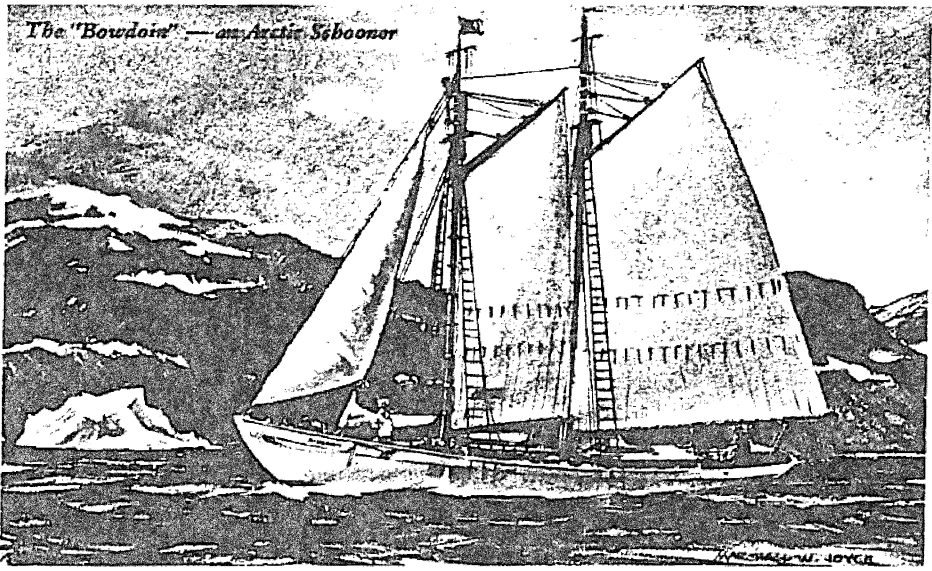


"BOWDOIN" FIGHTS THE WAR

GREENLAND

1942-43

STUART T. HOTCHKISS



It was a January evening in 1942 and I was enjoying a few hours at home before returning to my ship which was snugly berthed at the State Pier at New London, 35 miles away. My ship, The U S S Barbet (AMc38), was a 98 foot coastal mine sweeper, and at last she was fully operational assigned to the protection of the eastern entrances and approaches to Long Island Sound. We had commissioned in Boston in September and we had shaken down at Yorktown on the Chesapeake in October. Our final fitting out was completed at the Norfolk Navy Yard and from there, in November, we had proceeded northward to our present duty station at New London.

My life as prospective commanding officer while the ship was building at Ipswich, Mass. and then during the fitting out and training phases had been pleasant and full of interest. The war lurked like a storm cloud on the horizon during those days when we read of the Nazis tangling with the Russians. As summer waned into fall, the clouds loomed higher and blacker on our own horizons though still somewhat remote, until, from an unexpected direction, the lightning struck at Pearl Harbor.

I shall never forget that Sunday afternoon of December 7th. Again, the Barbet was reposing alongside the State Pier at New London, while my family and I were enjoying a congenial party at the lovely old colonial home of some very dear old friends. In an instant our world had changed and we realized deep down inside that if we survived at all the world as we knew it would never again

be the same.

Life aboard our minesweepers was filled with a new meaning. Now as we swept for mines from 20 miles off Montauk Point in to the Race, there seemed a very real possibility that we might sweep up or detonate one. On those winter days when the northwest gales howled across Block Island Sound, we were now fighting a double war, one against a possible shadowy enemy lurking below the surface and the other against the freezing seas which swept our decks and frosted rails and rigging with salt sea ice.

The lurking enemy was not far off. One afternoon we received an urgent call to recover our sweep gear and proceed to a position some 20 miles off Montauk to rescue the crew of the torpedoed Norwegian tanker "Norness." This mission evolved into an exciting race with a slightly larger and faster Coast Guard Cutter dispatched on the same mission. We had a running start on her. It was obvious that at some point approximately at the location of the wreck - she would catch up. But who would reach the survivors first?

Our diesel exhaust was blowing doughnut smoke rings and our 400 HP Cooper Bessemer worked at its utmost. Ahead I could see the bow of the torpedoed ship filled with air pointing vertically to the sky like a giant nun buoy and nearby the life rafts carrying the survivors. Astern the Coast Guard was closing rapidly.

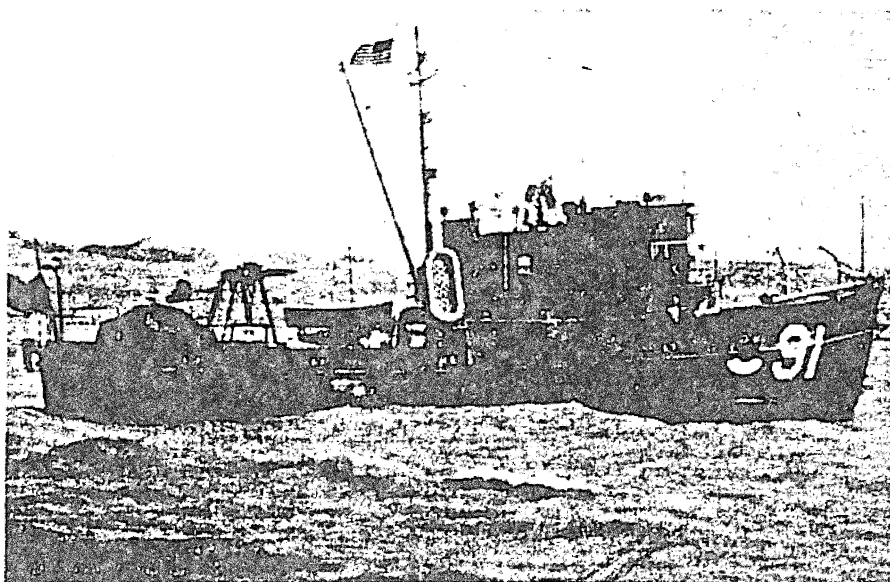
Suddenly our laboring engine stopped and in moments we were wallowing in the seas. A frantic call to the engine room revealed an air bind in the fuel system.

Ray Pierzalowski, our engineer officer, cleared the fuel line in record time, but as we again got under way the cutter was taking aboard the survivors.

To the victor belongs the spoils. The cutter promptly headed back to base. We were delegated to remain in the vicinity of the derelict bow until further orders for the purpose of warning off any ships that might collide with this menace to navigation. Many long, long, hours of rolling in a lumpy sea tried our patience and endurance until the blessed message of release at last came through the next day.

Our normal schedule of operation fell into a regular pattern. The four sweepers operated in pairs. The schedule called for 24 hours out and 24 hours alongside. The Barbet mostly operated with the Dominant and the Brambling operated with the Accentor. We would leave the pair after an early breakfast and stream our sweep gear in the Race. We swept for three types of mines.

First, there were moored mines to sweep for. The gear for the operation resembled in principle that used in commercial fishing. The sweep wire equipped with cutters lead from a reel type deck winch over the side and was extended outward by use of an otter, a sort of water kite with inclined vanes, which, as the vessel moved ahead kited the sweep wire out away from the ships side. The depth of the outer end was controlled by a torpedo-shaped float from which was suspended a pennant of the desired length. The inboard end was pulled vertically downward by a depressor which was similar in principle to the otter but with vanes horizontal to give it a verticle action. This gear was heavy and cumbersome to handle as the vessel rolled scruppers under in a winter gale.



AMc 91 Accentor, a unit of the coastal class in June 1945. This class was quickly built in the early war years for inshore work.

We also swept for magnetic mines. This posed a dual problem. First, the vessel had to be rendered magnetically neutral so as to not detonate the mine with her own magnetic field. To neutralize, or degauss her, she had three horizontal electric coils. One ringed the forward section of the ship, another the after section, and the third and largest ringed the engine rooms in the midships section with a slight overlap on the forward and after coils. The current to these coils could be carefully adjusted to predetermined settings. Periodic calibrations were made at shore-side facilities, with the ship's head on different magnetic headings to revise the dial settings as required to compensate for changes in the magnetic character of the ship. Barbet was of composite construction, wood planking over steel frames, and this apparently created problems for the degaussers. I firmly suspect that most of our magnetic sweeping was, in fact, accomplished with our own keel.

The equipment, however, which was installed for magnetic mine sweeping was quite formidable. A large diesel electric plant, of considerably more horsepower than our main propulsion engine was housed in an engine room just forward of the main engine room. The power was transmitted aft to our "Magnetic Tail" which consisted of two electrical conductors of considerably different length which were towed astern. The insulation of each conductor was stripped off for ¹⁰⁰ ~~a few~~ feet at the end so that the current passing between these electrodes created the desired magnetic field. These cables, of course, extended several hundred feet astern.* They were seized together for the length of

* SHORT LEG 375'
LONG " 1,875'
ELECTRODES 100' EACH

the shorter cable and supported along their full length with sponge type floats. On the fantail we carried a verticle axis reel winch upon which the "magnetic tail" was reeled up when not in use.

Our third form of sweep was for accoustical mines. For this we had a diaphragm-type sound box which was lowered over the bow on a substantial A frame. The sonic vibrations which this equipment emitted were designed to reach far enough ahead of the ship so that an accoustical mine would be detonated at a safe distance. Fortunately, we never encountered one.

Our typical operating plan, then, after leaving the State Pier, was to activate all of the equipment in the vicinity of the Race. We would then procede past Cerberus Shoal and Montauk to a predetermined point 20 miles off shore from Montauk. There we would make a wide swing around and return to the Race where we would recover all our gear. We would then spend the night patrolling, sometimes between Block Island and Montauk and at other times in the vicinity of Watch Hill Passage or the Race. At daylight we would rendezvous with our sister sweeper between Montauk and Block Island to sweep to the Race and thence procede back to the Pier.

The Dominant was difficult to work with. Her skipper was an ex-merchant marine officer who was as independant as a hog on ice. This may be a commendable trait in some ways but when manifested in total lack of cooperation it could become burdensome. As an example, he radioed the base one morning for help. He reported that he was aground and needed a tow to get off. Further inquiry

revealed that instead of patrolling the previous night he went into Great Salt Pond on Block Island. All hands turned in for a good nights sleep and some time during the night the ship dragged into the mud.

Not long afterward our two ships were assigned to a routine 24 hour sweep and patrol. We were to rendezvous midway between Block Island and Montauk for our inward sweep before returning to the "Barn".

Barbet was on station as dawn began to light the sky and the surrounding sea. The wind was fresh out of the east with a lumpy sea running. As daylight brightened we scanned the horizon but Dominant was no where to be seen. We tried to raise her on the radio and finally at long last succeeded. She reported she was near Montauk Point with her rudder out of action.

We swung down on a westerly course with the wind and sea rolling us along. Soon we could see her ahead wallowing and rolling in the trough. Our crew already had broken out heaving lines and prepared our 5/8" sweep wire for towing.

As we approached we could see that the situation was becoming critical because of the rate of drift of the high sided vessel and the proximity of the lee shore.

We ranged alongside to windward and sent over the heaving line. This was received and the end of the sweep wire taken aboard. But then in their hurry aboard Dominant they allowed the wire to run away from them and drop into the sea.

Quick action was required as we were drifting closer and closer toward the breakers which were pounding on the rocks of the point. I brought Barbet around and decided this time I would come down wind across her bow. A power vessel backing down will hang with her stern to the wind, and hanging thus we would allow them more time to receive and secure the towline.

This time it worked but still we were not clear. Our 400 HP engine and sweep cable were not adequate to haul our tow to windward away from danger. And so, we headed south in the trough of the sea. We literally skinned by the end of the point before reaching the safety of the open sea.

Slowly, painfully, we clawed to windward to gain sufficient offing before we could finally come round on a northerly course and at long last bring our tow back to base. We were a little late getting in that day.

We were late another day.

On some occasions our sweepers would operate singly, and so it was with us on Christmas Eve. In fact it seemed that our Christmas schedule was working to perfection. We would follow our normal operating procedure on Christmas Eve, except that we planned to cease patrolling a little earlier than usual on Christmas morning to commence our sweep in. With luck I should be home by 10 a.m. to start celebrating Christmas with my family.

Christmas morning dawned just as it should. It was sparkling clear with a brisk northwest wind biting across the water. As the sun came up the Fisher's Island shore glistened under its coating of snow. The pink hues of the sky brightened into the icy clear blue of winter.

As we came through the Race heading homeward, the Bosun's mate started the reel winch to retrieve our magnetic tail - our final duty to be completed as we headed for Southwest Ledge before the short run up the harbor.

Then suddenly the word came that the winch motor was burned out and would not operate. We tried to think of everything. In the pilot house, I kept easing the ship to windward to keep the floating tail trailing astern. At last I could stand it no longer. I asked Mac Dent, the exec, to mind the ship while I joined the problem solvers on the fan tail. My plan worked no better than the others.

Then, to my horror, I saw that Mac had not kept the ship clear. She had drifted down on the tail and was, like Laocoon, totally entwined in the snake-like coils. We could only anchor and address ourselves to this new problem.

At long last we freed ourselves of the floating tail. Then, in desperation, we decided to have no mercy on the winch motor. Inch by inch with smoke pouring from it, the motor finally completed its job.

I reached home by mid-afternoon - just in time for our Christmas punch party.

The Barbet was interesting to handle. Her high freeboard forward and her high super structure presented considerable windage when maneuvering in restricted waters with a high wind blowing. There was an added complication. Control of the engine was signalled from the bridge to the engine room where the engineer took

appropriate action. Ring up stop and the engine was manually stopped. Ring up back 1/3 and the engine was started in reverse. Too many starts and stops could result in loss of starting air and precipitate embarrassing problems. This, however, we quickly got a feel for after having once been caught in a tight maneuver in a crowded slip.

But even so, one could get caught with other problems.

On one occasion we were ordered up river to the Submarine Base where the "juice wizards" were eagerly awaiting us to recalibrate our degaussing. In calibrating on a southerly heading, it was necessary to be headed down stream across the end of a pier which was angled out into the river. The tide was ebbing and because of the angle of the pier, the flow of the river was setting off from the point we were to berth. To come alongside, therefore, required a smart maneuver and split second timing for line handlers on board and ashore. To be sure all would go well, we put our men on the dock as well as on board in preparation for a portside to landing. We then proceeded to a strategic point out in the river.

To do it right, the approach had to be fast and then full backing power applied at just the right moment to stop her headway and to walk her stern in alongside the pier. All lines would have to be fast at the instant that she stopped. Otherwise, she would be swept off down stream.

With heart in throat, I carried out the maneuver. As she snuggled against the pier in eggshell fashion, I hove a sigh and called for "all engines stop". But they did not stop. With "all

back full" she gathered sternway and into the stream. Docking lines were flying like snakes as the ends were flung off. The engine room telegraph cable had let go!

I liked the "Barbet". She was my first U.S. Navy Command and Mac Dent and Ray Piefzalowski and I had worked hard to make her an efficient and happy ship. We were looking forward to many further adventures with her. Then suddenly, that January evening in 1942, everything changed.

I had returned home to East River for dinner and the evening with my family when suddenly the telephone rang. I could scarcely believe it when I heard Walt Linebergers voice at the other end. Walt was my school and college roommate and was now stationed in the Navy Bureau of Personnel in Washington.

He said, "Stu, you've heard of Donald B. MacMillan and his 87 foot arctic-exploring schooner "Bowdoin"?" I had.

"Well", he said "she is now the U.S.S. Bowdoin and the Navy has assigned Admiral MacMillan to duty at the Hydrographic Office. Would you like to take command?"

Would I ?!

He told me a little of the back ground and what her duties would be. Our mission would be to sail to Greenland to survey several fjords on the West Coast.

"Your orders will be along in a few days," he said. "We need a good sailor, and you'll learn about ice navigation soon enough".

On board the Barbet, I made preparation to turn over command to Mac Dent. I also labored hard in every spare moment to complete sewing the steady sail, or trysail, which I was making for the ship. Having requisitioned heavy canvas at the Norfolk Navy Yard, I had layed out and cut a good sized trysail and had stitched it up as I had learned a few years before in the 4-masted barque.

"Parma". Now I was completing work on the tablings and doublings. I would not be able to rope it, but that could be done elsewhere. And, in fact, it was completed in Brooklyn before Mac and the Barbet headed for Panama. He later told me it was a great success, especially in the rough seas of the Caribbean.

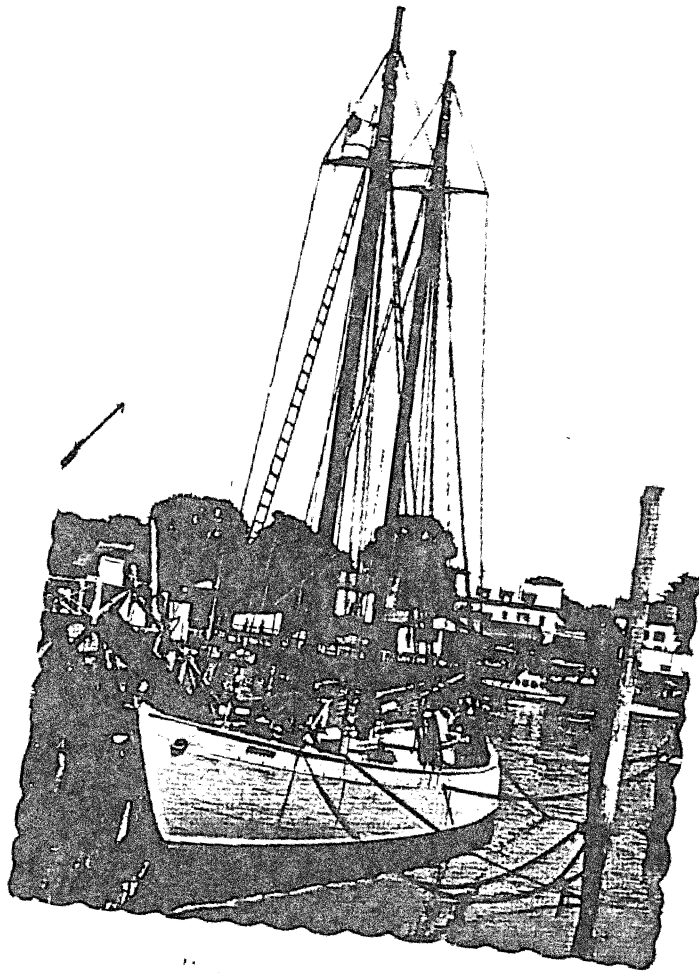
It was early in February when we mustered "Barbet's" crew on deck. I read my orders and Mac read his. I made a little speech and then the crew dismissed. I sadly watched the crew disperse knowing full well I would probably never see any of them again.

A few days later I presented myself at Lawley's Yard at Neponset, a suburb south of Boston, orders in hand prepared for a transfer of command ceremony. I was in for a surprise.

After a few enquiries in the yard, I learned that Bowdoin was reposing on the marine railway and that the exec and radio-man had an office set up in the loft on one of the sheds. I soon found my way to this and walked in.

The scene that greeted me was not impressive. There were two desks, a few chairs, a coffee maker and dirty cups and paper strewn about. Presiding over this was a tall, blonde ensign and a radio-man seated behind the typewriter. They were genuinely surprised at my appearance.

They were more surprised, and obviously none too pleased when I introduced myself as the new commanding officer of the "Bowdoin". I learned that "Captain Mac" was at his home in Provincetown and had not been seen for several weeks and no one seemed to know if and when he would return.



"Bowdoin"

The ensign's name, I learned, was Quackenbush and he was a recent graduate of one of the merchant marine academies. He was Captain Mac's executive officer. Together they had taken Bowdoin to Greenland the previous summer on a voyage extending from June to September. There were nine enlisted men in the crew some of whom were now on leave and some had been transferred.

My first concern was to conduct a thorough inspection of the ship herself. This proved to be rather revealing.

It was a cold damp February day when I first saw "Bowdoin". She looked disheveled as she sat shored up on the carriage of the marine railway. I climbed the ladder to the cluttered deck which was wet from the melting patches of snow. It was a depressing sight.

A few years before we had extensively refitted a similar but smaller schooner, "Vagabond", for the 1935 race to Norway. I was well aware of where to look for trouble and in the next few days I thoroughly combed over the vessel. We lifted the eyes of the rigging where they were set^t on the bolsters resting on the trestle trees. We found rot there which could fortunately be removed and graving pieces inserted. The most serious rot we found was up forward below decks. Her heavy stem was built up and strengthened with five aprons. A large section of the inner one was rotted and the rot extended to include the next two pieces in. This required major reconstruction.

One of the first things to catch my eye on deck was a massive iron monster which I was informed was about to be installed just forward of the mainmast. Closer inspection revealed that it was an air compressor to be driven by a primitive looking one lung engine. This brute was to be cooled by pouring water into a

reservoir on top of it. I could scarcely believe my eyes.

I learned that there had been problems the previous summer. The sole source of power on board was the slow turning Fairbanks Morse 120 HP diesel engine. This provided main propulsion, compressed air for starting itself, and also generated the electricity to supply the bank of storage batteries which lived in the bilge forward of the engine room bulkhead. On the occasions when they had lost starting air the vessel, mechanically, became a dead duck. The knight in white armor to protect against such eventualities was to be the iron monster on deck.

"Bowdoin's" duties the previous summer had been of a miscellaneous nature. The survey duties we were to embark on were to extend through the winter. Our new duties required the installation of a Sperry Gyro Compass and an oil fired space heating boiler to make the vessel liveable. Also, I was quite determined that the iron monster was to be replaced by an electric air compressor snugly installed in the engine room where it belonged. We, therefore, required an adequate source of electric power. This we solved by installing a 7½ KW generator driven by a small Hercules diesel engine. We also installed a sort of hybrid 5 KW generator for standby - hybrid because of the inadequate space available for installation.

Another concern was the selection of a crew. Four of the enlisted men from the previous trip elected to stay on. These included "Sparks" Pounoff, the radioman, "Doc" Abbate, the pharmacist's mate and two seamen first class, Bill Deacon and Ed Bell. We required two men for on deck, two machinists mates and a cook.

The personnel officer at the First Naval District recognized the special nature of our assignment and was most helpful in letting me hand pick our men from the diesel school at Wentworth Institute and from the general detail at Lockwood Basin. Each man selected eagerly volunteered. Tom McColgan, machinists mate second class, was assigned to take charge of the engine room along with Peter Femino, fireman first. Walter Bullock, Boatswain's mate first class and Tom Sharrett, ships cook were both assigned from Lockwood Basin. They were both ex-merchant mariners. One deck assignment remained to complete our complement and I purposely left that open in the hope that just the right person would come along.

One rainy late winter afternoon, I was in my office when the door opened. A large lad in dripping foul weather gear walked in and very formally, sir, asked if I had room left for another deck rating. His name was Truesdale.

I had heard about him from a good mutual friend (whom he later married). He had had a lot of sailing experience and had recently made a round voyage to Brazil in the Swedish four masted barque "Abraham Rydberg". Although I had never met him before, I knew right away that here was the man I was waiting for. In short order I made the necessary arrangements to transfer him from the general detail at Lockwood Basin to the crew of the "Bowdoin". He proved to be indispensable to me as a member of the crew and has continued through the years to be one of my best friends.

At about this time, it became apparent that Ensing Quackenbusk desired a transfer. In exchange the Bureau of Personnel

assigned Ensign David C. "Beannie" Nutt as a replacement. Beannie had made a couple of summer time expeditions to Labrador with Capt. Bob Bartlett in the "Effie Morrissey", a 98 foot ex-fishing schooner that Captain Bob used to take on annual expeditions north for many years before the war. He was a great admirer of Capt. Bob, as I was too, and feigned Capt. Bob's Newfoundland accent. He had great interest in the north and in the eskimos, and during his time on board he did much extra curricular work in compiling an eskimo dictionary. Unfortunately, he had no sense of humor and partly because of this his personality did not come across very strongly to me or to the crew.

Our remaining two officers, Lt. John Stirton and Ensign Joe Gorman, were assigned to the ship for survey duties only and joined us shortly before we sailed. Joe was 6'7" tall and too long for the bunk assigned to him in the little stateroom he and Stirton shared amidship. To accommodate his feet, we had to cut a hole into a locker at the foot of his bunk which from that time on was known as the "doghouse".

Operations plans called for the "Bowdoin" to sail for Greenland early in April. The First Naval District started to apply pressure but with all the work to be done on board, it simply could not happen.

Another complication arose when she was relaunched after the installation of all our new equipment. "Bowdoin" trimmed considerably by the head. I guesstimated that she should have about 1000 pounds of lead ballast in the bilge aft. Because of the limited

space available, it would have to be lead - not iron, as the rest of her ballast was.

This concept was hard to sell to the powers at the First Naval District Headquarters. As a result, we were subjected to an on the spot inspection by Commander Samson and Commander Norton. From the dock they pondered the situation with a certain amount of distaste for my solution. Finally, they pontificated that if we were to carry our two 500 pound anchors aft by the wheelbox instead of up forward, there would be no problem in trim. When I respectfully suggested this might introduce other problems when anchoring and getting under way they non-committally returned to headquarters. The next day we received our lead.

In the days following we bent "Bowdoin's" sails. She was a bald-headed knock-about type schooner designed by William Hand along the lines of the Gloucester fishermen still sailing in 19²¹~~15~~. Her hull was planked with 1-3/4" oak all treenail fastened and she was sheathed with greenheart against the ravages of arctic ice. She was gaff rigged on the fore and main and carried a jib and fore staysail. These sails were of stout cotton canvas and were in reasonably good condition. Her masts seemed somewhat light but I reasoned that if the rig had survived for twenty-^{ONE}~~three~~ years it presumably was adequate. Her builders, Hodgedon Brothers, in Maine had in all other respects turned out a very solidly constructed vessel.

At last one sunny day, about the first of May, the ship was ready to receive her crew and stores on board. The mountain of dry stores which arrived on the dock alongside was staggering but

somehow it all got stowed. Our endless equipment lists were checked and re-checked. Our tanks for diesel fuel and for water were topped off. Our fresh stores with ample ice were loaded into the huge new ice chest lashed on the deck to port alongside the after house. We were in all respects ready for sea.

One thing remained. We must first procede to the Boston Navy Yard for final calibration of the degaussing equipment. This also had the virtue of providing a trial run before our final departure. All went according to plan. Now the long-awaited moment had arrived. The purpose of our mission was primarily to survey Sondrestrom fjord which bridges the Arctic Circle on the west coast of Greenland. The Navy felt that this had not been adequately surveyed and to add urgency, a motor ship of Danish ownership but sailing under the Panamanian flag had run aground in the fjord just before Christmas. Upon the completion of this survey, we were to return south to Blue West One and survey the fjords and approaches in that area. Although a Navy vessel, we were to be under the operational control of Commander Greenland Patrol (Admiral Ed H. Smith) of the U.S. Coast Guard. Our chain of command was first Commander Destroyers Atlantic Fleet, located at Casco Bay off Portland, Maine and then Commander Task Force 24 located at Argentia, Newfoundland. Our routing, therefore, was first to procede to Casco Bay to report to the big boss, thence to Argentia to report and replenish as necessary. From there we were to sail to Blue West One at the head of Tunugliarfik Fjord to report to Come Gre Pat. Then we were to procede up the coast to Sondrestrom to get on with the job.

It was on the 4th of May, 1942 that we departed from Boston. There wasn't much wind which was probably just as well considering that we had not sailed together as a crew before. In fact, a good proportion of our crew had never before been to sea under sail. The weather was damp and penetrating as we pushed along under power with the sails sheeted flat. We established the principle that we would procede under sail alone only if we had sufficient wind to make four knots. It was not until the following day as we approached Casco Bay that this occurred.

The weather was clear and we picked up the flag ship at a good distance as we rolled along with sheets eased in a fair breeze. As we approached we were recognized and assigned a destroyer anchoring berth which was designated on a special chart. I am sure there were surprised faces aboard the flagship as we rounded to under sail to drop our anchor in the designated berth.

From Casco Bay, we pushed on toward Argentia. Off Cape Sable we had head winds and so beat up the coast with the engine turning to help her point up ^{CLOSER} to the wind and give her added push to overcome the head seas that came at us through the blackness.

Off Halifax the wind was light and fair. As we slid easily over the blue seas, we watched a convoy forming up with the escorting destroyers running a screen ahead of the ships slowly proceeding to their stations. And through it all a fishing schooner with riding sail set rolled inward on a course for Halifax. I wonder what all of these ships thought as they watched an ice-blue schooner with an ice barrel, or crows nest, at her foremast head, rolling along wing and wing on a course to the eastward.

The wind remained light and off Cape Breton Island we pushed along under power with sails sheeted flat for a while. Then the glorious south westerly came in during the evening. Bowdoin for the first time was really coming alive as we reached at 10 knots toward the Newfoundland coast.

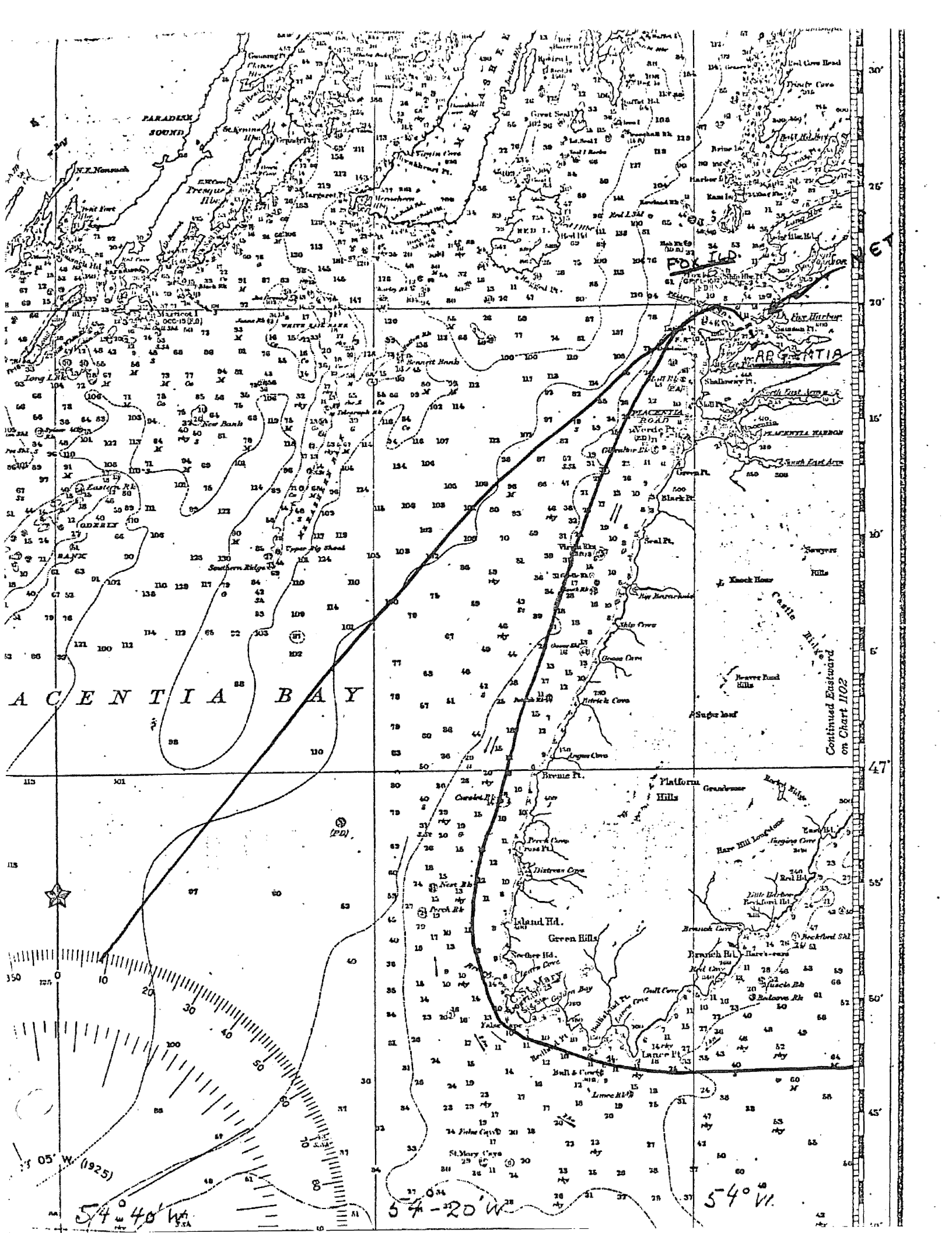
It was a fine night of sailing before we made our landfall on the coast and stood up Placentia Bay toward Fox Island still holding the same condition.

Argentia Harbor was protected by a torpedo net strung across the entrance. A patrol vessel was stationed outside to meet incoming ships and guide them through the net gate. As she approached we rounded to with headsails backed and mainsail hanging in the wind..

Suddenly, I was bowled over with surprise. The patrol vessel was the YP62 to which I had been assigned as executive officer when I first went on active duty with the Navy thirteen months before. At that time, she was fitting out at Consolidated Ship Yard in New York. I was transferred before she ever left there. I could recognize her present captain as Art Winslow, a college classmate of mine, and I could recognize many of the old crew.

We waited and they waited. Perhaps, they thought we would take in our sails.

From the position of the floats, it was clear to see the location of the net gate, and so, at length, we filled away and headed for the entrance. We gathered headway quickly as the strong wind filled our sails. The YP62 abeam to port started in a leisurely fashion and as she began to drop astern, we could tell from



Continued Eastward
on Chart 1102

54° 40' W

54° 20' W

54° W

the doughnuts of exhaust coming from her stack that she was laboring to catch us. She never did.

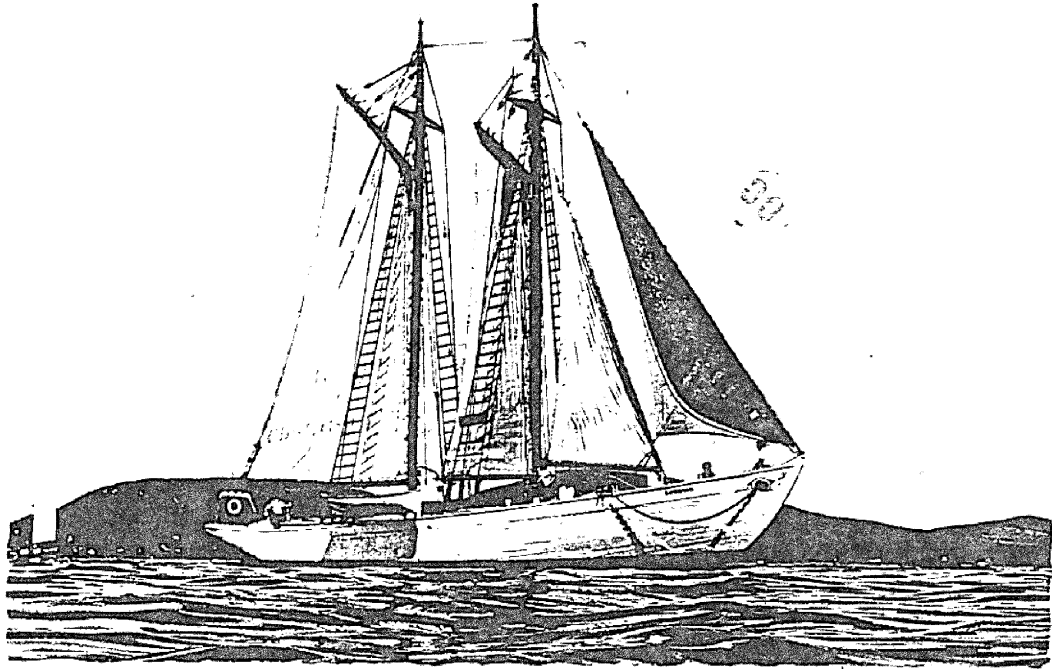
Inside the harbor, we received a signal to procede alongside a tanker which was lying to the wind at a mooring. Her starboard side was long and clear. Accordingly, we rounded to, dropped all sail and berthed gently alongside.

This whole performance was viewed by a large group of officers aboard the flagship alongside the dock and we heard from one of them a year later that even then they still talked of Bowdoin's arrival.

The tanker officers could scarcely believe the small amount of diesel oil required to top off our tanks.

We remained at Argentia for just over a day and sailed early on a beautiful morning. The sky was blue and there was a clear freshness to the air. With a light fair wind, we reached down the shore of Placentia Bay before heading off to the Eastward to round Cape Race. Cape St. Mary, near the entrance to Placentia Bay, presented an interesting sight as it gleamed white in the bright sunlight. It is one of the greatest sea bird rookeries along the coast and its cliffs are literally white washed with the droppings. We fired several shots from our 30-06 Springfield rifles which briefly sent the birds up in clouds only to resettle almost immediately.

As we took our departure from Cape Race and layed our course across 600 miles of ocean toward Skov fjord in Greenland we felt that we were really on our way.



A brief account of the voyage is perhaps best told by quoting the letter I wrote home shortly after our arrival at Narsarssuak. The letter is somewhat cryptic because of censorship regulations.

May 25, 1942

"Dear Mother & Dad:

"We have finally reached the land of our destination, (Narsarssuak, Greenland,) though not our final port, but of course I can't give too many details as to that. We have been having a very interesting and pleasant, though sometimes uncomfortable trip, and almost all of it has been made under sail. All has gone very well indeed, and all hands have been well and cheerful, and I am as delighted as ever with the entire set-up.

"We stayed in our last port, Argentia, Newfoundland, from which I wrote you, just over one day, and early the following morning we got underway. For the first two days we had rather light weather, topped off with fog, but on the third we ran into our first and worst dusting of the trip. Most of the day we had grand sailing, with the wind going from dead aft to the port quarter and shoving us along at increasing speed up to ten knots - which is about the limit, I think for this heavy vessel. Finally we double reefed the mainsail, but when we reset it the rig looked so shaky that we got it in almost immediately. After that, we contented ourselves, in the increasing gale, with merely head-reaching under foresail and staysail. She, being so heavy, was rather logey in the seas and took quite a number of solid ones over, which raised some havoc with gear stowed about the decks and made it somewhat uncomfortable for all of us, as the air

temperature was 35 F. As the seas lengthened out they became more comfortable and broke along their backs instead of toppling over like breakers on a beach as they had done, but it was not until the following afternoon that we could again make full sail. In the following days we had continued good winds which had the habit of coming in fair and then sneaking around until they forced us off our course, but we had grand sailing.

"On the afternoon of the 3rd day before our arrival, the main gaff snapped in the middle, but as it turned out, we never actually missed it, for that same day we ran into another gale which continued through the night, the following day and following night, bringing with it violent squalls of sleet, hail and snow. Fortunately, this time the seas did not build up in the same way and we took less solid water aboard. But none the less, we all remained more or less soaked for those last few days and aft she was almost as wet below as on deck.

"One interesting thing occurred after the wind had left us and as we were approaching the coast. The helmsmen spotted a drifting mine, which looked quite old and rusty, close aboard. So we broke out our rifles and circled it several times in ever narrowing circles before we sank it. All hands had been firing with no success, so I took a rifle and with my first shot punctured it! When we were sure it had sunk, we went on.

"Later that day, we fell in with the ice, and since we had fetched in dead to leeward of our destination, we worked up under ~~power~~ ^{power} along against a light wind through masses of flow ice which extended in the direction of the land as far as the eye could reach. Fortunately, we have no real darkness up here now and so we could

keep pushing along for the few hours of night as well.

"The following day was perfect, and with good observations we made a perfect landfall on a coast which might be difficult in the extreme under less favorable circumstances. The scenery here is the most impressive I have even seen, characterized mainly by great masses of rock, topped off with snow, and there is very little vegetation of any sort. Everywhere there are long fjords reaching many miles into the land, and behind it all is the enormous white blanket of the ice cap.

"Our first evening we put into a small cove where there is an eskimo village (Narssak), and there received our first introduction to the "Skeemos" as they are called around here. They are certainly sharp traders. Some of the boys played soccer with them and we were fortunate to escape our encounter with shirts or shins!

"I imagine I have already transgressed the bonds of Censorship, and of course I cannot say much about where we are now (Blue West One, Narsarssuak) except that we plan to push on very shortly, with a new gaff and what few additional items we required.

"This is certainly a grand trip and I can still scarcely believe it is true that it is a job and not just fun, pure and simple. All the crew has worked out very well. I still find Nutt very dull and lacking in the light touch. It is too bad, for I can never help resenting people who are intense without the leavening spark of humor, but I suppose that we cannot have absolutely everything, and here we are not very far from that ideal."

A few recollections of that voyage stand out vividly in my mind.

I shall never forget the breaking seas which swept our deck. One sea in particular loomed up in the night as I was at the wheel. There was no escaping it, so I dropped on my hands and knees against the weather side of the wheelbox as it crashed aboard submerging the after end of the vessel. It swept away the brass binnacle cover which protected the magnetic steering compass. It also filled my seaboots to the top once again with icy water but otherwise no harm was done.

It is interesting how quickly ones feet and legs warm up the cold salt water in a seaboot.

"Bowdoin's" rig proved worrisome. The letter notes our fears for the mainmast when we briefly set the double reefed mainsail. The mast simply was not heavy enough to stand the thrust of the gaff at its mid point.

We found, too, that on a broad reach the entire rig would surge forward as we slid down the back of a passing sea. It was to alleviate this surge that we rigged a vang on the main gaff. The vang was a contributing cause to the snapping of the main gaff as noted. Upon our arrival at Blue West One I acquired some galvanized wire rope and spliced up a pair of main runner backstays which from then on eliminated this problem.

The incident with the mine turned out fortunately. You might say that fools rush in where angels fear to tread. The mine was floating very low in the water and presented a difficult target to puncture. We could not with a clear conscience turn our backs on it. By the time we sank it, we had circled quite close in. Later on we exploded floating mines in the Pacific at a respectable range with 3" gunfire. I am only glad we did not set off such an explosion on this occasion.

We fell in with the ice about 60 miles south of Cape Farewell. At first we encountered a few growlers then in minutes, it seemed, we were surrounded by a field of ice. From the ice barrel aloft in the foremast we could spot leads of open water which could be followed in the general direction of our course. The ice entirely killed the sea leaving us smooth waters to navigate under power. Eventually the ice disappeared as quickly as we had encountered it.

The following morning was bright and clear with a fresh breeze. Bowdoin sailed nicely under jib, staysail, foresail and main trysail. When I got a morning sun sight the shore was visible to starboard but entirely lacked distinguishing land marks. As luck would have it, my sun line passed directly through the entrance to the fjord which we were seeking. We quickly altered course along the line and soon we were identifying the rocks and islets as they appeared on the chart. It was only after we were well in that it was possible to identify the southern entrance to Skovfjord.

Simiutak Island is at the entrance to Skovfjord. Simiutak, in eskimo, means stopper, as in a bottle, and this is in fact the nature of the island, with navigable passages to the north and south of it. It also contains a reasonably good small harbor which we were to use quite frequently later on. From there it is about 40 miles to Blue West One at the head of Tunugliarfik Fjord.

55°

50°

45°

40°

35°



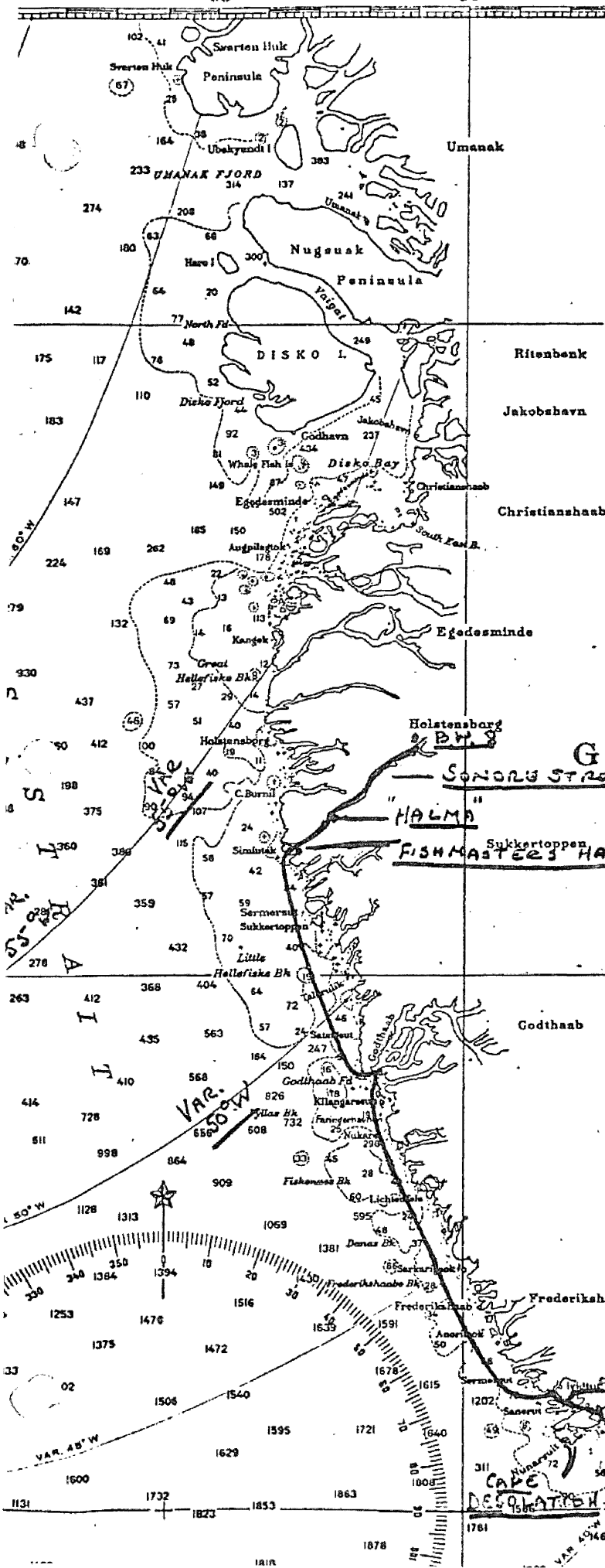
NORTH ATLANTIC OCEAN LAT 70°N NORTHERN SHEET

Compiled from various sources to 1941

SOUNDINGS IN FATHOMS

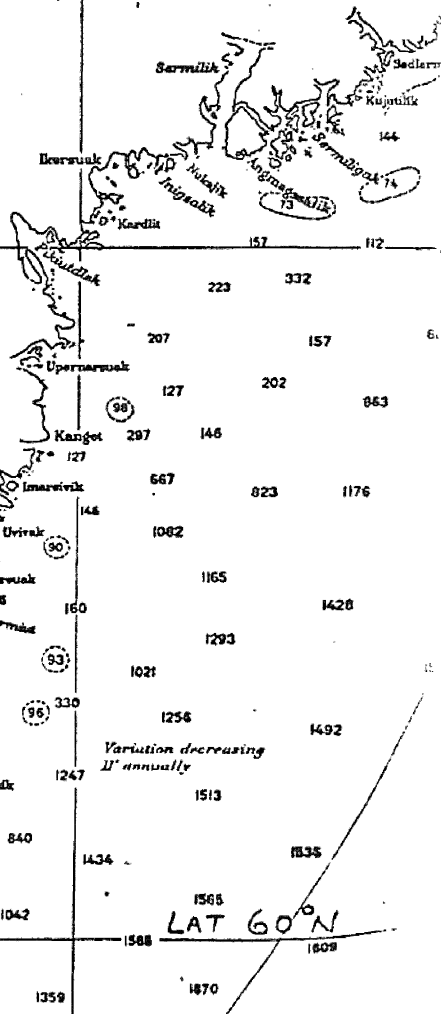
The magnetic variation curves are for 1940

Natural Scale 1:5,870,032 at Lat. 54°00'



GREENLAND

LAT 65°N



LAT 60°N



Variation decreasing 2' annually

About half way up the fjord was the town of Narsak picture-
esquely situated on a slope overlooking a snug little harbor.
A steep little mountain rises precipitously above the head of the
harbor and seems to dwarf the houses below it. There were about
twenty buildings which included a small warehouse at the little
stone dock, a wooden church and a school and the trader's house.
Most of the houses were of the ancient stone and sod construction.
The harbor barely provided us with room to swing with adequate
scope.

As soon as we dropped the anchor the umiaks, filled mostly
with young people began to cluster around. They were as curious
about us as we were about them. Their eskimo faces, round and
brown and smiling, were friendly and welcoming. Soon lively con-
versations in a polyglot of tongues were going on. Bowdoin had
been here before and members of last years crew were finding old
friends amongst our visitors.

Someone suggested a soccer game ashore and most of our crew
went in to join the shin-dig which it literally was, but everyone
had fun.

A few months later when our work brought us back to this area
Narssak became a second home to us and its people our very real
friends.

Bright and early the next day, we got under way for the short
run remaining to Bluie West One. The air was bright and clear.
The temperature was twenty-seven degrees and the sun sparkled on
the snow which covered the surrounding hills. The fjord was fairly
wide and littered with small icebergs or growlers which had broken

off from a glacier at the head of the fjord. On our port hand we could see a steamer which had apparently been wrecked some time before. Her stern was hung on a pinnacle of rock and her bow was submerged as far aft as the bridge. Her name, we learned later, was the "Montrose" and she had fetched up on the pinnacle in heavy fog.

The Base did not present a prepossessing sight. There was a pair parallel to the shore line with room to accommodate a couple of vessels on the outside and a shallow berth on the inside which was later to become our winter mooring. A steep mountain rose precipitously above the pier and this, we were to find later, provided excellent shelter from the foehn winds which roared down off the ice cap to churn the anchorage outside into a seething spray filled cauldron. There were a few buildings near the head of the pier.

Beyond the pier area we could see the air strip. The Air Corps buildings were located at the head of the air strip.

When we arrived off the Base we found that the pier was jammed with ships unloading and the harbor was choked with growlers. We were informed by signal that a berth would soon be clear for us, so using an ice anchor we tied up to a growler to wait our turn.

We arrived at Blue West One on the 21st of May and remained until the 27th. I reported to Com Gre Pat for duty and we replenished the ship. We replaced the broken gaff and I made up the main runner backstays. We also got organized for the up-coming survey work which we were to start as soon as possible at Sondrestrom Fjord.

The trip north from Bluie West One was varied and interesting. The first part was made through inside passages which wound between islands and rocks. Our chart was merely a sketch chart with a dotted line to indicate our route. There were no soundings shown and a sharp lookout was required to identify each landmark and to spot any submerged rocks that might cause trouble.

In this fashion we wended our way to Ivigtut where we planned to anchor for a "night".

Ivigtut consisted of the Kryolite mine around which everything else revolved. Kryolite was a substance which was essential in the manufacture of aluminum. There apparently were not many sources of this ore and the mine at Ivigtut represented one of the more important ones. There were vast pits from which the ore was being mined surrounded by associated red buildings housing machinery and equipment. There were docks on the waterfront where ships loaded the ore for transport mainly to Boston. Some was hauled in the Greenland steamer "Julius Thomson" which was then lying at a mooring near our anchorage. Alongside was a Norwegian steamer.

We launched one of our two dories which we carried nested on the port main deck fisherman style and went ashore to pay an informal visit. Little did we know what was in store.

The officials of the mine were friendly and cordial. They took us around to view the operation and then we returned for a pleasant drink. They then said that one of their number was returning to Denmark and that there would be a farewell party for him that evening. Would we like to come?

The Danes can be masters at the art of conviviality and we struck a high point that evening. Dinner consisted of course after course of the most delectable foods. Wine and aquavit flowed in bacchanalian fashion late into the night, which wasn't night at all.

Captain Konow of the Norwegian steamer told us of a marvelous life saving suit he carried in his shop. The wearer was completely insulated from the cold water and to prove it he offered to demonstrate it at 0700 the next morning. We planned to sail at about 0800.

Bright and early we arrived on board the steamer to find Capt. Konow sound asleep in his long-john underwear. Red-eyed he rolled out of his bunk, true to his word. But then, looking over the side at the pieces of floating ice, his courage failed him.

"Steward", he called, "bring out the suit."

"Steward", he said, "you put it on and go swimming!"

As we watched the steward paddling about pushing ice cakes out of the way we were convinced that the suit was every bit as good as the captain said.

From Ivigtut we proceeded outside to Godthab, the capital of southern Greenland. This run was made entirely under power because of lack of wind. In fact, it was our continuing experience during the summer months that there was little wind along the coast and in the fjords. I frequently found myself wondering how the explorers in the days before mechanical propulsion managed on such an intricate coast as this with so little wind to drive them.

Godthab proved to be a small town that rambled over a rocky area. The harbor was relatively well protected and there was a stone dock and warehouse. Fishing seemed to be the main industry here with cod liver and shark liver oil as the main products. The wooden houses were small and snug. Consul Penfield was the U.S. Consul to Greenland at the time. His house boasted a wind-mill driven generator to provide electricity.

Our visit here was brief and soon we were again pushing along under power for our final destination, Sondrestrom fjord.

Our arrival at Sondrestrom was well timed. Until only a few days before the fjord had been choked with the winters ice. Suddenly, in the mysterious manner of ice, it was gone. When we pushed up against the strong current that was then flowing down the long straight valley that the lower fjord appeared to be no trace of ice remained.

The mountains which sloped steeply to the narrow waters of the fjord in the lower part eventually gave way on the starboard hand to a glacial moraine. The receding ice of the glacier had centuries before left behind a long sandy beach. Rough sand ridges extended back from this to the long white tongue of the glacier which rose to snow covered mountains in the background. The surface of the glacier was channeled by streams of water that originated from melting snow and ice along its length. These channels were deep and curved and blue - a little reminiscent of a bob sled run. Where they encountered a fissure in the ice they would drop vertically into the black unknown. God help anyone who might fall into one of these.

On the port hand across from the glacier the fjord turned left, briefly, before resuming its original course and broadening. Standing sentinel at this curve was a large precipitous mountain of rock called Kakatorsuak, meaning in eskimo large light mountain.

As we rounded this bend which revealed the broadening reaches of the fjord extending ahead for the remainder of its 85 mile length we were greeted with a surprise. There to starboard, well away from the main axis of the fjord we saw a motor ship apparently heading down stream. She was in perfect trim, on an even keel and in all respects apparently ready for sea. But as we approached her we could see that she was a dead ship, deserted and motionless. This, then, was the ship we had heard of that had run aground last December.

It was late afternoon. Cautiously feeling our way with the fathometer we worked around her stern to berth alongside on the shoreward side to lie over for the night. It seemed that she had run onto a flat ledge and for our small vessel there was plenty of water all around her. The name appearing on her stern was Halma but showing through the p^{er}aint we could read Nora of Esbjerg.

We wasted no time in climbing aboard. Everything about her deserted decks appeared in good order and undisturbed in any way. We then explored the bridge, officers staterooms, passenger staterooms, dining, saloon and lounge. All were in perfect condition and beautifully appointed and furnished. We had the feeling that the ship at any moment would suddenly spring to life and we would be caught trespassing like naughty boys. Each door we opened we carefully closed after us. Subconsciously we talked in hushed voices. It was with a great feeling of relief that we emerged on deck into the sunlight of the arctic night.

As the realization penetrated that we were indeed the only living souls aboard our tensions were released and then, of course, we began to explore unashamedly. In no time we discovered that #2 'tween decks was loaded with beer in cans. Soon we had brought some of the fine upholstered chairs from the passenger quarters out onto the verandah deck, and an extension speaker from our own electric phonograph provided the final touch. At leisure we reflected that we were enjoying a most remarkable situation.

The next morning we got under way for the final leg of our journey to Bluie West Eight at the head of Sondrestrom fjord. Beyond the Halma and again on the starboard we passed a second glacier. The rotted ice of this one was rough and craggy and its moraine did not present the long straight beach associated with the first glacier. Soon the fjord began to widen out assuming the proportions of a lake and the profile of the shore line became lower and more rolling. The water assumed an almost milky color which was due to glacial silt washing down from the headwaters of the fjord. It was early afternoon when we anchored off the Base. Our voyage was completed and now the survey work was to begin.

Our first chore was to be the triangulation of the entire length of the fjord and its approaches. As a start it was necessary to accurately measure and mark a base line which would form the keystone to the entire triangulation system. At each end a primary signal must be located. These were to be built of poured concrete with a verticle pipe at the center. Then other primary signals were to be built at key locations appropriately spaced

along both sides of the fjord for the entire length to be surveyed. Primary signals were to be "occupied" with the theodolite. From there angles would be shot on all other visible primary and secondary signals, land tangents, mountain peaks and any other significant objects. Secondary signals were merely verticle wooden battens maintained in position by rough triangular bases. These were marked with orange flags as were the primary signals when not being "occupied".

The triangulation data when complete was to be plotted on "boat sheets". The shoreline then was to be drawn in using aerial photographs which were taken at a controlled height with 60% overlap. These could be oriented with the tangents to provide the intervening convolutions of the shoreline.

Finally we were to run lines of soundings up and down the fjord. The plotting of these lines was controlled by frequent "three point fixes" obtained by shooting simultaneous horizontal sextant angles between our signals on the shore line.

Our stay at the base was brief. We replenished the ship as necessary and loaded the lumber, cement and other supplies required for signal building. We had selected the first glacial moraine beach for the location of the base line, and soon we were under way for an anchorage off the beach.

Up to this point our survey officers, John Stirton and Joe Gorman had had very little to do, but now the positions were reversed. The function of the "Bowdoin" now became a supporting function to their activity. It was their responsibility to determine the location of signals to be built and then with the assistance of various crew members to ^{HAVE} ~~have~~ the materials for their construction ashore in the dorys.

Frequently the signals were located on steep rocky points. Such locations for primary signals called for plenty of work to haul cement, lumber for forms, sand and water to mix the concrete and pipe to support the theodolite. Our crew members gradually became expert dory handlers and mountain goats.

Meanwhile "Bowdoin" would stand by either at anchor or under power ready to pick up the survey crew and move on to the next location. This, of course, gave us an excellent opportunity to maintain the ship and get her into topnotch condition.

In a letter home, dated July 7, 1942, I noted "The masts are greased, the rigging is sparkling in black varnish, metal work in bright aluminum, hull and decks are freshly painted, brass all shined, new varnish on all bright wood, and fancy work commencing to crop out. She looks like a real yacht. If only we could dispose of the lumber pile on our starboard deck the ship would be very nearly the perfect yacht."

In August we had a surprise inspection at Blue West Eight by Capt. Carney from Bu Ships in Washington. He paid us the highest compliments on the condition of the ship and repeated them later to mutual friends at home.

Soon after our arrival at Sondrestrom the motor boat arrived. This boat was one that Captain Mac had ordered before I took over with the stipulation that it be shipped to us in Greenland to assist in the survey work. It was a nice boat, about 18 feet long with an inboard diesel engine, but it turned out to be a millstone around our neck. Always it seemed to require work. To forestall trouble

we installed a propellor guard which required time and labor before we put the boat in service. Then on its second day of operation the clutch went bad. We towed that boat for many useless miles.

It's crowning misadventure I described in a letter dated August 29 as follows:

"Life here has been going on much as usual, with occasional occurrences to liven things up. One such happened not long ago, but fortunately came out successfully. The other day we were towing our motorboat along in a slight chop. I could see that she had a bit of water in her, but since we were to lie to in a minute, I let her go to attend to something else. When I looked astern a moment later, I saw her lurch heavily forward, water puring in. We stopped immediately, but too late. In an instant she was hanging vertically downward out of sight at the end of her painter - a very dismal sight. Since the boat weighs something over a ton, the outlook for salvage was decidedly gloomy. Fortunately, we had just rove off a new painter and so we hooked in to our main throat halyards and all held. Eventually we raised her to where we could rig a preventer, guys, and hook in the fore throat halyards and so got her clear of the water and safe. But we had a few bad moments. Of course the engine was flooded out and since has had to be completely pulled down, but this we did ourselves and now all is well under control."

Sad to relate, the boat really wasn't suitable for our work, for which the dories proved far superior. Upon our departure we left the boat at Blue West Eight and never saw her again.

The shoreline of the fjord had tremendous appeal. There were mountains to climb, and on the gentler slopes and in the valleys there was a variety of game. And then there was the glacier.

The glacier stretched inland from the shoreline ever upward until it disappeared between the tops of two mountains. What lay beyond? Perhaps the unbroken sweep of the ice cap which covers more than 90% of Greenland. This presented a challenge which could not be denied.

Because of the extreme clarity of the atmosphere and the lack of any objects of known size it was impossible to judge distance in this country. A large mountain miles away stood out with the same clarity as a small mountain close to. The answer lay in the climbing.

One day when we were anchored off the "base line" I decided to try it. As no one would come with me I set off alone fully aware of the potential dangers I was undertaking.

The surface of the glacier at first was relatively smooth and hard. It was channeled with smooth deep water courses that the melting snow had formed. There was a terrifying beauty to the glistening blue ice which formed their sides and bottom. Approaching the edge of one of these was like approaching the edge of a cliff. They were fascinating, but instinctively one backed off, knowing that to fall in one would be certain death.

I climbed and climbed on the ascending slopes of ice. The mountains ahead seemed little closer. Gradually, the surface began to change. Instead of ice ahead, it looked like snow. The granular mixture of snow and ice became ankle deep, then knee deep,

but inspite of the hard going my determination to reach the top remained.

Then suddenly on my next step my right leg fell through to nothingness and I was on my face in the snow and ice. Spread-eagled, like a flying squirrel in the snow, I crawled to retrace my steps while mental images of deep crevasses and water courses ran before my eyes.

I never did see what lay beyond the ridge.

Mountains to me have a fascination. I have an irresistable urge to reach the top despite the intervening difficulties. As one climbs, each outcropping, each ridge, promises to be the summit only to be replaced with another farther on. And then at last there is great satisfaction as one stands at the highest point to survey the panorama spread below.

The mountains along the fjord were not high, perhaps 1200 feet, but they were steep and rocky. The climbing was sometimes difficult and always it provided much needed excercise to balance the physical confinement of shipboard life. The views from the top were always rewarding.

The land behind the mountains and along the valleys was varied and interesting. In some areas there was heavy arctic tundra, deep and spongy. To walk on it was like walking on a monstrously deep-piled carpet except that it was rough as well. One day Pie Truesdale and I chased some brant from pond to pond across such an area. We shot our brant but exhausted ourselved in the process.

Most often when I went ashore I would carry my old 12 guage

hammer shotgun which I had brought from home. Almost always I would be rewarded by some form of game. Most plentiful were arctic hare, ptarmigan and mallard ducks.

The ptarmigan in the summer had brown plumage and resembled a partridge or prairie chicken in appearance. They were at times very tame which, for the eskimos was fine but for the true sportsman presented a problem. The eskimos loaded their own shotgun shells with hard-earned powder and shot and they hunted to provide meat. An eskimo encountering a group of ptarmigan on the ground would circle until he had the most birds in a row before firing for a maximum kill. I, however, took a different approach.

Because of the possibility of encountering a caribou, I frequently carried my 44.40 colt revolver in addition to my shotgun. When I would find a group of ptarmigan in the ground, I would select one as a revolver target then when the rest flew off, I would have two wing shots.

One evening when anchored in a rock-lined harbor, I headed for shore in one of the dories for a few hours hunting. Suddenly near the shore I noted some mallard ducks frantically swimming away from me. As I closed in I fully expected to see them take off from the water as ducks usually do.

Instead, however, they scrambled onto the rock-strewn shore and darted like rabbits amongst the boulders. Their behavior was almost spooky because it was so uncharacteristic and abnormal.

Suddenly it dawned upon me that these birds were moulting and were unable to fly. A few days later I returned to the same spot and got some beautiful wing shots. This helpless, grounded condition must be of very brief duration.

The mallards here were entirely similar to ours at home but the birds were much larger.

We also had good fishing though the variety was somewhat limited. Most plentiful and most frequently available were cod. As "Bowdoin" lay at anchor the boys would hand-line over the side and in a short time would pull in, (hand over hand like pulling up a sash weight), enough cod for the next meal. When served fresh out of the cold water these fish were delicious. Kept a few hours, however, the flesh soon became coarse and flaky as if from your local friendly fish market.

Our most exotic catch came one evening at Fishmaster's Harbor, a pleasant anchorage at the mouth of the fjord. In a letter home I described it as follows:

"The other evening when we were fishing, the cook hooked a great big grey fish called a wolf fish. His form aft was on the lines of one of those tropical green morays, but forward he bulged out to a paunchy belly and a big ugly head with teeth like a dog. His hide was like sharks skin and he must have weighed about 30 or 40 lbs. He was just about the ugliest fish I have ever seen. After photographing him, etc., we threw him back without killing him. Later I caught the same beast twice again!"

I might add, he also smelled very badly!

In a few streams ashore it was sometimes possible to find arctic char which was rather similar to a trout but had flesh redder than a salmon. We never found a lure that would appeal to them and those we got we speared. Our largest "catch" of these we obtained by trading with an eskimo hunting party that we encountered early one morning. They, too, had speared the fish in one of the icy clear streams. We also obtained some caribou meat from

them. Although there were caribou in the area we ourselves never had the good fortune to encounter one.

One day we were lucky enough to find a stream where the capeling were running. Beannie Nutt and some of the boys using the seine brought back buckets filled with the succulent little fish. Like smelt they are small, require no cleaning and can be fried immediately. Such runs do not last long and we were fortunate to happen along at the right moment. Needless to say, we gorged on them.

Beannie took a scientific interest in the flora and fauna about us. On his expeditions ashore he would collect samples of the delicate flowers and lichens which were to be found. To the casual observer such things were hardly noticeable but closer inspection revealed many species nestled in the nooks and crannies of stream beds and any other crevice which would yield slight protection against the rugged growing conditions. The growing things he would photograph and dry for preservation. On one occasion he also shot a loon, a large bird with a dappling of white feathers superimposed on its basically black plumage. This he skinned out and stuffed. It shared our after cabin looking down reproachfully on us for the ensuing months.

Our water tank capacity was 400 gallons, but replenishment provided no problem as there were numerous streams of icy water tumbling into the fjord at scattered locations. One stream I remember particularly because of the profusion of brilliant red flowers that nestled along its banks. Another stream culminated in a water fall which turned the watering ship procedure into a lively performance with everyone involved getting soaked in the process.

We carried about eight big milk cans on deck lashed to the sides of the after deck house. While Bowdoin lay at anchor off the stream these were taken ashore in a dory for filling and returned to the ship. One by one they were hoisted out using a dory burton and dumped into the water tank. Several trips were required to fill the tank and then a final trip to fill the cans which were then stowed full in their accustomed location.

Ships stores, however, posed another problem. To replenish these it was necessary to return to base about every two weeks. Frequently there were other maintenance problems to clear up, so that our visits to the base were apt to last two or three days. For example, on one such visit Bill Deacon had his tonsils removed using local anaesthetic. And then, of course, there was the motorboat as previously mentioned.

These visits also provided our only social contacts beyond the confines of the "Bowdoin". These seemed mainly to be with people on other vessels there. I remember evenings spent aboard the Coast Guard tug "Raritan" with her skipper, Warrant Officer Stepanoff. She had a large ward room that extended the full width of the ship. With a deflecting target box this provided a fine pistol range for practice with his 22 caliber target pistol.

There were other encounters as noted in my letter home of August 24, 1942:

"A rather odd meeting occurred the other day. When we came in with the motorboat to the base, a store ship was in and we lay alongside for a while. Suddenly I heard myself called by name and looking up saw a fellow whom it took me a minute to recognize.

Then I recalled that I had met him on a dock down in Miami two years ago, and that he came from Guilford. I don't remember his name, but he was one of the gun crew aboard the steamer. Then, more recently, a couple more ships came in. An officer from one was going ashore as we were proceeding out on an afternoon job. He gave a shout and came over. It was Fred Sturgess who had lived with us at the Whitehouse one winter and who had sailed the 1937 Fastnet with us in the Lizzie Mac. That evening we lay alongside the ship upon which he is Exec and had a very pleasant visit. The same evening, coming on deck at about 11:30 we figured that something was quite wrong with the moon. Earlier it had been full and now it was only half. As we watched it went into a total eclipse - a beautiful sight as the night was fine and clear. Through the binoculars the moon looked opaque."

In my letter I failed to mention that Fred and I had consumed the better part of a bottle of whiskey. The condition of the moon came as somewhat of a shock to us in our condition! Then it dawned that we were seeing an eclipse.

After one of our visits to the Base we headed down the fjord with the intention of tying up alongside the "Halma" for the night. In the weeks subsequent to our initial visit to the ship we came back frequently whenever the location of our work permitted. In so doing we turned up many benefits in addition to the treasure-trove of beer. For example we found a locked store room filled with cases of whiskey which provided pleasant variety to our "night club" bill of fare. Also submerged in the oily water of one of the after holds we found cases of alpaca parkas and vests and also Hudson Bay mackinaws. The fact that they were

heavily soaked in oil meant nothing because in one of the forward holds were stowed drums of aviation gasoline. Using the large stainless steel cauldrons from the galley as vats we quickly had an efficient dry cleaning operation in progress. The clothes were then hung out to dry and air for a few days until our next return.

We collected various souvenirs of this sort aboard the "Bow-doin", including the radio room clock, beautiful in its heavy brass case and red "silent" sectors on its dial, which found its way into my possession. But alcoholic beverages outlawed since the days of Josephus Daniels by Navy Regulations, we left aboard the "Halma" to be enjoyed only during our visits.

And so again, in routine fashion, we headed down the fjord to enjoy yet another happy night alongside "Halma". But this time we were in for a surprise.

As we approached we suddenly became aware that "Halma's" davits were swung out and that the life boat falls dangled loosely at the waters edge. Furniture and equipment littered the decks. All was in a state of confusion.

The steep shore of the fjord nearest the wreck presented an amazing spectacle as we drew closer. The water's edge was lined with life boats, umiaks, and stacks of material. An eskimo village seemed to have come into being almost over night. While mooring in our usual berth we studied the scene ashore through our binoculars.

There must have been thirty or forty eskimos on the beach and we noted that their behavior was quite unusual. Even as we watched several climbed up the steep slope, fell and rolled to

the water's edge. We suddenly realized that they were all drunk. Never before had they "had it so good"!

When we went ashore the eskimos were very cordial. Like happy children who have been presented with a toystore they wanted to share their good fortune with us. I felt mean indeed as I drafted a radio message to the Base to send a vessel down the fjord to retrieve the valuable loot.

The next day the "Raritan" came along to pick up the pieces and relieve us of our vigil so that we might procede with our work.

They say that virtue is its own reward, but this is sometimes only an empty consolation. We later learned that "Raritan's" crew made a fortune selling whiskey at the Base for \$35 per bottle!

A week or so after the eskimos had discovered "Halma" a Merrit, Chapman and Scott salvage vessel arrived from the States. In short order "Halma's" electric winches were discharging her cargo onto lighters alongside. Powerful salvage pumps soon had the vessel cleared of water. With temporary patches in place she left under tow for Boston to be repaired and returned to service.

It was early September when we concluded our survey work. For several weeks we had been pushing up and down the length of the fjord recording soundings at carefully spaced intervals. In the lower part of the fjord this was somewhat complicated by the 4 knot tide that sometimes would be rushing us along or, on the opposite heading holding us back to a slow crawl. In the wide upper reaches of the fjord, the tide had little effect.

As September approached the days grew shorter as the sun swung lower in the sky. In June, the mountain tops were bathed

in sunlight all night long. Frequently, I would return from hunting at 1 or 2 a.m. only because one must sleep sometime.

The summer sun was warm. I remember one windless day I sat on deck for an hour or two stripped to the waist making fancy-work manropes for the gangway while the thermometer read 75°. In the background the sun glistened on the patches of white snow on the craggy shoreline. But such moments were rare and fleeting. The wind brought a chill, and when clouds passed over the sun the temperature would drop to 45°.

The winds in the fjord were mostly light and variable. Only occasionally while waiting for our survey crew could we go "day sailing" with a good breeze to air the sails and keep the crew in practice.

Our final soundings were taken on the approaches to ^{the} fjord from the sea. On one such day with a light wind and smooth sea we set all sail and from the motor boat took photographs of "Bowdoin" under way.

When at last the survey work was complete we returned to the Base to make two final checks. With trepidation a physical measurement was taken between two signals to check the 40 mile triangulation from the baseline to the head of the fjord. The measurement checked practically within millimeters, a fine tribute to our survey officers' skill and meticulous work.

Then finally one crisp cool night the ^{ASTROLABE} theodolite was carefully set up ashore to measure the meridian transit of a star to establish geographic orientation.

John Stirton had been transferred to a ship in the Canadian arctic before this survey was completed. Joe Gorman remained to

complete the job and to carry out single handed the survey work that would follow in Tunugliarfik Fjord, Skov Fjord and Brede Fjord to the south.

And so in early September we said good-bye to our friends at Bluie West Eight and for the last time headed down Sondrestrom fjord for Davis Strait. It was almost with a feeling of nostalgia that we passed the ledge where "Halma" had provided us with so many pleasant evenings and then Kakatorsuak, the big light mountain, and Puto, the mountain with a hole through its top, all striped with bands of black basalt. And then at last we were at sea again, laying a course to the southward with a light breeze broad on our starboard quarter.

It felt good to be at sea once more although our destination lay only about 300 miles away. Bowdoin rolled along easily under all plain sail. Davis Strait was blue and sparkling. To port the coast presented a saw-tooth profile of dark rock mountains flecked with patches of snow which even at the end of summer remained in the sheltered crevices.

For the first time in many weeks we had the gyro compass in operation. With this we could utilize true course and bearings instead of relying on the magnetic compass which, because of our position relative to the magnetic pole, had a variation of almost ⁵50°W. There was another great advantage which we were to learn a few hours later.

As daylight faded the breeze freshened. This was what "Bowdoin" liked. The old girl picked up her skirts and reeled off the knots. The sea built up and crested with foam that gleamed white in the starlit night. The vessel would run down one

sea and swing up as the next one lifted her transom before the cycle was repeated. The action was rhythmic as one sea followed the other.

It was then that we noticed the effect on the magnetic compass. Instead of steadily pointing to magnetic north it began to swing and then the swings increased until at last the card was revolving like a cartwheel in its bowl. Meanwhile the gyro clicked steadily to indicate our heading impervious to all extraneous forces of nature.

The magnetic declination in the area was in excess of 50°. The downward forces acting on the compass magnets exceeded the horizontal directive forces and hence this erratic performance.

As the night progressed the wind continued to increase until it reached gale force. "Bowdoin" was lighter now than on our trip north and running off she remained dry as her stern lifted and she ran down the seas. Our new backstays really proved their worth in steadying the rig as she settled in the trough preparing for her next headlong rush.

As the gusts became heavier it became apparent we would have to get the mainsail off of her.

With all hands on deck we sheeted down the jib, staysail and foresail so that they would continue to drive us ahead as we sharpened up. When this was done, it was all hands to the main sheet to trim it in smartly as we rounded to while easing away the throat and peak halyards.

As she came up amidst the roar of flapping canvas she took a heavy sea across the starboard rail and rolled deeply to leeward burying her lee deck. Mr. Nutt claimed that he was swept right

outboard, but fortunately had a good hold on the lee main rigging. It was just as well as we were doing about eleven knots at the time.

When the mainsail was safely stowed we squared away again. At leisure we set the storm trysail to replace the main and continued on our way reeling off the miles hour after hour as the gale continued.

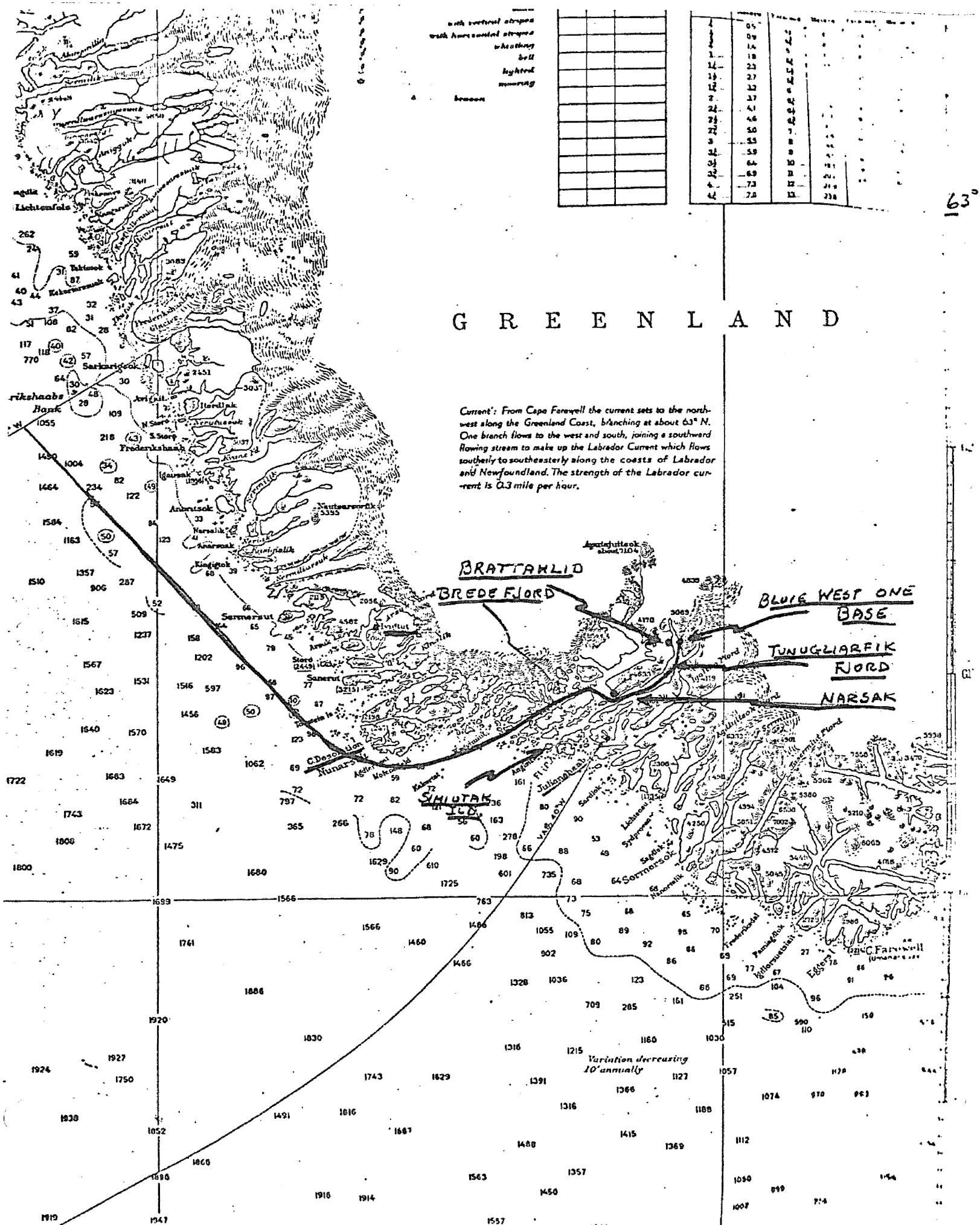
That night again I was impressed by one of "Bowdoin's" qualities. The wind and seas could roar on deck but down below in the after cabin she seemed steady and silent as a church.

The next afternoon we sighted an iceberg riding apparently immobile as the seas crashed high around its base. It was beautiful in its detached serenity but it served as a grim reminder to maintain the best possible lookout during the night watches.

Early the next morning we altered course to the eastward to pass south of Cape Desolation and stand in for the entrance to Brede Fjord. This brought the wind and sea abeam. Now we felt the full force of both as the wind howled in the rigging and the cold spray drove horizontally over us rattling on our long, hooded Navy parkas.

As we came under the land the seas smoothed out. We had a glorious sail into the broad entrance of Brede Fjord, then through the passage west of Narssak into Tunugliarfik Fjord and on to Narssarssuak.

We lay over for several days at the base, Blue West One, in order to organize the survey plan and to collect the necessary building materials and stores that would be required for the next two weeks or so of operation.



63°

The area to be surveyed here was quite different from Sondrestrom. Sondrestrom had been a long narrow body of water, essentially straight for most of its length, then widening to assume the proportions of a lake. From the entrance to Bluie West Eight the distance was about 85 miles.

Our first concern here was the 40 mile stretch from the island of Simiutak at the entrance of Skovfjord to the base located on a tributary of Tunugliarfik Fjord which was simply a continuation of Skovfjord. It was never clear to me where one left off and the other began but I believe that the change occurred at Narssak which was located at the junction of the passage connecting Skovfjord to Brede Fjord, about midpoint between Simiutak and the base.

Our second concern, then, was to survey the connecting passage and the lower section of Bredefjord and its approaches.

The character of the landscape and the shoreline was also quite different. The fjords were broader and the mountains far less pronounced than in lower Sondrestrom. The shoreline between the fjords was relatively low and very rocky. Toward the entrances there were numerous islands with navigable passages behind them. Some of these afforded small protected anchorages, but the depth of the water provided problems. It was difficult to find depths of even 20 fathoms in which to anchor. A scope of as little as 2 to 1 would frequently bring our stern perilously close to the rocky shore to which we would frequently run stern warps.

Leading off of the passage close to Narssak was a shallow lake-like harbor surrounded by low land. Its shoreline provided the best site for the base line for our survey.

Narssak, with its snug little harbor, provided the natural home base from which to operate.

The harbor at Narssak was well protected from the north and northeast from which direction come the Foehn winds. A precipitous mountain of rock dominated the ^{head} bend of the harbor and the rolling land upon which the town lay extended along the north shore. A stone dock surmounted with a small red painted ^{ware} house provided the landing point. Behind this the houses were scattered on the slopes.

There were perhaps twenty or twenty-five houses in the town. Foremost amongst these was the white wooden church with its little steeple. Nearby was the schoolhouse, also of wood, painted mustard yellow. Other wooden houses included the school teachers house and the trader's house. Extending down the slope and further up toward the head of the harbor were the poorer stone and sod huts indigenous to the country.

Our previous contacts with the "skeemos" at Sondrestrom had been sporadic and rather remote. In that area there were no native towns close by. The people we had seen had been travelling and hunting and fishing along the way. We had occasionally had an umiak loaded with men, women and children come alongside and sometimes we would give them a tow to help them against the strong tide. Sometimes, too, we had uncountered a few men in their kyaks to whom we would throw packs of cigarettes as a gift. But these people were in transit and our contacts were momentary and casual.

At Narssak, however, we were to become practically members of the community. "Umiakshua", the eskimo name for "big white boat", became the community social center each time we dropped anchor in the harbor.

Typically, as soon as we would enter the harbor the umiaks would come out and cluster alongside. Conversations would start, particularly with the young people, in a polyglot of English, Eskimo and sign language, always with giggles and laughs. Always they remained in their umiaks until specifically invited on board.

The older people who came out were reticent but interested and amused. Many of the older ones, particularly the women, wore the traditional kamiks, or seal skin boots, seal skin trousers beautifully decorated at the waist with colorful embroidery which stood out against the tanned skin gleaming white. It was usually the older ones who brought little model kyaks, wood carvings, seal skin mittens, and other trinkets to trade for cigarettes.

The younger people for the most part dressed in western clothes obtained from the Danish Trading Monopoly. The young men had rubber boots, heavy wool trousers and eneraks, or hooded shirts made of trade goods cloth. The girls wore western dresses, sweaters and coats. For Sunday best, however, many wore their beautiful eskimo costumes, topped with the wide heavy beaded collars done in intricate designs of bright colors.

The life of the village was very simple and the entertainment was entirely self made. It was surprising how many of the people could play musical instruments and had other personal accomplishments to contribute to the entertainment at a gathering. It frequently made us realize how few our own personal accomplishments were and how much in our civilization we rely on outside sources

rather than ourselves.

Frequently we would visit in the people's houses. Sometimes a dance would "happen" to the music of an ancient wind up gramophone with scratchy records. Often we would be offered "imiak", the native home-brew beer to drink. To us, though we tried to be polite, this was an unpalatable and weak concoction, but occasionally our hosts would get quite tipsy on it.

The houses provided an interesting contrast.

The stone and sod houses were primitive in the extreme. The walls were built of stone very thick, as from time immemorial. Some of the more fortunately situated houses were built into the hillside facing south. The roofs were thickly covered with sod which presumably had some insulating value. A door and a window completed the structure. Most of the interior was devoted to a low platform which served as a communal bed space. Light was provided by a soapstone lamp which held a pool of seal oil and a wick. Faggots of wood were burned for cooking and warmth.

On the other extreme, however, the trader who was the most important personage in the town, lived in a tidy, well appointed wooden house.

The economy of the town centered around the Danish Trading Monopoly. To obtain the necessities such as cloth, salt, sugar, and other basic foods, powder and shot to load their shotgun shells, and many other items the people hunted, fished and raised sheep.

The sheep were mostly self sufficient. They roamed the hillsides at will. Upon the arrival of the lambing season in the spring the sheep were rounded in. When the new lambs arrived they were earmarked and at the appropriate time were turned loose with their mothers to commence their lives on the hillsides. Each sheep owner had his own distinctive earmark, recorded with all the others on a large parchment. These marks were cut or punched into the ear of the sheep.

Seals were all important to the "skeemos". We would frequently see convocations of them in the fjords. We found them to be alert and intelligent and most difficult to approach. To successfully hunt seals the eskimo hunter must outwit them. This he does by rigging a white cloth screen just ahead of himself in his kyak. Crouched behind this he can quietly approach to within range for harpooning his quarry. The seal, used to seeing white chunks of floating ice in the water apparently does not differentiate until too late.

All parts of the seal can be utilized. The skin is used for clothing and building kyaks, the meat is a main staple of diet, (the blubber provides oil for lamps as well), and the livers can be traded for later conversion to seal liver oil. In eskimo he is called "puisee".

The men also fished from their kyaks. The successful fisherman would return home with a bunch of cod strung by the gills towing alongside his kyak. The cod livers were traded for processing into cod liver oil.

The hunter could find ptarmigan or "akisit" at almost any time. In winter their plumage was white to provide protective coloration against the snow. Most often these birds, as previously noted, were quite tame, but at certain times of year, I found them to be quite wild and as difficult to shoot as our native grouse.

For transportation of goods and people beyond the capabilities of umiaks the town had a motorboat. This could sometimes be seen loaded with brush and small wood collected for fuel at some remote crevice between the hills along the fjord. At other times it might be seen loaded with live sheep headed for Julianahaab.

It also might be used in the event of severe illness beyond the capabilities of the local nurse to take a patient to the hospital in Julianahaab.

Narssak had a resident nurse. She was a native girl named Lauriver who had had training in Denmark and in the hospital at Julianahaab. We never did determine just how competent she was or what facilities she had to work with but she was a bright girl with a pleasing personality. During our visits we were never aware of any health problems in Narssak but we understood that tuberculosis was quite prevalent amongst the natives on the coast.

Narssak did not seem to have any form of government as such. The trader who represented the Danish Government Monopoly and presided over the warehouse on the dock was a Greenlander who, judging from his features, had considerable Caucasian blood. He was a very pleasant individual with a nice family. His two young sons used to visit aboard frequently and they were alert intelligent lads.

This man seemed to be the dominant personality in the town. Otto Egede another Greenlander with Caucasian features was introduced to us as the "Chief of Police", but since there was no crime there was no need for any policemen.

In fact it would be difficult to conceive of crime amongst these people with their carefree, happy go lucky nature. They seemed to take life as it came on a day to day basis. When the hunting and fishing were good they lived well, when they were not, they lived poorly. There never seemed to be any thought of adequately preparing for hard times which were accepted as an inevitable fact of life. Always we found them friendly and anxious to please. Sometimes this could be disconcerting because they always tried to say what they thought we wanted to hear. Nothing was ever put forcefully. "Imaka" (perhaps) always introduced any plan of action. "Imaka dance tonight" - "Imaka go fishing tomorrow." Always they were polite. "Kryanok" (thank you) and "Ishishlu" (your welcome) were invariably used for some small gift or favor.

The eskimo language is very interesting in many ways. The language of Greenland is closely related to that of the Canadian Arctic, Alaska and northern Siberia, which would seem to bear out the theory that the population of Greenland originated from the migration of eskimos from the westward around the top of the world and down the habitable fringe along the west coast of Greenland. Ideas in the language may be expressed around one word by the use of modifying prefixes and suffixes. I remember especially seeing in a school book a paragraph of about ten lines which consisted of one word only.

Most of us developed a vocabulary of a few frequently used words. "Beannie" Nutt, however, pursued the language more diligently and at least made a start on the compilation of an eskimo dictionary.

Our survey work started in the latter part of September. The plan of operation was similar to that used at Sondrestrom but approaching winter imposed new and more difficult conditions. Our first snow fall, for example, came one night in late September as we lay quietly at anchor in Narssak. I shall never forget how beautiful the harbor looked all fringed in white. For the first time we saw "Bowdoin" under a fluffy glistening white mantel, which soon succumbed to the wash deck hose and deck brooms.

The autumn weather was bright and clear and beautiful with a snap in the air. It was in October that we had our first experience with skim ice which began to form on the fjords during the calm cold nights.

In the waterline area Bowdoin was sheathed with Greenheart, an iron-tough wood of South American origin. Forward it extended comfortably above the waterline, but as it continued aft it dropped down to and then below our load waterline. In the way of the main rigging it was completely submerged.

One frosty calm morning we got underway to carry out our duties. Bowdoin easily ran through the light glazing of $\frac{1}{4}$ inch ice that coated the water pushing out slivers of ice to race away over the smooth frozen surface as she broke out her path toward her destination. We were operating well down the fjord at about our furthest range from the base.

As we pushed along I felt comfortable in the assumption that the greenheart forward could withstand the cutting edge of the sharp ice and that, once broken it could do no harm. After a while, however, I suddenly realized that this was not the case. Our maximum beam was in the way of the main rigging and here the ice was cutting into her sturdy oak planking as surely as any buzz-saw. Obviously we could not long operate in this fashion. And so we found a sheltered little harbor nearby and radioed to the base for 2 x 10 lumber, heavy guage galvanized sheet metal and quantities of galvanized boat nails to be brought down to us.

I shall never forget the job of applying that sheathing. First we nailed the lumber to Bowdoins planking above the greenheart from the fore rigging to well abaft the main rigging. Then the metal, predrilled on deck, was applied to protect the soft new wood and overlap the greenheart below the freezing waters edge. Pie Truesdale and I worked from a dory alongside while everyone else on board sat like chickens roosting on the main boom guyed out at right angles on the opposite side to heel the vessel. We popped a lot of boatnails and we froze our fingers but we completed the job.

The autumn weather was good and the winds were mostly light. Our work progressed well during the period. Frequently we would lie over in Narssak. One Sunday we decided to go to church. This was an occasion in several respects. First of all, many of us hadn't been to church for at best several months and worst

several years. Secondly none of us had had our Navy blue uniforms on since we left the States. And so, as a group, we proceeded ashore in full uniform to attend the service.

The skeemos, too, were dressed in their best costumes, some of which were very colorful. Conducted entirely in eskimo language the service was simple and effective. The whole town seemed to have attended.

On the days when we operated in and out of Narssak we would frequently bring some of the local boys along. Joel Petersen especially was a good worker and was happy to take over the galley chores in return for his meals on board and the entertainment of being in our midst. Egede Klist also was a frequent visitor though his interest was more in the entertainment and far less in performing helpful chores. The boys were specially delighted on the occasions when we would activate our main battery, consisting of two World War I 30 calibre Lewis machine guns and bring them to bear on selected icebergs and growlers which littered the fjord. Since these great chunks of ice float in precarious balance if one succedes in shooting off a segment it sets them to rolling and sometimes breaking up before they again subside.

Upon our return to the anchorage the kyaks and umiaks would again cluster around. The kyaks' men were very skillful in the handling of their craft which were of such importance in their daily lives. The ultimate in skill, however, was to be able to roll completely over in the icy water submerging on one side, deftly working the paddle in an upside down position and emerging on the other side. With cotton in his nose, the hood of his enerak tightly drawn up around his face, and the bottom of his enerak tightly tied around the low coaming of his kyak one of our friends performed

this feat for us much to our admiration and that of his skeemos audience as well.

It was on one of those nights in Narssak harbor that we witnessed without doubt the most beautiful display of northern lights I have ever seen. Above the snow covered mountains and ridges and the sleeping town the northern lights flickered and lept like tongues of red and orange flame tinged with green reaching ever higher until at length they joined from all sides together at the zenith. And behind it all the sparkling stars shone through the icy clear atmosphere to provide a fitting back drop.

Our survey work had progressed smoothly with only the routine interruptions of our periodic returns to base for necessary supplies and such interludes as the sheathing incident. Our progress, however, was harder attained because of the colder weather which froze fingers and toes and slower because of the shortening hours of daylight. Then suddenly it came to a grinding halt for a while in November.

One day while operating in the lower reaches of the fjord the engine began to give the ominous noises associated with bearing trouble and then seized up as we came to anchor in a convenient cove. It was obvious that we must return to base and perform a major overhaul.

That night it snowed hard, but early in the morning the storm passed leaving us with six inches of snow on deck, a clear sky and a fine fresh breeze blowing up the fjord. Never have I had a more glorious sail. With sheets eased on a broad reach Bowdoin swept through the icy waters while the snow covered hills looked down from either side of the fjord.

The arm of the fjord upon which the base was located was filled with slush ice. Bowdoin made an eerie sound as she swished through the imperturable layer of gumbo until at last we dropped all sail and let her slide gracefully into her snug berth on the inner side of the peir.

We carried the necessary replacement main and connecting rod bearings among our spare parts but the dismantling of the engine and the painstaking task of blue and scrape, blue and scrape to bring the bearings in required about ~~ten days~~ ^{three weeks} for Tom McColgan assisted by Peter Femino to accomplish. Water had somehow mixed with the crank case oil to cause the trouble.

This arm of the fjord provided an interesting contrast. On the one side was located the modern air base which provided vital facilities for the never ending succession of air craft which were in transit for delivery into the European war zone. Facing the airstrip on the opposite side of the fjord one could discern the tracery of buildings which had ~~found~~ ^{formed} the settlement of Brattahlid established by Erik the Red in the tenth century.

Perhaps at this point it would be of interest to very briefly recount a little of Greenland history specifically related to Brattahlid.

In about 981 Erik the Red, who had come from Norway to Iceland sailed for Greenland on a voyage of exploration. After three years, during which he had explored far and had formed a favorable opinion of the country he returned to Iceland to interest colonists to come with him to settle in the land which he called Green Land - a name deliberately chosen for its appealing connotation.

It was in 985 that Erik the Red homesteaded Eriks fjord and built his home at Brattahlid.

The colonists built farms which they stocked with cattle and sheep which they had brought with them from Iceland. The country side provided game, the fjords provided fish, and from the domestic animals they produced woolen cloth, butter, cheese and hides. Ships from Norway and Iceland made hazardous trading voyages bringing necessary tools and equipment and returning with walrus hide thongs and ivory as well more prosaic domestic products.

In 999 Leif "the Lucky", Erik's son, sailed from Brattahlid to Norway to visit the court of King Olaf Tryggvason. Over the winter this ardent Christian convinced Leif to accept Christianity and to bring back two missionary priests to Greenland upon his return in the spring of the year 1000.

On this voyage Leif missed Greenland and discovered a land beyond which he called Vinland the Good because of its bountiful supply of "wineberrie", and self-sown "wheat". Before the end of summer he returned to Brattahlid.

Erik was not impressed with Christianity feeling that it was a soft religion suited only for women and slaves. His wife, Thjodhild, however, became an ardent Christian and build^t a church near the farm ^{at} of Bratthalid. She thereupon refused to consort with Erik because he was a heathen. One can only conjecture at Erik's reaction to this turn of events.

Three or four years later Thorfinn Karlsefni, the Icelander, arrived in a large and seaworthy ship, accompanied by another ship. According to the grandiose custom of the time Erik the Red invited Thorfinn and the whole company of both ships to be his guests at Brattahlid during the winter.

It was during this winter that the most renowned voyage of discovery, lead by Thorfinn Karlsefni and accompanied by Leif the Lucky, was planned. The two ships set forth in the spring.

"Altogether the Karlsefni expedition had 160 people. They sailed first from Eriks fjord (in the Eastern Settlement, present Julianahaab) to the Western Settlement (Present Godtharab) and then to Bear Island (Disko). Thence they sailed two days southwestward, when they discovered land. They manned a boat and explored the land, finding large flat stones, some of them 12 Ells (18 feet) wide. Foxes were numerous. They gave the land a name and called it Helluland (Flagstoneland).

"Thence they sailed two days, turning from their southwesterly course to a south course, and discovered a forested country with abundant game . . . (This was Markland, Forestland).

"Thence they stood southwest along the coast for a long time." This brought them to Vinland, where they spent the winter. The fascinating account of this voyage is told in the Saga of Erik the Red. Researchers and scientists have studied for many years in an effort to identify the lands described.

Looking across the fjord from where Bowdoin lay one could visualize through the mists of time the massive stone farmhouses with their domestic animals grazing on the cleared hillsides. In

the background would be Thjodhild's church with walls of grey stone perhaps four feet thick. Here was the settlement from which great adventurers had set forth on great voyages.

The continuing history of Greenland down through the Middle Ages, the gradual dissolution of the Vikings and the recolonization many years later provides a fascinating story which I recommend to anyone interested in the subject.

The Base provided a marked contrast to our normal world and way of life. It was totally insulated from the Greenland we knew. Suitably enough, it was an island in itself entirely devoted to the war effort with its back turned to its surroundings.

During good weather air planes were coming in to land at two or three minute intervals only to be refueled, checked and sent on their way. The dock area, too, the center of our world was a hub of activity. Convoys, escorted by Coast Guard Cutters such as the Tampa, Mojave, Eszanaba and a host of others would arrive with troop replacements and supplies. Two ships at a time could lie alongside to discharge while the others would ride to anchors precariously set on the edge of the glacial shelf in the fjord off of the air strip.

Other Coast Guard Cutters assigned to Greenland waters, ~~Bear~~,
AND USS BEAR
North Star, Northland, and Storis[^] were also frequent visitors.
It was amongst the officers of the ^{VESSLS} ~~cutters~~ that I found my most congenial outside contacts, some of which have continued through the years.

Our berth at the Base was snug indeed. The inshore side of the ^{is} ~~pear~~ formed a small relatively shallow basin with the shore behind which rose precipitously in an overhanging cliff. Along-

side the ^{ice}pear an oil barge was moored and generally we berthed alongside of this. The oil barge was presided over by a bearded, rather unkemptharacter named Smokey who held forth in the overheated deck house which served as a sort of club room. This was the scene of almost continuous card games and the spot where nefarious money-making schemes were hatched. Smokey could procure almost anything for a price and eskimo souvenirs which our boys obtained for a few packages of cigarettes down the fjord could be parlayed into fantastic profits. Smokey, in short was generally known as an "operator". Ultimately later in the winter the trading activities of our crew came to the attention of the Danish authorities in Julianahaab and rebounded on me in the form of restrictions issued by an unsympathetic Admiral Ed H. Smith.

Our first experience with a Foehn wind came in December. This type of wind in Greenland results from a certain combination of temperature and atmospheric pressure conditions which may occur over the vast ice cap. These winds may last for only a few hours or they may continue for several days. One thing is sure, however. They will always reach at least hurricane force.

One morning as we lay in the harbor at Simiutak at the entrance to Skov fjord the warning came. The temperature of the air which had been at its normal level of about 10°F. quickly began to rise to 20° and then to 30°, then 35°F. When this occurs the wind is never far behind.

The harbor at Simiutak is long and narrow extending straight into the heart of the solid rock island. The axis of the narrow

sleeve points toward the fjord and beyond that toward the treacherous ice cap. At anchor, we braced ourselves for what might come, prepared to get underway at a moments notice should this seem necessary.

The first gusts of wind confirmed our worst expectations. They blew directly into the entrance of the harbor converting the uninviting shoreline into a direct lee shore. Quickly we got under way in the desperate hope that we could find protection elsewhere.

Our 120 HP diesel labored as we pushed for the entrance of the harbor but with Bowdoin's bow directly to the wind we made sufficient progress. Once clear of the narrow waters, however, wind and sea conditions became rapidly worse.

To starboard the rocky shore dropped precipitously to meet the seas which were crashing high against the cliffs.

We gained a little offing before a breaking sea drove Bowdoin's bow off to starboard laying her in the trough of the sea. Tom McColgan in the engine room stood on the throttle to extract the last ounce of power from the engine to bring the ship's head to the fierce wind again. As the wind roared the top of the wheel box beside me blew off and skated to leeward across the water. But suddenly she made it. For a few minutes head to wind we regained some distance from the murderous lee shore.

Then it happened again. Again we were in the trough drifting rapidly toward certain disaster. Suddenly Beannie Nutt called from below - "Fire in the lazarette!" The iron handhole plate in the otherwise lagged muffler was red hot and had started some nearby gear to smoldering.

Miraculously we again got Bowdoin head to wind but this time we headed back for the dubious protection we had left with the roaring wind eastern and the seas lifting us on. At a point where I knew the bottom of the harbor rose we dropped both anchors and rounded to to ride out the gale with the engine turning over ahead to ease the strain on the ground tackle. Meanwhile a little light-house which had been built on the island above the head of the harbor blew away.

That evening the wind departed as quickly as it had come.

At about 2 a.m. as we lay in the quiet harbor the ice came in. At first a few small pans appeared, then quickly and stealthily it came in quantity. We hastily got under way and escaped before the harbor became completely blocked.

During the storm we had watched the barometer descent rapidly until the needle fetched up on the stop at the bottom of the scale. The next day it was still there and I suspected that the barometer was broken. When we hailed a Coast Guard trawler in the fjord I asked for his barometer reading - - - 27.67 inches. Our scale ended at 27.70! Eventually our barometer recovered none the worse for its experience.

It was at about this time in December that the Coast Guard trawlers Nanuk, Natsek and Bluebird departed to return to Boston. Magnus Magnusson, a former Icelandic fisherman and an excellent seaman, had command of Nanuk. Tom Lafarge, an old friend from New Haven, had command of Natsek and Jim Baldwin had command of Bluebird. All went well with them until they parted company out-

side the straits of Belle Isle. Bluebird went east of Newfoundland, but the others passed through the Straits of Belle Isle and entered the Gulf of the Saint Lawrence River. There they encountered a freezing northwest gale. Magnus and his crew through superhuman and heroic efforts managed to batter away the salt sea ice which formed continuously from the wind whipped seas. Thus they barely prevented the vessel from becoming overburdened to the point of losing stability and rolling over. In their struggle for survival Nanuk and Natsek became separated in the gale. Toms vessel was never seen again. Bluebird encountered no difficulty.

The days were now approaching their shortest duration as Christmas drew near. Full daylight came at about 9 a.m. and lasted until about 3 p.m. At noon the sun hung low over the horizon to the south. The snow line, which in the autumn was high on the mountainsides, had gradually lowered until now it reached the waters edge. The temperatures, too, had been lowering. The normal temperature range was now from about 10° above to about 10° below zero, though on a bright still day it might range higher. We never saw it below 20° below zero and ^{it approached} this only occasionally. Frequently in a given day it would be colder at home in Connecticut than with us in Skov fjord. Often ice would start to form on the fjord only to be cleared out by the warm temperature and agitation resulting from a Foehn wind.

It was not by accident that Christmas found us anchored in the harbor at Narssak. Considerable preparation had gone on in anticipation of the day. Since whatever trees there are in this part of Greenland grow with their trunks horizontal to the ground and since, in any case, there are no conifers, we had made our

own Christmas tree. As we had done some years before in the 4-masted barque "Parma" in the "Roaring Forties" south of Australia, we fashioned a tree from the handle of a deck broom. Holes were drilled in the "trunk" to accomodate "branches", and frayed canvas painted green was spiraled on the "limbs" to form a convincing ^{or} spray of needles. A piece of sheet brass was carefully scribed and cut in the form of a star to crown the top of the "tree". Foil from cigarette packages provided tinsel.

Our Christmas story is best described in a letter to my mother and father dated 21 January 1943 as follows:

"Christmas Eve we anchored off Narssak and on Christmas day we had a great party aboard. The ship was packed with natives, many of whom brought presents with them. There was a great exchanging of gifts and we served them a sort of cherry beer that the cook had made up of canned cherries, sugar, water and yeast. It was guaranteed indigestion for a white man, but they loved it. We ourselves mixed up a little punch with some stuff that had been given to us by another ship here for the purpose. And so it was all very gay and much fun. We had an excellent dinner of turkey and Birdseye vegetables. There were two little Christmas trees on the table, lighted by several candles and so it was all very Christmasy indeed. I had not cheated and saved all of my presents for Christmas morning. I really had a bunk-full of things. I was delighted with the things you sent me _ _ _ _ _".

"Two nights later we went to a Christmas party in the same little town of Narssak. It was given by some of the natives in the school house and was very gay with many laughs and lots of fun. They had a Christmas tree and we sang, had presents and played games and it was all very jolly, with the boisterous spirit of a children's party".

For New Years we decided that a little holiday rest and recreation was in order. Accordingly, we headed down the fjord and around the corner to Julianahaab.

Julianahaab was the district capital. It was the largest town in the area and the trading center toward which the smaller towns were oriented. As a commercial and administrative center it had a fairly large Danish population.

The harbor, protected by a low-lying fringe of rocks, was not large and did not lend itself to a vessel swinging freely at anchor. When we entered, therefore, we berthed Bowdoin alongside a steamer which was lying to two anchors in mid-harbor with warps holding her stern close under the rocky shore. Her name was S/S "Tintagle". She was old and rusty - a war time resuscitation from the scrap heap.

The town itself was small and neat. Stone bulkheads lined the harbor front. These were surmounted by warehouses. Behind these were neat frame houses mostly painted red. As one walked along the street they presented an impression of coziness with pots of geraniums inside brightening the windows. Rocky hills rose up behind the town with little red houses extending up the snow covered slopes.

Our plans for "rest and recreation" however were rudely shattered a few hours after our arrival. The quickly rising temperature gave brief warning of the Foehn wind that was soon to be upon us.

"Tintagle's" crew hastened to run additional steel cables to the rocky shore. We doubled up on all our lines and put every available fender overside between the vessels. And then the wind came from off the land in roaring gusts.

For five days the wind never dropped below 75 miles per hour, full hurrican force. The shore afforded protection but the windage of the steamer put great strains on the heavy steel cables which would part from time to time. At last the strain was divided between thirteen of these cables. The wind around the steamers masts and rigging roared with the noise of an express train in a tunnel.

Although the wind was off the land there was a surge of sea which came into the harbor from outside. This kept Bowdoin continually rolling against her fenders until the treenails started backing out, and from time to time, we would reach overside with a mallet to reset them. During the five days we maintained sea watches always ready to get under way at a moments notice in case of emergency.

At last the wind subsided leaving us unharmed but weary.

I left Julianahaab with the impression that our reception there had been coolly correct. This surprised me because of the cordial relations I had experienced with Scandinavians in Sweden, where my family had spent about a year, and in Norway, where I had cruised the coast after the race from Newport to Bergen. Somehow I had the feeling that we were not very welcome with the Danes of Julianahaab.

After New Years we continued our survey work which was becoming increasingly difficult. The Foehn winds had blown our signals down so that many of them had to be rebuilt. The icy temperatures froze Joe Gorman's fingers and toes as he "occupied" the various stations shooting and recording the many angles to be obtained from each. The short days cut down our working time. This perhaps was a mercy to Joe but it slowed the progress of the work.

Winter weather brought other problems. Sometimes when the snow was falling heavily, we would hear an airplane in the murk overhead. Usually this spelled trouble. It seemed that planes flying to Narssarssuak could home in well on a beacon situated on Simiutak Island. The radio reception beyond that point, however, for the

remaining forty miles was highly unreliable. Often we would hear a plane circling overhead for a while - then nothing more. Sometimes these planes would crash on the ice cap. At other times we would receive instructions to search the fjords in certain areas. We never were successful in any of our searches.

Winter gales with heavy snow brought uncomfortable times to us as well. In particular I remember one night in a harbor near the entrance to Brede Fjord. The harbor was reasonably well sheltered but the depth was 50 fathoms. It was only close under the lee shore that we could drop the anchor in 20 fathoms with a 2:1 scope. That night with our stern swung close to the rocky shore, we rode out a gale in snow so dense that it reduced visibility to zero. We lowered a drift lead over the side to give immediate warning should we drag and then stationed an anchor watch. The man on watch maintained constant vigil and reported to me every ten minutes as I sat reading and snoozing on the cabin transom. It was a long night.

As the winter progressed we spent more time at the base. This was in large part due to the fact that the survey work had reached the stage of assimilating field data and producing "boat sheets" in preparation for plotting soundings. This work was strictly Joe Gorman and occupied no one else. These stays with their enforced inactivity were not helpful to the morale on board. Those winter days were perhaps not the shortest but to me they were the darkest of all.

All hands forward lived under cramped conditions aboard. Bowdoin's forecastle was typical of any fishing schooner. Upper and lower bunks lined the sides, converging toward the bow. Benches extended along the length of the lower bunks and the forecastle table filled the space between them. Just aft of this was a primitive "head" and hanging and storage lockers to port. To starboard was the oil fired galley range and food storage lockers outboard. In periods of enforced idleness, especially in bad weather, the forecastle was crowded and steamy.

The galley was the cook's domain and he ran it in an automatic fashion. He was the first to turn out in the morning to put on the hugh coffee pot which remained simmering on the stove all day. He would start the breakfast and hold reveille which consisted of turning on the record player which had a speaker aft in the cabin as well. One record especially was an appropriate favorite of his -- "Dese Bones Gwine Rise Again". He did his job well, but woe betide anyone, including the captain, who crossed him up in the performance of his duties. This was especially so when he was baking bread and enticing it to rise.

His attitude, however, was at times abrasive to the crew. One day I hastened forward to find Pie Truesdale and the cook locked in mortal combat in the forecastle.

We had other fights, too, but mostly they stemmed from other causes. The enlisted men's club provided beer, but no hard liquor. This requirement was ingeniously satisfied by an airplane engine antifreeze fluid popularly known as P-38. To the best of my knowledge no one died or went blind from consuming the stuff but its effects were startling. Either the consumer became a good

natured zombie (this was how it affected Bill Deacon) or otherwise a wild animal. A shiftless young lad named Shorty who had been assigned to us not long before came under the latter category. Filled with P-38 he became a knife weilding maniac.

Our troubles were not only restricted to the enlisted men.

For some time Joe Gorman had been acting in a moody and tempermental manner. One afternoon, I was sitting below in the cabin reading. Suddenly I was aware of footsteps stamping back and forth along the deck over my head and Joe Gorman raving in a loud voice designed for me, as well as any other interested spectator to hear. With enthusiasm he was cursing me up and down, the main tenor of his complaint being that I was a slave driver.

I sat and pondered. There was obviously no good to be gained from engaging in an argument because the state of his mind was clearly irrational. A physical encounter was also out of the question.

There was in fact a certain validity to his complaint. The purpose of our mission was to complete the survey of our designated area. It was my job to see that this was done. Since the Navy had seen fit to order John Stirton elsewhere the entire load had fallen on Joe. By and large he had borne up pretty well.

Although his present tantrum was difficult to take, I decided the wisest course to follow, all things considered, was to let the storm blow itself out in the hope that it would clear the air for him and hopefully we could all forget the incident. Later on we had a constructive talk, and the work continued.

One bitter day in February rumors of tragedy began to circulate around the dock. Soon afterward the ships came in. After the escorts were secured alongside groups of survivors in ill-fitting clothes came down the gangway to the dock followed by endless numbers of shrouded bodies. The "Dorchester", a former Merchant's and Miner's coastal vessel converted to a transport had been torpedoed a hundred or so miles off the coast the previous night. The ship had sunk quite rapidly. Some life boats and rafts got off safely. These accounted for most of the survivors. Some few were plucked from the icy water. Those who were not picked up within the first few minutes could not survive the deadly cold and perished in their life jackets. The sea was literally covered with little bobbing lights on the life jackets of these frozen men.

There were many tales of heroism including that of the now almost legendary ^{four} ~~three~~ chaplains who stayed to the last to help the troops get off and then went down with the ship.

Ironically, one tragedy need never have occurred. "Bowdoin's" previous ship's cook, Lambert, had been transferred ashore to the hospital in Boston before we had sailed. Someone had overlooked to change his orders and now, recuperated, he had been sent aboard the Dorchester to rejoin us. He was one of those who didn't make it.

Following the tragedy Com Gre Pat developed a mania for security. At headquarters conversations were furtive. All was on a "need-to-know" basis particularly in regard to the comings and goings of the convoys. I would return from the secretive atmosphere of headquarters to the docks where everyone talked freely (and accurately) about the upcoming arrivals and departures of the ships.

It was at about this time that Admiral Smith called me to headquarters. He carefully shut the door and then informed me that he had heard that one of the eskimos living in Narssak had reportedly seen a submarine in the fjord. Since none of ours were in the area, would we investigate.

Soon we were on our way down the fjord. We made our visit to Narssak seem as casual as ever and in due course we found our man.

As previously mentioned, these easy-going friendly people when asked a question will try to answer in the manner they think will please you most. We, therefore, were careful to avoid any leading questions. Had he seen anything in the fjord? Our friend answered, "Ap" (Yes). Producing a pencil and paper, we asked him to draw a picture. He drew a perfect submarine complete with all essential details. It had disappeared quickly and he had not seen it again.

Why would an enemy submarine enter the fjord unless it were to make contact with individuals and to receive some form of assistance or information. Our reception from the Danes at Julianahaab crossed my mind and also the complaint that they had lodged with Admiral Smith regarding our frequent visits to Narssak. Perhaps they found our constant presence in the fjord and our friendly relationship with the eskimos inconvenient. Perhaps there was a connection with the Dorchester incident which occurred so close to the shore of Greenland. I doubt that I shall ever know for sure.

Aside from the risk of being torpedoed, Merchant ships coming to Narssarssuak in the winter had other tribulations. The "Montrose", skewered on a pinnacle of rock, bore grim testimony. All efforts to salvage her succeeded only in further ripping her bottom and so she remained as a constant reminder of disaster to ships approaching the anchorage. Foehn winds were an ever present threat at this season to ships anchored on the edge of the glacial shelf off the end of the air strip. The holding ground for anchors was not good. Beyond the shelf the water was too deep for any ship to anchor.

One winter day as we lay snugly berthed under the protection of the land a Foehn wind roared down from the ice cap to vent its fury on the anchorage in which four or five merchant ships lay. The wind funnelled with a clear sweep down the air strip to whip the surface of the fjord into a cauldron of flying water which engulfed the ships. They appeared as if in a dense low lying fog with only the tops of their masts and funnels rising above it. Their anchors would not hold and so they spent the afternoon and most of the night under way in these conditions. To me it was a miracle that they all came through without collision and without being driven ashore below the ruins of Brattahlid.

The wind carried large rocks tumbling along the length of the airstrip. Before the control tower anemometer blew away it registered 165 miles per hour of wind.

At the end of March the weather remained as cold as ever, but for about ten days there was no wind. A skim of ice formed on the fjords and undisturbed it grew in thickness to about six or eight inches. Bowdoin could not push through or break such ice and so for the month of April we remained frozen in.

It was at about this time that I learned informally that I would soon be relieved of my command. The Navy was feverishly building destroyer escorts to provide anti-submarine and anti-aircraft protection for convoys of merchant ships and formations of naval vessels. I would receive training at the Sub Chaser Training Center in Miami before going out to fight the war in a new D E. My relief in command of Bowdoin was to be a lieutenant especially selected because of his qualifications. John Backland, like his father before him, sailed a four masted schooner out of Seattle to trade each summer along the Alaskan coast as far north as Point Barrow. What greater qualification as a sailor and ice navigator could one ask for?

In due course I sat down with palm and needle and using some of the heavy canvas we carried for repairing the sails, I stitched up two stout seabags in preparation for the time when I should pack and leave Bowdoin for the last time. Pie Truesdale, to whom I had been teaching navigation during our idle days frozen in, rounded up some wooden packing cases and between us we nailed up my books, eskimo sealskin suits and a host of other things to be shipped home in the Coast Guard Cutter "Escanaba". I was never to see these things again. The "Escanaba" was torpedoed and sunk on the voyage south.

It was with mixed feelings that I contemplated my departure. On the one hand I eagerly anticipated the eventual command of a destroyer escort and a more active participation in the war. The challenge and the uncertainty drew me like a moth to the

candle flame. On the other hand I hated to leave the Bowdoin, our crew and our life on the coast. The Bowdoin was a fine vessel with a fine history. Built for Donald B. MacMillan, a veteran of Admiral Peary's successful expedition to the North Pole in 1909, she had been taken by him to the arctic every year between her building and the start of her war service a year prior to my taking over. In all her twenty or so years I was only her second commanding officer. She had spent five winters frozen in the Arctic far north in the region of Smith Sound and Kane Basin. There she had been completely burried in snow, which helped to keep her warm, with the only outside access through the circular specially constructed ice hatch up forward. Captain Mac and his scientific observers had brought back much valuable information. My only regret with the Bowdoin was the limitation that our orders and assigned duties imposed. How I yearned to take her north as far as Captain Mac and then again to round Cape Farewell and explore the rugged and treacherous east coast of Greenland.

About mid May, on the threshold of the beautiful Greenland summer and with the dark days of winter behind, John Backland arrived to take over.

Bowdoin was now in beautiful condition. Starting in the latter part of March and during the time the ship was frozen in we had scraped the top sides to bare wood and recaulked and smoothed the seams. One plank had developed rot around the head of a through fastening. This I had chiseled out and filled with cement, just as a dentist would fill a tooth. When all this work

was completed the top sides had received two coats of ice blue paint, smoothe and shining. We then had turned our attention to the deck houses, bulwarks and rails which in turn now glistened like a yacht. When Backland arrived we were in the final process, with the aid of a borrowed sanding machine, of refinishing the decks.

And so, as a final gesture, I was able to turn the ship over to my successor with pride and satisfaction.

Our change of command ceremony and my farewell to the crew was brief - why draw it out ? - Pie Truesdale helped me with my seabags to board the overloaded transport plane. Soon the familiar fjords and coast line had faded into the haze astern and I was off on a new adventure.

APPENDIX

NAVY DEPARTMENT
BUREAU OF NAVIGATION
WASHINGTON, D. C.

February 2, 1942

Dear Sir -

Congratulations to the new C.O. of the
USS Davidson! Your orders are coming thru in the
next few days detaching you and about the 10th.
Dart is to be the new C.O. of the Barbett on your
recommendation and we are sending him an Ensign
from the Local Defense School in Boston. You are
to proceed to Boston & report to Lt. Col. Donald
B. McMillan as his relief. He is being ordered
to report to the Hydrographic Office where his knowledge
can be put to good advantage & his eye will be
so much of a handicap.

I don't need to tell you how to handle the situation,
but I do think that you should be properly deferential.
As you know, this ship formerly belonged to him and he
undoubtedly considers her his baby. He will want to
be sure you know your stuff, & if he didn't like the
cut of your job he might recommend your detachment.
In addition to this, you can undoubtedly get some
down good information out of him & I am relying
on you to find out whatever you don't already know.
I know you will do a good job but I think it
is one hell of a swell break for you. I really
wish that you were senior to me so that I could go
day as your second.

In reply address use the name of
Bill Bess, Box Bureau of Navigation,
Navy Department, Washington, D. C.
20370-50.

NAVY DEPARTMENT
BUREAU OF NAVIGATION
WASHINGTON, D. C.

At present there is an Enr., D-M, USNR - the only
other officer on board. I don't know how good he is
but he has made the trip once & should have had
some good experience. If the personal situation isn't
satisfactory let me know.

Also let me know about the ship & the
prospects in general as soon as you can. I
know this is the job you have been waiting
for - there isn't another one like it in the
Navy & I wish you the very best of luck.

I had quite a time getting the job for
you & will let you know about it sometime.
Give my love to your family & also let
me know about Joe. I was interviewed as
one of his sponsors and gave him a good send-

off

With very best wishes -

yours in the back -

Walt

P.S. I would still like my part in this
& the future operations of the Bureau kept
confidential - Walt

2-3-42

Dear Stu-

Since writing to you yesterday, I have obtained some good dope from the Hydrographic Office. I find that the ship has the following characteristics:

Length O.A. 87'
" W.L. 61'
Beam 20'3"
draft 9'6"

Displacement 66 tons

Speed 8 knots

Engines - Fairbanks-Morse (Diesel, 6 pressure)

I understand that she is now undergoing alterations which will permit her to accommodate 4 officers and about 10 men. Two of the officers will be considered primarily ship's officers and two primarily as Hydrographers.

I discovered that the 2 hydrographers desired are:

#(1) John A. Stinton, D-V(S), date of rank 10-13-41

#(2) James M. LeRoy, D-V(S), date of rank 6-5-41

As you can see, you are just barely senior to LeRoy by about 13 days. He is now on duty in the USS Bear, which has been operating in the same region & Stinton is still working as a civilian with the Hydrographic Office.

As you can see by the enclosed copies of records which are also confidential - both are experienced in hydro work & LeRoy in particular has a hell of a good knowledge of the North country.

The ship will be working almost exclusively on survey work in Greenland for the Hydro Office. She departs about 1 April & will return before the winter sets in according to present plans.

Incidentally, I said you had had some experience on the Labrador & Newfoundland coasts in order to land the job for you. I know that the Newfoundland part is o.k. but suggest you bear me out in this statement if necessary.

The ship will operate as a part of a unit under a Captain in charge of the Coast Guard, but I think you will be quite independent in practice.

If I come across any further dope I will let you know. Write to me as soon as you can as I am anxious to hear how she looks.

Very best regards -
yours in the land -
Wall

FEB 19 1942

848
2456-42
New London Conn
Boston Mass.

In reply address not the signer of this letter, but Bureau of Navigation, Navy Department, Washington, D. C.

Refer to No. 76796 -11
Nav-31-RK

NAVY DEPARTMENT

BUREAU OF NAVIGATION

WASHINGTON, D. C.

19835

D. G. MARASPIN
G. E. THOMPSON, ENGR. 1st, USNR.
AND IN THE AUTHORIZED ABSENCE OF
D. G. MARASPIN, LT. (JG) USNR.

From: The Chief of the Bureau of Navigation.
To: Lieutenant (jg)
Stuart T. Hotchkiss, D-V(G), U.S.N.R.,
Commanding U.S.S. Barbet.
Via: Commander, Train Squadron Five.
Subject: Change of duty.

1. Upon the reporting of your relief, on or about February 10, 1942, you will regard yourself detached from duty as commanding officer of the U.S.S. Barbet and from such other duty as may have been assigned you; will proceed to Boston, Mass., and report to the Commandant, First Naval District, for first available government transportation to the port in which the U.S.S. Bowdoin may be and upon arrival report to your immediate superior in command if present, otherwise by despatch for duty as commanding officer of the U.S.S. Bowdoin.

2. The cost of this travel is chargeable to "Pay, Subsistence and Transportation".

Copy to:
C.O., U.S.S. Barbet.
Cdr., Train Sqd. 5.
Cdr. Train, Atlantic Fleet.
Cdr. in Chief, Atlantic Fleet.
Train Subordinate Command,
Naval Operating Base,
Norfolk, Va.
Cdt., 1st Nav. Dist.
C.O., U.S.S. Bowdoin.

Handwritten signature

U. S. S. BARBET
Feb 13, 1942

Detached this date.

S. T. Hotchkiss
S. T. HOTCHKISS,
Lieutenant, (JG), USNR
Commanding.

THE ABOVE NAMED INDIVIDUAL HAS EXECUTED THE REQUIRED OATH AND IS NOT BEING DISSENTED FROM THE GOVERNMENT OF THE UNITED STATES.

THIRD ENDORSEMENT
DPO-5/JCH:srw
76796

Headquarters, First Naval District
150 Causeway Street, Boston, Mass.
February 16, 1942

From: The Commandant, FIRST Naval District
To: Lieut. (jg) Stuart T. HOTCHKISS, D-V(G), USNR

1. Reported this date.
2. There are no public quarters available for occupancy.

John C. Hard
John C. Hard
Lieut. Comdr, USNR
By direction

FOURTH ENDORSEMENT
DPO-5/JCH:srw
76796

Headquarters, First Naval District
150 Causeway Street, Boston, Mass.
February 16, 1942

From: The Commandant, FIRST Naval District
To: Lieut. (jg) Stuart T. HOTCHKISS, D-V(G), USNR

1. Detached this date.
2. You will proceed immediately to the place, the location of which is given you orally, and upon arrival report to your immediate superior in command if present, otherwise by dispatch, for duty in compliance with basic orders.

Rec. Sta. At Boston, Mass. FEB 1 9 10
M. E. Borden from *New London Conn* Mileage 5 9.48 PV.# 2456-47
Lieut. Comdr, USNR *Boston Mass*
By direction *[Signature]*
G. E. THOMPSON, ENSIGN, USN, PER

AND IN THE AUTHORIZED ABSENCE OF
D. G. MARASPIN
U. S. S. BOWDOIN
17 Feb. 1942

FIFTH ENDORSEMENT

From: The Commanding Officer.
To: Lieut. (jg) Stuart T. HOTCHKISS, D-V(G), USNR

1. Reported this date and assumed command of the USS BOWDOIN.

Donald B. MacMillan
Donald B. MacMILLAN

Reimbursement is requested for travel as indicated below: All travel performed via privately owned automobile. No government transportation or transportation requests used.

Departed: New London Conn. 2100 2/13/42

Arrived: Boston Mass. 1400 2/17/42

Stuart T. Hotchkiss
Stuart T. HOTCHKISS, D-V(G), USNR

NAVY DEPARTMENT
BUREAU OF NAVIGATION
WASHINGTON, D. C.

Feb. 23, 1942

Dear Ed -

Since your last letter I have had a talk with
Lt. Cdr. McMillan & know that you have taken over your
command. He said that he thought you were a very able
officer & that he was most pleased to be turning his ship
over to you - nice work!

He also said that Ens. D. Unkandell was a
workaholic - unpopular with the crew, and not very efficient.
Therefore, we have detached him & ordered an Ens. D. C.
Nutt, D-1(S) as his relief. Nutt was navigator for
Bartlett on four of his expeditions & has evidently
had some very good experience in Northern waters & I
think he should be a good addition.

I haven't any other news for you, but would like to
hear if you have any comment on the situation.

I suppose you know by now that your former
command is destined for the 15th Naval Dist. you
moved at just the right time, even tho we didn't know
it. It seems to me that that is the 2nd time this
has happened.

I agree that this billet was tailor-made for
you, and I know you will enjoy it.

I have been turned down on two requests for sea
duty, but I still figure on getting away sometime in
the summer.

My best always -
yours in the South -
Walt

SI/IX50
SK

COPY

GENERAL SPECIFICATIONS

No. 444

AUXILIARY SCHOONER

for
DONALD B. MACMILLAN

by
Wm. H. HAND, Jr., N. A.

DECEMBER 1919

DIMENSIONS

Length, O.A.	- - - - -	-86'-10"
Length Waterline	- - - - -	-63'-9"
Beam	- - - - -	-19'-7"
Draft	- - - - -	-9'-6"

GENERAL CONDITIONS

The schooner is to be built under a suitable housing. All materials and manufactured articles, and articles of construction of whatever kind, and in every department, are to be the best in quality for their respective purposes.

All workmanship to be of the first class and the best, and the whole executed under the direction and to the satisfaction of the owner, or his duly authorized representative.

Work not shown by the drawings, or specified herein, but which is usual and necessary for a schooner of this type, is to be done by the builder without extra charge.

Workmanship, materials and fittings which are not of the best will be rejected by the owner and must be removed and replaced at the builder's expense with workmanship, materials and fittings which are of the best.

FRAME

Keel of oak sided 12" molded and formed as required. Stem of oak sided 10" natural crock. Horn-timber of oak sided 14" at fore end, 12" aft. Shaft log oak 14" x 14". Stern of Oak. Frames oak, double molded, about 4 1/2" siding x 5" molding at heads and 4 1/2" siding x 8" molding at heels spaced 18" on centres. Ceiling of Ga. or Oregon pine, clamp to about 3' below turn of bilge 3", lower ceiling 1-1/2". Beam clamps of Ga. or Oregon pine about 6" x 10" (two thicknesses). Shelf clamps of Ga. or Oregon pine 3-1/2" x 10" (two parts 3-1/2" x 5"). Decks beams of oak, main 5-1/2" x 8". Auxiliary beams 3-3/4" 6", all sawn to form and spaced as required. Oak or hackmatack knees, breastho, floors, partners, et. as required.

PLANKING

The hull will be planked with native white oak to finish not less than 2-3/4" fastened with 1-1/8" approved oak and locust treenails.

SHEATHING

The hull will be sheathed with 1" greenheart from a line 2'6" below designed L.W.L. to a line 3' above L.W.L. at bow, 1'1" above abreast mainmast, and 1'10" above at stern as indicated by profile plan.

DECKING

Deck to be of 2-3/4" s 2-3/4" white pine with oak plank-sheers about 2-3/4" x 11". Galvanized spiked and bunged.

DECK JOINERWORK

Rail stanchions of white oak about 4" x 4" tapered, spaced 18". Rail caps white oak about 2-3/4" x 7". Skylight hatches, companions, wheel-box and hatches of white pine. Deck houses, 2-1/2" white pine with oak trim. Five rails of oak. Trunk tops 2" white pine with caulked seams.

INTERIOR JOINERWORK

Under the main deck beams and trunk beams in all living compartments there will be 3/4" x 3" matched pine sheathing over an insulating material to be supplied by owner. Proper ventilating of all spaces will be provided for. All cabin and fore-castle flooring will be of 7/8" rift sawn Ga. pine. Hold flooring of 1-1/2" pine. All indicated bulkheads and partitions in fore-castle, galley, cabin and motor room of 1-1/4" x 3" matched white pine finished in paint. The doors will be of paneled white pine hung in neat small mahogany casings and there will be a small amount of mahogany trimming. All pine to finish in paint enameled. All mahogany in varnish. There will be a double diagonal wooden watertight bulkhead at aft end of hold where indicated.

METAL WORK

To include galv. mast bands, stem band, hawsepipes, chain plates, pat. travellers (fore and main), boom hangings, boom travellers, eye bolts and other necessary spar and deck ironwork in galv. iron. Deck plates and 14-8" port lights to be of brass. Rudder stock of 4" Tobin bronze with oak blade and metal port as per detail plan. Edson oscillating steerer with 48" wood wheel.

HARDWARE

The builder will fit all doors on suitable brass butts and with approved brass latches and knobs as required. All drawer pulls, catches and other necessary hardware of brass.

MOTOR & INSTALLATIONS

The motor with all of its parts including shaft, wheel, stern bearings, stuffing-box, tanks, batteries, etc. will be supplied and installed by the owner, or by the builder as an extra if owner elects. The builder will fit motor on beds and do all necessary woodwork.

ELECTRIC LIGHTS

The vessel will be electrically lighted by a Delco plant equipped with Edison batteries, Generator, Lights, wiring and all installation work will be covered by separate contract.

PAINTING, ETC.

Above indicated painted W.L. the topsides will be properly finished in white lead with cove and gold stripe as shown. The bottom will have two coats copper paint over red lead.

The main decks will be properly finished in straw color paint. The spars will be varnished. All mahogany will be properly finished in varnish.

SPARS

The builder will supply and properly fit all necessary spars. To include, pole foremast, pole mainmast, bowsprit, booms, gaffs and jumbo pole. Masts will be of Oregon pine, foremast about 11-1/2" diam. Mainmast about 12" diam. Main boom Oregon pine and other spars spruce.

MISCELLANEOUS

The builder will supply and properly fit for service the following items:-

- Edson Steerer with 48" wood wheel
- 2-Anchor davits complete with falls
- Ballast-about 10 tons of boiler punchings and small scrap iron mixed into concrete about 5-3-1
- All standing rigging required by plans.
- All running rigging required by plans.
- All blocks of approved grade required by plans.

SUPPLIED ITEMS AND LABOR

The owner will supply without expense to builder the items in following list:-

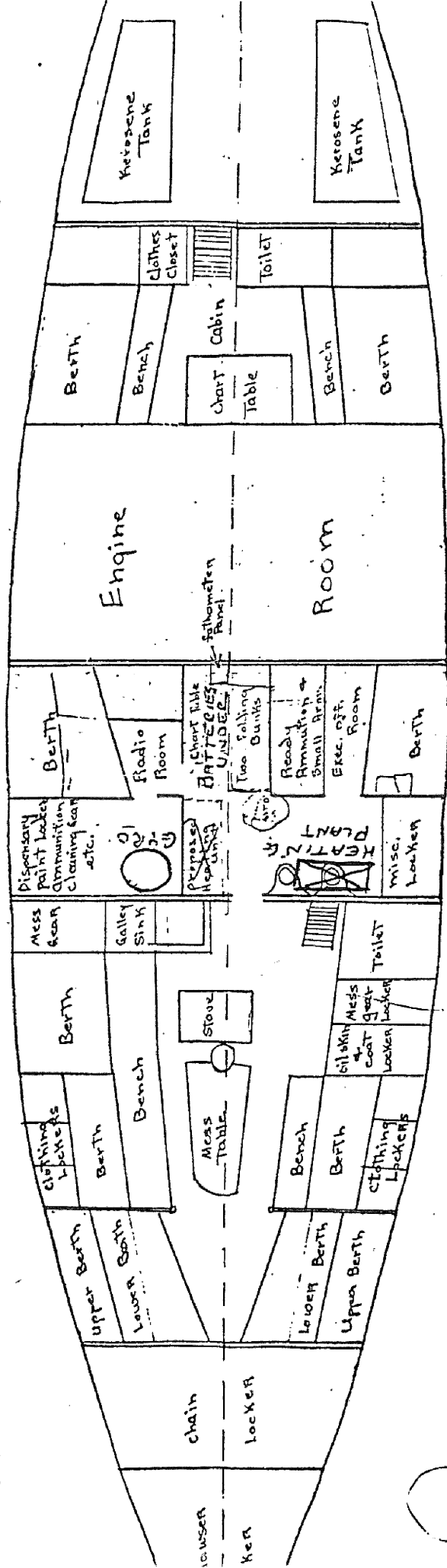
- Motor and all parts
- Fuel tanks
- Sails and covers
- Plumbing Fixtures
- Compass and binnacle
- Windlass
- Delco plant
- Electric lights and wiring
- Water tanks
- Small boats
- Anchors, cables and chains
- All interior fittings and furnishings except hardware.

LABOR

The owner will supply men at his own expense to install power plant, electric plant and lights. All other supplied items will be properly fitted for service by builder as a part of contract.

U.S.S. Bowdoin

approximately 1/2 in. - 1 ft.



File No.

ALV-1/EP22-2

UNITED STATES ATLANTIC FLEET
COMMANDER GREENLAND PATROL

Care Postmaster, New York, N. Y.

16 January, 1943.

Office of S.O.P.A.,
Greenland.

From: The Commander Greenland Patrol.
To : Commanding Officer, BOWDOIN.
Subject: Visit at Narsak.
Reference: (a) Headquarters Greenland Base Command
ltr. 21 Nov., 1942. (39).

1. The Greenland Administration through the American Consul has reported that the BOWDOIN visited Narsak for three days over Christmas and that natives were received on board as well as members of the BOWDOIN crew went on shore. The report states that the natives implicated have been tried and fined and assurances are requested that appropriate steps will be taken against responsible persons on the BOWDOIN.

2. In view of the ban which has been placed on visits to settlements and contact with the natives at places other than "Colonias" (reference (a)), it is directed that you submit a detailed statement regarding the alleged visit and the events connected therewith.

Ed. H. SMITH.

U.S.S. BOWDOIN
16 January 1943

From: The Commanding Officer.
To: The Commander of the Greenland Patrol.
Subject: Visit of USS BOWDOIN to Narsak, December 24-27, 1942,
Report on.

1. It must first be stated that the base line for the present survey being made by this vessel is located just to the southward of the town of Narsak and that in the present work Narsak marks the Eastern limit of operations. It is for this reason that this vessel has found it necessary to anchor in this vicinity frequently during the course of the survey. It is also to be noted that Narsak harbor affords the best shelter for a vessel of this size in the entire length of the fjord.

2. This vessel anchored in Narsak harbor at 4.30 p.m. December 24, after having spent the day in occupying survey stations in the vicinity and in anticipation of commencing lines of soundings from Narsak Point in Skovfjord to run down-fjord. The following day was Christmas and a holiday and this vessel remained at anchor throughout the day.

3. The Commanding Officer of this vessel was notified by the local police that all local police restrictions which had prohibited the inhabitants from boarding vessels in the harbor had been suspended until December 31. This also applied to restrictions governing the visits ashore of the crews of such vessels. No order received aboard this vessel prohibited natives from coming aboard, and this was accordingly permitted. It was assumed that the suspension of local regulations was recognized by the proper Greenland authorities; and liberty was granted to a limited number of the crew for this reason.

4. It is to be noted that when this vessel visited the town of Narsak prior to the present restriction the crew had conducted itself in a very orderly manner, and had made many friends and won the approval of the local authorities, for this and for its complete observance of all police regulations.

5. It is further to be noted that the regulation regarding trading was strictly observed during the period under consideration.

6. On December 26 this vessel left Narsak to run a line of soundings down and up the fjord and at 3.00 p.m. on the approach of darkness again anchored in Narsak harbor. Liberty was again granted to a number of the crew on the understanding as stated above.

Visit of USS BOWDOIN to Narsak, December 24-27, 1942, Report on:

7. On December 27 the ship was moved to an anchorage to the south of the town near the survey base line, in order that a shelter might be erected at one of the base line stations and that the Astrolabe equipment might be brought ashore and set up in anticipation of obtaining an astronomical fix. This time was chosen because of the fine weather and because the only books of tables on board to complete the calculations were to expire on December 31. Liberty was again granted to a number of the crew on the understanding as stated above.

8. This ship had previously obtained verbal permission from S.O.P.A. Greenland to use Narsak Harbor when operations or weather made it necessary. It is considered that in this case the operation of this ship made the use of the harbor necessary.

S. T. ROTCHKISS

File No.
P13-9

UNITED STATES ATLANTIC FLEET
COMMANDER GREENLAND PATROL

Care Postmaster, New York, N. Y.
22 January, 1943.

Office of S.O.F.A.,
Greenland.

From: The Commander Greenland Patrol.
To: Lieut. S. T. Hotchkiss, U.S.N.R.
Via: Commanding Officer, U.S.S. BOWDOIN.
Subject: Private Reprimand.
Reference: (a) American Consul, Godthaab dis. 132110.
(b) Bascom ltr. 14 Jan., 1943 (R.M.W./ask-REC 250)
(c) My ltr. 16 Jan., 1943 AL4-1/EF22-2
(d) Commanding Officer, BOWDOIN ltr. 16 Jan., 1943
(no file number).
(e) General Order No. 39, Hdqts. Base Command.

1. The information contained in the above references pertains to a report of the American Consul at Godthaab, through the Commander Greenland Base Command, that the U.S.S. BOWDOIN visited at the native settlement of Narsak, Greenland for three days over Christmas, 1942, and maintained contacts with the natives both on shore and on board. In reply to my inquiry, you as commanding officer of the BOWDOIN, implied in substance that the visit was partially in connection with carrying out certain official duties in connection with hydrographical surveying on which the BOWDOIN is engaged. You also stated in substance, reference (d), that you considered that the orders prohibiting Naval vessels to visit ashore, and natives on board had been temporarily suspended, since the Chief of Police of Narsak informed you it was alright for natives to come on board during the Christmas holidays. This can not be accepted as an excuse. As Commanding Officer of the BOWDOIN, you permitted the natives to come on board and you granted liberty on shore to your crew, when both those acts had been prohibited by official orders transmitted to you by the Commander Greenland Patrol.

2. In view of this violation, you are herewith tendered a private reprimand, a record of which will be forwarded with your next submitted Fitness Report.

File No.
P13-9

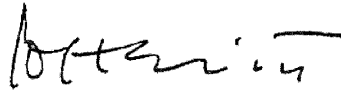
UNITED STATES ATLANTIC FLEET
COMMANDER GREENLAND PATROL

Care Postmaster, New York, N. Y.

22 January, 1943.

Subject: Private Reprimand.

3. This reprimand does not encompass the allowing of the natives aboard the BOWDOIN, as it is realized that the necessary action to prevent this might easily have been construed as impolite or even unfriendly, in view of the local authorities statement of that the regulation in reference (d) had been lifted. This action, however, is not condoned and shall not be allowed in the future. In this case, and in all future, an immediate report shall be made of the situation.


Ed. H. SMITH.

U.S.S. BORDOIN
c/o Postmaster
New York, N.Y.
4 February 1943

From: The Commanding Officer.
To: The Commander of The Greenland Patrol.
Subject: Information Supplementary to Reference (a).

Reference: (a) Report dated January 16, 1943, of Commanding Officer of the U.S.S. BORDOIN, on visit to Narsak during the period of December 24-27, 1942.

1. To supplement my report of January 16, 1943, concerning the visits of this vessel to the town of Narsak during the period of December 24-27, 1942, I wish to add a number of extenuating circumstances.

2. If I, as Commanding Officer of this vessel, had been informed as to the evidently rather touchy condition of diplomatic relations between the United States and the Greenland Government I should never at any time have allowed my crew liberty in Greenland towns, except under most special circumstances, simply in order to avoid any situation such as has now arisen.

3. Furthermore, in view of the fact that restrictions on the visiting of the small towns have been imposed and lifted in the past without coming to my attention, I do not feel that it was entirely unreasonable to assume that this restriction had been temporarily lifted in accordance with the impression gained from the police authorities in Narsak. One of the primary reasons for the restriction, as I interpreted it, was the cessation of trading activity between United States ships and the Greenlanders, and at the time of our visit all trading was strictly forbidden.

4. It is to be noted that the only GrePat letters in our files which pertain to the relations of naval vessels and personnel with the Greenland Government or the Greenlanders, or to restrictions imposed upon visiting native towns are as follows:- Ltr. 601-700, of Nov. 5, 1941, General Order #39 of Nov. 21, 1942 received Dec. 2, 1942, GrePat #11, of 4 Dec. 1942, received Jan. 16, 1943.

5. The problems of a small ship in Greenland waters are numerous, and especially that of recreation. In the summer it is possible in the long evenings for the men to go ashore for hunting and fishing but this is out of the question in the winter. In all seasons when the weather is good this ship operates continuously, Sundays included. Holidays are allowed when poor weather stops the work, but unless the ship happens to be at a base

2/4/43

U.S.S. BOWDOIN

2.

in winter, ^{there} is little opportunity for the men to get out for a change of atmosphere. Our work has been long and tedious, with nine months put in and the prospect of another nine months to come, and the men have done an excellent job in every way and their spirit has remained of the best. In order to maintain the best possible morale and to obtain the maximum possible work I have made every effort to make life as pleasant and varied as can be under the circumstances. In the matter of the visit to Narsak, we had been in there many times before, the boys had many friends ashore and had always behaved themselves well and had the complete approval of the local authorities by whom, in this instance, they were invited ashore. If any harm were to be done to the Greenlanders it would most certainly have been done long before when Narsak was an unrestricted town. From the practical standpoint I could see no harm that the boys might do ashore, and as previously stated all trading was strictly forbidden. In view of the fact that changes in restrictions had not in the past been brought to my attention, and upon the assurance of the local authorities that restrictions ashore had been lifted from Dec. 24-31, 1942, I could see no very great harm that might result from granting liberty during this period to a number of the crew on the evenings upon which we were anchored in Narsak Harbor and the immediate vicinity. Anchorage here, as stated in my report, was considered an operational necessity.

6. I have made investigation subsequent to this visit to Narsak and have found that none of the men admit to having had sexual intercourse there ~~at this time~~ and that the Pharmacist's Mate issued no prophylactics.

7. In regard to the condition of community morals, it has been my impression that Narsak rates relatively high, where as Julianahaab, which is now an open town, rates very low. If this matter is a sincere concern of the Greenland authorities it is inexplicable to me why they have not sought to improve conditions where they are at their worst.

S. T. HOTCHKISS

Report on condition of Main Engines & Recommendations

- ① In November 1942 the oil feeding line leading to the clean oil sumps in the main engine was eaten through by electrolysis which allowed brine water to enter the lubrication system. The result was that all five connecting rod bearings ^{was slightly wiped} and five main bearings were badly wiped. The connecting rod bearings were renewed, and the five main bearings were repaired, machined, and fitted. All clearances were carefully checked. The condition of the shaft was doubtful, but could not be accurately ascertained. Number 2 main journal was badly fitted and scored. This was stored to the best possible smoothness. A surface gauge was put on the shaft and readings indicated a variation of about 3 thousandths. This work was accomplished under the supervision of Mr. Johnson of the civilian machine shop and the work was carried out by Mr. Mabile of the civilian machine shop and the ship's fuel. The opinion rendered by Mr. Johnson at the time was that the success of the work was entirely questionable because of the bad number 2 journal and because of the possibility that the shaft was sprung. It was decided to continue operation and to keep close watch on the situation.

(2) On ¹⁰ May the main engine was taken down and checked. It was found that the connecting rod bearings were all in excellent condition. The main bearings, however, were in Number one main was not badly worn, but the bottom in the lower half was cracked. Number 2 and No. 3 mains were in very poor condition. The lower halves appeared to be wiped, and badly pounded down. Number four main was in good condition. The lubrication as evidenced by oil on the bearing surfaces and the soft, oil filled condition of the felt's had been satisfactory. Further evidence of the loss in the fact that the connecting rod bearings were all in excellent condition. The oil passes from the main bearings through the bangs rings & thence to the connecting rod bearings. The cause for the poor condition of number 1, 2, & 3 mains would appear to be a spring in the crank shaft. The surface of number two journal was in a badly pitted condition, and number three journal was scored.

(3) Since the time of last overhaul the engine has operated about 500 hours. At time of last overhaul all possible care was taken, under the limitation of equipment available to properly fit the bearings. If the shaft is spring, as it appears to be, fitting new bearings will not remedy the

situation, for they will only suffer as the present ones have. To operate the engine under such circumstances is likely to cause uneven wear of the pistons on the cylinder walls which will only increase the eventual repair bill. ~~Therefore~~ it renders the engine unreliable. There is ^{an} additional possibility, as pointed out by Mr. Mankala, that the whipping of the crankshaft is liable to break it, allowing the flywheel to take charge, which might mean considerable damage to engine room and personnel.

U.S.S. BARBET (AMC3E)

Sept. 28, 1941,
Navy Yard,
Boston, Mass.

Executive Officer's Memorandum.
Subject: Commissioning Procedure.

The USS BARBET will be commissioned by the Commandant, First Naval District, or his representative on Monday, Sept. 29, 1941. The hour not yet designated.

0700-Crew have breakfast at Receiving Station.

0800-Crew report on board with bags and hammocks and stow gear, turn to and prepare the ship for commissioning.

Commissioning ceremony procedure:

(a) The Commandant or his representative reads his orders to commission the USS BARBET.

(b) The Commandant or his representative directs the Prospective Commanding Officer to commission the USS BARBET.

- (1) The crew is faced aft by order of the Executive Officer.
- (2) The bugler sounds "To the Colors".
- (3) Hoist ensign, jack, and commission pennant.
- (4) Crew face inboard on orders of Executive Officer.

(c) The Commanding Officer reads his orders to command the USS BARBET. The Commanding Officer reads asks the Commandant or his representative if he wishes to say anything to the officers and crew. Afterwards the C.O. makes a short talk on assuming command.

(d) The Commanding Officer directs the Executive Officer to set the watch.

(1) The Executive Officer orders the Boatswain's Mate to set the watch.

(2) The Boatswain's Mate sets the watch, "All hands, set the watch, starboard watch".

(3) All men of the starboard watch designated double time to stations.

(4) The Executive Officer reports to the Commanding Officer, "Watch set, starboard watch on duty".

UNIFORM:

Officers; blue service, white cap covers, grey gloves.
Enlisted men: Blue dress jumper and trousers, ribbons,
white hat, neckerchief, black socks, black
shoes.

Prior to the commissioning ceremony the word will
be passed to shift into the uniform for the commission-
ing. This will be done promptly and a dress rehearsal
will be held.

The following will stand by for hoisting the colors,
commission pennant, and jack:

Colors: GRIFFITH, BM1c.
Com. pen.: WILSON, S2c.
Jack: FERRON, E3c.

The watch will be set as follows:

Officer with the day's duty-Ensign DENT.
Gangway watch - Ingram, S1c.
Engine room watch - TOMMIESSEN, F2c.

The following will attend the gangway for the departure
of the Commandant or his representative:

DAVIS, BM1c.
AYRE, S2c WILSON, S2c
GOODGER, F1c TILLMAN, F1c.

The crew will eat lunch at the Receiving Station, and
supper on board this vessel.

M. DENT, Jr.,
Ensign, USNR,
Executive Officer.

USS BARBET (AMC 38)

9/29/41

THE FOLLOWING ASSIGNMENTS TO WATCHES ARE MADE FOR WATCHES IN PORT:

Mac
PORT WATCH

G.Way DAVIS, BM1C
SPAULDING, SEA2C
" SPAULDING,
~~GRIFFITH, MM1C~~
TOENNISSEN, F2C
G.Way BENNER, RM3C
GOODGER, F1C

Ray
STARBOARD WATCH

G.Way ~~Quartermaster~~
PERRON, EM3C
G.Way INGRUM, SEA1C
G.Way AYRE, SEA2C
GOODGER, F1C
TILLMAN, F1C
GRIFFITH MM1C

FOR LIBERTY PURPOSES, LIBERTY WILL BE GRANTED TO EACH WATCH ALTERNATELY, COMMENCING WITH THE PORT WATCH FIRST. AT OTHER TIMES THE DUTY WILL ALTERNATE BETWEEN THE WATCHES - A STBD. WATCH MAN RELIEVING A PORT WATCH MAN, ETC.

SUBMITTED:

M. DENT, JR.
ENS., USNR.
EXECUTIVE OFFICER

APPROVED:

S. T. HOTCHKISS,
ENS., USNR,
COMMANDING.

USS BARBET

DAILY ROUTINE

0000-RELIEVE THE WATCH

0340-CALL THE WATCH

0400-RELIEVE THE WATCH

SUNRISE-OUT RUNNING LIGHTS, HOIST FLAGS (AS DIRECTED)

0630-TURN TO, CARRY OUT MORNING ORDERS

0730-BREAKFAST

0755-REPORT 8 O'CLOCK TO C.O.

0800-RELIEVE THE WATCH, TEST GENERAL ALARM

0805-SHIP'S WORK

1015-EMERGENCY DRILLS

1130-DINNER

1155-REPORT TO C.O. 12 O'CLOCK, CHRONOMETER WOUND
REPORT TO C.O. FUEL ON HAND AND EXPENDED.
REPORT TO C.O. WATER ON HAND AND EXPENDED

1200-RELIEVE THE WATCH

1300-(WEDNESDAY SCRUB CLOTHES) SHIP'S WORK

1630-KNOCK OFF WORK, RELIEVE THE WATCH

1730-SUPPER

1940-CALL THE WATCH

1955-8 O'CLOCK REPORTS

2000-RELIEVE THE WATCH

2340-CALL THE WATCH

USS BARBET

Area (22" cloth) = 38 yds

Wastage on foot = 2 yds

" " luff = 2 yds

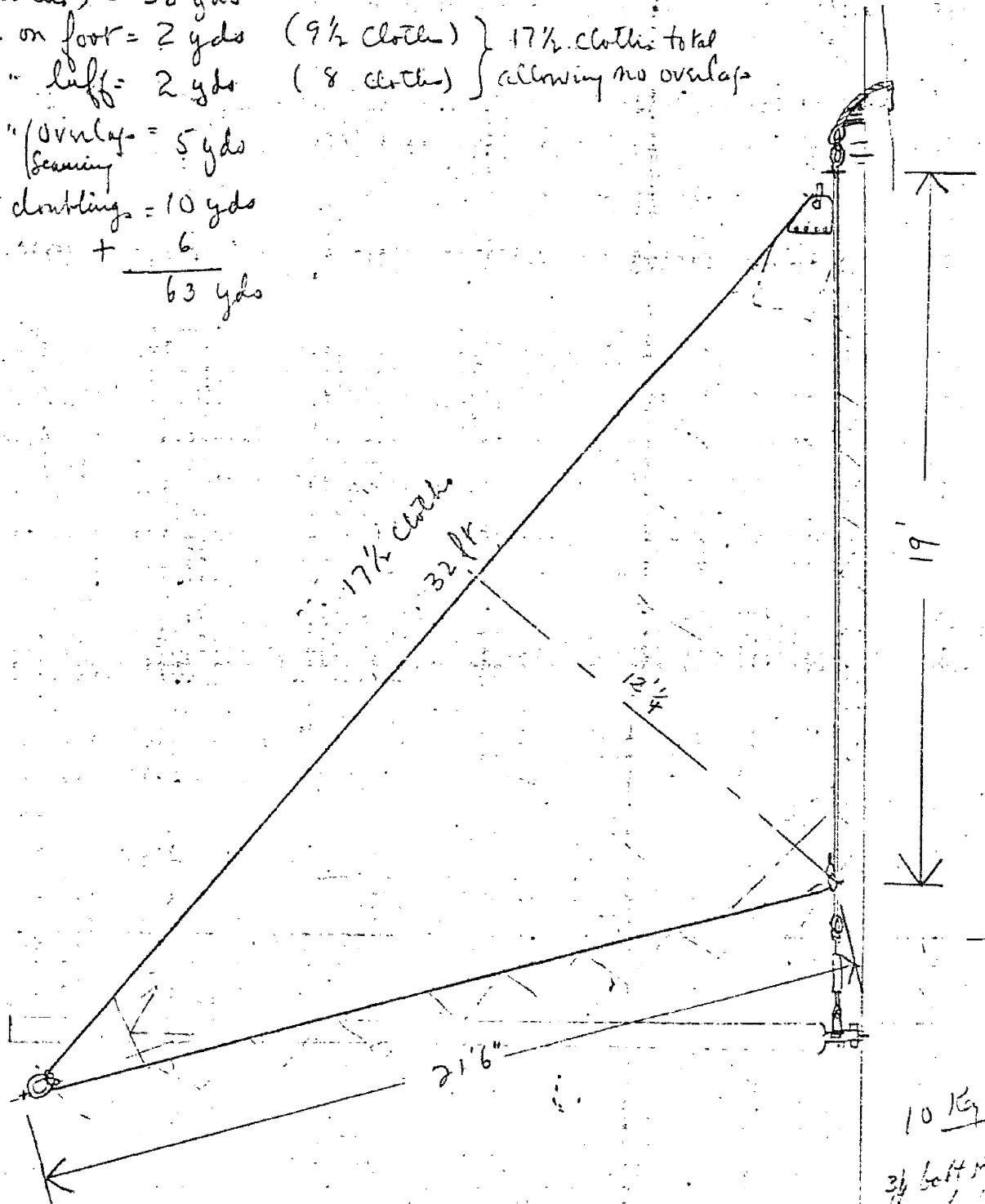
" (overlap = 5 yds
seaming

Tabling & doubling = 10 yds

+ 6

63 yds

(9 1/2 cloths) } 17 1/2 cloths total
(8 cloths) } allowing no overlap



10 Key bands
36 belt pins
11 sheets
20 1/2 blocks

Canvas 0 1/2"
Tanned Hemp belt Rope 7/8" luff
3/4" part 1/2" luff

about Dms. - That gal in Calif. married the
Lt. who swam ashore from the 14-11-42
Oklahoma. - Thanks goodness.
MAGNUS DENT, JR.

Reports.
has.

Box DD-28,
Section Base,
Cristobal, C.Z.

Dear Ste:

Here we are - arrived two days ago after an extremely pleasant trip, and I wish we could keep on going because we have had such a good time going from place to place and also because people who are already here all wish they were somewhere else. I am very proud of myself as a navigator as all my endeavors in that line were very successful and enjoyable.

Tohman was relieved this

2. morning by Lt. (jg) Trombadorman Dabrympf, Yale '38, who was sick most of the way down here on a steamer from New York and whom Mr. Squibb thinks may be as mild as J. was overbearing. At any rate S. is overjoyed, and Dabrympf seems to be a pretty congenial guy.

We used the sail a great deal coming across the rolling Caribbean and found the layout very successful and the effect of slowing the roll quite noticeable. Proof of that fact is that while it was up no one was as healthy and hungry as Perron who swears by it now, and even Davis, who was so skeptical admits it is a great success.

all the old-timers down here say that the only relaxation is booze, as about all of the Army and Navy wives, etc., are home in the States now - and we have found it true to a certain extent, but I had some great luck on our first night - met a Cuban chow girl who can't speak any English and who is now appropriated as my Spanish instructor. She is a damn good kid and very well brought up, so she won't go out with me after the show - or anyone else - so I think it pleasant to sit around occasionally in the cabsaret wh she works, drinking the very lousy booze and practicing my dancing and Spanish. It's really not so bad as it sounds - I had followed Ray on the downhill path - and she's very easy on the eye - looks like a blond N.Y. deb. - This is really the place for you; they say the dark girls look white and white as the months go by. Think you could make it by a navigational error?

We had two Rear Admirals aboard this morning for inspection - the Comdt. and the officer who will relieve him soon and they seemed well pleased with us and very genial. As a matter of fact, most of the officers down here are pretty friendly and anxious for a good time and there are quite a number of Yales but mainly in the army.

Don't know how long I'll like staying around here, but am interested in starting operating and showing them that we're tough. No nocturnal operating as in N.Y. is usual. Let me hear your dope, especially

Postscript

U.S.S. Bowdoin
July 1, 1943

Dear Lt. Hotchkiss -

Many thanks for your letter of June 12 in which we learned that you had arrived safely in the States. Many thanks also for taking up with the powers that be matters pertaining to this vessel.

Regarding Trusdale, I have forwarded your letter adding a favorable endorsement (of my own). I, too, believe he is officer material and it is only fair to give him his chance.

So far things have been running fairly smoothly aboard your old ship. Only one small infraction of discipline occurred in which again I had to furnish duty. We have made three two week voyages last month putting up over 60 signals and occupying over half of them. Unfortunately after inspecting the reinforced bearings we now find that they are wearing badly and I had them taken out today. We had our set to be repaired in a recent ship casualty in which, I am sorry to say, you may have lost your personal effects which I saw you pass.

The future for the vessel is on the knees of the gold brain. We are carrying on as planned under your test. With minor changes I am pursuing practically all of your policies.

Let me know if there is anything we can do for you - will return your thanks when + if. Do take her aboard ship as yet for us.

The whole crew joins Mr. Pratt and myself in sending their regards and we all hope you are having a good leave and will enjoy your new job perfectly ready. - Dupa time with prominence.

Sincerely
- J. Backland

J. Backland, Lt. D-V(3), U.S.N.R.
C.O. U.S.S. Bowdoin
FLEET 1.0. N.Y.C.

AIR
MAIL

U.S.S. Bowdoin.

11 Aug. 1943

Dear Lt. Comdr. Hutchinson,

Your letter of 15th July finally arrived yesterday and I read parts of it. The 'the boys' remark. They were not impressed (as far as your and extent of their congratulations), as do I, upon your promotion. It may be that I made it too. We wouldn't mind a touch of that Miami heat but dislike your report of proceedings in the school.

The 'Bowdoin' has been functioning along fairly well lately - we are now cleaning up the job which started with my taking over. Never have I seen such a mess of a coastline. So far have had no luck with the slips, but the weather here has been horrible - I had you a lot for getting through last winter.

As you say 'A damned good sail' is what we look forward to - and soon. How long the 'mild' will hold out is a question, but she runs at slow speed. But new jobs seem to appear over the horizon. Promised, of course but can't say for sure.

Mr. Nutt sends his best regards and assures me that the money you sent is payment in full and quite correct. Have promised shortly to S.H.C. (papers were passed) and Pete and am promoting W.H. Solgan. Am hearing your other recommendations. The boys all join me in wishing you good luck in your new command.

Cordially

J. Backland.

J. Backland, -Lt. D-V(S), U.S.N.R.

U.S.S. Bowdoin

FLEET P.O. N.Y.C.

Aug 25, 1883

Dear Stu -

The old story, we're still hammering away at the original job we started last June - naturally enough we have run against all kinds of difficulties most important of which has been the weather which has not treated us very well this summer - in fact last year was very ahead - anyway we are winding up and expect to lay our cards on the table soon before ^{your} old friend who is back with no injures - Our hopes aren't up any more the way they used to be and we expect the worst - as for me I've got my eye peered in those heavy Bulletin's - expect to have some results pretty soon -

By the way your friend Fred Stuyvesant passed us today just in from the States in command of his old ship - a very unenviable position - Those poor wretches have the worst duty of any one up here - and we

II

under repair half the time anyway -

Remember I was in

going to remember it for a long time -
We were up there last week and really
did the town up red - I managed to get
underhanded methods to get a pass
me of course immediately looked
up the weak bootlegger whom I was
not long in finding - Well he had
a lot of booze and I of course had
the whole with all - souvenir business
falling off, but still was making a dollar
or two from smoking - and bought
all I could carry for only seven per cent.
which really is not bad considering -
Of course the next thing was to get
out of town with five quarts under
a jungle cloth jacket - something
of a feat! - I tucked four under
my belt and a prized quart of gin
in my shirt - I think I looked
about five months along, improving with
a slight forward list I managed to
slam by with a feroce set but

III
My leg scuppers dragging badly - When
I reached the Bowden Bill's eyes pretty
near popped out and we went
right to work on it - By ten P.M.
I was a complete husk job - as
was almost everyone else - It yes the
Harpoon was so terrific as ever and
naturally have scum off again - live taken
a couple of litres in the Hotchkiss and
was rounding back into shape after
a couple of days of agony -

We are anchored in one of the well
known villages tonight and most
of the boys are taking a walk in
the hills with the local dogs - By the
way Daniel is here - the local pump -
Business is thriving tonight -

This is the barest country I've ever seen
not a damn bit of anything else;
one special feature of the summer
is a smothered salmon-herb hangup
in the forests by the forest - just
come along and slice off a piece - also
we have had a lot of seal meat and
liver - really to not so bad but

IV
Maybe isn't getting a little anticlimax.
as for the ship - she is in swell condition
weather hasn't permitted much painting
but we have managed to keep her in
top top shape - the deck are still
bright and I kept them clean with
a good scrub down every morning
and once in a while with caustic
water and sand - Tommy all of a
sudden got the water pump going
last week so "draw bucket" Lyons
is pretty happy - He made 5 1/2 after
15 months the other day - that's what
you call getting ahead - The engine,
well the engine has been 55 55 -
Tommy & Pate did another job on it
in the month of July and seems to
have been successful - everything
else mechanical is in good order except
the bloody stove blows up promptly
every morning at 6:30 AM - last
getting sort of used to that - We have
done disappointingly little sailing - every
time we get a chance to use them

VI
The bloody wind comes right in our eyes -
and is a matter of interest the fog has
been our chief menace to navigation -
These waters we are working in are
full of foul ground and we've
bounced off more than one rock -
Once we hit near falling tide
so shortly we presented the water
was white with up gulls in a lot -
Keep thinking of little things that have
happened while I write so don't mind
if I jump around a little - Our
old friend the Renter is back in
the job with her third crew -
Another ship bounced off that rock we
missed last summer and the Admiral
is slightly pissed off -

Our new radio man is as Dick would
say a "perfect specimen" and has gone
the way of all radio men - and has
a beautiful Bar room Pulser -

Bill and I have been painting and
gossiping all day 'cause we want

V
to go to B tomorrow for mail! etc -
Well you there isn't a hell of a lot
more to say except the cootes still
the Manobly champion, ~~the~~ Beckland
is a small egg - and I haven't
been in any fights -

Dick Harris wrote and said he saw
you ambling up a beach and
you gave him all the arctic scuttle but -
I sure enjoy you a little of that
beach stuff and some of that general
mountain boasting company -

Hear you sweeping over eight words
a minute -!

Expect to be in town in Oct sometime
looks like a sure thing, so keep me
posted if you are around about
that time and maybe we can
swap a few yards -

Doc & Bill send their best - Bill didn't
get the quota out the skipper sent in
special request so he still has a chance -
again I thank you for all you did for me
while in Boston - greatly appreciated -

Robert A. Marshall M.D. Pie -

AIR MAIL

349 Kincaid Pl.

Seattle 99, Wash.

Oct 15, 1944.

Dear Captain Hotelkiss -

Your letter of 9 Aug. caught up with me today which pleased me very much as I often wondered how a sailing ship man would make out on one of these fine looking DEs. It seems that we must have been in the same waters at one time.

Had a fine letter from Mr. Nutt - now Ex-ec on the hydrographic vessel U.S.S. ^(U.S. P.O. SAN F.) Sumner, which apparently he does not enjoy to much. Joe Thomas is with him as navigator. You may run across them. If Pearl was loading troops on the transport, when who should come up the gangway but Mr. Golgan, the engineer, now chief a M.M. in the Seabees. Had letters from the cook, also a chief, Tom Shirat, and Femino who got advanced into marriage. Glad to hear about Truesdale - the amphib. are just the thing for him.

As for myself, spent to the Suipan show and had quite a time. When we had about half the Island my orders come (urgent, mail) from Byers wiff they should see about a plane for San Francisco. It seemed they needed a

AIR MAIL

Pilot for a bush-bird expedition to Pt Barrow, Alaska. So I piloted the Conroy through the ice, and got all the stuff and men ashore there.

Have just returned and they are now using me as a salt pilot handling ships up and down this Puget Sound. Interesting work, but nerve racking in these days. But I'm home, anyway.

Re, Alaska - it looks as though you would like to be a competitor of mine (after the war). I have been looking over the situation very carefully myself, naturally, and it seems to me that business there will be totally different in the future. 1. The Gov't has declared an emergency and is now feeding and supplying the natives free through Gov't owned Co-op Stores so they have quit hunting & trapping. 2. The airplane grabs all the profitable cream of the business. 3. Costs of labor and operation of a vessel have increased about 300% (products of the country received in trade only about 100%) and it does not look like they will ever come back to normal. Don't let this discourage you, however, - a man should see for himself.

Personally I don't know yet what I'm going to do - a large company has made me a very fine offer (after the war) (7 months work, 5 mos. play) and

AIR MAIL

a share in profits (if any) But then I won't be my own boss any more so I'm inclined not to accept. It does look to me, however, as though the day of the small trader is past.

From meeting you, I should think you would enjoy Alaska immensely and also believe you are the right type to go into the country to help develop it. So take a look someday.

It was nice meeting your
your father who was very kind to
(me there in Boston). My very best
to him. - I enjoyed that summer
in Greenland very much - more like
a yachting party to me than Navy
routine. Our trip home on the ship
Burdon was uneventful but fine.
Am very sorry she's gone. As the boys
said, they will wish they were back
aboard, especially after the South Seas.

Look back to you in your
command and trust we shall meet
again

Sincerely

John Backlund.

Just in case you can do something.
Guy R. Abbate, CPhm, V-6, USNR
400 77 61

20 June 1945

Dear Captain Hotchkiss,

Many times the past year I have thought about you and been in hopes of probably seeing you. They didn't let me stay on shore too long before I was reassigned and pushed out on this vessel.

I've received letters from all the Bowdoin gang, Mr. Nutt regularly as the same with Uncle Joe and pulled into one harbor where they were and we had quite a conflag. A letter from Pie the other day revealed that you two had quite a session yourselves. It's too bad I missed you at Leyte, but I was there myself, and in January too. I think Pie said that was the time he saw you. Bill Deacon I think has made Ens. and is out here somewhere or at least on the way but I don't know the vessel. Ed Bell is still the same old lucky Ed and enjoying things back at East Boston. He wrote me he woke up one morning and he heard this line of shit flying fast and furious, he looked the second time and it was none other than "Shorty" wearing more medals than you could shake a stick at. Paounoff has made Ens. and is out here on the Norton Sound. They tell me McColgan has been out around Saipan but other than that I hear nothing about the rest of the crowd. But I can truthfully say this much, give me Greenland with all the trouble we got into up there once in a while and I'd be much happier.

The past 50 days have been hell on earth for me and you know what I'm talking about, but there isn't much we can do about it than just take it and pray that everything will turn out alright.

Just before I left I got myself married to a young belle that lives the next town to mine, Norwood, Mass. You remember of course I live in Dedham. She seems like a young lady that has both her feet on the ground and I think if I ever live thru this mess will be a big help to me. The sad part about it all is that like many of us I haven't had too much of an opportunity to enjoy a bit of that conjugal felicity that must be in store for all of us.

I'm just about exhausted Capt'n and wish like heck if I live thru this struggle that I could get myself assigned on shore for a while. I did have 7 months back in 1944 but really the past 10 months have just about worn me out. I've had 43 months of sea duty and 7 months of shore and sure would wish like the old harry if you could do anything for me at all I sure would appreciate it. I know how difficult it is with the chain of command, Service Force and all that business, but I'm just mentioning this because truthfully I feel all in.

While at the Navy Yard, the C.O. of the Disp. recommended me for ChPharm. I then got transferred to this vessel. While I was aboard here the bureau writes back because of my color blindness I am not physically qualified for promotion. Yet they waived my color blindness to take me in the service. This C.O. quickly wrote back a very strong letter asking for a waiver and to reconsider me for promotion but they only wrote back that they concurred with the Bu M & S and

could not find me physically qualified for promotion. It surely makes me feel like a heel, being in the outfit 5 years and having only made a single rate from lc to Chief. Now there isn't any chance of anything else being not physically qualified so I really feel as tho I could stand a decent break. I didn't primarily write you to burden you down with all my troubles but chiefly because I'd like to hear from you. Best of all good luck to you, "Doc"

By the way those movies of Greenland I have and especially you, are out of this world, just perfect.

28 July 1945

Dear Capt'n,

Your fine letter of 18 July arrived today and I'm not going to lose a moment in answering altho I know that it is much more difficult for you to take time to be writing me.

I certainly hope that you make Commander it all really sounds just perfect. I can't blame you a bit for being excited about being home and the prospects of a new DE and with all that time on shore too, you should have a fine opportunity to do some catching up. I doubt that old ICEBERG can say too much ~~what~~ took place in Greenland, but he certainly gave us what I call a "bad time".

Your duty in the Pacific certainly was quite a change from the duty in Greenland and you like myself probably have wished many times that we could be back in Greenland behind one of those icebergs. The past 90 days I've really seen a bit of rough going and am somewhat in a "Combat Fatigued" stage and certainly wouldn't object to anything that would put me on shore a while.

We certainly must have a reunion of our old gang if God ever sees fit. I have some wonderful movies of you and you look so much like yourself, most of the young gals that get a peek at the movies always more or less get pretty excited when your picture comes on the screen. I have one run that is exceptionally good and I use it for the finale, it was taken the day the Bowdoin weighed anchor under sail and you put it so nicely in the slip there at Onoto. The decks are covered with snow and the "old flag" is blowing like fury while you are at the helm all outfitted in your warm winter clothes with no hat on, really good and you and your folks just must see my pictures.

I did get married and at the time thought it the right thing, I do hope that it does turn out to be right for me. She is a lovely young lady, graduate of B.U. has a Masters Degree and seems to be a bit on the bright side, not quite as dumb as some of my old fleet. At present she teaches High School at Lunenburg, Mass.

For now I have a request in to try to get to a hospital to gather myself a little knowledge but I fear the answer. They just seem to have me in a spot and all I can do is take it. I'm hoping someone with a little strength in Washington can come to my rescue and at least get me a little better spot than I'm in. Personally if I'm not physically qualified for promotion I'm all for "Limited Duty" right back in the states.

I hear from many of the boys regularly but on this trip have yet to see any of them. I was sorry to hear about Pie's dad passing on.

I know you like myself and millions of others are anxiously awaiting a speedy victory so that we can all more or less get back to normal. Altho I'm afraid you might become a U.S.N., don't will you, for I really don't think this navy has enough on the ball to offer men of your calibre. Let the more bright reservists and Annapolis boys handle the problem. Looking forward to a reunion,

My Best, "Dtc"

For Star

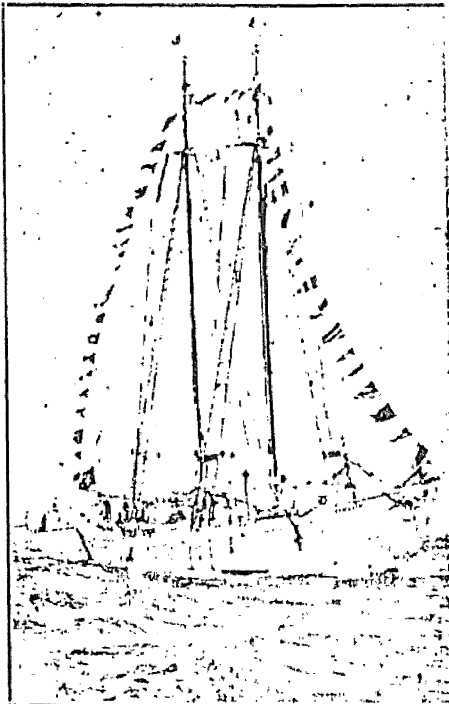
Part Played by Noted Arctic Explorer in Winning War Told for First Time in Exclusive Interview With MacMilla



Comdr. Donald B. MacMillan, whose knowledge of Arctic waters and land proved invaluable to the U. S. navy in the construction of air bases and radar stations in the Far North.

BY FRANK G. JASON

close of World war I and from them



The famed schooner Bowdoin, now anchored off Boothbay Harbor after six years of service for the navy. Comdr. MacMillan is getting her ready for another polar expedition next summer.



Comdr. Donald B. MacMillan, whose knowledge of Arctic waters and land proved invaluable to the U. S. navy in the construction of air bases and radar stations in the Far North.

BY FRANK G. JASON

If it wasn't for Comdr. Donald B. MacMillan's knowledge of the waters around Greenland and Labrador, the U. S. navy would have encountered tremendous difficulties and immeasurable delays when it embarked on a program of building air bases and other installations in the arctic region.

Sorely pressed for time, the navy selected the one man who probably knows more about that part of the world than any living man. For 37 years he had roamed over those lands and through the waters. He knew practically every inch of it from memory. There were no charts available for navy use at the outbreak of hostilities in Europe, therefore it was of utmost importance that the navy secure the services of the one man who could direct its ships safely through the destination without dangerous consequences.

A member of the U. S. naval reserve ever since World War I, MacMillan was called immediately to Washington. The army picked him out for him but he would rather be a job in the navy than a general in the army, which one can readily understand, since he has spent the best part of his 71 years of life aboard ship.

In an interview the other day, the noted explorer told us something about his wartime activities.

Bristling With Arms

He was no sooner in the navy officers when he was asked if he would sell his famed schooner, the "Bowdoin." He would rather charter it to the navy but the official insisted that they wanted to buy it and urged him to sell. When he consented he was told it was a wise decision because they had already issued orders to size it anyway the day before.

Himself and his ship in the navy, his first assignment was to take the Bowdoin to the Portsmouth navy yard and have her fitted for war. She was scheduled for patrol and pilot duty in the far northern waters with MacMillan in command.

Her decks, bustling with anti-aircraft guns and other armament, and with a flock of all the latest mechanical devices installed, she was a far different looking craft as she left New England waters than she was in the days of peace, leaving with a crew of scientists bound on an expedition.

Three airbases were scheduled for construction in Greenland's west coast under the direction of the aviation aviator, Bert Balchen. It was Comdr. MacMillan's job to escort freight-carrying and supply ships through the perilous waters of the Arctic to Balchen so that the work could get under way.

One of the airbases was accessible only by sailing 84 miles through a fjord. This was known as the Sondre Strom Base or South Stream. MacMillan piloted or escorted every ship that carried the supplies for the construction of this base and for the others as well.

When not escorting ships he was surveying and charting and doing patrol duty. Some of the fjords he found had depths of more than 3000 feet.

Germans Had Information

Aside from keeping an ever watchful eye for submarines and hostile aircraft he spent an entire month off Iqviut guarding the cryolite mines from which ore is taken for the manufacture of aluminum. Never once while on patrol did he come in contact with the enemy, but the Bowdoin was a busy little ship for it was in constant communication with headquarters giving directions for ships scheduled to sail for Labrador, Baffin Island and to Greenland.

Acquainted personally with hundreds of bays, fjords, inlets and islands, Comdr. MacMillan was rarely stumped in giving out letter perfect information.

According to Comdr. MacMillan the United States was in a bad way as far as charts were concerned for this northern outpost. "We didn't have a single chart that was of any value," he said. "The Germans had them all. They had been sailing on Greenland ever since 1771 up to the

close of World War I and from them they received an abundance of knowledge of that land.

"Comdr. Riss Carstensen, a Dane, had just completed five years of chart making for the Danish government at the outbreak of the war and was ordered home with his maps just before the German horde marched on Denmark. He arrived at Copenhagen on the day the Germans came in and he was relieved of every map and chart he made during that period. This was quite a haul for the Germans for it was anything but a secret that they would at some time attempt to make use of the island."

Called to Washington

All this occurred in the days before America became embroiled in the European conflict. Before the Japs launched their attack on Pearl Harbor, Comdr. MacMillan was back in this country having his ship refitted for assignment number two. This time he brought the "Bowdoin" into Lawley's in Dorchester and it was there, a few days later when he boarded his ship, he was greeted by a young lieutenant who announced that he was now in command. The "Bowdoin" had been MacMillan's home for the past 32 years so you can imagine how he felt at the suddenness of the change. On his desk he found a personal letter from the late Sec. of the Navy Frank Knox, ordering him to Washington for consultation on northern waters.

He was assigned to the hydrographic office to do the all important task of editing, correcting and charting the lands he knew so well. The last 400 miles of the Labrador coast, according to MacMillan, have never been charted but he knew them better than he does the coast of Maine. He was called upon to tell skippers how to get in such places as Hopewick, Nain, Hebron to Ungava Bay, all in Labrador, to Frøbisher Bay on Baffin Island and to numerous other jumping off places rarely heard of by the navy. They had to have information which they had to get in such places as Hebron in the fall and when they broke up in the spring.

Later he was sent to Massachusetts Institute of Technology, where he was to study LORAN, a new method of long-range navigation which is still secretive to some extent. Radar plays an important part in its performance.

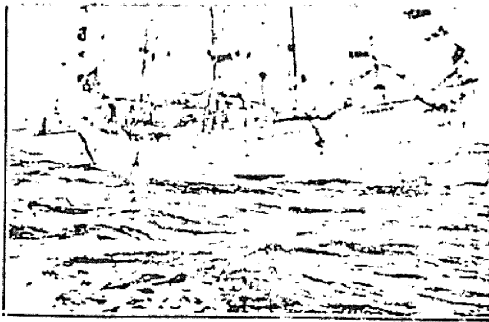
Found Radar Sites

When his course of study was completed he was ordered to take two airplanes and fly to Newfoundland, Labrador and Greenland to inspect three sites for radar stations. It was a dangerous mission, for it meant flying over extremely high mountains, through dense fog and into winds that sometimes blow at a rate of 150 miles per hour. He was in search of flat areas near the coast so that there would be no land obstructions to the radar waves as they were sent over the water. MacMillan found them all. It is an old story now of how important a part these stations played in guiding convoys across the icebergs-infested and fog-enshrouded North Atlantic during the war.

It took the commander the entire summer of 1942 to accomplish this task. It could well have taken months longer but he knew the people and he spoke the language of the Eskimos thereby shortening the time to the absolute minimum.

Back in Washington he was asked to compile a bibliography of the Arctic for the Navy Library. He got off to a good start by listing the titles of more than 1000 books in his own library. The work was never completed while he remained in the navy because of several interruptions and also because of his retirement from the navy last July. He is still compiling data and to date has more than 22,000 titles listed. The hydrographic office will publish them in the near future in six separate volumes.

In conjunction with his work in the hydrographic office he was also asked to prepare a book on Eskimo place names. All islands, rivers, bays, fjords, peninsulas and areas in that arctic region bear descriptive names of the Eskimo language. To Comdr. MacMillan, because he can read, write and speak the Eskimo tongue as



The famed schooner Bowdoin, now anchored off Boothbay Harbor after six years of service for the navy. Comdr. MacMillan is getting her ready for another polar expedition next summer.

fluently as a native, befell the task of translating them into English, and before he was done the tome contained more than 2000 place names.

Compiled Eskimo Dictionary

For a while it looked as if the commander was changing from an explorer to author, for once again he was asked to compile a conversational English Eskimo language dictionary for use of army and navy personnel stationed in the Far North. It was the best dictionary of its kind ever published, and since the first edition was printed it has grown to three times its original size.

The commander spent the entire summer of 1943 in Washington and confessed that he never put in a more uncomfirtable period in all his life. Accustomed to the cold of the Northland, the heat of the nation's capital was more than he could bear. "I felt like going nude," he said. That summer marked the fourth time he was home in summer during the past 37 years.

His last important mission for the navy consisted of an aerial survey expedition of the Greenland and other territories in that vicinity.

He believes that all surveys of the future, that is, surveys which cover wide territory, will be done from the air. With four airplanes under his command and a crew of 28 picked men he set out to tackle the job in 1944.

In three months they returned with more than 10,000 photographs made at an altitude of 20,000 feet. Most of these are of the West Coast, other sections. Every inch of the coast from Cape Farewell on the southern tip of Greenland to Dixon Bay above the Arctic Circle has been recovered by the men on that expedition.

Narrowest Escape

It was while on this trip that Comdr. MacMillan had the narrowest escape he ever encountered in the far north.

He knew well the peculiarities of the weather for he has seen clouds close in in minutes. Vapor rising from the vast ice field causes clouds so dense that it is almost impossible to make landings. He has seen winds of 150 miles an hour velocity wipe out entire installations. The weather is treacherous and no one knows it better than he does.

"Setting out from Greenland one day with a certain section on Baffin Island our objective," said the commander, "was no cause for any undue

excitement. We had made the trip several times without mishap but course there was always a chance of getting fouled up in that, thick weather. Sure enough the cloud closed in and we tried to make Frøbisher Bay where there was a place to land. When we got over it the ceiling was zero. We were burning about 100 gallons of gas per hour and had used up about 550 gallons coming over from Greenland. We didn't have enough left in the tank to make the trip back.

"The plane we were flying was a land plane and we knew that we were gone ducks if we were forced to land in the water. We had no alternative but to try to make it back to Greenland.

"Setting a plan of action, the pilot said he would fly low over the water and fly just fast enough to keep the ship in the air. This was done as a measure to conserve gas just as you would in an automobile. The faster you drive the more gas you consume.

Five Minutes to Spare

"We were flying so close to water in Baffin Bay that we could almost reach out and touch the drift ice. Fortunately we picked up a southerly tail wind and it tanned us onto the Greenland coast. Still some distance from our home base we picked up a beam but for some strange reason we missed the field. We could have kept right on going and no doubt would have checked out for by it time our gas situation was disastrous.

"I happened to be doing my work just after we missed the field I glanced out the window and noticed a spot where I had anchored the Bowdoin 21 years before. It was in the Sondre Strom Fjord, the same fjord which led to our air base. I informed the pilot and he turned back for the base. We didn't have enough gas left to stay in the air five minutes longer. It was a narrow squeak, but everyone took it as part of the day's work."

Retired now from the navy and devoting most of his time to lecturing around the country and part of the time to his Arctic Bibliography, Comdr. MacMillan, who was in Boston last week, announced that he will resume his Arctic explorations again next summer. His schooner is back in its home waters off Boothbay Harbor, Maine, where it is being made ready. Though he is 71 years old he doesn't look a day over 50. "I'm looking forward to not only the next voyage but to several more in the years that follow.

An Early Start for Christmas



It's still some weeks off for Christmas, but the kiddies here with their parents want to get an early start for the toys at Macy's Department Store in New York. . . . Children this season will have to be content with just about the same kind of toys they received last year. Less than eight per cent of the toys in Santa's pack will be metal. Plastic toys are expected to be about double last year's supply. The doll situation is about the same. Rubber toys are not expected in any quantity. (Wide World)

The U.S.
COAST GUARD
in WORLD
WAR II

by Malcolm F. Willoughby

LIEUTENANT USCGR (T)

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UNITED STATES NAVAL INSTITUTE—ANNAPOLIS, MARYLAND

THE GREENLAND PATROL

FURTHERANCE of safety at sea is prominent among Coast Guard duties in peace and war. This takes many forms. It includes aids to navigation both visual and audible; communications; assistance; marine inspection; weather patrol; and the alleviation of dangers from the elements as well as from the enemy, wherever possible. Thus far, we have discussed Coast Guard activities chiefly related to security at home; now we shall turn farther afield and consider wartime safety at sea. The Greenland Patrol, carried out by the Coast Guard, concerned safety at sea in many of its phases, including the prevention of hostile action against vessels and seamen of the United States and friendly nations.

This Patrol was very broad in its operations—so broad that the story of the activity necessarily includes episodes and experiences that logically could be included in the story of Coast Guard Aviation, such as that of Lieutenant Pritchard; in assistance such as the case of *USS Cherokee*; and in the Battle of the Atlantic, involving the loss of cutter *Escañaba*. Where is the historian to draw the line? For the "Greenland Patrol", while essentially *just that*, combined these and many other things.

The Greenland Patrol was formally established on 1 June 1941, a year and three-quarters after war had started in Europe, and six months before Pearl Harbor. Let us review briefly the conditions and events which brought about its establishment, and which determined its purposes.

Early in the war the Nazis knew the importance of Greenland as a weather forecasting base for Europe. They patrolled its coasts with weather planes from which they sent advance information to their submarines, surface vessels, and air forces. The trapped German battleships *Scharnhorst* and *Gneisenau* were able to slip out of harbor under the cover of a heavy fog and maneuver their way unmolested within 15 miles of Britain's Dover

coast because of such advance information. The Nazis had been suspiciously accurate in their weather forecasts that controlled their bombings of Britain. German radio stations in Greenland were sending information to Berlin several times a day, and informing their submarines in Greenland waters of weather conditions, as well as Allied ship movements in lanes close to Cape Farewell, the southern tip of Greenland.

After the German invasion of Denmark on 9 April 1940, the United States became seriously concerned about its defenses against attack in the North Atlantic. Greenland, a Danish island, presented a double threat. Hitler might get control of it, establish weather stations, air and other military bases, and strike Allied ships on the northern route. He might use defenseless Greenland as a springboard to attack the Western Hemisphere. Canada, like the United States, had no North Atlantic outposts. It was not until the 50 "obsolete" destroyers (World War I four-pipers) were traded that we acquired a base on Newfoundland at Argentia; this eventually became one of the strategic centers of the war.

Many Coast Guard ships were adapted for operations in ice. Numerous Coast Guard officers were experts in Arctic navigation through long association with the International Ice Patrol in the North Atlantic, and the Bering Sea Patrol in Alaska. In May 1940 cutter *Comanche*, which had made numerous ice observation patrols, was detailed to transport Mr. James K. Penfield, the first American Consul to Ivigtut, Greenland. As a result of negotiations with the Danish Minister to Washington the consulate had just been opened at Godthaab.

The cryolite mine at Ivigtut was an important concern of our Consul. Cryolite is an essential mineral in the production of aluminum, which was urgently needed in our aircraft building program.

The mine, less than a mile from the sea, was vulnerable to attack. We could take no chances with that mine! The United States agreed not only to sell armaments to Greenland in 1940, but ex-Coast Guard personnel, trained in the use of firearms, were sent to guard the cryolite mine. Cutters patrolled the west and east coast, and in August 1940, *Duane* carried a party to make an air survey of Greenland's west coast. *Northland* (Commander Edward H. "Iceberg" Smith), cruised the east coast looking for European military occupation or activity; explored the many fjords; and organized the data into charts for a "Greenland Pilot."

Greenland had significance as a possible air base, and preliminary conversations with this in mind were begun in the Fall of 1940. On 17 March 1941 as soon as ice conditions permitted, the South Greenland Survey Expedition, composed of representatives of the State, Treasury, Navy, and War Departments, sailed from Boston for Greenland in the cutter *Cayuga*. The mission was to locate and recommend sites for airfields, seaplane bases, radio stations, meteorological stations, and aids to navigation, and to furnish hydrographic information. Arriving at Godthaab on 31 March 1941, the party left 7 April in *Cayuga* to visit points on the west coast.

Throughout the Expedition's cruise of about two months, the Coast Guard made every effort to assist. On 17 May, *Northland* relieved *Cayuga*. Commander Smith, in the former, reported that the cruise further confirmed his contention that Coast Guard cutters were the best adaptable naval ships for the Greenland sector, and that all such ships should be equipped with a plane. The ship-based plane proved of great service to the work of the Expedition. The plane reported ice conditions, and, among other things, the airmen made photographs of various tentative building sites.

Acceptable Greenland charts were not available. The Coast Guard made new charts, and uncharted areas were surveyed and recorded. Locations were verified or corrected; cutters ran up one side of the many fjords and down the other, making soundings. There were no effective aids to navigation. Mapping and charting of certain important areas, including approaches to proposed airfields was also accomplished.

As a result of this Expedition, it was decided to construct landing fields at Narsarssuak at the

head of the Julianehaab Fjord, and at Kipsisako, near Ivigtut, with seaplane bases at other locations. A central radio and aerological station was planned for Akia Island, near Kipsisako, with a secondary observing station elsewhere. These stations proved invaluable to Allied forces. The meteorological information, on the basis of which General Eisenhower set D-Day for the Normandy invasion, came largely from Greenland.

At this juncture it should be mentioned that Commander Smith, as a lieutenant commander, had studied abroad and in this country under outstanding scholars, and is said to have passed the Harvard examinations for a Ph.D. in oceanography with extremely high marks. Because of his great knowledge of Arctic phenomena, especially ice and icebergs, he became fondly referred to as "Iceberg" Smith. He gained renown as one of the world's foremost scientists.

On 9 April 1941, by agreement with the Danish Minister, the United States undertook the defense of Greenland under the Act of Havana of 30 July 1940. This authorized the United States to accept responsibility for Western Hemisphere defense. It gave us the right to locate and construct air fields for the defense of Greenland and the American continent as long as the emergency lasted. Denmark still retained its sovereignty over the "defense areas." The United States respected all of Greenland's laws, regulations, and customs, and safeguarded the welfare of its inhabitants. A similar agreement was made with Iceland a few months later.

Meanwhile, American neutrality in the European war was coming to a practical end. President Roosevelt had announced that the defense of Great Britain was vital to the defense of the United States. On 11 March 1941, the Lend-Lease Act had become law. Food was urgently needed by the British people, whom Hitler was trying to starve into surrender by his submarine warfare. The first Lend-Lease food transfer had been authorized 16 April 1941. In the succeeding eight months a million tons of American food was sent across the ocean, effectively tiding Great Britain over her most serious food crisis.

Enraged at our success, Hitler sent the giant battleship *Bismarck*, accompanied by the cruiser *Prinz Eugen*, to raid the Allied food convoys and to destroy the United Nations' supply lines. The

speed and power of *Bismarck* made her a deadly menace; not only was she the most powerful ship afloat, and so honeycombed with water-tight compartments as to be almost "unsinkable", but she was far larger than the 35,000 tons which official German sources gave as her displacement. No sooner had these German warships left Norway on this mission, than 46 Allied warships took up the chase. There followed one of the most spectacular sea battles of the war.

On 21 May 1941, seventeen Allied food ships returning to Europe were reported attacked and some torpedoed, 150 miles southeast of Cape Farewell, Greenland. *Northland* had rendezvoused with cutter *Modoc* at sea and was on her way to Boston, when both vessels were ordered to search for survivors of these attacks. *Modoc* learned from a tanker in a passing convoy that she had intercepted weak signals from the boats of *Marconi* which had been sunk the previous day 100 miles south of the main convoy. *Northland* proceeded to the scene of the main sinkings with full lights and colors displayed, broadcasting her position and purpose each hour. Throughout the period of search, visibility in mist, fog, and rain seldom exceeded two miles.

At noon on the 22nd, she reached the reported position 57° 41' N, 41° 21' W. Shortly afterward, Commander Smith in *Northland* sighted several bodies in life jackets, along with oil on the surface, wreckage, and debris. Two empty lifeboats and an empty life raft were found; a second raft was discerned, burnt and charred. At 1900 three vessels of the convoy were sighted, and it was learned that they had taken 53 survivors from these boats and rafts. A few miles to the southeast, the cutter found an abandoned tanker, *British Security*, completely burned and wallowing in the swell with decks awash—a gaping hole just forward of her bridge. Altogether, 120 persons were rescued by the convoy vessels.

Modoc, unsuccessful in locating *Marconi's* boats, joined *Northland*, and the two cutters searched the area. A British trawler had informed them earlier that eight ships had been torpedoed by 12 U-boats, and that 140 men were still unaccounted for. In the meantime, cutter *General Greene*, Chief Boatswain C. L. Jordan, on an oceanographic survey off Newfoundland, having intercepted a message from Headquarters, decided to join the

search for *Marconi* survivors. Meanwhile *Bismarck* was reported to be only 100 miles to the eastward.

The search continued, but by the 24th, *Modoc* and *General Greene* had worked into the vicinity of an air attack incidental to the *Bismarck* battle, in which eight planes and three naval vessels were involved. The cutters, under jurisdiction of the Treasury, were unmolested for they were a familiar sight in these regions. Nevertheless, anti-aircraft missiles from *Bismarck* narrowly missed *Modoc's* bow. British planes were inflicting damage on the German warship, reducing her speed until British battleships could come up. *Modoc* narrowly escaped attack during the evening by *HMS Prince of Wales*, which, fortunately, identified the cutter in time.

During an interlude, *General Greene* worked an area which had not then been searched by British vessels. On the 26th she picked up a *Marconi* lifeboat containing a chief petty officer and 19 men, who had been buffeted about by strong winds, snow, and rough seas for six days. In the afternoon they found another lifeboat with 19 survivors, who told a story of acute suffering and of having one of their number die in agony after drinking sea water.

On the same day, *General Greene's* officers saw four large battleships speeding northward; they heard heavy gunfire and observed thick smoke. The British ships had caught up with *Bismarck*. Hit many times and barely holding her own, the latter had received the following message from Berlin: "All our thoughts are with our victorious comrades. Hitler." From *Bismarck* went the reply: "Ship unmaneuverable; we shall fight to the last shell. Lutjens." It was at this time that the British battleship *Hood* blew up with all hands as a result of a salvo from the invisible *Bismarck* which touched off her magazines. On the 27th, *Bismarck* was southwest of Ireland attempting desperately to make a French port. Her guns were silenced, her mast blown away, and smoke and flames poured skyward. She finally turned over and sank with only 110 survivors out of a crew of 2,400.

The search for the unaccounted-for *Marconi* survivors was continued by *Northland* until the 31st, when further search was abandoned. In reporting the activity during the eleven days of search, Commander Smith wrote: "It is fortunate that there were no accidents and mistaken identi-

ties when all parties concerned were more or less on a hair trigger. It is equally certain, however, that both the British and German ships knew of our presence through our lights and regular radio broadcasts, and if any casualty had resulted it could fairly have been termed as plainly an overt act."

The Battle of the Atlantic was moving toward a climax, and the Royal Navy was trying to guard the already huge volume of North Atlantic shipping by itself. Against this background of great violence, the South Greenland Patrol, with cutters *Modoc*, *Comanche*, and *Raritan*, and the ex-Coast and Geodetic Survey ship *Bowdoin*, was established 1 June 1941, under the command of Commander Harold G. Belford. One month later, the Northeast Greenland Patrol with cutter *Northland*, the ex-Interior Department vessel *North Star*, and *USS Bear*, was organized under Commander Edward H. Smith, with Commander Carl Christian von Paulsen as second in command. Both patrols, consolidated in October of that year, became the Greenland Patrol, Task Force 24.8, under Commander Smith, operating under Commander-in-Chief, U. S. Atlantic Fleet.

Admiral Samuel Eliot Morison, USNR, in his excellent History of Naval Operations in World War II, writes that Smith "received orders from the Chief of Naval Operations, to do a little of everything—the Coast Guard is used to that." This "everything" meant keeping the convoy routes open for surface vessels, and the air routes for planes; breaking ice; finding leads in the ice for the Greenland convoys of merchant ships and transports; escorting such ships; rescuing survivors of submarine attacks; constructing and maintaining aids to navigation; reporting weather and ice conditions; and maintaining air and surface patrols. In addition, Commander Smith was to discover and destroy enemy weather and radio stations in Greenland; continue the hydrographic survey; maintain communications among the several United States and Greenland government posts; bring supplies to the Eskimos and the small Danish settlements; escort cryolite ships; and perform rescue missions for vessels in distress and crashed planes. Really, quite an assignment! "These duties", writes Morison, "the Coast Guard performed with exemplary fortitude and faithfulness throughout the war."

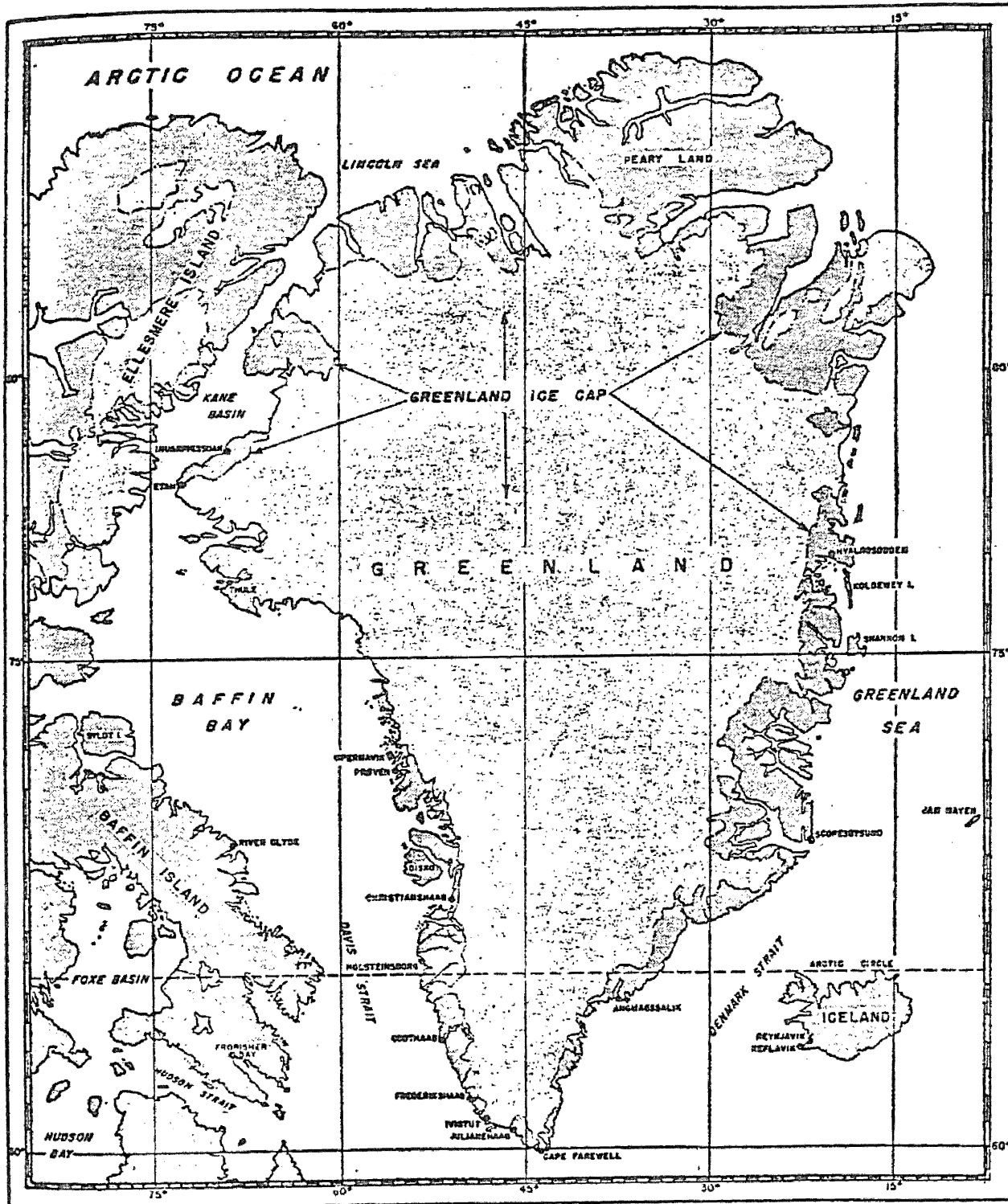
It took some time to organize regular patrols,

and the first weeks of official patrol were relatively uneventful. However, on 4 September 1941, the destroyer *USS Greer* was sunk by a German submarine while carrying mail to Iceland. On 12 September, the day following the President's warning to the Axis nations to stay out of American waters or take the consequences, Commander Smith noticed an apparently innocent fishing vessel. He recalled having been informed by some members of a Sledge Patrol of faithful Danes and Eskimos, that they had seen a party landing in a lonely fjord. Commander Smith stopped the fishing vessel and sent out a boarding party, who took her into a small body of water called McKenzie Bay, halfway up the east Greenland coast, to look her over.

At first the 27 persons on board, most of them Danish hunters and Norwegian trappers, claimed to be a fishing and hunting party. The leader of the expedition was a scientist. The one woman on board said she was a nurse. "Have you dropped off any men?" a Coast Guard officer asked. "No," answered everybody. After more questioning, however, these adventurers realized they were up against men who could not be bluffed. One of the crew said that two sets of "hunters" had been dropped off, one with radio equipment near the entrance of Franz Joseph Fjord, about 500 miles north of McKenzie Bay. The fishing vessel was identified as the Norwegian trawler *Buskoe*, controlled by German interests and servicing a radio station in Greenland.

Commander Smith immediately placed a prize crew on board the Norwegian. Examination revealed that the vessel was equipped with a main transmitter and a portable transmitter, a main receiver and a portable receiver, a portable engine-generator, and a control panel. The vessel was believed to be engaged in sending weather reports and information on Allied shipping to German U-boats and Axis-controlled territory.

Leaving *Buskoe* with the prize crew, *Northland*, now under command of Commander C. C. von Paulsen, set out to find the suspected radio station on the east coast of Greenland. The following night, the cutter anchored in a fjord about five miles from the place. Twelve men, led by Lieutenant Leroy McCluskey, were assigned to attack and capture the radio station. About midnight the landing party proceeded in a small boat to within



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a mile of the station. Making their way through pitch darkness and over icy ground, they at last found the so-called hunters' shack which had been described to them as the site of the radio station. Lieutenant McCluskey surrounded the shack with his commandos and, gun in hand, kicked in the door of the building and rushed in upon three men who were resting in their bunks. The German radiomen quickly surrendered and told all they knew. Their radio equipment and code were also taken. Under pretense of building a fire to make coffee for the Americans, the radiomen tried to burn some papers, but the Coast Guard party was too quick for the Nazis and the papers were seized. They turned out to be confidential instructions—Hitler's plans for radio stations in the far north—and of considerable value to the Coast Guard.

Discovery of the trawler and the radio station had been most timely, for their weather reports were just being made ready for transmission to Oslo, Norway. The captured vessel, with her crew and passengers, was taken to Boston for internment. Coast Guard seizure of *Buskoe* was the first naval capture by the United States during the period of emergency; we were not officially at war at the time.

When we entered the war on 8 December 1941, the Greenland bases were already in operation, but more small ships with a long cruising radius were needed. Commander Smith found them along the fishing docks in Boston. They were taken over by the Coast Guard, camouflaged blue and white, and given Eskimo names for animals—*Aroik*, *Aklak*, *Alatok*, *Amarok*, *Arluk*, *Atak*, *Arvek*, *Nanok*, *Natsek*, and *Nogak*. They were commanded by young officers, three of the regular Coast Guard and seven of the Reserve.

One of many results of Commander Smith's trip in 1941 was the establishment of a dog-team patrol whose duty it was to observe and report any person who was not an authorized resident of northeast Greenland. This "Sledge Patrol", organized late in 1941, was made up of faithful Danes and Eskimos whose knowledge of the terrain and its inhabitants was unsurpassed. In that great expanse of snow and ice, where it is difficult to recognize people at even a short distance, only natives covering the territory on sleds, and well acquainted with the regular inhabitants were likely to detect a stranger. The Danes were, for the most

part, hunters who lived in wooden shacks situated at varying intervals, sometimes a hundred miles apart. For their fresh food they depended chiefly on what they caught.

The Sledge Patrol worked in close cooperation with the Coast Guard, the U. S. Army, and the Greenland Administration which was wholly isolated from the government in Denmark. Sledge Patrol members were eventually accorded military status, working as a unit of the U. S. Army.

The Coast Guard learned that almost every other shack was at that time a weather station sending information by radio to Denmark. The first thing we did after the Danish invasion was to dismantle these stations to cut off weather and other information from the Germans.

It might be pointed out at this juncture that for nearly two years afterwards there were suspicions that enemy radio shacks still existed in Greenland. While all shacks and strangers, especially those in northeast Greenland, were systematically inspected and checked by the Sledge Patrol, it was suspected that Nazis were still operating weather stations when some Army fliers, asking for weather information in secret code, were answered *in secret code* and ran into a heavy storm which caused them to crash. These were the same fliers for whom Lieutenant Pritchard gave his life in his attempt to rescue them. The false information apparently was sent from a German submarine or radio station on the Greenland east coast.

While the Coast Guard was concerned with discovering and destroying German weather radio stations, it also set up some establishments for the United States. Aids to navigation in Greenland were few and far between. Working parties under Coast Guard officers constructed much needed aids. The first, under Lieutenant (jg) Carl W. Rom built Gamatron Radiobeacon Station during the winter of 1941-42. A second party under Lieutenant Joseph W. Havlicek established Simiutak Light Station, Karjartalik Light and Radiobeacon Station, and Cruncher Island Light and Radiobeacon Station, from April to December 1942. A third party, headed by Lieutenant Frank P. Ishmeal, USCGR, installed the rest of the Greenland aids, completed various repair projects, and designed the Army-Navy Administration Building at Narsarsuaq, about 50 miles up Skov Fjord. Many cutters took turns serving as workshops for these

jobs and in transporting men and their supplies.

Convoy traffic increased greatly after the United States officially entered the war. Long range German planes patrolled the east coast of Greenland and thus air attack in the area was a threat through 1942. The number of Coast Guard vessels on Greenland Patrol also grew, as did the number assigned to weather patrol in the North Atlantic. These two activities were closely related and often blended together.

Greenland Patrol cutters made many thrilling rescues. One came on 15 June 1942. *Escanaba*, bound from Cape Cod to Halifax, while hurrying to rejoin her convoy after attacking a submarine, saw flares and rockets indicating a submarine attack on the convoy. Firing star shells, the cutter came to the position where *USS Cherokee* (fleet tug) had gone down and survivors were milling around in the freezing water. Rescue operations started immediately in pitch darkness with a volunteer crew in a monomoy surfboat. Twenty survivors were taken from the water and brought on board. Several other vessels present unfortunately showed lights during this operation. This brought rescue work to a halt to avoid submarine attack.

With the great increase in convoys, and in the war tempo at sea, came many contacts with the enemy, and Coast Guard vessels made every effort to run the enemy down. While *Northland* was patrolling a circular area with a 60-mile radius in Davis Strait on 18 June 1942, she made an underwater contact and leapt to the attack. The contact was on a bearing 265 degrees at a range of 2,300 yards. A minute later a firmer contact at 1,900 yards was made. The cutter headed straight for the submarine and dropped five 300-pound depth charges. Turbulent water, oil and air bubbles appeared close to the first charge and there was an oil slick 100 yards in diameter. After the second and third charges, reverberatory noises were heard and felt, and oil bubbles continued to rise in profusion. The cutter continued the search for 14 hours before leaving for emergency repairs at Iceland. Although German records discovered after the war gave no report of a submarine lost in this position, perhaps this sub was one of those whose fate the Nazis classified as "unknown."

There were numerous attacks on convoys, of course. Only a few can be chosen for special comment; many worthy of mention must be omitted

because of space limitations. One attack occurred on 25 August 1942. Cutter *Mojave* was escorting the U. S. Army transport *Chatham* from Sydney, Nova Scotia, to Greenland in one group of convoy S-G6, while cutters *Mohawk* and *Algonquin* were escorting steamships *Laramie*, *Biscaya*, *Arlyn*, *Alcoa Guard*, and *USS Harjurand* in another group. At 0900, when near the north end of Belle Isle Strait, *Chatham* was torpedoed.

Twelve hours later, at about 2100, when off Chateau Bay, an alarm was sounded in *Mohawk* and all hands took their battle stations. Personnel in the CPO quarters and in the fireroom heard a hissing or whining sound pass under the ship, undoubtedly the sound of a torpedo. This was neither reported to the bridge nor picked up by the QC (underwater sound) operator. Thirty-five minutes after the first alarm, an explosion was heard. A faint white glow was seen on *Laramie's* bow. A second explosion rent the air about five seconds later followed by another white glow near *Laramie* or *Arlyn*. *Mohawk* rushed to her station on the convoy's left flank. A minute later a third explosion thundered off the cutter's port bow.

Laramie, a Navy tanker, sent up two white rockets. *Mohawk*, speeding to her assistance, and finding her down by the head and listing to port, proceeded down the moon in search of the submarine; she hunted unsuccessfully until 2300. Meanwhile, *Laramie* and *Algonquin* were firing projectiles and star shells.

The situation had become confused. *Algonquin* escorting two ships, was heading southeast, but *Mohawk* did not follow. The submarine which had sunk *Chatham* had remained in the vicinity, giving rise to the belief that if injured *Laramie* were left unattended, the sub might finish her off. *Arlyn* had been sunk, but no word of this had been received until 2259. *Mohawk* sighted red flares; if these were from lifeboats, it was assumed they could be only 5 miles from shore and assistance, therefore, was not needed. *Mohawk* followed an oil slick and finally caught up with *Laramie* shortly before midnight. The cutter, being told of an underwater echo 2,000 yards distant, ran down the bearing but established no contact. She dropped four depth charges as an embarrassing attack. At 0100 *Mohawk* asked a naval patrol plane to look for possible survivors of *Arlyn*, five miles southeast of Chateau Bay. She continued escorting

Laramie until relieved by *USS Bristol*. *Laramie* and other remaining vessels of the convoy were then safely escorted to port in Greenland.

Many such experiences were had by Coast Guard-manned convoy escorts. A Greenland Patrol billet was certainly no sinecure; it was "guarding the coast" with a vengeance.

The appearance of oil on the surface of the water following the explosion of a depth charge did not necessarily mean the U-boat had been destroyed. The explosion might have merely ruptured the portion of the outer hull where the fuel oil was stored, and so produced an oil slick. Sometimes submarine crews themselves released oil to simulate destruction when they felt the explosions too near them. The subs were tough; there were cases where depth charges tore away conning towers with men clinging to them, and yet the subs subsequently limped back to port! Whales and icebergs, contacted on the underwater sound apparatus or radar, were often mistaken for submarines. Many depth charge attacks, however, served to keep the subs down and were at least protective.

In November 1942, *Northland* (Captain Charles W. Thomas) arrived at the Norwegian island of Jan Mayen, well north of Iceland, to establish a high frequency direction finder station (HF/DF). *Northland* landed 41 officers and men with 30 tons of stores and equipment under extremely difficult conditions, both geographic and weatherwise. The Norwegians on the island called the U. S. radio station there "New Chicago" because it was protected from aerial attack by machine guns!

To appreciate duty in Greenland waters, some mention of ice conditions will be helpful. During certain seasons the southeast coast of Greenland is surrounded by a belt of "storis" 20 to 30 miles wide; this is loose pack ice of small icebergs or growlers, sprinkled with a few larger icebergs. Small bergs are about the size of a Greyhound bus, while large ones could cover several city blocks. Even the sturdiest vessels, especially built for icebreaking, were constantly damaged by this heavy Arctic ice. Bent propeller blades caused the vessel to vibrate, and operations would have to be suspended during repairs. Many cutters made temporary repairs themselves and continued on their missions. The Coast Guard's Greenland Patrol served logistically all the Army, Navy,

and Coast Guard bases in Greenland. Food and clothing for the men had to be brought in, whether or not the fjords were frozen. In some places fjords froze to a thickness of six to eight feet. The cutters found leads through this ice or broke it, so supply ships could get through.

A ship in a clear course of water one minute might find its way blocked the next, so swiftly did the ice situation change at times, especially with high winds and swift currents. Surrounded by ice, the cutter would have to send out or call for a plane to survey the area for miles around, looking for leads through which open water could be reached. Without such information from a plane, a cutter might follow one of several leads only to be again surrounded by ice. Smoke flares were first used in July 1943 by PBVs to show the position of leads. Where planes were not available, vessels sometimes were obliged to spend weeks in the ice, always in danger of being crushed.

The escort vessels experienced great difficulty in keeping track of their convoy ships when fog combined with ice to cause more trouble. Bringing stragglers lost in the fog back into line was, therefore, an important part of routine escort duty.

The trawlers taken over by the Coast Guard for work around Greenland and in the North Atlantic were thoroughly uncomfortable, cramped, and wet; but they were generally good sea boats and they performed their duties well. Few ran into serious situations, but *Natsek* was lost on 17 December 1942, without a trace.

A group of three vessels was to proceed from Narsarsuak, Greenland, to Boston. This group comprised *USS Bluebird* (256 gross-ton-mine-sweeper) commanded by Lieutenant Commander James F. Baldwin, USNR, who was senior officer; converted trawler *Natsek* (Lieutenant (jg) Thomas S. LaFarge, Jr., USCGR); and converted trawler *Nanok* (Lieutenant Magnus G. Magnusson).

In conference on 13 December, it was decided that *Bluebird* would lead, and the three would proceed in column. *Bluebird* and *Natsek* got under way about 0800; *Nanok* was delayed half an hour to receive mail and passengers. *Bluebird*, while proceeding down Skov Fjord, closed cutter *North Star* which was proceeding up the Fjord, to receive mail, and then closed a trawler to receive a passenger. During this time, *Nanok* joined *Natsek*

and, receiving no signal from *Bluebird*, the two proceeded to sea. When *Bluebird* was ready to proceed, the other two were three or four miles ahead, and an attempt by her to communicate with the trawlers by blinker failed. *Natsek* and *Nanok* with speed exceeding that of *Bluebird*, soon parted company with the latter. The trawlers kept together, and on 17 December, at about 0100, they sighted Belle Isle Strait.

About 0215 snow began to fall and Belle Isle Light became obscured. The commanding officers of the two trawlers conferred by hailing back and forth, and decided to proceed during darkness through the Strait as long as their positions were known. *Natsek* was to lead and keep *Nanok* informed of water depth, since the latter's fathometer was inoperative. The weather thickened, and in heavy snow the two vessels soon lost visual contact with each other.

About 0245 *Nanok* stopped and lay to for about four hours; then, determining her position, she proceeded. When Point Amour Light was abeam the weather cleared; the wind hauled to the west and within an hour reached gale force. Spray, whipped up by the high wind, froze and formed ice on the ship. By nightfall of that day (still the 17th), *Nanok* was west of Rich Point with heavy ice conditions prevailing. For three days *Nanok's* crew worked long hours to break ice from the ship's structure to prevent dangerous accumulation. On the 22nd she passed south of Cape Sable, the southwestern tip of Nova Scotia, and continued toward Boston. *Bluebird* followed *Nanok* in, arriving at Boston on 26 December.

Nothing more was ever heard of *Natsek*. She was seaworthy, only a year old, 116 feet long and of 225 gross tons. Search by air and surface failed to discover trace of her. The most probable cause of foundering was structural damage which might have destroyed watertight integrity, or loss of stability from ice accumulation. Possibly the work of freeing the ship from ice was not started in time or pursued with enough vigor. We shall never know.

Natsek's commanding officer, Thomas S. LaFarge, Jr., USCGR, was a grandson of John LaFarge, the noted painter. He was himself an artist and had joined the Coast Guard Reserve to paint while performing his regular duties. With his experience as a yachtsman, he had accepted one

of these tough commands. Even during his one year of Greenland duty, he had turned in many fine paintings for Coast Guard Public Relations exhibits.

In Chapter 3, the story of Lieutenant Pritchard's thrilling attempt to rescue the crew of an Army Flying Fortress from the Ice Cap was told, and how this brave officer lost his life in the attempt. It will be recalled that Ensign Richard L. Fuller led an expedition to find Pritchard's plane. An aftermath of all this came on 14 January 1943, when Ensign Fuller, with a civilian dog driver, Mr. Johan Johansen, again set out for the Ice Cap Station near Comanche Bay, this time in an attempt to rescue the ditched Army plane. Running by compass, they reached the Ice Cap Station that evening.

They found Sergeants Joe Liston and Arthur Hall there in a station unfit for human habitation. Buried under five feet of snow, the roof was dripping like a shower; the water on the deck was two inches deep, there were no sanitary facilities. The only light was one gasoline lantern. A blizzard began. Fuller and Johansen returned to the Beach Head Station, but the Army men remained in the wretched hovel until 25 January. Then they were able to make the Beach Head Station on skis dropped by a plane.

Six days later, Fuller and Johansen again set out for the reported position of the missing PN-9E. They reached the Ice Cap Station, but the first three days of February were unfit for travel. They set out on 4 February in a stiff northerly wind, with good visibility and the temperature 12° below zero. At midday a B-17 from Ikateq dropped supplies and equipment, all of which were cached, except trail flags and a "walkie-talkie." The next day they continued on toward the reported position of the downed plane, aided by a B-17 which gave directions as it flew over, accompanied by two PBYS. The Army planes then flew to where all but three of the survivors were camped, six miles from their plane; Colonel Bernt Balchen, U. S. Army, landed a PBY and evacuated them.

When about 12 miles from the wrecked plane, Fuller was informed by the B-17, which dropped a tent and some clothing, that there had been no signs of life for several days from the three survivors remaining with the downed PN-9E. That night, wind made it difficult to pitch the tent; in the

process Ensign Fuller froze his right foot. Next morning he decided to turn back because of this, as well as poor visibility and a shortage of dog food. For two days he and Johansen ran on compass from flag to flag back to the Ice Cap Station. There, a 3-day hurricane with extreme cold caused the death of several dogs. Gales and snowstorms bogged the men down for the rest of February. Dog food and heating fuel became scarce and on the night of 2 March, with the situation becoming desperate, they reached the Beach Head Station with only three dogs pulling. Eight of the original 15 dogs had perished, and four were crippled. They remained at Beach Head Station until May, digging for fuel and food in the caches, and keeping the tunnels in the living quarters clear.

Pharmacist Hearn amputated two of Fuller's frozen toes and extracted the offending teeth of two men who had developed severe toothaches. On 8 May 1943, all Coast Guard personnel were removed from Comanche Bay. All members of the trail party were commended by their superior officers for their attempts to rescue the Army fliers from the Ice Cap. Ensign Fuller received the Navy and Marine Corps Medal, and the other members were recommended for official commendation. This expedition had to be evaluated more in terms of heroism than accomplishment.

While this effort was in progress, several other events took place. In a remarkable rescue at sea on 3 February 1943, *Escanaba* (Lieutenant Commander Carl U. Peterson) and *Comanche* (Lieutenant Commander R. R. Curry) saved a total of 225 men out of 299 who were rescued from the transport *Dorchester*, which had been attacked by a submarine about 150 miles south of Cape Farewell. *Dorchester*, with 904 men on board, was one of three vessels which these cutters were escorting from St. Johns, Newfoundland, to Greenland. She was torpedoed shortly after midnight and sank soon afterwards. The cutters worked in absolute darkness for more than eight hours, rescuing men in the water as submarines hovered nearby. Many men died of shock in the freezing water. Cutters *Duane* and *Tampa* tried to locate and attack the submarines and also searched for survivors.

It was here that the retriever method of rescue was first used. The majority of men in the water at this latitude were absolutely helpless and unable to climb up sea ladders or cargo nets slung

over the side. It was futile to throw them lines. Instead, Coast Guardsmen were lowered over the side in rubber suits. They acted as retrievers, helping the men into boats or onto rafts by securing bowlines under their arms so that they could be pulled up over the side. These retrievers were in and out of the water for hours. Some swam long distances to save men who otherwise would have been lost. The work had to be done fast because of the freezing water and the presence of enemy submarines.

Individual heroism in this operation was commonplace, and resulted in many decorations. It was in *Dorchester* that three chaplains gained immortality by giving up their life jackets to others and going down with the ship. Of the 133 survivors picked up by *Escanaba*, one died soon after being taken on board. Twelve bodies were also recovered. *Comanche* rescued 93 men. A few months later, on 13 June 1943, *Escanaba* herself was destroyed, as is explained in Chapter 14.

Soon after the *Dorchester* incident, while escorting a convoy on 20 March 1943, cutter *Modoc* received a report from cutter *Algonquin* that the British vessel *Svend Foyne*, in convoy, had collided with an iceberg at 0450 the previous day about 100 miles south of Cape Farewell. The cutters immediately began search in the indicated area. Shortly after midnight on the 21st, they contacted cutter *Aivik* and verified the stricken vessel's position; they learned that passengers and crew had abandoned ship and were drifting in lifeboats and rafts. *HMS Hastings*, contacted by the cutters, also joined the search.

Svend Foyne was finally sighted in a group of two large and several small icebergs. Nearby were several lifeboats and cutter *Frederick Lee*. At 0133, *Modoc* maneuvered alongside one lifeboat and took on board 25 survivors—a difficult operation due to the deep roll of the vessel and the helplessness of the victims. At 0143 another lifeboat was located, and in 15 minutes, 16 more survivors had been rescued under similar difficulties. The other vessels also picked up survivors. *Modoc* found a raft 40 minutes later with men so weak they could not make lines fast; two or three fell into the freezing water and were drowned. Only two could be saved by *Modoc*. *Aivik* finally went alongside the raft and took off the rest. Three of *Modoc's* crew, Leonard W. Campbell, Chief Boat-

swain's Mate, John T. Hendrix, Chief Electrician's Mate, and William F. Coultas, Seaman First Class, particularly, distinguished themselves in these rescues by voluntarily going down the nets and attempting to secure lines about those struggling in the water. They were later awarded the Navy and Marine Corps Medal.

The rescue vessels took turns searching for other survivors and screening the other ships from possible submarine attack. At 0920, *Modoc* discontinued the search and *Hastings*, with 16 survivors, departed for Iceland. The other vessels transferred their survivors to *Modoc* for transportation to St. Johns. There were 22 from *Algonquin*, 42 from *Aivik*, and 20 from *Frederick Lee*; with those in *Modoc* and *Hastings*, the total rescued was 144.

One small group, known as the Canadian Arctic Task Unit, had as its mission the assistance and support of the U. S. Army in its area, through exercising Naval control over, and safeguarding, merchant vessels there. Coast Guard station vessels of this group were *Aklak* at Chimo and *Arluk* at Frobisher. The mission included arranging shipping schedules, routing, and providing escort, air coverage, and antisubmarine air sweeps if needed. The open period was short, July to October. The station ships, with *USS Bear*, which had no definite station in 1943, met Sydney-Greenland convoys and escorted vessels bound for the Canadian Arctic to a safe and sheltered position, usually in lower Frobisher Bay. There destinations were checked, mail was distributed, and the group was split under local escort as required.

Planes patrolled at every opportunity along the entrance to Hudson Strait and Frobisher Bay. They made the first ice survey on 30 May 1943, and these surveys continued as long as planes were available. Vessels were assisted through and around ice fields, leads were pointed out, and general limits of the ice fields to be encountered were indicated. Ice surveys of important portions of Labrador and Baffin Land as well as various hydrographic surveys were accomplished during the summer of 1943.

In the Spring of 1943, a German weather and radio station was finally uncovered on the east coast of Greenland. Three members of the Sledge Patrol, noticing two tiny black spots moving along the ridge of a mountain in the coastal region,

searched an empty cabin nearby. Sleeping bags, German uniforms, weapons, and food convinced them it was being used by the enemy. An alarm was sent out. A few nights later the Nazis appeared at another Sledge Patrol station. Challenged by a guard, they opened fire with automatic rifles and machine guns. The Danes, outnumbered, fled. One Dane was killed later when he returned unwittingly to this captured station; with his ears covered by a parka, he failed to hear the Nazi command to halt. The next day, another Sledge Patrol member walked into a Nazi trap. Directed to guide the Germans to a nearby Sledge Patrol station, the Dane cunningly persuaded the Nazis to divide into two parties and sent one on a long roundabout route to the station. Then he overpowered and took prisoner the one remaining Nazi left to guard him. The Dane delivered him safely into U. S. custody after a fabulous 40-day, 300-mile journey over the ice.

A task force of Coast Guard bombers, together with cutters *North Star* and *Northland*, sailed from Narsarssuak on 1 July 1943 to search out the enemy base from which the Nazis had come. Three Danes with 40 dogs completed this expedition, which arrived at Angmagssalik on 10 July. *North Star* became trapped and damaged in the ice there and had to proceed with *Northland* to Reykjavik, Iceland, for repairs. Undamaged *Northland* remained at Reykjavik but 14 hours and again headed for East Greenland to search for an enemy supply ship believed still afloat in Hansa Bay. En route, she fired on a German Junkers bomber without result.

Arriving at Shannon Island on 21 July, *Northland* sent up her plane for air reconnaissance. It was found that the Danish Sledge Patrol station, 30 miles to the south at Hansa Bay on Sabine Island, had been completely destroyed by fire. A landing force investigated and found indications of intended permanent Nazi occupation, but no actual occupation. All main buildings were burned; there was evidence everywhere of a bitter fight and subsequent hurried evacuation, evidently by air. It developed that Colonel Bernt Balchen, USA, had attacked the site by air on 25 May, apparently with complete success.

Only one German officer was eventually found; he identified himself as Dr. Rudolph Sennse, "assistant surgeon" and physician of the Nazi expedi-

tion. He had lost his dogs and sledge in an ice crevasse while scouting, and on return to camp had found the Americans there. He had been the Gestapo man of the Germans' Sabine Island garrison, and he was to take back information about the land and its people. Dr. Sennse had been ranging over northeast Greenland, as far south as Scoreseby Sound, when Colonel Balchen bombed the Sabine Island installation. With his comrades gone, the station destroyed, and *Northland* present, he decided to give himself up rather than face starvation. Captain Charles W. Thomas of *Northland* had Sennse placed under guard and quartered him in the sick bay. This incident set off an intensified search for other Nazis and their installations.

On 23 July 1943, *North Star*, proceeding from Iceland to northeast Greenland, encountered a German reconnaissance plane north of Jan Mayen Island. This plane engaged in a machine gun duel with the cutter's gunners, was hit, and disappeared over the horizon, trailing heavy black smoke.

In Chapter 3, Coast Guard Patrol Bombing Squadron Six was mentioned. This special squadron, assigned to the Greenland Patrol, was probably the most colorful of all the Coast Guard aviation units. It was commissioned on 5 October 1943 at Argentia, Newfoundland, and sent to Narsarssuak, Greenland, to relieve Bombing Squadron 126. Its first commanding officer was Commander D. B. McDiarmid, USCG. The position of this unit was singular, its organization distinctive, its work colorful and dramatic. Personnel were entirely Coast Guard, but Navy planes were used.

The functions of Bombing Squadron Six were fivefold: air coverage for convoys, antisubmarine patrol, mail delivery, rescue duties, and observational surveys of ice conditions. Administrative control was vested in the Commander, Fleet Air Wing Nine, with the exception of personnel matters, which were under the immediate direction of Coast Guard Headquarters. The main base was at Narsarssuak, but detachments operated from Argentia and Reykjavik, and in the Canadian Arctic. After six months of operation (April 1944) the Squadron had 12 operational PBY-5A type Catalina planes based at Narsarssuak, and 5 officers, 24 aviators, 4 aviation pilots, and 152 enlisted men, including the pilots.

It was common for planes to fly under the most

trying weather conditions over several thousands of square miles of Greenland ice caps in a single rescue search. On routine patrols the bombers not infrequently sighted stranded vessels, or crews which had sometimes been adrift for weeks in the stormy northern seas. Radioed messages would send Coast Guard cutters speeding to the rescue.

There were operational difficulties, of course. Greenland weather and terrain limited aviation activities. The island has a mountain range of some 15,000 feet elevation extending around the entire coast, with fjords and harbors closed during the winter months by pack ice. About 85 percent of the interior is covered by a great ice cap of almost unbelievable thickness. The main squadron base had a single concrete runway down a sheltered fjord, and seven Quonset huts housed all activities including maintenance shops and barracks. Personnel were rotated frequently because of the rigorous duty. Two planes, assigned to the Canadian Arctic during summer and autumn, operated chiefly over Labrador, Cumberland Island, and Baffin Land, and were engaged primarily in rescue, reconnaissance, and coverage missions. Patrol and observation flights carried these planes as far north as the Ugaba, Frobisher, and Hudson Bays.

The duties of Bombing Squadron Six required mostly high altitude flying; the extensive ice caps made landing on about 90 percent of the island impractical, if not impossible. Flying at high danger point, with wind velocities sometimes as great as 120 to 185 miles an hour, far from landing bases, required high courage and expert skill; well trained pilots and crews were necessary. The men selected for this duty contributed more glory and renown to Coast Guard aviation.

This Squadron flew 6,235 hours between August 1943, and the end of November 1944; this represented 638,998 miles cruised, an area of 3,213,605 square miles searched, and many assistance flights and memorable rescues. Assistance rendered to grounded crews or pilots usually consisted of spotting survivors, dropping emergency kits and supplies, and marking the spot for later rescue. Most flights, however, were routine convoy coverages and ice patrols. For a period of three months in 1944 Lieutenant C. H. Allen maintained an average of more than 100 hours a month in the air over difficult Arctic terrain. The two Iceland planes under Lieutenant Commander G. R.

Evans, flew 410 hours during 60 flights in about the same period. Some 20 percent of this was night flying and about 15 percent was instrument flying under the most trying conditions of snow, ice, sleet, and rain. Several 300 to 400-mile reconnaissance flights were made in extremely low temperatures with unheated planes. During fiscal year 1944, the Squadron aided 43 planes and vessels, and rescued or assisted 47 persons. One medical case and 87 other persons were transported. Of the other 1,153 flights, 71 were for assistance, 346 for antisubmarine patrol and convoy coverage, and 736 were routine missions.

Vessels on Greenland Patrol in October 1943, when activity was close to its peak, were the original cutters *Northland*, *North Star*, *Modoc*, *Comanche*, *Raritan*; USS *Bear*, and the Coast and Geodetic ship *Bowdoin*; and converted trawlers *Arvik*, *Aklak*, *Alatok*, *Amarok*, *Arluk*, *Arvek*, *Atak*, *Nanok*, and *Nogak*. In addition were cutters *Active*, *Algonquin*, *Arundel*, *Faunce*, *Frederick Lee*, *Laurel*, *Manitou*, *Mohawk*, *Mojave*, *Storis*, *Tahoma*, *Tampa*, and *Travis*. There were the Coast Guard-manned naval vessels *Albatross*, *Bluebird*, and SCs 527, 528, 688, 689, 704, and 705.

On 21 November 1943, the Greenland Patrol was placed under command of Commodore Earl G. Rose, USCG.

Just one week later, an AT-7 plane was reported lost. Commander McDiarmid (Commanding Patrol Bombing Squadron Six) began a search two days later, covering an area of 6,000 square miles for two days. Lieutenant (jg) B. B. Dameron, Lieutenant D. M. Morrell, Lieutenant A. W. Weuker, R. E. Asterberg, C.A.P., Lieutenant A. F. Perkins, and Lieutenant Commander R. R. Johnson all joined the search. It was Weuker who finally located the wrecked plane on the edge of the Sukkertoppen Ice Cap at 65° 52' N, 50° 22' W, on 1 December. Black debris was seen scattered with a smudge on the snow north of it. On a second flight, on the 7th, Weuker was able to mark the spot with flag stakes. Final verification did not come until the 21st when photographs were successfully taken to guide the actual rescue party. A Coast Guard PBV-5A directed this party on 5 January 1944 over the last 10 miles to the wreckage; dropped provisions; and otherwise assisted.

Heroism and tragedy marked the rescue by *Comanche* (Lieutenant Langford Anderson) on 15-16 December 1943, of 29 men and a dog from the 1685-ton Army freighter *Nevada*. The stricken vessel had been abandoned about 1300 on the 15th when her forepeak and No. 1 hold became flooded and pumps could not keep up with the inflow of water. She finally went down in a raging gale about 200 miles southwest of Cape Farewell, Greenland. Detached at 1352 on the 15th from escorting a Newfoundland-to-Greenland convoy, *Comanche* set out to aid the foundering ship in bad weather which turned into a furious storm as early darkness fell.

The wind reached 60 miles an hour, whipping up huge seas. Heavy snow squalls cut visibility to zero. *Comanche* reached *Nevada* after seven hours, to find the wallowing freighter down by the bow with a 30° list. Receiving no answer to the usual challenge, Lieutenant Anderson illuminated the vessel with his searchlight and identified it. The boat falls were empty and the ship appeared to have been abandoned. Two red flares downwind signified the location of the lifeboats, and the cutter proceeded in their direction. At 2231, with the storm at the height of its fury, the cutter sighted a lifeboat containing about 30 men who had been fighting the rising seas for nine hours. They were praying and singing, with shouts of "Thank God!" rising above the howl of the gale. All hands in *Comanche* were ordered to rescue stations, and volunteers in rubber suits stood by to dive overboard.

The chances of bringing the lifeboat alongside in those heavy seas were slight. One minute it lay in the trough far below the cutter's rail, and the next it would be lifted high above her deck on the crest of a comber. After many attempts, a sea painter was passed by heaving line, making it possible to bring the boat along the starboard side. Three men were hauled on board. Then the sea pitched the lifeboat under *Comanche's* No. 1 lifeboat which was rigged out. Three other survivors leaped on their boat's gunwale, preparing to jump to the cutter on the next upsurge, despite orders from *Comanche* to remain seated. Falling into the sea, one sank immediately and the other two drifted away. The lifeboat was cut loose while *Comanche* headed for the men in the water.

As the drowning men were held in the search-

light, four volunteers in rubber suits, with bowlines under their arms, were lowered over the side one by one. William G. Mitchell, Storekeeper First Class, was the first to dive into the heavy seas in an effort to rescue the two men struggling in the water. He was smashed unconscious against the side of the cutter and hauled back. Arthur Nickerson, Carpenter's Mate First Class, dived next. He nearly succeeded, but after getting his legs around the survivor and being hauled to the ship's side, he too was battered into unconsciousness, and hauled on board. The survivor had slipped from his grasp. Robert C. Vile, Fireman First Class, was third. After reaching his man and towing him to the cutter's side Vile, in turn, was battered and beaten by the sea into a state of helplessness; his man slipped away, and when last seen, was apparently dead, floating face down supported by a life preserver. Vile was pulled to safety with difficulty.

The second survivor was still alive, so *Comanche* headed for him. Philip Feldman, Fireman First Class, volunteered to go over the side. Poised on the rail in a rubber suit, Feldman was about to dive. In the darkness a sudden snow squall hid the man from view, and at the same moment the cutter's searchlight burned out. By the time the squall had passed and new carbons were placed in the searchlight, the man in the water could not be found.

Meanwhile the lifeboat with 26 men had been temporarily lost, but was soon located. Two unsuccessful attempts were made to pass a line by a shoulder line-throwing gun. At last a heaving line was thrown into the lifeboat and a sea painter made fast to a thwart. The surging sea pulled the thwart loose but not until several survivors had been hauled to the cutter on the ends of long bowlines passed over their heads and under their arms. Despite four interruptions when thwarts were pulled out, the remaining men were pulled one by one to safety. The last man placed his line around "Grondal", the mascot dog of *Nevada*, and consented to be saved only after the dog had been rescued.

Later, on the 17th and 18th, *Storis*, *Modoc*, and *Tampa* joined in the search for additional survivors, but abandoned it on the 19th. It was learned that Captain George P. Turiga, with 31 of his crew, had been in a second lifeboat which

had capsized on leaving the ship. Two rafts on the *Nevada* had also been cut loose, and some men were seen to scramble on board them, but there was no chance for men to live on rafts in that storm. Boarding and salvage work was impossible in the heavy seas and towing the steamer could not be undertaken. On 18 December 1943, *Nevada* sank in position 55° 27' N, 47° 13' W. Later, Mitchell, Nickerson, and Vile received the Navy and Marine Corps Medal, while Feldman's action was recorded under "Meritorious Conduct" in his service record. All were highly commended by Lieutenant Anderson.

Weather patrol might be considered a subsidiary activity of the Greenland Patrol. This was carried out in the North Atlantic by various Coast Guard vessels. Weather observations proved so valuable that in the Spring of 1944 the number of stations was increased from two to six. On patrol 24 hours a day, these vessels, besides sending in weather reports six or eight times daily, were on the lookout for enemy aircraft, surface ships or submarines, sudden storms, and ditched planes. They acted as plane guards serving a growing number of American and British transatlantic flights. It was estimated that, during 1944, there was a daily average of 54 flights across the North Atlantic or in the Greenland area, exclusive of 50 Naval Air Transport flights a month between Newfoundland, the Azores, and Europe, and about 100 flights a month by chartered commercial planes. Stations in the Greenland area during 1943 were in Davis Strait, Denmark Strait, and south of Cape Farewell. All stations kept in touch with every plane in the area by radio. This activity is treated separately in Chapter 9.

The battle with the German weather and shipping observation expeditions to Greenland came to its climax between July and October of 1944. Four cutters finally smashed through ice packs a few hundred miles south of the North Pole, to break up a determined Nazi effort to establish fortified bases on the northeast coast of Greenland. Concerned were *Northland* and *Storis*, and the newly commissioned icebreakers *Southwind* and *Eastwind*. Together, they captured 60 Germans, routed three German trawlers, and destroyed two enemy weather and radio stations.

The Sledge Patrol had reported a Nazi weather and radio station in the neighborhood of Shannon

Island. The Sledge Patrol officer had been surprised by a Nazi officer while observing the station and had shot the German in a gun duel.

In July, *Northland* and *Storis* were sent to the area to furnish supplies for the Sledge Patrol and to destroy the reported station.

The cutters carried some Army personnel for a joint Army-Coast Guard landing force. A platoon of 24 men under Lieutenant Philip S. Pepe and Ensign Benjamin D. Fleet from *Northland* joined a *Storis* landing party of 15 under command of Lieutenant (jg) LeWayne N. Felts for the attack. The 25 Army men were commanded by Captain Bruce M. Minnick and Second Lieutenant Robert C. Nelson. It was planned for the party to land on the island and attempt to go overland from the south to the Nazi installation which was known to be fortified with machine guns, rifles, and grenades.

As the ice pack had moved into the bay in front of Cape Sussi, the location of the enemy base, the landing force hoped to surprise the Nazis. Unfortunately, bad weather bringing heavy snow, sleet and mushed-out trails, made it impossible to penetrate inland more than six miles. A stronger force was put ashore three days later. Part of this group was to make a base camp on the way to Cape Sussi from which the attacking Americans could operate, but weather spoiled these plans, too. Eventually, the landing force, worn and weather-beaten, arrived at Cape Sussi. Meanwhile, a shift of the wind had opened leads through the ice pack in the bay, so *Northland* moved around the island and sent another landing party ashore.

The Americans found a deserted Nazi building, so well camouflaged that it could be seen only from a certain angle. Smashed instruments indicated a hasty flight. Search disclosed that ice caves nearby contained a large stock of gasoline, food and ammunition. Parts of a radio capable of direct communication with Germany were discovered. The Americans fired the base, and returned to their ship.

As the cutters were leaving, *Northland's* lookout reported a vessel caught in the ice about four miles away. Heavy pack ice prevented close approach, but from the air the vessel appeared to have been abandoned. An investigation party of 16 men under Lieutenant F. H. Harmon went over the ice to the vessel and reported back that she was

a 155-foot armed Nazi trawler, beset and crushed by the ice. She was gutted by fire, and an explosion had holed her badly. It was evident that the German crew and other expeditionary passengers had moved all food, ammunition, and supplies to the ice and to the building where they had lived for some time. Two anti-aircraft guns had been removed from the ship and set up nearby on the ice. Parachute cylinders indicated that the men had been supplied by air. This vessel was believed to be *Coborg*, carrying one of the apparently three separate German expeditions to northeast Greenland.

A second Nazi vessel was disposed of 1 September by *Northland*, after a 70-mile race through twisting paths between ice floes off Great Koldewey Island. For seven hours, the cutter chased this Nazi trawler toward the southernmost tip of Great Koldewey, where the German became blocked by a long finger of ice. Spotted $7\frac{1}{2}$ miles away by a *Northland* lookout in the early Arctic dawn, the Nazi was challenged, but instead of answering she altered her course and attempted to dodge into the ice pack. *Northland* immediately gave chase, and although the enemy ship was faster, managed to keep within about 10,000 yards. Whenever the trawler, appearing intermittently between ice and floes, came within range, *Northland* fired. As the range closed rapidly, the cutter began continuous fire with her forward gun. Unreadable signals from the trawler were observed at 1001, and again at 1014 when the Nazi was told to stop. However, the enemy kept her speed, and the shelling continued. No hits were observed. Finally, the cutter gained valuable yardage and her shells began dropping uncomfortably close to the fleeing craft.

Lieutenant Commander R. W. Butcher, commanding *Northland*, feared the trawler might round the tip of Great Koldewey and enter clear water where her superior speed would enable her to escape. As the enemy reached the turning point she suddenly stopped, enabling *Northland* to come rapidly within effective gun range. Shells splashed up the wake of the trawler. Two explosions at 1042, one forward and one aft, suddenly ripped the enemy craft. The Nazis had scuttled their ship rather than have her fall into American hands. She sank in three minutes in 23 fathoms of water. As three lifeboats pulled swiftly toward the beach,

Northland's 20-mm's were manned to stop any overland escape. The cutter anchored 500 yards from the tip of the island. The lifeboats came alongside with eight officers and 20 enlisted men. These Germans surrendered and were taken on board *Northland*. A Nazi commander dramatically handed over his sword to Lieutenant Commander Butcher, who later had it framed and hung in *Northland's* wardroom.

About four months after her commissioning, the new icebreaker *Eastwind* was engaged on Greenland Patrol, and accounted for the third German trawler. *Eastwind* was flagship of the Task Unit carrying out the operation against the weather and radio stations of the Nazis. Both were under command of Captain Charles W. Thomas, who had formerly commanded *Northland*. On 2 October 1944, while off Shannon Island 600 miles north of Iceland, Captain Thomas sent his plane northward on reconnaissance. It returned with word of a "big ship" about 100 miles away. The commanding officer knew it was an enemy ship, and that he must destroy or capture her.

Eastwind immediately started northward to make contact. Estimating the enemy's probable course, the icebreaker was headed to intercept. She ran all night, meeting new ice which became harder and thicker. At daybreak a solid, heavy wall of the main polar pack stretched across the horizon. The plane was sent again on reconnaissance and, on return, the observer reported what appeared to be building materials on North Little Koldewey Island.

Captain Thomas pushed through 12 miles of pack ice under cover of darkness to make a night landing and surprise the enemy's rear. Ice was broken so the boats could get to shore, and at 0400 the landing party, under command of Lieutenant (jg) Alden Lewis hit the beach. Taken by surprise and outnumbered, the entire force of 12 Germans surrendered. They were placed on board *Eastwind*, together with virtually all the equipment, including well-built housing, valuable radio and meteorological equipment, tons of food and munitions, and countless miscellaneous items. Important top-secret documents, which the Nazi commander unsuccessfully attempted to destroy, were also taken.

These documents revealed that the German naval transport *Externsteine* had landed these

men, and it was doubtless that ship which the plane had spotted. Several unsuccessful reconnaissance flights were followed by one on 14 October which located the ship frozen solid in a consolidated field of polar ice about 10 miles off Shannon Island. *Southwind*, which had joined the Task Unit, and *Eastwind* started to close in. The latter was able to follow leads to within seven miles of the objective. Picking up the target by radar, she crushed her way laboriously through the ice for five miles. Three salvos were then fired, taking care to hit around the ship but not the ship itself. A blinker message from the enemy read: "We give up."

The icebreaker progressed to within 200 yards of *Externsteine*, and a landing force crossed the intervening ice to receive the vessel's surrender. All the prisoners, except for the captain and chief engineer, were taken on board. A prize crew of 32 men from *Eastwind* boarded the captured vessel. The icebreaker broke *Externsteine* free, and the two proceeded to Hochstetter Bay to rendezvous with *Southwind* which had been ordered there because of a damaged propeller.

The captured vessel was unofficially renamed *Eastbreeze* by the 32 men who became a permanent crew, with Lieutenant Curtis Howard in command. New equipment was installed. She was readied for patrol work, but this lasted only a few days. She was then sent to Reykjavik, Iceland, where she arrived on 30 October, and reached Boston on 14 December. Taken over by the Navy, she became *USS Callo*.

After the *Externsteine* incident, there was little of a combat nature to occupy the Greenland Patrol. Thereafter, operations were largely security patrol and rescue activity.

As a result of the Greenland Patrol with surface ships and planes, the enemy was prevented from attempting an invasion of the Western Hemisphere on the scale of the invasion of Norway, and those enemy expeditions that did arrive in Greenland were thoroughly routed. Without these bases in Greenland, German U-boat attacks, especially on the northern convoy routes, were greatly restricted. In short, the men who kept Greenland free, not only protected America from invasion, but denied the enemy vital weather and shipping information. The Greenland Patrol was a positive factor in winning the Atlantic Battle.

SEE PAGE 2
(STH)

An early indication of enemy barbarism with no concern for human life was recognized on 14 January 1942. An enemy submarine torpedoed the Panamanian tanker *Norness* which was carrying fuel oil from New York to Halifax. Cutter *Argo*, then at Newport, Rhode Island, was ordered to the scene, about 150 miles distant. After several hours at full speed she reached the unfortunate tanker, a grim sight with stern submerged and bow still projecting 40 feet above water. *Argo* sighted a capsized motor launch, and three rafts, on one of which (under the hovering Navy Blimp K6) were huddled 6 frightened survivors, their drawn faces reflecting the ordeal through which they had passed. These 6, who were rescued, were all that remained of a crew of 40.

The 5252-ton Army transport *Dorchester*, with two merchant ships, departed St. Johns, Newfoundland, in convoy on 29 January 1943. She carried 1,000 tons of cargo; a merchant marine crew of 130; an armed guard of 23; and 751 soldiers, mostly U. S. Army reinforcements for Greenland. An 11½-knot Coast Guard unit consisting of *Tampa*, *Escanaba*, and *Comanche* escorted the convoy. These vessels encountered very cold and dirty weather. Owing to a reduction of speed caused by icing, *Escanaba*, and *Comanche* had difficulty in keeping up. They sometimes had to heave to and remove ice by live steam. Their guns, depth charges, and mousetraps were sealed in by thick ice; sound gear was of little value because of excessive water noises. On 2 February, when the weather had moderated a bit, *Comanche* announced the presence of a submarine in the vicinity. Captain Joseph Greenspun, USCG, escort commander, so informed the convoy. *Tampa* made a 14½-knot sweep 10 miles ahead and 5 miles on the flanks, and at dark reassumed her patrol position.

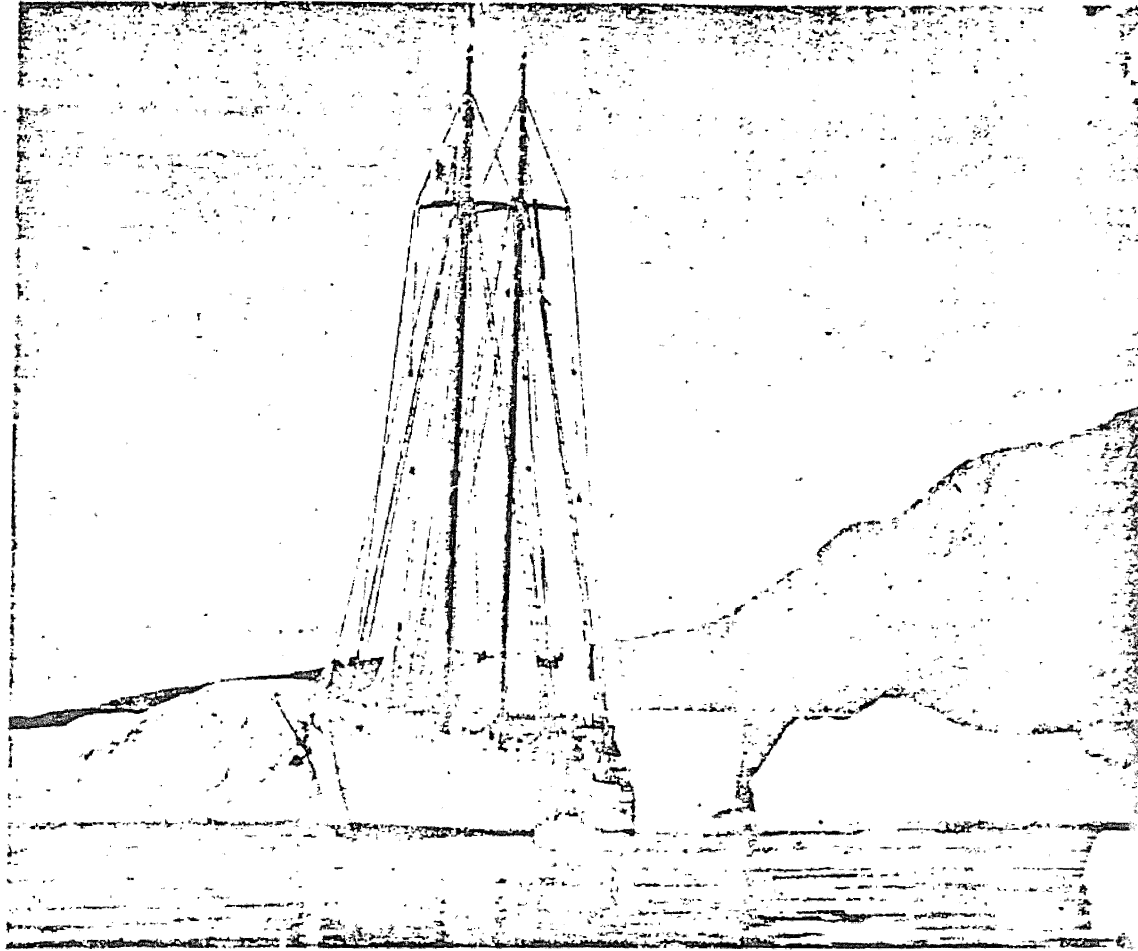
When about 150 miles from Cape Farewell, *Dorchester* was torpedoed without warning on 3 February at 0355. (See Chapter 7.) Three minutes later, her master ordered abandon ship. *Dorchester* sank rapidly by the bow. There were no rockets or flares; the escort was unaware of the tragedy in the pitch-darkness until after the transport had gone down. Abandon ship was poorly executed; only two of 14 lifeboats were used to good advantage. *Escanaba* and *Comanche* made a fruitless search for the sub, then returned to pick up survivors, while *Tampa* escorted the other two merchant ships to Skovfjord. Recovery of survivors was difficult in the darkness. With the water at 34° and the air 36°, only men of high vitality were still alive. Most survivors were so stiff from cold that they were unable to grasp the cargo nets of the rescuing vessels, much less pull themselves up. Coast Guardsmen of *Comanche* and *Escanaba* heroically entered the freezing water to tow life rafts to the cutters and help survivors on board. Under the circumstances, the rescue of 299 men of the 904 on board *Dorchester* was an outstanding achievement.

On 13 June 1943, a task unit consisting of *Mojave* (flag), *Tampa*, *Escanaba*, *Raritan*, *Storis*, and *Algonquin*, was escorting Convoy GS-24 from Narsarssuak, Greenland, to St. Johns, Newfoundland. At 0510, observers on board *Storis*, the vessel nearest *Escanaba* at the time, saw a cloud of dense black and yellow smoke and flame billowing upwards from that cutter. No explosion had been heard by the escort vessels and no signals had been either seen or heard. Yet, the 165-foot *Escanaba* had blown up and she sank within three minutes, leaving only small bits of wreckage afloat. She sank so quickly that there was no time to send out signals. *Raritan* and *Storis* searched the area and picked up two enlisted men, but the rest of the crew of 103, including the commanding officer, Lieutenant Commander Carl Uno Petersen, USCG, were lost. The survivors, Malvin Baldwin, BM2c, USCG, and Raymond F. O'Malley, S1c, USCG, had no idea what had caused the explosion. It could have been a mine, torpedo, or internal explosion of magazine or depth charges. On the basis of slim evidence, a torpedo seems the most probable cause of the disaster.

SEE PAGE 77 (STH)

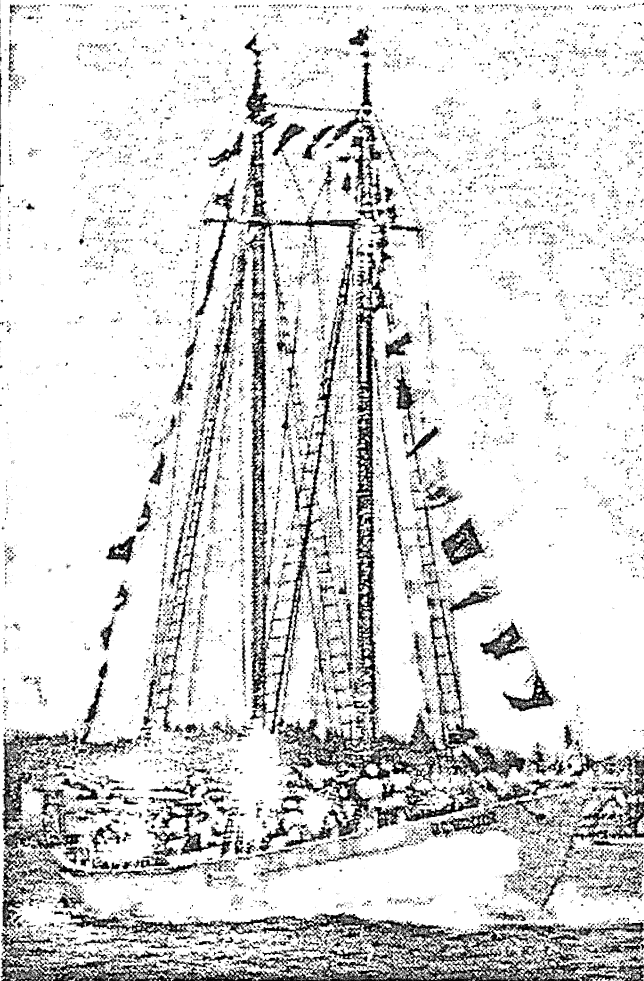
SEE PAGE 74 (STH)

LONELY, LOVELY SHE SITS, LIKE A SWAN



STILL IN ACTIVE SERVICE—One of America's most famous exploration ships, the U. S. S. Bowdoin, lies gracefully off this Arctic coast—proof that men still go down to the sea in sailing ships. She performs useful duty in Northern waters for the Hydrographic Office of the U. S. Navy. Valuable data for navigational purposes is obtained on its many trips. The small vessel was formerly owned by Comdr. Donald B. McMillan, Arctic explorer now working at the Hydrographic Office.

Arctic Schooner on Final Voyage



Associated Press

The schooner Bowdoin leaving Boothbay Harbor, Me., in 1946 for her twenty-fourth exploration trip to Arctic.

FALMOUTH, Mass., June 24 (UPI)—The eighty-eight-foot Arctic schooner Bowdoin put to sea today for her final voyage.

However, the rugged little vessel headed south, instead of in her usual northerly direction.

For the 84-year-old skipper, rear admiral Donald B. Macmillan, it was a proud moment. His schooners' destination was a final berth at the Mystic, Conn., museum, where ships of sailing days are preserved for posterity. She is due there Saturday.

He has spent thirty-eight years in command of the Bowdoin through twenty-six arctic expeditions that covered more than 300,000 miles.

"I hate to give her up, she's a good ship and solid as ever," Admiral Macmillan said. "But she belongs to the people.

Admiral Macmillan is the only surviving member of the Admiral Robert E. Peary expedition to the North Pole in 1908-09.

He sketched a rough design for the craft while marooned in north Greenland from 1913 to 1917. The marine architect for the Bowdoin was William H. Hand. She was built by Hodgdon Brothers of East Boothbay, Me., and launched in April, 1921.

The vessel bears the name of Admiral Macmillan's college, which also was the alma mater of Admiral Peary.

During World War II both Admiral Macmillan and his ship served the Navy, from which he is now retired.

The vessel has been used for scientific and exploratory work in seven sciences by professors and students from twenty-seven colleges and universities.

ARCTIC SCHOONER IS RETIRING AT 38

Bowdoin, 1921 Two-Masted Explorer, Will Be Kept at Mystic, Connecticut

WASHINGTON — Rear Admiral Donald B. Macmillan's famed Bowdoin, perhaps the only remaining United States schooner especially designed and built for exploration in the Arctic, will sail into retirement this summer.

Bowdoin's final berth will be in Mystic, Conn. There she will be fitted out as for a voyage to the Arctic. Near by will be other famous ships of the past: the whaler Charles W. Morgan, which caught more whales than any other similar ship; the schooner Australia, believed by some historians to have been captured from the British in the attack on Baltimore in 1814; the training and adventure ship Joseph Conrad, and the Chinese junk Mon Lei, which crossed the Pacific in 1942 in eighty-six days.

At the helm of the veteran two-master will be Admiral Macmillan himself. Now 84, he began his Arctic career a half century ago as an aide on Admiral Robert E. Peary's celebrated North Pole expedition of 1909. Thereafter he sailed north again. One voyage lasted from 1913 to 1917, and he did not learn about World War I until three years after it started.

Bowdoin bears the name of the Maine college where Admiral Macmillan once taught anthropology. She was built in 1920-21 of Maine's native white oak, and sheathed against ice with a five-foot belt of Australian ironwood.

Wooden Hull Withstood Ice

The ship was made of wood because the rivets of metal ships in those days easily loosened when bucking ice. A wooden hull could spring back into shape after being compressed. Bowdoin's verve and durability in treacherous Arctic seas has been the pride of two generations of seafarers.

The smallest vessel ever to go into the far north, Bowdoin made her first voyage in 1921, the year she was launched.

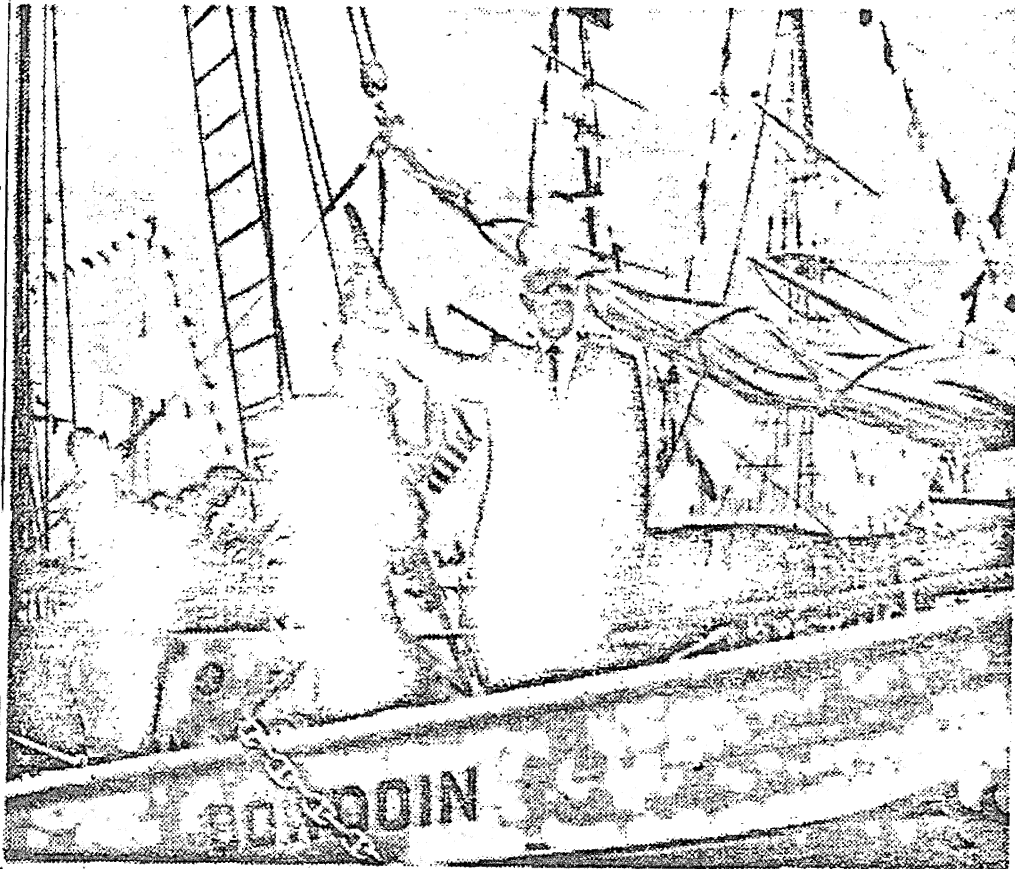
Two years later she sailed north with a National Geographic Society tablet honoring the men of Lieutenant (later General) A. W. Greeley's expedition who died in 1884 in a long battle against cold, darkness and starvation. Commander Macmillan erected the tablet on

Cape Sabine, Ellesmere Island, Canada.

In 1925 came another notable moment in her history. Dr. Gilbert Grosvenor, then president and editor of the society, and Sir Wilfred Grenfell, a famed medical missionary, met with Admiral Macmillan aboard Bowdoin at Battle Harbour, Labrador. She was moving north on another historic mission, a flagship of the National Geographic-United States Navy expedition to Greenland. During that voyage Navy fliers surveyed 30,000 square miles of Arctic ice in fifteen days.

The commander of the Navy fliers, Lieutenant Commander (later Rear Admiral) Richard E. Byrd, returned home convinced that aviation would conquer the Arctic—and Antarctica. Within a few years he fulfilled his own prediction by becoming the first man to fly over both North and South Poles.

MacMillan Brings Schooner Bowdoin To Dock At Mystic



Associated Press Photo

Rear Adm. Donald B. MacMillan and his wife Miriam wave greeting to crowd on shore as the 88-foot schooner Bowdoin docks at Mystic on her arrival home from the sea forever Saturday. The Bowdoin, considered the strongest wooden vessel of her type ever built, will be a permanent exhibit at the Mystic Seaport, a marine museum.

Home From The Sea:

Schooner Bowdoin Docks At Mystic To Noisy Salute At End Of Last Voyage

MYSTIC (AP)—The famous little Arctic schooner Bowdoin rode a full tide of laughter and tears as she sailed home from the sea forever Saturday. The 88-foot schooner, built in 1921 and considered the strongest wooden vessel of her type ever built, became a permanent exhibit at the Mystic Seaport, a marine museum.

The schooner's old age and the retirement of her skipper did what 300,000 miles of cruising, often among icebergs, never could. Rear Adm. Donald B. MacMillan, her 85-year-old skipper, fought to keep the tears back as he turned over his beloved vessel to this museum of famous ships.

Friday, a \$100,000 yacht, the Lord Jim of Boston, was lost on a fogbound reef as she escorted Bowdoin to her final port. Saturday, there were no major

mishaps as 500 craft, from row-boats to 100-foot yachts, paraded with Bowdoin on her last 10 miles from Fishers Island to Mystic Seaport.

100 Foghorns

A bagpipe band, fire sirens, and factory whistles joined with the blasts of 100 foghorns as Bowdoin passed up the Mystic River to her final berth.

As befits a veteran of the Arctic, Bowdoin's last 10 miles were due north.

Through the final voyage, MacMillan's wife Miriam—"Mrs. Mac"—to the crew—waved from the admiral's side. She wore bright blue trousers, topped with a blue vest made by Eskimo friends in Greenland.

The Second Company, Governor's Foot Guard, a colorful and historic Connecticut military unit, saluted Bowdoin from the deck of the Yacht Nor'easter.

It was the first time the corn-

(Please Turn to Page 3)

"The Peary ship Roosevelt is now a rotting hulk in Panama," MacMillan said. "I hope Bowdoin will keep alive for 100 years the memory of her great days in the Far North."

pany had been officially at sea since 1775. Then, Benedict Arnold, their first commander, sailed with the Guard to Boston at word that a battle had been fought by the Colonial forces. The fight was known later as the Battle of Bunker Hill.

Later in the war, Arnold turned traitor and burned nearby New London.

Buoys In Sight

Although Bowdoin had her sails all rigged, they were never hoisted Saturday. There was hardly a puff of air. The fog that had plagued her cruise from Newport, R. I., Friday had lifted enough so there was no trouble sighting the buoys in the twisting channel.

As Bowdoin neared Mystic, the railroad bridge closed to pass a New York-to-Boston train.

"I never had to worry about this before," MacMillan said. "We only had icebergs and rocks up North."

A few minutes later, the highway bridge across the Main Street of Mystic closed just ahead of the Bowdoin. Jim Kleinschmidt, 35, piloting the boat, ordered full speed astern as the bridge lowered to the scream of a fire siren.

A Coast Guard cutter and other escorting craft ahead were cut off from the Bowdoin by the bridge. It later developed that the bridge tender, hearing fire sirens, had followed standing orders to lower the bridge.

The sirens were meant to be a welcome for the Bowdoin.

Special Pier

The berth prepared for Bowdoin is a special pier near the famous whaler, Charles W. Morgan.

Bowdoin ran aground briefly before docking, but Captain Mac, who has grounded his craft on countless uncharted reefs in the North, ordered everyone into the bow to raise the deep stern.

The shifting of weight and a yank by a tug soon pulled the schooner free. The world-circling brigantine Yankee, one of the escort yachts, was less fortunate in docking: She snapped her bowsprit on a pier in the crowded harbor.

Lt. Gov. John Dempsey greeted MacMillan, his wife and the crew, all former Arctic sailors.

Captain Mac, his blue eyes glistening, told the throng at the pier that he felt Bowdoin was coming home, that it was a great honor for her to be berthed at Mystic Seaport, and that now former crewmen on the northern trips of years past could "meet again on her deck with their children and relive old times."

It was Bowdoin day ashore and afloat. Ships and buildings flew banners of the college in Maine for which the ship is named. Bowdoin College is Captain Mac's alma mater.

MacMillan was an assistant to Robert E. Peary, also a Bowdoin man, on the successful North Pole expedition of 50 years ago.

23 July 1959

'Bowdoin' at Mystic Seaport, Once Commanded by Stuart Hotchkiss

The last schooner of the U.S. Navy, the "Bowdoin," veteran of 26 Arctic trips, under the command of Admiral Donald MacMillan, has finally reached its permanent berth of retirement at the Mystic Seaport, Mystic, this state, where she has become a part of the maritime museum and the attraction of all eyes.

She was part of the U.S. Navy during World War II, and for nearly a year was in the command of then Lieut. Stuart T. Hotchkiss, U.S. Navy. Mr. Hotchkiss is now of the Housatonic Public Service Company and lives in Newtown. With Mrs. Hotchkiss, he has just returned from a three-weeks visit to England where they visited Mrs. Hotchkiss' relatives. They made the trip both ways by airplane.

To Greenland

Mr. Hotchkiss has some interesting memories of the "Bowdoin" while it was under his command. He took charge of the ship in February, 1942, and remained in command until he was relieved in June, 1943. He told The Sentinel:

"I took over the command of the ship in Boston. After some time, headed for Greenland, under sail, arriving there May 24, 1942, after a voyage of 20 days. There were 9 enlisted men in the crew besides another officer and myself and two survey officers. Our mission was to survey some of the fjords of Greenland. The first fjord was Sonderstrom, which is 80 miles long and in the Arctic circle.

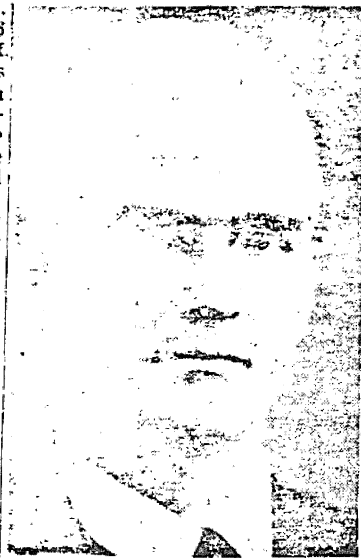
"On several occasions we had to ride out very heavy seas on our trip north. The seas would sweep over the vessel and it would be necessary to get down on hands and knees to avoid being swept overboard. The ocean passages between Cape Race, Newfoundland, and Cape Farewell, Greenland, were especially difficult owing to high seas and low temperatures.

"It was in September that we finished this survey and then sailed south to Narsarsuak fjord, 60 miles north of Cape Farewell, the southern point of Greenland.

Encountered Gales

There we worked for the rest of the time, operating under adverse weather conditions. In fact, we encountered some very severe gales during the winter time, one of which attained a velocity of 165 miles an hour. During the week between Christmas and New Year's the wind never went below 75 miles an hour.

"On one occasion when we got bottled up in a small harbor, we had to ride out the gale in the open harbor and saw a lighthouse erected by the Coast Guard, swept away. On occasions, we did lose equipment.



STUART T. HOTCHKISS

"The very heavy winds during the winter kept the fjords clear of ice so we continued to operate until April when the fjords froze over solid and we were frozen in for about a month. During our stay in Greenland, we visited many Eskimo villages and had an opportunity to know the Eskimo people.

Excellent Craft

"The Bowdoin was an excellent vessel to sail although somewhat under-rigged. She wasn't a large vessel, 88 feet but was a sturdy craft. Sometimes in a good breeze we sailed along at ten knots. We encountered all kinds of ice, from field ice to large bergs. When we got back to Boston, the ship was sent to Quincy, Mass., where she was in dock for the rest of the war. When the war was over, she was repurchased from the Navy by Admiral MacMillan who set out again on several more exploratory trips into the Arctic. Admiral MacMillan was her commander and it was he who originally had the ship built."

Launched in 1921

The Bowdoin was launched in East Booth Bay, Mass., in 1921, when MacMillan began one of his many Arctic trips. She was designed by William Hand. While her hull was like that of many fishing-type schooners, it was constructed with the thought in mind of being able to rise above the ice packs rather than being crushed by them, which was the fate of many Arctic exploratory vessels.

The Bowdoin is 60 tons gross, 88 feet long and 21 feet wide, so small she could be jammed into a niche in the rocks when the ice piled down on her. She is a two-masted auxiliary schooner, double-planked and double-framed with native oak from Maine, and sheathed against ice with a five-foot hull 1 1/4 inches thick of Australian greenheart, the toughest wood known.

Close to her permanent berth at the Mystic Seaport is another outstanding vessel, the Columbia, winner in the last international yacht races, a sleek vessel, on permanent loan to the museum by the New York Yacht Club.

Not Neglecting Explorer's Ship

Fund Shortage Delays Restoration

MYSTIC (UPI) — An explorer's charges that the schooner he sailed into Arctic waters has been neglected at Mystic Seaport were answered Monday by the seaport association director.

Waldo C. Johnston said maintenance and some restoration of the 88-foot "Bowdoin" had been underway ever since she was purchased by the seaport in 1959. "We have done work on her over the years but perhaps not enough because of the financial difficulties involved," he said.

Retired Adm. Donald B. MacMillan, an explorer who went to the North Pole with Robert E. Peary in 1908, said two weeks ago that he was "shocked" at the condition of the ship. MacMillan, 93, and his wife, saw pictures of the vessel on television at their home in Provincetown, Mass.

The Bowdoin, specially constructed for Arctic exploration after World War I, was put up for sale by the admiral in the middle 1950s. It was purchased for \$20,000 by the Marine Historical Association which operates the seaport in 1959.

Johnston said the ship required restoration immediately when she came to the seaport which houses five other major ships, numerous vessels and a reconstructed whaling village.

The seaport director said the amount of money available for restoration of all the major ships was limited to income derived from tourists and donations from members of the association.

"We have never received any state or federal aid but we are looking into that to find out what agencies have funds which might be given us," he said.

"Of course, because of the federal budget situation and the whole international economic problem we are not likely to

get anything right now but we do hope one of these days to get state and federal aid."

Johnston said the seaport association applied for a \$200,000 state grant this year but "they weren't able to give us anything." Mystic Seaport is rated as one of Connecticut's top tourist attractions, drawing thousands of visitors to this shoreline community each year.

Johnston said that members and friends had contributed in excess of \$70,000 this year for a restoration program for the seaport. He added, however, that more funds are needed and that a shortage of qualified shipwrights able to work on the vessels poses another problem.

Restoration at the seaport is a year-round process, Johnston pointed out, but the amount of work that can be done is severely limited by the amount of cash available.

"Very large financial amounts are involved," he said. "I think he (Adm. MacMillan) is aware of the financial problem but he is suffering a normal disappointment that we weren't able to restore the Bowdoin faster."

Johnston said this year's work on the Arctic schooner has included a complete, painstaking examination by experts, removal of the masts and engine for restoration and covering the entire ship for protection and "drying out."

"She is damp," he said, "and it will take all winter for her to dry out. Then it is our hope to start removing her decks and begin replacing them."

"The work to be done on the vessel is great and constant and the seaport has done what it could. However," Johnston added, "she has deteriorated but we are making a major effort to restore her."

Adm. MacMillan, son of a ship captain lost at sea, was

chosen by Adm. Peary to accompany him to the Pole in 1908. He later made numerous trips to the Arctic in the Bowdoin in the 1920s. The ship herself sailed into Arctic waters on 20 separate voyages.

Johnston said the seaport was proud to have the Bowdoin among its unmatched collection of ships.

"All the ships we have do have a unique historical interest," he said, "but she is special in that she represents extraordinary historical feats by Americans, particularly the admiral and his crew."

From The Commodore

By James Michael



Crew, Cook, Navigator—Pat Britton.

Scurry

continued from page 22

been very bad that spring, and we were warned that it might prevent us from reaching the coast or worse. From our voyage to Greenland in 1965 we knew how nerve-wracking sailing through ice can be. Our prospects of being able to reach Greenland didn't improve when we learnt, after arriving in the Faeroes, that the Faeroese fishing fleet was having a poor season because of ice and storms. In West Greenland, the port of Faeringhavn was almost continually blocked with ice, and even if the fishermen could get out of the harbor, they could not fish because of ice floes and icebergs on the fishing banks. It was the worst ice year since the Faeroese started fishing in those waters in the 1920's. Equally discouraging was the word we got from the Danish Navy. All their fishing-protection vessels were occupied aiding the beset fishing fleets, and they warned us that if we ran into trouble, it was quite unlikely that they could spare men and ships to help us out. We had neither radar nor radio transmitter because we had neither the space nor electric power for such

equipment. Disappointed, we nevertheless decided, after a few days' rest at Thorshavn, to put to sea, get on the sixtieth parallel, and shape our course for Cape Farewell, Greenland. We hoped that if we made a fast passage to the Cape, we would have time to maneuver about and see if we could get through the ice.

Once we got to sea again, our hopes were blown farther away with each westerly gale. From the time we left the Faeroes until we were on the longitude of Cape Farewell, we did little else but battle high winds. It took us twenty-six days to reach Cape Farewell and by then it was the middle of August—much too late to be in northern waters, where winter comes early.

Frustrated, we were forced to give up our dream of Greenland and turned southwest toward St. John's Newfoundland.

Life aboard a small boat at sea is unlike anything else on earth. The weather assumes an importance that is difficult to understand for those who live in the manmade world ashore. The sea is hostile. Never for a moment can it be forgotten that, if through stupidity or accident, the vessel is not properly tended, the sea is there waiting to kill.

Pat and I have to stand

1972 has been a busy year for CCA and for me. We started the year with an excellent cruise in the Virgin Islands, thanks to the good work of Forbes Morse. In May, SIRONA was christened and joined the spring cruise in the Chesapeake. The Club's 50th anniversary celebration was held on May 9th and the year of planning by Bob Hall and his committee made it one of the finest evenings in our history.

June continued with the DuPont Memorial Series, honoring our late great friend Hank DuPont. Then, of course, one of the more memorable Bermuda Races was followed by the race to Spain. Julie and I had a hard time keeping up with everything there was to do. We rushed back to California from Bermuda for the San Francisco Station's summer cruise; then back again to Newport for the Club's summer cruise. Thanks to the airline "misplacing SIRONA's mainsail, we missed the opening event at Block Island, but caught up with the cruise in time to have a magnificent raft and cocktail party at Hadley's Harbor, ably arranged by Ev

watches—4 hours on and 4 hours off. Then there is the sail-changing, navigation, ship-keeping, cooking and washing-up to do, our scientific experiments to be carried out, and then what time is left over can be spent in our warm, dry sleeping bags.

Each day we would use our sun-stone and compare its bearing with that given us by the magnetic compass. The stone proved to be a remarkably accurate substitute. I believe that with such a stone alone we could have made our landfalls with enough accuracy to have kept out of serious trouble.

Dickinson. Then we had to leave the cruise to fly to Spain for the post-race activities. Rayona and the Spanish were outstanding, as were Stan Livingston's efforts in arranging a really great cruise along the coast of Spain to Cape Finisterre.

We could stay only long enough to get a taste of this cruise aboard Clayt Ewing's DYNA, and to enjoy a rendezvous with the Irish Cruising Club and the Royal Cruising Club, at which time our Irish friends presented the Cruising Club with two beautiful glass decanters appropriately filled with Irish whiskey. Then we returned to California and then back again to Newport for the New York Yacht Club cruise. Later in the fall, SIRONA returned to the Chesapeake for the fall series and cruise. She is currently in Florida getting ready for the SORC. However, Julie and I are planning to get the 1973 winter cruise in the Grenadines under way with a cocktail party at Marigot Bay. Jim Harvie has great plans for the cruise and I hope many of you can make it.

One thing 1972 has taught me and that is: 30 transcontinental flights, four round trips to Europe, two to Bermuda and cruising and racing on both coasts, is not enough to make it even remotely possible for one man to be on hand for more than a small part of the widespread activities that CCA conducts today. It would take at least two commodores to begin to do the job—and in a way this is a little sad because we enjoyed so much what we could do this year, we are certain that what we missed would have been equally as much fun.

A few random thoughts for the future: Alan Bemis and a special

committee are working on a very worthwhile project, the establishment and operation of a Cruising Information Center, which will be a real step forward in carrying out the purposes for which our Club was formed. We also have established our Club archives officially at Mystic Seaport and this deserves your interest and financial support. Following the Bermuda Race, I sent a questionnaire to all participants asking for their views on various subjects related to the race. I've sent Al Stanford a copy of the tabulated results, but I don't know whether he will have space to publish them. In any event, they also have been sent to Harman Hawkins, Chairman of the 1974 Bermuda Race Committee, and will provide some food for thought by his committee.

Finally, a word about a problem that has reached major importance; namely, the deportment of crews ashore before and after ocean racing events. Serious and unfortunate circumstances occurred with unsettling frequency in 1972, notably at the SORC, in Bermuda and in Spain. Your officers and Board of Governors are unequivocally committed to stamping out such conduct, as is the North American Yacht Racing Union. Both organizations currently have special committees at work to devise procedures to prevent this from occurring again. The results, I am sure, are going to severely penalize all who are responsible—crew members and owners—so be forewarned: The sport will no longer tolerate the misdeeds of the few who detract from its enjoyment by all.

Best wishes to each of you for a happy 1973 season.

Still More On "Integrity"

By Paul Standley

When Ed Raymond kindly showed me the article in the May issue of the CCA News attempting to "Sift Fact from Fiction" about the abandonment of "Integrity," I decided that it was high time to eliminate the fiction and come up with a little fact. My qualifications are that I was the master in command of "Integrity" at the time of her abandonment and ought to be in a position to know.

I have been a professional captain and have followed the sea in sail, the Navy and Merchant Marine just about all my adult life. I am 37 years old and am a son-in-law of CCA member Bruce Morrison. Currently I am designing and developing racing catamarans but would choose "Integrity" for going to sea any day in spite of my experience in her.

I was retained to make delivery of "Integrity" to the West Indies by her new owners the "Integrity" Charter Corporation owned by the yachtsmen Royce Peabody, Frank Hamilton, Emery Dearborn and Les Hummel. I suspect that they formed the company and

acquired "Integrity" more to preserve a wonderful ship than for any monetary gain.

Like all of us who have known her they had a strong affection for her. The crew consisted of myself as master, Frank Lonberg, Peter Senenac and Mark Pierce. Mark had been with "Integrity" under the ownership of Waldo Howland and is well known to many CCA members. We also had aboard Mr. and Mrs. Frank West as guests of the owners. Eventually they were to assume the chartering responsibilities of "Integrity."

The trip from New England to Norfolk was uneventful as was the inside passage from there to Moorehead City the favorite route for avoiding the hazards of Cape Hatteras and the most favorable point of departure for a sailing vessel bound for the lesser Antilles.

We departed the Moorehead City Yacht Basin November 2, 1970 at 1310 hours, cleared Beaufort Inlet Sea Boudy at 1404 hours and set a course of 153 degrees magnetic (The rumb line course to St. Thomas). My plan was to cross the Gulf

Stream on the rumb line then alter to 148 degrees to a point approximately 125 miles east of the rumb line.

Hopefully we would then pick up the Northeast Tradewinds which would allow me to ease off to the Southward on to St. Thomas.

At 0800 November 5 our DR and Consolan placed us 60 miles eastward of the rumb line and 360 miles from Moorehead City. The previous midnight had found us with force 4 winds west southwest and seas 15 to 20 feet also from west southwest.

We had altered course to 135 degrees under foresail and forestaysail. By 0100 on the fifth the wind and seas were increasing. We handed the foresail sailing under forestaysail (120 sq. ft.) alone. The wind by now increasing to force 5 or 6 with seas growing to 25 to 30 feet. The ship was riding easily.

The barometer at this time was slowly dropping. Weather forecasts predicted up to 40 knots of wind from the west. My calculations indicated that the center of this low pressure system would pass astern of "Integrity," between our

position and the mainland. By 0600 that evening the wind had hauled to west northwest and increased to force 6 or 7 and the seas were now running 30 to 35 feet from the northwest. We changed course to keep the seas more astern of "Integrity" on a bearing of 150 degrees magnetic.

Between 0600 and 1000 hours the wind increased to force 9 or 10 with seas running 40 to 50 feet. "Integrity" was still running easily with no apprehension or fear aboard for our safety or wellbeing.

Steering had become more difficult and we were attempting to keep the seas astern rather than steering any set compass course. We were making good approximately east southeast. Having been on deck for the past sixteen hours I went below at this point for some much needed rest. Half an hour later we were hit by two rogue waves estimated by Mark and Frank at 60 feet in height.

The first crested over the ship's stern and as she slid down the face of it possibly starting a broach, the second one hit us

from the starboard quarter and knocked "Integrity" over on her beam ends possibly 120 degrees to port.

Frank and Mark were swept from the cockpit. Frank grabbed a passing line and pulled himself back aboard. Mark was pitched to leeward and through the eight-part main sheet and dragged under water. As the ship righted with the mainboom broken Mark was picked up by the vis-like grip of the sheets and dropped back into the cockpit.

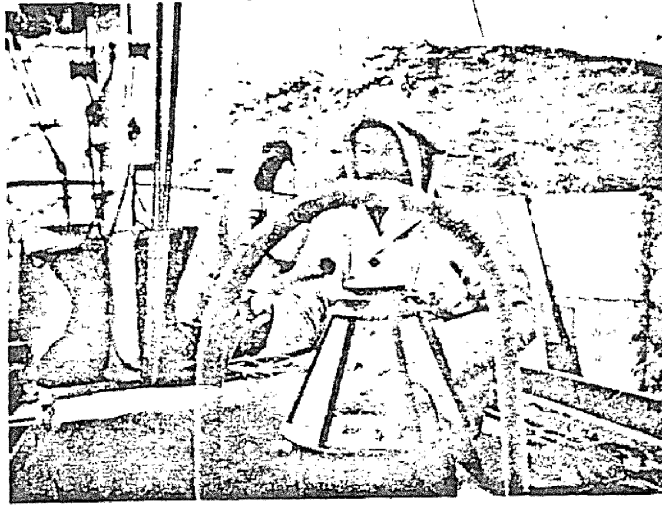
During this knockdown "Integrity" lost her forepeak hatch and the skylight hatch off the main cabin. The hatch cover over the engine room was ripped off and through these openings most of the water we took on had rushed in. We in the cabin had to swim for it.

The top-loading freezer and cupboard emptied their contents into the cabin and I cut my bare feet on the broken glass. The 32 volt batteries capsized onto the engine and liberated chlorine gas which made the cabin untenable after the ship righted.

continued on page 24

Scurvy, Sun Stones

By Wright Britton



Author takes the helm in Viking waters.

Excerpt from NUTRITION TODAY

I was sitting in the great hall of the beautiful clubhouse of the Explorers Club in New York one winter's evening not long ago listening to a lecture about "The Explorer and His Food." The speaker recounted the fate of many expeditions that failed because not enough attention had been paid to nutrition in planning the expeditions. My wife, Patricia, and I had just returned from the far North in a small boat. The two of us had sailed our 40-foot yawl to Greenland, around Iceland, thence to northern Scotland. During that voyage—for which we had plenty of food, or so we thought—Pat came down with, of all things, scurvy!

When we were off the coast of Iceland, Pat was feeling so uncomfortable that it seemed unwise to delay the last leg of our journey any longer...The run to Reykjavik was a romp. The wind held fair, the compass behaved itself, and we had the feeling the gods of the northern seas had rewarded us with a perfect passage. Once in Reykjavik we wasted no time in finding a dentist. His diagnosis: scurvy.

As I listened to the nutritionist-explorer talk I resolved that I'd never again set sail without planning as carefully for our food as we did for our ship. Next to bad luck, poor nutrition is the major reason so many expeditions have met with disaster and explorers have died.

In Iceland, large doses of orange juice put my shipmate and dear wife on her feet again. So, after a few days we pointed the bow of our yawl "Delight" eastward for Scotland.

SUN STONE

Two years later we started to prepare for the long voyage home. Our trip westward from Norway to Greenland, Newfoundland, and then home to Maine, had a serious purpose. It was officially sanctioned by the Explorers Club and we flew its flag. It was titled "The Britton Viking Sun-Stone Expedition." Its purpose was spelled out on the "first-day cover" envelopes

prepared for us: "Professor Wright and Patricia Britton retrace the 4,500-mile Viking route to the New World, Norway-Greenland-Labrador-Vinland, in the U.S. yacht "Delight," testing recent theories of Viking navigation using the ancient sun-stone."

By the time we reached our home anchorage of Southport, Maine, we had achieved our goal, though not quite in the way we had expected. Icebergs kept us from reaching Greenland and Labrador but we did prove that by using the sun-stone the Vikings could have crossed the ocean without getting lost though they had no compass.

In "Delight," a wooden yawl built in 1957, Pat and I have cruised the coasts of Newfoundland, Labrador and Greenland. In 1967, we had sailed from the United States for Iceland, circumnavigated that strange island of fire and frost, and eventually laid up the boat in Scotland. The following summers were spent cruising the Scottish Isles, circumnavigating Ireland. Then in 1969, we sailed all the way up the coast of Norway—250 miles above the Arctic Circle—before putting "Delight" to bed again for that winter in Bergen.

In the spring of 1970 we decided that it was high time to sail home. Most small boat voyagers, in crossing the North Atlantic, head south across the Bay of Biscay and then, like Columbus, turn southwest for the Canaries, and with another right turn they can fly before the easterly trade winds to the Caribbean. However, Pat and I chose to buck the westerly winds of latitude sixty north in the hope of reaching Greenland.

CURIOSITY

The principal reason for choosing the northern route lay in history, and we were curious about it. Anyone sailing in the high northern latitudes must be impressed by the feats of the Vikings who first sailed these frosty waters. What makes the voyages of the Vikings even more impressive is that the

Viking navigators did not have the magnetic compass. This being so, how were they ever able to sail back and forth across the North Atlantic? Most people don't know that by 900 A.D. the Scandinavians had established colonies in Iceland and Greenland. They settled enough people in Greenland alone to warrant sending three bishops over to the snowy island. To maintain contact with their colonies, the Vikings sent ships back and forth sailing right along the parallel of sixty north latitude that runs from Bergen in Norway to the southern tip of Greenland. The gnawing question that has mystified historians is: How did the Vikings find their way without a compass?

Most scholars pass over this point lightly. They usually write that the Vikings navigated by the sun and the stars, as the Polynesians do today. Such comments only show that too few scholars who write about the sea are sailors. It is true that one can easily traverse the central Pacific without a compass, being guided by the sun and the stars alone. But the North Atlantic is not the central Pacific. In the Viking latitudes the sun rarely penetrates the continual overcast of the northern seas. What is more, in the early months of summer there are twenty-four hours of daylight in these high latitudes and a guiding star cannot be found even on a cloudless sky. No, the Vikings certainly didn't sail back and forth across the North Atlantic by the sun and the stars. They must have had another method of finding their way across the ocean. But what was it? Well, we thought we knew their secret and we set about proving it, and in the end we did just that. The Vikings used a rather rare stone that polarizes sunlight, a stone that can be found on the beaches of Scandinavia!

In years of voyaging in northern waters, Pat and I were seldom able to use our sextant. We navigated just with our

compass and log. We did not have any trouble, but we had a compass and the Vikings had none. So we, like hundreds of historians and scientists, spent many interesting but fruitless hours trying to figure out how the Vikings could stay on course without one. Fortunately, we chanced on an article by Thorkild Ramskou, a Danish archeologist. Dr. Ramskou, who had spent years studying the Vikings, had also been bothered by the question how these intrepid Nordic navigators found their way across the seas with such regularity that they could supply and control colonies. He had been intrigued especially by reference in a number of the Icelandic sagas to a navigational device the Vikings called a "solstein" or sun-stone. Lost in a snowstorm, the navigator brought out his "solstein," rotated it, and then pointed in the direction of the sun...the sun he could not see, and they sailed on confidently.

Dr. Ramskou wrote that if we only knew what a sun-stone was, we would know the secret of Viking navigation. By an extraordinary stroke of luck, the article was read by a precocious eleven-year-old lad who was the son of Jorgen Jensen, chief navigator of Scandinavian Airlines. Young Jensen, so we learned, asked his father if the stone the Vikings called a "solstein" might not be similar in function to the device that SAS pilots use on flights over the Pole, where the magnetic compass loses its usefulness. The device is the sun compass developed by Professor Plund of Johns Hopkins University during World War II for arctic air navigation. Briefly stated, the sun compass operates on the principle that the bearing of the sun is determined by finding the plane of polarization of the sun's rays as they pass through the atmosphere of the earth. In a modern sun compass, a polaroid sheet detects the polarization, so that the position of the sun can be determined exactly, clouds or no clouds. Once you know where the sun is, it is a fairly simple matter to calculate the latitude of your position. Hence if you know that Bergen, Norway, is on the same latitude (sun's angle) as Cape Farewell, the southern tip of Greenland, you can sail merrily across the ocean and back without getting lost.

Captain Jensen told Dr. Ramskou about the question his son had asked and described the sun compass to him. Dr. Ramskou immediately got in touch with the Royal Jeweller of Denmark to find out if there were any natural minerals in Scandinavia that could detect polarization. The reply was encouraging; there were indeed a number of such stones, including cordierite, iolite and andalusite. They are somewhat scarce but can be found on the beaches of Norway and Iceland.

Armed with a piece of cordierite, Dr. Ramskou flew from Copenhagen to Greenland and back with Captain Jensen, and was overjoyed to find that the sun-stone worked. It gave an azimuth of the sun which was astonishingly accurate even when the sky was overcast. Hearing of Dr. Ramskou's

theory, Pat and I decided that we would obtain a sun-stone—and retrace the Viking route to the New World and learn if the sun-stone worked in the wet, grey world on the turbulent surface of the North Atlantic.

We agreed to make some observations on nutrition for NUTRITION TODAY. As "Delight" has no refrigeration and it is useless to carry ice and thus lose storage space on a long voyage, we have to rely on canned and freeze-dried foods. Our enthusiasm for doing the nutrition study was heightened by our desire to avoid a repetition of Pat's experience on our voyage around Iceland, when she developed scurvy.

Dr. Enloe, the editor of NUTRITION TODAY, and Dr. Krehl, a member of its Editorial Advisory Board, spent many hours together with Pat and nutritionists of the Campbell Soup Company preparing our menus.

ICE

It was early July, several weeks behind schedule, when we sailed out of Bergen harbor headed for Greenland, riding the Vikings' trail of 60 degrees north straight for Greenland. Once clear of Norway's island-fringed coastline, "Delight" made good time. In the first 24-hour period we sailed 150 miles, nearly halfway to the Faeroe Islands. Then our fair weather left us and we began to experience the first of the westerly gales that were to make our crossing a rugged, uphill ordeal.

It took us one day to sail the first half of the way to the Faeroes and nine days to sail the second half...nine days which were to set the pattern for the remainder of the summer. Before and after we reached the black, fog-enveloped cliffs of the Faeroes, one atmospheric depression after another swept over us, bringing gale-force winds and high seas. We would sail "Delight" against them until the wind would reach forty to fifty knots. Then the height of the seas would half our progress westward. Reluctantly, we would heave-to. Cold, wet and weary, we would try to get some rest while, discouragingly, "Delight" drifted back towards Norway. This went on for over a month. The wind would abate. We'd hoist sail again and fight on. Every mile westward, and there were more than three thousand of them, became precious, for each one was hard-earned.

In the half-light of an arctic mid-night, we sailed into Thorshavn, capital of the Faeroe Islands. Although this is nominally a part of Denmark, the 30,000 fiercely independent islanders have their own language and flag. Descendants of the Vikings, they follow their ancestors' ways and sail to the far reaches of the North Atlantic in search of the island's only resource, fish. The Faeroese vessels can be found in the frozen seas north of Russia, a Newfoundland's Grand Banks, and in Davis Strait off the coast of Greenland.

We were especially interested in the fortunes of the Faeroese fleet off Greenland, for we hoped to sail there. Before we left Norway, we had learned that the ice off Greenland had

continued on page 23

18223 84 pl W
Edmonds, Wash. 98020
19 Oct 1974

Capt. Wm. Mills
Marine Office Appleton Cox
100 Pine Str.
San Francisco, Calif. 94111

Dear Bill;

Villiers' address is: Capt. A. J. Villiers
1 a Lucerne Rd
Oxford, England
O X 2, 7 Q B

Hdd a card yesterday from Jan Pearce, the carpenter on the GOLDEN HINDE, and Capt. Raynaud received one too, both mailed from Portugal. Between the two cards, Jan reported the problem of stability was no longer a worrisome thing, and the ship had an excellent passage of 7 days from Falmouth to Lisbon, and she did well. They were leaving soon for Barbadoes. So it appears things are going OK for the time being. I guess the venture appears rosy or gloomy, depending upon the point of view.

Capt. John Backland, the son of the old original owner of the C. S. HOLMES, died a number of years ago, probably within the past six or eight. I think I was either in Honolulu or Mill Valley when I read the news. Back in World War I years old Capt. Backland owned the schooner TRANSIT, but when she was lost sometime around World War I, the Backlands bought the C. S. HOLMES as a replacement. But for a few voyages, they sailed down to Australia and the So. Pacific. Then in the 1920's and 1930's they went to the Arctic and Bering Sea as a trading vessel. This went on until about 1940-41, when the Army took the ship and Backland went into the Navy, probably where Stu Hotchkiss got acquainted with him. In more recent years Capt. John Backland, the son of the father, was captain of some Alaskan fishing vessels, but as I say, he died. The Old Man died sometime in the 1930's or perhaps earlier.

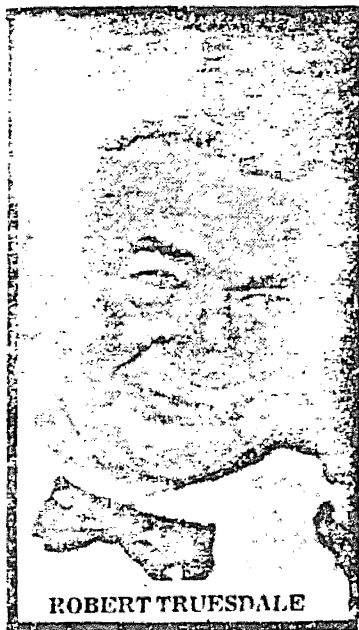
Mattsson is presently on a short trip with Northland Marine Corp (tug and barge company) to Juneau or Ketchikan, and is due home in a few days. He was gone for about 7 weeks, home overnight and left again on Thursday. I missed his two phone calls. He says he has an application blank for me (and probably for you too) for the Cape Horners' Internationale. I reckon I'll be talking to him in a few days.

I'm half-way thinking of another business-interviewing trip to SF in the winter when things slack up around here. Kortum has a long list of old seafaring men we should be interviewing, and I have an equally long list up here.

Regards,

Harold H.

Robert Truesdale 1916-1978



The Cruising Club has suffered a tragic loss in the untimely death of Pie Truesdale on 7 April at the age of 61. His warm, outgoing personality and his devotion to the ideals for which the Cruising Club stands have endeared him to the many members who were privileged to know him.

A MEMBER OF THE Boston Station since 1949 Pie served on the committee of and participated in the CCA summer

cruises for many years accompanied by his charming wife Anne and other members of his family in their Bermuda 40 yawl "Sintram." His son Bobby became a member of the Cruising Club in 1974, having been brought up in the proper tradition.

Pie grew up with boats and in his early years sailed his family's 10 meter out of Westport, Mass. Shortly before our entry in the war his sense of adventure and love of the sea led him to sign aboard the Swedish 4-masted barque "Abraham Rydberg" on a voyage from Boston to Brazil and back.

Shortly after his return Pie enlisted in the Navy and soon afterward our long and lasting friendship commenced.

In February of 1942 I was given command of the 87' schooner "Bowdoin," formerly owned by Admiral Donald B. MacMillan of arctic exploration fame. Our duties were to sail her from Boston to Greenland where we were to survey designated fjords on the West Coast. Pie, as BM2c,

materialized as an answer to my prayers to serve in our crew. As the only true sailor amongst our crew, his ability, his enthusiasm, his infectious humor and his unfailing support won my everlasting friendship and admiration. During long winter days when we were frozen in I taught him navigation and recommended him for an Ensign commission, which came through in due course. Later, at Lingayen and Leyte when our ships occasionally met, we were to share a bottle of whiskey or two while making plans for after the war.

More recently in the 1968 Bermuda Race our roles were reversed and I had the pleasure of sailing in "Sintram" with Pie as skipper. That was the year the whale knocked off our centerboard!

Those of us who knew the sunshine and warmth of his truly great personality can consider ourselves blessed and we will continue to miss him not only now but for always. In his passing the CCA has lost a devoted member who embodied all the virtues for which the Club stands.

Stuart T. Hotchkiss

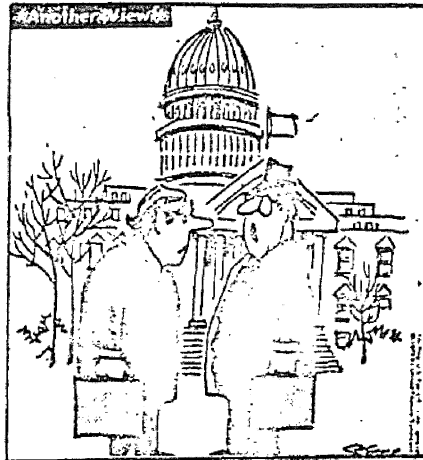
The Four Chaplains Recalled

More than three decades ago the men who came to be identified as The Four Chaplains performed the heroic act of dying so that others may live. Many today probably never even heard the story of The Four Chaplains; for many others, the reference evokes a faint recollection of four clergymen going down to their deaths, arm in arm, in a sinking ship. But there are those who remember the anniversary faithfully every year — the veterans' groups and particularly the American Legion.

During the month, Legion posts in the area have been holding observances in memory of the four U.S. Army chaplains, First Lts. Clark V. Poling (Reformed Church of America), Alexander D. Goode (Jewish), John F. Washington (Catholic) and George L. Fox (Methodist), whose heroism during World War II was a source of inspiration and renewed will to an America fighting the tyranny of Nazism and Fascism. Tomorrow night, for instance, a memorial service is scheduled at the Murray-Reynolds Post 76 in North Haven. Previously, an observance was held by Milford Post 34 and others.

The four clergymen were aboard the troopship, *Dorchester*, carrying 900

men, when the ship was hit by a German torpedo the early morning of Feb. 3, 1943. In the ensuing panic aboard the sinking ship, the chaplains coolly went about passing out to the soldiers life jackets that were stored in containers. When the latter became empty, the four chaplains removed the ones they were wearing and handed them out to four young GIs. The last that was seen of the chaplains, they were standing on deck, arms linked, looking up heavenward in prayer.



"WE DEMOCRATS DONT HAVE AN ENERGY PLAN, BUT IF WE DID, IT WOULD BE BETTER THAN FORD'S ENERGY PLAN."

NEW HAVEN REGISTER 19 FEB. 1975

(SEE PAGE 74)

Danish Parliament OKs Greenland's Independence

COPEHAGEN, Denmark (AP) — The Danish Parliament voted Friday to give Greenlanders rule of the world's largest island, the 840,000-square-mile ice-en-crusted land they call home.

The members of the Danish parliament, which governed Greenland for more than 250 years, rose to their feet with good luck cheers after the historic vote.

Greenlanders will vote in early January to give their expected approval to the home rule proposition approved by the Parliament. The 48,000 islanders, primarily of Eskimo heritage, will elect their first parliament in April and will receive home rule rights May 1.

The decision came as Greenland's inhabitants are celebrating the 250th anniversary of the founding of the capital Godthaab by Danish evangelist Hans Egede.

Carrying the bible rather than the sword, Egede succeeded where Norsemen before him had failed in penetrating the Arctic land's rocky coast. His followers settled in Greenland as early as the 11th century, and his colony lived through 500 grim years of battling with the climate and hostile natives.

Greenland remained a Danish colony until 1953 when a constitutional amendment made it an integral part of the Kingdom of Denmark.

Preparation for home rule began at a time when hopes once ran high for an oil boom in the Davis Strait off west Greenland.

But last summer international companies gave up their test drillings and the hoped-for boom failed to materialize, cutting short dreams that Greenland might become economically independent.

Home rule doesn't mean a complete break with Denmark, since the Danes will have to subsidize Greenland to the

tune of about \$200 million annually. Under home rule, however, Greenlanders will have a greater voice in deciding how the money should be spent.

Since 1953 Denmark has invested heavily in Greenland, helping to eradicate Greenland's scourge, tuberculosis, and plunging the islanders into a swirl of technological development that has all but ended the old Eskimo-hunter culture.

Modern ways have also brought such modern plagues such as alcoholism, large-scale urban unemployment and psychological problems to towns where high-rise apartment buildings have replaced stone-and-turf huts.

The home rule packaged of bills gives Greenlanders a chance to make their own choices on taxes, education, social security and labor-market relations by 1981. Questions of business and trade, including the right to form state-run companies, will be handed over in 1984.

But housing, health, communications and other services will be turned over to the Greenlanders at a later date not yet fixed, and defense and foreign relations will remain a Danish government responsibility.

Among the first decisions before the Greenland parliament will be the island's relations with the European Common Market.

Moved by their desire to keep their fishing waters to themselves, Greenlanders turned out massively to vote against Common Market membership in a 1972, but was forced to follow suit with the rest of Denmark, which approved ties with the economic group.

The home rule act does not specifically give Greenlanders the right to opt out of the Common Market, but the Danish government declared that nothing would prevent them from seeking a change.

World Of Trivia

Was Peary First At North Pole?

(Editor's note: The following is an excerpt from "The People's Almanac No. 2" by David Wallechinsky and Irving Wallace.)

Responding to a newspaper ad, 26-year-old New York-born Dr. Frederick Cook applied for a position as surgeon on an Arctic expedition in 1891. The expedition's leader, U.S. Navy Lt. Robert Peary, hired him, and the two men became friends during the next two years on the Greenland glaciers. Peary praised Cook for his skills both as a doctor and as an explorer.

Telling the press he was going on a hunting expedition, Cook sailed to Annoatok in northern Greenland in August 1907. On Feb. 19, 1908, he crossed over the ice to Ellesmere Island and traveled on to Axel Heiberg Island with 11 sleds. From this point on, the last uncontested fact is that Cook and two Eskimos set out northward onto the polar ice cap.

On April 21, Cook calculated by means of a sextant that he was but a few miles from the North Pole. He arrived at the Pole that day. After two days at the Pole, Cook headed south. He reached North Devon Island and spent the winter there. The next spring, he returned to his Greenland base after a 14-month absence.

Robert Peary was a self-centered, domineering man with one ambition — to be the first human at the North Pole. Born in Pennsylvania in 1856, Peary joined the U.S. Navy at the age of 30 and went to the Arctic on a leave of absence in 1891. In 1892, he crossed Greenland and proved for the first time that it was an island.

Believing that he would be as famous as Christopher Columbus if he discovered the Pole, Peary devoted his life and eight toes lost to frostbite working toward this goal. Despite the fact that Peary brought his wife to Greenland to live, he enjoyed several Eskimo "wives" who bore him children. Cook also engaged in the Eskimo custom of wife-sharing.

After numerous exploratory expedi-



tions, Peary tried to attain the North Pole in 1906, but had weather stopped him.

Two years later, he established his base camp at Cape Columbia on Ellesmere Island. With 23 men, Peary set out for the Pole on Feb. 22, 1909. As supplies were used up, one sled after another was sent back to the base. By April 1, with 100 miles to go, Peary, Matt Henson — a black who was Peary's constant companion — and four Eskimos were left to finish the journey.

On April 6, Peary calculated his position as only 3 miles from the Pole. Exhausted as they were, he and his five companions pushed on.

After one night at the Pole, Peary sped back to his camp, anxious to let the world know of his victory.

After studying Cook's journal, Roald Amundsen, the Norwegian Arctic explorer and discoverer of the South Pole, was convinced that Cook had discovered the Pole nearly a year before Peary.

Having given Peary extensive favorable coverage for 20 years, the partisan press attacked Cook, while uncritically heralding Peary as the hero of the Pole. Meanwhile, the National Geographic Society, the U.S. Navy and the U.S. government — all biased inasmuch as they had all spent fortunes financing Peary's expeditions — dismissed Cook as a liar without having any real evidence against him.

Did Peary even discover the Pole? His only witnesses were Henson, his loyal comrade, and four Eskimos, who were never interviewed.

Peary recorded mileage based on dog-sled speeds twice as fast as proven possible. If correct, some of Peary's

calculations indicate that he was far off course and may have missed the Pole completely. Landmarks Peary described later proved nonexistent and most of his charts were discarded by the Navy in 1926 because they were totally inaccurate.

Peary claimed that he had talked to Cook's two Eskimo companions and that both of them swore that Cook had journeyed a short distance north, then swerved west and south. In 1918, Donald MacMillan reported that he, too, had been told by the two Eskimos that Cook had not come within 500 miles of the Pole; however, MacMillan had been a member of the Peary expedition.

In his report to the University of Copenhagen — the authority on the Arctic — Cook included no scientific or astronomical observations. The university therefore concluded that he had no proof that he had discovered the Pole. And when he did release some of his data, it contradicted known scientific facts concerning Arctic astronomy.

Later, when other Arctic explorers tried to retrace Cook's path, they found none of the landmarks described in his journal and book.

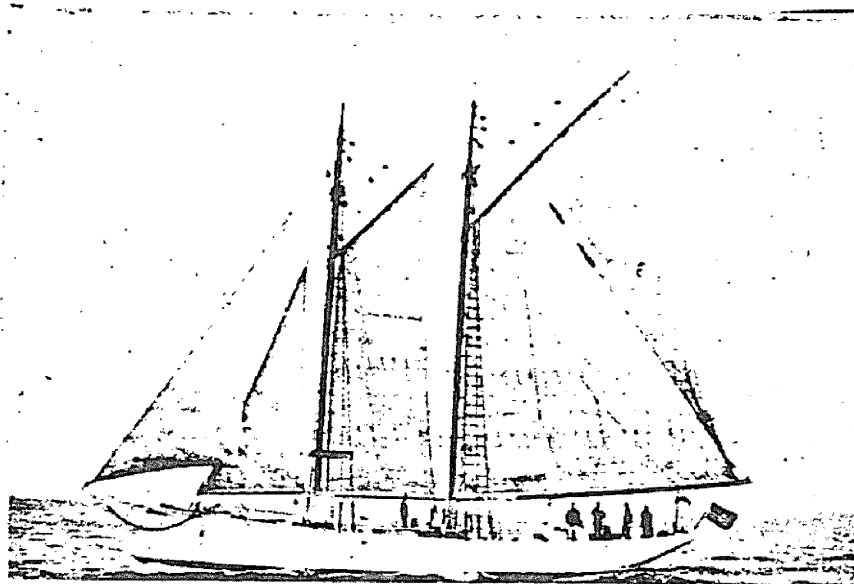
Some historians propose that another American, Richard Byrd, discovered the North Pole. In 1926, Byrd flew his German Fokker over the North Pole. Using instruments not yet invented in Cook's and Peary's time, Byrd claimed that he had reached the North Pole, although anti-Byrd literature has disputed his claim.

The Russian, Otto Schmidt, may have been the first to set foot at the Pole in 1936, after having set up a scientific observation station.

However, a four-man snowmobile expedition led by American Ralph Plaisted achieved the first uncontested surface attainment of the North Pole on April 18, 1968.

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+ From THE PEOPLE'S ALMANAC (tm) NO. 2



The Bowdoin in earlier days.

GLOBE FILE PHOTO

Schooner fare 12/21/30

PORTLAND
SUNDAY
TELEGRAM

THE ASH POINT home of Dr. and Mrs. William A. McLellan at Owl's Head was the setting last Sunday for brunch to introduce guests to Schooner Bowdoin Inter-Island Expeditions, a non-profit group which owns the Bowdoin, now waiting for restoration at Bath's Maine Maritime Museum. Social events are being held all along the coast in support of a fund-raising campaign for the restoration. Henry Scheel of Rockport, a member of the Maine committee, spoke about his boyhood days when "Mac" — Adm. Donald B. MacMillan — was a close friend.

A slide presentation followed, narrated by another MacMillan friend, Lowell Thomas. Thomas, a long-time friend of Miriam MacMillan of Owl's Head and her late husband, is honorary chairman of the campaign.

Enjoying this Christmas party were Dr. and Mrs. Richmond Smith, Mrs. P. Exton Guckes, Mary Houston, James and Margaret Rockerfeller, James and Ann Miller, all of Camden; Frank and Jill O'Hara of Rockland, James and Nancy Smyrl of Glen Cove and Dr. Barbara Stimson of Owl's Head.

SBIIE was represented by Dr. Edward K. Morse of Owl's Head, president, and his wife, Helga; Jean and Henry Scheel, and Virginia Sides of Rockport, its executive director. Seafood newburg was the appropriate entree for this brunch topped off with a lemon frommage made by Helga Morse.

A special ship is being restored in Maine

By Maureen Connolly
Special to The Globe

BATH, Maine — Just a short distance from the Bath Iron Works, where huge Navy destroyers are built for battle, the small, wooden ship Bowdoin, which survived many battles against the ice of the Arctic, is stripped down and awaiting an overhaul.

The Bowdoin, built for the late Admiral Donald MacMillan, is being restored by the Percy & Small Shipyard along the Kennebec River. The project is a labor of love for the shipyard,

which is part of the Maine Maritime Museum of Bath. For MacMillan's widow, Miriam, the restoration will bring a part of her family back to life.

The 88-year-old schooner is America's only remaining vessel built for Arctic exploration and believed to be the only such Arctic schooner still on the seas. The ship has 26 voyages and 300,000 miles in her log.

Now owned by the nonprofit Bowdoin Inter-Island Expeditions, the Bowdoin is listed on the National Historic Register. The cost for the restoration is set at \$385,000, and a \$95,000

grant has been made to the project by the National Trust for Historic Preservation. The rest must be raised through private donations.

Overseeing the work is one of Maine's best known shipyards, Goudy & Stevens of East Boothbay. The restoration is a learning experience for the apprentices at the Percy & Small yard, and Museum officials say the project fulfills a long-time dream that it will become a working shipyard again.

MacMillan had been assistant to Adm. Robert E. Peary, famed North

Pole explorer. From 1913 to 1917, MacMillan was doing research in Greenland and was stranded there and no ship could reach him. He used that time for exploration, but also for the planning of his own ship, which would be able to withstand the Arctic ice.

When he returned to America, MacMillan asked the Hodgdon Brothers yard in East Boothbay to build his dream ship. He had designed a vessel with a V-shaped hull which could lunge atop the ice floes and would not
Continued on next page

'Lady Mac' recalls the ship's adventures

Continued from preceding page

be easily crushed by the heavy ice. The ship, completed in 1921, was framed with native white oak, double timbered and planked and truncheled with locust. She carried 21 tons of cement and iron ballast and was rigged with 2900 square feet of canvas.

MacMillan chose the name Bowdoin, after Bowdoin College of Brunswick, his and Peary's alma mater.

On the Bowdoin's first voyage, MacMillan went to Baffin Island where the ship was frozen in and packed with ice. He left the ship and went out and explored by dogteam, Mrs. MacMillan said. The next year, the Bowdoin sailed to Refuge Harbor in north-

ern Greenland, and was frozen in again while MacMillan ventured 700 miles by dogsled. "He had quite a time getting her out afterwards," Mrs. MacMillan said.

MacMillan brought back information on previously uncharted areas which helped later ships navigate the Arctic. During World War II, the Bowdoin was a pilot ship for allied vessels off Greenland.

Mrs. MacMillan, now 75 and known as Lady Mac, lives in Owls Head near Rockland. She went on nine expeditions with her husband, and her first trip was in 1937.

"We had some close calls. But I loved it, and we both loved that boat. Our last trip together was in 1954. Of course, I'm just thrilled about this. The Bowdoin is a real part of the MacMillan family."

MacMillan died in 1970 and then the Bowdoin went to Mystic Seaport and stayed there for seven years. She was then turned over to the Inter-Islands Expeditions and was used as a training ship for marine biologists, geologists and botanists along the Maine coast. She has continued to sail but has needed extensive repairs.

The Bowdoin supporters have enlisted the help of Lowell Thomas. The famed journalist and commentator sailed with MacMillan to the Arctic and has narrated a slide presentation used at fund raising events. Thomas; Melville B. Grosvenor, chairman of the board of the National Geographic Society, and Mrs. MacMillan, are cochairmen of the fund raising campaign.

A TALE OF SHIPWRECK

By

Stuart T. Hotchkiss

Almost everyone is fascinated by a shipwreck. Some people like accidents for their own sake and to them a shipwreck represents an accident on a grand scale. Others find an undeniable element of romance about a shipwreck. It awakens memories of stories of unendurable hardships and heroic rescues which have come down to us through the ages. But most of us who go down to the sea in ships have yet another reaction. We think "There, but for the Grace of God, go I." We have from time to time faced possible disaster and emerged unscathed. We want to know what circumstance, what error in judgment, what flaw in seamanship, produced disaster for a fellow seafarer. Many questions come to mind. I remember one case in particular.

Not long ~~ago~~ after the Japanese attack on Pearl Harbor I received orders from the Navy to take command of an 87 foot auxiliary schooner which was fitting out in Boston. I suppose that I was selected for the job because of my previous sail experience. At any rate I was delighted with my assignment.

When I arrived aboard I was not disappointed. The vessel was designed along the lines of a commercial fishing schooner of some twenty years previous. She was ruggedly

built, and there was nothing about her which a competent shipyard stimulated by Uncle Sam's currency could not set right. She was somewhat short-rigged, but this might prove a blessing under arctic conditions with an inexperienced crew.

Nor was I disappointed with our mission.

Our orders were to proceed to a certain fjord on the West Coast of Greenland, and, upon arrival, to carry out a hydrographic survey of its entire length. The purpose of the survey was to provide accurate charts for the safe navigation of transports and cargo vessels serving the important Army base located at the head of the fjord.

My interest and enthusiasm were immediately aroused. I lost no time in breaking out all the pertinent charts from the ships portfolio and set about obtaining all available information on the area. There wasn't too much.

The main point which was impressed upon me, however, was that our mission was urgent. A motor vessel had struck a submerged ledge at about the mid point of the fjord the previous December, had frozen in, and according to all reports was still there. It was important for us to be on hand to commence our survey just as soon as the ice should break up. Strandings of this sort were very detrimental to the war effort and everything should be done to prevent any additional ones in the future.

I shall not go into the details of our sail to Greenland, although it was one of the best sails I have ever had. We sailed from Boston on the fourth of May, and arrived in Southern Greenland some three weeks later, having made several intermediate ports of call enroute to report in person to our type and task force commanders.

Our introduction to Greenland waters consisted of a snow laden gale accompanied by breaking arctic seas which swept the schooner making life precarious for the watch on deck as the vessel labored under trysail, foresail and staysail. When the gale left us we fell in with coastal ice through which we threaded our way northward along the coast.

The West Coast of Greenland presents a bleak and barren aspect of irregular saw-toothed mountains of rock, with many small islands and outlying reefs. The navigator will find few well-defined landmarks and no aids to navigation such as lighthouses and bouys. The charts of the area are based on surveys made a hundred or so years ago. For the uninitiated upon the coast a landfall can represent an adventure into the unknown beset on all sides with cold hungry seas breaking on submerged reefs or grey rocks.

One fine morning we arrived at the fjord which was our destination. The month of June had just commenced, and only a few days before the ebbing current which flows outward at about five knots had carried with it the last of the

winter's ice. The stage was set, our task of surveying was about to commence.

The fjord was long and narrow for perhaps half of its eighty-five mile length. Rock mountains of some 1200 feet rose steeply, though not precipitously, from its shores in this lower part. Some of these mountains were obliquely striped with bands of black basalt which helped to accentuate the grotesqueness of their appearance. One had a hole piercing its very top. This was known as "Puto" by the eskimos.

At two points along the southern shore gaps between the mountains permitted the long white tongues of glaciers to lick down from the great ice cap to the shore. These glaciers were receding and hence terminated in moraines of sand which had been pushed down to the fjord centuries ago. It was one of these moraines which furnished the site for the base line of our survey.

The wrecked motor ship, the immediate incitement for the survey, lay behind a point about a mile further upstream.

I shall never forget that evening when we saw her first. As our diesel auxiliary pushed us up the fjord and around the point there came in view, a modern vessel of about 7000 tons apparently headed down stream. She was correctly trimmed and on an even keel. The water at her side touched her Plimsoll marks at Winter North Atlantic.

The boats were swung in on their davits. Everything about her looked shipshape and ready for sea. But all was in suspended animation. As we approached she reminded us of a nautical sleeping beauty awaiting the magic kiss of her prince charming to bring her to life. While closing her we took soundings. She was apparently resting on a flat ledge. There was ample water for our little vessel, and soon we were tied up alongside.

We had a ghostly sensation going over that ship. Everything had been left intact and in good order by the crew when they had taken their unhurried departure six months before. The bridge, officer rooms, passenger state-rooms, dining saloon, lounge - all were in perfect condition and beautifully appointed and furnished. We had the feeling that the ship at any moment would suddenly spring to life and we would be caught trespassing like naughty boys. Each door we opened we carefully closed after us. Subconsciously we talked in hushed voices. It was with a great feeling of relief that we ^{emerged} ~~lingered~~ on deck into the sunlight of the arctic night.

As the realization penetrated that we were indeed the only living souls aboard our tensions were released, and then of course we began to explore unashamedly. In no time we discovered that #2 'tween decks was loaded with beer in cans. Soon we had brought some of the fine upholstered chairs from the passenger quarters onto the verandah deck, and an extension

speaker from our own electric phonograph provided the final touch. At leisure we reflected that we were enjoying a most remarkable situation.

When the newness of our experience had worn off I returned to the bridge and began to ponder on the circumstances which placed the vessel where she was. The ledge on which she lay was well to the south of the axis of the fjord, which was quite wide and free from obstructions in this vicinity. It seemed odd that she should have been hugging the left hand shore in such a manner on her passage to the sea. It seemed odder still, standing by the wheel in the pilot house, that the ship's bow was headed inside of the end of the point of land.

I tried to visualize conditions on the bridge prior to the stranding. Had there been heavy snow and zero visibility the water in the fjord was not too deep for anchoring. Had visibility merely been reduced the high steep shore on the port hand was close enough to provide ample warning of disaster to any alert seaman. As I considered these facts it flashed across my mind that perhaps the cause of this stranding did not lie solely in honest errors of judgement or seamanship.

There was another puzzling thing. When merchant ships were operating in the fjords it was general practice for them to have a Coast Guard escort. It seemed impossible that a cutter familiar with local conditions could have piloted this ship to her present position.

With the seeds of suspicion in my mind I explored the ship further. She was under Panamanian Registry at the time, but under the newer lettering on her stern it was not difficult to read the name of her original home port - a city in a country which had recently been overrun by the Nazis. One additional fact came to light. The rudder was jammed hard left - in the direction of the shore.

I weighed these facts in my mind and determined that I should somehow learn the answers to the questions that they posed.

For the next few weeks our survey duties kept us busy along the length of the fjord. We set up observation stations in accordance with our triangulation plan, and, working from our base line we triangulated in both directions. Aerial photographs were of great help in filling in the convolution of the shore line. Frequently the end of our work day would find us in the vicinity of the wreck, which provided a good berth and pleasant relaxation. We looked forward to these interludes to break the monotony of our job. We developed an affection for our mid-stream "night club", but we always treated her with respect.

Then one day our happy routine came to an abrupt end. From a long distance up the fjord we could see that something was wrong aboard the wreck. The davits were swung out and the life boat falls dangled loosely at the water's edge. Furniture and equipment littered the decks. All was in a state of confusion.

The steep shore of the fjord nearest the wreck presented an amazing spectacle as we drew closer. The water's edge was lined with life boats, umiaks, and stacks of material. An eskimo village seemed to have come into being almost over night. While mooring in our usual berth we studied the scene ashore through our binoculars .

There must have been thirty or forty eskimos on the 'beach' and we noted that their behavior was quite unusual. Even as we watched several climbed up the steep slope, fell and rolled to the water's edge. We suddenly realized that they were all drunk. Never before had they "had it so good" !

When we went ashore the eskimos were very cordial. Like happy children who have been presented with a toystore they wanted to share their good fortune with us. I felt mean indeed as I drafted a radio message to the Army base to send a vessel down the fjord to retrieve the valuable loot.

A week later a salvage ship from the States arrived on the scene. In short order they had the electric winches on the wreck discharging the cargo onto lighters alongside. Their powerful pumps soon had the vessel cleared of water. With temporary patches in place she left under tow for Boston to be repaired and returned to service. All that remained for us was our memories and many unanswered questions.

In the weeks that followed I talked to many people. From several I heard the peculiar story of the ship's departure from the base just prior to the stranding. It seemed that she was to have sailed at an early morning hour under escort of a steam-propelled Coast Guard cutter. Two hours before the scheduled start she was under way, heading down the fjord at her best speed. Hastily the cutter lit off her boilers, but before her engines could be warmed up the motor ship had far outdistanced her. By the time the cutter caught her she was already firmly stranded. That day the crew was taken off, and very shortly afterward, the fjord froze over solid. The crew dispersed. Some left the coast, others took civilian jobs at the bases. The first mate joined a civilian ocean-going tug which was under charter to the army.

Our survey work continued. When our charting of the shoreline was complete we started on the long task of running lines of soundings, up and down, up and down, recording the depths throughout the entire fjord.

One day late in the summer our radioman brought me a message which he had intercepted. A vessel had run on an off-lying rock a few miles down the coast and had become a total loss. Help was being dispatched to her, but her crew was in no danger. She was a tug, towing a barge loaded with heavy machinery. Her crew had safely stepped aboard.

the barge and were awaiting rescue.

While reading that message I recalled the tug. We had tied up alongside her at the first base we had visited upon our arrival on the coast. I remembered her captain well, an old man with many years' experience in ocean towing. It hardly seemed possible that he could come to trouble, especially when I considered that our recent weather had been nearly perfect. The days were still reasonably long, the weather had been calm and crystal clear. Again I wondered ---

A week or so later we returned to the base to replenish our stores, and it was then that I learned the final sequel to the story.

An inquiry into the loss of the tug revealed that the stranding occurred shortly after the change of the watches. The captain, who was standing regular watches as is customary in such vessels, gave the course and speed to his relief before retiring below. The mate, when he was sure that the captain was soundly sleeping, altered course 90 degrees to starboard, heading the vessel directly for the coast. She struck soon afterward. The mate, it developed, had been the mate of the vessel wrecked in the fjord. The inquiry proved further that he had also had charge of the bridge of his previous ship when she was run aground. Thus he had successfully engineered two shipwrecks, and never got his feet wet!

Later it was rumored that there was a full scale trial in Boston for this man, and he received a stiff jail sentence. I wonder if the Nazis in his homeland ever made it worth his while? I doubt if I shall ever learn the answer to that question.

GREENLAND

A Thumbnail Sketch of Thirteen Months

by

Stuart T. Hotchkiss

Our editor, Carl Vilas, is a tough man. He says to me, "Stuff 13 months of Greenland into a couple of typewritten pages."

Well . . . this means I can't write about our spectacular arrival in Argentinia, the drifting mine, the party at Ivigtut, the wrecked motor ship "Halma", hunting and climbing the mountains of Sondrestromfjord at midnight, the moulting mallards that scurried between the rocks like rabbits, the brant, ptarmigan arctic hare, our skeemo friends, their life and customs, and much, much more. Instead we shall stick to the purely cruising aspects.

On 4 May 1942, I sailed from Boston in command of the 87' schooner "Bowdoin", then owned by the U.S. Navy, with my exec., David Nutt, two survey officers, and nine enlisted men, one of whom was Pie Truesdale who is now a C.C.A. member. Our destination was Narsarsuak, Greenland, and our routing called for visits to Casco Bay and Argentinia, Newfoundland. My principle was to proceed under sail alone if we had sufficient wind to make four knots. We used the engine very little between Boston and Argentinia, and again only when we encountered flow ice 60 miles south of Cape Farewell where the wind dropped out and we picked our way through the runs in the ice in smooth water conning from the "ice barrel" on the fore mast.

The third day out from Argentinia, having rounded Cape Race, we ran into our first and worst dusting of the trip. Most of the day we had grand sailing with the wind going from dead aft to the port quarter and shoving us along at increasing speed up to ten knots which was about the limit for this heavy vessel. Finally we double reefed the mainsail, but when we reset it the rig looked so shaky that we got it in almost immediately. The mainmast was simply too light to take the

thrust of the lowered gaff. After that in the increasing gale we merely head reached under foresail and staysail. Bowdoin, being heavily loaded, was rather logey in the seas and took quite a number of solid ones, one which raised some havoc with gear stowed on deck and made it somewhat uncomfortable for all of us as the air temperature was 35°. As the seas lengthened out they became more comfortable and broke along their backs instead of toppling over like breakers on a beach as they had done, but it was not until the following afternoon that we could again make full sail.

On the afternoon of the third day before our arrival the main gaff snapped in the middle, but as it turned out we never actually missed it, for that same day we ran into another gale which continued through the night, the following day and following night bringing with it violent squalls of sleet, hail and snow. Fortunately this time the seas did not build up in the same way and we took less solid water aboard. But nonetheless we all remained more or less soaked for those last few days and aft she was almost as wet below as on deck.

The day after we negotiated the flow ice south of Cape Farewell was fine and clear with a fresh breeze. Our first sighting of Greenland was impressive. The shoreline was characterized mainly by great masses of rock topped off with snow with very little vegetation in evidence. There were no distinguishing features to the land, but fortunately my morning sun line lead straight to our destination, the entrance to Skov Fjord. We altered course to run the line and soon the outlying rocks and islands became distinguishable and finally identifiable. We sailed up the fjord to anchor at Narsak and thence on to Narsarssuak the next day, arriving on the 21st of May.

The army base, Blue West One, was located at Narsarssuak, also the headquarters of Commander Greenland

Patrol to whom we were to report and under whose operational control we were to be.

From Narsarsssuak we were to proceed north to Sondrestromfjord, which straddles the Arctic Circle. Our first assignment was to survey this 85 mile long fjord.

Accordingly after a day or two layover we proceeded via the inland passage to Ivigtut. This passage we negotiated with a sort of road map, no soundings and only a sketch outline of the many rocks and islands through which a route line was traced. Fifteen months or so later Bowdoin was to survey and chart this area.

Ivigtut was the site of the cryolite mine. Cryolite was an essential ingredient for aluminum manufacture and so at this time there was much activity here.

From Ivigtut we proceeded outside to Godthaab, the capital of Southern Greenland. This run was made entirely under power because of lack of wind. In fact it was our continuing experience during the summer months that there was little wind along the coast and in the fjords. I frequently found myself wondering how the explorers in the days before mechanical propulsion managed on such an intricate coast as this with so little wind to drive them.

Godthaab proved to be a small town that rambled over a rocky area. The harbor was relatively well protected and there was a stone dock and warehouse. Fishing seemed to be the main industry here with cod liver and shark liver oil as its main products. The wooden houses were small and snug. Consul Penfield was the U.S. Consul to Greenland at the time. His house boasted a windmill driven generator to provide electricity, the only such installation in Godthaab. Our visit here was brief and soon we were again pushing along under power for our final destination, Sondrestromfjord.

Our arrival at Sondrestromfjord was well timed. Only a few days before the fjord had been choked with the winters

ice. Suddenly in the mysterious manner of ice it was gone. When we pushed up against the strong current that was then flowing down the long straight valley that the lower fjord appeared to be, no trace of ice remained.

Blueie West Eight, under the command of Col. Bernt Balchen, was located at the head of the fjord some 85 miles from the entrance. This was to be our supply point until the completion of our survey in early September.

Lack of space precludes an account of the next three months - the long hours of work with 24 hours per day daylight, the hunting, fishing, mountain climbing, the glacier, the Halma, the flowers and tundra. It was a great time, but when it was over it was great to get to sea again.

Davis Strait was blue and sparkling as we set our course to the southward for the direct run to Narsarssuak for the start of our next survey, Skov Fjord, Tunugliarfik Fjord, and lower Brede Fjord.

For the first time in many weeks we had the gyro compass in operation. With this we could utilize true course and bearings instead of relying on the magnetic compass which, because of our position relative to the magnetic pole, had a variation of almost 55° W. There was another great advantage which we were to learn a few hours later.

The wind, broad in the starboard quarter, kept increasing and with it the sea as well. As Bowdoin swung down the increasing seas with an almost rhythmic motion, so the magnetic compass began to swing until at last it was revolving like a cartwheel in its bowl. The magnetic declination in the area was in excess of 50° . The downward forces acting on the compass magnets exceeded the horizontal directive forces and hence this erratic performance. We were glad that night to have the gyro clicking away impervious to outside forces.

The wind increased to gale force. We took in the mainsail and replaced it with the trysail. The next afternoon

we sighted an iceberg ahead, riding majestically with the great seas breaking high up its sides. That night, (for now in September we were again getting full darkness), we kept an extra-good lookout!

Next morning, south of Cape Desolation, we hauled up for Brede Fjord, bringing the wind and seas abeam. The cold spray drove across the decks rattling on our Navy parkas until at last we gained the protection of the land. Still carrying a fresh wind we sailed up Brede Fjord, past Narsak to Tunugliarfik Fjord and thence on up to Narsarssuak.

With winter coming on us we wasted no time in getting started with our survey.

For most of the summer the temperature had been mostly about 45°. Late September brought our first snow. Soon the calm cold nights brought a coating of skim ice to the surface of the fjords. One such morning when far from base we found that our greenheart sheathing which midships dipped below the water line was not sufficient. In short order the thin ice had cut like a buzz saw into Bowdoins stout oak planking. We radioed to the Base for galvanized sheet iron, 2x10 planking and plenty of galvanized boat nails which were brought to us by a steel hulled trawler. With the rest of the crew on the main boom swung out to heel her over Pie Truesdale and I applied the sheathing at the freezing waters edge.

Our first experience with a Foehn wind came in December. This type of wind in Greenland results from a certain combination of temperature and atmospheric pressure conditions which may occur over the vast ice cap. These winds may last for only a few hours or they may continue for several days. One thing is sure, however. They will always reach at least hurricane force. The warning comes with a rapid rise in temperature to well above the freezing point.

Our first experience was brief and unpleasant. We were caught in the narrow rockbound harbor at Simiutak Island

on a dead lee shore. With both anchors out and the engine turning over to ease the strain we rode it out. The barometer dropped below the bottom of our scale, 27.70, and stayed there until well into the next day.

Our second experience with a Foehn wind came between Christmas and New Year when we were berthed alongside a steamer in the harbor of Julianahaab. This time we were under the lee of a high shore. For five days the wind never dropped below 75 miles per hour.

On a later experience when we were snugly berthed under the sheer face of a rock mountain at Blue West One, the wind at the nearby airstrip was clocked at 165 miles per hour. Perhaps it went higher in the gust that blew the anemometer away, and afterwards!

The winter temperatures were not excessive. They mostly ranged between $+10^{\circ}\text{F}$ to -10°F . Occasionally they would sink to -20°F . Though statistically not excessive, combined with the short six hours of daylight they made survey work slow and painfully uncomfortable.

In the course of our work we anchored in many small harbors. We frequently lay in the good harbor of Narsak where we made many Skeemo friends. We also lay over in small harbors amongst the numerous rocky islets between the fjord entrances. The problem here was depth versus swinging room. To find as little as 20 fathoms our stern would swing perilously close to shore with only 2:1 scope. I remember one night in particular in one such harbor riding out a gale in snow so dense that visibility was zero. We lowered a drift lead over the side to give immediate warning should we start to drag. It was a long night.

All winter we carried on to complete our work. In spite of the cold the fjords did not freeze solid because the foehn winds broke up the forming ice. At last, however, in early April the winds remained quiet and the ice formed

solidly across the fjords to a depth of about 6 inches. Bowdoin was not built to cope with that and so for about three weeks we remained in our berth at the base.

During this time the weather was reasonably good and we were able to start our spring program of hull maintenance to get her back into yacht-like condition after the rigors of winter. This, with some interruptions, we accomplished before I was detached on 2 June 1943 to proceed to Miami and Sub Chaser Training Center to later become C.O. of a Destroyer Escort bound for the South Pacific, the Battle of Leyte Gulf and other adventures.

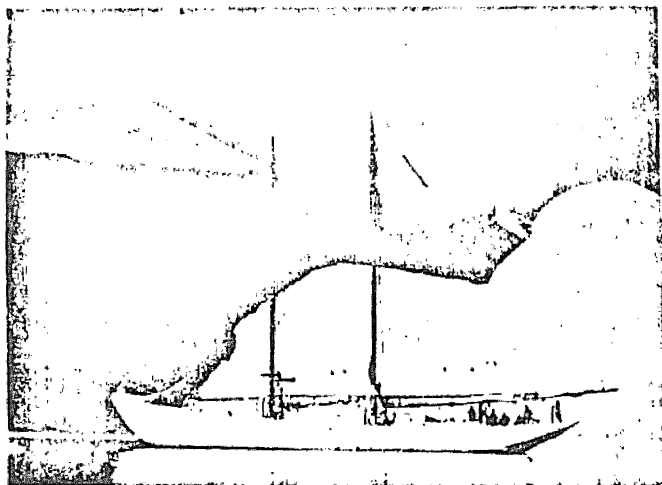
Bowdoin carried on in the Brede Fjord - Ivigtut area that summer and, in contrast to the fine clear weather we had experienced at Sondrestrom, she encountered much fog. A branch of the Gulf Stream flows around Cape Farewell and northward up the west coast. Being more diluted and intermingled with the cold Laborador current further north perhaps accounts for the clearer better weather we encountered there.

In conclusion let me say that I thoroughly enjoyed my Greenland experience and I would happily sail back. I know I would find changes that would not appeal. Thirty years ago Greenland was a closed area tightly controlled by the Danes and the people lived the simple natural lives that had evolved slowly through the ages. I liked Greenland and its people that way.

With her arrival on June 27, 1939, the trim, white schooner *Bowdoin* brought to Mystic Seaport not only a handsome and famous vessel, under the command of her internationally-known explorer-skipper, Rear Admiral Donald B. MacMillan, but as fitting a combination of history and adventure as is represented along this restored waterfront.

The schooner and the man have become almost synonymous. Admiral MacMillan was one of Peary's redoubtable expedition when the latter led the way to the discovery of the North Pole in 1909. After several years of active participation and leadership in Arctic exploration, Admiral MacMillan determined to build a schooner in which he could incorporate all his needs for the hazardous work he felt he must do. The result was the schooner *Bowdoin*; designed by William Hand and built by Hodgdon Brothers yard at East Boothbay, Maine. Launched in 1921, the *Bowdoin* made a unique maiden voyage to the Arctic, proving to be just the type of schooner needed for Admiral MacMillan's rugged cruises in Greenland seas. No craft ever built has done more sailing in the dangerous waters off Greenland. She can be truly said to be the only vessel ever constructed in this country for exploration in the north, which still survives. During World War II, chartered by the U.S. Government, she did her part in the important work of keeping Greenland bases open.

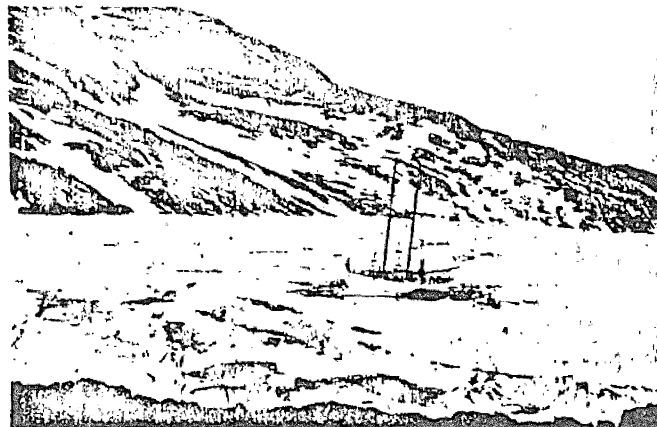
Built of white oak in frame and plank, the *Bowdoin* is 88 feet long, has a beam of 21 feet and draws 9 feet of water. A belt of $1\frac{1}{2}$ inch green-heart, or "iron-wood", is used as a sheathing for protection when the schooner battled her way through pack ice. A steel beak piece helps to further protect her stem in forcing her way through the ice, and her fine spoon bow allows her to rise up on the ice and crush it. She has no bowsprit or topmasts, which helps reduce danger in making and taking



in sail during gales or sudden squalls. Her unusually large rudder enables her to turn easily, and her propeller is protected by a skeg projecting from the keel to rudder foot. Stability in heavy weather is ensured by twenty-one tons of cement and iron permanently set into her ballast.

MacMillan took the *Bowdoin* to the Arctic on twenty-six voyages. During nine of these trips he was accompanied by his wife, Miriam, or "Lady Mac" as the Eskimos call her. No wife ever experienced such a sharing of adventure as Lady Mac with her husband. During these voyages no professional sailors were shipped for crew. The young men who accompanied the MacMillans on the *Bowdoin*, many of them college men, became skilled mariners under the tutelage of Admiral MacMillan.

On one of her voyages, the *Bowdoin*, being sailed in narrow, ice-choked waters, ran up on a rock in a remote corner of the northwest coast of Greenland. For a time she listed dangerously, her fate in the balance. But Admiral MacMillan's faith in the staunchness of his schooner was unshaken, and she survived another of her remarkable adventures. The incident was typical of the man and his craft. He is the only mariner who can pilot a craft close inshore the entire length of the Labrador coast north to its stormy Cape Chidley; proceeding along uncharted Baffin Land and Ellesmere Land coasts.



MacMillan in the *Bowdoin* has spent a lifetime locating uncharted stretches of coastline and islands at northwest Greenland. His trips made history, always bringing back information of unknown facts so that the hydrographic office was enriched and future navigation protected. Only a lifetime of experience in the north could have made possible these feats. Frozen in the icefields literally for years; working through dangerous fields of floating ice; dodging icebergs; surviving gales which spring from the icy shores of the land, MacMillan and the *Bowdoin* have lived lifetimes of adventure.

Thus, the schooner *Bowdoin* epitomizes the personality of a skilled explorer--Donald B. MacMillan--just as MacMillan represents the remarkable career of his illustrious schooner. The combination of man and schooner can be truly said to bring to Mystic Seaport a unique representation of the qualities of self-reliance and determination which the sea brings out in the mariner.

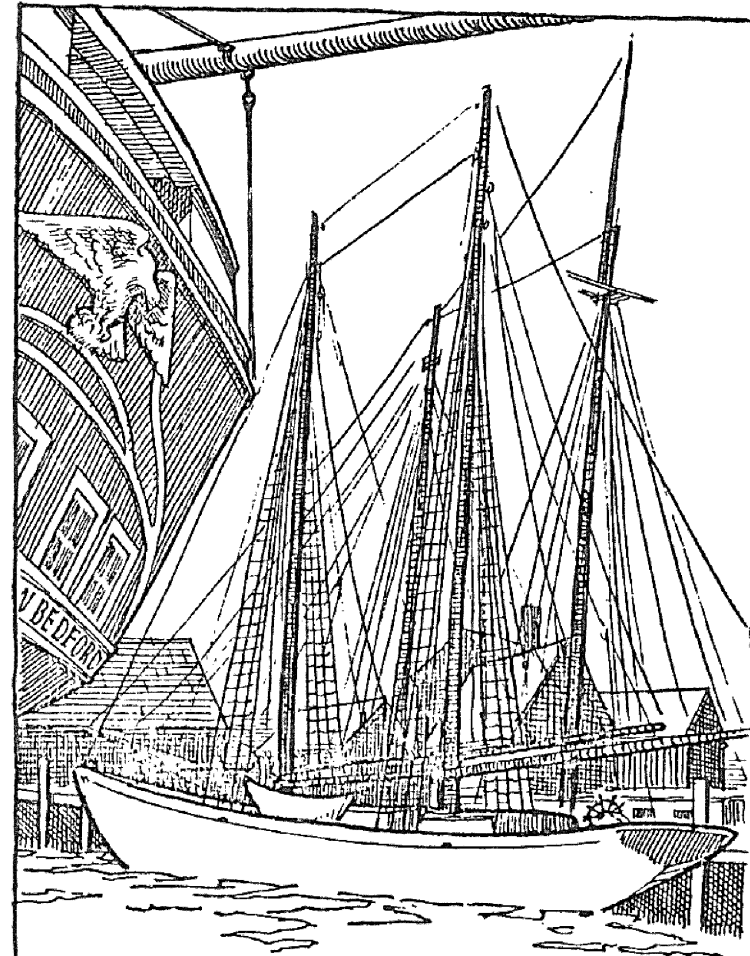
As a result of their lifetime of exciting voyages to the Arctic, the MacMillans wrote numerous books, recounting their experiences and the extraordinary services of their sturdy schooner. These volumes may be seen in the special exhibit at Mystic Seaport.

Rear Admiral Donald B. MacMillan
Explorer, Scientist, Teacher, Author



- Awarded Special Congressional Medal for "Distinguished Services"
- Elisha Kent Kane Gold Medal for "Daring Exploration and Scientific Research"
- Hubbard Gold Medal of National Geographic Society for "Outstanding Arctic Explorations from 1908 to 1952 and Valuable Service to Geographic Education and Science"
- Gold Medal from Chicago Geographic Society for "Geographic and Scientific Achievements"
- Medal of Explorers Club
- Bowdoin College Award: "Once in each five years to the graduate or former member of the college, or member of the Faculty at the time of the award, who shall have made, during the period, the most distinctive contribution in any field of human endeavor."

PRINTED AT MYSTIC SEAPORT



BOWDOIN
Mystic Seaport, Mystic, Connecticut

DONALD B. MACMILLAN
PROVINCETOWN
MASSACHUSETTS

March 3, 1960.

Dear Stuart:

Home from another lecture trip and find your letter. It is good to hear from you, and more than good to have seen you and your wife when at Newtown on the occasion of my talk and pictures,

You are an important part of the Bowdoin, even more so than any one of the boys who accompanied me through the years. She was your "baby" for a year and a half. She served only two masters during her long career and her some 250,000 miles of northern work. I know that she will always be glad to see you whenever you feel inclined to pat her on the back.

If our talked-about reunion materializes, and I am quite certain that it will, I'll drop you a line.

I wonder if you have seen the March Number of "Yachting." I have an article there entitled "Ice-bound in the Far North." You may find it interesting.

My best to your good wife.

Sincerely,

DMac

1961

EDWARD H. SMITH, EX-ADMIRAL, DEAD

Retired Coast Guard Officer Led Woods Hole Project



Rear Admiral Edward Smith

Special to The New York Times.
FALMOUTH, Mass., Oct. 30—
Rear Admiral Edward H. Smith,
U. S. C. G., retired, onetime di-
rector of the Woods Hole
Oceanographic Institution died
yesterday at his home on his
seventy-second birthday.

Admiral Smith was com-
mander of the Third Coast
Guard District in New York
when he retired in 1950. That
same year he was appointed
director of the Oceanographic
Institution. He retired from that
position in 1956.

Surviving are his widow, the
former Isabel Brier, and three
sons, Dr. Porter H., Stuart E.
and Jeremiah.

Won Nickname of Iceberg

Admiral Smith spent many of
his years at sea in northern
waters, and for that reason
friends and associates often re-
ferred to him as Iceberg. He
gave up his active sea career
when he assumed his duties as
District Coast Guard Officer
and Captain of the Port of New
York in the summer of 1945.

The author of several defini-
tive works on Arctic waters, Ad-
miral Smith was placed in
charge of the strategic Green-
land Patrol at the outset of
World War II. He planned, built,
supervised and administered the
vital naval bases in the Arctic
during the war period.

For his war work there Ad-
miral Smith in 1945 received the
Distinguished Service Medal,
Denmark in 1947 awarded to
him the Cross of Commander of
the Order of Dannebrog, First
Class, for "valuable services to
Denmark during the war."

Born in Vineyard Haven,
Mass., on Oct. 29, 1889, the son
of a whaling skipper, he at-
tended the Vineyard Haven pub-
lic schools and New Bedford
High School.

Then he spent a year at Mas-
sachusetts Institute of Tech-
nology, leaving to enter the
Coast Guard Academy as a
cadet in 1910. He was commis-
sioned an ensign three years
later.

Was on Convoy Escort Duty

During World War I he was
on convoy escort duty in the
European war zone, his assign-
ment being to protect shipping
along the England-Gibraltar
route. At the end of the war,
he received the Victory Medal
with clasp.

Later Admiral Smith spent
ten years on duty with the
Coast Guard's Ice Patrol. He
made a thorough study of Arctic
ice and ocean currents and won
a reputation as an authority on
its oceanography and meteorol-
ogy.

The American-Scandinavian
Foundation awarded him a fel-
lowship for advanced work in
the field of oceanography in
recognition of his work. He
studied in Norway and England
and later at Harvard, where he
received a degree of Doctor of
Philosophy.

Admiral Smith was a member
of the scientific staff of the
Graf Zepplin polar flight in
1931. He was promoted to rear
admiral in 1942.

A trustee of the Woods Hole
Oceanographic Institution, Ad-
miral Smith was a member of
the American Geophysical Un-
ion, the National Research
Council, the Aero-Arctic Society,
and the New York Propeller
Club. He held an unlimited
master's license in the Ameri-
can merchant marine, and had
served as a lecturer at Harvard
and Clark Universities.

In 1952 he was elected chair-
man of the board of governors
of the Arctic Institute of North
America.

Gallant Barkentine Bear Rests At Bottom Of North Atlantic

BOSTON (AP)—She was nearly 90 years old—the gallant little ship Bear. In her past were rescues of hundreds of mariners, and victories over the furies of northern and southern polar seas. She carried Adm. Richard E. Byrd's 1933 expedition to the Antarctic. Now she rests at the bottom of the North Atlantic.

If sailing ships have personalities, as generations of sailors have held, it may be that the barkentine Bear would have had it so: To go down in darkness in a savage, wintry ocean, with a storm wind whistling through her shrouds.

For that was the way she went Tuesday night.

Stoutest Sailing Ship

The story of the Bear began 90 years ago in Greenock, Scotland, where master craftsmen made her the stoutest sailing ship ever built. You have Adm. Byrd's word for that.

For 11 years she fought the ice floes off Newfoundland in the hazardous fur sealing industry. Then the United States government bought her. She sailed for the U.S. Revenue Service and later, the Coast Guard.

She began with a rescue voyage to lonely Ellesmere Island, extending into the Arctic Circle.

Her voyages into the Bering Sea and the Arctic Ocean numbered 45 in her 40 years of service, mostly out of Oakland, Calif.

Her rescues numbered hundreds, including whalers trapped off the Yukon in an early freeze in the winter of 1897-1898.

Some seven years earlier, the doughty little ship played a role in introducing reindeer to Alaska and Canada. According to that story, food shortages had developed during the gold rush and the Bear traveled to Siberia where it ex-

changed guns for reindeer. Ten reindeer were placed in an Alaskan corral for breeding. The Bear brought back more on other trips. Within a few years there were three growing reindeer herds.

300 Whalers Stranded

When winter closed in late in 1897, an estimated 300 whalers were stranded on five ice-locked ships. The stout little Bear smashed through heavy ice on its rescue mission but was stopped many miles short.

Then the Bear crewmen, with dogsleds and 400 reindeer, braved temperatures as low as 70 degrees below zero in a rescue mission over the ice fields.

Their arrival ended fighting between the whalers and 500 local residents over food, replenished food supplies, and restored scurvy-stricken whalers to health.

Four months later, as spring came, the Bear smashed the rest of the way through to the stranded men.

After 1929, came a few years of retirement in an Oakland marine museum where Adm. Byrd found her. When World War II came, the Bear went on North Atlantic patrol and, on one occasion, brought a captured German supply ship into Boston.

In the late 1940s she was sold again into the sealing trade. She approached her 90th year in ignominy—decaying on a Nova Scotia beach.

Rescued From Shame

From that shame, she was rescued by Alfred M. Johnson of Villanova, Pa. Partly refitted, she was going to become a combined restaurant and commercial museum.

She was on her way from Nova Scotia to Philadelphia on Tuesday at the end of a towline when this

communication was recorded by the Coast Guard:

"Distress. Sailing ship Bear. Request received from Capt. Van de Weil, Atlantic Towing, Ltd., St. John, N.B., for help in removing two crew members from ship Bear. Tug Irving Birch, en route from Halifax to Philadelphia towing sailing ship Bear, lost tow at 10:10 in heavy seas at position 41:52 N., 65:11 W."

That was roughly 260 miles due east of Boston.

Then came the report: "Three-masted Bear, white hull, two crew members on board. No lifeboat, no inflatable dinghy, life jackets only. Bear appears to be breaking up. Foremast broken halfway. Other two loose. Starboard list. Sinking by head."

The tug messaged she had no inflatable dinghy and was unable to launch lifeboats in the heavy seas.

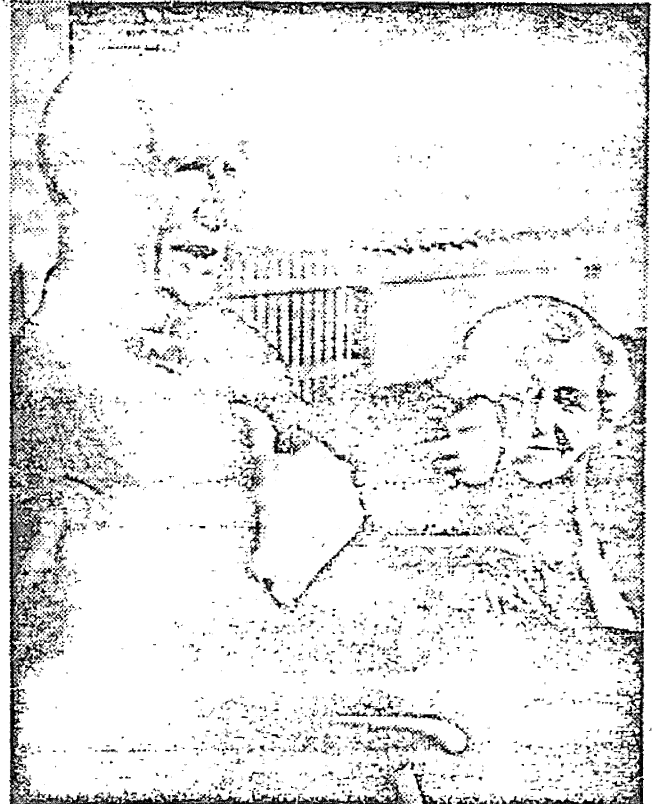
An American plane dropped a life raft which inflated upon hitting the water. The tug reached it, attached a line, and floated it downwind to the stricken Bear. The two men climbed aboard and were hauled to safety.

The weather worsened as afternoon wore on. The Bear rolled in heavy swells. She was taking water, listing to starboard. Her broken square-rigged foremast was dragging upside. Her second and third, fore-and-aft rigged masts were shaky.

Her bow was settling lower in the water as twilight deepened into dark.

Then, at last, came this word: "Unclassified distress. Sailing vessel Bear. Tug Birch reports sailing vessel Bear sunk at 20:10 on the 19th in position 42:07 N., 65:50 W. Tug Birch departed scene en route St. John."

MacMillan, Arctic Pioneer, Turns 90



Associated Press Wirephoto

Rear Adm. Donald B. MacMillan, retired, and Mrs. MacMillan outside their home yesterday in Provincetown, Mass.

PROVINCETOWN, Mass., Nov. 10 (AP) — Tall and straight as a schooner's mast, Rear Adm. Donald B. MacMillan, last survivor of the Peary North Pole Expedition of 1909, was 90 years old today.

Smiling, crinkles running from his blue eyes, Admiral MacMillan told an interviewer that he had no advice to impart.

"I'm still living and learning every day," he said. "I have to go to the dictionary just like everyone else."

Aided by Miriam, his wife and shipmate on nine northern voyages, Admiral MacMillan spends his time indexing the Arctic accumulation of a lifetime. He has given his Arctic schooner, Bowdoin, to the Marine Museum at Mystic, Conn. Forty miles of old-style nitrate film went to the Library of Congress.

Thousands of books, photographs, Eskimo tools and clothing are to be housed in a special collection at Bowdoin College in Brunswick, Me. Other material will go to a museum in Provincetown.

Admiral MacMillan was chief aide to Adm. Robert E. Peary in the struggle across the frozen Arctic Sea to the North Pole in 1909. Admiral MacMillan and his Eskimo helpers laid a vital supply cache far out on the ice so that Peary, his companion, Matthew Henson, and the Eskimo dog drivers could make the final dash to the pole, the first in history.

Admiral MacMillan later made 25 expeditions to the North, one lasting four years. He compiled the first Eskimo-English dictionary, and lectured and wrote about the Far North for half a century.