Sailor's Luck (Annotated)

At Sea & Ashore in Peace & War PART C: 1961 to 1975

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Chapter 17: HMS Owen, South Georgia, 1961

Tristan da Cunha, which we reached on 4th January, is probably the loneliest of all our colonies, and our visit was of enormous interest to the inhabitants. Various sporting and social activities were arranged (including a cricket-match), but we had to keep a very close eye on the islanders when they came aboard, their pilfering activities being notorious. While the boats made a hydrographic survey of the anchorage and approaches to the pier, scientific observations were carried out ashore - including measurement of the Earth's magnetic field on the slopes of the volcano. Little did we think, then, that in a few months' time that volcano was to erupt with devastating consequences, not only vitiating our survey-work, but leading to the total evacuation of the island.

What worried me at the time was the fact that our Medical Officer was in great demand ashore, where a number of cases were causing anxiety, and the fact that the island had no resident doctor - which, in my view, was an extraordinary state of affairs. The obvious answer was to put the M.O. ashore and leave him there while we continued on to South Africa. As he was also the ship's Naturalist, he would be able to 'kill two birds with one stone' during our absence, and, despite his understandable reservations at missing the fleshpots of the Cape, that is what I did.

Simonstown had lost none of its charm and my friends and relations there were as hospitable as ever. While repairs were effected to our boiler, the Commander-in-Chief, South Africa and South Atlantic (under whom I was operating) announced his intention of carrying out our Annual Inspection. This certainly put the pressure on us, and involved us all in a great deal of hard work for the first week, but we came through the Admiral's inspection with flying colours and a period of relaxation followed.

At the end of January, with repairs completed, we were ready to resume the season's work, with attention now directed towards South Georgia (where our Advance Party had already been landed by *Protector* six weeks earlier). First, however, we had a job to do on Gough Island, which lies 250 miles south-eastward of Tristan da Cunha. Apart from the scientific observations which we were to make on the island, I had arranged to re-embark our Medical Officer, who had made his way there by fishing boat.

Gough Island, a British possession, is uninhabited - except by a small team of South African meteorologists. *Owen* arrived there on Accession Day (February 6th), and to make ownership perfectly clear to the occupants, I decided, on anchoring, to fire a Royal Salute and to Dress Ship Over-all. The island is steep and precipitous, with lush vegetation in the valleys, and dominated by the very striking 'Nag's Tooth' peak. It was in the lee of this peak that Hugh Vaughan, the First Lieutenant, and Mike Wright, another of my (H) officers, spent much of the day measuring the Earth's magnetism. Meanwhile Duncan Carse, who had a personal interest in weather conditions in the Southern Ocean, hobnobbed with the meteorologists.

As we entered the Roaring Forties, our oceanographical work came to a virtual halt. Weather and sea conditions became too severe to occupy more 'stations', and with No. 77 under our belt, we had not done too badly. A few days later, we entered the Antarctic Convergence, where sea and air became much colder and fog descended. The main hazard now was

drifting icebergs. Look-outs were permanently posted, and radar and asdic were operated continuously.

The first icebergs were sighted quite close on 11th February, 1961, in daylight but in low visibility. I was disturbed that they had not been detected by radar, although assured that the radar was working properly (and it did pick up some of the larger bergs). I became very uneasy about continuing in these conditions after dark, and decided to heave-to till dawn. When dawn broke, I found the ship literally surrounded by icebergs of all shapes and sizes, some a few cables away, others stretching away to the horizon on all sides.

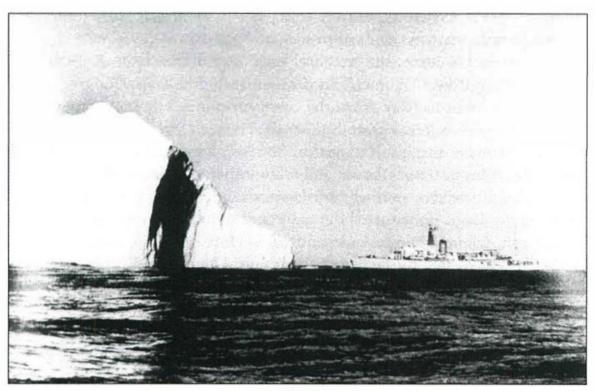
I must say, it was an amazing sight - awe-inspiring indeed. But just then I was less concerned with the aesthetics of the scene than with the fact that none of these icebergs had been reported by the radar. I called the radar operator to the bridge to take a look. 'Why have none of these contacts been reported?' I asked, 'Is the radar working?' 'Oh yes, sir, it's been working perfectly all night, but the screen is clear,' replied the operator. 'Well, it can't jolly well be working then, can it?' I countered, 'Use your eyes, man!' And I silently thanked my lucky stars that I'd had the intuition to stop the ship overnight. If we'd continued our passage, relying on radar, we would certainly have struck one of those icebergs - and that would have been the end of us. *Owen* was not strengthened for ice-navigation, and her thin plating would have crumpled like paper on impact. The ship would have foundered, and in those latitudes the chance of rescue for survivors was nil. (Eventually the Senior Radio Electrical Mechanic rather sheepishly reported to me that the radar had been 'off tune')! We had all learnt a valuable lesson.

[Once again, I suspect that Geoffrey's Guardian Angel intervened, saving not only his life, but the lives of all the ship's company!]

It took us 24 hours to thread our way through this 200-mile-wide belt of icebergs, some of them so enormous that we had to make drastic detours to get round them, and all of them drifting slowly northward from their birthplace in Antarctica. Beautiful in the sunshine they certainly were, glistening white, with greens, blues and deep purples streaking their sides in the shadows, but it was a great relief to break out at last into open water again.

The first sight of South Georgia is truly breath-taking: a great range of snow-clad peaks rising straight out of the sea, a hundred miles long, and stretching right across the southern horizon. The isolated mountain peaks gradually joined up and the land beneath steadily took shape as we approached from the north-eastward, and in the evening we cautiously felt our way into the bleak inlet of Elsehul, where we anchored.

There in front of us, just inland from the beach, were the two tents, and lying at her moorings a short way from the camp was our surveying motor-boat. As we came to anchor, there was a sudden bustle of activity ashore, the tents (or what remained of them) were struck, a dinghy put out from the beach, and a few minutes later the motor-boat came alongside us. Barry Dixon, leader of our Advance Party, came up the ladders with a roll of charts and plotting-sheets under his arm, followed by his merry men, one of them carrying a baby seal which flip-flopped about on the upper deck.



Owen surveying off South Georgia, 1961.

They had been ashore there for two months and had done splendidly, establishing an invaluable geodetic framework on which to base our coming surveys in the north-west part of the island, and, despite the near-disintegration of their tents from the frequent storms, they had apparently enjoyed the experience. I must say, I was relieved to find them in good health and in good spirits after what must have been quite an ordeal.

That night a storm blew up (the first of many we were to contend with over the next two months) and we had to set anchor watch, with steam at immediate notice. Next morning was bright and clear with little wind, and we set off along the coast to the south-eastward. A glorious panorama of snowy mountains and glistening glaciers unfolded before our eyes, and armed with binoculars, sextants and station-pointers (and with Duncan Carse to help with identification of peaks and headlands), we plotted the features for use in the coming coastal survey.

Leith Harbour was the only whaling station still in use, and here we had arranged to fuel. In places the water was red with the blood of slaughtered whales, while the huge carcasses of others lay lashed alongside anchored whale-catchers, waiting to be flensed.

Apart from the surrounding scenery, which was wild and superb, Leith Harbour, with its atmosphere of commercialized death, slaughter and gore, was not an attractive haven. But it represented, for us, the only source of succour in South Georgia, if we should ever need it, so we had to establish a friendly liaison with the local management. On their part, of course, we were more than welcome, as they realized our work was largely for their benefit (if rather late in the day).

We next had to 'make our number' with the Administrator at the Island's 'capital', King Edward Point. This lies in a secluded bay inside one of the largest inlets about halfway down

the coast, surrounded by snowy mountains and completely sheltered from the ocean. Here we berthed on the end of the small wooden pier projecting from the low-lying spit of land on which stands the Administrator's house and a few other wooden buildings. Across the bay lay Grytviken, another run-down whaling station, and on a low hill opposite the Point was situated the grave and stone monument to Sir Ernest Shackleton, whose exploits are legendary.

[This provides a valuable link with Shackleton's autobiography, 'South'...]

We were now free to start work in earnest. Our first task was to establish a boat-camp on Bird Island in the north, from which a strong detachment could progress a large-scale survey of Stewart Strait, the rock-studded passage leading to the whaling-grounds in the west. It was the hazards of this passage that had stimulated the repeated requests from the whaling community for proper up-to-date charts of the area, so the Stewart Strait survey was, in a sense, the most important of our objectives.

Mindful of the extreme conditions, we set up a really well-found encampment. Much thought and energy went into its construction - and siting. There was a perfect harbour for the boats in Jordan's Cove, opening on to Bird Sound, and, just inland from the cove, on fairly high tussocky ground, we set up a number of specially strengthened tents to house two officers and three boats' crews (about sixteen men in all) together with a veritable mountain of provisions and other equipment. There we left them, in the company of huge numbers of penguins and seals, to get on with the inshore sounding.

We had meanwhile embarked several civilian botanists, who were intent on seeking out certain rare species of exotic flora suspected of growing only in South Georgia. Some of these they had located on Bird Island, but their real 'mecca' lay further south, in Royal Bay and Moltke Harbour. As we would be passing that area anyway, I agreed to put them ashore there on our way round to the other side of the island, much to their delight.

Each time we made a coastal passage, we ran a fresh line of soundings, close to, and parallel with, the previous one, and to seaward of it, thus gradually building up a useful survey of the coastal waters of the island.

We had already run several lines between the north-west tip and the coastal area, but now, on passing the entrance to Cumberland Bay, we were breaking new ground, with drifting icebergs to contend with. Royal Bay, into which the vast Ross and Weddell Glaciers debouched, was full of small ice-floes as we came to anchor, but the motor-boat threaded her way through these as she took the botanists in to their hunting-grounds behind Moltke Harbour. Once rid of them, we were at last free to concentrate on the next challenge, which came to be known as 'The Saga of Duncan Carse'.

I had got to know Duncan fairly well during the months that we'd had him on board. Whenever we carried civilians, scientists or otherwise, I made a point of having them to dine with me, usually with one or two of the officers, and during the long Atlantic cruise I had one of these dinner-parties practically every week. Duncan was an interesting man, with some extraordinary experiences behind him, but he had problems.

While we were in South Africa, the lady named Venetia arrived and swept Duncan off. We didn't see him again till he rejoined us on sailing. He seemed moodier than before. So it was

that, as we headed south to take him to his chosen abode on the other side of the island, our W /T office was kept unusually busy with the transmission and reception of radio-messages between him and Venetia. I gathered that he had proposed to her and was persuading her to accept his proposal, and, furthermore, that his whole long-prepared 'Experiment in Loneliness', for which we had brought him all these thousands of miles across the ocean, now depended on the outcome of these private negotiations! The general assumption, not unnaturally, was that if Venetia said 'Yes', Duncan would call off his self-imposed two-year exile, and that would be that, whereas if she said 'No', the whole thing would go ahead as planned.

Anyway, I was blowed if one of Her Majesty's ships was going to hang around awaiting the outcome of a romantic affair involving a civilian passenger, and one, moreover, who had had five months to reconsider his plans. My orders from the Admiralty were to land Duncan Carse in an isolated cove near Ducloz Head on the desolate south-west coast of South Georgia, together with his ten-ton load of hut, instruments, stores and equipment, and provisions for a two-year sojourn. The sooner that was done, the sooner I could get on with our surveys. If he was to call it off at the last minute, so be it. In that case I would discharge him into the care of the Administrator at King Edward Point, to find his own way home as best he could.

Weather conditions looked distinctly ominous as we approached Cape Vahsel and Cooper Island, with great banks of dense cloud pouring over the lofty summits of the Salvesen Range, and when we turned to the southwestward we met the full force of a mounting gale. It looked anything but promising, but I carried on to Cape Disappointment, the southern extremity of South Georgia, to see what lay round the corner. Out of the lee of the land, as we poked our nose round the Cape, conditions rapidly deteriorated, with heavy head-seas, a ferocious gale, driving sleet and the sea studded with 'growlers' and 'bergy-bits'. Discretion, I felt, was quite definitely the better part of valour in these circumstances, so I put the ship about and we headed back eastward.

We would simply have to wait till conditions improved. I decided to seek shelter in Larsen Harbour, of which we had a chart of sorts, and which opened off the much larger and deeper Drygalski Fjord. We anchored just inside its entrance, in good shelter, and I took several of the officers in the motor-skiff as far up the 'harbour' (it was really a small, steep-sided fjord) as we could penetrate, and we were able to stretch our legs ashore for a while. When we got back to the ship, I heard that Duncan had received his long-awaited message from Venetia, and that she had accepted him. 'Well,' I thought, 'that takes care of that.' The projected landing (Operation 'Castaway') was presumably 'off'. But I was quite wrong. It was now definitely 'on'. Apparently, if Venetia had rejected Duncan, he would have called the whole thing off and gone home to press his suit. Now that the two of them were formally 'engaged', his mind was at rest - and he could hardly wait to get started!

Next morning the gale had abated and we re-traced our course of the previous day. Rounding Cape Disappointment, we headed up along the desolate west coast, feeling our way through barely charted waters, past the Pickersgill Islands, to Ducloz Head. The wind blew steadily from the north-westward, parallel to the shore, and up towards Annenkov Island I noticed several large icebergs. We anchored about a mile off shore and immediately got down to the business of landing Duncan Carse and his mountain of stores. The moment we had waited for so long had at last arrived. Every available boat, motor-boat, motor-cutter,

whalers, skiffs and dories, were pressed into service, loaded to the gunwhales with stores and provisions. The large wooden hut which was to be Duncan's home for the next two years, and which we had carried all this way in flat sections on the fo'c'sle, was stacked on to a huge square raft (built by our shipwrights) and hoisted over the side and into the water by one of our main derricks. Then it was laboriously towed ashore by the motor-cutter.

Duncan, with a fairly large party of sailors to man-handle the stores up the beach, had already gone in to select the exact site for the hut and to supervise its erection. Boats plied back and forth between ship and shore, ferrying in everything that was needed. There was no lack of willing helpers to carry the stuff up from the beach, to hold the hut sections while they were screwed into place, and to pile up the hundreds of cases and boxes where Duncan wanted them. It seemed to take ages and I was getting impatient.

I was also apprehensive, because the barometer was falling and the wind was rising. With extraordinary suddenness the gale struck. Within minutes the sea was being lashed to a frenzy, vicious white horses and towering waves appearing all round us. We hoisted the Black Flag at the masthead, the signal recalling all boats, and we started shortening-in the cable, while steaming ahead to the anchor. I had to get out of this as we were on a lee shore. To my utter dismay, I then realised that the huge icebergs which we had assumed to be stranded near Annenkov Island were rapidly bearing down upon us, driven headlong down-wind by the rising gale.

The very last thing I wanted, at that juncture, was a collision with an iceberg, but what could I do? We still had several shackles of cable out, and though the windlass was heaving it in at full blast, the icebergs would be upon us before we could weigh. Two of them, the size of houses, were but half a cable away already. Using the screws and rudder, but with our forefoot still tethered to the bottom, I was able to point the ship between the icebergs, and they both slithered past us, one on each side, only a few feet away. That danger at least was past, but it had been a close thing.

[Guardian Angel to the rescue again...]

Meanwhile the boats, several of them in tow, were battling with the seas to get back to us. The motor-cutter, towing the huge empty raft, was making no headway at all. If anything, it was losing ground, being driven back towards the rocks. Then, thank God, the tow parted; the motor-cutter leapt ahead and the raft was a 'write-off'. All the boats got back somehow, half-swamped, and several half-unloaded. Stores and gear of all sorts had been left on the shore where they lay, and the hut was only half erected. We had been well and truly 'caught with our pants down', but had just managed to get away with it.

Steaming into the teeth of the gale, we ran a long line of soundings all the way up the west coast to Bird Island, then, in the night, we reversed course and ran a second line down-wind and parallel to the first. Peering ahead through the murk as dawn broke, I saw a great upheaval of water rising into the air and cascading back in a smother of stormy spray - only a few cables away and right in our path. 'Breakers ahead! Stop both engines!' I yelled, and then, 'Half astern!'. We stood and watched as the seas ahead seethed and boiled in turmoil, flinging aloft great spouts of spume and spray. It was an uncharted reef, which we there and then (and with good reason!) dubbed 'Horror Rock'.

We rode out the rest of the gale at anchor in the lee of Annenkov Island, and it wasn't till the following day that the wind abated and we could resume the landing operation. Back we went to Ducroz Head, and this time we were in luck.

We finally got Duncan and all his paraphernalia safely ashore, with his hut securely roofed and screwed together, and all stores and provisions stowed under cover. He came off to the ship to report all well, to thank us for our efforts and to take his leave of us. It was a dramatic moment, and I was determined to lay on a little ceremony - if only for the photographers and cine enthusiasts. A whole crowd of us gathered on the quarterdeck, and as I shook hands with Duncan and bade him a last farewell, I handed him a carved and gilded plague of the ship's crest to hang in his hut, to remind him of *Owen* during his long and lonely vigil. Off he went, and the last we saw of him as we steamed away was a lonely figure standing on the beach, waving forlornly against a vast back-drop of glacier-laden mountains.

Duncan had certainly chosen quite the most isolated spot imaginable in which to pursue his 'experiment'. Behind his bleak little cove the land rose steeply through ice and snow to the towering peaks of the Allardyce Range, with the (as yet unclimbed) Mount Paget dominating the scene. Access overland was virtually impossible, while to reach human habitation by the coastal route would involve a hazardous journey of at least a hundred miles. What a challenge he had set himself!

Anyway, we were at last free to get on with our own pressing tasks and without more ado, we set off on another line of soundings up the dreaded west coast. This time I decided to take the ship through the unsurveyed Hauge Strait, between Annenkov Island and the mainland, and all the way up to Bird Island we had the most stupendous views of the daunting panorama unfolding to starboard, with clearly identifiable peaks and tangents for regular visual fixing.

We were now into the last days of February and the southern summer was on the wane. We had a lot of leeway to make up. Anchoring in Bird Sound, we called in on our camp-party at Jordan's Cove to check on their progress and welfare and to replenish their stores, before making ready to start our own work in the Stewart Strait. The whole area had been divided up between the ship and the three sounding-boats, two of which were camp-based. Before we could make a start, however, we were struck by yet another storm, a storm of such unparalleled ferocity that I hope never to see its like again. Despite having both anchors down with ten shackles out on each, and steaming into the wind to ease the strain, we dragged halfway out of the sound during the night. I have never seen anything like the state of the sea: its whole surface white with spume and spray being blown clean off the water by katabatic winds of incredible fury as they roared down from the Paryadin Ridge. 'Williwaws' spiralled past in endless procession as they were swept seaward and into the air, to dissipate in clouds of spray. All day we struggled to hold our ground, and then during the night it suddenly stopped. Glorious pink light on the snowy peaks heralded the dawn of a perfect day, and in lovely conditions we got down to work.

Chapter 18: HMS Owen, The South Georgia Surveys & Return to UK, 1961

All through the month of March we plugged away at the Stewart Strait survey, the boats working inshore among the rocks and islands, and the ship out in the open sea. The Strait, two miles wide and studded with shoals, ran north and south between Bird Island to the east and the Willis Islands in the west. Great masses of dark brown kelp marked the shallower shoals, and made it difficult to sound over them, while wildlife of all kinds abounded in sea and air: whales, porpoises, seals and penguins (often mistaken for shoals of fish), with seagulls and gannets wheeling above them, and always a great white albatross or two gliding peacefully round us. There was no lack of interest in this survey - whether on our part or on theirs!

Storms were frequent and usually sudden, quite often accompanied by blinding snow and 'white-out' conditions. The boats would have to run for shelter, and when all marks were obscured, the ship would heave-to and wait for a clearance. Sometimes these storms would last for days, and to make up for lost time, the boats' crews would put in very long hours when the weather subsided, even then being generally soaked to the skin by spray.

During one of these storms we lost the motor-cutter. I had insisted that the boats should always work in pairs, to provide mutual support in case of emergencies. On this occasion the motor-cutter was following up one of the camp-based sounding boats which had developed trouble with her steering-gear, when suddenly, in the middle of Bird Sound, she buried her bows in an enormous wave and stood on end. The sounding-boat, despite the trouble with her 'kitchin'-rudders, managed to turn about and rescue the motor-cutter's crew, but could do nothing, in those conditions, to salvage the boat herself. We lost a lot of valuable gear in that incident (apart from what we were able to 'write-off' from earlier 'losses', under this heading!).

Sometimes the ship would break off from the Stewart Strait survey to make a dash down the north-east coast to Leith or King Edward Cove (on one occasion to land an emergency appendicitis case) and to build up the coastal survey. Great care had to be taken on these sounding-lines to avoid the icebergs drifting along the coast from the south. Most of them had calved from the numerous South Georgian glaciers (the ones from Antarctica drifting much further to seaward), and they were of all shapes and sizes. The largest - some of them vast and irregular from several capsizes, others like huge flat-topped sugary wedding-cakes, all of them stunningly beautiful - were easy to avoid, though often interrupting our lines. It was the smaller ones, some barely breaking the surface and hardly visible, that were the main hazard. At night, and in low visibility, they were a constant anxiety despite a continuous radar and asdic watch, but though we had to shoulder some of them aside, we never accidentally hit one.

Except when on passage, I would normally anchor overnight, particularly while we were engaged on the Stewart Strait survey, which was visually controlled. The problem was that one never knew what the night would hold in store as regards the weather. It could blow up very suddenly from any quarter, and if one anchored in the lee of the land in the evening, one sometimes found oneself on a dead lee shore by midnight, with a rising gale springing up from seaward. Furthermore, good shelter could only be found close inshore, where there was little room for manoeuvre, and where the holding-ground was frequently poor. I soon

learnt that it was better to set a full anchor-watch, with an officer on the bridge and steam on the engines, as a matter of routine, rather than to have to do so in the middle of the night when awakened by the Quartermaster (on whose judgement I could rarely rely). Constant watchkeeping by day, and constant anchor-watch by night, certainly imposed a strain on all of us, but it was the price we had to pay for never being able to relax. Constant vigilance was absolutely vital for our survival in those treacherous waters.

By the end of March, though feeling tired and worn from many sleepless nights and constant anxiety, I was, nevertheless, stimulated by the challenge and spiritually uplifted by the elemental forces we were contending with, as well as by the wild magnificence of our surroundings. I was not in the least downcast, therefore, when the Commander-in-Chief announced his impending arrival from Antarctica, and his desire that *Owen* should join him in King Edward Cove. He was flying his flag in H.M.S. *Protector*, the Ice-Patrol ship, and we happened to be in Stromness Bay as she passed along the coast outside.

As *Protector* hove in sight, *Owen* got under way and steamed out of the Bay at 15 knots to meet her. Passing down her side on an opposite course, we fired a gun-salute to the C-in-C's flag, and then fell in astern of the flagship and followed her down to anchor in King Edward Cove. The Admiral was in an affable mood, having clearly enjoyed his time down south, and was interested in the progress of our work. I accepted his invitation to dine on board that night, after which we sat through a rather indifferent cinema show in the Wardroom. It was a pleasant change to meet some new faces, and to compare notes with the flagship's C.O., Captain Forbes, whom I had known of old.

After the Flagship's departure to continue her homeward passage via the Falklands, we suffered a series of breakdowns which obliged us to remain at anchor in King Edward Cove. To add to our frustration, the weather was superb, ideal for progressing our surveys. As Easter was approaching, I felt justified in invoking the Synod of Whitby to bring it forward and to celebrate it there and then, instead of taking time off (which we could ill spare) on the Day itself. So we rigged Church on the quarterdeck, held an appropriate service, with prayers, lessons and hymns, and I declared a Make and Mend for all except those engaged in the repairs.

[So Geoffrey leads an Easter service...]

We were now into April and autumn was upon us. The whaling season was over and we were out on a limb, the only sea-going ship in the entire area. It was essential that we work flat out now to complete the surveys before conditions took a real turn for the worse and made further progress impossible. We returned to the Stewart Strait area to size up the situation with the camp party. They had really done marvels. The large-scale surveys of Elsehul, Undine and Bird Sound were complete, but there were still several gaps in the medium-scale survey of Stewart Strait. I called a 'Council of War'. We had a week at the most to finish everything. The most difficult area lay at the outer extremity of the Willis Islands, rock-strewn and totally devoid of shelter. Every attempt to sound it so far had failed. I would take all the boats out there together and lie off while they made a supreme effort jointly to complete it. And, despite appalling weather, that is what we did.

There remained only one more area outstanding, plus a number of important examinations of newly-found shoals, and these the boats could do on their own. We had three more days,

and I was determined to fit in two more jobs if I possibly could. One was to detach Peter Cardno, my Navigator, to make a survey of Right Whale Bay, in which we had once anchored, and which he had implored me to agree to, and the other was to look in again on Duncan Carse before we finally departed. We landed Cardno and his party with one boat at Right Whale Bay, and then set off on our third circumnavigation of South Georgia, this time in an anti-clockwise direction. Anchoring once more off Ducloz Head, I sent a small party, including the Medical Officer, to check on Duncan's welfare. They found him in his bunk, laid up with a leg injury.

'How bad is it?' I asked by signal. 'Nothing broken - a bad sprain,' replied the doctor. 'Does he want to be brought off?' I inquired. 'Definitely not, but can we spare another case of whisky?' said the doctor, We sent in the required medicine. 'Can you treat the injury?' I asked the doctor. 'I have prescribed self-massage and complete rest,' was the answer, 'Duncan has his own pain-killers.' On return to the ship, the M.O. told me that Duncan had slipped on a rock a few days previously and had been laid up ever since. 'I think he has a very low pain-threshold,' he added.

And so we finally abandoned Duncan Carse, with many felicitous good wishes and farewells, though one couldn't help having some misgivings, considering his self-willed predicament. We continued southward, rounded Cape Disappointment and Cape Vahsel (avoiding Cooper Sound, which we had felt our way through with considerable trepidation in February), and then put in for the last time to King Edward Point. Here, as previously agreed, I embarked the Administrator and his wife, who had asked for a lift to Montevideo.

Our next stop was at Right Whale Bay, to pick up Peter Cardno and his party. Despite wretched conditions, they'd made good use of their three days there, and brought off a very presentable survey of the bay and anchorage (which has since been incorporated with the other new Plans on Chart 3585). Next day was April 10th, my deadline for final departure, and it only remained now to recover the main camp party from Jordan's Cove.

At this juncture we became enveloped in fog and, to make matters worse, more and more icebergs seemed to be crowding in on us. Moreover, the wind was rising steadily and things looked ominous. It was clear that autumn was upon us. I took the ship round Bird Island and anchored, without any kind of a lee, half a mile off the Cove. The camp-party, forewarned by radio of our arrival, had struck their tents and dismantled their two metal 'Uniport' huts, and were assembled on the beach with a veritable mountain of stores and equipment, their boats already loaded up with other gear.

Roger Morris, my Senior Watchkeeper (later to become Hydrographer of the Navy), had been standing in as Navigator since Cardno's detachment and he was on the bridge with me for this final evolution. It was now blowing a gale, and we were on a lee shore. He was distinctly nervous, continuously checking the anchor-bearings. The boats started to come off, battling their way out through stormy seas. Hugh Vaughan, my First Lieutenant, assisted by the Boatswain, was in charge down aft, where sea conditions were prohibitive for the boats. As they approached, they were immediately 'hooked on', hoisted to deck-level, and rapidly unloaded. Then back inshore to pick up another load. 'I think we're dragging, sir,' said Morris, squinting over the Pelorus. Start weighing,' I yelled down to the cable-party on the fo'c'sle, and rang down 'Slow Ahead' to the engine-room.

Our hearts were in our mouths by this time. It was touch and go whether we'd get the last load off or whether we'd have to abandon everything and 'get to hell out of it' if we were not to be driven on to the rocks. Even as the shout from the Cable Officer, 'Aweigh!' reached my ears, screamed above the gale, the last two boats were on their way out. I pointed the ship into the wind and held her steady. Vaughan and the Boatswain, with every conceivable seaman, got the boats hooked on and, as I watched them clear the water, with only seconds to spare, I gave the order: 'Half Ahead, Both Engines!' . Whew! A great sigh of relief - almost audible - swept through the ship. We had done it, and we were safe. I offered up a silent prayer of thanks to the Almighty, set course to the westward, and went below for a double rum-and-lime.

[Prayer to God, then a shot of alcohol... Can you blame him?]

A general euphoria pervaded the ship as we headed up towards the Falkland Islands. It resulted largely from the knowledge that we were at last on our way home, but partly also from a sense of relief, a sense of satisfaction, and a sense of achievement on the part of all concerned. For my own part, I certainly felt a tremendous sense of achievement - that we had done all that we set out to do, and that we had come through it practically unscathed.

After a brief call at Port Stanley to fuel and to report to the Governor on our surveys, we headed up to the Rio de la Plata, continuing with our oceanographical observations with a further six 'stations'. We combined this with a line of soundings from the Falklands to the Argentine continental shelf (particularly asked for by their Hydrographer). In retrospect, I have no doubt that the request was motivated to support Argentina's claim, on geophysical grounds at least, to sovereignty over 'Las Islas Malvinas' - though, at the time, their claim was dormant and did not enter our minds.

[Argentina invaded the Falkland islands in 1982...]

At Montevideo we landed the Administrator of South Georgia and his wife before steaming up river to Buenos Aires, where, at the invitation of their Hydrographer, we spent five days on an official visit, hosted by the Argentine Navy. Those days were action packed with sport, entertainment and hospitality - and did much to relieve us all from the stress of the past three months.

In late April we resumed the oceanographical cruise with a wide sweep south-eastward across the Atlantic and up to West Africa, via Ascension Island (virtually a huge volcanic slag-heap thrown up from the Mid-Atlantic Ridge). After replenishing our almost empty fuel tanks at Freetown in mid-May, we pushed on northward past Cap Blanc, disproving the existence of several doubtful shoals en route to Tenerife - where we enjoyed an excellent Whitsun week-end.

At our 100th oceanographical station we found a new seamount (and took a rock-sample from its summit), and on entering the Channel, we were welcomed home by the Hydrographer - who made a precarious descent from a helicopter, narrowly missing our bridge. Next day (31st May) we arrived at Devonport, to a tremendous welcome from one and all - and congratulations from the C-in-C Plymouth, who had kept a watching brief on our progress. The oceanographical cruise had been an epic in itself - for the quantity of valuable data obtained, the inordinate amount of sea-time, and perhaps the sheer endurance off South Georgia.

The Dockyard had much work to do on the ship during her summer lie-up, which would take at least four months. This meant we could all take our full entitlement of leave - and Mary and I took a long holiday in Scandinavia. I had now reached the end of the Commanders' promotion zone, so I had plenty of time to contemplate what could well be rather a bleak future. But when we reached Stockholm early in July, news arrived that I had been selected for promotion to Captain - which put a rosier complexion on the rest of our holiday.

[I remember hearing Mum and Dad talking about that holiday in Scandinavia, while I stayed with cousins in Peterborough for six weeks. I was nearly six years old. When they came to pick me up, they were sporting a brand new Rover three litre, a 'luxury' car, with leather upholstery and painted in two colours – rush green and shadow green.]

Towards the end of September, as the ship was emerging from re-fit and we were preparing for our next task, in the Indian Ocean, the local press carried a headline: 'Navy Abandons Injured Man On Desert Island' - followed by a report that after six months of loneliness at Ducloz Cove our castaway's encampment had been totally swamped in the middle of the night by a tidal wave. It demolished his hut and swept away practically all his stores, leaving him to salvage only the bare minimum for survival. Somehow he had managed to attract the attention of a passing sealer, which picked him up and brought him to safety. So ended the Saga of Duncan Carse.

[Oh dear! That's the Press for you...]

Chapter 19: Captain, HMS Owen, (International Indian Ocean Expedition), 1961-2

The second half of *Owen's* commission was the Indian Ocean Cruise. Though I was not actually to be promoted to Captain till the end of the year, I had been 'selected', and felt myself a 'four-striper' in all but name.

The ship had been extensively modified during the summer refit, to equip her for action as the British contribution to the International Indian Ocean Expedition. A great deal of special equipment had been installed, including a new type of deep-sea echo-sounder, a Precision Depth Recorder, a magnetometer and a gravity-meter, with automatic recording equipment. Our main task was to make a comprehensive reconnaissance of the western part of the Indian Ocean - between Africa and India - under the guidance of scientists from the Department of Geodesy and Geophysics at Cambridge University. With about half a dozen of these scientists embarked, we sailed from Devon port on 11th October, 1961.

Our outward passage, via Gibraltar and the Suez Canal, consisted of continuous bathymetric, gravimetric and magnetic traverses, the main one running straight along the axis of the Mediterranean, with checks on the gravimeter at each end. One man fell overboard off the Algerian Coast, but we managed to pick him up, and when we reached Port Said on October 29th, we found the Egyptians remarkably uncooperative, which was hardly surprising considering they were commemorating the fifth anniversary of our abortive invasion!

We ran a zigzag traverse down the Red Sea, which, as an extension of Africa's Great Rift Valley, was of particular interest to our geologists and geophysicists, and then embarked on a survey among the Haycock Islands, where a reef had been reported across the main shipping channel. When halfway through this survey, we received an urgent signal requiring our immediate presence at Perim Island, where the inhabitants had suddenly run out of fresh water and were parched.

Rain falls on Perim about once in five years, and the island is hot and arid. Fresh water for its three hundred inhabitants has therefore to be distilled from the sea, the distillation plant being powered by oil fuel. Through gross mismanagement, it had run out of fuel and come to a grinding halt. Could we please let them have 3,000 gallons of fresh water before they all died of thirst? As we could not anchor closer than a mile from the settlement, that would not be easy - quite apart from the lack of suitable containers. On the other hand, the islanders had plenty of oil-drums, so getting some local dhows to bring these out to us in relays, we spent the day pumping oil into them by hand, and thus got the local distillery functioning by nightfall.

We spent two days at Aden, and after refuelling and checking the gravimeter, set off on 8th November to run the first of our exploratory traverses for the International Indian Ocean Expedition (I. I.O.E.), from a point eastward of Socotra and south-westward towards the Kenya coast.

It may surprise some people to hear that the force of gravity is a variable, and that things do not weigh the same everywhere. For instance, a brick weighing 2 lb in England would weigh less on the Equator and more at the Pole, due to the centrifugal force of the Earth's rotation,

though latitude is not the only factor. Composition of the sub-surface rocks and their depth below the sea-bed will also affect the Earth's gravitational 'pull', so that by continually measuring the strength of this force (and allowing for the change in latitude) some indication of the sub-surface structure is derived.

Another variable is the strength of the Earth's magnetic field. While its horizontal and vertical components obviously depend on the magnetic latitude (i.e. the distance from the magnetic poles), the total intensity is affected by the composition of the Earth's crust, parts of which may themselves be magnetic. By continuously measuring the total intensity of the magnetic field, by means of a magnetometer towed well astern of the ship (and therefore outside her own magnetic field), further indication is given of variations in the sub-structure.

Measurements of gravity and magnetism arising from the rocks beneath the sea-bed will obviously be affected by the vertical distance between them and the point of measurement i.e. the depth of water - and this factor, together with the shape of the sea-bed, both of which we were continuously recording with the new Precision Depth Recorder (PDR), would need to be collated with the other measurements. Owen was thus pioneering a completely new technique, making simultaneous measurements of bathymetry, magnetism and gravity continuously along pre-determined lines in an exploratory geophysical survey of the western basin of the Indian Ocean. The correlation between these three 'parameters' could best be appreciated when contoured tracings of each were superimposed on the others, but I remember a particularly telling instance of the relationship between the gravity and bachymetry. We were steaming along in very deep water over a flat and featureless sea-bed when the gravimeter started showing steadily increasing readings. The scientists became quite excited: what could be causing this steady rise in the force of gravity? The sea-bed remained as it had been for several hours - guite flat. 'We may be approaching a seamount,' they said. Up on the bridge, I was sceptical. 'The gravimeter's probably on the blink,' I thought as I watched the PDR trace giving a uniformly flat bottom. But suddenly, as I watched, it began climbing steeply. There was no doubt about it: we were running up the steep slopes of an uncharted feature rising abruptly from the abyssal plain, a newly discovered seamount, and the gravimeter had detected its proximity a mile or two before we reached it. From then on I had a new respect for that machine!

Our magnetometer, a cylindrical affair, towed through the water on the end of a long, insulated electrical cable, had been designed primarily for use in 'temperate' latitudes, where the vertical component of the Earth's magnetism exceeded the horizontal component (or was at least measurable). Though it measured total intensity, it needed this vertical component in some strength to produce any results when towed horizontally (as we were towing it). As we steamed steadily southward into lower magnetic latitudes, however, the vertical component became weaker and weaker, and the magnetometer gradually ceased to function. Some means had to be found, therefore, of towing it vertically, so that the strong horizontal component could be brought to bear on its sensitive mechanism in place of the vanishing vertical component. Our shipwrights rose to the occasion by building a sledge-like raft on which the instrument could be mounted in a vertical position, and once we had got this raft to tow satisfactorily, our magnetic problems were over.

We finished the first of these traverses in mid-November, and, on 16th, we entered the sleepy old Arab sea-port of Lamu, on the Kenya coast, not far from the borders of Somalia. Here we set up a large camp-party to progress a survey of the harbour and approaches,

while the ship herself embarked on a more extensive survey off-shore, including the approaches to Lamu, Manda and Patta Bays. Towards the end of the month, we paid a quick visit to Mombasa for fuel before resuming work on the survey.

We broke off from the Kenya Banks survey on 11th December and, leaving the camp party ashore at the mouth of Lamu Harbour to progress the inshore surveys during our absence, we headed out towards the Seychelles. My purpose was to select sites for the Lamda radio-location stations which would be needed for our forthcoming surveys in that area, to mark them out

on the ground and get the local authorities to clear them of trees before our return in March. As part of the I.I.O.E. programme, we also had to establish an automatic tide-gauge at Port Victoria, in order to obtain a year's continuous observations. We spent a bare week on this work, marking out excellent sites on Bird and Denis Islands, and giving the sailors and scientists a good run ashore on Mahe before heading back to East Africa.

Inasmuch as the Seychelles are an enormous lump of granite sticking up in the middle of the ocean, they are unique, and they were a source of endless wonder to our scientists. Are they a bit of Africa, dropped off and left behind during the era of Continental Drift? Why were some parts highly magnetic, others not? These and a host of other related questions had to await our forthcoming geophysical work next March. This brief visit was no more than a preliminary reconnaissance.

After Christmas at Mombasa we returned to Lamu to continue the Kenya Banks survey for a further week, and to re-embark the camp-party on completion of their surveys. Though there was plenty of scope to extend our surveys northwards, our programme at that stage did not permit us to spend any longer in that area, so, assuming we would not be returning, we recovered all our marks. While at Lamu on New Year's Eve, I decided to fill the famous 'Owen Bowl' and throw a party. 1961 had been an eventful year for all of us, and it deserved a proper send-off. My promotion to Captain had also come through, and the end of a survey had to be marked in traditional style. Furthermore, who knew what 1962 would hold in store? It was indeed a memorable party!

We returned to Mombasa on 6th January, and two days later commenced another long scientific traverse across the Indian Ocean, starting off in a south-easterly direction. We were making for the isle of tortoises and turtles, Aldabra. We had hydrographic, scientific and geodetic work to do there, and I planned to land a two-boat camp-party for 48 hours so as to free the ship for work among the other islands of the group. Aldabra is a low-lying atoll, almost enclosing a tidal lagoon (in which, during the First World War, the German commerce-raiding cruiser, Konigsberg had sometimes hidden herself). As we drew near, we could see the light green water pouring out from the lagoon into the deep blue ocean as the tide fell, and I decided to take the ship in against this outflow. (If it was deep enough for the Konigsberg, it would be deep enough for *Owen*, I reasoned). We got in all right, and anchored inside the narrow channel to disembark the camp-party, and this had to be done before the tide turned, as there was insufficient room to swing. At slack water, I was just able to turn the ship in time to steam out again against the incoming flood.

Aldabra Island was suspected of being incorrectly charted, so the camp-party were to observe its geographical position (by timing the transits of stars at 45° altitude), and carry

out the groundwork for a subsequent mapping survey. They had also to establish an automatic tide-gauge for the I.I.O.E. Meanwhile, the ship was to determine the relative positions of the other islands (by running taut-wire measuring gear) and sketch in their size and shape by visual cross-bearings. Cosmoledo and Assumption were both wrongly charted, while Astove was found to be not only much larger than shown, but also no fewer than 4 miles out of position.

Continuing eastwards, past the Farquhar Islands, we got involved in a cyclone. Heavy seas and a rising wind caused much discomfort and anxiety, and seriously interfered with our next task, in the Agalega Islands. Our efforts here to set up another tide-gauge were thwarted by rough seas and a heavy surf, and we spent the whole afternoon trying to recover one of our officers who had managed to land but could not get back. Had it not been for the efforts of a local surf-boat's crew in fighting their way out at the third attempt, he would have been marooned on the island for six weeks, as I was determined not to hang around for the cyclone to hit us so close inshore. As it was, with the seas getting ever more ominous and a jet-black sky, we just got clear in time.

Setting course to the north-eastward, we commenced a 2,000-mile traverse, parallel to the first one, towards the coast of India, crossing the Equator for the fourth time. All our special scientific equipment functioned faultlessly, and we gleaned a great deal of valuable new information. The traverse finished just outside Bombay, which we entered on 25th January.

We received a great welcome -particularly by the I.N.'s Hydrographic Service, but Bombay itself was bedlam. We had arrived on one of India's national holidays, 'Republic Day', which covered the whole week-end, and the city was packed with holiday-makers in carnival mood.

However, we achieved our operational objectives, changed round some of our scientists, embarked the Co-ordinator of the International Indian Ocean Expedition, and set off to the southward on the easternmost of our long ocean traverses. This was to take us on a zigzag course through the maze of shoals, reefs, islands and atolls which make up the Laccadive and Maldive archipelagos, and somehow managing to keep the ship in safe water, we were able to show the Co-ordinator at first hand some of the problems that would later confront the I.I.O.E.

At the southernmost tip of this 800-mile-long chain of islands lies Addu Atoll, containing the strategically important air-base at Gan, and here we spent a week in February, surveying, observing, diving, establishing another automatic tide-gauge and making many other types of investigation. The ship herself spent much of the time locating, salvaging and repairing a broken submarine power cable. From there we continued the traverse from the Equator to the Tropic of Capricorn, skirting the Chagos Archipelago and the Saya de Malha Bank, rounding the Cargados Carajos reefs, and on down to Mauritius.

Mauritius, which I had not visited before, was quite an 'eye-opener', and I was struck by its mountainous scenery and lush vegetation, and also by the beautiful beaches at the north end of the island, from which some of us bathed.

Off we went again in a sweeping arc to the northward, via the tiny islet of Tomelin (on which the scientists landed to measure the gravity and study birds), and back to Agalega. Here we found a very different state of affairs to that which we had experienced in January, the weather being quite perfect, so that we were able to carry out all our tasks without

hindrance. From Agalega we returned to the Aldabra-Cosmoledo group of islands to tie up a few loose ends from our earlier visit, and re-embark our three tide-watchers, as well as Government map-makers who had been using our geodetic data for their survey. The three sailors, who had spent six weeks leading a Robinson Crusoe existence, were quite fit and cheerful, complaining only of land-crabs, rats, mosquitoes and a shortage of beer.

The next leg of our traverse was aimed at the Amirante Bank, west of the Seychelles, which we reached early in March. There had been much communication with the Governor (the Earl of Oxford and Asquith, if I remember rightly) about the tree-clearance I had asked for, for our Lamda sites, and what with labour costs and compensation for the land-owners, he had decided that it was more than the Colony's budget could bear. As it was going to take time to agree how these costs could be shared with Whitehall, I decided to defer the main Seychelles Surveys for another year, and restrict this season's work to a general scientific reconnaissance of the islands, and of the vast submarine plateau on which they stand.

A radial system of bathymetric, magnetic and gravity traverses was run from the centre of the plateau for about 100 miles, into abyssal depths, in all directions, and, in the course of this work, we were able to spend a day at anchor off Praslin Island, on which is located the famous Valle de Mai (thought by some to be the original site of the Garden of Eden).

We spent a couple of days at Port Victoria, where many of us had friends from previous visits, and I remember a most embarrassing incident from that occasion. I had been asked to dine with H.E. the Governor, and to bring with me our senior scientist, a geophysicist of some repute (who shall be nameless). We dined and wined extremely well, and conversation was both scintillating and fascinating. An interesting discussion degenerated, over the port, into an argument between the Earl and our scientist, who, having imbibed not wisely but too well, became both voluble and vehement, and, if not exactly abusive, started addressing H.E. as 'Guv'. I was appalled, and took the first opportunity to bring the proceedings to a close. Next morning I made a special call on the Governor to apologize personally for the scientist's ill-mannered behaviour (which, I felt, reflected badly on the ship), and was much relieved that H.E. appeared to take it all in good part.

Having achieved our purpose in the Seychelles, we reluctantly returned to the Kenya coast. We put into Mombasa to fuel and to discharge our scientists (for a month), and then moved up the coast to pick up the threads of our surveys off Lamu. We had to re-mark the area, and extend the triangulation northwards to enable the ship and boats to work in and around Manda and Patta Bays, and we had to lay tautly-moored floating beacons to control the more distant work off-shore. But by 9th April, and after a farewell visit to Lamu, I reckoned the surveys were complete, and took the ship back to Mombasa.

Two days at Mombasa were enough to replenish stores, fuel and provisions, and to embark a fresh team of Cambridge scientists, and on 12th April we headed eastward once more, for the Seychelles. This visit was partly to make a fresh check on the gravimeter, but mainly to try to clarify policy for future surveys of the Bank. However, the islands also provided the right point of departure for the last of our geophysical traverses across the Arabian Sea, terminating at a point on the Indian coast between Bombay and Karachi. This traverse included our sixth crossing of the Equator - and on completion we put in to Karachi for a two-day 'Operational' visit to the Pakistani Hydrographer.

On 28th April we started the long homeward passage, running a continuous series of geophysical traverses similar to those on our outward passage, via Aden, the Haycock Islands (where we spent two days completing the survey broken off six months earlier), Suez, Malta and Gibraltar, and so back at last to our home port, Devonport, which we reached on 31st May, exactly a year since our home-coming from the Atlantic Cruise.

What a commission it had been! We had done so much! We had visited so many strange places; we had broken so many records. In the two years since commissioning, we had obtained 53,000 miles of new oceanic soundings, and had steamed the equivalent of three times round the world (75,000 miles). It had been such an epic that we all felt it should be properly written up, so we compiled and published a glossy magazine for distribution to all and sundry, including at least one copy for everyone who had participated in it. It was gratifying to hear later, from the local Naval Authorities, that in their opinion this was the best Ship's Magazine they had ever seen!

Two episodes stand out in my memory about that ensuing summer. Firstly, the Royal Geographical Society recognized our achievements by awarding me the 'Cuthbert Peek Grant' in the shape of a magnificent inscribed silver salver (which is one of my most treasured possessions). Secondly, I was deputed to present a paper to the Commonwealth Surveyors' Conference at Cambridge - on 'The Measurement of Gravity at Sea!' This was an ordeal I had not bargained for, and ought, in my view, to have been assigned to the Senior Cambridge Scientist. However, I duly wrote a pretty straightforward factual account of our work, for advance distribution to the conference, and went up to Cambridge to 'present' it in person. As I was virtually the only non-scientist present in the crowded hall, I decided on a light-hearted approach, speaking as 'a simple sailor'. This seemed to go down rather well, causing much friendly amusement, and when I rounded off my oration by saying 'The only thing I know about gravity is that without it I would not be able to drop any bricks,' the conference burst into spontaneous applause - and I sat down! (I was told afterwards by several of the delegates that it was the best speech of the whole conference!)

[This is a highly technical chapter, more about science than surveying...]

Chapter 20: Greenwich (War Course), 1962 and Assistant Hydrographer, Admiralty, 1963-5

I relinquished command of H.M.S. *Owen* that summer, after working up the results of all our surveys and seeing the ship well into her annual refit.

[I have only hazy recollections of my seventh birthday, 7 August 1962. I remember that we were living in Devon, as I remembered that 'seven' rhymed with Devon, and my birthday cake was in the shape of a '7' with white or cream icing and rows of smarties on top.

This was part of the summer that we spent at Saltash, renting a cottage at a place called Wearde Quay, and it was situated across the harbour of Devonport, where many Aircraft Carriers and other Naval warships were anchored. HMS Owen was berthed there after the International Indian Ocean Expedition, and my father was busy writing up the results of the survey, before starting his course at Greenwich. I clearly remember him sailing in a small dinghy from our house to the ship each morning, by way of daily commuting to work. Dad used to wake me up in the morning with: "Show a leg! Show a leg! Rise and shine! Lash up and stow! The sun's burning your eyes out!" (Naval terminology)

We spent the summer of 1962 and part of the previous summer (1961) in Devon, and I remember warm sunny days, the scent of nasturtiums around the house, the view over the harbour, picnics on the beaches of South Devon and Cornwall, flying 'Artigas' my bird-like kite on Bodmin Moor, boat trips at Salcombe, and the view over Plymouth Town from the top of the Civic Centre. These were for the most part sunny, warm, happy, carefree days...]

I was earmarked for another shore appointment, this time as Assistant Hydrographer at the Admiralty. However, as the post would not be vacant till the following spring, it was decided that I should fill in the time by undertaking the six-month Senior Officers' War Course at the Royal Naval College, Greenwich, starting towards the end of September, 1962. This would be the first time that an (H) officer had taken the course.

Mary and I went down to look for accommodation and found a suitable first-floor flat within reasonable walking distance of the College. Though most of the Senior Officers on our course were Captains, R.N., others were drawn from all three Services and included one or two Civil Servants. The Director was a Captain Northey, R.N.. who had recently been the Naval Attaché in Moscow.

The course was of a very 'general' nature, concerned largely with Current Affairs, but also with aspects of military, economic and industrial strategy. It was run on notoriously 'gentlemanly' lines (as befitting Senior Officers!), with fairly relaxed schedules and plenty of scope for self-expression and participation in discussion and debate. Eminent speakers from all sorts of national activity came down to address us, and we travelled about the country, visiting different establishments of national importance or general interest: Porton Down, an R.A.F. Bomber Base, the U.S.A.F. ICBM Base at Mildenhall, a Royal Dockyard, the Old Bailey, the House of Lords, the R.M. Commando Training Centre at Lympstone, the R.A.F. College of Air Warfare at Manby, etc., etc.

Amongst many other speakers was Vice-Admiral Sir Peter Gretton, at that time Controller of the Navy, on the future size and shape of the Fleet, with much emphasis on the projected

nuclear-powered 'Polaris' submarines. This gave me an opportunity to point out to him that submarines of that sort could not be operated without a massive expansion of the Surveying Fleet to undertake the oceanographical surveys they would need – a remark which later reached the ears of the Hydrographer and earned me a 'pat on the back' from him.

The course ended shortly before Easter, 1963, with the Admiral President, Rear Admiral Morgan Giles, chairing a conference on some such subject as European Union or the Unification of Europe, which each of the 'syndicates' into which we had been divided had been studying in depth for about two weeks. Our syndicate had deputed me to write our paper, which I did, with a good deal of emotional enthusiasm included, as I felt rather strongly about it. It came under fire from one of the other syndicates, whose paper took quite a different line and was much more objective. When the Admiral President invited me to respond to this attack, I had to admit that the speaker had deployed some persuasive arguments, and that they had been 'dispassionate'. 'But, sir,' I went on, 'I don't think one ought to discount passion' - a remark which convulsed the Admiral and provoked gales of laughter all round!

[One of the highlights of our six months in Greenwich was the way we spent our Sundays as a family. Our 'local church' was the beautiful Chapel at the Royal Naval College, Greenwich, which was designed by Sir Christopher Wren. I remember almost nothing about the services there, though I'm sure we followed the 1662 Book of Common Prayer; but I clearly remember that I first heard and learned the famous Naval hymn "Eternal Father, strong to save... O hear us when we cry to Thee, for those in peril on the sea!" – which has remained a favourite of mine ever since. After the Sunday morning service, we proceeded to lunch at the famous Painted Hall, with the magnificent painted ceiling.

Looking back, I realise that our six months in Greenwich was a very special time, and I have often wondered why. I think that one of the reasons was that my father was 'home' (rather than being away at sea, as in previous years) — and this season coincided with my also being at home, as I had not yet started boarding school. Such a time was not to last, of course, as I would be starting at Packwood in September 1963, but those six months represented perhaps one of the very few times when a 'father-and-son' relationship could flourish, and it was good to be able to spend times together. I particularly remember, in early 1963, the evening 'political' conversations of a grown-up kind, discussing Soviet Russia and the threat of nuclear war — conversations inspired, no doubt, by the Cold War and the recent Cuban missile crisis...]

In view of the fact that I was to spend the next two years in Whitehall as Assistant Hydrographer, and that all our family interests seemed to lie to the north of London, Mary and I felt that it would save a lot of trouble if we could find a house on that side of the metropolis. After looking in the Hampstead area, we found a delightful little house in a quiet cul-de-sac off Fitzroy Park in Highgate, which we bought and which turned out to be ideal for our purpose. It was in an entirely rural setting, yet only five miles from the Admiralty, which was easily reached by public transport.

It must have been in late spring or early summer that I became Assistant Hydrographer (A.H.) for the first time. My office was on the first floor of the main Admiralty building, alongside that of the Hydrographer of the Navy, Rear Admiral E.G. Irving. We had a connecting interior door between our offices, and there was always a good deal of to-ing and fro-ing from one to the other. I usually had more paper-work to deal with than the Admiral, and, by mid-morning, having cleared his in-tray, he would usually wander in to me for a general chat. Although this was welcome enough, as keeping me very much 'in' on his

thoughts and outlook, it was also irritating and time-wasting for me, and usually meant that I was seldom clear of the day's work before 6 p.m. in the evenings.

My main field of responsibility as A.H. was Personnel, which embraced all (H) officers and Surveying Recorders, as well as the Schemes of Complement of all our ships. Every aspect of the officers' careers was dealt with by me: recruiting, training, appointment, advancement, promotion and retirement. Not only did all Confidential Reports on officers come to me, but I was also on the receiving end of all applications and requests affecting their careers, especially for particular appointments. Officers were encouraged to send in 'Preferences' for their next type of appointment, and twice a year I used to promulgate a Forecast of Officers' Movements. These would usually occur in January and August, during the winter lie-ups and summer leave periods, and my forecasts were timed to give all concerned several months' notice, while taking account of officers' expressed preferences. It was quite a chore, and, needless to say, it was seldom possible to please everyone.

One very interesting aspect of this planning work was the insight it gave me into the long-term career prospects of my own colleagues, having regard to their ages, ranks, seniorities, records, reports and promotion chances, together with projected retirement dates for their seniors. Poring over the big diagrammatic charts which my predecessors had constructed, showing the careers of all our captains, commanders and lieutenant-commanders projected through the next decade, it didn't take me long to tumble to the fact that I had at least a sporting chance of reaching the top of the tree myself.

I had taken over as A.H. from Captain R.H. ('Tim') Connell, and the last thing he had said to me was that 'Steve' Ritchie would be the next Hydrographer and David Haslam the one after that. David was considerably junior to me, and not yet a Captain, so I spent some time examining the evidence for Tim Connell's prediction. Since the end of the War, no officer had held the post of Hydrographer for more than five years, and that had become the established practice. Admiral Irving was expected to retire in 1965, after five years in the 'Chair', and if Steve Ritchie were to do likewise, he would retire at the end of 1970. By that time I would be the senior Captain, and, although I would then be 54, and due to retire on reaching nine years' seniority, I could see no reason why Steve should not hand over to me! I mentioned this privately to Steve one day, and said that whereas I was by no means sure that I wanted to become Hydrographer, I was certainly not going to stand for any 'jiggery-pokery' which would deny me that option. Steve saw the point and put it to Admiral Irving, who agreed. With enhanced prospects, my morale improved!

One really fascinating aspect of my work as A.H. was the enormous activity flowing from the decision of Government to transfer the strategic nuclear deterrent from the R.A.F. to the Royal Navy, in the shape of a new squadron of Polaris submarines, each of which would carry 16 inter-continental ballistic missiles with nuclear war-heads, and would be nuclear-powered. The implications of this decision, though foreseen by the Hydrographer and his staff (from their close contact with the American Oceanographical Office), were slow to dawn on the Admiralty, particularly as they affected our own Hydrographic Service. As I had pointed out to the Controller during the War Course at Greenwich, 'Polaris' submarines could not be properly operated without a massive expansion of oceanographical effort on the part of the Surveying Service and the Hydrographic Department. The need for such expansion had already been brought home to us by our own Submarine Service when they started to build a new class of nuclear-powered 'hunter-killer' Fleet submarines, which, being

'True' submarines (as opposed to conventional ones, which were now referred to as 'submersibles'), could dive to great depths and remain there almost indefinitely. Alerted to this requirement, the Hydrographer had initiated a new construction programme for the replacement of our ageing Survey Ships with a new class of specially-designed 'Survey/Oceanographical Ships', and the 'Polaris' programme (which had been given priority over everything else) immediately added fresh impetus to the urgency of our requirements.

By working in close consultation with the Naval Staff, the Polaris Executive, Flag Officer Submarines, and the United States Naval Oceanographer, we were able to assess the size and extent of the task facing us, and it was a daunting one. From this, we could deduce and define the resources, in ships and manpower, that we would need to perform it. A whole new Survey Fleet, and a considerable increase in our civilian staff, would be necessary, and these urgent requirements now had to be argued through the elaborate and ponderous Whitehall 'establishment', right through to the Treasury and the Cabinet. The paper 'war' involved in this effort became a full-time task in itself, and absorbed much of my attention for months on end.

We set our sights on a balanced Survey Fleet of twelve ships, in three separate categories: four large ones for oceanic work, four medium-sized ones for coastal work, and four small ones for shallow-water work inshore (in addition to the civilian-manned motor-launch used by the South Coast of England Survey). In order to man th.is expanded fleet, we would have to pay off the four post-war frigate-conversions (*Dampier*, *Dalrymple*, *Owen* and *Cook*), which were costly in manpower, and which, by 1965, would be 20 years old. This would leave us with the more modern Vidal (for oceanic work) and the three vessels of the Inshore Survey Squadron, *Echo*, *Egeria* and *Enterprise* (for shallow water work).

To make up the new fleet of twelve ships, we would therefore have to order three in the first category, four in the second, and one in the third. These would have to be designed (by us) and built for the purpose. To clarify the different categories and functions of these vessels, I proposed a simple classification system. I did not like the clumsy expression, 'Survey/Oceanographical Ship', so proposed that these be classed as 'Ocean Survey Ships' (OSS). The medium-sized ones should be classed as 'Coastal Survey Vessels' (CSV) and the small ones as 'Inshore Survey Craft' (ISC). This classification was officially accepted without demur.

Having eventually got our new-construction programme approved in principle, it fell to me to propose names for the new ships. I was keen to resurrect some of the famous old surveyship names from earlier centuries, and thoroughly enjoyed myself poring over the old lists. With my penchant for all things Icelandic, *Hecla* immediately took my fancy. Should the other ships of the OSS-class also be given 'volcano' names (*Aetna* and *Erebus*) or (as 'H' was Hydrographer's abbreviated title within the Admiralty) should their names also start with an 'H'? I pondered on this and finally went for the latter option, recommending the good old names *Hecate* and *Hydra*. Names for the CSVs were a bit of a problem. Now I come to think of it, we had originally asked for six of these, but they were later cut down to four. We had declared that these vessels would operate in pairs, which would scale down their Schemes of Complement. I felt that there should be a common factor in the choice of their names, and that each pair should be distinguished by a further common factor. The list of old surveyships showed an abundance of 'animal' names, and from these I was able to select three pairs, each pair starting with the same letter, viz. *Bulldog* and *Beagle*, *Fox* and *Fawn* and

Penguin and *Porcupine*. The last pair never materialized, but the other four names were accepted.

Finally, I came to the ISCs. We had been offered two Inshore Minesweepers for conversion to survey craft, and although we had only stated a requirement for one, we decided to accept them both, and to augment the three existing 'E'-class of the Inshore Survey Squadron with one, the other replacing the South Coast of England Survey's civilian-manned SML. As these ex-minesweepers differed somewhat from the three 'E'-class ISC, though of similar size, and as there were no suitable old names starting with 'E', I picked on another pair of names for them: *Woodlark* and *Waterwitch*, both of which were approved and accepted.

There were definite advantages in being Assistant Hydrographer! Not only did A.H. arrange the appointments of all our officers, but he was in the unique position of being able to arrange his own! Next summer I would have completed two years as A.H., so would be due for another sea-appointment. That would just about coincide with the delivery of the first of our new Ocean Survey Ships, H.M.S. *Hecla*. What could be more appropriate?

In my six-monthly 'Forecast of Officers' Movements', put out shortly before Christmas, I was shown as due for *Hecla*, in command during the ensuing summer (1965). Then on 21st December, Mary and I (as CO. designate) were invited up to Yarrow's yard at Scotstoun, on the Clyde, to attend the launching ceremony of H.M.S. *Hecla*, the first of our new class of Ocean Survey Ships. Margaret Irving, wife of the Hydrographer of the Navy, named and launched the ship, and became her 'Sponsor'. It was a very happy occasion, the first time either of us had witnessed the launching of a ship, but it was not to be the last!

[I was there too and I remember the occasion well. I even appeared on Scottish television as part of the crowd of onlookers!]

Once it was established and recognized that I was to be the ship's first Commanding Officer, much of the planning for her first commission naturally came my way, so during the spring of 1965 a good deal of my time as A.H. was taken up in working out how best *Hecla* could contribute to the increasingly urgent survey task imposed on us by the 'Polaris' programme. As ever, the building programme had slipped, and it soon became obvious that the ship would not be ready before the late summer or early autumn. However, we had seen to it that these new ships would be equipped with helicopters, and I managed to arrange for *Hecla*'s Helicopter Flight to commission on schedule and be available for work independently during the summer. To prepare for this, I sent myself off for a C.O.'s Helicopter Course at Portland, which would give me the essential knowledge that any commanding officer would need if his ship was to operate these flying-machines.

One of the first tasks that *Hecla* would be faced with after com-missioning would be a survey to the north-west of Scotland, on the edge of the continental shelf, and this would require the siting of Lamda and Hi-fix stations on two remote islands: North Rona and St. Kilda. By means of our 'Wasp' helicopter, I could reconnoitre these islands, and select, mark and co-ordinate the four required sites well in advance of the ship's arrival, and so save valuable time. I therefore arranged to be relieved as A.H. fairly early in the summer, and appointed myself to *Hecla* in a supernumerary capacity, pending commissioning. As there was a temporary shortage of Captains (H), I managed to get an Acting-Captaincy for Johnny Pryor (who was a Commander) so that he could take over from me.

Chapter 21: HMS Hecla (and her helicopter), 1965

It was mid-summer when I left the Admiralty, and after taking some leave, I flew up to Stornoway to meet our Helicopter Flight (No.409), which was to be based there. The Flight Commander was a Lieutenant-Commander 'Pete' Spelling, and the Flight consisted of a Chief Petty Officer and four other Fleet Air Arm ratings. Their job was to service and maintain the 'Wasp' helicopter and ensure its operational readiness when required. Peter Spelling was an experienced and extremely competent pilot, though less than conscientious about paperwork, and (as I was to discover later) anything but hidebound by Naval Regulations. I took to him immediately.

The island of Rona (commonly referred to as 'North Rona' to distinguish it from the other Rona in the Hebrides) lies in absolute isolation some 40 miles NNE of the Butt of Lewis. It is uninhabited, except by thousands of seals and millions of sea birds, though there are traces of former habitation by Celtic monks in the shape of a few ruined stone cells. This tiny island was our first objective, but we needed fair weather to land on it and good visibility to find it! While waiting for the right conditions, Pete Spelling took me on several practice flights over the Outer Hebrides, and I soon developed complete confidence in his expertise as an aviator.

The day came when we could set out on our first operational sortie, with the helicopter loaded with all the surveying equipment that I would need. We took our departure from the Butt of Lewis and headed out into the blue. After half an hour's flying, there was still nothing in sight and one couldn't help feeling distinctly lonely out there, and a bit apprehensive too. What would happen if our engine failed and we had to ditch? However, peering ahead with my binoculars, I soon made out the misty summits of the island's three hills, right in front of us but still a long way off.

Pete Spelling put the 'Wasp' down gently near the grassy summit of the western hill and shut down the engine. We got out and I started the day's work, with theodolite, hand-bearing compass and hundred-foot tape. I had to select, mark and fix the exact sites for the various components of the Lambda station and its camp, so that we had an uninterrupted 'view' to the westward, and then do the same for the ancillary Hi-Fix station (whose performance was to be checked out against the Lambda system) several hundred yards down the southern slope of the hillside. The weather was lovely but the work took us most of the day.

Afterwards we wandered round the north side of the island, which was low-lying, and on which hundreds of seals were basking, many of them with new-born pups. The baby seals are white and I was astonished at the number which appeared to have been abandoned by their mothers. I was both horrified and disgusted too to see how many of these had been attacked by the swarms of sea birds, some having had their eyes pecked out.

I think we spent about a month at Stornoway, and I'm sure we made more than one trip to North Rona. But our other objective was St. Kilda, 50 miles west of the Outer Hebrides. To make that trip, we needed not only settled weather, but also some form of st.c1nd-by rescue service, which would be provided - given adequate notice - by Flag Officer, Naval Air Command. We had to wait several days for the right conditions, and I must say that despite the invisible air support (somewhere back in Scotland), I felt more apprehensive when we

set out for St. Kilda than I had on our first trip to Rona. It seemed to take hours of flying over empty ocean before we finally sighted it.

St. Kilda is a compact group of small, steep islands about 50 miles from the nearest land, of which the largest is Horta. When Pete Spelling and I arrived in our 'Wasp' helicopter, and alighted near the summit of Horta, there was a small Army communications unit stationed on the island, accommodated, as far as I can remember, in war-time Nissen huts some distance from the crumbling ruins of an old village. We were struck by the stark beauty of our surroundings and in particular by the immensely high cliffs on the north side of Horta, which fall 1.100 feet sheer into the ocean.

Here on St. Kilda we had much the same task to perform as we had achieved earlier on North Rona. But first we had to make contact with the Army unit, to explain our mission, and to safeguard the pegs and markers which we would be leaving in the ground to identify the Lambda and Hi-Fix sites. This necessitated a long walk down to their encampment and a tedious climb back afterwards. We spent most of the day selecting, marking and fixing the positions of the various sites, and meticulously describing them for future recovery by the ship's survey parties. Meanwhile, the gale which had been forecast for the evening was beginning to warn us of its impending arrival. We had to hurry.

The helicopter had been parked, and securely 'anchored' to the ground, on the very edge of a high precipice, some distance above us. We toiled our way up to it and as we breasted the summit of the ridge, we were struck by the full force of a strong south-westerly sweeping the face of the precipice some distance above us. The gale had already arrived and the 'Wasp' was straining at the leash, its rotors flapping alarmingly in the violent up-draught. There was no time to lose. We piled ourselves into it, cast off the lashings, and virtually shot upwards as the rotors started to whirl. In seconds we were out over the edge of the precipice and climbing rapidly. It had been a pretty close shave, and we both breathed sighs of relief as we swung away to the eastward on the long haul back to Stornoway.

Our third objective was the Flannan Islands, some 15 miles west of Lewis, and our task there was relatively simple, though the islands hardly lent themselves to helicopter landings, there being hardly any flat land on them. A lighthouse and the keepers' cottages dominate the larger island, and I was able to arrange a measure of support in that quarter for our eventual camp-party. We were also able to find just enough space for the Lambda and Hi-Fix stations. This meant that I now had the basic information from which the plotting-sheets could be constructed for the control of our forthcoming surveys. The whole area could be covered by one or other of the two pairs of 'slave'-sites. Our helicopter had already proved its immense value.

I sent the Helicopter Flight back to Lee-on-Solent and flew down to London. Armed with all the required data from the three islands (of which aerial photographs had been specially taken for us by the R.A.F), I was able to pin-point the exact positions to be occupied by the Lambda and Hi-Fix 'slaves', and from there it was a reasonably straightforward job for Chart Branch's Geodetic Section at Cricklewood to calculate their co-ordinates. That done, the necessary plotting-sheets could be constructed, and I was then in a position to start drawing the various sets of intersecting range-curves.

In August I went up to Scotstoun to look over Hecla as she was fitting out, and to meet the officers who had already joined, as well as key ratings of the pre-commissioning crew. The ship was most impressive, and although there seemed to be a great deal of work outstanding, the general consensus was that she would meet her scheduled commissioning date.

Meanwhile, up in Iceland, my daughter Virginia had commissioned the Professor of Art at Reykjavik University to paint a large water-colour picture of Mount Hekla for me to hang in the ship, and, quite independently, Petur Sigurdsson (the Icelandic Hydrographer) had also presented the ship with a picture of Hekla, already framed, as a Commissioning present. This one would be fixed in a prominent position in the Chartroom, while the water-colour (which I much preferred) would have a place of honour above the fireplace in the Captain's cabin.

The great day came on September 8th, when Hecla was commissioned. The ceremony and religious service, conducted by three Naval Chaplains, and attended by much of the Navy's 'Top Brass' and their wives, was held on the dockside, with a Royal Marine Band to accompany the hymns and provide suitably stirring music for the occasion. I read out the Commissioning Warrant from a flag-bedecked dais, and afterwards the assembled company repaired to the ship's Flight Deck for the traditional reception. Using my sword, Margaret Irving (the ship's Sponsor) and I cut the Commissioning Cake, I made a light-hearted speech, and the champagne started flowing freely. There were other speeches too - by Sir Eric Yarrow (whose firm had built the ship) and by the Hydrographer of the Navy. It was a fitting start to an eventful commission.

That evening we sailed down the Clyde for Acceptance Trials, with the Commodore, Contract-Built Ships ('Basher' Watkins) and Yarrow's people embarked, but with an Admiralty Pilot (a retired Captain, R.N.) in temporary command. I was not impressed with the way he handled the ship - particularly with his use of the bow-thruster - and I told the Commodore that I could hardly wait to get my hands on the ship and take full command. All went reasonably well and the formal hand-over and signing of papers was finally completed that night. Extraneous personnel were disembarked at Greenock, after which I anchored the ship at Tail of the Bank. I was indeed a happy man.

We went south for a quick visit to Plymouth Sound, Spithead and Portland - where we embarked the Helicopter Flight - and then steamed back up the Irish Sea and round into Londonderry, which was to be our forward base for the immediate surveys up north. Naval Regulations would have us spend the first month on Trials and Work-Ups off Plymouth and Portsmouth, but I had managed to persuade the 'Powers that Be' that the 'Polaris' surveys were too urgent for that, and, furthermore, that the operations I had planned would constitute as good a Work-Up as any that they could devise. We were to go straight in at the deep end. With autumn upon us, we headed north for the survey grounds, all geared up to establish the Lambda and Hi-Fix camps at the three sites I had reconnoitred during the summer. This would be a major test for the helicopter.

We hove to close under the lee of the Hannan Islands, with all the masts and spars, electronic equipment and camp-gear made up into portable loads ready to be moved on to the Flight Deck. The helicopter took off and the first of these loads was then placed in the big carrying net. With the helicopter hovering low overhead, the wire-rope lifting-pendant

dangling from it (with a heavy spring-hook at the end) was snatched on to the four corners of the net and the helicopter swooped into the air and away towards the islands. It seemed simple enough, but as the aircraft gathered speed, the heavy load slung beneath it began to swing, and the swing became steadily more pronounced and more alarming.

The net contained the five 20-ft. steel spars that made up the main Lambda mast, and as it swung backwards and forwards, ever closer to the horizontal, the long spars began to approach the blades of the 'Wasp's whirling rotor. It looked highly dangerous. Was Pete Spelling aware of the danger? Surely he must be, because the helicopter itself was now advancing in fits and starts, pulled backwards on the back-swing and forwards on the fore-swing, a motion that was actually aggravating the pendulum-effect that was so alarming. I called him up on the R/T and advised him to hover until the swing had subsided. I think he'd already worked that out for himself, and was actually doing so. The immediate danger was over, but it had been a near thing. Neither Pete Spelling nor any of the rest of us had had previous experience of helicopter load-lifting, and we learnt a valuable lesson. Henceforward, we used a much shorter lifting-pendant and, with enhanced vigilance from Spelling, we had little further trouble of that sort.

By the end of the day, and after some two dozen lifts by the 'Wasp', we had everything safely ashore on the islands, including the camp-party itself. We had to land another party of stalwart sailors by boat, to help with the erection of the Lambda mast and the Uniport huts, but the whole operation was completed within 24 hours. It would certainly have taken several days - even with good weather - if we had had to rely solely on the boats. Our helicopter was proving a veritable godsend.

We repeated the whole process at St. Kilda, and everything went swimmingly. For October in those parts, the weather was remarkably kind to us, and I could manoeuvre the ship quite easily, turning her with the wind fine on the starboard bow for the helicopter to take off and put down, and holding her there with our 'internal tug', the bow-thruster. We lay a comfortable distance between Horta and Boreray, while the 'Wasp' flitted back and forth all morning and all afternoon, carrying load after load inshore. With the St. Kilda 'slave'-camp finally established and in radio contact, and with the 'Wasp' safely back in the ship's hangar, we set course for North Rona.

Next morning, when we were nearly there, Pete Spelling reported to me that the helicopter was 'U/S' (i.e. unserviceable). Some part of its anatomy needed replacement, and we did not carry a spare. This was indeed a serious setback. Should I divert to Stornoway and wait for a replacement to be flown up to us (a delay of perhaps two days), or should we go ahead and land everything at North Rona by boat? Weather conditions were good, and if they held, we might finish the job within 48 hours. I decided to chance our luck and try.

There was only one conceivable landing-place on the island. It was a long cleft in the rocks on the west side of a low-lying promontory. This cleft, wide enough to take the boats, formed a natural 'dock' in which the water, though deep, was susceptible to the Atlantic swell. This, coupled with the high sheer side of the cleft, made unloading anything but simple - but that was only half the battle. Once each boat-load of stores had been carried up to the rocks with ropes, those stores had to be carried half a mile across country, uphill all the way. The two big sounding-boats ran a shuttle-service between ship and shore, the stores being lowered into them by the ship's crane. A day ashore, in fine weather, makes a welcome change for

any sailor, so there was no lack of volunteers to do the portering. My recollection is that we lay at anchor that night and continued all next day. Nothing could have demonstrated more clearly what a tremendous asset the helicopter represented (when serviceable) in operations of this sort.

Having established our three widely-separated 'slave' stations, all fully manned and provisioned, and all in radio contact with the ship and with one another, we were now able to start the survey. It was the first properly controlled bathymetric survey that had ever been undertaken of these waters and it was full of interest. It was also the first test of the new ship in her designed role. *Hecla* had been fitted with a great deal of automated equipment - including the much-vaunted A.D.L (Automatic Data Logging) system - all of it virtually untried. Needless to say, we experienced our fair share of 'teething troubles', but on the whole everything worked splendidly. We plugged away at this survey throughout October and November, in steadily deteriorating weather conditions, sometimes having to break off to sort out a problem on one of the islands or to seek shelter from really severe storms.

The survey covered a large area on the edge of the continental shelf, between the Faeroe Islands and the Outer Hebrides, and in these notoriously stormy waters *Hecla* had ample opportunity to demonstrate her sea-keeping qualities and her behaviour in really rough seas. It quickly became apparent that her motion in a seaway was quite unacceptable. She rolled heavily - and sometimes violently - in a beam sea, and, due to her relatively short length, she pitched horribly in a head sea. On the other hand, she remained tolerably dry. There came a time in the course of replenishing the camp on North Rona by helicopter, when we received warning of a very deep depression, accompanied by winds of hurricane force, approaching from the south-westward. To run for shelter meant abandoning the job we were doing, so I decided instead to complete it, and then try to duck behind the centre of the depression and so avoid its full fury.

We steamed flat out into the Atlantic, with the epicentre fine on the starboard bow, and slowly drawing to the right. About midnight I altered course to the north-west and we began pitching heavily into a heavy head sea. I decided to heave-to, head to wind, and ride it out. When dawn broke, it was blowing Force 10-11, with truly mountainous seas bearing down upon us, the ship burying her head in the huge waves, and the screw racing as the stern came out of the water. I kept just enough way on the ship to prevent her head paying off, and closed up a second Officer of the Watch to operate the bow-thruster.

All day the storm raged and the seas thundered down upon us, huge breaking waves bigger than anything I'd seen before, and the ship soared into their crests and plunged into their troughs, shuddering from end to end under the impact of hundreds of tons of water sweeping over the fo'c'sle and crashing into her upperworks. We lay hove-to some 50 miles south-west of the Faeroe Islands, with the engine at slow-ahead. To have given the ship any more power would have been to risk serious damage from the enormous waves, and because I lacked complete confidence in the ship's stability in such conditions, I was reluctant to turn her round. With these seas on her beam, I feared she might roll right over, and with the seas astern, she might well be 'pooped'.

On the other hand, with the storm showing no signs of slackening, we could lie there for days, wasting valuable time. As evening drew on, I resolved to risk everything - and get out of it. Warning all hands that the ship was about to alter course ('and may roll heavily') - so

that everything movable could be secured - I put the engines to half ahead and ordered 'Starboard 35'. We all held our breath. She came round quickly, rolled hard over to starboard, then straightened up and, with the seas now right astern, ran smoothly before them. We breathed again. She had behaved better than I'd feared. Keeping her speed just a little slower than the speed of the great waves - so that they rolled smoothly under her, we ran down through the night towards the Flannan Islands, and out of the worst of the storm. That storm will remain forever etched in my memory. I think the date was the 10th November.

Towards the end of the month I took the ship into Loch Ewe - for a double purpose. In the first place, our A.D.L. had accumulated so much survey data that it had outstripped our ability to assess and digest it. We needed a few days' respite to portray it properly, consider it carefully, and work out which parts needed checking for further investigation. In the second place, we had to prepare the ship for our forthcoming official visit to the Icelandic Hydrographer in Reykjavik, a task involving re-painting the hull to eliminate the ravages of the past two months of continuous sea-time. It was now late in the season, and the country round Loch Ewe was under deep snow. Our passage to Iceland was bitterly cold. The seaspray, curling over the fo'c'sle with every plunge, froze all over the decks and superstructure, blotting out all vision from the bridge windows (except through the rotating screens) and making normal movement on the upper decks extremely hazardous. The wind was in the north - straight off the icefields - and when we reached a lee in Eyrabakki Bay, we had to turn steam-jets on to the windlass and cables to un-freeze them. We lay there at anchor, in the shelter of the snow-clad land, and made final preparations for our arrival on the morrow and for the official visit.

The visit to Iceland was part of the trials and tests to which I was determined to put Hecla before the end of her first season, and to cross the Arctic Circle in December seemed a reasonable challenge. We sailed north, rounded the north-west 'horn' and continued to Eviafjord, the long firth running down to Akureyri (Iceland's northern capital).

Eyjafjord was completely frozen over when we left Akureyri, and our passage through it to the open sea provided the first test of the ship's performance as an ice-breaker, though in fact the ice was pretty thin. Once through it, we headed east, so circumnavigating Iceland, and continued round to the southward, then on to pass close to the Faeroes, and so back to Scotland. I think it was during the passage back from Iceland, during which we were running an oceanographical traverse, that a memorable episode occurred. A beam sea was running and the ship, as usual, was rolling heavily. I was having my customary bath before dinner, and having a nice lazy soak, when, to my astonishment and dismay, the water just poured out of the bath on to the floor, leaving me 'high and dry'. After that, I made a strong recommendation to Their Lordships that *Hecla* - and her two sister-ships - should be fitted with stabilisers! On 17th December we entered our home port, Devonport, for the first time, and gave Christmas leave to all hands. I reckoned it had been well earned.

Chapter 22: HMS Hecla, South Africa and North Atlantic, 1966-7

When the New Year dawned, I saw Old Age staring me in the face. I would be 50 later that year. My mother would be 80. None of us were getting any younger, and I felt I had to come to terms with it and do something. Just then, however, I had other things on my mind. I had a new boss - Steve Ritchie had become the new Hydrographer - and a new project had been set for *Hecla*. I was told to take her down to South Africa. The purpose was twofold. In the first place, the South African Navy had expressed interest in ordering an Ocean Survey Ship of the same type as *Hecla*, to be built in UK, and wanted to assess her at first hand. In the second place, scientists of the White Fish Authority were keen to investigate the potential of the Benguela Current as a source of hake for the British fish market.

We sailed from Devonport about 9th January, and made a direct passage down to Bathurst (now Banjul) in Gambia. We were running the customary bathymetric/magnetic/gravimetric traverse throughout the voyage, and our brief call at Bathurst was for the purpose of obtaining a check on the gravimeter. The place did not seem to have changed appreciably since my last visit, in *Challenger*, some 24 years previously, but at least we now had a decent chart to navigate on! The sticky heat of the Gambia made a pleasant change from wintry Britain, but it was a relief to get out into the breezy ocean again.

We rounded the Cape of Good Hope on 1st February - and ran straight into a south-easterly gale. Our visit to Simonstown was both 'Formal' and 'Operational', but the formalities were much in our thoughts as we shaped up to enter the Naval Base, with everything 'ship-shape and Bristol-fashion'. At that moment, as we started to turn, some 2-3 cables off the beach, there was a total power failure! The main engines stopped, the lights went out, the bridge instruments failed, and the 'inter-coms' packed up. I had no communication with the engineroom, or with any other part of the ship - and we were drifting straight down wind on to a rocky lee shore. 'Good grief!' I thought, then, dashing out to the bridge-wing, I yelled down to the Cable Officer on the fo'c'sle: 'Let go port anchor!'. That held her, and she rounded up into the wind, about a cable off shore. Still no sign of power being restored, so I called up the naval tug which had been standing-by off the dockyard entrance, and requested assistance. Halfway over to us, the tug stopped and signaled that she had a steering breakdown. 'Ye Gods!' I muttered, 'What else?'. It was hardly an auspicious start to our visit. (The South African Navy might well wonder if it was wise to order a new Survey Ship based on a design which was subject to total power failures like this!) But it might have been worse, I suppose. Before the anchor took hold, I could see in my mind's eye the sort of headlines that would be splashed across the front pages of The Cape Argus, had we fetched up on the rocks just in front of Admiralty House - which we very nearly did!

Apart from that inauspicious episode, however, the visit was a great success. There were the usual courtesies and formalities to be got through on the first day, and the next day was largely taken up with a thorough inspection by the South African Naval C-in-C and members of his staff. There was also much liaison and discussion with the S.A. Hydrographer, and between our scientists and those of the University of Cape Town, concerning the forthcoming Benguela project. We remained at Simonstown all that week.

With South African scientists and Naval officers embarked, we set off into the Benguela Current to start the hake-count, using special equipment designed for the purpose. The

Current flows northwards along the west coast, and the relatively cold water is extremely rich in nutrients brought up from the Southern Ocean. There are numerous and frequent 'upwellings' of this cold, plankton-bearing stream of Southern Ocean water, which, for the most part, flows underneath the warmer Atlantic surface water. Where these up-wellings occur, the sea abounds in fish and seals, porpoises, dolphins and whales, and a myriad of sea birds wheeling and diving on the creatures below. It is quite amazing to see such concentrations of wild-life activity, but it does not help the accurate measurement of water-depth, since sound velocity varies with the temperature and density of the water-masses through which it has to travel. We spent virtually the whole of February on this fisheries-survey, which, in its way, was fascinating, particularly for the scientists. These we disembarked at Walvis Bay, heading home from there on the 1st March.

Our passage from there was fairly uneventful, though the following episode is worthy of mention. Shortly after leaving Walvis Bay, we found ourselves among a flotilla of whale-catchers which were busily hunting and harpooning a school of large whales, one of which, trailing a stream of blood, swam past the ship just below the surface. A whale-catcher, harpoon gun at the ready, was chasing it. My heart went out to the wounded whale, and I made myself extremely unpopular by turning the ship to cut across between the hunters and their quarry. I received a volley of abusive gestures from the catcher's bridge and fore-deck, but I reckoned the whale had escaped.

Our return passage was without further adventures, though useful from a scientific point of view, as our geophysical traverse brought some quite startling new data to light, particularly when we crossed the Gulf of Benin. We got back to Devonport towards the end of March, in good time to take some well-earned Easter leave.

We started the summer session early in May, with a traverse round the south and west of Ireland, and then, via Belfast Lough, to Loch Boisdale. From there we set out to re-establish the 'Green' Lambda station at Gob-na-h' Airde on St. Kilda, followed by the 'Red' station on North Rona, both operations being carried out faultlessly, this time by our 'Wasp' helicopter. With the preliminaries completed, we resumed work on the 'Polaris' survey.

Throughout the summer and autumn of 1966, Hecla worked continuously on this important survey between the Faeroe Islands and the Outer Hebrides, breaking off from time to time to visit places in the Orkneys, Shetlands, Faeroes, Hebrides and Ireland. An agreement had been reached with the Irish Government under which, in return for us undertaking to survey some of their ports, harbours and bays, they would permit us to erect our Lambda-stations on Irish territory in order to control our ocean surveys in future years. This agreement worked out to the mutual advantage of both countries. Thus, to provide inshore-survey experience for our people, and to relieve the monotony of the ship's work in remote waters, we were able to land a strong detachment, with two sounding-boats, at Killybegs, in County Donegal, and to survey the port and its approaches.

We set up this party in rented accommodation on 2nd June. We were delighted by the reception we got from the local populace and from their authorities. Killybegs was a thriving fishing-port, and the Irish Government was determined to expand its off-shore fisheries. The only charts were those of the British Admiralty - based on lead-line surveys of the 19th century, and a re-survey by modern methods was long overdue. The local community understood this, and regarded the arrangement as eminently sensible. But part of the

agreement stipulated that, in order to keep a 'low profile' and avoid unwelcome attention from the LRA, *Hecla* was not to remain in an Irish port longer than was strictly necessary to disembark (and re-embark) shore-based detachments. Nor was she to anchor in Irish waters except under stress of bad weather. Thus, on this occasion, the limiting factor was the time it took to ferry the Land-Rover ashore in an inflatable raft: not more than two hours. (I had previously sent an officer in plain clothes to make advance arrangements for accommodation, logistics etc., so everything was ready for us when the ship arrived.)

The main survey proceeded on routine lines, working 'round the clock', day and night, for a fortnight at a time. For those not directly involved in the hydrographic and scientific aspects, it was tedious watch-keeping and day-work, with little diversion other than the ship's own entertainment programmes. For me, however, it was far from boring. Quite apart from the interest and fascination of the developing survey, and my daily stint at hand-contouring of the bathymetry in the Chartroom, the whole business was immensely satisfying. I was aware that Hecla would almost certainly be my last sea-going command, and I intended to make the most of it. Standing there on the bridge, or sitting in the Captain's chair, with nothing in sight except the vast blue ocean, the ship surging ahead on a steady course, engines throbbing and machinery humming in the background, officers and men quietly and efficiently performing their duties on all sides, I often thought what a marvellous job I had. With so much power at my finger-tips, lord of all I surveyed, my word virtually law, the sea and the sun and the sky my constant companions, what job on earth could compare with command of one of Her Majesty's ships? It was a privilege of which I was very proud, and the responsibilities I shouldered seemed a very fair price for the trust reposed in me. I counted myself a very lucky man.

Our re-entry to Killybegs happened to fall on 19th July, my 50th birthday, and I was determined to make the most of it. Peter Odling-Smee had been told to draw up a guest-list, to include all the local people who had befriended or helped his party in the course of the six weeks during which they'd been based there. *Hecla* anchored inside the harbour while the boats brought off all the stores and surveying gear, and the Boatswain supervised the re-embarkation of the Land-Rover by means of our inflatable raft. As soon as everything was re-stowed on board, I had no option but to take the ship out again. But I ordered the boats to remain inshore till 6 p.m. and to bring out my invited guests. I took the ship out - with ostentatious wavings of farewell and blasts on the siren, and anchored her well outside the harbour and out of sight of the port. About 6.15 p.m. the boats appeared, laden with 30 or 40 cheerful guests, and for the next two hours we celebrated both the completion of the survey and my 50th birthday, a process which, I felt, did much to cement Anglo-Irish relations!

A few days later we anchored in Lough Foyle, and exercised our organisation for military support of the Civil Powers by landing an armed platoon on Magilligan Point. We then went in to Londonderry for a long week-end's rest and recuperation.

In mid-September we undertook an exercise lasting for about a week, in which we were involved with a number of civil engineers and scientists in a geodetic survey to establish a 'proving-ground' or trials area centred on Dubh Artach. We aimed co 'evaluate' the accuracy of the new Hi-Fix radio-location system (which, as recounted earlier, we had tried out in 1965 in comparison with our Lambda system). The Dubh Artach project involved accurately fixing the ship's position in a number of 'stations' as she moved across the proving-ground, by tellurometer ranges observed simultaneously from National O.S. Triangulation Points on

lona, Tiree, Colonsay, Arran and Islay. The work involved gave the sailors plenty of exercise, scrambling up the mountains, while the surveyors and scientists spent many hours with their mathematical calculations in the Chart Room.

[Sometime during September 1966, my father invited me to come with him on a short voyage in HMS Hecla, departing from Devonport. I can't remember how long the voyage lasted, or where it ended (presumably we returned to Devonport), but I clearly remember certain details. The night before we set sail I slept (for some reason) in the Chart Room, which was just behind the Bridge. It was extraordinarily difficult to get to sleep, because in that room there was a machine, maybe a chart recorder or barrel graph or something, that ticked like a clock, and then every 30 seconds or so it went "GZUMP!" So, for hours all I could hear was "tick.. tick.. tick

In the morning we set sail, and all went well for a while, then as we rounded Land's End and headed north, the swell really picked up and the ship started to pitch - up, up, up, up, up... Then down, down, down... CRASH! Spray rising up over the bow. Then up, up, up, up... and down... down... down... CRASH! I was not a good sea traveller and had not yet got my sealegs, so I was pretty sick, and lay down on a bunk in the sick bay for several hours. Then the Captain (my father) said "All hands! All hands! All hands!" and that included me, so I got up, and I think from then on I felt better.

A day or two later we were in the Irish Sea, and I seem to remember Dad telling me that at one and the same time we could see Ireland, Scotland, the Isle of Man, England and Wales! When we were off Anglesey, near Holyhead and not far from Trearddur Bay (where I had just been staying), Dad asked if I would like a ride in the ship's on-board (Westland) Wasp helicopter, and of course I said "Yes!" After all, this was a schoolboy's dream, and in fact the very first time in my life I had ever been flying.

I was then duly inducted by the pilot, and kitted out with a device that fitted round my throat and larynx and converted my voice to sounds that could be heard through ear phones, which was necessary as the helicopter engine noise would be so loud that normal voice communication would be impossible. Then I was strapped into the copilot's seat, the pilot revved the engine and the rotors started whirring. The ascent must have been very smooth, because what I noticed was not so much the feeling of going upwards (as in a lift), but the incredible spectacle of the Bridge of HMS Hecla suddenly dropping away beneath me and getting rapidly smaller! Then I saw Dad, a small figure on the Bridge looking up and waving furiously, and then the helicopter banked and moved away from the ship altogether, and the next thing I saw was the coast of Anglesey, and Holyhead and Trearddur Bay spread out like a map below me...]

Autumnal weather conditions in the North Atlantic were having the usual effect on the progress of our main survey, at which we continued to plug away throughout October, breaking off now and again to visit the camps on North Rona and St. Kilda, and to spend week-ends in Londonderry and Lerwick in the Shetlands. We had our fair share of storms to contend with, and just when the survey had reached completion, disaster struck at St. Kilda. Winds of hurricane force had struck the islands, wreaking havoc among our camp party, blowing away one of the Uniport huts, with most of its valuable equipment, and levelling the other one to the ground. It was a miracle that there were no serious casualties among the

camp personnel, and incredible that the Lambda mast itself was left standing. But the place was a shambles and a great deal of expensive damage had been sustained. There was nothing for it but to call it a day and bring off everything by helicopter from both there and North Rona, and head south to less stormy regions.

November found us carrying out a seismic survey in the Celtic Sea, dropping 300 lb depth-charges all over the place and studying their subterranean reverberations for clues as to the possible existence of oil-bearing strata. This required a brief visit to Milford Haven to embark the scientists and their equipment, and, on completion, a longer sojourn in Falmouth Harbour at anchor. This was primarily to prepare the ship for her forthcoming role as the Hydrographer's Flagship during a Conference of the North Sea Hydrographic Commission in Hamburg. The N.S.H.C. had sprung up largely in response to the problems posed to national charting agencies in countries bordering the North Sea by the growing number of very large deep-draught tankers navigating the shallow waters of the southern North Sea. At that time, its membership comprised Norway, Sweden and Denmark, West Germany, Holland and the UK, and its Chairman, in 1966, was Rear Admiral G.S. Ritchie. For such an assignment, we would obviously have to look our best.

All freshly painted and 'done up to the nines', we sailed from Falmouth on 15th November, called in at Dover, and arrived at Hamburg on 18th. *Hecla* was given an alongside berth at the main town jetty, very much in the public eye, and immediately ahead of the new German Survey Ship, *Meteor*. All kinds of protocol marked the first day, starting with the arrival on board of Rear Admiral Ritchie, and the hoisting of his flag at the fore truck. There were numerous calls and return calls, and, in the evening we gave a formal Reception on the Flight Deck for all the local dignitaries as well as the various delegations to the Conference, and, of course, their wives.

The North Sea Hydrographic Commission's conference was held on board the *Meteor*, Dr. Roll being the host. Apart from a pleasant little ceremony, at which he and I exchanged complimentary speeches (in English) and I presented him with a framed picture of *Hecla*, I was not directly involved in the conference proceedings.

Before we left Hamburg, with the Hydrographer embarked, I spent an hour in the *Meteor* with her Captain, comparing notes. She was fitted with every modern device, including 'active' stabilisers to reduce rolling. This sounded promising, as one of our big problems was heavy rolling. 'Do not fit them,' said the German Captain, 'they make the motion worse - quite unpredictable and most uncomfortable.' It was a useful tip, and we looked thereafter towards 'passive' stabilisers. *Hecla* returned to Devonport for her winter lie-up and refit on 25th November, after a long and successful season.

It must have been in the spring of 1967 that I went over to Ireland, accompanied by my son Nick and a school-friend, on a reconnaissance for some of the surveys *Hecla* was to undertake during the coming season. Next on the Irish Government's list of priorities for our surveys of their inshore waters was Killala Bay in County Mayo, and I wanted to investigate the facilities at Ballina and Killala for basing and supporting a detached boat-party there before the season actually started. I also had permission from the Irish authorities to establish a Lambda-station on Bloody Foreland, in County Donegal, for further surveys we were to undertake later in the season. We did quite a bit of motoring during that reconnaissance.

By this time all four of our Ocean Survey Ships, *Vidal*, *Hecla*, *Hecate* and *Hydra* were deployed on the vital work in support of the 'Polaris' programme in the North Atlantic. A survey of the ocean on such a massive scale had never been undertaken before, and because there was a great deal more in the surveys than met the eye, security had become a major consideration

The British National Nuclear Deterrent had been transferred from the Royal Air Force's 'V'-Bombers to the Royal Navy's nuclear-powered Ballistic Missile Submarines, the Polaris Force.

This switch represented perhaps the most expensive Defence project in our entire history. We were following the American lead in the development of strategic weaponry, and it was inevitable that we followed their lead in the massive Ocean Survey Programme. However, we did not follow it slavishly. We had our own independently-developed survey techniques, and, in some respects, our methods were superior to theirs. The O.S.P. provided an impetus for much closer liaison between the Royal Navy's Hydrographic Service and the U.S. Navy's Oceanographic Office than anything that had gone before, and we fed on each other's experience and results.

Chapter 23: HMS Hecla, North Atlantic, Greenland, Iceland, Scotland and Ireland, 1967

Our main task (that is to say, *Hecla's* main task) for the 1967 season was the survey of a huge area south-west of Iceland. Hitherto we had controlled our ocean surveys by means of the Lambda radio-location system, which had a range of about 200 nautical miles. To have approached the Icelandic Government for permission to set up our Lambda-stations on their territory would have been to risk unwelcome speculation in Iceland as to the purpose of our work, and, given the political sensitivity and strong neutralist sentiments of the Icelanders (despite the fact that they were one of our N.A.T.O. allies), would probably have resulted in a refusal. The Americans, however, already had a Long Range radio-location system covering the North Atlantic, known as Loran-'C', with one of its stations actually sited in Iceland. (Other stations of use to us were sited in the Faeroe Islands, in southern Greenland, and, if I remember rightly, in Nova Scotia). Unlike Lambda, an 'active' system requiring continuous transmissions from the ship, Loran-'C' was a 'passive' system which required reception only. Hecla had been fitted during the winter with the relevant Loran-'C' receivers, and we could use whichever pair of transmitting stations provided the best 'cut' in the particular area we were working in.

Before starting up on this survey, however, we made a sortie out to Rockall to check on what remained of H.M.S. *Vidal's* 'Annexation-plaque', ring-bolt and flagstaff, secured there in 1955 as 'permanent' evidence of British ownership. My recollection is that they had all succumbed to 12 years of continuous battering by Atlantic seas, and I reported accordingly. From Rockall we made a traverse back to Londonderry, which was to be our main base for the season. Our next job, in mid-April, was to land a two-boat detachment at Portree, on the Isle of Skye, to carry out an extensive local survey which was expected to take three or four months to complete. That done, the ship was free to pursue her own work up north.

Apart from diversions (which were many and interesting), we spent the whole of that spring and summer surveying the ocean off Iceland. The first diversion occurred towards the end of April, when the Loran-'C' station near Cape Farewell, in Greenland, was blown down in a gale. It was a vital station for us (as we were using the Greenland/Iceland pair), so we had to stop work and return to Scotland. I found it most frustrating, lying idle and waiting for the station to 'come on the air', and decided, instead, to go and investigate. One of my ambitions had long been to visit Greenland, which I had never seen. So we weighed anchor and headed back to the survey-ground. My plan was to resume work if the station became operational, and if not, to continue westward to Greenland. The weather was absolutely superb, with cloudless blue skies, brilliant sunshine, high visibility and a flat calm (perfect for surveying!), but the station remained 'off the air'. So we continued westward all day. At the first sign of ice, I flew off the helicopter to scout ahead.

A cold current flows southward along the east coast of Greenland, bringing with it the Arctic pack-ice. Inshore, the pack is dense, becoming progressively looser away from the coast. We very soon became surrounded by loose pack-ice and small bergs as we continued towards the land, and I was concerned that we should keep open water behind us when the time came to withdraw. I told Pete Spelling, in the helicopter, to keep a careful watch to seaward to ensure that we did not become entrapped as we turned northward, parallel to the coast. Weaving our way between the ice-floes, we cruised steadily northward with ice on all

sides. Away to the west we could see the magnificent mountains of East Greenland, stark and shimmering against the blue sky. It was a wonderful experience, and despite a certain anxiety, I felt really elated. In fact I can honestly say that this spontaneous and unauthorised cruise through Greenland pack-ice was one of the most exhilarating and memorable episodes of my whole life.

On a previous occasion, while we were steaming westwards along one of our survey-lines, I spied a ship hull-down below the horizon, fine on our starboard bow (a most unusual occurrence in those waters, where ships were few and far between). It was on an opposite course, it had a buff-coloured mast and funnel, and as it came over the horizon, it displayed a white hull. 'Looks remarkably like a Survey Ship,' said the Officer of the Watch jokingly. 'It jolly well is!' I replied, 'Signalman, call her up on the ten-inch!' We exchanged identities. It was H.M.S. *Vidal*. She was running a line of soundings eastwards on the adjacent survey. 'Well, blow me down!' Neither of us was aware that the other was working anywhere near. We passed about three miles away, and I exchanged pleasantries with Tony Cooper, her Australian Captain, and arranged to meet up together in one of the Scottish lochs a week or two later.



Hecla approaching ice-edge, East Greenland, 1967.

Of course, working as we were, virtually on the edge of the Icelandic submerged 'shelf', I took an early opportunity to visit Reykjavik for a week-end in May, largely to brief Petur Sigurdsson, the Hydrographer, on our work off-shore and to offer our services in any way he considered useful, e.g. to survey the waters around the new volcanic island of Surtsey, and the shape and extent of its coastline. Between us, we reckoned that this would be a useful project to be pursued jointly later that summer, and we laid plans accordingly.

A recurrent problem when using the Loran-'C' chains was lane-slippage. This could be easily detected and rectified if we were actually surveying, but it sometimes occurred when the ship was otherwise occupied, in which case it could play havoc with our work if proper checks were not made. The nearest land to the survey area was Vestmannaeyjar (the Westman Islands), and these, together with Surtsey (which was now static), provided a perfect means of fixing the ship's position. So whenever undetected lane-slippage was suspected, and always before resuming work after a break, I used to take the ship up to a reasonable distance off the islands and fix her position by horizontal sextant angles, at the same time checking the readings on the Loran-'C' receivers. So we got to know the islands rather well, and I was keen to pay them a formal visit.

One week-end in June, when the ship was alongside in Reykjavik, Pete Spelling and I flew down to Heimaey, the only town and port in the islands, in our helicopter to call on the Mayor and to discuss with the Harbour Master the feasibility of bringing the ship into the harbour. It was 33 years since I had last been there, and the place had grown enormously. The port approaches, however, were much as I remembered them, and to bring the ship into such a constricted entrance, involving tight turns very close under the beetling cliffs, was going to be a tricky business. Hecla would be one of the largest ships ever to enter the harbour.

So despite the navigational hazards, I took *Hecla* into Heimaey harbour for a week-end, and berthed her alongside the modern wharf, which normally accommodated dozens of the local trawlers and drifters. Our presence aroused a lot of interest, and we were well received by the Mayor. While being entertained in his home, f remember discussing with him the state of the local volcano, which dominated the town and harbour entrance (and which my mother and I, with little Hrebna Benediktsson, had climbed all those years ago). Was it dormant - or extinct? The Mayor said that it was dormant, and had last erupted some 400 years previously. Some people, he said, thought that it was due to erupt again before very long. (As is well known, it did just that several years later, with disastrous results. The whole population had to be evacuated to the mainland, much of the town was destroyed, and the harbour entrance was almost sealed off).

Once again our mid-seasonal break for assisted maintenance, and to grant leave, was spent at Liverpool, and this time our programme coincided with that of our sister-ship, *Hecate*, both ships berthing together for ten days. This gave me the opportunity to compare notes with John Winstanley ('Winston'), her C.O., as *Hecate* had been working on a similar survey to ours, though further south. (An occasion had arisen earlier while we were both out working on our respective surveys, when we were both ordered to proceed with all despatch to assist H.M.S. *Vidal* after she had collided with a merchant-ship in mid-Atlantic! Although severely damaged, she did not in fact require assistance and the order was rescinded soon afterwards. It had seemed odd that an Ocean Survey Ship should find herself in trouble, and still odder that the only vessels near enough to help should be two other Ocean Survey Ships - and all of them British!)

At the end of June I took *Hecla* up to the head of Hvalfjord for a quiet week-end at anchor. I had a very special feeling for that place, and found the surroundings inspiring. It never failed to remind me of those days during the summer of 1940 when we had 'sweated so much blood' over that survey, and this time it was almost as peaceful as it had been then. Apart from one or two whale-catchers, we had the place to ourselves.

Early in July, while up in the Westman Islands, I had set up a joint survey of Surtsey with the Icelanders, the arrangement being that we detached one of our Surveying Motor Boats to work under the auspices of their Deputy Hydrographer (Commander Gunnar Bergsteinsson) and supported by the Coastguard gun-boat *Thor*.

The Commander ,of the Icelandic Coastguard Ser vice was Petur Sigurdsson, the Hydrographer, and his fleet of modern gun-boats was not infrequently assigned to hydrographic duties, so there was no problem there. At the end of July I was joined by my son Nicholas, who, having previously expressed his intention of joining the Navy, was now showing strong signs of changing his mind. At this point, while *Hecla* was in process of setting up the joint survey, I exchanged calls with the Captain of the *Thor*, and he asked me if my son would be interested in signing on as a temporary member of his crew. What an intriguing invitation! I said that it seemed a splendid idea and that I would follow it up. The more I thought about it, the more it appealed to me. (Really, what an extraordinary offer, and what a marvellous opportunity to savour one aspect of naval life, with no commitments!)

That summer our daughter Virginia was spending her long vacation in Iceland. She had worked for the Icelandic Hydrographer as a draughtsman, before going up to York University - and this year she was studying Icelandic history and Old Norse. At one point Mary flew up to Reykjavik with her fishing-rod - and this coincided with one of our week-end visits, making it quite a family occasion.

That settled, we went ahead with the *Thor* project, and sailed for Iceland on 3rd August. Admiral Ritchie, the Hydrographer, had expressed a wish to visit Iceland to confer with Petur Sigurdsson, and I was keen to show him something of our work, and also something of that extraordinary country. So he joined us before leaving Londonderry, and we sailed wearing his flag. It was not a very calm passage, but once on the survey-ground, things began to look up.

We sailed up to the head of Hvalfjord, and I pointed out to the Admiral most of the natural features and marks that we'd used during the 1940 survey. I had arranged to fly him off to Reykjavik by helicopter, to be met by Petur Sigurdsson, and he agreed to take Nick with him. So I bade the Admiral and Nick farewell, and off they flew. We then went round to finish off the Surtsey Survey and recover our boat-party, and on 12th August we left Iceland for the last time. By mid-August, our detached party on the Isle of Skye had completed their survey of the Sound of Raasay, so we went straight down there to recover them. Our next commitment was a visit to Harwich to demonstrate hydrographic and oceanographic survey techniques to delegates attending the Commonwealth Surveyors' Conference at Cambridge, which involved a day at sea and the dispensation of hospitality to some 30 or 40 of them.

My mother had never seen *Hecla*, and realising that our visit to Harwich would provide a last opportunity for her to do so, I had written to suggest that she should get Roger, my brother, (an ex-Battle of Britain Spitfire pilot) to come and drive her down there from Lincolnshire. I knew that this would be my last sea-going command, and I was keen to show the ship off to them both. They motored down to an hotel in Dovercourt, and I dined with them that night. Next day we went to sea with the Commonwealth surveyors, anchoring for the night close off Harwich after disembarking them. That evening my mother and Roger came off to dine with me on board, after which I gave them a conducted tour of the ship. I think they were duly impressed, as *Hecla* was really looking immaculate.

Our main task for the autumn was a survey north-west of Ireland, for which we established our two Lambda stations on Bloody Foreland (Co. Donegal) and at Saligo Bay (Islay). It was during the course of this survey that we set up a detachment, with two boats, at Killala (Co. Mayo) for a survey of the Bay on behalf of the Irish Government. Having this party ashore there enabled me, with a fairly clear conscience, to take the ship in to various loughs and anchorages on the west and north coasts of the Republic, either to shelter from the autumnal storms or to sustain and support our two detachments in Ireland. Thus, from time to time we would visit Blacksod Bay, Lough Swilly and Sheep Haven, as well as Killala Bay. I loved these wild parts of the Irish coast.

However, it was at Saligo Bay, towards the end of August, that we really fell foul of the locals, or rather of the local landlord. We had erected a Lambda-station, but before use, we had to establish its National Grid co-ordinates, and this meant theodolite observations from three or four previously co-ordinated triangulation-points scattered about the island of Islay. Weather conditions were a crucial factor, and time was of the essence. Sunday dawned bright and clear, so I ordered the helicopter to transport the observers to the points concerned, by far the quickest way of getting the job done. Pete Spelling dumped the parties, one after the other, skimming low over the moors, and returned to the ship, repeating the process in reverse an hour or two later when the observers had finished. It had been a very satisfactory day's work, and I was well pleased with the results. However, I had not reckoned with the fact that the whole island was owned by a Tory peer, Lord Margadale, who was not only in residence, but had assembled a large house-party intent on a big grouse-shoot the following day, plus some deer-stalking later that week.

The Noble Lord was hopping mad. He rang up the Navy Department in Whitehall and demanded an explanation. The helicopter had scattered his grouse and stampeded his deer. His forthcoming shoot was ruined, he said. His protests were relayed to the Hydrographer, who relayed them back to me! He sent me a blistering signal next day, adding strictures of his own. Had I not cleared the operations in advance with the local landlord? If not, why not? It was a travesty of 'Forward Planning' (a concept on which Admiral Ritchie had always set great store), etc., etc., etc. All I could do was to signal abject apologies - which I did - and write in similar vein to Lord Margadale. But it didn't end there. The affair rumbled on for some time afterwards, and I began to chink mountains were being made out of molehills. Judging by the fuss they were kicking up, anyone might think a foreign aircraft had intruded on our airspace with sinister intent. Considering that we had operated our helicopter over foreign territory - South Africa, Iceland, the Irish Republic - without a murmur of protest, it was ironic that a perfectly legitimate 'Defence' operation over our own national territory should stir up so much rancour, even if it had upset His Lordship's sporting activities. In a letter to Admiral Ritchie, I said as much.

We plugged away at the main survey in the Western Approaches throughout the autumn, sheltering from time to time from the steadily deteriorating weather, usually in Lough Swilly, with an occasional visit to Londonderry or Lisahally for fuel. It was mid-November before we could begin the recovery of our camps on Islay and the Bloody Foreland, by which time the detached survey party at Killala had also finished their work. As it would probably be the very last time chat I would be able to inspect and address the whole of my ship's company before we paid off, I made a particular point of completing all field-work and taking the ship in to Lough Swilly to spend Remembrance Day there, at anchor. Having inspected all hands at Divisions on the upper deck, and having had 'Church' rigged on the Flight Deck, I paraded

everyone for the Service of Remembrance, an impressive and dignified occasion, after which I made my Farewell address. It was a milestone in my life, and quite an emotional one too.

The shipping channel through Lough Foyle runs close to the Republican shore, and right in front of my friend Terence Baird's house at Greencastle. A big white flagstaff stood in the garden of the next-door house, owned by his friend Liam McCormick, an Irish architect and amateur sailor, who used to dip his flag in salute whenever we passed. During our last visit to Londonderry, I was told by Terence that Liam was wondering how he could lower his 40ft, mast to the ground for re-painting, and re-erect it afterwards. Could the Navy advise him? This seemed to me a golden opportunity for our sailors to practise some good old-fashioned seamanship, and I asked if Liam would like us to do the job for him. Obviously we could not send a naval working party overland through the Republic, but who would know if we sent it by boat, along the coast? The proposal was agreed. The Boatswain's party, equipped with sheer-legs, blocks and heavy tackles, lowered the mast to the ground, re-painted it, and, when the paint was dry, re-erected it, to the great joy and satisfaction of its owner. The sailors, well rewarded with beer and sandwiches, had thoroughly enjoyed a rare and useful experience, and I felt we had done something positive for Anglo-Irish relations. The mast gleamed, and the Irish tri-colour dipped in gratitude as we took our final departure. Hecla and *Hecate* returned to Devonport together at the end of November, and on 30th both ships paid off for re-fit and re-commissioning. After two and a half years, my last sea-going command was at an end

Chapter 24: On Hydrographer's Staff, Whitehall and Taunton, 1968-70 - 'Followed by Promotion, 1971

My new appointment was to the post of Assistant Hydrographer in Whitehall for the second time, and I was resigned to taking up the reins more or less where I had laid them down almost three years previously. At least I knew pretty well what I was in for when I took the job over early in the New Year.

However, I was not back in my old office. With the absorption of the three Armed Service Departments into the Ministry of Defence, the Navy had moved out of the Admiralty building and the Hydrographer's offices were now located in the old War Office building. A.H.'s office was nothing to write home about, but almost adjacent was the Admiral's superbly spacious octagonal room - which could one day be mine!

My recollections of the year 1968 are distinctly hazy, and obviously little of earth-shaking consequence could have occurred during this period.

[However, my recollections of 1968 are extremely vivid, and there was a 'golden moment' that was closely related to my father's activities at this time. This moment was associated with the Haileybury Scholarship Examinations, which took place in November 1968 – it is quite a story!

There must have been about 30 candidates all up, about half of whom were 'internal' (that is, those who had taken the Common Entrance exam in June and started at Haileybury in September). At mealtimes we external candidates ate in the privileged 'gallery' of the huge Dining Hall, and I recall 'surveying the scene' from the balcony, watching some of the older boys deploying the pale green melamine plates along the lengths of the tables, with resounding echoes around the Hall. We were ably looked after by none other than the inimitable Humphrey Nye. Of the exams themselves I remember little. I felt afterwards that I had done OK, but not particularly well.

After the exams were over I went home (to Highgate, London N6), to wait for the results. The fateful day came when those who had won scholarships were to be notified by telegram — meaning that if no telegram arrived then you could assume that you had been unsuccessful. I think it was a Saturday, as my father was at home. There was no telegram first thing that morning, so I waited anxiously at home. Mid-morning came and went, and still there was no telegram. Then it was lunchtime and there was still no telegram, and I began to feel despondent, as by that time it was becoming pretty clear that there would be no telegram at all, and I therefore resigned myself to the fact that I had not won a scholarship after all.

My mother was also feeling anxious, and so she asked my father to take me into town to watch some cartoons at a News Cinema, to take my mind off the disappointment. So we went into town (by bus, I think), but on the way to the cinema, for some reason my father needed to pick something up from his office in Whitehall. As we entered the Admiralty building, the receptionist caught father's attention and told him there was an urgent telephone message and that he was to call my mother at home immediately. So we went upstairs to my father's office, and he picked up the phone and dialed home. My mother answered, and I could hear from my father's reaction that there was some very exciting news...

I caught the gist of the conversation, that a telegram had in fact arrived – my mother read it out to my father, who repeated it to me:

AWARDED TOP SHOLARSHIP
MANY CONGRATULATIONS

STEWART

[William Stewart was the Master of Haileybury]

My mother then explained that the reason the telegram had not been delivered during the morning was that the telegram delivery boy (who was very apologetic) simply could not find our address!

I couldn't believe it! It took me a while for the news to sink in, and then I was 'walking on air'... It was a 'golden moment' indeed!]

It was in 1969, on the way home from a glorious holiday in Sweden, that I heard the sad news of my mother's death. Although her health had been failing for some time, the end had come suddenly and was a considerable shock to those nearest to her.

[As recorded in my memoirs, my 'true' life – that is, my spiritual life – began in the early summer of 1969. My paternal grandmother ('Darsie') had recently died, and I suppose I was more than usually sensitized to spiritual matters of life and death... It was my second term at Haileybury, and I had been invited to attend a 'Bible Reading Society' meeting, which took place in the Housemaster's flat after morning Chapel each Sunday. On this particular occasion the guest speaker was the Reverend David Fletcher. He gave me the impression of being friendly and warm-hearted. During the traditional coffee and biscuits before the meeting he shook my hand and introduced himself – and in the course of conversation asked me where I lived. When I replied, "Highgate", his face lit up, and he told me that he lived not far from there and often walked his dog around the Highgate ponds. I felt reassured, ready to listen to what he had to say.

I do not clearly remember the details of his talk – generally it seemed to be an excellent description and explanation of what it meant to become a Christian. Having heard many subsequent talks by David Fletcher on the subject, I imagine that he explained the Cross by reference to Isaiah 53 v 6, "And the LORD has laid on Him the iniquity of us all", using the famous illustration with two hands and a book ("Where has my sin gone? On Jesus. How much of my sin has gone on Jesus? All of it..."). I am also sure that he introduced me to Revelation 3 v 20: "Behold, I stand at the door and knock. If anyone hears my voice and opens the door, I will come in..." He must have gently challenged us at that point, suggesting that if any of us had not invited the Lord Jesus into our lives as Saviour and Lord, we could do so in the quietness of the dormitory that night. I know for a fact that on that very night, in the dormitory, I prayed, asking Jesus to come into my life. I realize now that from that moment on I belonged to Him, a child of God (John 1 v 12)]

On returning to my office, I was asked by Steve Ritchie whether my mother's death had affected my plan to continue serving, and to take over from him as Hydrographer when his five years were up at the end of 1970. Since my mother's death I had given much thought to this very point, and was able to assure him that my plans had not changed. In that case, he said, I had better do a stint with Chart Branch at Taunton next year, to get the hang of the compilation and production processes. I would need experience in those fields before becoming 'the Boss Man'.

Hitherto, the Hydrographic Department had been split three ways: Chart Branch in Cricklewood, Production Division in Taunton, and Headquarters in Whitehall. One of Steve's major achievements had been to secure approval for the amalgamation of Chart Branch with Production Division, and to push ahead with a brand new purpose-built extension to the

Taunton establishment, to house the Chart Branch offices. This had now come to fruition, and we now had some 800 staff located down at Taunton.

The Hydrographer was allowed 'by establishment' four Captains, two of whom were at sea and two ashore. The two Captains ashore both bore the title of Assistant Hydrographer. One of them was in charge of the Chart Branch (as Superintendent of Charts), and was known as A.H.(1). The other, in charge of naval personnel, H.Q. staff and the Survey Fleet, was A.H. (2). It had been my lot to serve twice in the latter post, and not at all in the former. However, with the amalgamation at Taunton, a new command structure had been formulated. The establishment there had been divided into three: Naval Division, Professional Division and Administration and Supply Division, each under an Assistant Director (A.D.(N), A.D.(P) and A.D.(A), and these three formed the Taunton Management Team. My next job was to be A.D.(N), the Assistant Director (Naval).

I started my new job as A.D.(N) at Taunton fairly early in the New Year. I found myself reasonable 'digs' in a guest house quite near the Department, so was able to walk to the office each morning. The new office-block, which housed the Naval and Professional Divisions, was an impressive building. As expected, I found myself much more concerned with charts and surveys than I had been as A.H. in Whitehall. Living on my own in 'digs' during the working week, I used to motor up to one or other of our homes, either Highgate or Legbourne, for week-ends. Eventually, however, we received a satisfactory offer for 'Westwind', the London house, and T immediately started inquiring about accommodation for Mary and me in the Taunton area. I eventually found that the Camp Commandant's married quarters at Sherford Army Camp, just to the west of Taunton, was not needed by the Major-General in command, and could be made available to me. Accordingly, early in the summer, we were formally 'marched in' - to use the Army parlance - and for the first time in my naval career, we had an official 'quarter'.

Much to my astonishment, I had been appointed an Honorary A.D.C. to Her Majesty the Queen. In fact, though I had not realised it, this was a normal attribute accorded to Captains who had reached the top of the 'Captains' List' and were in their ninth year, and therefore (in the ordinary course) due to retire at the end of it. The fact that, in my case, I was likely to be promoted to Flag rank at the end of the year, was neither here nor there - apparently! Anyway, I had to equip myself with the golden epaulette and aiguillette - against the unlikely event of my actually being called upon to render direct service to H.M. As it happened, the 125th anniversary of the foundation of the Hydrographic Office (by Alexander Dalrymple, in 1795) occurred that autumn, and to mark the occasion, H.R.H. Prince Philip, Duke of Edinburgh, graciously consented to visit us at Taunton. It was to be the one and only occasion on which it was appropriate for me to wear my new regalia.

We had a heli-pad in the grounds of the Department, specially provided for our own helicopters and for VI. P. visits. Prince Philip duly plonked himself down on it, and was greeted on the spot by Admiral Ritchie. With the other two members of the Management Team, I was then introduced to him on the front doorstep. He was wearing his uniform as an Admiral of the Fleet, and all our naval personnel (normally attired in plain clothes) were wearing uniform also. H.R.H. was conducted round the whole establishment by the Hydrographer, and introduced to the Heads of Sections as he came to them. He spent much time chatting to all and sundry, but seemed only slightly interested in what I had to tell him (concerning Chart-correction, Notices to Mariners and so on), doubtless reckoning, as a

naval officer, that he knew all about it anyway! Well, that was my moment of glory as an A.D.C.

It was during the summer of 1970, while I was down at Taunton, that Steve Ritchie was able to tell me that Board Approval had been given for my promotion next January to the rank of Rear Admiral, and that I was to relieve him as Hydrographer of the Navy in February. So that was that! I felt both relieved and subdued. It was a tremendous thing to have had it confirmed - at last - but it was a very sobering thought. I was to reach the top of the tree, the crowning point of my career, but what a huge responsibility I had been landed with! On the other hand, who in the whole Hydrographic Service had more experience of its workings, both at sea and ashore, than I had? I comforted myself with the knowledge that at least I could do the job as well as anyone else who might be available. But Steve Ritchie, with his many innovations, had really made a name for himself, and would be a hard man to follow. Anyway, Mary and I reckoned it was an occasion to celebrate, and we did.

In November, as I believe it was, I found myself leading a small delegation from the Department to attend a UNESCO Cartographic Conference in Tehran. My main mission at the Conference was to try to persuade Thailand, Malaysia, Indonesia and the Philippines to set up a South China Sea Hydrographic Commission on the lines of our North Sea Hydrographic Commission, but I could do little more than sow the seeds of the idea.

I was determined to get home by the week-end, and booked a seat on the only London-bound flight on the Saturday. It was an Iran-Air flight via Istanbul. After I had checked in at .the airport, the fuelling-stop was changed from Istanbul to Moscow! It was too late to withdraw, and I had to face the prospect of flouting the strict prohibition placed on all Ministry of Defence staff against crossing the Iron Curtain. The fact that my brief-case was bulging with confidential documents made the prospect even more disconcerting, but in the event, when we reached Moscow, a Russian military guard was placed on the plane, and we were not permitted to leave it, nor were we searched. After 'sweating blood' on the ground, I craved a drink of water, and as soon as we were airborne again, I asked the Iranian stewardess for. a glass of water. She brought a brimful tumbler, which I gratefully quaffed, and promptly choked on. 'Water?' I spluttered at her. 'So sorry, sir,' she answered, 'I thought you said vodka'!

Chapter 25: Hydrographer of the Navy, 1971-5

In February, 1971 I took over from Steve Ritchie at a ceremony in Taunton attended by most of the staff of the Department and also by our wives. The ceremony was primarily to bid farewell to an outstanding Hydrographer of the Navy, and to provide an occasion for me to present him, on behalf of the staff and the Surveying Service, with a set of valuable books, dear to his heart. Inside each volume had been pasted a beautifully inscribed book-plate commemorating his service and the affection and esteem in which he had been held. The wording of this I had based on the inscription engraved on the famous silver 'Owen Bowl' presented by his officers to Captain W.F.W. Owen some 140 years earlier. In making the presentation, I delivered a eulogistic and rather emotional speech, which almost reduced Steve and his wife to tears, but in the circumstances I could hardly have done less.

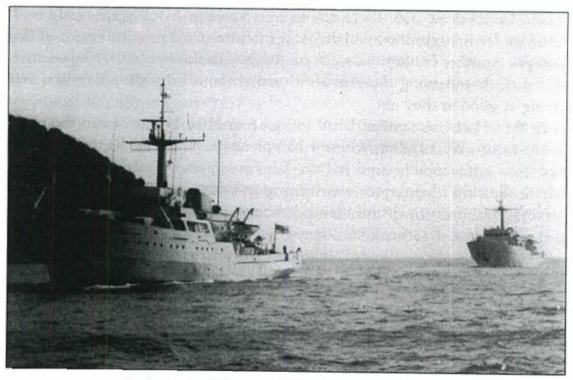


The 20th Hydrographer of the Navy, Whitehall, 1971.

So now I was Hydrographer of the Navy, the twentieth holder of that post - which dated back to 1795 - and head of the oldest branch of Admiralty. It was a proud position to be in, and I relished it, both for what it was, and for the challenges which it presented. I was determined to do my best, and, if possible, to 'make my mark' on the Hydrographic Service. I was determined, also, not to make changes for the sake of change, even though I was less than enthusiastic about some of the changes made by Steve (e.g. his drive for metrication). Such changes had gone too far to be reversed, and chaos and confusion would have resulted from any attempt to revert to the 'status quo ante'. So my first directive to the Department (taken from the Fleet Signal Book) was 'Maintain present course and speed'.

I was resolved not to become too desk-bound, which would have been all too easy, with one office in Whitehall and another in Taunton. I had been instrumental during Admiral Irving's time in getting Board Approval for the Hydrographer to fly his flag when at sea in one of H.M. Surveying Ships, and both 'Egg' [E.G. Irving] and Steve had made good use of that dispensation. I decided that I would make the effort to spend time in each one of my thirteen ships every year, if possible while they were actually at work on the survey ground. I also announced my intention of visiting every one of our 'out-stations' in U.K., and every branch and section of the Department at Taunton. Having wrestled, in previous shore appointments (S.O.B., O.C.S.C., A.H. and A.D.(N)), with the minutiae of innumerable problems, I took steps to see that the Hydrographer did not get bogged down with detail. My aim was to have every problem fully argued out by my staff officers before being presented to me for a decision, a policy which, I felt, would leave me free to deal with the broader issues, and to get around as I wanted to.

I told my immediate superior (the Vice-Chief of Naval Staff) that my personal work-pattern would differ from that of my predecessors in that I would spend the beginning and end of the working week in Whitehall, and the middle of the week at Taunton. This would enable me to travel back and forth to Legbourne by train at week-ends, stay in our rented London flat on Monday, Tuesday and Thursday nights, and put up at the County Hotel in Taunton on Wednesday nights. It would give me two full days at Taunton and three at Whitehall (which, I felt, was the right balance), and though it meant a lot of train-travel, the journeys were long enough to deal with a fair amount of paper-work en route.



Bulldog and Beagle visiting Dartmouth, 1971.

My first 'excursion' as Hydrographer was an official visit to see the Royal Naval College at Dartmouth, flying my flag in H.M.S. *Beagle*, with her consort *Bulldog* in company. I was received with full honours by the Captain-in-Charge (my old friend, Gordon Tait), with Guard

and Band, which I had to inspect on the Parade Ground. Mary had already arrived, and we were accommodated overnight in considerable luxury in the Captain's official residence. Meanwhile the cadets were shown over the ships, getting their first insight into the Surveying Service, and great play was made by the Dartmouth beagles, with the whole pack swarming over my immaculate flagship, *Beagle*, (to the consternation of her First Lieutenant!).

A month later, in April, I headed a small delegation from the Office to the annual R.N./U.S.N. liaison meeting on the 'Polaris' Ocean Survey Programme with our American 'opposite numbers' in the U.S. Naval Oceanographical Office in Suitland, Maryland. We flew over to Washington, where I was taken in hand by the Oceanographer of the Navy, and together we decided to leave the business meetings to our respective subordinates, turning up to the plenary sessions at the start and finish, and to put our signatures to the resulting agreements. This left me free to see more of Washington, and to visit friends. On my last day in Washington, the capital was invaded by thousands of unruly civic 'protesters' intent on bringing the city to a standstill by occupying the main bridges and road-intersections. At five o'clock in the morning I got a close-up view of the way the police and armed forces dealt with these disruptive elements. A full-scale battle took place under my window, which I had to close in a hurry to keep out the tear-gas. Another battle took place on the way to the airport, with hundreds of motorists returning the missiles aimed at them from the sidewalks, and giving as good as they got.

As far as I can remember, I had to fly up to New York to catch the plane down to the West Indies, where I had planned to visit *Hecla*, whose C.O. had been unfavourably reported on. We landed on the island of Barbados, where the ship's helicopter was waiting to whisk me out to *Hecla* on her survey-ground north of the island. I spent several days inspecting the ship and watching her at work, and also visited her detached boat-party in the delightful Grenadines. We had a good look at a large French cruise-liner that had recently wrecked herself by trying to squeeze herself through a narrow rock-strewn passage, and we spent a pleasant lunch-hour at anchor off Mustique (Princess Margaret's holiday island), entertaining its owner, Colin Tennant and his wife. I returned to U.K. considerably reassured regarding the Captain's competence.

Shortly after I had taken over as Hydrographer, I was confronted with my first challenge in Whitehall. There had been a collision in the Dover Strait and the main shipping channel was blocked by two wrecks. I was asked by the Department of Trade to mount an emergency survey of an alternative route, 40 miles long, between two sandbanks known as The Varne and The Ridge, and to prove a 2-mile wide channel clear to a depth of 12 fathoms. Fortunately the three vessels of the Inshore Survey Squadron were just emerging from their winter lie-up, so I ordered them straight into the fray, and because the task was urgent, I called on the Naval Staff to provide assistance with minesweepers and patrol vessels. Four minesweepers and two frigates were assigned to the job (the frigate to keep the route clear of shipping) and placed under the tactical command of the Senior Officer Inshore Survey Squadron. Within a month 'Operation Varnesweep' had been successfully completed, the Navy earning high praise and congratulations from the Department of Trade.

About this time an unpleasant incident took place in Ireland which brought us unwittingly to the public eye. *Hecate* had left a detached survey party to finish off the previous season's work in Baltimore, Co. Cork (part of the 'quid pro quo' agreed with the Irish Government in return for our use of Lambda sites on their territory). The 35 ft. Survey motor boat lay at her

moorings in the harbour overnight, and provided a tempting target for the I.R.A. They placed a bomb on board and duly blew it up, much to the dismay of the survey party and the consternation of the Irish authorities. The latter did all in their power to bring the offenders to book, and made full restitution, compensation and apology to our Government. A hilarious cartoon by 'Giles' appeared in the Daily Express, and the original drawing was sent to me with the compliments of the author. (It now stands framed in a place of honour at home!)

A week or so after returning from the West Indies, I decided to kill three birds with one stone by flying over to Norway. I landed at Stavanger and was met by the Norwegian Hydrographer, Mr. Sundby, who at that time was Chairman of the North Sea Hydrographic Commission. He showed me over the charting establishment and impressed me with the difficulties he faced in maintaining up-to-date coverage of Norway's long and deeply indented coastline with a very small staff and a 'shoe-string' budget. He put me up for the night at his home, and insisted on motoring me next day all the way to Oslo. It was a most interesting drive, initially along the coast, and he took great pleasure in pointing out to me the scene of Captain Vian's epic exploit in H.M.S. *Cossack* in rescuing all the British prisoners-of-war from the German ship Altmark in the early spring of 1940. (I remember the excitement which the incident caused at the time).

Mr. Sundby dropped me off alongside H.M.S. *Hecate*, which was visiting Oslo at the time, and I hoisted my flag in her (the second 'bird to be killed with one stone'). Next morning we sailed down the beautiful Oslo Fjord in brilliant sunshine, and continued overnight to Copenhagen. Here I was to 'kill my third bird' by making a formal visit to the Danish Hydrographer, Captain Knud Kjeergard, R.D.N. I had met him before, and he received me most warmly. The usual entertainments and receptions took place, ashore and on board, and after a diverting guided tour of Copenhagen's somewhat notorious 'attractions', and a night in one of its hotels, I took my leave of my Danish colleague and found my own way home.

For nearly two months during the spring of 1971 there was a nation-wide postal strike. The Hydrographic Department is probably more dependent than most organisations on the free flow of information, inward and outward. Obviously it is of no use to the mariner if its products and publications remain on the premises, and to a great extent the accuracy and up-to-dateness of these products rests on the receipt of reliable information from many quarters. Whereas we were able to use all sorts of alternative methods of distributing our wares to our 'customers' world-wide, the enormous daily influx of mail virtually dried up. Relieved of the task of dealing with it, we were at last able to catch up with the chronic backlog of work throughout the Department - only to become submerged by the avalanche which fell upon us when the strike ended.

Vidal, the oldest of our four Ocean Survey Ships, required 50% more crew members to man her than the ships of the *'Hecla'* class. As naval manpower was a critical factor, we therefore decided to replace her and order a fourth *'Hecla'*. When she returned from the Indian Ocean in August, I made a special point of boarding her off Portland so that she could wear my flag on the final leg of her last voyage, up-Channel and round to her home port, Chatham, to pay off. *Vidal* had given us twenty years of excellent service, but in these days of financial stringency she was no longer an economical asset. How long would we have to wait for her replacement?



Vidal (wearing the author's flag), back from the Indian Ocean and entering Portsmouth (en route to Chatham) to pay off, 1971.

That summer I spent several days with the three vessels of the Inshore Survey Squadron, working off the Norfolk coast. In a sense it was a nostalgic visit, because it was there that I'd had my first experience of surveying (in Franklin in 1938), and I actually found myself observing the self-same sextant-angle that had been assigned to me then, to practise on. At least in that quarter, sounding techniques had not changed much over the past 33 years. I also managed to fly my flag in the other two Inshore Survey Craft, *Woodlark* and *Waterwitch*, and was able to squeeze in a 48-hour visit to *Fox* between sessions of the Commonwealth Survey Officers' Conference at Cambridge, where I had to make an opening speech. Later, in the autumn, I managed to get to sea in *Fawn* and spent some time in *Hydra* before sending her off to the Indian Ocean.

Which reminds me: *Hydra's* C.O. was Roger Morris, who had served with me in *Owen*, and of whom I had quite a high opinion. As a Lieutenant-Commander, he had been granted the acting rank of Commander by virtue of his appointment, but had just been 'passed over' for promotion to the substantive rank. This irked me, and I argued very strongly that he should be promoted 'out-of-zone' (an almost unheard-of occurrence). To my astonishment and delight, on 30th June his name appeared in the half-yearly promotion-lists (together with another officer whom I had recommended), so my arguments had paid off. Just as well, because 14 years later, Roger Morris became Hydrographer of the Navy, with the rank of Rear Admiral! (How much can turn on the whim of an individual. Had I let matters take their ordinary course, who, I sometimes wonder, would have become the 22nd Hydrographer?).

During the winter I was able to announce that a firm order had been placed with Robb Caledon at Leith for our new ship, and that approval had been obtained to name her *Herald*. She would be an updated version of the *'Hecla'*-class, with improvements drawn from our

experience during the past six years. But that winter was dominated - both in the dockyards and at Taunton - by the coalminers' strike and the resulting Energy Crisis. Not only did this badly affect the refits of our ships, but it caused a 50% cut in our chart production.

During the early part of 1972 I became heavily involved in arguments and discussions between the Navy and the Marine Division of the Department of Trade regarding the need for extra hydrographic effort to ensure the safety of the growing number of very deep-draught super-tankers. There was mounting evidence that these enormous vessels were navigating through relatively shallow water in the English Channel and southern North Sea, with very little under-keel clearance, and there were mounting fears that this trend would lead to wrecks, oil spillage and devastating coastal pollution. My instincts were to press for an increase in the resources of the Hydrographic Service to cope with the increased task, and I was already arguing for this on the basis of the new requirements posed by our expanding fleet of deep-diving submarines (including our 'Polaris' force). The arguments raged back and forth, but I was up against obstructionism from the Department of Trade on the one hand, and a measure of jealousy from the Naval Staff on the other. The D. of T. would not stomach the idea of financing the Navy's functions, and the Naval Staff would not countenance apportioning more of the shrinking Defence Vote to the Hydrographic Service at the expense of its own warship-building programme.

These arguments, with variations, were to continue 'ad nauseam' throughout my period of office, with contributions, elaborations and changes of stance not only from the three main participants, but from other interests inside and outside the Government, My own thesis. basically, was that a prime function of the Royal Navy was to support British maritime trade in peace and war. The physical protection of merchant shipping from enemy attack was a clear instance of this function in war-time, and its protection from piracy and natural hazards was a well-established function of the Navy in peace-time. After all, it was the realisation by the Admiralty that more ships were lost during the Napoleonic Wars through lack of adequate charts than through enemy action that brought the Hydrographic Service into being in the first place. So I continued to plug 'the Navy's responsibility for the support of maritime trade' as my main line throughout these arguments, and poured gentle scorn on the Civil Service concept that the Department of Trade should pay the Navy for this work. So far as I was aware, I said, the Admiralty had never sent a bill to the Board of Trade at the end of the War for the costs it had incurred in escorting convoys, sweeping mines from the shipping lanes, and shooting down attacking bombers! The Navy had simply been voted the extra funds it needed in order to perform these tasks.

However, as was usual in peacetime, the climate of public opinion was strongly in favour of cutting the Defence Vote, so there was no hope of enlarging it to meet the requirements of hydrography. On the other hand, there was growing public interest in the 'environment', and corresponding pressure to spend public money on its protection. Hydrography being a key factor in the protection of our coastal environment from oil-pollution, it followed that a parliamentary Vote in support of hydrography would receive a much smoother passage than a supplementary Vote (for the same purpose) for 'Defence'. Thus, as the internecine wrangling continued throughout Whitehall, I became more and more convinced that the solution to our problem lay in the setting up of a separate Hydrographic Vote, distinct from the Defence Vote, but administered, more or less, by the Navy Minister. As the arguments proceeded over the years, I found myself plugging that line as hard as I could.

Anyway, the upshot of the particular discussions that had taken place over the winter was that I pointed out to the Chamber of Shipping certain 'critical' areas in the English Channel that ought to be surveyed periodically in order to monitor gradual changes in depth and configuration affecting deep-draught navigation, while at the same time telling them that the depths were perfectly adequate for normal shipping (including warships), so I would be deploying the Surveying Fleet on tasks which, in 'Defence' terms, I judged to be of higher priority. This put the ball squarely in the Chamber of Shipping's court, with the result that they and a Consortium of the major British Oil Companies agreed to fund the surveys, to be carried out by commercial firms. We were to draw up the specifications for the work, assess the quality of the bids under a competitive tendering procedure, and deal with the results of the surveys. A contract was let to the most promising bidder, and the season began with a commercial survey firm, privately funded, taking over part of the Navy's historic task. It was an 'ad hoc' arrangement, forced on us in the absence of inter-Departmental agreement, and would not last.

In February I went over to the Hague to attend the 7th Conference of the North Sea Hydrographic Commission. At the end of it, the Norwegian Hydrographer, Mr. Sundby, handed over the chairmanship to the Dutch Hydrographer, Commodore Van Weelde, a man whom my predecessor had described as 'more British than the British themselves'.

All proceedings of the N.S.H.C. were conducted in English, a stumbling block for the adherence of France, whose possible membership was discussed. Belgium too was a problem (for other reasons), but since both countries had coasts bordering on the North Sea, they ought, logically, to be invited to join the Commission. Britain undoubtedly was the leading member, and this was reflected in the outcome of the meeting. Apart from the usual crop of 'Resolutions' (many of which I had to draft), there was a decision that a new 5-mile wide route for deep-draught shipping from the North Hinder to the Outer Silver Pit should be jointly surveyed and sonar-swept during the coming season, the U.K. being allocated 50 miles of it. More of an honour to us was a request by the Commission that we should investigate the feasibility and implications of expanding our Hydrographic School at Devonport to undertake the training of the hydrographic officers of all the N.S.H.C. countries.

A major event, in April, was the 10th quinquennial Conference of the International Hydrographic Organisation at Monaco. We spent a very busy fortnight in Monte Carlo. Several incidents stand out. My Chief Civil Hydrographic Officer, Mr. Pascoe, had been haranguing the assembled delegates on the importance of developing countries recognising the potential economic benefits of their off-shore waters, and the need to set up adequate hydrographic organisations to delineate and survey them. He spoke as one of The Group of Experts who had been summoned by the United Nations Organisation in New York to draw up a Report on the state of world hydrography, and he plugged the U.N. line which emerged from that Report. I was to follow him with an exposition of our readiness to assist these developing countries, by training their personnel and, if necessary, helping to survey their waters for them (all grist to the B.A. chart mill). I opened with the words: 'Mr. Pascoe has spoken for the United Nations. I speak for the United Kingdom'. That went down rather well.

Halfway through the Conference, two of our Coastal Survey Vessels, *Fawn* and *Fox*, entered the harbour, exciting much interest and comparing favourably with the Surveying Ships of the U.S.A., France and West Germany (which were already there). Where ours scored over the others, however, was not only by taking the delegates (and their wives) to sea for

demonstrations (while wearing my flag), but by entertaining on board the reigning Prince and Princess of Monaco. Though the standard of service and quality of tableware left a good deal to be desired, Prince Rainier and Princess Grace could not have been more charming and relaxed, and on their departure, the Prince kindly presented me with a gold medal in a red leather case. But the final triumph for Britain was the election, by an overwhelming majority, of Rear Admiral G.S. Ritchie (my predecessor as Hydrographer) to the post of President of the I.H.B. Directing Committee, a position which he was to hold for the next ten years.



Woodlark moving to transfer the author's flag to Hecate, English Channel, 1974.

Once again I managed to spend periods at sea in almost all our ships, and among the more memorable of these were my formal visit, in *Hecate*, to the French Hydrographic Establishment at Brest, with *Woodlark* in company, where some useful business was conducted, and my visit to the Channel Islands in *Waterwitch*, in August, my first and only visit to those most outlying of the British 'Isles.

1972 was the centenary of *Challenger's* famous round-the-world voyage, which laid the foundations of oceanography, and I had been asked to give the opening address to the Second International Congress on the History of Oceanography, to be held in the Usher Hall in Edinburgh. I had spent a lot of time, and done a good deal of research, in preparing my speech. In it I laid great stress on the decisive role played by the Royal Navy, a role too often forgotten, ignored or taken for granted by present-day oceanographers, and I told the assembled scientists that their debt to our predecessors in the Navy's Hydrographic Service was well-nigh incalculable.

Several foreign oceanographical ships had gathered at Leith to mark this occasion, and *Hecate* was there as host-ship. It seemed a good opportunity for me to nip down to Robb Caledon's yard to inspect progress on the building of *Herald*, and what I saw was distinctly

encouraging: construction was ahead of schedule, and there seemed good reason to expect the launching to take place next spring.

Towards the end of the season I spent several days in *Hecla* on her survey grounds in the Western Approaches. She was in process of re-surveying an area covering the Stanton Banks, which I had previously covered in a relatively small-scale exploratory survey in *Owen* twelve years earlier. This time, however, the work included a thorough sonar survey. This paid handsome dividends, because we located a significant rocky outcrop rising from an otherwise flat sandy sea-bed 80 fathoms deep, a feature of which the widely-spaced lines of the earlier survey had revealed no indication whatever.

Life continued fairly smoothly in the Hydrographic Service and in 1973 our ships were deployed in the Atlantic, the Caribbean and the Pacific, as well as in home waters, while the Department at Taunton was slowly developing, modernising and expanding, with all-round production gradually increasing. One of our headaches was recent Canadian Government legislation requiring all shipping in Canadian waters to use Canadian charts, a severe blow to both the world-wide Admiralty Chart concept and to the vast numbers of international shipping which relied on it. Needless to say, I had taken up the cudgels with the Canadians to persuade them to think again. To off-set this worry, it was decided that H.R.H. the Prince of Wales (who was then serving as a Lieutenant in the Navy) should be appointed to one of my ships. I was quick to respond by selecting H.M.S. Fox, which was surveying in the West Indies. Her C.O., Commander John Myres (the Senior Officer of Fox and Fawn), was an excellent man, and I was confident that the Prince could not be in better hands.

In March I took Mary and my two sons, Nicholas and Adrian, to Buckingham Palace to witness my investiture by H.M. the Queen of the C.B. The Queen asked me about my job as Hydrographer, and said she thought it must be very interesting. 'Yes, it is, Ma'am,' I replied (quite truthfully). We all went on afterwards to a rather expensive West End restaurant.

[I remember this occasion, which took place in March 1973. I was in my second-to-last term at Haileybury, taking extra Maths classes and finishing my year, before taking a complete year off in Kenya. I had already secured my place at Clare College, Cambridge with an Exhibition to read Engineering, commencing in October 1974. The investiture went smoothly, and my chief memory was that it was a truly 'family' occasion, one of the last we would enjoy together. I remember later 'chatting' about the investiture with my Maths teacher, Rear-Admiral Sir Charles Darlington ('Charlie-Darlie', as he was nick-named), and remarking at how 'small' the Queen appeared to be. Sir Charles agreed, saying that she certainly cut a 'diminutive' figure, which took many people by surprise, as her fame led people to think she was somehow 'larger than life', bigger than she really was!]

At the end of April I led a small delegation from Taunton on our biennial visit to our 'opposite numbers' in America. Then, early in May, we flew up to Ottawa, where I had arranged to meet the Dominion Hydrographer and his staff. I had proposals to put to him which would mitigate the adverse effects of the recent Canadian Charting legislation, which bore heavily on the British Admiralty Chart system in particular, and on world-wide international shipping in general. I found the Canadians eager to achieve an acceptable compromise, which they would put to their Government, but in the event, their 'environmental lobby' was to prove too strong for them.

It was in June that the centenary of the famous *Challenger* expedition again impinged on me. The ship's figurehead, which had been adorning the grounds of Admiralty House at Northwood, was to be presented to the Institute of Oceanographical Sciences at Wormley as a centenary gift from the Admiralty, and I had been asked to make the presentation. I thought it would be appropriate to refer, in my speech, to the actual happenings in H.M.S. Challenger exactly one hundred years earlier, and was fortunate enough to find the ship's deck-log for that date. It had been a Sunday, and the ship had been working in the western Atlantic, keeping local time, three hours earlier than G.M.T. I was speaking at noon, B.S.T., so was able to describe (with a little imaginative colouring) the scene on board Challenger as she turned into the wind to occupy one of her many oceanographical 'stations' just after 0800 on that Sunday morning, and the attitude of the ship's officers to the effect that this would have on the state of the upper deck at the traditional Sunday morning Captain's Rounds! The assembled scientists and I.O.S. staff seemed to relish this thoroughly naval view-point, and afterwards asked for a copy of my speech. The figurehead had been mounted in a prominent position over the main entrance to the building, and I concluded my presentation by expressing the hope that it would 'stare down the centuries of the future as it had stared through the past, in silent witness to the continued expansion of British oceanography'!

Meetings of the North Sea Hydrographic Commission took place every eighteen months, and the next one fell due in September, with the Swedish Hydrographer, Commodore Hallbjorner, as host. He had arranged to hold it in an hotel on the shores of the Gulf of Bothnia, at a little sea-port called Harnosand. We achieved a lot during our business sessions, and found the Swedish approach to their survey problems quite fascinating. They had two Survey Ships alongside, but bad weather prevented them taking us to sea for a demonstration.

[Shortly after my arrival in the Taita Hills, Kenya I received a postcard from my mother written from Sweden, 14 September 1973, and addressed to Mgalu High School, A. C. Mbale-Dabida, PO Voi, Kenya:

"Many thanks for your postcard which arrived at Härnösand just before we left. I hope you will have had my letter from there. It was a busy week, but now we are on our way to Norway. Staying tonight in a skiing hotel — out of season. It's rather fun, all wood, and elk and bear skins all around. (Haven't seen either yet, but we may, near here.) I'll send more cards from Norway. Härnösand was a rather dull place. Love from us both, M."]

We had become inured to delays in the ship-building world (as in other industries) due to endless disputes, strikes and 'go-slows', so it was no surprise that the launch of our new ship had been deferred. However, in October she was at last ready for the Big Day. I had taken pains, in the office, to guide the Third Sea Lord's thinking in the right direction, so that the wife of the Hydrographer of the Navy was to be the ship's 'Sponsor' and perform the launching ceremony. Mary was delighted. She had always said that one of her great ambitions was to launch a ship, and this was her opportunity.



The author with his wife, Mary, and daughter Virginia, at the launch of Herald, Leith 1974.

We motored up to Edinburgh together, and on the journey Mary rehearsed her speech. We had been given a luxurious suite of rooms in the Caledonian Hotel by courtesy of Robb Caledon and Company, and the following morning their Chairman, Sir John Brown, appeared in our room with three beautiful brooches from which Mary was to choose one as a gift from the firm. She eventually chose the most unconventional of the three, a slab of gold 'filings' studded with diamonds and tourmalines. An official car took us down to the shipyard at Leith, where the white hull of the new ship towered above the gaily decorated rostrum and stands. It was drizzling, but the Royal Marine Band played cheerful airs as the 'top brass' and their ladies ascended the platform. Bouquets were presented, photographs taken, prayers were said and hymns sung. Mary voiced the immortal words, named the ship Herald and, with a mighty swing, smashed the suspended champagne bottle against the port bow. She then pushed a lever and with slowly gathering sternway, our new ship gracefully took to the water amid the waves and cheers of the crowd, the blasts of dockyard hooters, and the strains of 'Rule Britannia' from the Band. It was a faultless performance and, as if to acknowledge it, Herald dropped a little curtsey to us as her bows left the slipway. Afterwards there was a reception followed by a big formal luncheon, at which Mary, the Lady Sponsor, made her speech. It was delightful, and very warmly applauded.



Herald taking to the water after her launch, 1974.

[The two photographs on the preceding pages are labelled "1974", whereas in fact the launching of HMS Herald took place in October 1973. My mother wrote to me in Kenya a letter dated October 1973:

"Suffice it to say now that Oct 4th was a splendid occasion. HMS Herald took the water beautifully and the ceremony surrounding this was quite something. A Royal Marine band played and we had a short service first. Then a pause while every last 'chock' was knocked away – then I had to name the ship and break a bottle of champagne on the bows (no 'push button' here and Geoffrey apparently was terrified that I might miss!). Then I had to push a lever, which actually signalled to the men below to knock out the last pin, and the ship slid slowly and most gracefully down into the water. Just as she became afloat she did a sort of curtsey and then the tugs took over. We returned to the Caledonian Hotel where there was an official reception and lunch. I thought this was going to be a bit of an ordeal because I had to make a speech, but in fact I enjoyed it and the speech seemed to go down well too. It was a great day. Lots of Navy there too, which I think the shipbuilders rather liked, and this ship had three Admirals at her christening – which was quite something!"]

During October 1973 there was another round of active hostilities in the Arab-Israeli conflict. and this, coupled with the effects of the National Union of Mineworkers' strike and the consequent 3-day week, had reduced the country to the verge of economic disaster, and had brought home to many of us the disastrous effects of our reliance on foreign sources of energy. It occurred to me that it was utterly ridiculous in face of the fact that we had untold stocks of potential energy in our own backyard, beneath the sea-bed of the UK. continental shelf, and, furthermore, the Hydrographic Service was in a unique position to do something about it. By switching our priorities from the purely navigational requirements of hydrography, we could deploy the resources of the Surveying Fleet to the systematic exploration of the continental shelf, and thus furnish the Government with the vital information that it needed to exploit this wealth. Accordingly, as a private individual writing from my home address, I sent off a strongly worded letter to The Times, ending with a statement that 'it can be as true of tomorrow as it was of yesterday, that "it is upon the Navy under the Providence of God that the safety, honour and welfare of this realm do chiefly attend". We ignore the sea at our peril, and I suggest, Sir, that the time has come to get our national priorities right.'

This letter, written at the end of December, had not been published when I returned to the office early in January, due, no doubt to postal delays over the Christmas/New Year break. Accordingly, I rang the Editor to ask if he had received it. He had, but as to whether or not it would be printed, he would not commit himself. He asked whether I held an official post, and I explained my position. I said that I was considering sending a similar letter in my official capacity, but that would be difficult.

Next day I sat down and drafted an even better letter and sent it across to the Vice Chief of the Naval Staff with a request for permission to send it to The Times. He commended the letter, but said that as it was controversial, I could not sign it myself. He suggested that I should get a 'front man' to do so. I therefore rang up Admiral Sir Edmund Irving, read out the letter to him, and asked if he would be prepared to sign it. He agreed, and The Times published it prominently on January 18th. (Before doing so, they rang me up at home to say that it bore a marked resemblance to the one I had sent them on 30th December, and was there any connection? I gave them a full explanation). That was the start of a whole train of events which were to bring the Hydrographic Service very much to the forefront of Government attention during the year. It was also the start of a whole string of letters to The Times (many of which I drafted myself) which were to appear in that newspaper during the remaining months of my stewardship as Hydrographer.

The letter caused quite a stir. The Navy Minister was quizzed by certain M.P.s for his view of it, being told that the Hydrographer of the Navy was understood to endorse every word of it! The Minister's reply was that the matter was 'being given active consideration'. That was the truth, because things really started buzzing in the Ministry of Defence. I opened direct negotiations with the Director of the Institute of Geological Sciences, and also with the newly-formed Department of Energy, to offer our assistance in their efforts to solve the Energy Crisis. A tripartite Working Party, composed of representatives of the three organisations, was set up to work out a detailed plan of action, to identify the benefits and to assess the penalties. By mid-March a Plan had been produced, and I immediately submitted it to the Admiralty Board for approval.

Meanwhile, there had been a change of Government, and the Labour Party was now in power. There was an inevitable delay in obtaining ministerial decisions, but fortunately, the new Navy Minister (Mr. Frank Judd, M.P.), already known for his 'hydrographic sympathies', embraced the Plan with enthusiasm and asked that it be given 'maximum publicity'. With Board Approval now in the bag, I lost no time in swinging into action, and signalled all our ships to explain the change of direction and its effect on our programmes. *Hecate*, *Hecla* and, in due course, *Herald* would all be switched directly to the new task. The C.S.V.s and I.S.C.s would all be indirectly affected, but *Hydra*, in the Pacific, could continue undisturbed. She was working in the Solomon Islands.

Following the Minister's directive that maximum publicity should be given to our Plan, a highlevel Press Release was issued, though in fact very little press coverage resulted. Another letter to The Times seemed to be indicated, and this time I hoped for a 'fair wind' from VC.N.S. So I drafted a fairly reasonable and straightforward letter, to be signed by myself (in my official capacity) with the aim of informing the public as to what the Navy intended to do to help solve the Energy Crisis. I started by referring to the 'remarkable' letter published on January 18th from Admiral Irving, and went on to explain that it had coincided with plans then being formulated to do just what the Admiral had advocated, and that those plans had now come to fruition! I then described the measures to be taken, mentioning the three ships involved and the detailed co-operation of the other two organisations, and concluded with the words: 'This major effort is an important illustration of the Navy's traditional role in support of seaborne trade and the national economy'. As my letter was hardly controversial and, moreover, put the Navy in rather a good light - I was fairly confident that the Board would approve it. In fact it did so - except for one word. Instead of 'illustration' in the final paragraph, they substituted 'extension'. And with that alteration, my letter was duly published on May 6th.

By the time summer arrived, therefore, I was really feeling rather pleased with life. After all, a personal brainwave six months earlier had now been translated into massive action, with hundreds of participants involved, and when the vital information started flowing in from the ships, to be analysed by the I.G.S. and drawn up by our cartographers for the Department of Energy, I felt some cause for self-congratulation.

In my Annual Report, which came out in the spring 1974 and received wide distribution, I made a particular point of drawing attention to the crucial dilemma which faced us: how was our expanding task to be funded from a shrinking Defence Budget? I enlarged at some length on this theme, and the point was taken up by the Press, by M.P.s and by the Chamber of Shipping. The shipping community was so concerned that it forced the Department of Trade to take action. It called a joint meeting with the Ministry of Defence to air the whole matter. It emerged from this meeting that there was a need for wider consultations with other interests: the Department of Energy, the Offshore Operators, the National Ports Council, the Fishery Departments, the Scientists and the Foreign and Commonwealth Office. Accordingly, an inter-Departmental Committee was set up under M.O.D. chairmanship on which all such interests were represented. Its task was to report to the Cabinet by the end of the year on the extent to which the Hydrographic Service was required to meet commitments other than those of Defence, and the resources (in ships, manpower and money) needed to meet them, and how these could be provided. The Committee was to be known as 'The Hydrographic Study Group'.

This was a real break-through. Successive Hydrographers had been complaining ineffectually for more than a century that their work was inadequately funded, but had never brought the problem to a head. Now, for the first time in history, we had achieved a proper Government review of our whole expanding task, making sound recommendations for its future funding. At last the Government would have to listen - and act. I was well pleased with this development, and though the Hydrographic Study Group was to be chaired by a senior Civil Servant, it would be myself and my staff who would be making the running.

[Well done! High-fives...]

Chapter 26: The Final Year, 1975

In mid-December of 1974 the Hydrographic Study Group (on which we had set great store) ran into 'heavy weather'. Not only was it going to be extremely difficult to extract increased public funds for an expansion of the Hydrographic Service, but the Marine Division of the Department of Trade (which was responsible for shipping), fearful of any claim on its own budget for hydrographic work, was doing its utmost to minimise the importance of surveys on our overseas trade-routes, contending that these were of relatively low priority and could wait. I strongly disagreed, and this led to a series of bitter clashes with the Head of that Division, whom I referred to as the Devil's Advocate, which hardly helped matters! More serious, however, was the fact that our Chairman (a fellow Civil Servant) seemed disposed to agree with him, thus undermining the case for expansion.

I discussed this development with the Vice Chief of Naval Staff (my immediate superior), and he advised me to 'canvass our case by a process of indirect "lobbying".' In response to this advice, I decided to re-enter The Times correspondence column with another letter to be signed by Admiral Irving. I sent him a draft which flowed naturally from the earlier letters (from the two of us) and which high-lighted the fact that the hydrographic effort had been switched from navigational to energy surveys in accordance with national priorities, an obvious expansion of our task, and called on Government to state how this expansion was to be funded. Christmas was upon us, and I reckoned that this letter would be published early in the New Year.

When I returned to the office in Whitehall on January 2nd, I learnt that Admiral Irving's wife Margaret, whom I had known for many years, had died. Nevertheless, 'Egg' had signed the letter I had sent him, and it was duly published in The Times on January 6th. This letter immediately sparked off a suggestion by the Nautical Institute (representing the international maritime profession) that they should follow up with a supporting letter, of which they sent me a draft. I thought their draft quite unsuitable for The Times, and tactfully suggested that we should get together and discuss it. Meanwhile, I had produced an alternative draft of my own! We spent a full three hours in my office, during which I had to exercise the utmost tact, before agreeing a final draft which, though based about 80% on mine and only 20% on theirs, they pronounced themselves delighted with. The letter was signed by Sir George Barnard, President of the Nautical Institute, and appeared in The Times on 17th January.

There followed two more letters to The Times that month (at my instigation), one from the Director of the Royal Institute of Navigation, and one from the Conservative M.P. for Taunton, Mr. Edward du Cann, which was a verbatim copy of the draft I had sent him. (Another excellent letter from Commander M.B.F. Ranken was regrettably not published). Mr. du Cann rang me up and told me that he had secured an Adjournment Debate in the House of Commons for 28th January, and intended to raise the question of funding the Hydrographic Service as the subject for the debate. He asked me for an early 'brief' on the situation -which I sent him -and then asked me to visit him in the House to discuss the matter further. I agreed to do so.

On the day in question (27th January) I began to wonder about the 'ethics' of briefing a member of Her Majesty's loyal Opposition on an official matter within the jurisdiction of Her Majesty's Government, and before going over to see Mr. du Cann, I decided it would be

'politic' to inform my own Minister, the Under Secretary of State for the Royal Navy, Mr. Frank Judd, M.P. I had difficulty in getting through to him on the 'phone, but finally, less than an hour before my visit, I made contact with his Private Secretary. The P.S. (a conceited young man whom I did not care for) doubted whether I ought to go through with the meeting 'as it would embarrass the Government'. I replied that I had agreed to see Mr. du Cann, and it was unthinkable that I should cancel the appointment at such short notice. He took my point, but said I could not discuss policy matters with du Cann. I replied that I would convey this 'injunction' to the M.P. when I met him.

I had about half an hour with Mr. du Cann in the House of Commons, and started by explaining the difficult position I was then in. He was most understanding, and apologised for the embarrassment he had caused me, even offering to write me a formal letter to that effect. Seeing that I had virtually brought the situation upon myself, I naturally declined this offer, and du Cann then said that 'for the record' he merely wished to up-date himself on facts and figures, and discuss one 'constituency matter'! We then talked freely ('off the record') about the whole Hydrographic dilemma, the 'separate Vote' concept, and the points he should bring out in the Debate. He showed me his draft speech, much of which he had taken verbatim from my own 'briefs'. I endorsed this, but asked him so far as possible to use his own words rather than mine, which, I said, would be widely recognised within the Ministry of Defence. Finally, I told him that virtually everything he needed as background for his speech had already been published - both in my last two Annual Reports, and in The Times correspondence.

As soon as I got back to the office, I composed a suitably abbreviated and circumspect report on what had transpired 'on the record' between du Cann and myself, and sent it across to the Minister's Private Secretary. Next morning (the day of the Debate), the P.S. rang me in great anger to say that 'action was being considered in higher quarters' as to how my 'contravention of a Ministerial Directive should be dealt with' - a Directive, furthermore, 'which had the backing of the Vice Chief of Naval Staff'!' Meanwhile I was to forward forthwith (by 12 noon) a full account of my conversation with Mr. du Cann, including details of the 'constituency matter' which he had raised with me!

In fact, of course, the 'constituency matter' had never been discussed, but I got my secretary to contact Mr. du Cann's and obtain the details, which I then incorporated in a report, together with a passable comment on it by me. Otherwise, apart from asserting that the Private Secretary's 'directive' had never been more than his personal advice, so far as I was concerned, my report, couched in coolly objective terms, consisted of little more than a somewhat amplified version of my earlier one. I sent a copy to VC.N.S. and my Secretary delivered the original to the Minister's office two minutes before the noon deadline. I heard no more that day, and the Debate took place in the Commons that evening.

On my journey down to Taunton next morning, I read a brief report of the Debate in The Times. As soon as I arrived, I was asked to ring VC.N.S.'s office to fix an early meeting with him, and it was eventually arranged that I should do so at 8.30 a.m. on the Friday (Jan. 31st). It was naturally with some trepidation that I contemplated the prospect of this meeting, and I felt that some kind of reprimand from my 'boss' was the least that I could expect. If he were to go further than that, I was resolved to 'stand on my rights' and demand a Court Martial.

In the event, V.C.N.S. could not have been nicer. He said the Naval Staff had been following The Times correspondence with considerable interest, and reckoned I had been doing pretty well for myself, even to the point of having 'engineered a debate in the House'. To this I started to protest my innocence, but V.C.N.S. cut me short, saying 'All right, Droggy, we all know what's going on!' He then went on to say that by getting myself involved in politics, I was now in hot water; the Minister was 'hopping mad', and I had forfeited all the good will I had previously enjoyed with him. His sincere advice to me now was to 'cool it', and I agreed to do so.

Having got thus far, V.C.N.S. then said that he had now received a note from the Minister to the effect that one of the M.P.s who had tried to speak in the Debate but had not done so, a Mr. Nelson, Conservative M.P. for Chichester, had informed him afterwards that he had that day received a letter from the Hydrographer. This I denied outright and categorically, labelling it as a pure fabrication. V.C.N.S. took note of my denial and said he would report it to the Minister. Finally V.C.N.S. said he thought I ought to know - as a measure of the Minister's anger - that he had attempted to have me removed from office, but had been informed that that would not be possible!

I said that in my view the whole episode had been caused by a lack of communication between me and the Minister. Having made at least two previous attempts to communicate with him direct, and been thwarted, I only had the personal doubts of his Private Secretary to go on. If I had known that the Minister himself was against my seeing Mr. du Cann, I would almost certainly have called off the visit. I felt I owed the Minister an apology, and asked if I might see him for that reason. V.C.N.S. undertook to convey my request - together with my denial of the accusation concerning Mr. Nelson - to the Minister, and said that I would be informed of the outcome in due course.

Apart from being slightly shaken by the Minister's attempt to have me removed from office, I remained completely mystified about the M.P. for Chichester, of whom I had never heard. It was not until five weeks later that the explanation emerged. On 5th March, the Minister finally agreed to see me. By that time passions had cooled, and he regarded the whole episode as 'water under the bridge', though he felt it was not a good thing that the Navy should appear to be 'lobbying the Opposition', when it already enjoyed so much support from Ministers! However, he accepted my apology, but went on to allude 'en passant' to the case of Mr. Brotherton - without saying more. It was then immediately apparent to me that his accusation relating to Mr. Nelson had been based on a mis-identification of the member concerned. I had, in fact, written to Mr. Brotherton, my own M.P. (the member for Louth) a few days before the Debate -in strict confidence. Had the Minister correctly identified him, I could not, of course, have made my immediate and categorical denial. When Mr. Judd made his accusation - immediately after the Debate - he had not had the opportunity of reading the Hansard report on it (nor had I) - otherwise it would have been perfectly obvious that the member who had twice attempted to intervene in the debate (and to whom Mr. Judd had refused to give way) was Mr. Brotherton - and not Mr. Nelson. I had my lucky stars to thank for that error!

Anyway, the Debate (undoubtedly sparked off by The Times correspondence) had clearly given our case a very fair hearing. The upshot of my meeting with the Minister was that I had now made my peace with him. He undertook to see me again when the Hydrographic Study

Group had completed its deliberations, and to listen to my views on its conclusions and recommendations.

This affair was a major preoccupation to me at the time. In a sense, it also illustrates the stresses and strains of 'Whitehall warfare', which are a constant aspect of daily life in the 'Corridors of Power'. I could not help but be affected by the unprecedented publicity which the Hydrographic Service was now attracting, and being so much in the national (and international) 'limelight', I was more than ever conscious of my considerable responsibilities. Not that these weighed all that heavily upon me. I had gradually grown up with them, after all, but they seemed to have increased with the enhanced publicity.

In June 1975 the Hydrographic Study Group made its Report, and the Cabinet gave it a 'first reading'. It had been printed - in glossy format, with maps and diagrams - at Taunton, for wide publication, but the Government had not yet sanctioned its general release. At the final full session of the Study Group, when we were formulating the Report's Conclusions and Recommendations, I had a public tussle with the Chairman, Mr. Jaffray (Assistant Under Secretary, Naval Staff). Civil Servants are notoriously reluctant to make firm and clear-cut recommendations, which could put their masters 'on the spot', and I knew that Jaffray would do all he could to water down anything of that sort in the final draft.

The Study Group made fourteen recommendations, the most important of which, from my point of view, was that the Survey Fleet should be expanded from its current strength of 13 ships (4 O.S.S., 4 C.S.V, 5 I.S.C.) to 20 ships (4 O.S.S., 8 C.S.V and 8 I.S.C.). This was exactly what I had been arguing for, and I was delighted. But I could see that the Chairman was less than happy, and that a battle was brewing. I told my two Captains that we would have to get tough if we were to carry that recommendation as it stood. The Chairman directed that it should be re-worded thus: 'Consideration should be given to expanding the Survey Fleet ...' I immediately objected. 'No,' I said, 'There's a world of difference between a recommendation to expand and a recommendation to consider expansion.

Why should we be mealy-mouthed about what we mean?' Silence on all sides. 'It will do no good, you know, to be too direct, and it will make no difference to the outcome,' replied the Chairman. 'That is the way the recommendation should be worded,' I said. 'I shall not endorse the Report, and other members of the Group may join me in rendering a dissenting report - if necessary a Minority Report - though we may find we're not in a minority.'

That put the cat among the pigeons, and the Chairman was non-plussed. This Report was very much his 'baby' - he had personally vetted every draft - and the last thing he wanted was anything less than unanimity. A dissenting report by the Hydrographer (of all people) would make a complete nonsense of the whole exercise. The Group comprised about 25 people, representing the whole maritime spectrum and six Departments of State. They were deadlocked. Several tentative compromises were offered, but we stood firm. Someone then suggested that the words 'if possible' should be inserted after 'The Survey Fleet should be expanded ...' I considered this carefully. Obviously expansion would not be easy, but equally obviously it was certainly possible. Therefore the words 'if possible' made virtually no difference. I said I would accept the amendment, and the Chairman, visibly relieved, though still rather worried, settled for what he could get!

A further source of satisfaction for me was the recommendation that the concept of a separate Parliamentary Vote for Hydrography should be studied as soon as practicable - something I had argued for persistently. I had long felt that a separate Vote, distinct from the Defence Vote (though administered by the Navy Department), was the only logical way in which the funding of our work could be exposed and protected from pressure on Defence expenditure. Furthermore, it would have the additional advantage of providing explicit public recognition of one of the Navy's roles in support of the civil community - essentially a 'non-Defence' role. After all (as I pointed out in my final message before retiring), it had been said - by no less a personage than the First Sea Lord - that the work of the Hydrographic Service represented the greatest single contribution which the Royal Navy makes to the civil community in peacetime - and that the public should be made constantly aware of it.

Following the precedent set by my predecessors, I had planned a world tour to visit foreign and Commonwealth Hydrographers - and I was determined to take Mary with me. But in April the economic recession had begun to bite, and I was told to curtail the programme. Reluctantly, therefore, I cancelled my visits to the Far East and Pacific - although those countries were en route to scheduled meetings in America to which I was already committed.

So, with my Chief Civil Hydrographic Officer (Mr. Newson) and our wives, we flew out in May to the Middle East - visiting in turn, the newly independent Gulf states, Bahrain and Qatar, before going on to Iran. My main mission in the Emirates was to explain that they were now responsible for surveying their own waters - though we were prepared to continue this work, if they wished, at their expense (which they could well afford). They saw the point, and agreed to consider the implications. (For us, it would mean funding some of our ships - which, otherwise, would probably have to be paid off).

In Iran the situation was somewhat different. At a recent C.E.N.T.O. conference that country had complained that the British Admiralty charts of their waters were obsolete and required up-dating. We had replied that this would be done on receipt from them of the relevant survey data (which, of course, was non-existent). My job, in a nutshell, was to get the Imperial Iranian Navy to agree to our re-surveying the whole of their coastal and off-shore waters, over a four-year period, at their expense - with on-the-job training for their officers as an additional 'quid pro quo' .

We had a whole series of interesting and constructive meetings with the Chief of the Imperial Navy and his staff, and with the Head of their National Geographic Office, explaining in detail the facilities we would require (e.g. to erect radio-location stations and sounding marks on their territory) - and the upshot was complete acceptance on their part of the whole plan - with the consequent financial aspects to be pursued on an inter-Governmental basis. I was more than satisfied with this agreement, which assured employment for up to four of our ships for several years ahead, and I reported this by signal to the M.O.D. and to our Ambassador. (I think it was the following year that the operation was in full swing - with our ships out there and actually working in their waters - when the Iranian Revolution occurred and the Shah was ousted, sadly aborting the entire project).

From Teheran we flew to India, where we had a wide range of subjects to discuss with their Government Hydrographer, including a new Charting Agreement. He, a Commodore in the Indian Navy, was based at Debra Dun, in the foothills of the Himalayas - at least 1,000 miles from the sea! It was a most interesting meeting, lasting several days, during which we were

royally entertained both by the Commodore and his Staff and also by a Gurkha Regiment based nearby. It was a memorable visit - and a very useful one. A great pity that we could not continue to Ceylon and beyond - and I now turned my thoughts across the Atlantic.

Some little time afterwards, on my return from a visit to America, I found that Henry Stanhope, the Defence Correspondent of The Times, had been trying to see me. So I rang him up and invited him round to my office in Whitehall. I had previously sent a copy of my Annual Report for 1974 to the Editor-in-Chief of The Times, so Stanhope was already fairly well briefed. He had heard about the H.S.G. Report, and asked for a copy of it. As, however, it had not then been released for general publication, I could only show it to him and expound on its main features, including its 14 recommendations. About a fortnight later, in mid-July, a splendid double-page article appeared in The Times, headlined 'Why we must find more money for the Navy's Survey Ships'. He set out the whole situation very fairly and clearly.

By mid-summer my time as Hydrographer of the Navy was beginning to run out. Since the end of the War, five years had become the norm for successive holders of the post, and that would have taken me up to February. However, I had already earmarked the officer (Chester Read) who should take over from my successor, David Haslam. If I and my immediate successor did a full term of five years each, it would have been too late for Chester Read to take over, since he would already have passed the point of retirement as Captain. Haslam and I had therefore agreed that we should each do four and a half years, so as to make it possible for Read to take over just as he reached the point of retirement. I decided that I would retire on 13th September, the 41st anniversary of the date on which I had joined the Navy, way back in 1934. I was 59, and already the oldest officer still serving.

In July the Cabinet Committee concerned with the Report of the Hydrographic Study Group agreed to its general release to all interested parties, and in August, as President of the Royal Geographical Society, Lord Shackleton opened the Commonwealth Survey Officers' Conference at Cambridge by waving it in the air and commending it to the assembled delegates as a historic document of great importance. The Report sparked off further articles in the national press, and several more letters to The Times, some of which were quite 'spontaneous'!

With all our ships working hard during that summer, I made a particular point of visiting all those within reach, and giving a farewell address to their ships' companies, in which I was able to outline recent developments 'in high places' and stress the greatly improved prospects for the Surveying Service arising from them. The last of these visits, in August, was to our new ship *Herald*, then working off the Outer Hebrides. After a big welcome from her Captain, I received lavish hospitality and spent my last night on board. Next day, before being landed by boat, I made my final farewell address to the ship's company on the Flight Deck, and as we drew away from the gangway, to the last shrill notes of the piping party, I watched, with a twinge of pride and sadness, my flag being slowly lowered from *Herald's* masthead.

[My diary written a couple of years later records: "Tremendous to be with Dad on his last sea-going visit as Hydrographer – to be present at his last mess dinner. Insights into naval life." Though not stated in the book, I accompanied Dad during this last visit to HMS Herald in August 1975, and so witnessed the above events. I also took some pictures of HMS

Herald at that time, and looking at them they bring back some wonderful memories of life at sea, the survey ship with Lewis in the background, and the kind and capable crew assembled on the flight deck, after formally 'farewell-ing' my father at the end of his long seagoing career.]

Word now reached me that the Government had decided to postpone action on the financial recommendations of the H.S.G. Report until the autumn, and I felt it more than likely that unless pressure on them was maintained, they would continue to drag their feet. I therefore resolved that immediately prior to retiring, I would deliver a 'parting shot' in public, by sending a strongly worded and authoritative letter to The Times in my official capacity as Hydrographer of the Navy - off my own bat and without permission from my superiors, and damn the consequences! Letters and articles alluding to the Report continued to appear in the national Press, so it would not be difficult for me to hang my letter, when the time came, upon one of these. Meanwhile, in odd moments, I happily roughed out one or two possible drafts.

Mary came down with me for my last week, and she and my daughter Virginia helped at the farewell party I gave for the Whitehall staff and their wives in my large octagonal office. They also came down for the much larger party I threw at the Castle Hotel in Taunton for the Naval and Professional staff down there. And on my last evening, the Naval Officers fixed a splendid Guest Night dinner for Mary and me in the Officers' Mess at Sherford Camp.

That farewell Guest Night dinner was a really superb occasion. We wore Mess Undress and, with our wives in long evening dress, numbered about thirty. Captain John Winstanley (in charge of the Naval Division at Taunton) was Mess President, and Mary and I, as the Guests of Honour, sat on his left and right. As far as I can remember, David Haslam (Hydrographer-designate) sat on Mary's left. There were a number of speeches, of course, all heart-warming and rather eulogistic, to which I had to reply. I made a particular point, I remember, of praising the Surveying Service and saying what an interesting, exciting and satisfying career it offered, how greatly I had enjoyed my time in it, and that if I had my time over again, I would do exactly what I had done. In fact, looking back, I had absolutely no regrets whatsoever. But retirement, and the prospect of becoming my own master for the first time in my life, also had its points, I felt, and I was looking forward to it. I think I included all the right 'noises' too, commending my successor in flowery terms and thanking our hosts profusely. Warm applause was then followed by a formal presentation: for Mary a framed colour-photograph of a 19th-century View-sketch of a scene in the Hebrides, including Mull (which, in the original, she had admired in the Department's archives), and for me, an original of one of our earliest charts (of Algoa Bay, near Port Elizabeth) beautifully mounted in a gilt frame. Thursday, 11th September was my last day in the Taunton office, and I spent part of it putting the finishing couches to the 'magnum opus' (my parting letter to The Times), which I discussed with David Haslam. Since he might well have to live with the consequences, I felt it important that it should have his full backing. After dictating the letter to my secretary in Whitehall, Freda Filtness, and after David had assured me that he had now 'got the weight', I prepared to take my final departure. My heart rather sank as we approached the staircase leading down to the hall, as most of the staff had crowded on to it and around its foot, quite blocking our exit. A 'ceremony' of some kind was obviously imminent. Sure enough (despite my earlier protestations), David started making a speech. The upshot of this was that I was formally presented with a magnificent glass-topped coffeetable on which was inlaid a genuine copper printing plate of one of our charts. Not only was it a chart-plate of appropriate size, but the Department had actually selected a chart based mainly on my survey off Lamu in 1961/62 and partly on David's continuation of it in 1962/63 in H.M.S. *Owen*. In addition to the copper-plate coffee-table, they also gave me a teak-framed copy of the chart itself (Mataoni, Manda and Pate Bays and Approaches) to hang on my wall!

My last day as Hydrographer of the Navy was Friday, 12th September, and I spent it in Whitehall, finishing off the week's work and tying up the inevitable loose ends before my departure. Among these was my letter to The Times, which Freda had typed for my signature. I covered it with a personal letter to the Editor-in-Chief, asking that publication be withheld until the following Wednesday - 'for personal reasons' - and then told Freda to send it off. She was clearly uneasy about it, and I could understand why. I was breaking the Regulations by writing to the Press without prior clearance and authorisation, but I told her that in this instance, what the Hydrographer of the Navy had to say was, in my view 'in the Public Interest', and that this fact overrode all other considerations. My reason for withholding publication was that I was due to take formal leave of the Naval Secretary, the Navy Minister and the First Sea Lord, on the Monday and Tuesday, and Mary and I were also to have lunch with the First Sea Lord afterwards. It would have been most embarrassing had the letter been published while I was doing so!

I retired officially on Saturday, 13th September, but I was not yet out of the woods. We stayed in London for the week-end and gave up the lease on the flat, and on the Monday I started a round of farewell calls in Whitehall. My superiors, including the Minister, Frank Judd, were all very affable, and the Naval Secretary told me that Flag Officers were always subject to recall in emergencies (though this was unlikely). Admirals were simply transferred, when unemployed, from the Active to the Retired List, but retained their ranks. It was therefore incorrect to allow myself to be addressed as Rear Admiral (Recd.). The First Sea Lord (Admiral Sir Edward Ashmore) had a long discussion with me about the future of the Hydrographic Service, and agreed with me when I suggested that the Government had got its priorities wrong (a point which would emerge in my, as yet unpublished, letter to The Times). He gave a small lunch party for Mary and me (and one or two others) afterwards in his official quarters, which was very pleasant, and on the Tuesday afternoon we drove up to Legbourne, our country home.

[Letter from my mother, dated 14th September 1975, from Legbourne, while I was at Manadon, doing a Naval Engineering Workshops Course:

"Many thanks for your letter. I am glad you are seeing something of Devon and around, and I envy the Dartmoor expeditions – any chance of fishing? We have had a very hectic week. I drove down to Taunton, pausing for the night in Oxford – and then we had all the farewell 'do's' – speeches and ceremonies kept very short, at Daddy's particular insistence, but some very nice things said – and lovely presents, including one for me, which was so entirely unexpected, and quite lovely – copies of the exquisite water-colour drawings done for chart 'profiles' in 1861 of the coast of Mull, Carsaig and the Treshnish Islands [the Treshnish Isles is an archipelago of small islands and skerries, lying west of the Isle of Mull, in Scotland] – and beautifully framed – to companion a very early copy of a South African chart given to Daddy. But his main present is a coffee table, teak – with a chart copperplate set into it and charmingly inscribed, all covered with thick plate glass (hence the need for me to

bring the car down!) – and a framed copy of the chart to go with it – one of Lamu, surveyed by Daddy and David Haslam! We gave a drinks party ourselves in the Castle Hotel on Thursday night, and Virginia came to that – also to a pre-lunch little 'do' in Daddy's London office. We have a to be in London again tomorrow with the First Sea Lord, and Daddy has to make various farewell calls, so I shall start packing the flat, and we'll be back again on Tuesday afternoon. I shall have to concentrate then on some WRVS work – picture in the papers this week of our Cook-in for the Army last Saturday! Cooking now for lunch..."

Card from my father, dated 14th September 1975, from Legbourne:

"Many thanks for your long and interesting letter of 11.9.75. So glad the course is going well and that you are getting around a good deal – and meeting people. The hand-over went off very successfully, including formal Mess Dinner, Cocktail Party at Taunton, drinks party at Whitehall, speeches, presentations etc. I have been given some magnificent farewell gifts – which you will see in due course. I'm afraid I simply can't answer your queries about Hecla's crest and motto from memory. Suggest you visit the ship next time she's in Devonport and inspect (a) the crest on the front of her bridge, (b) her 'battle honours' or 'coat of arms' outside the wardroom (I think). Love, Dad. PS Will drop a line to her CO [Commanding Officer] (Commander Morris) asking him to send you an 'invite'."]

Next day, Wednesday 17th September, my letter duly appeared - very prominently - in The Times, occupying two columns and headed 'Making Hydrography a National Priority' (not a heading I would have chosen myself). A sub-heading said: 'From the Hydrographer of the Navy', and at the bottom it carried my name, my Whitehall address, and the date, 12th September. It was a jolly good letter (though I say it myself!) and I was prepared to stand by every word of it. Doubtless it would not be long before I was called to account.

Sure enough, when I got in that evening, after seeing about some new fencing, Mary told me that the Secretary to the First Sea Lord had rung, wanting to speak to me. She replied that I was out - she wasn't sure where - but that I had gone off to see about some fencing - and 'Lincolnshire is a very big county'. The Secretary left a message asking me to ring him when I got back. When I got hold of him, rather late in the day, he asked me to get down there as soon as possible, because the Secretary of State for Defence, Mr. Roy Mason, M. P., was seeing the First Sea Lord at noon next day (about my letter)! I told him that the earliest I could get there - assuming that my train was on time - would be shortly after 11.00 a.m. next morning.

I took the early train from Market Rasen on the Thursday, and had plenty of time to reflect on the situation during my journey south. I had no regrets. I had said what needed to be said - with all the authority and publicity that was possible - and I would pay the price. I had taken a carefully calculated risk. Short of a Court Martial (which was unlikely in view of the publicity, which would embarrass the Government and play straight into our hands), there was not much that the Admiralty Board could do, other than deliver some sort of a reprimand. Only through a Court Martial could they touch my pension, and since I now held no office, they could not remove me from that! An 'Expression of their Lordships' Displeasure' seemed the most likely penalty, and my action was well worth that. There comes a time in some people's

lives, I felt, when a stand on principle has to be taken - at some personal sacrifice. I knew that, had I dodged the issue, I would have been unable to live with myself afterwards.

[And I say, 'Hear, hear!', high-fives! My father put his principles before (possible) personal gain – tho' I suspect the 'personal sacrifice' might have included his Knighthood...]

I arrived on time and was ushered in -after a ten-minute wait - to V.C.N.S.'s office. With a wry smile, he sat me down and said: 'Well, Droggy, it was a jolly good letter, but wouldn't it have been better if you'd written it from "Rose Cottage" or wherever it is you live?' 'No. Sir,' I replied, 'it would not have carried the same weight.' 'Maybe not,' he answered, 'but the fact is your letter has caused an almighty stink. The Minister is baying for your blood and wants to know what the Navy is going to do about it. The First Sea Lord sees him in half an hour's time, and will have to tell him. Clearly, we've got to do something.' 'I understand that,' I replied, 'and, presumably the Navy has to be seen to be taking some action.' 'Exactly,' said the V.C.N.S., 'the question is, what action? We don't want to make too much of a meal of it, and cause a real fuss, so what would you think of an 'Expression of their Lordships' Displeasure'?' 'That, Sir, is precisely what I had expected, and I think it would be entirely appropriate,' I replied. 'OK.,' said 'V', 'But I just hope Roy will wear it.' So that was that, and I caught the next train back to Lincolnshire.

Two days later, on Saturday 20th September, I received a formal letter from a Civil Servant in the Ministry of Defence, which read:

"Sir, I am directed to refer to your interview with the Vice Chief of the Naval Staff on 18th September, 1975, concerning the publication in The Times newspaper dated 17th September 1975, without prior official approval, of your personal views about the role of the Hydrographic Service and the resources which you considered should be afforded to it. I am directed to inform you that, as a consequence of your unauthorised action, you have incurred the Severe Displeasure of the Admiralty Board of the Defence Council. I am, Sir, your obedient Servant ..."

'Fair enough,' I thought, 'No harm done, and honour satisfied on all sides!' My luck had held.

Two months later I received this letter from the Secretary of State:-

THE MINISTRY OF DEFENCE, Main Building, Whitehall, London, S.W.1

17 November 1975

Dear Admiral.

I have it in command from Her Majesty The Queen to convey to you on leaving the Active List of the Royal Navy her thanks for your long and valuable services.

May I take this opportunity of wishing you all good fortune in the future.

Secretary of State for Defence