we could get under way, but he said we would have to fire up these boilers. He said you can't do anything until we have, other than clear up the mess. So to cut a long story short that's what we did, we got her under way. We had to disconnect the steering gear from the quadrant--disconnect it altogether. We put a big shackle over the rudder blade with two smaller shackles into the lug, wires back over the fair leads on the quarter--she had a counter stern--to the docking winch. We used that to steer with. We got her back to Glasgow like that.

I thought after I was paid off, that would be the last that I would ever see of this old wreck.

No way! They fixed her up and two years later I saw her in Quebec. I couldn't believe it! Oh no, more than two years, more like four years later. After that I joined a tanker, a navy tanker, and made two voyages to the Caribbean in that one. She was torpedoed after about her third voyage. We were landed in Halifax as survivors, those of us that didn't go down with her. That's when I joined the ***John W. Mackay***.

JW: Did we get the name of the third ship that you served on? After the ***Keila***, the tanker?

AR: The tanker? That was the ***Inverarder***. She was owned by the Anglo American Oil Company, but she was being used as a Royal Fleet auxiliary.

JW: Carrying oil? Carrying Bunker C from South America?

AR: No, it was the Caribbean, Trinidad, about March 1942. It's a very light crude you get from there. A very light Bunker C, but it's quite volatile, that's why--when she was torpedoed in the light condition--she really went off like a bomb. If I hadn't been on watch, I don't know whether I would have got out of there.

JW: So you lost a number of people?

AR: We lost about half our people, as far as I remember. It's awhile back now... We were picked up by a rescue ship, which was one of the first convoys that had a rescue ship. A little passenger ship that had been used down the west coast of Scotland. A nice little ship, but all her crew were coastwise people, they had never made a foreign-going voyage before. The Master...by this time she had a lot of survivors on board...he asked for volunteers to assist watchkeeping in the bridge. I went up there with a couple of others. We spread ourselves around between the three watches. It was hilariously funny, because all these fellows were from the west of Scotland (with that very delightful soft accent, not a hard accent like Glasgow). They had no more idea than the man in the moon how to keep station.

JW: In a convoy?

AR: Yeah. There was no telephone to the engine room, it was just a voice pipe with a whistle on the end of it, both ends of it. Their idea of station keeping [was] the officer of the watch, if he thought he was coming [on] a bit fast (on the next ahead), would rush to the voice pipe, grab it and blow down it. You'd hear a voice, "Aye, do you not think Wally, we're coming up too fast like?" I couldn't believe it, I was almost in hysterics all the time. Then, if he was adjusting things nicely he'd say "Doon a wee one, Wally, it's almost just right on the nose." I wish I'd had a....

JW: A tape recorder...

AR: If I'd had something like that, I would have recorded it all. Anyway, we were landed in

Halifax on a Sunday, pouring with rain. God, it was terrible! We were landed at Pier 21. The various ladies auxiliaries had been warned that there were a lot of survivors coming ashore. I think there were over three hundred of us. So many that if we all got on one side of the ship, she was liable to list. We were landed, as soon as we got ashore, we were given a little water proof bag which had all the washing gear and shaving gear, toothbrush and stuff that we might need. Those of us who were short of clothes and I was one, were given some, enough to keep us going for a while. Every hotel room that could be obtained, was in use, for all these survivors. We, the radio officer and myself, we were put in somebody's private home, there weren't any more rooms left.

JW: But some of them were put in hotel rooms?

AR: Yeah. Oh, it was fantastic! Those women went absolutely out of their way to try and help. We were given food until we were bursting. Tea, until running out of our ears and that kind of thing.

JW: Which must have been a bit of a hardship for them because of the rationing and everything, some of those things would have been hard to come by.

AR: Of course, there were some injured among them. They were taken straight to the hospital. I had swallowed quite a bit of fuel oil abandoning ship. They cleaned me up as much as they could on the rescue ship, but I was sent to hospital for examination just to see that I didn't have any of this stuff in my lungs and so on.

JW: Did you go to the Infirmary?

AR: I can't remember now. I can't remember now. First of all they sent us to the Sick Mariners Clinic which was down on Pier 21 anyway, or close by there. I think I spent a couple of hours in a hospital after that, but then I went straight to the private home. The radioman came with me.

JW: You don't remember what part of Halifax that home was in? Was it near the Pier 21?

AR: I think it was on Spring Garden Road somewhere. It's a long time ago and I can't remember because I remember we were stuck in a great big double bed, the two of us. It was so soft, we couldn't sleep, either one of us.

JW: Not used to it.

AR: We were required the next morning, Monday morning, to report to the Merchant Seamen Manning Pool in Halifax. The women in the Manning Pool said "We're going to send you back to England as a passenger." I said "Oh yeah?" "And then you can have two weeks survivors leave." I said, "What in the name of God would I do with two weeks survivor's leave, don't you have a ship here, that I can go to?" "Well, yeah, I suppose so, but don't you want any leave?" I said "No, I

don't want any leave." So that's how I joined the ***John W. Mackay***. She said "Well, you're British, aren't you?" She said, "Well, there is a British ship here that's short a couple of officers and you might just do for that."

She gave me a chit to go down and see the Skipper, who was a South African fellow by the name of Walter Croston Dillon. I'll never forget his name as long as I live. I got aboard there and gave him this chit from the Pool. "Do you know anything about cable work?" I said "No, I do not, I've never even seen a cableship before." "Well, you're a fat lot of bloody use," he said. Then he smiled and said "I suppose that I shouldn't say that." I said "I don't care what you say, do you want me to stay here or not, Sir?" In the end, he said "Yes, all right, I'll take you on as fourth mate." "I see you were third mate in the tanker." So he told me what the salary was, which was a good deal more than I had been getting on my previous ship. I was delighted with that. I spent the next four and half, five years in that ship. In spite of Walter Croston Dillon!

END PART ONE

BEGIN PART TWO

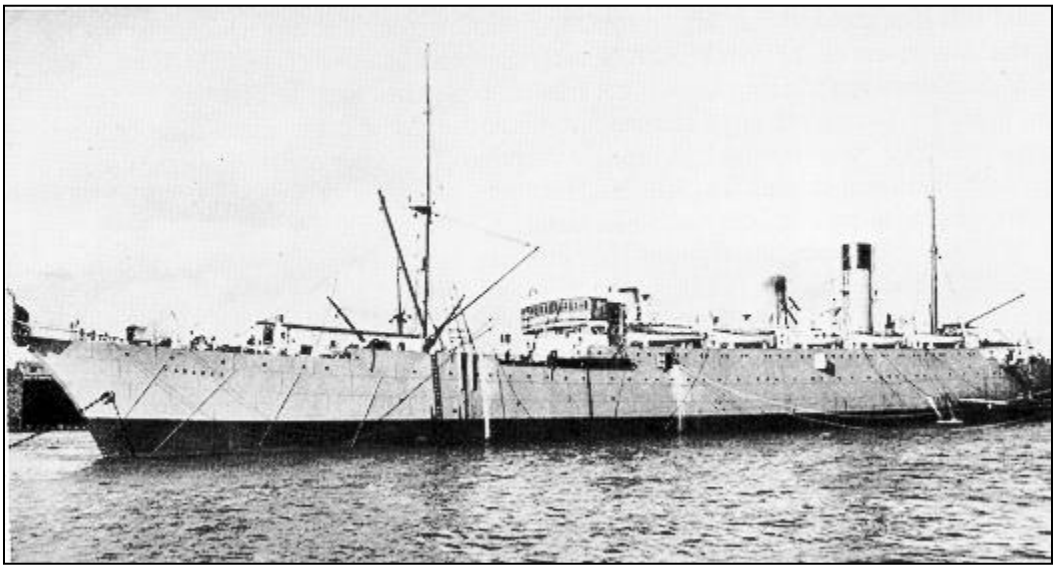

PHOTO: ***FARADAY Built 1923; sunk by German bombing, March 1941.***

JW: Now at this time [1942] would the ***John W. Mackay*** have been working for Western Union or Commercial Cable?

AR: Commercial Cable. She was still Commercial Cable and she was their station ship in Halifax for the east coast.

JW: Now Commercial Cable was a British company and the Western Union was an American company?

AR: Yeah, well actually Commercial Cable is a hybrid or was a hybrid company in those days. The head office was actually in New York, but the three ships, one, that's the ***Marie Louise Mackay***, she was based in Plymouth, the ***All America*** was based in the West Indies and the ***John W. Mackay*** was based in Halifax, principally because you need a somewhat bigger ship there to work the North Atlantic. The ***Lord Kelvin*** did some wonderful work, she really did. She was only half the size of the ***John W. Mackay***, but she did a lot of terrific work. The ***Cyrus Field*** wasn't much bigger than a bloody bathtub, a very small ship. I was in both of them for a brief period.

I joined the ***John W. Mackay*** there [Halifax} and about the time that I joined, the ship was taken over by the British Admiralty. They had decided not to man the ship by a navy crew, because of the specialist nature of the work. As soon as that became known to the people who were already in the ship when I joined--the Chief Officer, a British chap called Denny, the navigator, a Newfoundlander whose name was Butt and the third mate--the three of them quit, which put Dillon in a hell of a spot because that left him as virtually the only man on board in the deck department who knew anything about cable work.

JW: What was it that they didn't like about the new arrangements?

AR: I don't know, they may have heard something about what we were going to do. Denny joined the navy and eventually became a Commander and got a DSC. It wasn't wasted, he did go and do something pretty fancy. Butt joined the Air Force and I think he was in a crash boat, rescue boat, which is totally not apropos for a man of his background. I liked Butt in many ways, but I thought that was a pretty sneaky sort of thing to do, to quit, just because the ship was going away for a while. That's when Hunter was brought over from the ***Marie Louise Mackay*** to take the Chief Officer's job. That was a real improvement because Hunter was a real gentleman. He's still a real gentleman. He's tough, a disciplinarian, but it was never overdone. He was a good man.

JW: So he was brought over from the ***Mary Louise Mackay***, she was a smaller cableship?

AR: Yes, she was very small, she was only about 1400 tons. She's long since gone to the scrappers.

JW: He was brought in because Dillon decided to leave when the officers left or did that happen before the officers decided to leave?

AR: The officers left and Hunter was brought in to take Denny's place. They hired another fellow in Halifax, a navigator. A chap called Critchlow, but he was a Britisher, he came from the

pool too, like me. So then I got married and shortly after that.

JW: In Halifax?

AR: No, I went to Montreal to get married. After getting married, the ship sailed from Halifax with a crew most of them as green as grass. It must have been, Dillon and Hunter must have been worried out of their minds. They knew not one of us knew a damn thing about cable work. We were going to do something a little tricky anyway. We went to recover most of a cable, an enemy cable between Saint Vincent [in the] Cape Verde Islands and Fernando de Noronha. In 1942, it would still have been in pretty good condition.

JW: The cable was laid in 1926?

AR: In 1926, it was enemy cable anyway. We recovered the best part of 500 miles of that.

JW: You pulled the whole thing up?

AR: Yeah, we just fished for it. Once we got the end on board we just kept on going, coiling it in our tanks.

JW: What would happen, they would discover this immediately. Their communications were broken and they would know that something was up. So would they send up a boat out to....

AR: It was done in rather a crafty fashion. I think German intelligence knew anyway that we were going to do something around that area. We learned afterwards that they did concentrate a couple of submarines in that area for a while, but we picked it up starting from there [indicates on map] going in that direction. We did it deliberately, because we rather suspected that might happen. We had a British Corvette with us called ***Fritillary***, it's a plant of some sort.

JW: A Flower class Corvette. The British ones were all named after flowers.

AR: Nobody bothered to tell them what we were doing. They just said go to sea and escort this damn thing, make sure she doesn't get sunk. That's your job, make sure she doesn't get sunk. At the time we were far and away the largest cableship afloat.

JW: So had you been lost, that would have been a serious blow to the allies?

AR: That would have been a serious matter, particularly if the cable would have been lost as well. There was a great shortage of cable at the time and it would have been a very serious matter indeed. We'd been picking up cable for four or five days and we got a signal by lamp from this Corvette. She'd been going round and round us clockwise for all this time. She just said, "I'm going to reverse course and go the other way round--I'm getting dizzy." Then they said "Can you

send a message for us to London on the cable?" Nobody bothered to tell them that the cable wasn't secured to anything at either end. We were just picking it up, this long piece of cable. So we couldn't tell them, we just said "Impossible, equipment not available" or something like that. We couldn't tell them until some later date, when we were at a party a long time after that, then we told them that there wasn't any end to the cable, both ends had been cut. We had a lot of fun with those boys, they were quite a crowd.

We went into West Africa for fuel after that, Freetown. I got malaria, boy, I was sick for weeks and weeks with it. I didn't finally get rid of it, until nearly 10 years later. I got the recurrent variety. From Freetown, we went round the Cape calling at various places. We did a couple of small cable jobs on the way. Then, we were ordered to Addu Atoll, southwest of Colombo [Ceylon], to cut into the Mombasa-Colombo cable in the vicinity of Addu and divert it into Addu Atoll. The reason being that, there was grave danger of the Japanese being able to sweep into India and take over Ceylon. Addu Atoll is a magnificent anchorage, once you get through the reef. They were hoping to use it as a fleet anchorage. They needed communication there.

But they forgot what these damn coral reefs are like. A little drop into the lagoon itself and the other side of the reef is just as bad, like a razor. So get on with it we did, and of course the bloody thing broke in a matter of weeks, and we had to go back there and try again. Of course, each time that happens, it breaks on the razor edge of the reef and it sort of plops down to the bottom on the outside of the reef in a great big heap of knitting. So you got to grapnel clear of that, otherwise you can't get a good end at all. You've got to use a cutting grapnel, a Lucas grapnel which cuts cable and picks up one end only. There were a couple of shearing bolts. What happens is, when there's enough strain comes on the grappling rope, the shearing bolts carry away and you will already have set the knives to cut on one side and the grapnel picks up the bitter end. The more weight the better. You want some weight then, otherwise it's liable to pull right out of the grapnel altogether. So the real art in using a Lucas grapnel, all the grapples and all the equipment used on a cableship, every single thing was invented by people in the business, as and when the need arose in the first place. It was Lucas, he was a cable engineer on some ship, and he designed this thing. It was the most beautiful thing that I ever came across. I've used it dozens of times myself. We had to use the Lucas each time to hook this beastly thing on the outside of the reef.

JW: So, you had to hang around this area for awhile until the cable was working?

AR: We went back there three or four times, to put it back for them, but every time within a week or two, it would be gone again. Of course, that would leave Colombo without communication from Mombasa, which was a damn nuisance! In the long run, they realised that the Japanese were going to be beaten back, so we were asked to re-lay the thing as it was, put it in repair and just join Mombasa up to Colombo again as before, which we did. From Colombo, we did a few odds and ends around there, repairs for various people, back up to Bombay.

To backtrack a little bit to Addu Atoll, for a minute, we got to know the people ashore there pretty well. There was a heavy gun battery ashore there, a whole bunch of marines, British marines. There was a colonel in charge who was a bit of a dugout He was a dear old boy, it was the ideal place for him, off the map and out of the way. Nothing much was going on. This fellow Dillon, we'd been invited to dinner in their mess, the marines officer's mess, Dillon said "How do you like this place, Addu Atoll, Colonel, you've been here a couple of years now. How do you like it?" He was a very far back Englishman with a monocle. He said "Well, Captain, I like it rather well, quite frankly," but, he said, "Every morning, when I get up and walk into the sea for my pee, the bloody Sikh sentry insists on presenting arms, very embarrassing, very embarrassing!" He was a bloody character. I wish I could remember his name.

"Colonel," Dillon said, "I was a quasi-military officer in the First World War." So the old Colonel looked at him over his monocle, "In my day, Captain, the word was pronounced 'kwayz-eye,' and it means sort of." What a put down, but you couldn't squash Dillon. In spite of the fact that I despised the man, I learned a lot from him. He was a damn good cable man. Because I was prepared to learn, I think that I was the only one of the newcomers he would tolerate.

So from there to Colombo and then to Bombay. In Colombo, there had been some Japanese bombings, just before we got there. There was a destroyer, a British destroyer ***Tenedos***, one of the old two pipers, they had one tall funnel and one short one. A funny little ship. She had taken a whole stick of bombs down the fore and aft line. She just sank at her anchorage. There was a big salvage tug secured over the wreck. You could see the bridge and mast, but everything else was well under the water. This big salvage tug was sitting there and I meet the chief officer of the tug at a "do" ashore. I said "What are you fellows doing, trying to raise the ***Tenedos***?" "Oh, no," he said, "Why would we want to do that, we got a nice job for the rest of the war." He said. "We're pumping Colombo harbour through that bloody thing, every couple of days." He was quite unabashed, he was going to sit there for the rest of the war.

[From there, we went] up to Bombay, and they didn't know what to do with us. The war was beginning to turn around a little bit. It was well into 1943, by this time. It seemed likely that Rommel could eventually be stopped, but they were having trouble with him. The British had relieved yet another General and it was before the time Montgomery actually went there. The British troops in the Middle East and North African area were more than a little peed off with the whole business. We were told to do something in connection with that. Which involved the use of all this enemy cable we'd picked up, or most of it. We were asked to go and lay a cable across the Persian Gulf from Bushehr to Bahrain. Bushehr in those days was not much more than two or three huts, there was a cable station there. Bahrain was a rather bigger place. **[**SESSION ENDS**]**

[INTERVIEW RESUMES**]**

JW: How detailed was your knowledge of the bottom, when you were laying these cables in the 40's and 50's?

AR: Not nearly as good as it is today. Really deep soundings in those days had to be made with a wire and a weight. Piano wire and a weight [that] would have some kind of arming near the bottom, capable of picking up stuff that would adhere to it. So you've got very spotty samples along the route.

JW: How would you know that there was some kind of obstruction on the bottom, where you would have to lay out more cable to get around it?

AR: In those days you wouldn't know. Today that's very different. Sounding equipment today is very detailed and very efficient. It still doesn't tell you exactly where the bottom is, but it would give you a darn good idea. Those who can interpret a tape, much like sonar operators in the Navy, when they're listening to a submarine. They've got a pretty good idea even who made the main engines, by the sound of it. The same applies to people who carry out surveys with a little spare cable.

JW: [EXAMINES SPECIMEN OF POWER CABLE] So that would be about 4½ inches?

AR: Yes, now that stuff was very heavy. That was a gas filled cable.

JW: [READING] "...138,000 volt, .35 square inch, single core, gas filled, manufactured for the British Columbia Electric Company Ltd. Vancouver, by British Insulated Callenders. Submarine cables, Trafford Park, England, 1956."

AR: We laid that in the ***Ocean Layer***. That's when I first ran across problems with the press. We had a party, it was late in the 1956. We had a party a couple of days before we were actually going to begin. This was supposed to be off the record and nothing to be printed. It was for the press this party, on the ship. Somebody said to me, “How do you feel about this cable, laying this cable?" It was the first time we had tried to lay a really heavy thing like this. It's so heavy that a ten foot length of it, is virtually a rigid bar. It's horrible stuff to handle for that reason. We did fault one cable, we got caught by a change in the tide. We put a kink in it and we had to cut it out and put a joint in. It was a rigid, tubular steel joint with watertight glands at each end. There was no way in the world that was going to pull.

JW: Was that the standard method of repair when you got a kink?

AR: For this cable, yes. This cable, I don't think that we ever made anymore than that one

series in Vancouver. It goes from Vancouver to Vancouver Island. Each length is about 26 miles. It jumps islands, all the way, small islands in one or two places where the crossing is very short, we had pylons and overhead wires, but very few. Anyway, I said to this press man "Oh, my ulcers are jumping." That's all I said, and he went away to talk to somebody else. The S.O.B. printed that word for word in the *Vancouver Sun* the next day! I could have shot him! So I never talk to the press, if I can possibly avoid it, now.

[SHOWING PIECE OF CABLE] This is also a power cable. No, I beg your pardon that's a telephone cable, but it's an early one. You see the return tapes there, the cord and then the return tapes, that's the copper wire. That's a solid copper conductor. It's the purest copper we could produce. It's made heavy like that because it crosses over Active Pass, which is on the ferry route to Vancouver Island from Vancouver. Also it's the main route for shipping coming into Vancouver. There is always some bloody idiot dropping his anchor, when he gets hold of that he is sorry--believe me, it's hard to get rid of.

JW: Now, would they bury a cable in a location like that now?

AR: We did bury these. We used a queer sledge thing that had powerful jets on both sides, water jets. We just slide this over the cables and they're now way out of sight and have been for years. Both cables have been in circuit for a long time. They still are. There has only been one failure, apart from the one we kinked. There was a seven year guarantee on the whole system. Nine years after it was opened, one of the pot heads cracked ashore, not the cable , the pot head. So we freed the cable of gas and they wired us in Manchester, we were getting ready to lay the Cook Strait cable, which was much bigger than this, nearly twice as big. For advice, and our help, they knew it was out of guarantee and we didn't owe them anything. When we learned what it was, that it was just a pot head. These things weighed about 4 tons, complete with holding down bolts and everything. We had one of these things on a plane complete with three guys to install it in 24 hours. It was in Vancouver, 24 hours after that. It was onsite and the cable was gassed up and working, five days from the time we got their wire. We didn't charge them anything. Two or three times they wrote and said "We would like your invoice, we want to clear our books." The president of our company wrote and said "It was a test case, it worked like a charm, so we will not be charging for it." He didn't even charge labour for the three guys that went out with it. There is a certain amount of old fashioned courtesy left in the cable field. Not much but some. Anyway, where were we?

JW: In 1943, we were in Bahrain.

AR: There was a bit of a holdup before we could start that. We went to Muscat--that is the entrance to the Persian Gulf. It is the southwest of entrance to the Persian Gulf. It is a strange place. A long narrow inlet with high land on both sides. At the entrance, a very rocky entrance, on each side there is an old Portuguese fort. These forts must be several hundred years old. One of

them is the Sultan's palace. The one on the north side of the entrance is the Sultan's palace. The other one is the local jug.

The Sultan of Muscat and Oman at that time was a very well educated man, he spoke Oxford English, he had a couple of British degrees, he was fabulously wealthy. But his mind, his thinking, in many respects hundreds of years back. It was most peculiar! His wife, one of his wives was sick and we had a doctor, so he asked whether the ship's doctor could attend this lady. When he actually got into the bedroom where this woman was, she was flanked by a couple of guys armed with rifles. He never saw the woman's face. He examined her and found out what was wrong with her and treated her under the eyes of these guys with rifles. She recovered, fortunately for the doctor and for us, as we learned later on. As a result of that, the doctor was given some kind of quite valuable present. I can't remember what it was now. He was a drunken old bugger, too!

We were invited for dinner in the royal palace. We all sat down--all men, no women--around a brass tray, which must have been at least the diameter of the longer axis of this table [INDICATES DINING ROOM TABLE] and yea deep with a sort of foul curry mixture. I like curry, don't mistake me, but this looked absolutely awful. Mostly because it was all higgity piggity lumped in together. I didn't know at that time, but a sheep's eye is a delicacy for these people. It is a great honour to be given a sheep's eye to eat. Dillon was sitting next to the Sultan. After the Sultan rummaged around in this foul mess with his hand for several minutes, he found a sheep's eye and popped [it] in Dillon's mouth! I wish that I had a camera! He swallowed it manfully without chewing it.

Then a couple of days later, we were invited ashore again, up to the town this time which was up in the head of the inlet. There was a little jetty where there were half a dozen dhows loading or discharging. We were allowed to use it to put our boats alongside. Three or four Rolls Royces appeared and all the ship's officers were there and we were conducted around the other side of the inlet where the jail was, the other Portuguese fort. People were actually shackled to the wall by their legs and by their hands. He thought as an Arab, but he hadn't been educated that way.

JW: Well, I guess in some respects, they still think along traditional lines.

AR: Oh, very much so. One of his wives had been caught looking at somebody else. That's a no, no. She was lucky in a way, normally she would have been taken out and stoned to death. They still do it. Instead of that a little mud hut was built in the middle of the town hall square. It doesn't have a door, at least it didn't then, it had a window that couldn't be much bigger than that, with bars on it. She'd been in there for about six years. No sanitation whatever. Her food was passed through the bars once a day and a thing of water. It almost impossible to believe this, but it's true

and yet talking with us he was a cultured gentlemen. We were glad to get out of there.

We went to Bushehr to start the work. There was a little cable station there with three or four European staff. I remember a couple of them had their wives with them. So we invited them, we weren't going to do any work until the next day anyway, we didn't get there until almost sundown. So we invited all these people aboard, as many as could get away for a meal. We knew it was a pretty lonely place. The local Sultan had provided an armed guard for this cable station. This man was armed and on duty all night. I think just about everybody came on board for dinner. It was blowing hard and pretty fresh, there wasn't any way we could use a boat to land them. So they stayed aboard during the night. We gave them all empty cabins to sleep in. The next morning the wind went down, we landed them and they found the armed guard minus his head and his rifle outside the place. It had been just about wrecked inside by some kind of wild bunch that got in there. You're back in several centuries ago.

JW: Where was this? Bushehr in the Persian Gulf? Is it one of these little states or is it a city?

AR: Yeah, I think that it is on the east side of the Gulf. In my time it was pronounced 'Bush-ire'. In the time I'm speaking of, it was no more than a village. It's on the east side of the Persian Gulf. Bahrain is on the west side. It has been very much in the news recently. We used up almost all that enemy cable on that job. Some other cable to make shore end with. So we were getting close to being empty again. We only had bits and pieces aboard.

JW: Was the primary objective here to just acquire to cable that was scarce? Or was it to interrupt their communications?

AR: To acquire cable that was scarce. The cableship ***Faraday*** which had been prior to our getting involved, she had been the biggest cableship afloat for many years.

JW: That sounds like an American ship.

AR: No, she wasn't she was British. She was owned by Siemens Brothers of Woolwich. She was very similar to the ***John W. Mackay*** in some ways, but much bigger. She had practically all the available D type cable on board, when she was sunk. She got a bomb down the funnel and blew the whole ship apart. When she was at sea bound from somewhere to somewhere else. That's why the ***John W.*** was taken over, to replace the ***Faraday***. She was sunk early in the war by bombing. I think off the west coast of England. She went to the bottom carrying with her just about all the available D type cable, available to the British government at the time. [Cableship ***Faraday*** sunk 25 March 1941, off Saint Anne's Head, 10 miles west of Milford Haven, Wales].

JW: What was the D type cable? That was the highest quality?

AR: D type was the deep water size for a telegraph cable, not telephone. The ***John W. Mackay*** was chartered in early 1942, in the spring of 1942, from Halifax to pick up the work that the ***Faraday*** was supposed to do, recovering German cable and using it somewhere else. ***Faraday*** was off the scene, before I ever got involved in cableships, some months before.

Most cableships have a senior petty officer who was known as the cable foreman or something of that nature. He is usually a rather experienced man who had been practically all his life in the cable industry. We had such a man in the ***John W. Mackay***. He didn't know anything about navigation, but he did know all about the physical business of grappling for and repairing– and whatever– laying cable.

He had been a leading seaman in the ***Mackay-Bennett*** when the [Halifax Harbour] explosion took place [in 1917]. He was up on deck doing something and he heard this appalling bang and the next thing he knew he was flying through the air over the side. Even in the years that I knew him he was very tough, very powerfully built Welshman, a very tall man. Even so he was very shaken up and knocked about. He had to swim for some piling and try to climb out of the harbour. He made it alright. He said the ship was superficially damaged all over the place and she had broken her moorings and all that, and was more than half adrift.

Incidentally, one little story about him. They say he was very very strong, but a kindly man, like a lot of very big powerful people. A very kind person. Just before we sailed from Halifax to do all this work, we got a whole bunch of crew replacements from England. Some of them were right little dock rats; one of them was a Welshman, and the cable foreman was always addressed as 'Mr.' like a warrant officer. He said "Mr. Hughes, do you still speak Welsh? You were born in Wales, weren't you?" He said, "Yes, a little bit, but I've more or less forgotten it now." So he called him a bastard in Welsh and Vic said "You have about one second to get to the top of that G.D. mast because I'll be right behind you!" Picture this kid scrambling up the mast with big Hughes right behind him with a belaying pin. He didn't hit him, but nobody every tried anything like that again!

Now, we were in Bushehr and Bahrain, after that we went the Suez Canal, we did a job immediately outside of the eastern Mediterranean, I can't remember where it was, a repair job of some sort. Then we went to Cyprus and we did quite a bit of work around Cyprus, small odds and ends. It was just as wild a place then as it is now.

JW: The British were there in force?

AR: Yes, oh very much so, they were keeping the place more or less quiet. But the Turks and Greeks, they just cannot seem to avoid annoying each other. So that was a little wild, we were glad to get away from there. Through the Mediterranean...

JW: What type of work would you be doing in that area?

AR: Local telegraph cable repairs. Of course we couldn't do a hell of a lot, because we didn't have much cable. Went to Gibraltar in convoy--by that time most of the air attacks on the Mediterranean convoys were petering out. The western allies were beginning to roll up Rommel back east along the North African shores. Then we returned to Halifax. I got a week's leave, after being away almost two years.

JW: That doesn't sound like very much leave.

AR: It wasn't, well of course the ship was going out again almost at once. From there to Sydney, Cape Breton to join a convoy for Europe. This convoy was only going as far as Horta in the Azores. We were a Commodore ship because the rest of the convoy consisted of dredgers and hoppers and all sorts of things. They had never been outside a harbour in their lives. The escort consisted of four Algerine mine sweepers which were straight out of a shipyard, brand new British crews and they had never been given any chance to work up or anything like that. Half of the equipment wasn't working properly. Frequently, one would break down and one of the others would have to tow her.

There was one tug that was supposed to do all this towing and whatever. She was an American tug from New York, a coal-burning thing called the ***Nancy Moran***. I'll never forget it! They didn't like being in close company overnight or in fog. They were terrified to be close to a lot of dredgers and hoppers. So they used to ease off and get right back behind the convoy. Daylight would come and you would see a cloud of smoke on the horizon--here comes the ***Nancy Moran*** trying to catch up with the convoy! [laughs]

We had two of these bucket dredgers, you know the kind of thing with a big chain of buckets, up to the top of a great big superstructure. They're flat bottomed, they draw very little water and they are awful in a sea way. We got into some dense fog on the Grand Banks. I was on watch one night and I heard something rattling every once in a while, apparently overhead. I was just trying to find the source of this, and it was one of these damn dredgers; she was so close to us, to make sure that they didn't lose us, that the top hamper was practically on board! I got the loud hailer and I said "Hey, you guys, beat it, you're practically taking the masts out of us!" "Oh, we don't want to lose you." It was like something out of Gilbert and Sullivan. We reached Horta somehow, and there we left them. We were going to do some work in that area. Again, if was a matter of interfering with enemy cable. We were trying to button the Emden-Fayal-German cable into the Western Union system.

JW: Let's get the location of that.

AR: Fayal is the capital town of Horta, in the Azores. The Portuguese government wouldn't let us go into the German cable station. The station was locked and sealed for the war. No way are you going to get in there. We go off to sea out of sight of land. We hook this thing, put a new cable end on and lay it into the Western Union cable. That was the plan. But we got out there and we used the cutting grapnel and it worked. You can always tell when it does because there will be enough depth of water, 2000 fathoms, about six tons weight on it with a bight of cable over it. When the shearing bolts go, you suddenly find yourself with less than half of that , it shows on the dynamometer at once. The easiest way to check it, is to sit on the grappling rope. You can feel it through your back end far better than you can looking at any gauge. The grapnel worked and the strain dropped. Then it starts to pick up again, when you begin to pick up the rope. Two thousand fathoms, I must have picked up about half of that and I just glanced at the dynamometer and I was sitting on the rope anyway. I thought to myself, there is damn little weight here. Something wrong! So Hunter was skipper and I sent for him, and he came up and he says "What's the matter?" I said "Look at the dynamometer, I've only picked up about half of the rope." "Yeah," he said, "There is not much weight there, is there?" and I said, "No, I think that this is the short end." He said "You're dead right that's exactly what it is." He said, "Continue picking it up, but let's get a fix right now, before we drift away from this position."

JW: So you can pick up the long end later.

AR: We were out of sight of land and there was no Loran or anything like that in those days. We had a mark buoy down so we got a fix on the range and bearing with our Barr and Stroud three-meter base range finder--beautiful thing. There wasn't much swell, [and] we were only about three miles from the buoy. It was easy to get a fix on it. I went back to the bow and took over from the captain. Twenty minutes later the end came in, [and] on the end of it was a thing about the size of a soup can, with a resistance in it. By this time the bitter end was connected up to the test room, and we were getting a test almost all the way to Emden! So [the cable] had been hooked and fixed up with this resistance sometime before. It was down in very deep water, with no light to speak of down there, the bottom was a thin sort of mud. It was protected. It wasn't even corroded at all.

So we knew now, what had been going on. We could have been badly fooled by that. If the Portuguese government had allowed us into the cable station and we had cross-connected to the Western Union station we would never have known until later that it wasn't connected through to Emden at all! That it was cut.

JW: There are a couple of technical aspects of this that go over my head. What do you mean by resistance? What was it that they had cut?

AR: It's just a coil of thin wire.

JW: They had put this on purpose into the cable.

AR: They had brazed it onto the end of the cable after cutting it. It's a real sell. We could have gone to Europe.

JW: So the cable itself was not functioning?

AR: It wasn't even connected at all!

JW: And they had done it on purpose?

AR: It must have been the Germans themselves, because we certainly didn't and I can't imagine anybody else doing it.

JW: They did it in such a way....

AR: If they hadn't put the can on it, we would have known there was a short end there, by testing from the shore.

JW: So they put it there to make you think that if you did go into the...

AR: It was done several times during the war in different places.

JW: But, that's the first time that you realized...

AR: The only time we even came across it, but it was done in other places, we do know, since the war. Anyway, once we had buttoned on new cable to that, we just laid it into the Western Union Station, we didn't say anything to the Portuguese at all. For all they knew, we had just been repairing Western Union cable. They didn't know it was connected to the German cable. The next thing was that once the invasion got started, it was vital to have the use of that cable. We sailed from Plymouth, a couple of days after the invasion started, hooked the German cable in the channel and cut it and spliced on a new shore end and laid it into Cherbourg. So the entire Emden-Fayal cable with the exception of the short length up into channel into Emden was all in Allied hands, was used throughout the invasion and after that too. Of course, it's a telegraph cable and now it wouldn't be any use to anybody. Too slow and not enough capacity.

JW: Now at that time during the war, the telegraph cables were the original ones, they were still being used. The telephone would have been...

AR: It was radio, such telephone as there was, was radio. Of course, that's not secure! It couldn't be, no matter how you coded or scrambled it. Scrambling is nothing but a coding device. All you have to do with that is slow it down, it's quite easy to break it. A good

cryptographer can break those quite easily once he got them slowed down enough.

JW: So Roosevelt and Churchill were...they had a telephone hook up didn't they? Couldn't they talk by telephone?

AR: It was radio, very low frequency radio.

JW: Wasn't it scrambled?

AR: No, it was probably low frequency radio. It was bounced off the Heaviside layer in the upper atmosphere that acts as a kind of a plate and you bounce your signal off that usually by a very long wave. It's slow and it's subject to garbling, and everything else. It's not the best thing in the world. It's not secure. That's the one reason, one of the main reasons, why cables are still in use, because they are much more secure. Plus the fact that they are not interfered with by sunspot activity, and other things that interfere with radio. The big thing is security. You can make a cable as secure as you want, either technically or by having it operated by an absolutely reliable person at each end. It's absolute garbage to say you can hook a cable and hook on to that in some way, and listen to what's being said. That's hogwash! There are so many technical reasons, against it being possible that, I doubt that anybody has ever been fool enough to try it.

JW: It's not like tapping into a telephone line? Cutting the cable breaks the signal somehow?

AR: Cutting it yes, that's different. The cable company would know immediately whether it had been cut.

JW: But, you can't tap into....?

AR: I don't think that it's possible.

END PART TWO

BEGIN PART THREE

PHOTO: *Lord Kelvin* and *Cyrus Field* at the Cable Wharf, Halifax, NS, ca 1950s

AR: There is one point that really ought to be made before we go on. I've never really understood the reason for this. The work done by the ***John W. Mackay*** in the latter part of the war, in the latter half of the war has been kept very closely under wraps. I've never understood why. Agreed we were a good part of the time working on enemy cable, but so what? I still don't see the reason for such secrecy, if in fact, it is secrecy, at this late stage after the war. It's well after any normal period of secrecy from a defence point of view. It just doesn't make sense. So if you try to run down any checks on this and you run into a complete roadblock, that's what I'm talking about, why? Why is it such a roadblock. Or seems to be. Of course, as far as the ***John W. Mackay*** is concerned, there are very few people left that: (a) were in the ship during that period or (b) know anything about it anyway.

JW: Anyone else that you can think of? Did we talk about them last time?

AR: No, the only two I know are Captain Hunter who lives in the southwest of England, and

Ronald Latcham, who lives in New York. Both these men are well along in years. I'm 72 and they are considerably older than I am. Whether they would talk about this or not, I don't know. The last time I saw Hunter about three years ago, he was really just yarning, and not discussing what we did or any details of it. So it's a little sad that all that work, sometimes under a little hairy conditions, has become a sort of *non sequitor***.** Nobody seems to be ready to talk about it. I'm not sure why.

JW: Well, it may just have been overlooked.

AR: It's possible, because even in those days, it was a highly technical situation.

JW: They talk about this 'Caterpillar' affair that was used for paying out the cable. Could you go into detail as to what it was?

AR: It was on the after deck. It was for laying cable. It was really in a sense a pair of tank tracks, which could be almost closed together. In each tank track, there was a half moon shaped like this in the middle to allow the track to digest a repeater. It was just slightly over the half size of the repeater, so that you could be laying cable, no problem whatsoever. The Caterpillar track could be opened up to admit the repeater and grip it long enough until it got over the side without any damage. Then it would close again on the cable and you could continue laying cable.

It was quite a dandy because all the track vehicles are troublesome and there are too many moving parts. It's not easy to maintain it. You can't keep something like that running for perhaps six, seven days and nights at a time. It just can't be done without some kind of problem. This was no exception. The basic idea was good. But, like so many other things, how do you carry it out without having trouble? I was never happy with that. I would always prefer to lay cable over the bow, if I could.

JW: So, it wasn't used all that often?

AR: No, it wasn't. It was very troublesome the way it was.

JW: You weren't always laying cable with repeaters then, were you?

AR: Oh no, quite a lot of cable was laid without repeaters.

JW: What was the purpose of the repeaters? Now they're still used aren't they, do they still use repeaters? But, they're small enough now, that they don't...

AR: They're much smaller now. The early ones were quite large, shaped much like a torpedo, a bit smaller. They were...don't forget the early repeaters had radio valves [i.e., 'tubes'] in them, which had to be pretty robust to put up with any kind of knocking. They were also very heat

sensitive. The early efforts at laying rigid repeaters, the repeaters themselves had to be refrigerated, because they had to go down to the bottom in the deep water where it is just about freezing point. You've got this cumbersome business of having twenty miles of cable coiled in the tank, then a bight of cable coming up to the repeater. This is itself [enclosed] in a refrigeration jacket. The other side of the bight goes back down the tank again. It's a pain in the neck. You've got to divest it of its jacket, get it over the side without banging the thing. There's one of these every twenty miles. So you really only get fourteen, fifteen miles of normal laying speed out of each length between repeaters. Now, of course, the repeaters are very much smaller and they are much more robust, because they don't have radio valves in them.

Let's go back just a bit. The first long distance telephone cables, including the San Francisco-Hawaii link, were flexible repeaters, they were quite long, thirty-five, forty feet long. They tapered from a sort of fat section about yea [INDICATES ABOUT ONE METRE]...down finally to the normal cable size. Those were laid round the drum. All you had to do was open the Fleeting knives a little bit to allow the three turns of cable to open up a little bit on the drum, and admit the fat section of the repeater onto the drum face. If you didn't do that it would be riding on top of the three turns of cable. As soon as that's gone you get the Fleeting knives back in again quickly, or you have all three turns moving across the drum. That you do not want!

The one snag about those is that they are unidirectional, which means that if you're going to lay a cable from A to B there had to be two cables, one for each direction. TAT-1 [Clarenville, Newfoundland to Oban, Scotland] was like that, two cables. The San Francisco to Honolulu section was the same...

I saw a pretty bad accident in one cableship. Where it comes out of the top of the tank, above the cone, there is a cylindrical cone in the centre, which is usually big enough that there no bending restrictions come into it. At the top of the tank there is a bell mouth, which has a gate in it, a hinged gate. That is there if you need to pass a repeater through it. You don't want it hanging up any place, so you open the gate. Normally that is closed, that confines the cable and doesn't allow it to whip around. Down the tank over the cable--about 18 inches or two feet above it--is a spider shaped thing made of steel pipe. The ends are all joined together on the outside. The whole thing is raised and lowered electrically with small winches and small wires.

There is a ring that fits over the cone as well. That's called a "crinoline." Like a lady's crinoline. That will stop cable [from] kinking. Especially brand new cable, [it] tends to be a bit springy. The men sit on that. As each turn goes out, they watch to keep their feet out of the way. You've got to be pretty quick; if it sticks--sometimes in hot weather, the jute on the outside will be a little soft and one turn will stick to the next--you've got to be pretty quick to open it up. That's what they are there for.

There's usually six or eight men down the tank, and they have the control for the crinoline on a long cable with a switch box. What happened in this particular incident, one turn picked up another. It kinked as it was coming up. One chap made the mistake of trying to clear it as it was going round the inner part of the crinoline, on its way to the Bellmouth, and he got his wrist caught in it. Of course, he got up to the Bellmouth, and it just tore his arm off there, and he dropped down the tank. Thank God, those things don't happen very often. It was sheer inexperience; if he had realized what a lethal thing he was getting mixed up with, he wouldn't have touched it.

JW: Of course, you would have had a ship's doctor or medical officer on board?

AR: Not always, British ships are only required to carry a doctor, if the crew is over 100, if you have a crew of 99, you don't need a doctor. Everyone is supposed to be looking after himself. No, that's not quite true. Normally, on the ***John W. Mackay***, the navigator was the doctor. If the crew was less than 100. It varies quite a bit sometimes there's a lot more than 100, then you have to have a doctor. All the time we were away, from the end of April 1942 until the end of the war, we had a crew of over 100, so we had this doctor who most of the time was drunk as a hoot owl! But, when he was sober, he was a damn good doctor. He had a DSO, and two MC's, and Mentioned in Despatches from the First World War. He had been an army doctor. It was very funny because, when he was sober, anybody who said even 'damn' in front of him got thoroughly lashed out. He used to say "No need for that rotten language, cut it out, I don't like that!" But when he was drunk, he used to use the foulest language you ever heard in your life.

JW: We've covered the Azores to Emden cable. So we're in the English Channel now, around D-Day. You must have been a little apprehensive about German E-boats and that sort of thing.

AR: We were fairly well escorted. I think that we had a couple of MTB's and occasionally air cover.

JW: Any close calls at that point?

AR: No, really there wasn't a lot going on in the Channel where we were. It was a little bit livelier around Cherbourg. We didn't realise that the beach was mined all over the place. We had to put the end on the beach and coil down enough for the engineers to hook up to their own switchboards. So we didn't realise quite what we were going into. Ours is a strictly marine environment, often away from the general run of things for weeks on end. So we weren't prepared for the Teller mines all over the place in the sand. They had tried to clear an area, and there were little flags stuck in the sand and so on. We were told by the army engineers 'For the love of Pete stay between those flags, don't get outside them, if you can possibly help it'.

JW: Were you armed at all? Was the ship armed?

AR: We had a gun on the back end of the ship, but it was a four inch, a 1911 vintage, that kind of thing. Something that had been kept nice and greased in a storeroom for a couple of decades or more before we got it. I doubt if we could have shot the top off of a milk bottle with it! No, we were generally fairly well escorted because of the value of the ship. After that was all finished with, we did a couple of other repairs around the U.K. Then it was back into the normal run of things--back to base on the East coast, [to] Halifax. Promptly the crew was cut back, as soon as the end of the war came. Denny returned looking for his job, and Butt. Interlopers like me who had been doing the job were virtually redundant. But Western Union was short a man, so I spent a year relieving in Western Union's ***Lord Kelvin*** and ***Cyrus Field***.

Now, they did things rather differently. Technically, grappling for the cable, repairing it and so on was pretty much as we did it. But they were the first cableships in the world to recover and stream the buoy from the side of the ship. They never used a boat. I used to think it was hair raising! There would be a buoy bobbing about in the water, Captain Richard Beadon--he was the master of the ***Lord Kelvin*--**I've seen Dickie Beadon bring the ***Kelvin*** up to the buoy like a taxi. He put the thing alongside, and hook it and it was off the bottom in a matter of minutes! He was an expert, plus the fact that he was a very nice guy. Wild Billy Adamson, the one-man band, he was the master of the ***Cyrus Field***, wouldn't let anybody do anything. He did everything himself, which meant that he was rushing all over the ship all the time, like a mad thing. That's why he was known as 'Wild Billy' Adamson. Again a nice fellow.

JW: Now do you have any idea where these fellows hailed from originally?

AR: They were both English. In fact, Adamson's mother was the first female member of Parliament in England.

JW: Something he mentioned?

AR: No, he was a very reticent chap, he was so determined that everything was going to be as near perfect as possible. I was surprised that he didn't have a heart attack, with all this charging around, because he was pretty corpulent. He wasn't a thin man. Dickie Beadon, on the other hand, was a direct antithesis. I was on watch one day and somewhere off New York, and we were doing a job on one of their cables, and it had been pretty crummy weather and the ship was bucketing around a bit. In the night orders, when I took over at midnight, it said "Call me if the weather becomes fit for work." [It was] normal for any cableship master to have that in his night orders as a standing thing.

About two o'clock in the morning, the weather was getting pretty nice, the sea was going down and the wind was almost non-existent--in the ***John W. Mackay*** we'd have been working a couple of hours before--so I thought the hell with this I'm going to call Dickie. So I phoned, and after a

couple of rings, the phone picked up and he said "Yes?" I said, "The weather is getting not too bad now, Sir, I think maybe we ought to be getting going." "Come down here, there is no traffic about is there?" I said "No." He said, "Well come down here, I want to speak to you."

I went down to his cabin. His cabin had square port holes about double the size of a dinner plate--two of them at the forward end of his night cabin. He was still in his bunk, pyjamas and all. He said, "Look out of one of those port holes and see if you can see the bow sheaves lifting above the horizon." Now the slightest bit of swell will make the bow sheaves lift in small ship like that. So I looked and he says, "Are they lifting above the horizon?" I said, "Yes, Sir." He says, "It's not fit to work, good night." When Tiny Walmsley, the Chief Officer, relieved me at four in the morning, I said to him, "Tiny, look at the weather, we should be working." He says, "I know, but don't ever call Dickie, you are wasting your time; he likes his sleep." I found that to be the case. If she was standing by, she stood by, fit to work or not!

JW: You must have been working under some kind of schedule set by Head Office about how much work you had to do in a particular run. Or were you able to take as long as you wanted? They couldn't tell what the weather conditions were going to be like.

AR: The only people that really know what is going on are the people that are actually on the job. We went to sea from Halifax in the ***John W. Mackay*** shortly after the war to repair Commercial Cable Main One, one of their early cables, which had not been touched throughout the war. There hadn't been a ship there to do it. It was down we knew; it was down in two places fairly well apart, just off the Grand Banks. So we went to the nearest end first and hooked it and repaired it. In the course of doing that we found that it was down again further east. We found seven faults in it, before we had it all repaired. We were 129 days at sea doing that, because of the weather. That was when poor old Dillon got himself injured [because of] these cable bow sheaves. Let me show you; let's have a look at one so you can see the bow sheaves head on. [LOOKS AT PHOTOGRAPHS]

JW: This one's pretty close.

AR: Well this is not really a good example because the old bow sheaves were rounded. This is called a "whisker," on both sides--and that centre piece is also a whisker. But in the old cableships that was rounded, so was this.

JW: OK, I see, so it was sort of upside down in a way.

AR: Right. Now if you are making a final splice, you've got one end in there and one end in the other one, that's the normal way of doing it; and you let the ship fall off that way, we'll say, that's fine because you're not going to get into any trouble. This one will eventually get tight and bring her back. But, if you are laying cable with only one side in use and you're going to pick up a buoy,

which has a cable end under the buoy, and you're going to make a final splice, if you let the ship fall off, so that the cable in that bow sheave is leaning this way, it can jump the centre sheave. This ship [IN PHOTOGRAPH] has only two sheaves, but the ***John [W. Mackay]*** had three. And it's very, very dangerous, because they were only about yea high off the deck in the extreme end of the ship.

Vic Hughes was up on the bow and Dillon let her fall off. I don't think he realized what was going on. It was blowing like the devil and he was very, very tired. We'd been 122 days at sea, I think, by that time. We were getting low on fuel. The ship was high and out of the water and she was catching the wind in every..oh it was awful! It was really bad. I was up on the upper bridge taking a range and bearing of the mark buoy. The ship was rolling 30 or 40 degrees, it was really difficult to do, you have to really know how to use one of those range finders in those conditions.

Vic Hughes told me about it afterwards. He said, "I warned him, I said 'Captain, that's going to jump sheaves anytime now, it's on the wrong bow.'" Dillon got impatient; he said, "I know what I'm doing, Hughes--just mind your own business!" He'd hardly got it out of his mouth, that it did jump sheaves and it caught him across the hip here, with all the ten tons weight on it! It shattered his hip. I tell you, his face-- I'm about 170, 180 feet away from him, up on the upper bridge and his face was the colour of those letters there. It's the first time I've ever seen a man green in the face.

So we helped him to his cabin and Denny was Chief Officer, this was after the war. Denny says, "O.K. you've got to take over as Mate to finish this; somehow we have got to get this done, because we haven't got much fuel left, or food, or water." So we took him up to his bunk, settled him in, but he was never the same man after that.

JW: How old would he have been at that point?

AR: He was within two or three years of retirement, so he would have been 62 or so. But he was very impatient, and he was so good at his job, that normally that wouldn't have happened. He would never have got into that position in the first place.

JW: Just a momentary lapse....

AR: Mind you, it was suggested that we have whiskers put on our bow sheaves after that. We all vetoed it because it makes it much too difficult if you do have to change sheaves, sometimes you have to. But then you put a piece of grappling rope over the side, over the bow, put a stopper on the cable, and take that to a winch and take all the weight off the cable where it is on the bow sheaves and then move it by hand. You don't do it like that.

JW: But the newer ones do have the whiskers; they put them on there for safety...

AR: I know, they built them that way for safety purposes. But I don't think that it's sensible. I would much rather have them...well the ***Ocean Layer*** didn't have them. The ***Ocean Layer*** didn't have them. I wonder if I got a picture of her. [FINDS PHOTO] Yes, she did have them, but they were somewhat modified. They weren't as pronounced as that. That was taken immediately after she came out of the ship yard. We found that this short stack was a nuisance because we were getting a lot of smut all over the upper deck. There are a total of six little coloured lights, three reds and three greens across the front of the bridge. Those are there so that the man at the wheel can tell the officer forward without using a phone or anything like that that the ship is falling off. Each light is 10 degrees. So if she is going off to port, he'll put on one, for the first ten degrees and then the second one. He'll have a bank of switches over his head.

JW: And those lights are on the front of the bridge?

AR: It's crude, but it's good because the man on the bow can see this. He doesn't need to have somebody on the phone all the time.

JW: Now, what did you call the front controls, again?

AR: The bow telegraphs....you've seen the brass telegraphs...?

JW: The bow telegraphs for steering? The type that are up on the bridge?

AR: Yeah, exactly the same thing. But, she had them aft as well, because this ship can lay cable over the stern, too. [SHOWS PHOTOS IN BOOK] This one here, that's Cook Strait Cable, she's lying between two buoys and those are the moorings to the buoys. In Otoronga Bay, in New Zealand. This weird contraption here....

JW: It looks like some kind of a diving bell or something...

AR: It is, it's actually a Bell Mouth, in the forward end of it, you probably can't see it, but it's two separate leaves. They can be opened hydraulically, if you're beginning to get too much weight on one side. These cables, well we're on the technical side, but I think that we should have this in here. The leading end, when you're starting at Otoronga Bay, those are floated ashore like any other cable--air bags or barrels or whatever--with enough buoyancy to keep the thing off the bottom. Until they get it to ashore and they get enough cable to attach it to wherever it's going. But, the finishing end, at Fighting Bay, on the other side of the Strait was a different sort of a kettle of fish. You are dealing with a cable that size, very heavy, you can't just cut that with a pair of scissors.

So what we tried to do, they thought of all sorts of things. They got all the engineers in BICC

[British Insulated Callenders Cable Ltd.], some of them the highest brass you could get hold of, and they sat around a big table for a whole day, and they couldn't come up with any answer to this. Here we are, we've got a ship that's arrived at Fighting Bay, she's got cable underwater going all the way back to Otoronga Bay, how are we going to get the end to shore? I'm among the bunch of high priced help too. So after about half an hour, I want to go to the John. So I cleared off. Coming back I passed the boss's secretary desk. Here she was sewing her stocking or something. She had nothing to do and there was an ordinary reel of thread. I thought to myself, that rings a bell somehow. "Can I borrow it?" She said "Sure." Have you got a pencil handy? I'll show what I'm getting at. [SEE DIAGRAMS, NEXT PAGE]

It was an old fashion reel like so. I thought now, can that be adapted in some way? Supposing we shorten this part of it up, and this distance being the size of a cable. Okay, can you mount that on a float, like so? Have a hook there, [so] that you can have a line to the ship and have another hook that you have a line to a winch on shore. So here you've got the bow of the ship and the cable, going back the way you've been. You offer this contraption up, so that, the cable is in there like that, and it's sitting on its own line back to the ship, line to the shore. And you tell them on the beach, heave away. As that's going on, the farther it goes toward the shore, the more this happens. Until finally, you're in the half way position and you've got enough cable there just to reach the beach. So you go on...

JW: So, you unhook it from the bow....

AR: Hang on, you go on a little farther, maybe twenty or thirty fathoms, to give them enough cable on the beach to do what they want with. Then you cut it on the ship, put a wire and a stopper onto it, and tell them to heave away. And then they've the whole thing on the beach.

JW: Never been done before?

AR: So I returned to the boardroom and explained my idea to Jock Gibson, the Director in charge of our project. Following long discussion, detailed drawings were made, and a unit manufactured to take care of bending restrictions on the cable. This was shipped to New Zealand and used much as my diagrams show. [See illustration]. That's what we used to lay the shore end in Fighting Bay. You know all I got out of that was a bottle of whiskey. Because when you work for a company like that, everything you invent is their property.

JW: Yes, but I think you won the undying admiration of a Scotsman with...

AR: When I left the company, sometime after that, Jock Gibson said to me: "If you did nothing else while you were working for us, your idea of landing the shore end in Fighting Bay was the best thing yet."

JW: Let's move on to the ***Ocean Layer***. Earlier you were telling me about its origin. That's interesting. Let's move on from there.

AR: She was a German ship. German built, partly by slave labour. There was a good deal of chat going on in the shipyard at the Royal Dockyard at Pembroke where my company was converting the ship to a cableship. There was a good deal of talk about the slave labour involved and what they did or didn't do.

JW: [READING] She was called the cargo vessel ***Empire Frome,*** and she was purchased from Ministry of Transport in 1953. That's when it went to Pembroke Dock?

AR: That's right. The Ministry of Transport got her after her wartime operations.

JW: What sort of modifications were made to the vessel in Pembroke Dock to turn her into a cableship? You said last night...You were saying that she was not an ideal vessel for cable purposes. A lot of deficiencies.

AR: One thing puzzled me greatly when I first joined ***Ocean Layer***, apart from the engine and boiler problem. Why did they buy a ship of precisely that size? She was a little too small for adequate laying operation, particularly ocean laying, in places where you might have to be laying two, three thousand miles of cable. She was just too small. And, she was just too big for successful work as a repair ship. Those matters really interested me at the time. I never figured out why they bought the ship in the first place. I think it must really have been in a matter of availability. I can't believe that anybody would buy a ship with so many things against her, if there had been anything else available. She never appealed to me anyway.

I don't believe that those who purchased the ship realized that the main engines would be unsuitable for that kind of work. She was designed for a normal passage where the engine is going the same way all the time. Then they'll run like a clock, virtually forever as long as you have enough steam to run them. A poppet valve engine like that is unsuitable for repeated manoeuvres ahead or astern, which are typical cable operations at sea. Just totally unsuitable. The camshaft system is a double compound engine; [a] camshaft system is such that it wouldn't tolerate the kind of backwards and forwards...

Let's face it, these engines are quite large. If you're going to back 'em and fill 'em all the time, something's got to give, if they're not designed for that, and these engines certainly were not. Besides which, of course, it's just a single screw and if left that way with just one screw, one engine, she wouldn't have been able to do much cable work at all. I'd say from that point of view, it was not a good buy. The engines and boilers should have been gutted. She should have been refitted with new machinery.

Probably, in those days, a good diesel setup or a diesel electrical arrangement, where you would perhaps have four diesel engines driving generators which in turn would be driving two shafts, that would probably be the best thing. It would have meant completely rebuilding the stern. A cheaper way would have been to cut the stern off and put a new one on, designed to carry two shafts. That would probably be the cheaper way. But in the long run, they opted for retaining the existing boilers and double compound engine.

Instead of the normal rudder, they bought an active rudder, a German design, which had a small electric motor in the rudder blade. The rudder stock was hollow to carry the power down to the electric motor. The rudder blade was capable of moving through 180 degrees, 90 degrees on either sides of the fore and aft lines. This provided fairly considerable side thrust on a 500 horsepower engine, as long as you were not doing any more than three or four knots with the main engine. That was another thing that [that] engine wouldn't tolerate very well--prolonged steaming at lower speed. It just didn't like that at all. So, they bought this German thing and fitted it. This provided the maneuverability that wasn't available with a single screw.

There were three controls for it, one on the bridge, one forward of the bow area, and one on the afterdeck. So you could control that particular part of the ship directly**.** You could control that directly under your own hand. The main engines were not controllable from anywhere other than the engine room. Again, that's not the best thing in the world. Most of the old cableships were operated that way. Cableship engineers down through the years have become real experts at handling cable machinery under all conditions at sea. They have every bit as much interest at doing a good job as anybody else in the ship.

JW: You said that on cableships specifically designed for that kind of work--when they have the double screws--that sometimes the engines are aligned in such a way, that the engineer can sit there and control...

AR: Yes, he has to be able to reach both sets of controls with no gap in between the two. Because most cableships are--up to the time I first went to sea--were relatively small, the engines themselves were small. They were very old, they were all reciprocating machines because they are the simplest to maintain. They turned over at 120 to 125 rpms full speed. The engineer could stand between the two, and work the reverse levers, and the throttles. It was very simple to handle the machinery that way. But, the bigger the ship gets, the farther apart these controls have to be, because of the size of the engines themselves. The more difficult it becomes to run a ship that way, run the engine like that, particularly when there is constant maneuvering ahead or astern all the time.

END PART THREE

BEGIN PART FOUR

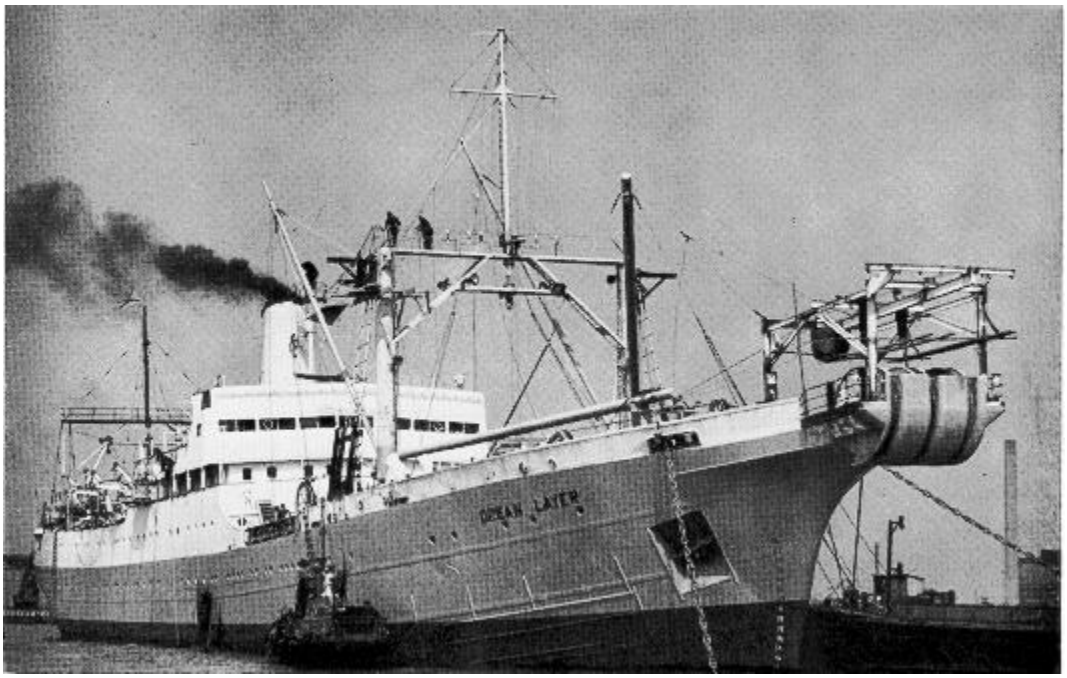

PHOTO: ***OCEAN LAYER Built as cargo vessel Empire Frome in 1948; converted to cable ship in 1954. Destroyed by fire, June 1959.***

JW: So were you Master of the ***Ocean Layer*** when she came out of refit [in 1953]?

AR: No, no, not then, when she left the shipyard. Very quickly I became Chief Officer, about a year and a half after she first went into commission, I got command. I was appointed to command, when the ship was in Port Louis, Mauritius. I can tell you because of all these various problems, I had two, possibly three minds, whether I would take the thing over or not! I spent the whole night thinking about it, walking up and down on the boat deck. In the end, I thought, well I can't make a bigger mess of it than anybody else has, so I may as well have a go. That's how I took over the ship.

JW: Now, it says here that one of the early jobs undertaken was the laying of power cables between British Columbia and Vancouver Island. How did that go? What do you recall about that?

AR: Well, that went quite easily. We did fault one cable and had to repair it. But it is a fairly simple job. The only snag about that power cable was that they are large and heavy. It is impossible to lay slack in them in shallow water. This makes repairing a cable after you lay it,

very difficult to do, because you can't get any slack, to bring both ends inboard, when there is a fault. But, providing the cable has been made properly, and been coiled on the ship properly, there really isn't too much difference between laying power cable and any other sort of cable. It's just that you have to remember you can't lay slack in it, because of its weight and size.

The B.C. cables went very well and as far as I'm aware they are still in service. They were laid originally as AC cables. Now I believe they have been converted to DC. That's partly because the technique of transmitting by DC is now greatly improved from the day when this was done. This was done in 1956. It's a totally different ball game now, even the cables themselves are slightly different. That was a gas-filled cable, the core was hollow about 1/2 inch or maybe a little more. That was gas-filled, because at the time, that was the state of the art method of transmitting AC power. It improved transmitting voltages of the copper conductor. Now, I don't know whether those have been converted to remove that gas of not.

JW: What type of gas would it have been?

AR: That's something I couldn't tell you, offhand. I should know, but I don't. It's a long time ago, 1956. But, the cable was not a straightforward A to B laying job. We had to lay across Georgia Strait to Galiano Island and then across to Parker Island. Where there was a pole. There were power poles on Galiano, too. Then we started under Georgia again from Parker Island. So, really there were two separate laying jobs. It was one of the cables from Parker Island, I think, that we faulted. The ends that go ashore on the mainland were laid through heavy mud. By now, they have long since buried themselves, even though we jetted them in to begin with. They would have buried themselves in the long run, anyway. It's a great big mudflat, mud lands. So, it wasn't something I was particularly concerned with.

JW: What about the California to Hawaii line?

AR: Again, that was a joint effort between ourselves and the British Post Office cableship ***Monarch***. She got there first, and laid her section of it. Again we picked up her cable buoy, made a splice and completed the job. At the time, there was no cableship available capable of carrying the full cable. Even today, I doubt if there is one.

JW: It's that far is it? Is it 2000 miles?

AR: It's a couple of thousand miles. You can rarely go from A to B without making some sort of detour for unknown obstructions of some kind on the bottom. Generally speaking the amount of cable laid is quite a bit more than the distance involved. For one thing there might be as much 7% slack. That's to allow for the current and so on. With the state of the art stuff today, the fibre optic cables and once they overcome all the distance problems, and fibre optics come along in their own right. I think probably the technique of laying cable and repairing it too, will undergo

a lot of change. It's much lighter for one thing. How the manufacturers get on with the strength is something I don't know.

With the old telephone cables laid in 1950's and 60's, the strength member was in the centre. The cable was lying in the centre. The conductor comes after that, with some kind of protection between the two. Then some insulation and then usually thick copper tapes on the outside, laid up diagonally along the cable**.** Then outside that there is a...fairly thick PVC sheathing. So it has a sort of rather obscene creamy colour--some of it's sort of pink, it depends on the PVC**.** The old cables of course, were all black because the strength member was wires on the outside, steel wires and they were covered with jute and tar. It was a totally different ball game altogether.

The cable itself, depending on where the strength member was--inside or outside--behaves quite differently. If you're recovering cable to make a repair and you have to coil down perhaps, five miles at a time, with the old fashioned telegraph cable, you had to watch what you were doing so it would coil on its own. Otherwise, you'll find yourself in the tanks with a whole lot of little bicycle wheels. Those are really dangerous to the laying people. They have to watch their feet and their hands all the time.

JW: Even if you kink....

AR: It can't kink very easily. But, if you pick that cable up, depends on the way it was made. You have to have some idea who made it and how they made it. But, most D type cable, if you pick that up having a slight bias in the lead from your bow sheave, down to the water, a slight bias to your right, you've got to be very careful in the handling of the ship to maintain that slight angle to the right. It will coil easily in the tank. Then, you don't get bicycle wheels. When we recovered all that German cable, we coiled down about, well over 400 miles of it, with no trouble whatsoever. Not one single bicycle wheel! That was simply because those up in the bow knew what they were doing. You have to do it from there--you can't do it from the bridge, you can't see it from the bridge. It's a lot more than just electronics to this sort of thing.

JW: Did the ***Ocean Layer***--after she received the active rudder--did she turn out to be a pretty good operational vessel?

AR: Yes, we had some problems. One particularly stupid one--just carelessness. We had been grappling all day, using the active rudder only, near the Island of Mauritius, in very deep water, something like 3000 fathoms. Towards the early evening, I was up on the bow and three red warning lights showed up on the front of the bridge. These were placed there, connected with the active rudder equipment, to show if there was trouble with the motor in the rudder.

I talked to the man at the wheel and the officer of the watch. We found that the motor was still running at somewhat reduced speed. I'd noticed she was not handling as well. We stopped

everything and let the ship drift back until she was laying on the grappling rope like an anchor, to keep the ship head to wind. Darkness was coming in and we went aft with lights to see if we could see anything. We could see something swirling around in the water, but you couldn't make out what it was. Don't forget the rudder motor housing was 20 odd feet below the water. We got a rope ladder over the side and somebody went to see if he could get a bit closer and see what was going on.

Meantime, I'd spoken to the chief engineer about pumping all his oil forward and everything that he could move from any of the after tanks, including any bulk or whatever, move it all forward to raise the ship's stern. By doing this we changed the trim [by] five or six feet and we were able to get the thing closer to the surface, and we could see what it was. It was a long coir [i.e., coconut fibre] mat, 2 1/2 feet wide, about 40 feet long. Part of it was sticking out one side of the Kort nozzle round the active rudder motor, and the rest round the other side. It was sort of flapping around like seaweed.

JW: What was it, some kind of a...?

AR: It was a coconut fibre mat.

JW: Had it been man-made?

AR: Oh yes. So I got hold of the Chief Steward and I fixed him with a beady eye. I said "You find out from your men who put that over the side, and why." So very quickly he came up with what had happened. One of his men had the bright idea that his mat was a little dirty and he wanted to wash it. So he'd put a light heaving line on about the middle of it, and just lowered it into the water and paid it out. Assuming the ship would be moving ahead all the time, but in fact for some reason, we had merely overrun the grappling rope.

I wasn't in the bow at the time, but somebody had given her a touch of stern on the main engine, and sucked this thing straight into the Kort nozzle**.** It was an awful mess; we got a couple of wire snotters around each side of the trailing ends and led those back through the quarter fairlead**s** in the ship to the after docking winch, and just put some strain on the wire snotters. It broke the matting. It left a foot still jammed in the Kort nozzle. Six inches or so were still sticking out of the side, no way in the world you could put a snotter around that. We had a chat with the chief engineer and I said "What goes, chief, is it going to make things worse if we give her a sharp belt full ahead on the rudder motor?" "Well," he says, "it probably won't make it any worse, but I think you'll find three phases are down, and the motor is probably unserviceable now."

But he said to go ahead--it can't make much more damage to it. So, we gave it a short belt for a couple of seconds, full ahead on the motor in order to snap this thing out. But, when we tested the whole motor out more thoroughly, we found that two out of the three phases were down to

infinity. The third phase was still capable of producing some power, but we couldn't work with it. The nearest dry dock was in Durban, South Africa, a long, long way, a couple of thousand miles away. So we had to go there to change the motor. We carried a spare motor on the ship, [but] we couldn't put it in at sea. We couldn't get our stern up high enough.

JW: So that's what you did?

AR: That's what we had to do. We had to go to Durban and get this damn thing changed. I could have spat blood, I can tell you. But, we went back there and finished the job.

JW: Any discipline administered to the....?

AR: What can you do? We could slap a fine on him. What good would it do? It would just make him resentful, and then he might deliberately throw something over the side. So your best bet is just to tell him what a idiot he is and use a certain amount of salty language and leave it at that!

JW: How big a crew would have been serving on the ***Ocean Layer***? How many of them were involved in the operations of the ship? How many were involved in the cable laying?

AR: The engine room had three watches of five men each, that's fifteen. There were seven engineers, that's twenty-two. A cook, and an assistant cook, that's twenty-four, five or six stewards, that's somewhere around twenty-nine, thirty. The biggest department was the deck department, there were four deck officers, not counting the master. There was a cable foreman, a boatswain, three boatswain's mates, and three watches of twelve men. We must have had close to a hundred at that time and we had one representative. We must have had over a hundred because we had a doctor. The law is with the British ships, if you have a crew of over one hundred, you have to have a doctor. We must have had a hundred and one or a hundred and two.

The biggest department in a cableship was usually on deck because they do all the work, having to do with the cable itself. The deck crew--ordinary seamen, able seamen--their chances of promotion even as far as leading seaman are pretty thin. To get to leading seaman or boatswain's mate, they've got to be really interested in staying for some years, before they have a hope of getting promoted.

JW: On the same vessel...?

AR: Yes, or if the company had more than one ship, they could transfer. Our cable foreman was a real swashbuckler, he should have been a pirate! What a fantastic seaman! A real character! Except for cable work, I wouldn't have him on the ship. I've been trying to remember his name.

JW: Were there any other interesting jobs in the Indian Ocean, or what about the Brazilian coast?

AR: Oh yes, we worked on the Brazilian coast for quite some time, on two separate voyages. It was quite entertaining, especially from the point of view of dealing with the local populace.

JW: How so?

AR: Officialdom--particularly the question of getting permission to do anything. You almost had to have permission to breathe! You got nothing done without a present being involved. This has to be done with a good deal of decorum, you don't just breeze into a man's office and say "Here's a case of Scotch, mate, I want something." The case of Scotch has to be delivered very, very quietly to the person's office, not inside it, but outside it. Then his assistant will be sent out before the man will even talk to you, to check what is there. Only when he comes back again, with a smile on his face, do you relax. He doesn't say anything; he doesn't have to--you know he's going to get that bottle! Then, you get down to the business at hand, and something can get done. It was pretty good, we got a lot of help.

JW: What sorts of things were you asking them to do?

AR: Well, first of all we were required to renew some shore ends for Cable and Wireless, all their shore ends. We threw a bit of a party for them, this was in the port of Recife [northeast Brazil] by the way. The Cable and Wireless cableship ***Lady Denison-Pender*** was there at the time. She was one of their older ships, a beautiful old ship too. A little small for the kind of work we were going to do. The day that we were going to sail to get on with the work in deeper water, an American satellite vessel came in loaded down with all sorts of strange antennae all over the deck. He arrived just as we were leaving port, he arrived at the entrance of the harbour. We had to make a swing to port and go right around through 180 degrees and make for the entrance.

Just as we got there, the American ship negotiating the entrance had a complete engine breakdown. I felt sorry for the Master; he didn't have much choice about what to do. He had to get his anchor on the bottom quickly, or he would have drifted down among the wharfs and all the rest of it. So he did this, but it didn't help me, because the wind was from outside the harbour, straight down through the entrance, which meant that he had to drop his anchor underfoot. She started to swing round 180 degrees--right across my bow! Our Brazilian pilot was doing the can can or something on the bridge and screaming in Portuguese at the pilot on this other ship. A real pantomime! Our active rudder came into its own then. We did some fancy step dancing to get round this ship; we missed him by the skin of our teeth, and got outside.

The Brazilian pilot had to be revived with a large Scotch and a carton of American cigarettes. Finally, we got away and got rid of him and went to sea. Boy, that active rudder paid for itself in

ten minutes! Without it we'd have been into this fellow, with tremendous damage to both ships. He couldn't help himself. He had to immobilize the ship there somehow! But of all places--right in the entrance, which isn't the widest place in the world. You've got to be ready for anything that might come up.

JW: So what happened on the day you lost the ***Ocean Layer***? That must have been quite a day, or was it an evening?

AR: It was pretty bad. We only had about two more sections of cable and three repeaters to go, something like that. We were going to buoy off our end, then ***Monarch***--which had gone in for more cable--would come back and pick up our buoy and complete the job.

JW: Where was she?

AR: In Greenwich loading cable.

JW: Where were you?

AR: We were about 370 miles south west of Ireland at the time.

JW: The cable was going from where to where, from England to Ireland?

AR: From Newfoundland, Harbour Grace, I think it was, to France. As I was telling you the cable was partly owned by the American AT&T company, partly by what is now British Telecom, and partly by the French Telegraph Company. There were quite a few cables laid like that, not all owned by one outfit. Rigid repeater cable about every twenty miles, so by that time the refrigeration business. Anyhow, I'd turned in to try and get a couple of hours sleep, between one repeater and the next. The officer of the watch was a fairly competent man, the second officer was on watch. He was up on the bridge by himself. The chief officer was having a lay down. The navigator was around some place. The first thing I heard was somebody rushing up to the bridge, right past my door, my cabin door, yelling something unintelligible. I ran up the steps myself in my pyjamas, to find the second mate trying to interrogate this guy, and get some sense out of him. Eventually, I realized what he was talking about. There was a fire on the lower accommodation deck, which seemed to be in his cabin.

Let's go back a bit. On the way out from the U.K. to do this work, we were one man short of our full complement. We needed fuel and water, particularly water. That was another problem with that ship, she was always short of water, because the boilers used distilled water. They were partly water tube boilers. They won't work with ordinary water that's contaminated with anything.

JW: It corrodes too quickly, corrosion problems?

AR: It damages the tube very quickly. We went into Cork, not right in there. She was too big to go in there. We got fuel from a barge and we got one crewman.

Because of the kafuffle of getting under way again, this man was not examined properly by our doctor. If he had been examined by a doctor, he would have been turned away. We would have sailed without him. He suffered from asthma. [Usually] you don't examine a man's gear when he joins a ship, and in his gear was a small electric hot plate--again, something that wasn't spotted. One of these things with a solid top without an exposed element. Just sizable enough for one pot. He had a pot that he had boiled up some kind of inhalant in. He was employed in the engine room department and he shared a cabin on that lower deck with one other man. No cabin in the ship had more than two men. She was a bit ahead of her time in that way.

It appeared that...we've never been able to prove this, but it appeared that he made a brew to inhale. Then went on watch, the middle watch, that's midnight to four o'clock in the morning. He shoved this hot plate under his bunk, still in the hot condition. Under that lower bunk, there were two steel drawers, side by side. The space between the top of the drawers and the underside of that mattress was a bare six and a half inches. This thing was about five and three quarter inches from the bottom of the legs to the surface of the hot plate itself. You put something like that under a rubber mattress, and if it's hot enough sooner or later you're going to have a fire.

That's what the fire detective, the fire investigation team, that's what they figured happened. We found the hot plate in the debris of this cabin, all the bulkheads had gone of course--they were plywood bulkheads, they'd all burned. We found this thing and the pot with the brew, what was left of it. Grains of something, I don't know what it was. This was the cause of the start of this fire. To make matters worse, this guy that ran up on the bridge right outside my cabin, as soon as he opened the door, he was right in front of it. On the other side of the alleyway, no more than four feet away, was a soda acid fire extinguisher. All he had to do was rip that off the bulkhead and squirt the thing and he would have put it out.

The engineer on watch came up out of the engine room to get a breath of air because the steam machinery engine room is usually very humid. He came out through a door in the engine room casing about ten feet further down from the door of this cabin. He hooked the door back, so he'd be able to go in again without having to open it again and disturb anybody who was off watch and asleep. He gave that whole alleyway all the ventilation it needed. It just went off like a bomb!

I sent the Officer of the Watch down right away to have a look at this, and took over the ship myself. He came rushing back and said "The whole alleyway is ablaze from end to end!" "You

G.D. idiot," I said, "Why didn't you stay down there and try and do something about it? Never mind coming back here to tell *me*, that's a fat lot of use!" We tried to fight the fire...

Sometime before--this is something that I never knew anything about until then--sometime before we'd been in dry dock somewhere and something happened that I've fought against all my life at sea. Ever since I had a fairly responsible position. Nothing gets done on a ship if I have anything to do with it, unless it's in the list of things to be done. None of this old boy's business, "Put a clip here for me mate will ya, and don't say anything about it?" Nothing doing, I won't have that. It should be in the list of things that have to be done, otherwise it doesn't get done. What had happened because of this constant problem with fresh water, there was never enough cooling water for the three evaporators to produce reasonably pure water for these boilers. So, the Chief Engineer at the time, had managed to get a ship yard to put a small bypass line from the main fire line to these three evaporators with a valve. The valve to the main fire line was partially closed. It wasn't fully closed, but it was partially closed, giving some water to the evaporators and only some water, not the full pressure to the main fire line. With the result that we didn't have enough water to even fight the fire! We never did find out what the problem was, because the Engineer on watch didn't know anything about this modification. He said the pump is bashing its head off, you must have all the water you can handle. He came up to have a look and realized there was something wrong, but he never found this valve. We didn't find it until after the ship was burned out.

Something did come out of it that was worth while: the plastic cable insulation used in those days produced highly toxic gas when it was burning. The cable tank with the remaining cable in it, about a total of no more than 50 miles of cable, was burning pretty good. There was a lot of this white, sort of chalky coloured smoke. You couldn't breath, it was really awful. I went down to the seat of the fire myself eventually, once the second mate took over the watch again. I had one of those old fashioned helmets, a smoke helmet, on. I never did like them anyway. This one leaked just as bad as any other I'd ever tried. I got a good whiff of this stuff, a couple of times. But, there was no way that we could fight a fire of that size with the amount of water we had. It would have needed an experienced fire brigade with half a dozen people with equipment to even make an impression on it. So she was burnt to the water's edge. All the ship's plating was heat stressed and wrinkled, there was no way they could do anything with it.

JW: You had to abandon ship?

AR: Yes, well, first we had to bring the ship to a stop and get the men out of the cable tanks. They were having trouble with gas anyhow. So I got them out. We got the boatswain out. We got the brakes put on the cable drum, good and tight and let the ship swing to the wind, the cable as an anchor. It's very difficult to get boats away from a ship's side that's moving. So many mens' lives have been lost that way. The next thing, Peter Buckle, who owned that book

[POINTS TO BOOK ON TABLE] originally, he found me on the upper deck trying to get things organized. With the chief officer working on one side and me on the other, he said, "There is a fellow trapped in the stewards' quarters." I said, "Good God, who is that?" He told me the man's name, a French name. I said, "Oh, that's the fellow that doesn't speak much English."

I got down on my stomach on the boat deck and Pete Buckle sat on my legs, to prevent me from going over the side. I was able to see this fellow's face. He was looking out his port hole. A great big heavy man. He had forgotten the little amount of English he knew, in his excitement and fear. He'd forgotten it altogether. He was babbling in French, nineteen to the dozen. A patois at that, since he came from Mauritius. I understood only part of it. My French is schoolboy French and poor at that! But, I did understand a little bit. He was saying he could not get out for the fire, he couldn't get out of his cabin because of the fire. I said, "Can you get your body through that porthole?" They were quite big round ports about that size, but he was such a big man. There was no hope of that, he would get his head out and one shoulder, but that's as far as he could go. We couldn't pull him out! We tried for ten, fifteen minutes, we tried.

In the end I managed to get through to him, speaking very slowly. He told me he had a bucket of clothes that he'd been washing in his cabin. I said, "OK, put all those on and don't wring them out, put them on soaking wet, everything you've got. If there's any water left by the time you're done that, soak your bedding in it, too. Put that over your head, wrap yourself up in it, and then run for it. That's the best advice I can give you--I can't help you any other way." He did this, he had to run about twenty-five or thirty feet through this blaze. All the cabins forward of his cabin had been destroyed! He got out, but there wasn't a thing on him. No clothes of any kind, and no shoes. It shows the intensity of heat there was.

JW: It just burned right up?

AR: Well, he was suffering from sixty per cent burns on his body. Third degree burns.

JW: He survived?

AR: Yes, just! The German ship that picked us up, this big German freighter bound for Europe from Cuba with a full cargo of sugar, he stopped and picked us up about three hours after we had abandoned ship. There were quite a lot of ships around. Our distress call was answered by half a dozen different ships.

JW: You must have been near a busy shipping lane, obviously.

AR: Yeah, close to Europe like that, you would be. I wasn't concerned about that, I knew we would be picked up eventually, but I was afraid this chap would die in the interim. He didn't, he was only half conscious. This ship [that picked us up] was fairly new...she had some rather nice

passenger accommodation, [for] twelve passengers. The German captain spoke quite good English. Three of these passengers were doctors, women doctors, who had been practising in Cuba for several years. He got these girls out, middle-aged women they were, and explained the position about this man. Right away, they set to…they saved the guy's life. We were about two days steaming from Falmouth, southwest England. They never left him. There was one of them there all the time. They saved his life. He was landed to hospital in Falmouth as soon as we got there, of course.

I had to stand by the wreck, after they'd towed her in, which was three or four days later. She didn't sink, she just burned out. They brought the wreck in, then the fire investigators came down to have look, because I couldn't explain how it started. I had no idea how it had started! I knew where it started, but how was another matter. I worked with them for awhile. Each day I went to the hospital to see this chap. He was gradually improving. It was most embarrassing, every time I went in there, he'd burst into tears. He kept on over and over again, thanking me in French, and the strange language that they have in this place. He was illiterate, but a real nice chap. A great big fat, jolly fellow. By the time he was ready to go home, he'd lost a lot of weight. He wasn't nearly so big and fat. But he was still quite a happy-go-lucky fellow. He kept saying that I had saved his life and all the rest of it. But I didn't, all I did was tell him what to do.

I had awful trouble with the press too. Oh, by the time it was over I was ready to leave there. They never leave you alone. These press people, that was disgusting! It really was. Before we were landed in Falmouth, [Jo, my wife] knew there was something wrong, but she didn't know what. The company's office had phoned and said the ship had had a fire on board. They didn't know any details yet. Somebody in the office must have leaked it, or else the radio message had been intercepted. Some female reporter showed up from one of these tabloid papers and Jo answered the door, and this damn woman pushed her way into the house. Didn't say who she was or what she wanted! Marched into the living room and found a picture of me in my Master's uniform. She just grabbed this and said "I'll let you have it back when I'm finished with it." Then she told her who she was. Both Jo and Sharon [our daughter], if they wanted to go out of the house, had to climb the brick wall into the garden and get out that way. They couldn't go via their own gate! They were hounding me all the time.

JW: Was there an investigation?

AR: Oh yes, there always is, even though there were no fatalities. There's always an investigation into the loss of a ship. The actual inquiry didn't take place for a full year. But, the Ministry were spending all that time assembling information. My company provided me with a lawyer, who didn't seem to know whether his backside was punched or bored! The Chief Engineer was this chap Goody from Malta. He was very concerned about this. He thought that

they would probably try to pin the fire on him. So when we all arrived to the place where this inquiry was going to take place, we were warned that it would be about a week.

There is no judge, there's a person called a Wreck Commissioner, who is usually a lawyer very experienced in marine matters. He has assessors with him. Now, if they are going after the Chief Engineer, you can tell right away, because two of the assessors will be engineers, and one will be a Ship's Master. The reverse is true if it's the Master they're going after. In this case there was only one of each, so both of us were aware they weren't gunning for either of us. How could they? Neither of us had anything to do with it!

Anyway, the Ministry lawyer was a chap called Bucknell, I'll remember him until I'm dead and buried. A little runt with a limp! He had me on the witness stand for three whole days. At the end of that time, the Wreck Commissioner said, "Mr. Bucknell, I think that's enough, this witness has been on the stand for three whole days. I'll allow you one more question." This fellow sauntered up to me with the lapel of his gown in his hand. I think he thought he was one of the great lawyers of this century, or something. He looked me straight in the eye and he said, "Tell me Captain, why did you abandon ship?" Well, I was ready to blow up by this time. So I turned to the Wreck Commissioner, up to that time I'd tried to be polite to him. But, there is one way that you can get a lawyer's goat, if you want to--that is to ignore him, and address your answer to the judge.

Which I did. I turned to the Wreck Commissioner and I said, "With respect, Mr. Commissioner, I can only answer a bloody stupid question, with a bloody stupid answer." Then I turned to Bucknell and said, "Because she was too hot, Mr. Bucknell!" The press gallery--there were about thirty press men and women sitting there--they all ran out of there like a flock of frightened sheep to get to a phone. The next day, the headlines read "SKIPPER SAID 'SHIP WAS TOO BLOODY HOT!'"

JW: That was a good quip!

AR: I wasn't trying to be funny, I was just telling the man the facts. Another month went by and nothing happened. We were all told to present ourselves at the No. 7 divorce court at the Old Bailey, which I thought was somewhat appropriate. It took the Wreck Commissioner four hours to read his findings! At the end of which he said that the Court could find no blame attached to the Master or the Chief Engineer, or any other Officer on the ship. In essence, he felt that the order to abandon ship had been given in sufficient time, so that there was no loss of life. Very close to it in one case, but no actual loss of life. He said, "From that point of view, the Court was well satisfied that the Master had carried out his duties properly," or words to that effect. I'll never forget it at all! That's why I got a thing about fire now. I have a real thing about it.

JW: What was your next assignment?

AR: For a year I worked in the office, the company's office in London, in Greenwich.

JW: That was Submarine Cables Limited?

AR: Yeah, from there, it may have been slightly less than a year, something like that. From there I was seconded to the Manchester offices of another company--British Insulated Callenders Cable Ltd.--that was associated with them. They made power cable and heavier cable. It was because of my experience in Vancouver that I was transferred to the Manchester office.

BICC were good people to work for. They had a good name in the power cable field. They made some of the pipe and power cables that were used with the Mulberry Harbour during the D-Day invasion of Europe. That's were they got a lot of their experience. They were good people to work for.

JW: When did you go to New Zealand?

AR: That would have been in the early sixties. We used a freighter for that. For about four years altogether, BICC had been sending people out to New Zealand to carry out surveys of Cook Strait. One of the problems is the very volcanic area. Cook Strait goes right down quite deep, nine thousand feet in the middle. The cable had to be capable of taking the wear and tear on the shoulder as it goes down. There was a lot of land survey required because of the overhead pylons. They were going to be made by an Italian company. It was a very interesting job. I found it very interesting. I was in real trouble with my back at the time. That's when I started to become deaf. Oh it's a long story...but, I learned a lot from it. I think they did too. The company learned a lot from the job.

As I say, we used a 10,000-ton freighter for it because of the weight of the cable--we had to have a fairly big ship. Curiously enough, she was lost, I think, by fire up in the Great Lakes, a few years after that job was done. Her name was the ***Photinia***. All the cable was made by us. We fitted the side thruster in the ship. She wasn't equipped with one. It cost a hell of a lot of money to fit her out. It was cheaper to leave it in and pay dead freight on that hold than take it out after each job.

The Cook Strait cable had a bending restriction of sixteen feet diameter, so the bow sheaves had to be sixteen diameter, we couldn't use anything smaller. Again, it was so heavy that there was no way you could lay any slack with it.

JW: [EXAMINING PHOTOGRAPH] The sheaves on the ***Photinia*** do look larger than normal.

AR: Oh yes, they were huge!

JW: They were built for that specific job, then?

AR: Yes, she was designed just to do that. She also was supposed to do the Trinidad to Tobago power cable. I don't know if that was ever laid by them or not. That was after I left the company. But, I went from there to a little cableship out in the Philippines called the ***Omega***. She was an extraordinary ship, very small!

She was owned by an American company in Washington, D.C. Weird, I was sitting at home, minding my own business, when a phone call from a fellow in London wanting to see me. I said, "Well, if you want to see me, you're going to have to come down here." He didn't tell me what he wanted. So, he asked where we lived and so on. He did come down. He wanted me to go off to the Philippines and take the ***Omega*** over as Cable Engineer, for a period of six months or something.

I went out there and met him in Manila. The ship was in Subic Bay, in the Philippines. He said, "We'll go down to the boat landing, the boat should be in there. I've sent a message off to the ship." We got down there and there is no boat. No sign of anybody from the ***Omega***. She was lying off at a buoy. In the long run, I found my way to the Navy signal tower and talked to the duty officer. "Have you got a boat going out anywhere near to this buoy?" I said, giving him the number. He says, "Need a ride?" and I said, "Yes, two of us." "OK, no problem, give you a ride, just go down to the boat landing." That's one thing about Yanks, they are great for that sort of thing.

So we went off to the ship. There wasn't a soul around! Those on board were all seven fathoms down asleep. No Officer of the Watch, no rating on the gangway, nothing! So, Martin was displeased, I'd say, if nothing else. He said, "Let's find beds somewhere, and we'll see about this in the morning." So we turned in. It was after 10 o'clock the next morning when the Captain comes aboard. "Oh, I forgot to send a boat in for you, I forgot to tell them." Well, anybody can forget, but it was pretty obvious that he'd been drinking heavily. Before the end of that day, Martin sent for me and said "I think you had better take her over altogether, because this isn't any good." To make a long story short, I found myself Skipper of that damn thing for three years! But, I learned a lot. I have never had a job yet that I didn't learn something from. That's her right here, that's the ***Glassford.*** But, again, there was a ship with a crew with absolutely rock bottom morale, a lot of them useless anyway.

These little wooden cableships [like the ***Glassford***] were built for the U.S. Government and some of them have got into private hands. I don't know if any of them are still afloat now, but they had remarkable machinery. The two main diesel engines, the outside ones of three, were for normal propulsion and handling of the ship. But, the centre screw was a much smaller engine, and a

smaller screw. It was supposed to be for grappling. I found it great for handling the ship up to a buoy or to recover a buoy, or something like that or when making a splice where you got to keep the ship in the same position all the time. Its horsepower was so low, that it really was handy. It was an interesting idea. The cable machinery was steam-powered, so there was a boiler to supply that. She was a funny little ship altogether, but very handy.

JW: A small ship like that would not be practical for laying cable, so much as repair work?

AR: Oh no, only for repair work, and even then you couldn't work a little ship like that in real bad weather. We did work on the coast of Vietnam several times. In fact, one Chinese New Year, Tet as they call it, we were asked to renew a shore end, close to a place called Vung Tao. Not very far from the Saigon River. When I saw on the instruction sheet that this was to be done on the morning of Tet, I thought that wasn't the smartest thing in the world. They get more than a little excited. There are fire crackers going off all over the place. Who's to know whether it is a fire cracker or a rifle?

We had to get on the beach and dig a trench for this cable end. I wasn't very happy about that! I told the Yanks, "I can't see what difference it's going to make if you move that date up one day or move it back one day." Why do you have to do it on the very day of Tet? Particularly, you ought to have more sense; you work here. "Well, I get my orders from above." So, I did talk to my people in Washington. I said "I'm expecting our crew on the beach to be fired on." I explained why. They said, “Yeah, that sounds very logical, but we can't do anything for you. We can't make them do something or not do something. Even here in Washington, we can't do it." So, he said, "All I can suggest to you is do your best not to lose any men." It was just a little hairy!

JW: So were you in fact fired upon?

AR: We were fired upon, but it was pretty sporadic. It wasn't machine guns, it was single shots.

END PART FOUR