O. H. M. S.

GEODETIC SERVICE OF CANADA
DEPARTMENT OF MINES AND RESOURCES
OTTAWA, CANADA

DESCRIPTIVE REPORT

ASTRONOMIC CONTROL LOCATION

JAMES BAY AREA

1947

D.F. COATES

R. 3217

February 7, 1948

Mr. J.L. Rannie,
Dominion Geodesist,
Geodetic Survey of Canada,
Ottawa, Ontario.

Dear Sir;

Submitted herewith is my descriptive report of the summer's work on James Bay in 1947. Attempting to compile both this and the technical report while studying at university has forced me to be brief and to possibly eliminate some parts which would have made them more complete.

It spite of a few mishaps, the summer's work resulted in a great deal of satisfaction for my partner and me. We were able to establish extra points at Rupert House and west of Moosonee in the muskeg as well as on seven of the eight islands which had been scheduled. The eighth island - East Cub, was not seen on three different occasions when it was felt that it should have been visible. This led us to doubt its existance and explains our not locating a point there. However, on September 30, 1947 Manning said that while on the second photographic flight of the James Bay control points, he saw what he thought might have been described as East Cub Island. It was a small, low rock and may have been visible due to there being an exceptionally low tide.

Our being able to do this work was due to a large extent to the co-operation of the Catholic missionaries, the assistance of the Hudson's Bay Company's employees and the excellent airmanship of Gordon Mitchell, the Austin Airways pilot who transported us after our ship was wrecked.

The birds listed in section C contain only the preliminary identifications and should any of the information contained therein be questioned it would be wise to contact Mr Godfrey of the National Museum for verification.

I have suggested in my technical report names for three lakes at Points 1 and 2. Presuming that these names will be acceptable, I have used them in these reports for purposes of reference. At point 1 there were two above-average size lakes. The one on which the point was established was called Manning Lake after Mr T H Manning, and the companion lake was called Coombs Lake after Mr D B Coombs, both of Ottawa. The lake on which Point 2 was located was called Carling Lake after Miss S N Carling, daughter of Mr and Mrs L B Carling and great-granddaughter of Sir John Carling.

It has been a pleasure doing this work for you sir, and I hope it will be possible to do similar jobs in the future.

Yours respectfully,

D F Coates

D F Coates

Descriptive Report

of

JAMES BAY AREAS

Seen While

Establishing Land Control Points

1 9 4 7

D.F. Coates.

Contents.

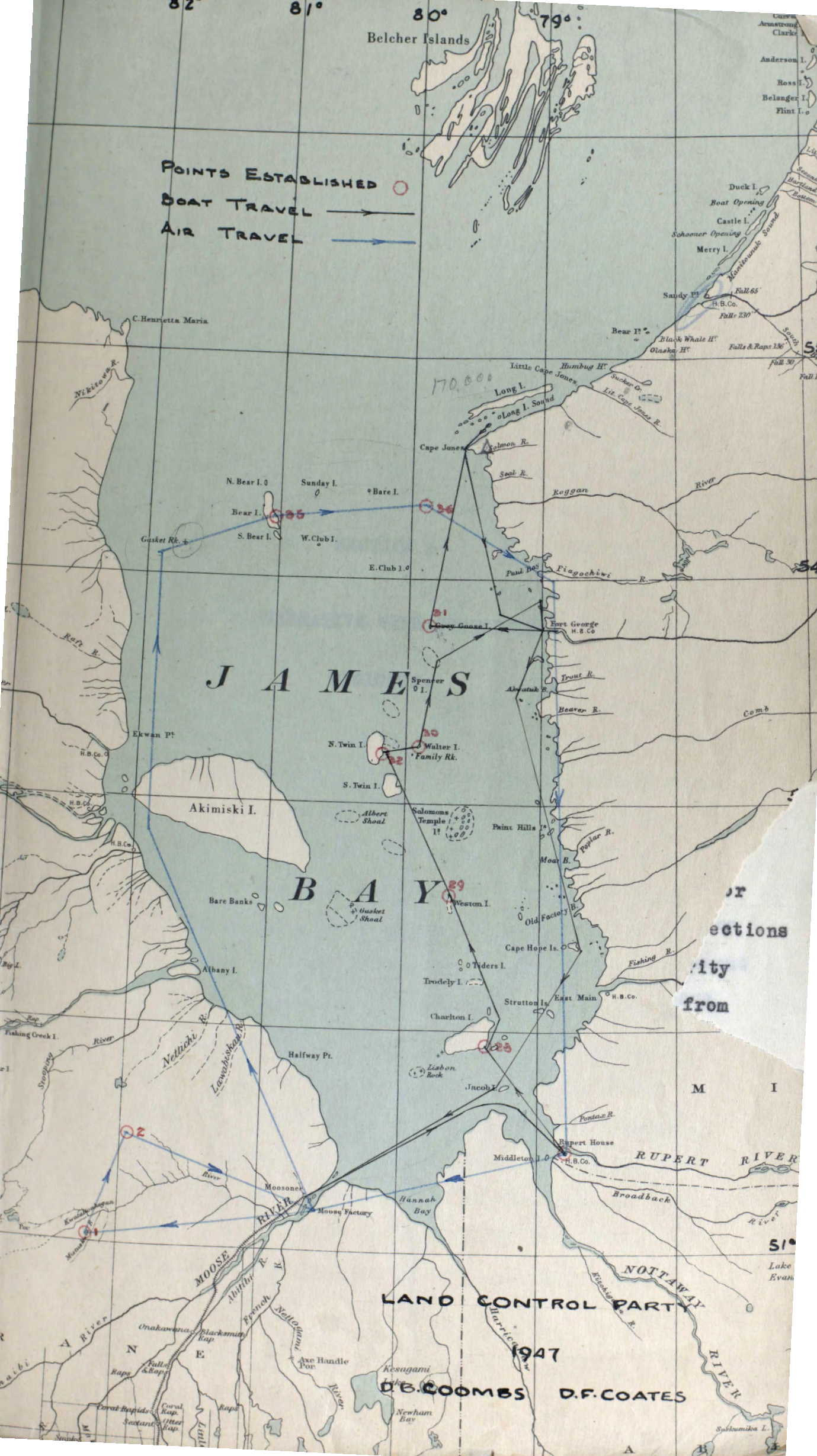
Map of James Bay

Section A Narrative with Historical Prologue.

Section B General Description of Areas visited.

Section C Notes on birds collected and seen.

Section D Photos of areas visited.


POINTS ESTABLISHED
BOAT TRAVEL
AIR TRAVEL
82°
81°
80°
79°
Belcher Islands
Anderson I.
Ross I.
Belanger I.
Flint I.
Duck I.
Boat Opening
Castle I.
Schooner Opening
Merry I.
Manitounuk Sound
Sandy Pt.
Fall 65'
H.B.Co.
Falls 230'
Bear Is.
Black Whale Ht.
Olaska Ht.
Falls & Raps 136'
C. Henrietta Maria
Nekitowa R.
Little Cape Jones
Humbug Ht.
Sucker Ck.
Lit. Capt. Jones R.
Long I.
Long I. Sound
Cape Jones
Salmon R.
Seal R.
Koggan River
N. Bear I.
Sunday I.
Bare I.
Bear I.
S. Bear I.
W. Club I.
E. Club I.
Gasket Rk.
Paul Bay
Piagochiwi R.
Fort George
H.B.Co.
Goose I.
Raft R.
JAMES
Spencer I.
Trout R.
Abeatuk R.
Beaver R.
Ekwan Pt.
H.B.Co.
N. Twin I.
Walter I.
Family Rk.
S. Twin I.
Akimiski I.
Albert Shoal
Solomons Temple Is.
Paint Hills
Poplar R.
Moar R.
BAY
Bare Banks
Gasket Shoal
Weston I.
Old Factory R.
Cape Hope Is.
Traders I.
Albany I.
Trodely I.
Strutton Is.
East Main
H.B.Co.
Fishing R.
Charlton I.
Fishing Creek I.
Stoopwa River
Nettlichi R.
Lawashiskan R.
Halfway Pt.
Lisbon Rock
Jacob I.
Pontax R.
Rupert House
Middleton I.
H.B.Co.
RUPERT RIVER
Broadback River
Moosonee
Moose Factory
Hannah Bay
MOOSE RIVER
Abitibi R.
French R.
Nettagami R.
Axe Handle Por.
Kesagami Lake
Newham Bay
Onakawana
Blackstone Rap.
Falls & Raps
Coral Rapids
Sextant Rap.
Otter Rap.
Raps
NOTTAWAY RIVER
Harricana R.
Eskwakwa R.
Lake Evan
Sipiskumika L.
LAND CONTROL PARTY
1947
D.B. COOMBS
D.F. COATES

SECTION A

NARRATIVE WITH HISTORICAL

PROLOGUE.

Brief History of James Bay.

It is interesting to realize that an area about which we know little even today, not withstanding its comparatively southern position, was visited and explored by white man over 300 years ago. James Bay, in a latitude similar to civilized areas of the prairie provinces, still only produces furs. This, of course, is not surprising when one learns of the nature of this region. It has at least a sub-arctic climate, and some of the islands, considering the flora and fauna found on them are classified ecologically as part of the arctic.

In 1610 Henry Hudson made his fateful voyage into Hudson and James Bays. He explored the east coast of James Bay and wintered in Rupert Bay, but the surviving account of this work is vague. Shortly afterwards while looking for the north-west passage and financed by trading interests in England, Captain Thomas James was forced to spend the winter of 1631 on Charlton Island. He sailed over most of the bay which bears his name and mentioned in his report most of the larger islands by their n[illegible]rity In spite of his extensive travel here he still ha[illegible]from the impression that there were two adjacent bays making up these waters. His report being mainly narrative, added little to the geographic knowledge of the region. Later in that century Radiisson and Grosselier established a fort on the Nemiscow River. It was built in 1668 and originally called Charles Fort, but later changed to Rupert House, similar to

the change in the name of the river to Rupert River. Established as a Hudson Bay post in 1670, it claims the distinction of being the first British settlement in Canada.

There then followed a period of establishing posts with the English and French fighting to determine who would occupy them. Some of the settlements founded soon after Rupert House were Moose Factory, Albany, Port Nelson, the East Main mica mine and the Charlton Island depot.

Although it was a time of peace in Europe, this skirmishing continued, permitting such men as de Troyes, D'Iberville and Geyer to gain recognition for their military prowess. However, in 1713, by the Treaty of Utrecht, the French ceded all of their rights in this area to the English.

Between 1727 and 1751 Captain W. Coats sailed in Hudson and James Bays and became quite intimate with these waters. His sailing directions for this area contain a great amount of valuable information which cannot be found in manuals particularly published for this purpose, i.e. "Arctic Pilot" and "Sailing Directions for Northern Waters". An example of his familiarity with the bay is how he describes a bank running from 15 leagues east of the Cubb (called West Cub today) towards the North Twin Island. The presence of rocky reefs in the narrows between the Twins on which he tells of a ship being wrecked was corroborated by our Indian pilot, as mentioned later in the narrative, who told a similar story. Speaking of sailing in general on James Bay, he says rather succinctly that " - - - (it) has many embarrissments which you are carefully to attend too". He sounded a large part of the bay and made many

latitude and a few longitude observations.

For anyone sailing in these waters today his remarks would provide a valuable supplement to the knowledge which has been since gathered.

For one hundred years after Coats's work there was little exploration done here. The Hudson's Bay Company continued to expand, establishing posts at places such as East Main, Rupert and Nottaway Rivers in 1820. Then in 1847 the second of the two major influences on the lives of the natives (considering the Hudson's Bay Company as the first) began when the Methodist and Roman Catholic missionaries arrived. Six years later the Methodists withdrew and the Church of England took over their work. Up until today these missionaries have continued their efforts in this area - the Roman Catholics having the greater following on the west coast and the Anglicans on the east coast.

The next major contribution to the geographical knowledge of James Bay came from Dr. Robert Bell in his explorations of 1871 - '2, 1877 and 1886. Working for the Canadian Geological Survey he reported on the land and geological structure of the area adjacent to the east coasts of James and Hudson Bays in 1877. Then in 1886 he further studied the Moose and Rupert Rivers as well as the west side of James Bay, spending most of his time in the Attawapiskat and Albany River areas (the work on the latter was a continuation of his work started in 1871 - '2.)

A.P. Low also of the Canadian Geological Survey spent a good part of his life exploring in the Hudson Bay area. In 1887 - '88 he reported in particular on the regions drained by the Big (George), Great Whale and Clearwater Rivers. Also in this report he

gave a general description of the whole of James Bay which was quite good, but he led the reader to believe that the Bear and Cub Islands were sand and gravel similar to the others of the central part of the bay. This as we found and as Coats reported was wrong, they being composed entirely of rock. In 1898 he made observations in the Moose River country while on his way up to Hudson Bay in a Collingwood fishing boat from June 14 to 29th. This was about three weeks sooner than the trip could have been done in the summer of 1947. Finally in his report of 1902 he ended another exploration trip of the east coast of Hudson Bay from Cape Wolstenholme to the south-east end of James Bay.

In this century there have been a few additions to the sparse amount of geographical knowledge of this area. From 1912 to 1915 the Hydrographic Survey worked in the southern part of the bay around Rupert Bay, Charlton Island and the Moose River. In 1947 two Geodetic Survey parties established the land control which in conjunction with the subsequent aerial survey and map production will prove to be a big step toward revealing the secrets of James Bay.

BIBLIOGRAPHY

"The Voyages of Captain Luke Foxe and Captain Thomas James in Search of a North-West Passage."

- edited by Miller Christy

Hakluyt Society.

"The Geography of Hudson's Bay being the Remarks of Captain W. Coats 1727 - 1751."

Hakluyt Society.

"Documents relating to the Early History of Hudson Bay".

- Tyrrell, J.B.

"Canadian Geological Survey Reports of Progress." - 1877, 1886, 1887-88, 1898, 1900, 1901, 1902.

(Much of the research for this material was done by D.G. Coombs.)

NARRATIVE.

Don Coombs and I arrived at Moosonee on June 14. For two weeks, while there, we stayed in a small cabin which was part of the Roman Catholic Mission. Moosonee impressed us in much the same manner as Churchill had the year before -- we were glad when the time came, to leave. However, we did enjoy our stay and this was due for the most part to the daily conversations with our hosts - the Fathers and Brothers of the Mission.

Reports which we had received in Ottawa gave us no cause to hope for an early start on our work, and the story we were told on arrival at Moosonee was that it was a late spring and James Bay was still packed with ice. The Mission boat from Fort George, on which we expected to travel, was not due at Moosonee until the first week in July - ice conditions dictating the time of departure. This prediction turned out to be quite correct as the "Notre Dame de L'Esperance" arrived on July 6th.

In spite of all this we still hoped to leave Moosonee for Charlton Island some time in June. Captain Barbour of the Hudson's Bay Company schooner "Fort Charles" had told Manning that he might be able to drop us at Charlton on his trip to Rupert House about June 23. We therefore planned to spend a week or so checking and preparing our equipment.

Having helped launch the Mission schooner "Nouveau Quebec", when it was ready to start on its first journey, we were asked if we could like to go along. It was to be a short trip to Albany and back. We accepted and sailed down the Moose River on Friday afternoon, June 20th, to find our way blocked by a solid wall of pack ice at the entrance to James Bay. The next day the ice was still there

so we returned to Moosonee. Apparently a couple of days of north wind had caused the ice to block the river mouth because on June 17th, the "Fort Charles" had sailed for this same post. As was learned afterwards, she was in heavy pack ice for most of the trip.

On June 29th we were on our way to Charlton Island. The "Fort Charles" had returned to Moosonee, loaded its cargo for Rupert House and had set sail early Sunday morning with us on board. (This schooner was 62' from stem to stern, had a capacity of 94 tons and with its 125 h.p. diesel engine, cruised at about 7-1/2 knots. It was manned by four white men, three Indians plus Indian pilots which were picked up for the different parts of the bay.) Before noon it was necessary to alter course to the south because of pack ice. The southern edge of the ice seemed to be along the channel to Rupert House. To the north it looked like solid pack ice with no lanes or openings. The skipper, trying to reach Rupert House that night, did not drop us at Charlton then. As it turned out we were forced to anchor in Rupert Bay for the night and due to the early morning ebb tide could not get in to the post until noon that day. Before the tide was high enough for us to start in to the post, the Hudson's Bay Company Manager, Mr. Michell, his clerk and Rev. Mitchell, impatient for the ship's arrival, came out by canoe to see what had been sent to them and also to get their mail. The arrival of the first boat of the year was of great interest to the band of Indians then living at the post. They all crowded on to the dock and shore when we came in and stayed there all afternoon while the cargo was being discharged.

The Manager and his wife, having received half of their years supply of beer via the "Fort Charles", entertained us very well during our stay. Wednesday saw us unloading our equipment off the "Fort Charles" which then set out for Moosonee. It had been arranged that we would go to Charlton on Mr. Michell's boat the Jacqueline". We stayed at the Manager's house until Friday and were treated extremely well.

The thought occurred to us at this time that possibly a control point could be used at Rupert House. On examining our maps it was seen that there was no point within fifty miles; so on July 3rd, we decided to observe a program of stars. This was our first point of the summer - we had started to produce.

Taking four hours, we sailed out to Charlton Island on July 4th. (It might be said here that there was no charge for the transportation from Moosonee to Charlton Island; we merely being billed for the meals we ate. It was this type of co-operation and assistance from the Hudson's Bay Company which made our summer's work much easier than it otherwise would have been.)

Before the railroad had been brought to Moosonee in 1931, the Hudson's Bay Company had a large depot on this island where the ships which sailed from Montreal via Hudson Straits unloaded supplied for the James Bay area. Fire had since destroyed the warehouse but a couple of the houses remained. Two Indian families were living here, employed by the Hudson's Bay Company to catch beaver for their preserves on the mainland. We moved into the deserted bungalow, put mosquito netting on the windows and were very comfortable for twelve days.

By rare coincidence, in the evening of the first day at Charlton, the "Notre Dame de l'Esperance" sailed in from the north and stayed that night and the following day.

This schooner was 40' long with a 12' beam. She had been built by the Eskimos of Cape Hope seventeen years before. After the Hudson's Bay Company had used it for ten years, the Mission people bought it. A Chrysler car engine supplying the motive power was fourteen years old, during which time the propeller shaft had transmitted its thrust directly to the transmission. Because of this fact the Brother did not feel as comfortable about venturing out into the center of the bay as he would have with a new engine. It was run by Brother Goulet, assistad by two Indians - Richard, ordinary seaman and Robert the pilot.

As the schooner was not supplied for the summer's voyage it had to push on to Moosonee. Brother Goulet reported solid pack ice 20 miles out from the coast between Charlton and Fort George, and to the north it was right in on the coast. We could see at this time, scattered ice to the north beyond Carey and Strutton Islands.

The weather thus far had been perfect. On July 6th we were able to take our star observations and complete this point, but we did observe a second program on July 10th. Up until then, for three weeks, seventy percent of the days had been clear and warm. Had we been able to ignore the ice as a transportation difficulty we could have completed most of our work on the islands during this period. Air travel quite possibly could have been used although not without difficulty.

The "Notre Dame de L'Esperance" returned on July 14th and we sailed to Weston Island on July 16th. This was about a 60 mile trip and we took seven and a half hours to travel this distance. On passing between the north ends of Charlton Island and Strutton Island, we could see numerous small, low islands on our starboard and one big island - Trodely on our port side. Trodely like Charlton, Danby, Carey and Strutton Islands was wooded with spruce. After four miles north-east of this island we had to alter course for a large shoal. When north of Trodely Island, we looked in vain for Tider Island. This, and associated islands reported in this area, were not even seen when on September 25th we made our photographic flight over James Bay. Approaching from the south, Weston Island could be seen while still about 20 miles away. The high sand bluff facing south made it quite conspicuous. There was scattered ice around the island,and we later collected a few pieces for drinking water. We sailed around to the bay facing north and set up our camp there.

A storm descended upon us the first evening and kept up all the following day. The schooner was forced to move around to the bay across the neck of land to the south-west, there it was protected from the north wind. On July 18th, the weather cleared, and we observed a star program, finishing the work for this island. The following morning we got up at 4:30 a.m., packed our equipment, loaded the schooner and sailed for the Twin Islands.

When twelve miles from Weston Island it was necessary to alter course for a shoal. We were learning that even in the center, as along the coasts of James Bay, one could expect shoals, as Captain Coats said - 'there were many embarrissments which you are carefully to attend to.'

This helped us understand why most people who sailed on the bay were loath to leave the proven channels. A little later when we were about thirty-two miles from Weston, we passed a small rock island about four miles to the starboard. It was not marked on our National Topographic Series map. Reaching the South Twin Island, we proceeded up the east side and noticed what looked to be a good anchorage. We had wanted to land on the South-east corner of the North Twin, but were dissuaded by our Indian pilot who was afraid of shoals. He had heard a story of a ship being wrecked there, and so we moved on to the large bay on the east side of the island, which formed an excellent anchorage. We travelled the fifty-six miles to the North Twin Island in eight hours and forty minutes. The incoming tide seemed to appreciably reduce our speed during this trip. It was clear and warm the day we arrived, but in spite of this we did not observe a complete program of stars that night, excessive moisture condensation on the instrument making it impossible. On the following night, July 20th, we completed our work.

Because of a strong wind prevailing all day we did not sail for Walter Island until late in the afternoon of July 21st. There was no sign of ice on this trip, although we had seen a field of pack ice surrounding the island on the previous day. We landed with the bare necessities of equipment at 1800 hours. After setting up our camp, doing a ground survey, observing a star program and sleeping, we packed up the next morning at 0500 hours. We had landed on the south-west corner of the island and during the night the wind had veered around from the east to the south.

Without even trying we realized that it would be impossible to leave the island with our aluminum canoe loaded with equipment. The breakers, about 3½ feet high, we were sure would go right over the low bow. Before leaving Charlton we had installed one of our transceivers on the ship and having arranged an early morning 'sked', we were able to have Richard and Robert come ashore in one of the canvas canoes and take our equipment back to the schooner. Shipping considerable water, we were then able to transport ourselves and canoe out to the ship.

In four days we had done three points with an average of three hours sleep per night. We were beginning to drag a little, but the weather still seemed to favour progress so on July 22nd, we set course for Grey Goose Island. We passed Spencer Island, another low (40' - 60') barfen sand and gravel land mass. The wind from the south was quite strong and a rough sea developed. With one sail aiding our engine we seemed to be cruising at a good speed. By 1100 hours we figured our position to be within 10 miles of Grey Goose Island, although we could see no sign of it. The crew did not know anything about this island and had never heard of anyone ever having been there, so rather than take the risk of arriving late in the day and finding inadequate protection from the strong wind which was blowing, they decided we should head for the mainland. (Robert, as we learned later, was anxious to return to his family.)

In view of the fact that the island seemed to be located incorrectly on our map, this seemed to be a wise plan. With the wind coming directly from the south, it was necessary to follow a north-east course

rather than due east, to reach the protection of the coast at Wastikun Island (meaning in Cree - 'like a beaver'.) This island we had seen while still about 30 miles away. It was the highest point on the coast in this area, rising about 200' above the water. The shore here was generally low (20' - 50' high) and rocky. In the evening after the wind had died down we travelled six miles south to Fort George. Here Robert rejoined his family and resigned his position as pilot of our ship.

This post was situated on a sand island, 1/2 x 3-1/2 miles, at the mouth of the Fort George River. The settlement was composed of the Hudson's Bay Company's store and house, the Roman Catholic Mission (Church, hospital, school, farm and house), the Anglican Mission (Church, hospital, school and house) and a newly erected government nursing station.

The river here although larger and somewhat easier to navigate was similar to the others on the bay with numerous sand bars at its mouth.

Due to high winds and fog we stayed at Fort George for three days. During this time, the Brother repaired the cooling system of the engine and caulked some leaks in the hull of the boat. The crew was increased in number by taking on James and George, both of whom spoke only Cree. Our subsequent travels would take us up into the part of the bay that ships seldom visited - around the Bear Islands, so the two new indians having done a lot of sailing, rigged another sail on the schooner. We now had a sail on the main mast and one on the mizen giving us confidence that should our engine fail, we would not be hopelessly stranded.

On July 25th we said good-bye to both missions, where we had been warmly entertained, and the following morning we set course for Grey Goose Island - Ah, fateful island !! We left at 0600 hours; by 0800 there was no sign of the island; the wind was blowing quite strongly from the north; there was a fog bank ahead on the horizon, so we turned back and spent the night in Stromness Harbour just to the north of the mouth of the Fort George River.

Formed by two islands - one crescent-shaped and the other within the crescent, it gave protection from all winds. This harbour was said to have been used by the ships which sailed via the Atlantic to the Charlton Island depot. According to the crew, many such harbours could be found along the east coast of James Bay as well as many submerged, isolated rocks which detracted from the suitability of these waters for navigation. The disaster of the R.C.A.F. ship, the "Beaver", in 1946 and the accident of the "Nouveau Quebec" in 1947, both of which struck unseen, submerged rocks, were good examples of the treacherousness of these waters. Both ships were just on the edge of well used channels.

On July 27th, we sailed from Stromness Harbour to Grey Goose Island without difficulty and landed on the shore of the bay facing east. It was a clear warm day and the point was completed by 0100 hours the next morning. We loaded our equipment on the schooner later that morning, but were prevented from moving on by an approaching storm. For three days the six of us sat in the boat which was rolling, pitching and tossing, but ever hoping for a break in the weather so that we could press on to East Cub Island.

On the morning of July 30th, there was a strong wind blowing from the north-east. The bay on the north side of the island gave protection from all winds except those from the north and the bay on the east side did likewise for all but those from the east. This wind then blowing into both bays forced us to move around to the SW corner in the lea of the island. In the middle of the afternoon the pilot looked outside and announced in Cree that the anchor was dragging. There was a terrific sea running in front of a 50 m.p.h. wind plus a driving rain. The crew emptied out of the hold on to the deck, and there was shrill howling in Cree from stern to bow between the Indians. They first tried letting out more chain on the anchor, but this seemed to be of no avail, - we were still being blown out of what little shelter the island did offer. It was decided in view of the nature of our engine, that the best plan was to try to beach the boat. After trying to raise the anchor without success, the chain was cut. We were then about a mile from the island and for an interminable period we seemed not to make any headway against the wind. Amidst a rocky shore there was one spot where a small stretch of sandy beach could be seen - this was our destination. The throttle on the engine was opened wide, something which had not been done for many years. It seemed too much to hope that the fourteen year old car engine would endure the racing caused by the stern being lifted out of the sea. Nevertheless, progress was made; we regained the island and the lone stretch of beach. Our initial efforts were to hold the boat in on the beach to prevent it from being blown out again. This was done eventually by anchoring and tying ropes on huge boulders.

We then unloaded first our radio, then food, kit and equipment. The sight of the wind blowing against the huge breakers coming into shore and whipping the spray off their tops was somewhat fearful.

Numb from the cold and wet of rain and sea, we proceeded to put up the tent. In a 50 m.p.h. gale, this was a job for at least six men. After several attempts we succeeded and everyone then changed into clothes which were more or less dry and went to bed. The next morning the storm had abated and at low tide we saw further evidence of how fortunate we had been. The beach had been gained through rocky reefs which had we grounded on one, could have made our lot rather less pleasant. The ship was an absolute loss after a half an hour's pounding on the beach.

Two days later we were able to interrupt a radio conversation between Moose Factory and the Hudson's Bay schooner "Fort Charles" with our little forestry transceiver, and to tell both parties our story. This was a transmission of 200 miles with a 2-1/2 watt transmitter designed to be effective for 60 miles. Captain Barbour of the "Fort Charles" said that he would pick us up on his way to Great Whale River. On Sunday August 3rd, the "Fort Charles" took us aboard and we sailed to Cape Jones, spending the night anchored in the excellent harbour on the north side of the cape. On this trip we passed within six miles of the map position of East Cub Island but saw nothing. None of the Indian pilots on board knew anything about the existence of this island.

The following day we were dropped on a little island in Long Island Sound, while the "Fort Charles" proceeded to its destination. Here we saw evidence of the

recent presence of the Baldwin party which were on their way to Great Whale River studying the botany and geology. On August 5th the first of the two landing barges, which the Gulf Lead Company was attempting to use in transporting heavy equipment from the rail head at Moosonee to their property at Richmond Gulf, ploughed into the sound and anchored. Because of fog they remained all the following day and we were able to meet the crew. Many mutual friends were discovered and discussed. We gave them butter for some naptha and they pressed on successfully, reaching their objective a few days later.

The "Fort Charles" returned on August 7th and picked us up. In reply to a message the skipper had sent for us. we learned that the Albany Mission boat was out of order and could not help us finish our work. Brother Goulet and the Indians - Richard, James and George, were dropped at Fort George and we arrived back in Moosonee on August 10th.

It did not take long that evening to find out that the transportation situation on the bay was quite critical - half the shipping at this time was unserviceable and the remaining half was thus particularly busy. Our only hope seemed to lie in air travel. The R.C.A.F. couldn't help us, so Gordon Mitchell of Austin Airways, South Porcupine was contacted on August 11, and he agreed to fly in the following day to take us up to the Bear Islands.

On August 13th, we loaded our equipment and food on the Norseman and Gordon flew us to Bear Island, where to our dismay we found a huge mass of rock sticking out of the water. Every other island where we had been was of the sand and gravel type, a fact which was not too critical (except for beaching schooners), but for air transportation we had learned the year

before that a sand beach was practically mandatory. Nevertheless, Gordon landed on a rather opportunely calm sea - calm but with its inevitable swell. For a while it seemed as though we had arrived at Bear Island, but could not touch it. Finally we found a little ledge where one of us held the plane away from the rock while the equipment was unloaded. It was difficult to keep the pontoons from hitting the rock a few times and this caused the pilot a little anxiety. The aircraft then left us and proceeded back to Moose Factory.

We hung our tent from drift-wood squaw poles and held it down with rocks. The next day a wind and rain storm tested the stability of our camp which was not found wanting. On August 15th, the weather cleared and we observed a program of stars that night. The following day we were able to make radio contact with Captain Barbour on the "Fort Charles", who was making a return trip to Great Whale River. We asked him to relay the message to Moose Factory that we were finished our work. He was able to do this the next day. After enduring another storm we had fair weather on August 19th, and Gordon flew up to us. We were again extremely fortunate in having very civil waters for the loading of our equipment. Actually one of the pontoons was badly dented in the operation.

We took off for Bare Island about 1600 hours and first saw three polar bears on and around West Cub Island, another two on Sunday Island and one in the middle of the sea just swimming. Arriving at the map position of Bare Island we saw nothing but water. We had also expected to be able to see East Cub Island from here, but could not. Continuing to fly east we finally saw a small rock to the north. After having

been on one rocky island and envisaging all the possible difficulties of disembarking by aircraft, we had decided not to try landing on another of this nature. However, not seeing East Cub Island for the second time, it seemed as though this was the only possible place to establish another point in this area. Flying over the island we saw two polar bears existing on a rock measuring 1/4 mile long and a couple of hundred feet wide. We had a little trouble unloading due to the shelving rock forcing the aircraft to pound, although lightly, on the bottom. Gordon left us in the company of the bears and went over to where we planned to contact him the next morning with the possibility of being able to tell him we were finished.

It was then about 1800 hours and as we expected to work that night we decided to just set up a lean-to. At this point we had not seen either of the two bears since we had landed, they being on the other side of the mound in the island. Needing some driftwood for our shelter we armed ourselves - Don with a 9 m.m. revolver and I with a 30 - 30 rifle and walked over the rise. Commenting on how amazing it was that we could see neither bear, we practically stepped on one who was lying in the one patch of grass on the island. He was about 40' from us and we thought it would be wiser not to shoot if he felt inclined to go away, although it was a precious small area for two humans and two bears to live on anything but the most amicable terms. Deciding to investigate our persons, he arose and started lumbering towards us. I managed to put three bullets into his head. We then gathered some driftwood, put up our lean-to and obeerved a star program. The other bear was seen during the evening out in the water, preferring to observe from afar.

The next morning a storm descended upon us. It blew, rained, hailed and then we were engulfed in fog. Thus on the sked with Gordon we had to tell him that although we were finished, conditions were impossible for a pick-up. During that day whenever we left the tent we carried our firearms, giving us the feeling of pioneers. August 21st was another rare, calm day and Gordon came out to pick us up.

On the trip out from Fort George to Bare Island, Gordon had looked for East Cub Island, but saw nothing; then on the trip back from Bare Island to Fort George we again saw no evidence of anything which might have been described as an island, and so we concluded that our work on James Bay was completed.

We returned to Moose Factory via Fort George, where we lunched with the Shepherds, and Rupert House where we had supper with the Michells.

Although we had fulfilled our objective for the summer, it seemed rather early to return to Ottawa. There was work which could be done west of Moosonee in the muskeg, so on August 23rd, Gordon flew us out to Point I, named Manning Lake. We picked the highest part of the shore for our camp and before equipment could be landed, we had to clear a living space out of the alder jungle. The land here was 1' above the lake. Further clearing was necessary for an observation position, antenna line and ground survey lines. The ground being somewhat spongy it was rather difficult to obtain a firm set-up for the theodolite. The only solution to this problem seemed to be the driving of piles, which was done, using logs 4' long.

From living on barren rocks we had been transported to practically tropical growth. On August 24th, for the first time that summer, we observed a star program.

without wearing parkas and flying boots. The work was finished by 2300 hours - it all seemdd too easy. The water in the lake was even warm enough for swimming. On August 26th, Gordon came out for us. When taking off it seemed that the lake was close to being the minimum length for such an operation. Later when we returned to Ottawa we learned that the two points not done in this area had been passed up a few years earlier because of the smallness of the lakes. In this work, as when we were working on the rocky islands, Gordon Mitchell proved his worth as a resourceful pilot.

Flying to the map position of Point II, we found two fairly big lakes, but because of the many rocks which could be seen in the water they were considered too dangerous for a sea-plane landing. A few miles to the southeast we landed on the remaining lake of sufficient size in this area. From the air it gave the appearance of depth, due as we soon found out, to the water holding in suspension fine black decayed vegetable matter. In reality it was very shallow, the aircraft touching bottom a couple of times while taxiing in the middle of the lake - good places not to pass over while landing or taking off.

At this point the land did not seem to rise more than a half a foot above the lake. Where the land around Point I was partially wooded, the area here was nothing but muskeg. Timber piles (there were a few tamarack and spruce growing beside the lake) were again driven to obtain a foundation for the theodolite. On the nights of August 27th and 28th, we observed - the second night's work being necessary due to clouds and condensation making it impossible to obtain a satisfactory program the first night. Gordon came out for us and we returned to Moose Factory on August 29th. This time we were finished our field work for

the year.

On September 1st, we left Moosonee, Don travelling to Ottawa while I proceeded to Kapuskasing. Manning, rather coincidentally, arrived the next day. It had been arranged that we would do the aerial photography of our points from here, being flown by the R.C.A.F. in one of their Mitchell aircraft. Because of their short supply of gasoline, after two abortive attempts on September 4th and 5th, to do this photography, we returned to Ottawa.

It was then arranged that we (Manning and myself) would fly from Rockcliffe Airport to James Bay in one of the R.C.A.F.'s Lancaster aircraft to do our work. This finally was attempted on Spptember 25th, when, due to snow storms, Bear Island could not be photographed. Manning photographed this island for me on a second trip the following week.

SECTION B.

GENERAL DESCRIPTION OF THE AREAS OBSERVED.

SECTION B

Rupert House, P.Q. July 2 - 3 / 47

The Hudson's Bay Post, Anglican and Catholic Missions were about a mile up from the mouth of the Rupert River. The land here rose gently from the river bank to not more than 50' above the water. The area was generally forested with black spruce, some tamarack, poplar and willow trees. As well as the woods there were areas of spongy ground covered with moss and grass. The schooners of the Bay ascended the river to this settlement with difficulty due to sand bars.

It was on the east side of Rupert Bay that the transition of the nature of the coast of James Bay was noticed. Where the west coast had broad, muddy, tidal flats, the east side had a distinct coast line with a multitude of small islands and it was close to Sherrick Hill that the change took place.

Charlton Island, N.W.T. July 4 -15 /47.

The Hudson's Bay Company kept two Indian families here to catch beaver for their preserves on the mainland. These men only having been here three years have not as yet travelled over the whole island. Anderson Jolly, the more valuable of the two, said that he could not remember having seen bedrock anywhere on the island - just sand and a few boulders. The promontary on the northeast corner of the island gave the appearance of rock from a distance. Investigation proved this to be a high sandy plateau, rather than an outcrop of country rock.

At the southeast corner of the island the sand rose to an average height of 30' above the water. On going north it then dropped about 15'. The north promontary, mentioned above, rose sharply to 100'. Throughout the island short sand ridges 15' high were seen running in every direction.

Roughly 75% of the island is covered with woods. These trees were mainly spruce, tamarack and popular. In 1942 a fire on the island destroyed about 15% of the woods. The burnt trees (many left standing) had attained an average height of 25' with a butt of 9". The remaining trees were much the same size except on the south side of the north promontary where some spruce were found 50' high and 18" across the base. In dwarf growth there were cedar (1'), mountain maple (2'), aspen (2'), willow (10'), alder (10'), dwarf birch and mountain ash (7'). Other plants identified were caribou lichen, bill berrie, wild rose, beach pea, dandelion, labrador tea and sheep-kill.

Before the railroad was built to Moosonee in 1931, the Hudson'sBay Company had a ship sail from Montreal to supply their posts in this area. Here at Charlton Island a depot was established. In the bight between Danby and Charlton Island deep water, e.g., within 20' from the shore there was over 15' of water, permitted the big boats to come in to the depot.

Weston Island, N.W.T. July 16 - 19 /47.

This island consisted of sand and gravel with a covering of moss and grass. Topographically it was hummocky tundra with a general elevation of 60'. There were some small ponds where numerous ducks and geese were breeding. A few scattered spruce trees growing up to 12' were seen and ground willow, caribou lichen,

beach pea and bill berrie were the only other flora identified.

On the south side of the island were 60' gravel cliffs having an angle of repose of 60°. These cliffs ran in an E - W direction and made a distinguishing land mark from the sea. It was off these cliffs that a white whale was seen.

Although the island was not completely circumnavigated, two anchorages were found. One was formed by the bay on which Point 29 was established, that is the bay on the north end of the island, and the other was in the bay across the neck of land to the S.W. corner.

North Twin Island, N.W.T. July 19 - 21 /47.

Due to our short stay on this island, the observations were limited to the bay on which the point was observed. This bay made an excellent anchorage, there being deep water to within 100 yards of share. The South Twin Island also seemed to be made up of sand and gravel covered with grass and moss. Cliffs 90' high rose 400' from the shore north and south of the bay, but at the bay itself these cliffs receded about a mile from the water's edge, creating a giant amphitheatre. From the top of these cliffs the land rose quite rapidly another 40' and then levelled out into a subarctic tundra with lakes and the odd spruce tree growing up to 8' high. Beach pea, caribou lichen, willow and dwarf birch were seen here.

On July 20 scattered ice was seen to the east around Walter Island but the next day it was gone. A large bank of snow still existed on the side of the cliff to the north of the point.

One red fox was seen and although few people (natives included) have ever been on this island, everyone had stories of polar bears being encountered here. Tracks were seen by our Indians of these creatures. Then on September 25, during the photographic flight, one bear was seen. Seen from the sea the South Twin Island looked very similar to the North Twin.

Walter Island, N.W.T. July 21 / 47.

The island measuring about 1/2 mile E-W and 1-1/2 miles N-S was a heap of glacial till - rocks and boulders covered with moss. At the southern end the island rose sharply from the shore for 50' and then sloped gently to the northern end. There were a few little ponds where ducks and geese were breeding. No trees were seen on this island and there were still a few snow patches here.

Grey Goose Island, N.W.T. July 27 - Aug. 3 / 47.

The island was about 3/4 miles N-S and E-W and seemed made up entirely of sand but strewn with rocks in some places. In general, the land rose from a generous beach in a series of two terraces each 15' high, the highest point on the island being about 45' above the sea. In about six little ponds there was evidence that ducks and geese had been breeding here.

The flora was made up of moss and grass forming a tight, healthy covering over the sand. The items identified were caribou lichen, bill berrie, beach pea and ground willow.

There was ample evidence of polar bears having lived on this island, which substantiated a few stories told about these creatures being killed here. None were there at the time.

Bear Island, N.W.T. August 13 - 19 /47.

An outcrop of hard red and blue slate 3 miles N-S and 1 mile E-W was Bear Island. The southern part was covered with boulders rising 50' above the water. Numerous ponds filled the depressions in the rock and the average elevation was 25', the highest point being about 50'. One quarter of the island was covered with moss and grass.

Botanical specimens were collected here and given to the National Museum of Canada. The following is the list of specimens collected and identified by H.J. Scoggan.

Elymus arenarius L.
Dupontia Fisheri R. Sr.
Carex aquatilia Wahl.
C. scirpoidea Michx.
Salix reticulata L.
S. brachycarpa Nutt.
S. arctica Pall.
S. calcicola Fern. & Wieg.
Arenaria Peploides L.
Cerastium Beeringianum Cham. & Schl.
Saxifraga Aizoon Jacq., var. neogaea Butters
S. tricuspidata
S. Aizoides L.
Parnassia Palustris L., var. neogaea Fernald
Rubus Chamaemorus L.
Dryas integrifolia Vahl.
Potentilla Anserina L.
P. hyparactica Malte, var. elatior (Abrom.) Fernal (-P. emarginata Pursh)
Lathyrus japonicus Willd., var. aleuticus (Greene) Fern.
Empetrum nigraum L.
Shepherdia canadensis (L.) Nutt.
Rhododendron Lapponicum (L.) Wahl.
Arctostaphylos alpina (L.) Spreng
Vaccinium uliginosum L., var. alpinum Bigel
Pyrola grandiflora Radius
Lomatogonium rotatum (L.) Fries.
Menyanthes trifoliata L.
Pedicularis flammea L.
Pinguicula vulgaris L.
Petasites sagittatus (Pursh) Gray
Chrysanthemum arcticum L.

Bare Island, N.W.T. August 19 - 21 / 47.

The island, one quarter mile long E-W and somewhat less in breadth, was an outcrop of hard pink and white granite. It rose dome-like to about 35' above the sea with a scant covering of grass and moss on top. There was a comparatively abundant supply of bake apple which may be related to the fact that there were two polar bears living on this island. It was known to the Indians as Round Island.

Manning Lake, Ontario. August 23 - 26 /47.

The land in this area was half muskeg and half woods. Trees seen here were predominately spruce with some cedar, balsam fir, alder and silver birch. The ground did not seem to rise more than 10' and the area was covered with lakes. Sand and gravel seemed to constitute the bottom of this lake.

Carling Lake, Ontario. August 26 - 29 / 47.

Here were numerous lakes and ponds, the area being flat and predominately (75%) muskeg. The patches of woods consisted of spruce and tamarack as well as willow, alder and dwarf birch being found beside the water.

The lake was very shallow but gave the appearance of having great depth due to the composition of the bottom - thick black decayed vegetable matter. Two large lakes a couple of miles to the northwest had been considered from this point but they contained too many rocks which made an aircraft landing and take-off too dangerous.

Geological Notes.

Bedrock was seen at only two of the points which were established. Bear Island the first of these, less than 3 miles in length in a N-S direction and 1 mile wide was an outcrop of hard slate. On the east side of the island the rock was cinnamon in color, indicative of the presence of iron. A couple of faults were noted to be running in a N-S direction as were glacial striations and gouges. However, there was a plethora of shallow striations crisscrossing in every direction. The cleavage planes dipped about 10° to the north, the strike being very close to E-W. Heaps of boulders covered the bedrock at the southern end of the island. The highest of these deposits rose about 50' above the water level.

Bare Island, as its name suggests, was a bare outcrop of light colored (white and pink) granite. It was about 1/4 mile E-W and a couple of hundred yards N-S and rose dome-like to about 35' above the sea. There was a large fault on this island also running in a general N-S direction.

Flying over Sunday Island the impression was gained that it had well defined layers of possibly limestone, dipping about 10° to the north.

As mentioned in the narrative, we camped on Long Island Sound for a few days and while here large outcrops of limestone were observed. See photos of formations of possibly algae secretions in this rock.

Although these were the only places on our itinerary where bedrock occurred it might be of value to mention that the promontary found on the N.E. corner of Charlton Island gave the appearance of rock. On

investigation this was found not to be of rock, but of sand in the form of cliffs rising close to 100'.

Rock specimens were collected from Bear Island and have been forwarded to Dr. E.H. Kranck of the University of Neuchâtel, Switzerland.

Notes on Driftwood.

On all of the islands which we visited there was driftwood in varying quantities. The east side of Charlton had very little, but the north end of Weston had a great deal of driftwood. Where we were camped on the North Twin Island, i.e. at the bay on the east side, there was very little driftwood, as was the case for the south end of Walter Island. A large amount, plus curlings of birch bark, was seen on the north side of Grey Goose Island, but on the other shores of this island there was less. Bear Island ~~also~~ had a large amount of wood and birch bark but Bare Island had very little.

SECTION C.

NOTES ON BIRDS COLLECTED AND SEEN.

PLACE	NO.	SEX	DATE	REMARKS.
Pacific Loon				
Grey Goose Is.	86	M.	Aug. 1	Testes 15 m.m.
Canada Goose				
Weston Is.	63	(F) ?	July 18	Gosling; ovary 18 m.m. with 5 (at least) adults and 17 others downies.
Weston Is.	66	M.	" "	gosling; testes 5 m.m. with #63
Weston Is.	67	?	" "	gosling, with #63
Weston Is.	68	?	" "	" "
Weston Is.	71	F.	" "	ovary 25 m.m., with #63.

Of the 5 adults encountered with #63, two ran away, one flew and the other two tried to hide.

Charlton Is.

There were about 20 breeding pairs here. A family of two adults and several downies were seen at the Salt Lake - July 9th. The adults could fly.

Grey Goose Is.

Indians shot two birds July 31.

Black Duck.

Charlton Is.	28	F.	July 7	Ovary 22 m.m.; ovum 2 m.m. with a brood.

Pintail.

Long Is. Sound	100	(F) ?	Aug. 5	Ovary 10 m.m.; with 2 others and a family of old squaws.

Old Squaw.

Long. Is. Sound	96	?	Aug.5	downy with 4 others
Long Is. Sound	97	?	" "	downy with #96
Long Is. Sound	98	?	" "	" " "
Long Is. Sound	99	F.	" "	ovary 16 m.m. ovum 1 m.m.; with #96

Grey Goose Is.

Family of two adults and about 5 downies was seem July 27.

PLACE	NO.	SEX	DATE	REMARKS
American Eider				
Grey Goose Is.	77	F.	July 29	downy with about 10 others; ovary 8 m.m.
Grey Goose Is.	82	F.	" "	ovary 20 m.m.; ovum 4 m.m.; with #77
Bear Is.	105	F.	Aug. 15	ovary 35 m.m.; ovum 2 m.m. with 25 others.
Bear Is.	106	F.	Aug. 15	ovary 21 m.m.; ovum 3 m.m.: with #105.

Two flocks seen, one of 21 and the other of 50 - Aug. 18.

Grey Goose Is.

Many families seen July 29.

Long Is. Sound.

Few were seen - Aug. 5.

Ruffed Grouse.

Charlton Is.

Saw one - July 8.

Semipalmated Plover.

Weston Is.	60	M.	July 17	testes 5 m.m.; sno.

Weston Is.

During a 2-1/2 hour walk, saw 23.

N. Twin Is.

plentiful.

Grey Goose Is.

plentiful.

Long Island Sound.

during 2 hour walk - saw 4.

Bear Is.

few.

Ruddy Turnstone.

Bear Island

saw a few.

PLACE	NO.	SEX	DATE	REMARKS.
Wilson's Snipe				
Charlton Is.	25	M.	July 6	testes 16 m.m.
Hudsonian Curlew				
Grey Goose Is.	92	F.	Aug. 2	ovary 9 m.m.; ovum 1/2 m.m.; thick layer of fat over the whole body; with several (7 ?) others.
Eastern Solitary Sandpiper				
Charlton Is.	27	M.	July 7	testes 2 m.m. fat on body.
Greater Yellow-legs.				
Carling Lake	120	F.	Aug.27	ovary 7 m.m.; ovum minute; with two others.
Carling Lake	121	F.	"	ovary 9 m.m.; as above.
Carling Lake. Saw 3 on Aug. 28.				
Lesser Yellow-legs.				
Charlton Is.	36	F.	July 9	ovary 8 m.m.; ovum 1 m.m.
Purple Sandpiper.				
Long Is. Sound	101	M.	Aug. 6	testes 4 m.m.; sno.
White-Rumped Sandpiper.				
Grey Goose Is.	88	F.	Aug. 2	ovary 6 m.m.; ovum 1 m.m.; sno; with about 7 others.
Bear Is.	108	F.	Aug.18	ovary 6 m.m.; ovum 1/2 m.m.; with about 20 mixed, semipalmated and white-rumped.
Bear Is.	109	F.	Aug.18	ovary 5 m.m.; ovum 1/2 m.m. with #108 9 m.m. layer of fat on body.

PLACE	NO.	SEX	DATE	REMARKS.
Semipalmated Sandpiper				
Bear Is.	107	F.	Aug. 18	ovary 3 m.m.; ovum 1/2 m.m. with #108.
Nothern Phalarope				
Grey Goose Is.	75	F.	July 29	ovary 3 m.m.; sno
" "	76	M.	"	testes 3 m.m.; with #75
Weston Is.	64	M.	July 18	testes 4 m.m.; sno
" "	65	M.	" "	testes 4 m.m.; sno, with #64.
Herring Gull				
Moosonee	13	M.	June 26	testes 32 m.m.
	Seen all over the bay.			
Arctic Tern				
Grey Goose Is.	x78	M.	July 29	testes 7 m.m.; with 26 others.
" "	x79	F.	" "	ovary 10 m.m.; ovum 3 m.m.
" "	x80	M.	" "	testes 7 m.m.
" "	81	M.	" "	testes 7 m.m.
Long Is. Sound	102	M.	Aug. 6	testes 6 m.m.
" " "	103	F.	Aug. 6	ovary 9 m.m.; ovum 2 m.m.; 2 moths and 1 small fish in mouth.
	x lost in shipwreck.			
Long Is. Sound	104	M.	Aug. 6	testes 7 m.m.; with #103.

Moosonee

Several on Moose River June 19 - 26.

Walter Island.

Saw 60 at one time - July 21.

Grey Goose Island.

Saw 150 at one time - July 29.

Bear Island.

Several - Aug. 18.

Bare Island.

About 200 on whole island - Aug. 19.

PLACE	NO.	SEX	DATE	REMARKS.
Beach Guillemot				
Bare Island	110	M.	Aug. 19	testes 11 m.m.
Bare Island	111	F.	" "	ovary 13 m.m.; ovum 2 m.m.

One of three species of birds inhabiting Bare Island.

Nighthawk				
Charlton Is.	51	M.	July 13	testes 10 m.m.; great deal of fat on body
Alder Flycatcher.				
Moosonee	2	M.	June 19	testes 6 m.m.
" "	7	M.	June 22	testes 7 m.m.
Northern Horned Lark				
Weston Is.	61	F.	July 17	ovary 9 m.m.; ovum 3 m.m.; so.
" "	62	M.	" "	testes 9 m.m.: so.
Grey Goose Is.	85	M.	Aug. 1	testes 3 m.m.; so.
" " "	87	M.	Aug. 2	testes 3 m.m.; so.
Long Island Sound	94	F.	Aug. 5	ovary 7 m.m.; ovum 1/2 m.m. so.
" " "	95	M.	Aug. 5	testes 7 m.m.: so. caterpillar-like worm in mouth.

Weston Island

During 2-1/2 mile walk saw 12 - July 17.

Walter Island

Several seen - July 21.

Long Island Sound

Saw 8 during 2 hour walk.

PLACE	NO.	SEX	DATE	REMARKS.
Canada Jay				
Charlton Is.	42	M.	July 11	testes 3 m.m.; s.o.
Danby Is.	45	M.	July 12	testes 1 m.m.; s.o.
" "	46	F.	" "	ovary 6 m.m.; ovum small, s.o.
Danby Is.	47	F.	" "	ovary 4 m.m.; s.o.
" "	48	M.	" "	testes 3 m.m.;s.o.
" "	49	M.	" "	testes 3 m.m.; s.o. #'s 46 - 49 plus another together.
" "	50	M.	" "	testes 3 m.m.; s.o. with #45
Charlton Is.	57	(F)	?July 14	ovary 2 m.m.; s.n.o.
Hudsonian Chickadee				
Charlton Is.	53	M.	July 14	testes 3 m.m.; s.o. with another.
Robin				
Moosonee	8	M.	June 22	testes 17 m.m.
Rupert House	17	M.	July 3	testes 14 m.m.; s.o.
Danby	44	M.	July 12	testes 13 m.m.; s.o.
Charlton Is.	several - July 8.			
Moosonee	saw two and heard 3 during 1-1/2 hour walk in woods.			
Eastern Hermit Thrush.				
Charlton Is.	30	F.	July 8	ovary 7 m.m.; ovum 1 m.m.
Eastern Ruby-Crowned Kinglet				
Rupert House	14	M.	July 3	testes 5 m.m.
American Pipit				
Grey Goose Is.	83	F.	Aug. 1	ovary 7 m.m.; ovum 1/2 m.m.; s.o.
" ". "	84	M.	" "	testes 3 m.m.; s.o.
" " "	89	F.	Aug. 2	ovary 7 m.m.; ovum 1/2 m.m.; s.o.

PLACE	NO.	SEX	DATE	REMARKS
American Pipit				
Grey Goose Is.	90	F	Aug. 2	ovary 7 m.m.; ovum 1/2 m.m.; s.o.
" " "	91	M	" "	testes 3 m.m.; s.o.
Long Is. Sound				
	Saw 4 in 2 hour walk August 5.			
Tennessee Warbler.				
Moosonee	11	M	June 26	testes 6 m.m.; s.o.
Charlton Is.	54	F	July 14	ovary 5 m.m.; ovum 1 m.m.: s.o.
Orange-Crowned Warbler				
Moosonee	6	M	June 19	testes 6 m.m.; s.o.
Magnolia Warbler				
Moosonee	10	?	June 25	s.o.
Moosonee	12	M	June 26	testes 5 m.m.: s.o.
Myrtle Warbler				
Rupert House	15	M	July 3	testes 7 m.m.
Yellow-throated Warbler				
Carling Lake	115	?	Aug. 27	s.n.o.
Palm Warbler				
Carling Lake	116	?	Aug. 27	s.n.o.
Carling Lake	117	?	Aug. 27	s.n.o.
" "	118	M	" "	testes 1/2 M.M.;s.n.o
" "	119	F	" "	ovary 3 m.m.; s.n.o.
Junco				
Charlton Is.	20	F	July 6	ovary 7 m.m.; ovum 1 m.m.; s.o.
" "	21	M	" "	testes 10 m.m.: with #20.
" "	31	F	July 8	ovary 7 m.m.; ovum 1 m.m.
" "	35	M	July 9	testes 9 m.m.; s.o.

PLACE	NO.	SEX	DATE	REMARKS
Savannah Sparrow				
Charlton Is.	29	M	July 8	testes 9 m.m.
Charlton Is.	37	F	July 11	ovary 7 m.m.; ovum 1 m.m.
" "	38	F	" "	ovary 6 m.m.; ovum 2 m.m.
" "	39	M	" "	testes 11 m.m.
" "	40	F	" "	ovary 8 m.m.; ovum 1 m.m.
" "	41	M	" "	testes 9 m.m.
" "	52	F	July 13	ovary 7 m.m.; ovum 1 m.m.
Weston Is.	58	M	July 17	testes 9 m.m.
" "	59	F	" "	ovary 5 m.m.; ovum 1/2
North Twin Is.	70	M	July 20	testes 5 m.m.
White-Crowned Sparrow				
North Twin Is.	69	M	July 20	testes 12 m.m.; had 4 moths in mouth.
White-Throated Sparrow				
Moosonee	3	M	June 19	testes 10 m.m.
Rupert House	16	?	July 3	
Charlton Is.	18	F	July 6	ovary 10 m.m.; ovum 1 m.m.
" "	19	M	" "	testes 12 m.m.; with #18.
" "	23	M	July 7	testes 7 m.m.; with #24.
" "	24	F	July 7	ovary 7 m.m.; ovum 1 m.m.
" "	26	M	" "	testes 10 m.m.
" "	32	F	July 9	ovary 8 m.m.; ovum 2 m.m.
" "	33	M	" "	testes 9 m.m.
" "	34	M	" "	testes 9 m.m.
" "	43	F	July 12	

PLACE	NO.	SEX	DATE	REMARKS
Lincoln's Sparrow				
Moosonee	4	M	June 19	testes 11 m.m.
" "	5	M	" "	testes 9 m.m.
Charlton Is.	55	F	July 14	ovary 6 m.m.; ovum 1 m.m.
" "	56	M	" "	testes 10 m.m.
Swamp Sparrow				
Moosonee	1	M	June 19	testes 10 m.m.
Carling Lake	114	F	Aug.27	ovary 4 m.m.; ovum 1/3 m.m.; with one other, s.o.
Lapland Longspur				
Long Is. Sound	93	M	Aug. 5	testes 3 m.m.

Long Island Sound

Saw 4 in two hour walk - Aug. 5.

SECTION D

PHOTOS OF AREAS

VISITED

Moosonee, Ontario.

4481.3
Looking down river at Moosonee on the Moose River - August 28/47.

4481.7
Vegetation of Moosonee June 19th/47.

Moosonee June 16/47 - mud roads. Several schooners not launched.

Moosonee, Ontario.

Catholic Mission with hospital and residence, June 15/47.

War Assets landing barge. Two werd used by the Gulf Lead Corporation to transport heavy equipment from Moosonee to Richmond Gulf (East Coast of Hudson Bay) during August 1947.

Robert Reeds' plywood schooner and the Hudson's Bay "Fort Charles". Reeds was to sail up the east coast of Hudson Bay, through Foxe Basin, Fury and Hecla Straits and thence to Edmonton via the MacKenzie Basin.

4481.6
"Nouveau Quebec" the Catholic Mission Schooner.

Launched June 16/47.

4482.2
Moosonee to Rupert House June 19/47.
Ice to the North.

Rupert House, P.Q.

4482.3
Pack ice on trip to Rupert House
June 29/47.

4483.1
Looking to SE of Rupert House from the air
on the trip from Bare Island to Moosonee.

Hudson's Bay Manager's house. July 1/47.

Rupert House, P.Q.

4482.4
"Fort Charles" 94-ton, 62-foot schooner.

"Fort Charles ready to sail - July 2/47.

point established at Rupert House
July 3/47.

4483.24
Looking NW into Rupert Bay.

4483.22
Looking NNE. Long building 150 yards east of Manager's house was a dance hall.

Rupert House, P.Q.
Aerial photos taken Sept. 25/47.

4483.20

Looking SE.

4483.5
Indian Dwellings - Rupert House
July 2/47.

Our holiday accommodations July 4 -15 /47.
White post was the monument of the point established.

4484.7-8
Remains of the Hudson's Bay Depot now the homes of two Indian families.
The warehouse was burned in 1942.

4484.2
Charlton from Danby Island.

4484.10
North Promontory of Charlton - a sand plateau.

4484.5
Trees in vicinity of the depot, burned in 1942.

Charlton Island, N.W.T.
Point 28, 1947.

4484.31
Looking W over Danby and Charlton.

4484.37
N from 2000'
Aerial photos taken Sept. 25/47.

Charlton Island, N.W.T.
Point 28. 1947.

4484.41
North Promontory Strutton Carey
Charlton Danby

4484.44
Looking ENE from 2000'
Carey Danby
Charlton

Charlton Island, N.W.T.

4484.29

SW from 2000'

4484.21

Lisbon Rocks to SW
of Charlton.

Danby Island, N.W.T.

4484.1
Habitat of birds collected from Danby.

Trodely Island.

4485.24
ENE from 3000' Sept. 25/47.

4485.27
E from 3000'.

4485.2
The camp on the bay where the point was established July 18/47.

There was a large sandy area in the centre of the island.

4485.4
Edge of beach; Coombs digging a hole for the aerial mast; note driftwood.

4485.36

NE from 3000' on Sept. 25/47

4485.55

WNW from 3000'.

4485.39

ESE from 3000' on Sept. 25/47.
Gravel cliffs along W and S sides.

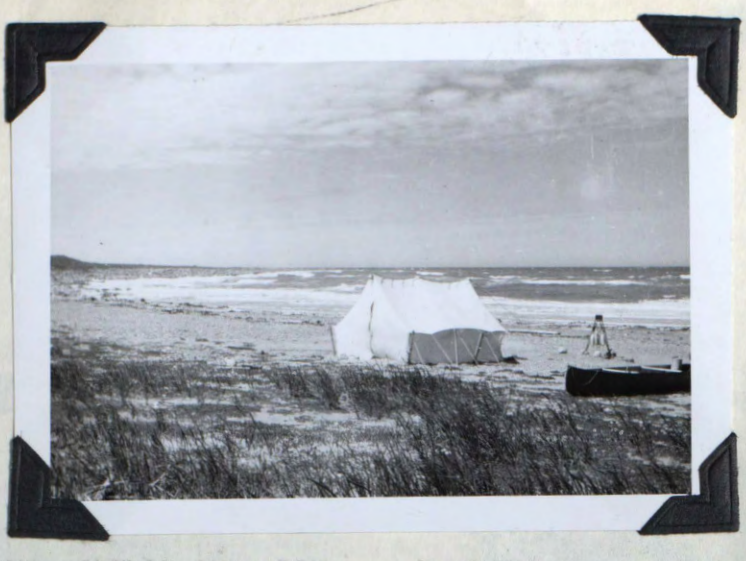
4485.49

Islands to the ENE of Weston.

SW side of Weston. 4485.7

Cliffs on west side.

Cliffs on west side.



Camp and tripod at Point 29, July 18/47.

Snow on beach on south bank,
July 18/47.

Navigating from Weston to North Twin Island.
Robert Brother Goulet Coates.

4486.30

SW from 1800' on Sept. 25/45.

4486.45

NW from 1800'.

4486.37

ESE from 1800'.
Walter Island in the left background.

4486.46

Arrow points to a polar bear.
Island was a 130' plateau.

4486.4
Our ship the "Notre Dame de L'Esperence"

4486.7
Willow shrubs - shot gun leaning against them for comparison of size. July 20/47.

4486.2
Beacon; packing up July 21/47.

4486.5-9
Bay on which point was established. July 20/47.

4486.3-6
Rise to the north of the point.
Snow bank existed on July 21/47.

4487.38
SW from 1000'; North & South Twins and
Emily Rock at 'w' can be seen. Sept. 30/47.

4487.40
NW from 1000'. A gravel island.

4487.39

W from 1000'; North Twin & Emily Rock in background.

East side of Walter Island.

4487.6

Beacon; Leaving Walter Island.
July 22/47.

4487.2

Looking west from point.

4497.4
Fort George looking upriver

4497.7
Hudson's Bay buildings & Indian tepee

Anglican hospital; Hudson's Bay buildings, aircraft and wharf. Aug. 21/47.

4497.6

Catholic Mission in the trees.

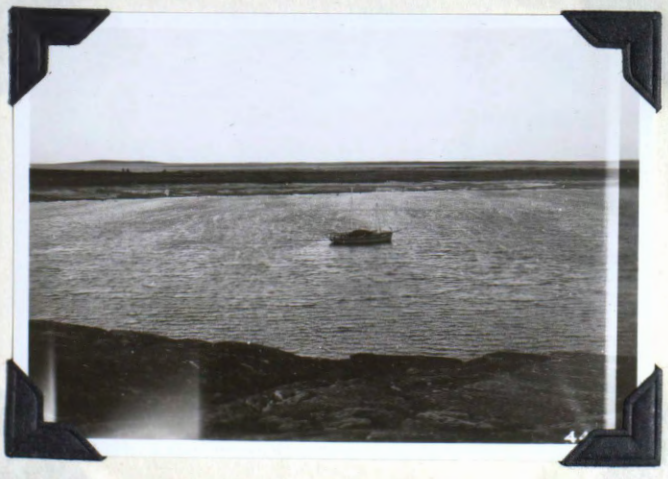
4497.5

"Nouveau Quebec" unloading a tractor on July 25/47.

Catholic hospital-part of the Mission.

New Government Nursing Station.
July 25/47.

Anchored in lee of Wastikun Island.
July 22/47.



Stromness Harbour July 26/47.
After second try to get to Grey Goose Island.

Third try successful - Grey Goose ahead.
July 27/47.

4489.13-15

Bay facing the east - July 27 /47.

4489.12

Vegetation of the island.

4489.6
Shipwrecked on July 30/47. Crew of James, Brother Goulet, George & Richard on July 31/47.

4489.8
Clothes drying on July 31/47.

Storing winter's supply of ducks and geese- Eiders & Canada Geese.
Aug. 1/47.

4489.10
Ribs broken and sheathing torn off after pounding of one tide.

4489.4
Fateful "Beaver's" life-preserver hanging on side of "Notre Dame de L'Esperance". Brother Goulet had rescued the "Beaver's" crew in the fall of 1946.

4489.11
Completely salvaged Aug. 1/47.
Note reefs which had been passed on way into the beach.

4489.7
The one part of the beach which was sandy.

Coombs and his dog. Camp and salvage in the background.

4490.3
The rescue ship M.S. 'Fort Charles' August 3/47 on its way to Great Whale River.

4489.21

N from 1600' Sept. 25/47.

4489.27

ESE from 1600'. Shipwreck was on SW coast.

4489.23
Looking SW at the beacon. Sept. 25/47.

4489.33

Looking E from 1800'. Sept 25/47

4489.32

ENE from 1800'.

4491.1
Camp on small island adjacent to Long Island where we were dropped Aug. 4/47. The Indians lived under the canoe.

A seal which the Indians shot Aug. 7/47.

The first trip of the Gulf Lead Corporation's landing barges on its way to Richmond Gulf. Aug. 4/47.

4491.5

Limestone outcrop. (Proterozoic Age)

stromatolites

4491.2

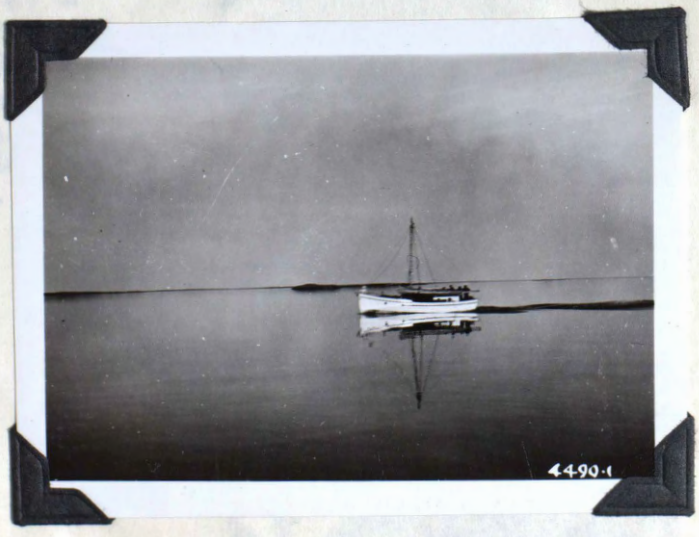
Possible algae secretions - about 15" in diameter in the above limestone.

4491.6

Glacial striations. The shadow was cast by the sun, August 7/47 at 1600 hours - azimuth 254°21' or S 74°21' W.

4490.2
Cape Jones from the North, August 7/47.

4490.4
A restful interim on the "Fort Charles."



4490.1
Corporal Davies' 'peterhead' on its way up to the Belcher Islands. Aug. 9/47.

Indian pilot
on the M.S.
'Fort Charles'

4490.5

4488.2

Paint-hills East coast North of Old Factory.

Aug.9/47 -
the "Jano" was
picked up outside
Old Factory with
her engine U/S.
(The doctor's
boat).

Camp August 14/47. 4492.6

Central part of the island.

4492.4

Camp - August 15/47.

ENE from 1000'. 4492.21.

4492.20

NE Note North Bear Island at y-z.

(1)

4492.25
SW from 1000'. South Bear Islands in background.

(2)

4492.28
Looking SSW; West Cub Island to the SE and South Bear Islands to the SW.

(1)

Vegetation - grasses. 4492.14

(2)

Mosses; 30-30 shell in centre for comparison. 4492.13

(3)

4492.11
30-30 shell in centre for comparison.

(1)

Gouges in the red slate. Camera case for comparison.

(2)

4492.15
Cleavage planes dipped about 10° to the north.

(3)

Gouges facing
north.

4492.10

A fault running N-S.

4492.12

Gouges & striations looking north.

The slate was red in some areas and blue in others.

Bear Island.
Point 35, 1947.

4492.7

Stormy waters Aug. 14/47.

Loading the Norseman off hard rock.
August 19/47.

Sunday Island looking N on way from Bear to Bare Island. There were two polar bears here Aug. 19/47.

4494.1
South side of the island - August 19/47.
From here we saw one of the bears climbing up the rocks and looking back at us.

4494.11
Looking N from 1000' - Aug. 21/47.

4494.10
East end of the island from 1000' - Aug. 21/47.

4494.8
Looking S from 1000'. August 21/47.

This one's curiosity held too many unknown potentialities for us.

4494.2
At 40' 3 shots in the head made him stop.

Bare Island.
Point 36, 1947.

(1)

4494.4
Tepee constructed with driftwood and tent.

(2)

4494.6
This was a pink and white granite.
(30-30 shell in centre of snap)

(3)

4494.9
The water here was from little basins in the rock and a trifle salty.

4494.5

Grass and moss on Bare Island -
August 21/47. (30-30 shell in center of snap).

4488.3

Typical East coast islands. These were taken from 1000' August 21/47 just south of Roggan River.

4496.2
From the rocky barrens to the tropics.
Our camp under the cedars.

4496.3
We had to clear an area for observing.
Tripod was set on 3' timber piles.

Manning Lake.
Point 1, 1947.

4496.23

W from 2000'. Coombs Lake 1/4 mile to the NE.

4496.28

NE from 2000'.

Manning Lake.
Point 1, 1947.

4496.21

SW from 2000'.
Manning Lake immediately beyond Coombs Lake.

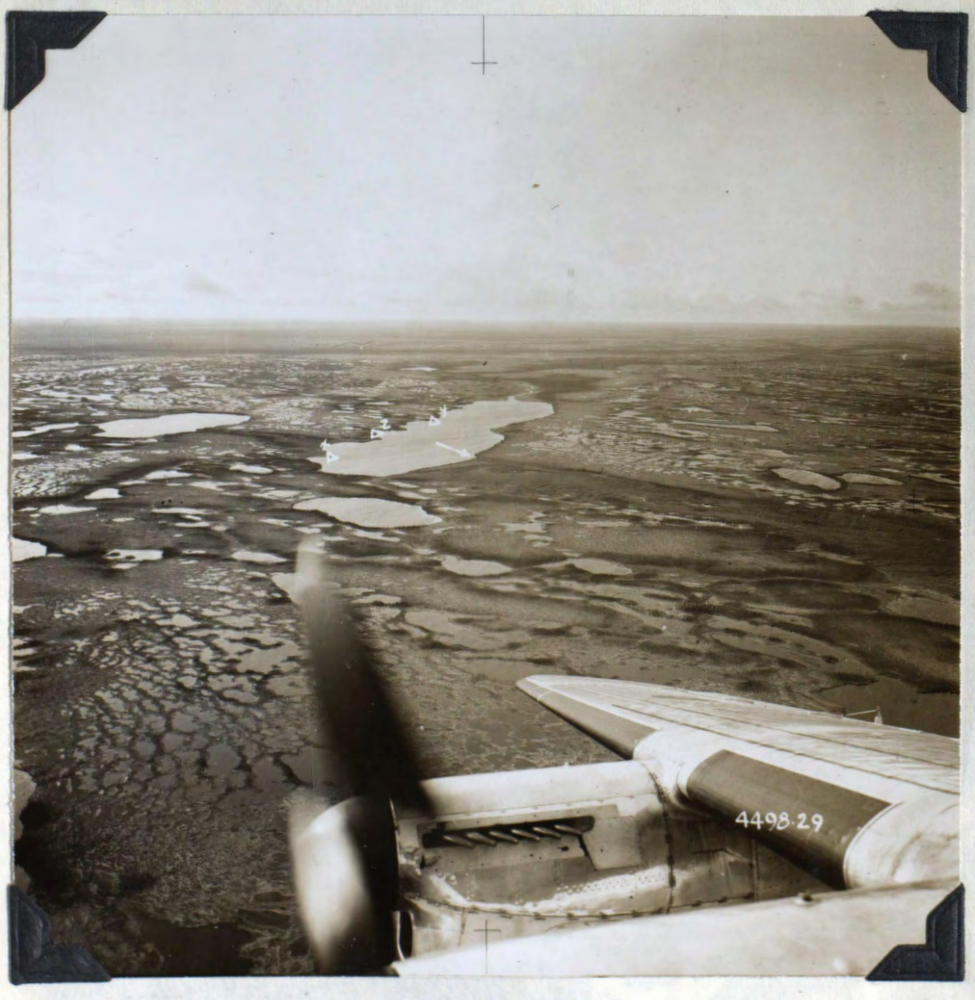
4498.1
Tripod set on timber piles. This was a 50' rock beach just covering the spongy muskeg. - August 24/47.

4498.2
12' willows and associated flora - Aug. 24/47. (Note shot gun standing).

4498.3
Gordon Mitchell coming to take us back to Moose Factory. Aug. 26/47. Just about that point he scraped bottom.

4498.27

ENE from 3000'.



SE from 3000'.

4498.29

NNE from 3000'. 4498.21

NNW from 3000'. 4498.40

Carling Lake.
Point 2 - 1947.

W from 3000' 4498.35
Lake to the NW also unsafe for aircraft landing.

Moose Factory, Ontario.

Trees. 4481.8

4493.5

Gordon Mitchell - pilot.
Fritz - mechanic.

Austin Airways Norseman. 4493.2
August 23/47.

~~Moose~~ Factory, Ontario.

Hudson's Bay Manager's home and staff house. 4493.3

4493.11
Hudson's Bay Store. Established 1671.

Staff House. 4493.4

R.C.A.F. Mitchell ready to take off for photographic flight of James Bay from Kapuskasing. Aug. 3/47. 4499.1

4499.2

Putting aircraft away after first abortive flight - Aug. 3/47.

Preparing the Lancaster for the photographic flight from Rockcliffe Airport to James & Hudson Bays and back on Sept. 25/47. 4499.3