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Report on areas of Keewatin and Franklin Districts,
Northwest Territories, visited in 1942 and 1943 in
connection with a program of astronomical observations
for map control, required for preparation of Air
Navigation Charts.

L.O.R. Dozois

November 17, 1943

B.J. Woodruff

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L.O.R. DOZOIS AND B.J. WOODRUFF

REPORT - 1943

The photographic negatives for pictures appearing in this report are located in the photographic files at the Geodetic Survey.



CANADA

ADDRESS REPLY TO
GEODETTIC SURVEY OF CANADA

DEPARTMENT
OF
MINES AND TECHNICAL SURVEYS

QUOTE FILE:

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Established by Dozois and Woodruff in 1943.

A NARRATION OF AN AERIAL TRIP OVER KEEWATIN, N.W.T.

L.O.R. Dozois
Geodetic Service of Canada

Between the 5th July and 9th September nine points were occupied in the barren lands of the District of Keewatin.

The object of the work was the determination of latitude and longitude by star observation.

Observations were made at the following points which were occupied in the order named:-

Kazan River	Lat. 61° 28'	Long. 100° 42' W.
Yathkyed Lake	" 62 42	" 98 18 W.
Baker Lake H.B. Post	" 64 19	" 96 02 W.
Lake Franklin	" 66 46	" 95 51 W.
Pelly Lake	" 65 55	" 101 52 W.
Wager Bay H.B. Post	" 65 56	" 90 49 W.
Douglas Harbour	" 65 44	" 88 51 W.
Repulse Bay H.B. Post	" 66 31	" 86 15 W.
Committee Bay	" 67 21	" 86 35 W.

The total air mileage incidental to the completion of the programme was 4000 miles.

All of the above points lie north of tree growth.

The panorama presented to one covering the territory by air is one of limitless expanse of lakes of varying sizes and shapes and is a nightmare to the bush pilot, who has been trained to fly by topographical features and intuition, rather than by the plane's instrument board. The flat landscape, bearing the imprint of the titanic Keewatin glacier moving southward in a past age, is devoid of marked topography and, to make matters more confusing, the magnetic compass is too unstable to be relied upon with impunity.

Such was the experience in attempting a flight by compass line from Churchill to the Kazan River some 300 miles distant. After $2\frac{1}{4}$ hours on the way our position was so uncertain that no alternative was left but to make for the open Hudson Bay and thence along its coast line back to the starting point.

This ended any further attempt to fly by bush-pilot methods, so successfully done elsewhere, by men who display uncanny ability of getting around in the air.

The answer to our difficulty here was the use of the gyro compass, with which the planes were fortunately equipped. It was most revealing to witness the accurate performance of this compass where drift was not too great.

On the 5th July the lakes en route from Churchill to Kazan River were mostly frozen over. Some were free from ice, the different condition attributable, it is believed, to varying depth of water.

During the 10-day stop, 6th-16th July, on Motherwell Lake, an expansion of the Kazan River, we were visited by Eskimos, three families of which were encamped in the neighbourhood. They are known as the Kazan Eskimo and are said to be inferior type of native.

The first contact with the barren land inhabitant was interesting but as the novelty wore away, one wished that they would not come visiting so often. This attitude is the result of the lack of any means of conversation.

The only word of common sound in English and Eskimo is "tea" and it is perhaps not surprising that it was overworked. We parted as much as possible from our allotted double war ration but our contribution was sorely inadequate to their need.

The reaction of the first meeting with the male Eskimo is the startling resemblance to the Jap in both stature and facial traits. They are indistinguishable in fact, in some cases.

Quite a few tracks of the migrating caribou were in evidence here but none was seen.

The local bank of the river ran about 15 to 25 feet in height and the current was scarcely perceptible. The land surface is somewhat rolling and consists mostly of spongy wet moss. Not very much rock outcrop is noticeable but glacial boulders are plentiful on the higher locations. The barometric altitude of Motherwell Lake is 965 feet.

The next stop of the itinerary was Yathkyed Lake, which is both fed and drained by the Kazan River. Arriving here on 17th July the westerly end of the lake was free from ice and an island was selected for the 8-day sojourn, 16th - 24th July. It was apparent from the air

that ice was plentiful on the easterly portion of the lake, which is about $1\frac{1}{2}$ times that of Lake Simcoe. Within three days a shift in the wind drove the ice field southwesterly and the island was well surrounded with ice floes. A solitary caribou was seen several times near the camp. It was thin and seemed greatly harassed by the ever present swarms of mosquitoes, from which it would frequently seek relief by immersion in the lake water.

The aneroid barometers indicate an altitude of 478 feet for Yathkyed Lake.

The flight to Baker Lake H.B. Post, 175 miles, was made on 24th July and followed the general direction of Kazan River to its mouth, thence around the westerly end of the lake to the Post.

Shortly after taking off from our island location we were over unbroken ice surface extending for some 20 miles.

Quite near the mouth of the river a waterfall of considerable height was observed from the distance.

Kazan River forms a delta as it emerges into Baker Lake resulting in miles of low sand bars and peninsulas of loose sand and gravel deposit. The topography in the area of the mouth would be subject to change from year to year through alluvial action of tide and spring run off. The low lying flat topography of the south shore of Baker Lake is in marked contrast to the rugged rock-bound nature of the north shore.

Leaving the Kazan River mouth the planes ran into a blanket of Arctic mist which necessitated low flying in order to follow the shore line of the lake and insure spotting the Hudson's Bay Post buildings. Having arrived at the Post it was necessary to circle over it for 45 minutes at near roof-top level before a landing was skillfully accomplished on the lake surface plentifully strewn with ice floes.

Baker Lake Post is situated at the northwest end of the lake from which it takes its name and some three miles east of the mouth of the Thelon River. The present site was formerly occupied by the now defunct Revillon Freres, when the H.B. Co. post was on the other side of the bay, some two miles away. The present factor, Sandy Lunan, was

the resident manager of the liquidated competitor and the Hudson's Bay Co. at the time, some 15 years ago, decided to close their own premises and occupy the newly acquired property whose location possessed better advantages. It is interesting to record an epic feat performed by a team of 90 dogs. It was desired to move the H.B. deserted frame store building to the new site and Sandy Lunan conceived the plan of doing it with dog power. The building measured 50 by 25 feet, and was of stout wooden construction with an upper floor. Sandy first cut it into halves and then devised an ingenious system of straining ropes whereby the individual pull of the 16 five-dog teams could be centralized by means of pulleys and so directed onto the main task. When the big day arrived to do the job, the building was moved with the greatest ease across the two miles of frozen lake surface without a single halt on either trip.

Sandy was still confronted, however, with the task of moving the two 25 x 25 ft. units of the building up a sloping surface to the ultimate site of the lake shore some 150 feet back from the bank.

He decided to induce the 90 huskies to put forth a maximum effort by tempting them with caribou meat in the hands of Eskimo women spaced at the site of the goal. When the crucial test came for the up-slope drag, in Sandy's own words, the dogs "ran away with it".

Baker Lake Post has a trading population of some 350 Eskimos who come to the Post once a year with the fur catch which consists principally of fox, some barren-land grizzly and caribou skins. It is interesting to note that the latter is destined entirely for Eskimo use and not for the commercial trade of the outside world as in the case of other furs. There are areas in the Arctic where the caribou migration does not take place and the skins for personal wear of the native must be brought in from other areas.

There is about five inches of tide in Baker Lake at the site of the post and at times the water is brackish and unfit for household use, such condition being due to sustained wind from a certain quarter.

The R.C.M.P. maintain a permanent post here. It is one of their responsibilities to distribute staple foods to the natives when the need arises due to periods of scarcity of caribou or lean fur seasons.

Cases arise, however, where destitution is attributable to that tired feeling known among white people as "laziness" but the officer soon gets to know how to discern between the worthy appeals and those arising from indolence.

Anglican and Roman Catholic Missions are located here, and worthy and zealous gentlemen of the cloth not infrequently fall victim to the hazards and privations of their calling. They spend months at a time with the nomadic tribes sharing their hardships and dangers as well as facing the threats of the Medicine Man whose antagonism has been known to take the form of threat upon their lives. Two mercy flights in winter have been made during the past three years to remove missionaries who had fallen victim to the hazards of their calling, which they pursue fearlessly and with praises unsung, just as they are unsought.

Baker Lake Post made headline news in the summer of 1932 for it was an overnight stop of Col. Charles Lindbergh and his wife on their historic flight across the high Latitudes of Canada to Japan. They flew directly from here to Aklavik.

It was also the scene of intense activity sometime later, when it was the plane-base of the sensational search for the lost McAlpin party of mining men, which fortunately resulted in a happy ending.

The seal and walrus do not penetrate Chesterfield Inlet as far as Baker Lake. There is said to be a fresh-water seal inferior to the salt water prototype. The lake, teems with fish, especially salmon trout of the most succulent variety.

Open water occurs in Baker Lake about the 15th July, although ice floes were still plentiful last summer on the 25th July. Freeze-up occurs about the 15th October. Three months of open water is the general rule.

The caribou migration to the south occurred this year on Sunday, 1st August. The advance guard appeared early in the morning and this had an adverse effect on attendance at the Mission Church, as the men folk were intent primarily, on this day, on food for the body.

This trek or migration which was witnessed for the first time by

the undersigned reached impressive proportions but far short of the legendary 50,000 sometimes claimed by certain writers and narrators. The herds were observed from a point of vantage and it is estimated that 2500 to 3000 passed within two miles of the Post between early morning and late evening. They travel in herds varying in number and move along rather leisurely stopping to browse as they proceed. When frightened the herd will dash away for a few hundred yards and then stop and stand stationary facing the direction of supposed danger, thus becoming easy prey to the gun of the native; fortunately so, as the Eskimos are said to be notoriously poor marksmen, which is reflected in the abundant quantity of ammunition supplied in trade.

On the 4th August the flight was made from Baker Lake to Pelly Lake on the Mackenzie - Keewatin Boundary. The course, in part, was over the route of Thelon River, in which basin a federal game preserve for the musk-ox has been established.

Pelly Lake (barometric elevation 365 feet) is an expansion of the Back River. Fed by the Consul as well as the Back, its westerly end contains many sand bars. Suitable shore line for plane anchorage could not be found closer than 12 miles down the lake.

During the two weeks spent at this location neither native nor wild life was observed. Most disappointing weather conditions prevailed. What might have been a two-night stand, had we been favoured with clear night skies, was perforce extended to 13 nights. Results of observations made here indicate the existing maps to be in error one degree in longitude and too far west.

On Friday, 13th August, a 175-mile flight was made to Lake Franklin coming down at a point near the mouth of Back River. The course of flight did not follow the river but a gyro course to the north of it. The same changeless ground pattern of numberless water surfaces continued as it had since our departure from Churchill. There appeared slightly more relief, however, nearing Lake Franklin, a few rock ridges and mounds of rock outcrop becoming discernible. These might run to 100 feet in height. We were now within the Polar regions, being 14 miles north of the Arctic Circle.

Back River empties into Lake Franklin through a stretch of swift water about a half mile in length.

Three Eskimo families encamped on the other shore during our stay here. They were trekking up the Back River using some 20 dogs to pack their belongings. The party, 8 adults and 6 children, were truly living off the country. On a visit to their camp we were impressed at the sight of the all-day sucker in the hands of the children which consisted of the fleshy end of a raw fish tail. The adults ate the fresh caribou meat in the raw without benefit of salt. The diet would appear to supply ample vitamins of the right type, as the children were impressively healthy in appearance.

The area about Lake Franklin is distinctly more rugged in topography and this condition becomes more accentuated as the Arctic coast is approached.

The next stop was at the Hudson's Bay Post at the west end of Wager Bay. This post is no longer managed by a white trader but by an Eskimo known as Wager Dick. Only a few families trade at this post. The area is almost entirely of massive rock formation, the ridges rising to some 200 or 300 feet in height.

Wager Dick makes an annual trip to Repulse Bay Post by schooner delivering the fur catch and returning with coal and trading supplies. No game was seen while at Wager Bay but salmon and lake trout are always plentiful. Coal is used for fuel at all H.B. Posts. As the landing cost runs from \$80 to \$100 per ton, it must be used sparingly. Imported fuel is a luxury enjoyed only by the white population, traders, police and missionaries. Many Eskimos now use gasoline vapour lamps (Coleman) to supply added heat in their igloos. It is a modern practice increasing among them.

After a 3-day stop at Douglas Harbour on Wager Inlet the planes arrived at Repulse Bay H.B. Post on 26th August. The post is situated just two miles south of the Arctic Circle. The local belief is that the site is just north of the circle.

During our sojourn there until September 5th the bay was completely ice bound, all whaling, seal and walrus hunting activities having to be suspended. However on the 7th of the month a westerly wind

started the ice floes moving out again, and within two days, the Bay was cleared.

Some 400 or more Eskimos trade into the Post and the white fox fur catch in a season runs as high as 6000 pelts. Many of the Eskimos have good credits with the Company and some own schooners running to \$15,000 in value. Wealth, however, brings few added comforts in a part of the world where wood is unobtainable for fuel or building and so the comparatively prosperous Eskimo must still live the Arctic winter in his traditional fireless igloo.

Of course it should be remembered that this form of life is a hardship only in the eyes of the white man and the native does not miss that which is unobtainable and which he has never enjoyed and does not long for comforts which he has never known.

The most northerly point touched was at Committee Bay an indenture on the Arctic coast line, where a one-night stand was made on the 6th September. The coastal waters were entirely free of ice floes, although a very thin sheet of ice was formed during the night indicating the early termination of the short open water season.

The ice forming rendered further float plane transportation too hazardous to be continued in these parts and accordingly the season was considered closed and the 700-mile journey out to Churchill was begun. With a brief layover at Chesterfield the party reached Churchill on the 9th September.

Supplementary General Observations

Weather

The temperature during the day for July and August ran from 48° F. to 62° F. with one recording of 70° F. on the 15th August. Night temperatures were generally around 40° F.

During the two-month period only nine clear relatively cloudless nights were experienced. It is the considered opinion that the great preponderance of overcast night sky is the rule rather than the exception, and this condition will have to be considered in future planning of work of the same nature.

In view of the superabundance of surface water throughout the

district it is natural to expect cloud formation to accompany the lowering night temperature.

The humidity of the atmosphere is very high at all times. Articles of woollen apparel will not dry after washing, although hung in the sun and wind during an entire day.

Time and again preparations were made with perfectly clear sky showing an hour before sunset. Within the space of five minutes or less the clear blue would undergo a seemingly magical transformation into opaque gray and so remain for the night.

As regards wind, we were agreeably surprised at the lack of strong winds. These had been anticipated.

Agriculture

This phase of economic life can be disposed of with the brief statement that no seed nor vegetable growth is possible. Germination cannot take place in soil underlain with perpetual surface frost. Dwarf lettuce and radishes are nursed along under raised glassed-in miniature gardens and at Baker Lake turnips of the size of one's fiat have been brought to maturity in this way. It is probably true to say that farming conditions have not appreciably improved since Lake Agassiz drained away in the remote past leaving a vast rocky terrain pitted with lakes without number.

Mosquitoes, etc.

The misery spread by this pest which is inseparable from life in the frontier spaces of all countries in all continents reaches a climax here. Should anyone feel that he has experienced the worst in this field of torture, let him sojourn for the summer months on the barren lands of Keewatin. Suffice it to say that the hardihood of the mosquito here enables it to swarm and flourish at 40°F. and no quarter is given day or night.

However, in mitigation of the severity of the foregoing statement, it may be comforting to add that snakes as well as ants are entirely non-existent in the westerly hinterlands of the second largest sea on earth.

Culture

The Eskimo is not without an accomplishment in the field of art; that of ivory sculpture or carving. The raw material is plentiful,

each walrus yielding two tusks from 10 to 15 inches in length and weighing to $3\frac{1}{2}$ pounds per tusk. The art has reached a high state of development at Iglulik, a rather inaccessible island settlement at the eastern entrance of Fury and Hecla Straits. The highly polished ivory carvings depict the wild and native life in its various forms and some admirable specimens of the craft are to be found in the Vatican Museum, where they rank highly among exhibits of aboriginal handicrafts of the world.

Customs and Morals

Seal hides are the main source of supply for footgear, more particularly for wet conditions of the summer months. The skins are extremely stiff as they come from the tanning operation and must be rendered pliable before the skilled hand of the Eskimo woman can shape and sew them into foot gear. The softening process is performed by the teeth and saliva in the mouths of women old and young. It is a novel experience to see a half dozen youthful Eskimo maids each with a handful of seal hide stuffed into their mouth and carrying on a seemingly endless chewing operation. It is a traditional custom combining, as it does, the utilitarian and physiological characteristics of the operation, thus yielding not only excellent material for foot covering but equally excellent sets of healthy, strong teeth.

It must be added, however, that those native women, who continue the practice in their declining years, exhibit pronounced erosion or wearing down of the teeth.

The Eskimo man is referred to as a "husky" in the vernacular of the North, but it is interesting to note that there exists no equivalent abbreviated expression for the Eskimo woman, as for example "squaw" in reference to the Indian woman.

Burial of the dead follows a form dictated by necessity in a land of rock and eternal frost. The deceased is placed in a shallow depression and a more or less crude covering made that arches over the body and permits the cool atmosphere to circulate through the enclosure. As far as is known, there is no desecration of the remains from animal marauders.

The Medicine Man or Sorcerer still practices his black art among some of the tribes. An authenticated account of the Back River area relates how a considerable section of a certain river valley is carefully shunned by Eskimo followers of the witchcraft pries who insists that the Evil Spirit awaits any intruder into the domain; in consequence of which white fox now abound here and no federal sanctuary could afford more successful wild life protection.

The native barbaric customs, such as desertion of old people, polygamy, swopping of wives and cruelty to children, have been largely eliminated through the influence of the missionaries and the police and no useful purpose would be served in dwelling on the immoral side of native life. Such customs are rooted in antiquity that may go back to the remote period following the recession of the North American ice cap. A discussion on customs born out of environment, totally foreign to present times, is an undertaking for a philosopher rather than a surveyor.



4147

Kazan River (Motherwell Lake)



4150

Yathkyed Lake



4152

Baker Lake



Lake Pelly



Lake Franklin



Wager Bay H.B. Post



4151

Wager Inlet



4149

Lake Alda



4149

Douglas Harbour, Lake Alda in background



4153

Repulse Bay H.B. Co. Post



4153

Repulse Bay, H.B. Co. Post at ↙



4155

Chesterfield Settlement

SOME IMPRESSIONS OF KEEWATIN DISTRICT ADJACENT TO THE
HUDSON BAY

By B.J. Woodruff
Geodetic Service of Canada

In 1942 we flew from the port of Churchill in Northern Manitoba to Chesterfield, where a Peterhead boat awaited us. This craft served as our floating home for nearly six weeks, while coasting eastward along the southern shores of Southampton Island. After being blocked by ice in our endeavour to enter Foxe Channel we turned back to embark again in larger and more comfortable vessels which enabled us to visit Coats Island, Digges Island and finally return to Churchill.

The next year saw us again leaving Churchill by air; but our direction was westward and northward to Tha-~~anne~~ River and Lake Thaolintao, then via Eskimo Point on the shores of Hudson Bay to Chesterfield. Again our Peterhead boat was commissioned and we voyaged northward through Roes Welcome Sound to Cape Dobbs at the entrance to Wager Bay. This comprised an overall journey of 1000 miles by air and 2000 miles by boat, in which the primary object was the securing of astronomic and magnetic data.

The narrative which follows is a composite account of the writer's impressions of the area visited.

The traveller who flies northward from Churchill is at once impressed by the great amount of water visible; for inland from the coasts of the "Bay" an infinite number of lakes, ponds and waterways stretch as far as the eye can reach, until the observer is puzzled to say which area is greater - the water or exposed land.

A closer inspection of the land below reveals a second quality, for that which had appeared to be barren black rock in contrast to the water, has an appearance of colour and velvety softness with a range of shades from reds and yellows to green and black. This is due to vegetation which given a chance is able to cover the bare rocks until it admits defeat only at the extreme north where continual ice and snow are the rule.

The word "barren" applied to large areas of the Arctic is only a comparative term to show the difference between a treeless

and shrubless country and the wooded areas farther west and south. Over the whole territory visited an astonishing number of plants can be found under conditions which seem almost prohibitive to growth; and grasses that resemble grain are found wherever soil or even sand give the roots a foothold. Where the grasses and flowering plants are unable to exist, the mosses and lichens grow in profusion until every sheltered spot has some evidence of plant life, and only the wind-swept and weather-beaten rock is completely bare.

The presence of vegetation enables other form of life to exist and on every hand ample evidence of this is apparent. Perhaps mention of a first impression is in order, for in July the traveller, if only a few miles inland from the sea coast, is welcomed by hordes of mosquitoes. One must admit that this is not an attraction for the visitor, although the latter is unmistakably an attraction for the insects. Fortunately the season for these pests is short, and as one journeys northward, they noticeably operated on shorter hours and only in favourable temperatures. It was not our good fortune to see the larger herds of caribou, which furnish food and clothing to the natives, but at a point on the Tha-anne River their tracks and trails showed that a very large number had passed through the vicinity only a short time before us. Over a large area the grass and moss were cut away forming paths and tracks which resembled the grazing grounds of a well stocked cattle country. In addition to the caribou traces, hares, lemmings and other animals were seen, while bird life is everywhere abundant. Geese, ducks and other varieties of water fowl frequent the sea coast, and inland every pond and lake has its quota of young birds.

The prevalence of lakes and waterways raised expectations of good fishing, which unfortunately were not justified. It is true that the deeper lakes contain fish but the opportunity of catching them was not afforded us. Later in the season we were given several fish by the Eskimos. These were the Arctic Char, a fish resembling the salmon, which are caught in nets and afford the most excellent eating. While flying close to the coast of Hudson Bay we could see numerous white whales in the salt water, and

we were told that at times so many of them would enter Churchill Harbour that they formed a real hazard to the landing of aircraft.

As we flew farther west and northward we approached the tree line, for near Lake Thaalintao we could see small scattered clumps of stunted trees, and farther to the west a dark line showed the main limit of forest growth. This was about 130 miles inland from the "Bay". These proved to be the last trees we were to see until our return to Churchill, and it was a revelation to realize how much trees mean to those who have lived and grown up amongst them. In the fall of 1942, when we were approaching Churchill on a ship that had spent many months in Arctic waters, members of the crew were heard to express their pleasure in the words "Boys see those trees, I'm going to stand under one of them when I get ashore". They must have been disappointed to find the trees which seemed so prevalent in the distant view were not common in the immediate vicinity of the Port.

Chesterfield, with its Police Post, Mission, Radio Station and Hudson's Bay Company's Post, is an important, and for the Arctic, a large community of twenty to thirty people of all ages, while the native population fluctuates from the few permanently attached to the different official buildings to quite a large number of transients, who generally arrive at Christmas or Easter to combine religious obligations with trading and social activities.

Mr. Scott of the Hudson Bay Post told us of the celebration of Christmas with a firework's display, which must be an impressive sight in the midst of the winter snows and Arctic night. The Mission Hospital and Industrial Home gives timely aid and shelter to the sick, injured, and destitute native, while we had personal experience of the value of the radio communication afforded by the Department of Transport. Their practice of a bi-weekly contact with the isolated posts within a radius of many hundreds of miles makes the interchange of local news almost as efficient as a country party line telephone, and the transmission of medical advice to those in serious need of a doctor's service has in many cases saved lives which otherwise would have been lost.

Chesterfield was also the advanced air base for our half

of the expedition, and except for two short flights, we used a Peterhead boat for our journeys from this point. It was here that we made our first contact with the native Eskimo, or Inuit, as they prefer to call themselves. Our aircraft was met by most of the male population, both white and native, and with the help of the natives, both adult and those scarcely old enough to lug a parcel, our equipment was soon carried to the warehouse of the Hudson's Bay Company. The manager of the trading post made us welcome and gave us shelter in his very comfortable home, where thanks to boat transport the furnishings were quite equal to those found in more civilized surroundings.

Perhaps it was due to the selection of our boats crew by this official that our personal acquaintance with the natives was a happy one; for during two seasons we found those natives we met were intelligent, hard working and cheerful. Possibly closer investigation might have revealed conditions of disease and privation. Tales of such reached us but were not actually observed.

The R.C.M.P. posts, mission stations and trading establishments all have medical supplies and do a great deal to help the natives when sickness or injury strikes them; but the distance between these posts and settlements leaves large areas untouched, and anyone seriously injured or sick must be rugged indeed to survive the lengthy journey necessary to obtain aid.

It was at Chesterfield that we saw a most interesting and successful experiment, both at the Hudson's Bay Company's Post and the Mission. The growing of lettuce, radishes and several other edible vegetables was in progress. Of course in a cold frame and protected by the glass of storm windows. In spite of the lack of suitable soil, and hampered by a short growing season, the gardens produced fresh material for salads, which were highly appreciated after weeks of living on dried or canned provisions.

When travelling by water a new aspect of the country's resources is revealed. On land the caribou supplies food, clothing and a thread-like sinew, and from the sea the native gets the seal which gives food, clothing, material for footgear, oil for heating, and from the hide of the larger variety, very efficient lines are

made to form dog harness and harpoon tackle. The unbelievable strength of these sealskin lines was demonstrated when a harpoon line, about as thick as one's small finger, held our boat securely during a storm.

The southern and western shore of Southampton Island has a low, uninterrupted coast line, made up largely of broken limestone shingle. Very few bays suitable for shelter exist and this fact, combined with the long tidal flats, made travel along the coast, except in favourable weather, rather difficult. We were forced several times to beach our boat at high tide to gain the necessary shelter from severe and adverse winds. This characteristic of Southampton Island is in marked contrast to the western coast line of N.E. Ultra Strait and Roes Welcome Sound, where the irregular and broken coast line offers many harbours for small boats, although frequent reefs make them difficult to approach.

While we were endeavouring to find a passage through the ice floes, which had come down from Foxe Basin, we had the good fortune to encounter herds of walrus. These large animals, some of them weighing over a ton, had come with the ice from the north. The area between Coats Island and Southampton Island is a well known hunting ground. The walrus form a good supply of food for the Eskimo and his dogs; while their tusks, teeth, and strange to say a bone found in the reproductive system, are articles of trade. The ivory of the tusks also gives material for native handicraft, and carved models made from this material find a ready market.

While travelling northward in Roes Welcome Sound we had the opportunity to visit and observe the activities of an Eskimo camp composed of five families. This small community, who lived in tents and moved by boat along the coast in the summertime, using dog sled and snow houses in winter, revealed a surprising efficiency in organization and division of duties. Two of the men were inland hunting caribou and establishing food caches for their winter trap lines, when the collection of white fox skins forms an important source of revenue. Two other hunters were engaged in catching the seals which frequented the waters opposite the camp; while the fifth

man, who was also the oldest, acted as general adviser and lookout. We seldom saw him without his field glasses, which he handled with evident pride, while a telescope lay ready on a rock observation point.

While the men were engaged in the pursuit of game, the women and children were busy preparing the meat, blubber, and skins brought in by the hunters. Caribou skins were stretched out to dry, while seal skins were immersed in water, where a rotting action prepared them for further processing. Seal oil was being extracted and put into containers of skin and also filling one or two forty-five gallon oil drums, which no doubt had been obtained from some trader. We were intrigued by the odd appearance of some of the food supplies which were being preserved by drying. In addition to the strips of Caribou meat and fish hanging on the line, there were quantities of a red sausage-like substance. This we were told was seal entrails, something extra good for the winter's supply.

There appeared to be a use for almost every part of an animal's carcass and the dogs, who were chained up amidst this display of edibles, were given the scraps and bones. Compared to the pampered lives of our city pets, these dogs were having a hard time, for their feeding periods seemed to be several days apart and the hungry look in their eyes caused one to give them a wide berth.

An incident which illustrates the part the white or Arctic fox plays in the economic life of the native occurred at this camp; both our parties, which operated a hundred or more miles apart, were equipped with radio telephone and by arrangement with the radio station at Chesterfield we made contact at seven-thirty P.M. each day. The natives found this a never-failing source of interest, especially after the senior member of the camp had spoken over the air to his brother, who lived about one hundred and fifty miles distant and whom he had not seen for over three years. Perhaps the revelation that the machine could talk Eskimo as well as English prompted the question "How many foxes for a radio like that and will it work in an igloo?" A fox skin, worth approximately twenty-five dollars, is almost a form of currency and the easiest way to express a value of one hundred dollars to the native would be to say

four foxes. Fur, mostly in fox skins, was the main source of revenue for the natives we met and practically all his requirements outside the resources of the country are paid for by credits formed in this trade.

In the early days imported goods, such as flour, biscuits, sugar, tea, clothing, fire arms and ammunition were luxuries to the self-sufficient Eskimo, but today they are articles of everyday use and it would be a serious blow to native life if the supply of goods were interrupted. Even his boats and canoes are imported and the general use of Primus stoves and gas engines make the supply of fuel an important item.

We were surprised to find that, in several cases, the yearly income of the successful hunter from fox furs alone would be from one to two thousand dollars and we heard of some amounting to six thousand dollars for the winter's catch.

The whole area surrounding Hudson Bay is rich in historical associations which have been preserved in names given to the natural features. In some cases the passage of time has buried the story until we wondered what particular mercy had prompted the name "Bay of God's Mercy" or where the Welcome of "Roes Welcome Sound" originated. In other cases the names of early explorers or their patrons had been perpetuated until three hundred years of history, with its tragedies and successes, is presented in surroundings practically unchanged since the first European entered the "Bay" with high hopes of reaching China.

The long winter with its snow coverage from November till June helps preserve the relics of more recent times, and the absence of small trees and shrubs enables the visitor to see and have his curiosity stirred by discarded equipment which has lain undisturbed for perhaps fifty years. At Fullerton, where the N.W.M.P. located a post to control the activities of the whalers, we found piles of barrel hoops, some still in their original bundles, where a whaling vessel had landed a cooper with a supply of cask-making material and had left him busy preparing containers for the oil and blubber they were in search of. It was near this police post, which has been untenanted for several years, that the

possible hazards of Arctic life displayed grim evidence; rough wooden boxes set on top of the bare rock and only partially covered with small stones formed the last resting place of two police constables, a ship's surgeon and a seaman, while several others, unmarked by headboards, were unmistakably not native graves.

Relics of past native life were everywhere along the coast and at each of our landing places we saw stones forming tent rings, remains of food caches, graves and cairns. At Hut Point on Southampton Island we saw ruins of well constructed stone huts with even the compartments and stone furnishings still in position. It is possible that these huts were stone-walled and roofed with whalebone and skins; their use is beyond the memory of the present day native and he will say when questioned "Old people all gone" to tell us that the tribe that dwelt there is now extinct.

Near Whitney Inlet on N.E. Ultra Strait the number of tent rings and graves indicated a long use of this particular camp ground and a further evidence of community life was a large ring of stones about thirty feet in diameter so placed as to form what must have been an auditorium; large stones on the outer edge formed the walls, while smaller flat stones against them on the inside could have been seats and a gap on the eastern side formed the entrance. Had this been the "Old Peoples" Parliament or was it an Eskimo "Stone Henge".

Close to Cape Dobbs we saw an example of how the native, who at present uses steel traps, was able to construct a trap for foxes, using the local stone supply. A large dome-shaped cage, six feet in height, had been built with the only opening at the top. Bait placed inside attracted the animals and they were unable to find their way out. Other traps in the form of dead falls of flat stone were also in evidence at each encampment.

It was near this point that we picked up an interesting geological relic, for in amongst the boulders was a solitary piece of fossilized honeycomb coral very similar to the fossils found on the southeast corner of Manitoulin Island in Ontario. Glacial action may have carried this one piece long distances from its

origin but it was an indication that at one time the Arctic regions had been tropical.

From Cape Dobbs to Repulse Bay the boat channel was blocked with ice floes and further progress northward could only be made with great hazard and loss of time, so we turned our boat southward to complete our work at Chesterfield and finally flew, homeward bound, to Churchill.

Ottawa, 17th November, 1943.



4191

Where the roots can gain a foothold
grasses are found growing. This
picture shows the cairn at Iterdlak
Bay.



Moss and lichens cover the lime-stone
shingle of Southampton Island.



4171 A

Grain-like grass on Southampton Island.



4164 B

Mosses and lichens endeavor to exist on the wind swept area of a low ridge on Southampton Island.



4182

At Lake Thaolintao we saw our last trees and shrubs. The main tree line lies west of this lake.



4189A

The N.W.M.P. buildings at Fullerton. Near this deserted spot we saw relics of early whaling activity and grim evidence of Arctic tragedies in the form of graves.



4165

The natives we met were intelligent, hard working and cheerful. In the picture above our crew have just completed the building of a cairn for our survey mark while below we see the elder member of a native camp with his wife ready to land and start a scouting trip of forty miles in search of game.



4197



4158

Mr. A. Scott, Manager of the Hudson Bay Company Post at Chesterfield, with his family is sitting "on" his garden which furnished materials for salads that were much appreciated. His daughter Evelyn was born at Arctic Bay.



The Mission and industrial home at
Chesterfield provides assistance
for the natives.



4173 D

Ice from Foxe Basin blocked our progress northward and eastward. We saw many herds of walrus that had come from the north with the ice.



4174 H



417A

The unbroken coastline and long tidal flats forced us to beach our boat when shelter from adverse winds was required.



4191



4198 A

The larger seals furnish material for footgear and strong lines. In the picture below a native is preparing a line for his harpoon.



4198



41988

The seal furnished the Eskimo with food, clothing, footgear, oil and strong rawhide lines. A seal of the smaller type is shown in the picture above.



Relics of native life are found everywhere along the coast. Above is a stone cairn used as a marker and guide post while below we see one form of game trap.





Native Grave, Whitney Inlet.



Tent rings.



Food cache.



4163 A

At Hut point on Southampton Island were
ruins of stone houses with the compartments
and stone furniture still in place.



4163 B



2230

Views of Port Churchill, Manitoba.

War conditions have made this port a busy one. Navigation is possible during August, September and October.

Below, the comfortable staff houses of the National Harbor Board.



2230



2230



H.B.C. Post at Chesterfield
R.C. Mission in background.



4199.5

Chesterfield Harbour.



4199.1

The H.B.C. post at Chesterfield.



4182

Lake Thaalintao affords an excellent landing place for aircraft equipped with floats.



4152

At Chesterfield the entire native population assists in unloading our aircraft.



4194A

Whenever possible cairns and survey marks were placed in prominent positions. At Cape Dobbs we camped in the shelter of the hill on which our cairn was located.

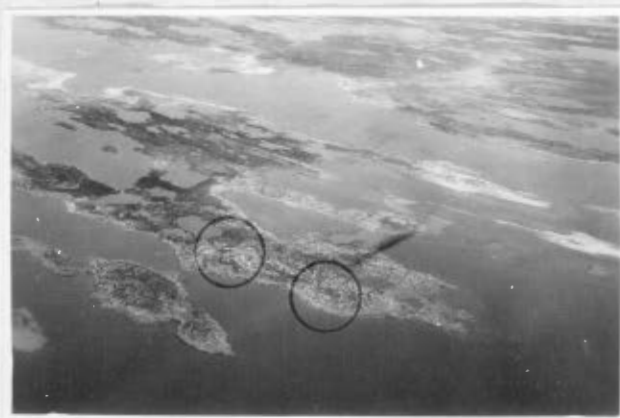


4186A

The cairn near Whitney Inlet is an example of the methods of marking; a bronze tablet set in the rock marks the point while the cairn and whitewash strips make it easily found.



At Cape Low, Southampton Island our Eskimos are whitewashing strips of flat stones. These make the point easily seen from the air and when photographed serves to identify the survey mark with the surrounding topography. Below we see the markings as photographed at 2,000 feet.



Fullerton
N.W.M.P. Buildings
show in picture.



Near Whitney Inlet.



Floating ice can be a hazard both to boats and aircraft. When the tide rises our planes will have to "take off" amidst these cakes of ice.



Masses of ice such as shown above can foul the anchor chain and cause the boat to drift.



4195A

At Cape Dobbs four days of northerly winds packed the ice into our sheltered bay. During this period we received mail when our aircraft landed on the Criciform lake shown below. A shift in the wind has also scattered the ice enabling us to leave this vicinity.



4192-2



Ice Floes, Roes Welcome Sound.



As we left Cape Dobbs we could see our cairn outlined against the sky.



4173 A

Near Junction Bay, Southampton Island we had to force our way through stranded and floating ice to open water.



4173 C

