the arctic circular

vol xxx
no. 1
March
1982

Site of Greeley's house, Fort Conger. 1965
CONTENTS

Cover Picture: Site of Greeley's House, Fort Conger - 1965; from the sketchbooks of Dr. Maurice Haycock. See description page 12.

<table>
<thead>
<tr>
<th>Article</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Around the Circle</td>
<td>1</td>
</tr>
<tr>
<td>After Butterflies in Alaska's Arctic Mountains, by Richard W. Galaburri</td>
<td>3</td>
</tr>
<tr>
<td>Government Announces Native Claims Policy</td>
<td>8</td>
</tr>
<tr>
<td>The Inuit Broadcasting Corporation</td>
<td>9</td>
</tr>
<tr>
<td>New Northern Superstars</td>
<td>10</td>
</tr>
<tr>
<td>Science Institute Foreseen in N.W.T.</td>
<td>10</td>
</tr>
<tr>
<td>A New Magazine</td>
<td>11</td>
</tr>
<tr>
<td>Fort Conger, Ellesmere Island, N.W.T.</td>
<td>12</td>
</tr>
<tr>
<td>Institute for Northern Studies</td>
<td>13</td>
</tr>
</tbody>
</table>

ISBN: 0004 086X
ALL AROUND THE CIRCLE

Annual General Meeting, 12 January 1982. Reports were given by the President, the Acting Treasurer and the Editor of The Arctic Circular. There was also a discussion of membership fees, and general agreement that they should be raised. The new schedule of fees will be found on the last page of this Circular. The following slate of executive and committee members was elected to serve for 1982:

EXECUTIVE

President Mr. A.C. David Terroux
Past President Dr. Kenneth C. Maclure
Vice President Dr. Olav Løken
Secretary Miss Sally MacDonald
Treasurer Dr. Thomas Frisch
A/Treasurer Dr. Keith C. Arnold
Editor Mrs. Nora Murchison
Publication Mr. Stan A. Kanik

COMMITTEE

1980-82 Mrs. Dorothy Brown Beckel
1980-82 Rev. Roger E. Briggs
1981-83 Mr. Evan Browne
1982-84 Mr. Donald J. Gamble
1982-84 Mr. G.H. (Hank) Johnston
1981-83 Miss Helen M. Kerfoot
1982-84 Mr. Peter J. MacKinnon
1981-83 Mr. Norman J. Macpherson
1981-83 Mr. Jeff Packard
1980-82 Mr. Harold Pfeiffer
1982-84 Dr. Graham Rowley
1981-83 Mr. Gordon W. Smith
1981-83 Dr. E.T. Tozer

269th Meeting, 12 January 1982. Captain Thomas C. Pullen spoke on his experiences in transporting the 13,200 ton barge Arvik II from Trois Rivieres near Montréal to Little Cornwallis Island, near Resolute, N.W.Y. in the summer of 1981. The successful tow of such a large barge, housing an ore processing plant for Comico's Polaris mine was a tribute to the vision and skills of those involved and represented a major accomplishment in the history of arctic marine operations. Captain Pullen illustrated his talk with coloured slides.

270th Meeting, 9 February 1982. Mr. Peter Blackall, Manager of the Baffin Island Oil Spill Project spoke on the Project and its objectives, which are to compare three options for dealing with oil spills and to provide guidelines to governments and industry based on the findings of the research. The three options are: 1) to allow the oil to reach shore and then clean up the beaches,
2) to apply dispersants in the near-shore environment to prevent the oil from going ashore, and 3) to leave oil spills to natural processes without interference. The research has now been completed, and monitoring of the long-term impact will continue until 1984. The Project is funded largely by industry and the Canadian and U.S. governments with contributions from the Norwegian government and British Petroleum in the U.S.

271st Meeting, 9 March 1982. Mr. Kenn Harper spoke on the murder in the spring of 1920 of Robert Janes, a trader from Newfoundland, who was killed at Cape Crawford, northern Baffin Island. Mr. Harper heard of this murder while he was living in Arctic Bay, and after talking with relatives of the accused he was inspired to research the story more fully from archival sources. The story of the free trading activities which brought Robert Janes to Baffin Island, the events leading up to his murder, the resulting investigation and trial and the implications of it for Canadian sovereignty in the Far North are a fascinating and little known chapter in the history of the High Arctic.

Annual Dinner, 19 March 1982 was held at the Highlands (C.F.B. Uplands) Golf Club. The menu featured cold poached arctic jumbo Whitefish, which came from the coastal waters of the Beaufort Sea, and musk-ox stew, the meat coming from herds maintained by the Inuvialuit of Banks Island. The guest of honour and after dinner speaker was Dr. Terence Armstrong, Reader in Polar Studies at Cambridge University and assistant director of the Scott Polar Research Institute. Dr. Armstrong spoke about his many visits to the Soviet North.

Members News

Richard W. Galaburri of New York, whose article on hunting butterflies in Alaska appears in this issue writes: "By profession I am a commercial artist, but my leaning is towards the fine arts. Whenever I go North I always bring paints and canvas with me for a sense of great satisfaction comes when I believe I have captured the essence of an arctic or sub-arctic landscape. I have painted and sketched in Alaska, Yukon and northern Alberta and last summer I was painting in northern Saskatchewan. I had long cherished a hope that I would be the first to paint at the North Pole until I learned that I had been artistically forestalled by Maurice Haycock, whom I admire greatly."
AFTER BUTTERFLIES IN ALASKA'S ARCTIC MOUNTAINS

Richard W. Galaburri

In the summer of 1979, I made a trip to Alaska and joined the American Lepidopterists Society field-expedition to the Brooks Range. It was led by Kenelm Philip of the University of Alaska's Institute of Arctic Biology and the objective was to collect butterflies in an attempt to shed some further light on the species inhabiting arctic Alaska.

It was a warm fourth of July morning in Fairbanks where 38 members of the field-expedition boarded the vehicles that were to take us north. Our little convoy, consisting of a school bus, a van and a pick-up truck loaded with food, camping gear and other equipment arrived at the Yukon River checkpoint later that day. After satisfying the officials as to our scientific intentions we proceeded north along the haul road. The pipeline was almost constantly in view, either to our left or right, now and then disappearing underground and reappearing at a point in the distance. The area through which we passed via the pipeline corridor is known to geographers as the Central Alaska Uplands and is a part (the very northern terminus) of the Great Intermontane Plateau belt which lies between the Rocky and Pacific Coast mountain systems and which stretches from Mexico to Alaska. The Alaska Uplands is well drained by the Yukon River and its tributaries and much of it is shrouded by dense, boreal timber where live untold numbers of bear, mink, beaver and the other fur-bearing animals.

We crossed the Arctic Circle at 2 p.m., July 4th and pulled into a deserted camp, called Prospect Creek, at 8:30 in the evening. By 11 p.m., most of us were in our sleeping bags. To see twilight at that hour was delightfully incongruous.

The next morning we continued along the haul road and were by then crossing wide expanses of tundra, or barren-grounds. Broad U-shaped valleys and the meandering Koyokuk River were enlivening features of the increasingly hilly terrain and a misty-blue range of mountains, which we immediately identified as the Brooks Range, appeared on the northern horizon at 10:15 a.m. Shortly thereafter, our little caravan was flanked by bare, rugged peaks. We had reached our destination after having passed through three hundred miles of taiga and tundra and the only mishap suffered was a flat tire.

We set up camp at Chandalar, an abandoned pipeline camp in the midst of the mountains and the midnight sun. Here, the slopes and valleys were swept clean of even the stunted and deformed spruce that characterize the edge of the treeline, which, from the arctic butterfly collector's point of view, is as desirable as it is to an arctic butterfly.

We began collecting in earnest on the following day. The weather was good, temperature around 45° and the sky filled with masses of cumulous clouds through which the sun often shined. In pairs and groups, we ascended the soggy, spongy moss-covered slopes. Butterflies were flying from every direction and nets were swinging in a matter of minutes. Most colorful were the various species of Sulphurs, namely, the Hecla Orange (Colias hecla), the
The Hecla Orange (*Colias hecla*). Life size.

The Polar Fritillary (*Boloria polaris*). Life size.
greenish-yellow Nastes Sulphur (Colias nastes) and the bright yellow Colias chippewa. These are all butterflies of the far Arctic and two of their relatives in the southerly latitudes are the familiar Common Sulphur (Colias philodice) and the Alfalfa Butterfly (Colias eurytheme). The Fritillaries, or Silverspots, of which there are almost innumerable species in the western U.S. and Canada, are well-represented in Alaska. They have the same orange color with black markings on the upper-wing surfaces and silvery-white patches underneath. One of these, a Polar fritillary (Boloria polaris) alighted on a scrub willow to task in the intermittent sunshine before I captured and immortalized it.

Most populous were the various species of the genus Erebia (the Alpines) and the genus Oeneis (the Arctics). The former are characterized by an overall dark-brown coloration and have reddish ocelli, or spots, along their wing margins. The latter are typically light-brown to ochre and have gracefully curving wings. The earthy tones of these butterflies help them blend quite inconspicuously with the surrounding vegetation a form of protective mimicry. One can assume that their coloration protects them from such birds as the Lapland longspur and redpolls, quite common in the North, if one also assumes that these two species of birds enjoy feeding on butterflies every so often.

It may seem incredible to some that such fragile creatures as butterflies could survive in the earth's frigid zone, but the life cycle of an arctic butterfly is timed to perfection. In the short summer, the females are courted by the males and lay their fertilized eggs on grasses, willows, or low-growing heaths. The chosen plant serves as host for the tiny, hatched larvae that quickly eat their way to ten times their original size. Before the cold weather sets in the larvae enclose themselves in a pupa and remain in suspended animation throughout the long polar night. Thus, the arctic elements are safely encountered and in the ensuing summer they emerge from their insect igloo as full-grown adults, and fly off in search of a mate so that the cycle may begin anew.

By early afternoon, the sky over Chandalar became overcast and it started to rain. The butterflies disappeared from the slopes and so did their pursuers. I straggled into camp and saw the school bus had been converted into a diner. When I stepped in I was greeted by the aroma of hot soup and coffee and by the chatter of lepidopterists enumerating their captures. A topic of discussion, other than butterflies, was grizzly bears and we drew lots as to which one of us would be eaten alive. Though we joked, we were aware of the danger of a chance meeting, for the low willows bordering the streams and watercourses were high enough to conceal a full-grown Ursus horribilis.

The next 48 hours was one continuous stream of butterflies and bear jokes. July 8th was overcast with some drizzle and temperatures in the 30's. Nothing was fluttering besides our tent flaps and most everyone remained in camp. The following morning, however, the sun was shining on the Brooks Range. Ravens sailed overhead and arctic ground squirrels skittered through camp. The clear, blue sky and a morning temperature of 45° persuaded Kenelm Philip to proclaim it a perfect day for visiting the North Slope and all concurred.

Our convoy left the Chandalarat 8:30 a.m. and within half an hour was crossing the continental divide through Atigun Pass. We were surrounded by snow-
covered peaks—dazzling white, breathtaking and sublime—when someone spotted a band of fourteen Dall sheep (Ovis dalli) scaling a precipitous slope. Twenty minutes later we met with a buff-colored sow grizzly and her two cubs. They were clawing up the moss and lichens on a hillside hardly 200 feet from the haul road and were not the least perturbed by our presence; which must have been because of their having grown accustomed to the sight and sound of trucks traveling to and from the Beaufort sea coast where the oil fields lay. We stopped for pictures and not once did I notice her bearship lift or move her head to regard us. Indeed, it seemed like we were invisible to them, but now when I think about it, I'm sure that sow had every one of us pegged.

Ahead of us the haul road curved north and led down the steep, broad Sagavanirktok valley flanked on either side by snow-capped mountains. We rolled down this grand colonnade and out onto the rolling tundra just beyond the North Slope and saw a pair of bald eagles gliding east. At that moment, two caribou, yearlings probably, were crossing under the pipeline on our right and this simultaneous occurrence was enough to cause general confusion aboard the bus as twenty-five people, with their cameras and butterfly nets, tried to get off at the same time. After the eagles and caribou had gone, we decided to remain in the vicinity to proceed with our butterfly census. The ridge to the east offered the best opportunity for such work so we marched up the steep, soggy slopes and met with abundance of butterflies. We also met with abundance of mosquitoes which settled on our shoulders and backs, hovered above our heads and in front of our faces, but for some reason or other didn't bite us. Whether it was our repellant that kept them at bay or whether they were all males (only the females bite) is something I haven't as yet figured out.

The reward for those of us who reached the plateau at the top of the ridge was a panoramic view of the North Slope of the Brooks Range and the sight of three majestic barren-ground caribou sporting full racks. They looked upon us suspiciously, advanced timidly and, like actors with stagefright, froze in their tracks. Finally, they turned and quickly disappeared behind the ridge's farther side. It was the butterflies that now claimed everyone's attention but I decided to go in pursuit of the caribou. I hoped to discover that they had gone to rejoin their herd and an entire herd of caribou was something I wanted to see.

In about half an hour I reached the far side of the ridge which overlooked a vast expanse of tundra stretching as far as the eye could see from east to west and north. Low, rolling hills were all that broke the spellbinding uniformity. Not a tree, nor a bush, nor a living thing appeared to be out there. The three caribou had vanished in that limitless expanse and I stood there alone gazing upon the threshold of another world. I was 1500 miles from the North Pole and south of every explorer's track from Franklin to Peary and yet I took a certain satisfaction in knowing that I was at that moment farther north than virtually the entire population of the world.
GOVERNMENT ANNOUNCES NATIVE CLAIMS POLICY

Indian and Northern Affairs Minister John Munro today released a booklet entitled "In All Fairness – A Native Claims Policy." It is an expansion of the government's 1973 policy on comprehensive native claims and reaffirms the government's commitment to negotiate claims based on aboriginal title relating to traditional use and occupancy of land.

Settlement of these claims will provide new benefits and rights in exchange for any rights based on traditional interests that may have existed. Mr. Munro stated that, "Final settlement does not mean loss of native identity or culture but will mean the establishment of concrete rights helping to reinforce the native identity."

This policy was developed in the course of an extensive review which was undertaken during the latter part of 1980, taking into account the many developments which had taken place since 1973 and the views and concerns expressed over the years by native and other interested groups. It outlines the federal position in relation to some of the major areas of concern to all interested parties in the claims process:

Constitutional Development
Constitutional development cannot be decided within the claims negotiating forum since all citizens affected must be involved. Final resolution in this regard will therefore require action beyond claims settlement. In some cases, local or municipal types of government can be accommodated within federal, territorial or provincial legislation.

Boundary overlap
Where traditional native land interests overlap and boundaries cannot be agreed to among the competing users, no land should be granted in the contested areas until appropriate measures are found to resolve the dispute. Reciprocal agreements between the native groups involved would be an acceptable solution.

Land Selection
Land selection for native claimants will take into consideration third party interests, appropriate easements and access to subsurface resources.

The claims process will remain the same. Negotiations concerning claims north of 60° are bilateral between the native groups and the Federal Government leading to federally legislated settlements with the active involvement of the territorial Government as part of the federal negotiating teams. Where claims fall in areas of provincial jurisdiction and where provincial interests and possibilities are affected, provinces are involved in the claims negotiations in order to achieve fully equitable settlements.

Indian and Northern Affairs Canada
Communiqué, 16 December 1981
THE INUIT BROADCASTING CORPORATION

The Inuit Broadcasting Corporation was born at midnight Monday, 11 January 1982, inaugurating regular broadcasting in Inuktitut, the language of the North. Television sets across the Canadian Arctic were tuned in to a 90-minute special program on the North produced and directed by Inuit. The IBC continues to show hour-long programs three days a week, all at midnight, which is the only satellite time the CBC will allow. The IBC will operate during the next two years on a $4-million grant from the Department of Indian Affairs and Northern Development. It is hoped that the IBC will soon broadcast five times a week, and that live broadcasts will be beamed directly from Toronto.

NEW NORTHERN SUPERSTARS

When Jury Krytiuk took it into his head, five years ago, to press a couple of albums of native music together and to test-market them in the north, he knew he had a novel idea but he wasn't sure if it would sell.

That's why he's so shocked now: The Cree and Inuit artists on his Boot Records label have gone on to become the musical superstars of the north.

"Indian music, I thought it all sounded the same, you know, chants, heh heh heh - that sort of thing.

"I simply can't believe what happened," Krytiuk says, shaking his head.

So far, the six albums by native musicians eventually released by Boot Records have sold 10,000 copies each, are as popular in Greenland and Germany as they are in Canada, and may be released in the Soviet Union.

"Of course there's a problem with the Soviets," Krytiuk says. "They don't want any kind of Western music released in their country, but the Inuit understand each other all over the world, and perhaps I can get some Siberian musicians."

Boots Records originally hoped for more modest sales. If they sold 1,000 copies of each album, they'd break even. Ten were tentatively sent to Greenland, where the company wanted to generate some interest. But that same week they received orders for 150 copies each; the week after that - 1,500.

The whole project started five years ago after Krytiuk received a request from Germany for Inuit music. Krytiuk contacted Sheldon O'Connell, the head of CBC's northern services in Montreal, who had some 45's cut by Inuit musicians.

After a series of meetings with CBC and Hudson's Bay Company officials, the albums were released.

"The whole Arctic is my market," Krytiuk says, "as well as Germany, Alaska and Greenland."
Sales are going so well, Boots Records and its president Krytiuk have only had one disappointment and that's how poor response to the albums has been in southern Canada.

"The Bay stores down here don't seem interested," Krytiuk says.

In Toronto, one of the biggest southern cultural centres, "the only places you can get the albums are The Country Music Stores... Sam's and A & A's. But I plan to release six more albums next year, and I think we've done well by the artists. A couple of these kids have built their whole lives around this music; it's a new thing and they're reaching a lot of people."

The six albums currently on sale are Northland My Land, by Morley Loon; My Seasons, by Charlie Panigoniak; Spirit Child, by Willie Trasher; Minstrels On Ice, by Charlie Adams; Northern Man, by William Tagoona; and Better Times, by Tumasi Quissa.

All the albums are in Inuit, except Morley Loon's which is in Cree; Willie Trasher sings in English but has a voice-over in Inuit. The album jackets are in three languages: English, French and Cree syllabics.

All of the musicians make it a point to give voice to their people's tradition, concerns and pride.

Reprinted from Indian News
January 1982

SCIENCE INSTITUTE FORESEEN IN N.W.T.

Two years of consultation and discussion, drafts and redrafts, may soon bear fruit with the creation of a science institute in the Northwest Territories.

Under the proposal, drawn up by the Department of Indian and Northern Affairs through consultation with the Science Advisory Board of the N.W.T. and other interested parties, a new framework for research in the Territories would be established around the existing northern resource centres in Inuvik, Igloolik and Frobisher Bay.

The option is left for other research laboratories to affiliate with the new institute in the future.

The proposal is now being submitted to the Minister for approval.

It is hoped the institute, by being at arm's length from government, industry and universities, will guarantee the credibility of northern research by having its programs and policies formulated by an impartial board of governors.

"The interest of the institute will strictly be the quality of the scientific work, leaving the results of that to be utilized either by government for regulatory purposes or industry for operational," said Keith Greenaway, a consultant to Northern Affairs who has been involved with the idea since its conception in 1979.
As foreseen by Greenaway, the nucleus of the new board will be the Science Advisory Board of the N.W.T., the majority of whom are northern residents.

Many northerners have felt that research undertaken in their communities has little relevance to their lives.

"Science today in the North is being looked at as something that has been manipulated, managed and handled by southerners," said Greenaway.

"This institute should reverse that feeling. It will be designed so that it can't be 'captured' by the southern science community or by any of the governments."

An integral part of the proposal is the training of northerners to participate in scientific and technological activities.

The principle concern of the Science Advisory Board has been that sufficient funding be secured to enable the institute to initiate its own scientific programs at the three resource centres rather than being limited to a custodial role.

Reprinted from
Northline, v. 2, no. 1, 1982

A NEW MAGAZINE

A new quarterly magazine, called BEAUFORT, started publication in August 1981. BEAUFORT is published by Dome Petroleum Limited, Esso Resources Canada Limited and Gulf Canada Resources Inc. to provide the general public, and interested parties, with background information on the long-range development and production of hydrocarbon fuels from the Beaufort Sea and Mackenzie Delta. In terms of engineering and technical skills is attainable in this region by the mid-80s. Before approval in principle is obtained from the federal government, a detailed report on the possible effects and impacts of such production must be prepared. This report, known as the Environmental Impact Statement, is to be completed in early 1982. The E.I.S. will address the issues and concerns raised by the production scenario. BEAUFORT will report on the progress of E.I.S. and the energy industry's evolving plans to address these concerns. Article titles in the first three issues include:- no. 1 - "A Scenario for Energy Production," "Major Concerns of Beaufort Sea Production," "Sea Ice in the Beaufort"; no. 2 - "The Mighty Mackenzie River," "The Building of Tarsuit, the Beaufort's First Caisson Retained Island," "Whale Life in the Beaufort Sea," "Concepts for Offshore Production Facilities"; no. 3 - "The Colourful History of the Northwest Passage, Facts and Fables About Four Centuries of Exploration," "The Manhattan, First Icebreaking Tanker Through the Northwest Passage," "Ringed Seals, A Key Arctic Marine Mammal," "Profile of an Arctic Tanker."

For those readers who would like to receive BEAUFORT on a regular basis, your name can be added to their mailing list for free subscription by simply writing to Dome Petroleum Limited at: Circulation Manager, BEAUFORT,
Box 200, Calgary, Alberta T2P 2H8. BEAUFORT is also produced in Inuktitut and the language of the western Arctic, which are available about one month after the publication of the English edition.

FORT CONGER, ELLESMERE ISLAND, N.W.T.

Captain Sir George Nares, in command of a British Arctic expedition, was the first to winter in Discovery Bay on the east coast of Ellesmere Island. His ship, the "Discovery," was frozen in for the winter of 1875-6.

During the first circumpolar "Geophysical Year" the site was occupied by Lt. Adolphus Greely and named Fort Conger. In 1881, a house was built and observations were successfully carried out until it was abandoned in 1883 because their relief ship failed to reach them. The tragic story of suffering and death due to starvation on Pim Island during the winter of 1883-4 is well-known.

About 1900, Robert Peary dismantled Greely's old house and built three small huts which were much easier to heat. These huts still stand. The outline of Greely's old house can still be clearly seen and indeed the floor of the central room is still present. When abandoned, Greely had coal thrown on the floor and it too is still there.

When Fort Conger was visited in 1956, artifacts were scattered about in profusion. Not only were the features and materials dating to the Nares and Greely expeditions to be seen in abundance, but material left by later explorers including Peary, Shackleton and others was very evident. Fort Conger was, and still is, an archaeologist's delight although a great many artifacts have been removed by souvenir hunters.

In 1965, the features were mapped by Dr. Robert Christie of the Geological Survey of Canada, and in 1979, the site was mapped and catalogued by a group of archaeologists from Parks Canada under C. Phillips Parmenter.

Maurice Haycock

INSTITUTE FOR NORTHERN STUDIES

On June 30th, 1981 the doors of the Institute for Northern Studies at the University of Saskatchewan will close for the last time. After 22 years of outstanding achievement and service, this centre of northern research and training will have come to an end.

The demise of the Institute for Northern Studies was not due to a falling off of interest in Canada's North on this campus but rather to a severe shortage of university funds.
While the unexpected phasing-out of the Institute for Northern Studies has greatly shocked and saddened its supporters, an effort has been made to salvage as many of our activities as possible by transferring key programs to other areas of this university. For example, the Northern Scientific Training grants Program is now administered by the College of Graduate Studies and Research; the INS Library holdings, including the Petitot Collection, are now housed in the University Library; the Musk-Ox Journal is under the wing of the Department of Geological sciences; and the Arctic Research and Training Centre is managed by the Vice President of Special Projects. At the moment, there are no firm plans for the re-establishment of our lecture series, the Musk-Ox Circle.

This salvaging strategy will provide a base level for northern-oriented activities on this campus and from this position perhaps this campus can rekindle its northern role in another form and under another leadership.

The university has maintained its membership in the Association of Canadian Universities for Northern Studies and this link with other northern-oriented campuses will continue to play an important role in maintaining a high profile for arctic and subarctic research at the University of Saskatchewan.

R.M. Bone, Director
Institute for Northern Studies
University of Saskatchewan
THE ARCTIC CIRCLE

ARCTIC CIRCLE MEETINGS - The regular meetings of the Arctic Circle are held on the second Tuesday of every month, October to May, at 8:30 p.m. at the Staff Lounge, University of Ottawa.

Out-of-town members who wish to receive notices of these meetings and, thereby, be informed in advance regarding the guest speakers and the topics to be discussed, should address their requests to the Secretary.

MEMBERSHIP DUES - Dues are payable as of 1 January. New members joining the Arctic Circle in the Fall or at any time during the period between the last meeting in the Spring and the first meeting in the Fall (usually May-October) will be considered paid up members for the following year. The dues are:

- Members living in the Ottawa area: $10.00
- Out-of-town members: $5.00
- Student Memberships: $10.00
- Libraries and institutions: $5.00

THE ARCTIC CIRCULAR is published four times a year. Correspondence, papers and reports are welcomed from all members, from persons living in the north, or from anyone having information on general northern activities, research and travel, or on technological, industrial or social developments. Contributions and correspondence should be addressed to Nora Corley Murchison, Editor, The Arctic Circular, 185 Kamloops Avenue, Ottawa, Ontario K1V 7E1.

Back issues of The Arctic Circular on micro-film are available, single copies at $1.50 and complete sets (Volumes I to XXV) at $100.00. Requests should be addressed to the Publications Secretary.

CORRESPONDENCE should be addressed to the officer concerned,
c/o The Arctic Circle,
Box 2457, Station "D",
Ottawa, Ontario,
K1P 5W6.
Site of Greeley's house, Fort Conyer - 1965
# THE ARCTIC CIRCULAR

**VOL. XXX**  
**NO. 2**  
Published by the Arctic Circle  
Ottawa, Canada  
June 1982

## CONTENTS

<table>
<thead>
<tr>
<th>Cover Picture</th>
<th>Site of Greely’s House, Fort Conger - 1965; from the sketchbooks of Dr. Maurice Haycock. See description page 12.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Page No.</td>
<td>15</td>
</tr>
<tr>
<td>All Around the Circle</td>
<td></td>
</tr>
<tr>
<td>Page No.</td>
<td>16</td>
</tr>
<tr>
<td>Commemoration of the International Polar Years; by J.F. Clark</td>
<td></td>
</tr>
<tr>
<td>Page No.</td>
<td>25</td>
</tr>
<tr>
<td>Laborador Institute of Northern Studies</td>
<td></td>
</tr>
<tr>
<td>Fosters Local Research</td>
<td></td>
</tr>
<tr>
<td>Page No.</td>
<td>27</td>
</tr>
<tr>
<td>Arctic College, Learning Centres Proposed</td>
<td></td>
</tr>
<tr>
<td>Page No.</td>
<td>29</td>
</tr>
<tr>
<td>James Bay and Northern Quebec Agreement Implementation Review; Background Information</td>
<td></td>
</tr>
<tr>
<td>Page No.</td>
<td>34</td>
</tr>
<tr>
<td>Shops Taken to Establish Park</td>
<td></td>
</tr>
<tr>
<td>Page No.</td>
<td>36</td>
</tr>
<tr>
<td>Government to Deal with Outstanding Indian Claims</td>
<td></td>
</tr>
<tr>
<td>Page No.</td>
<td>37</td>
</tr>
<tr>
<td>Third National Workshop on People, Resources and the Environment North of 60°</td>
<td></td>
</tr>
</tbody>
</table>

**ISBN:** 0004 086X
272nd Meeting, Tuesday, 13 April 1982. Mr. Harold Finkler of the Northern Social Research Division of the Department of Indian and Northern Affairs addressed the membership on the subject of "The Administration of Justice in the NWT."

273rd Meeting, Tuesday, 11 May 1982. Dr. W. Alec B. Douglas spoke on "Weather and War in Labrador." His talk included the events that led to an expedition mounted during the summer of 1981 aboard the C.G.S. Louis S. St. Laurent in search of the remains of a German automatic weather station put ashore and erected by the crew of German submarine U-537 on the remote and inhospitable shores of Labrador during World War II. The information transmitted by this station was of enormous importance to German submarines operating in the North Atlantic.

Members News.

Congratulations to Dr. Milton Freeman who has been named as the first recipient of a Henry Marshall Tory Chair at the University of Alberta. The Chair considered the prestidigious professorship at the University, is for "outstanding" individuals who by their presence will enhance the reputation of the university and who can provide leadership and experience for the strengthening of teaching and research in specific disciplines at the university."

Dr. Trevor Lloyd a founding member of The Arctic Circle was the recipient of the 1982 Massey Medal, awarded by The Royal Canadian Geographical Society.
COMMENORATION OF THE INTERNATIONAL POLAR YEARS

By

J.F. Clark, Earth Physics Branch, Ottawa

I. INTRODUCTION

This year, 1982, is the centennial anniversary of the start of the first International Polar Year Expeditions of 1882-83. New magnetic and meteorological observatories were established around the world for simultaneous records over a 12-month period. In Canada observatories were operated at Fort Rae, N.W.T.,; Kingua Fjord, Baffin Island; and Fort Conger, Ellesmere Island. Magnetic observatories already in operation (such as Toronto) recorded more data than usual, for intercomparisons.

Fifty years later another Polar Year was organized. During 1932-33 recordings were made at Fort Rae again and at Chesterfield Inlet, N.W.T. and by many countries world-wide. The Division of Geomagnetism, E.P.B., is giving special attention to obtaining observations at some of these sites in 1982-1983, which is also the 25th anniversary of the International Geophysical Year (1957-58) when many temporary magnetic observatories and variation stations were operated for 18 months to obtain solar, magnetic and ionospheric data on a global basis.

To mark these anniversaries we present a brief summary of the discovery of the Earth's magnetism and the development in Canada of knowledge of geomagnetism both fundamental and applied. Naturally this brief article may only recall and not properly commemorate the pioneering achievements of past years; hopefully there will be special projects and publications in the future which will do justice to this chapter in our history.

II. COMMENTS ON THE DISCOVERY OF THE EARTH'S MAGNETISM

The ancient Greeks had a word for it, in 600 B.C. They spoke of "lodestones" -- pieces of magnetite -- and coined the word magnet to describe these "magic stones." Roman literature (circa 100 B.C.) mentions magnetic rocks. Shen Kua (1030-93 A.D.) in China, associated the power of magnetism with a compass and wrote of its use for navigation by land, then later of sailors from the Middle East
using compasses in voyages to the Orient. In 1269 A.D. a French crusader, de Maricourt, described a floating pivoted compass as an instrument of navigation. Christopher Columbus installed a type of mariner’s compass in his flagship the Santa Maria for his first voyage to the New World in 1492. It was thought then that the compass needle pointed always to the North Star Polaris, but as Columbus sailed west the compass pointed away from this Pole Star and the north points on the compass card had to be rotated to correct the "mistake", so as to avoid a mutiny. Magellan (1519-22) circumnavigated the globe with the help of compasses for direction. Gilbert’s treatise 'Die Magnete' in 1600 is the first known description of the Earth itself as a great magnet with north and south poles. His model of the external field of the globe 'Orbis Virtutis' is shown in Figure 1.

III. THE MAGNETIC SURVEY OF CANADA - EARLY YEARS

Although Davies in 1587, Champlain in 1604, and other explorers in the 17th and 18th centuries, measured magnetic declinations, their instruments and observations were not very accurate. The modern era of systematic observations began in 1840-42, when Lt. Riddell, from England, established a magnetic observatory at Toronto. From this base, 1843-44, Lt. J.H. Lefroy proceeded on extensive magnetic field surveys north of the Great Lakes. He found a "focus of greatest magnetic intensities" at Lat. 52°10' North and Long. 100° West. He travelled the waterways by canoe and portage to the fur trading post at York factory and other settlements across the country, observing enroute. Later, he published a magnetic map of Canada. In the Arctic, Captain Sabine had carried out a number of remarkable magnetic surveys with Sir John Ross, and established a temporary magnetic observatory at Winter Harbour, Melville I. Sir James Ross discovered the north magnetic pole, 1831-32, on Boothia peninsula. The government of Canada had assumed full responsibility for magnetical and meteorological observations in this country in 1853; a priori, Great Britain held direct control. In 1880 the Canadian Topographic Survey was organized and made thousands of magnetic declination measurements during the precise levelling and mapping operations. These measurements were of second order accuracy, with a probably error of ± 15' of arc. In 1881 officers of the US Coast and Geodetic Survey proceeded across the International Boundary in the vicinity of present-day Windsor and travelled by land and canoe to James Bay, observing magnetic elements en route. The Geodetic Survey of Canada
The earth's magnetic field in the view of William Gilbert, the Seventeenth Century scientist and philosopher, in his treatise *De Magnete* Gilbert discussed the region of space *Orbis Virtutis*, surrounding the earth wherein magnetic effects were observed.
also supplied many compass-declinometer observations over the years in the course of their surveys.

In 1898 the Toronto magnetic observatory was moved to Agincourt because the growth of Toronto was causing artificial magnetic disturbances at the site on Bloor Street West. The Dominion Observatory building in Ottawa was completed in 1905 and the Observatories Branch became responsible for the Magnetic Survey of Canada although the only magnetic observatory (Agincourt) was still operated by the Meteorological Service in Toronto. In 1906 Dr. Klotz, Head of the Geophysics Division, established one of the first Division magnetic repeat stations in Western Canada at Vancouver, B.C., near the site of a geodetic bench mark and astronomical pier in Stanley Park. He had recognized the necessity of returning to the same precise point, as time passed, to determine the change in the magnetic elements owing to secular variation, which takes place over decades of time.

In 1907 C.A. French was assigned the task of taking magnetic measurements across Canada for drawing up maps and charts at regular intervals. He observed inclination and total force as well as declination, for maps of all elements. The Meteorological Service surveyed along the Mackenzie River and other areas of the NWT from 1908-1912. George Fraser-White, under French's direction, occupied some stations in Eastern Canada, 1912-15. Meaford Observatory was founded in 1916 and completely operational in 1917.

The Carnegie Institute of Washington, D.C. had been making magnetic observations of Canada, the East Coast and the Arctic, by permission of the Canadian Government, prior to the decision that the Dominion Observatory would carry on this work. French and his staff occupied about 500 points from 1907-25. R.G. McMillan joined the Observatory staff in 1921, and established many new magnetic stations in Northern Canada. After 1925 the emphasis was on repeating observations at points previously visited to obtain data on annual variation and secular change as well as the absolute values of the magnetic field for the Magnetic Charts, which were increasingly in demand for prospecting, surveying and navigation.
IV. THE DIVISION OF GEOMAGNETISM, EPB

In 1936 a federal government re-organization removed the Dominion Observatory from the Department of the Interior, Astronomical Branch, and placed it under the Department of Mines and Resources in the Surveys and Engineering Branch. Mr. W.E.W. Jackson, who was Assistant Director at the Toronto Observatory (Meteorological Services), under Sir Frederic Stupart, Director, moved to Ottawa in 1937. He continued to administer the magnetic observatories of Agincourt and Meanook, as they had been transferred from the Meteorological Services, Department of Marine, to the Dominion Observatory on December 1, 1936 following the re-organization. The portfolio of Department of Interior was then disbanded.

After 1945 the Division expanded and many survey parties were sent out across the country. In 1947 the position of the north magnetic pole was located on Prince of Wales Island, at latitude 73° north and longitude 100° west. Since then its position has been monitored by new northern observatories and frequent field trips to the Arctic. Although other agencies such as the Ontario Department of Mines undertake some magnetic surveys, the Division in Ottawa has the responsibility for magnetic charts of Canada and for much of the research carried out in magnetism.

In 1953 the Division began a high-level aeromagnetic (3-components) surveying program. Operations continued periodically until 1976. All of Canada and considerable areas elsewhere were covered by then, in some cases several times. Madill retired in September 1962 and P.H. Serson became Chief of the Division; the name was changed from Terrestrial Magnetism to Geomagnetism in 1964 and the Branch was given its present name. Agincourt Magnetic Observatory was closed in 1969 and replaced by Ottawa (Blackburn). A detailed review of magnetic observatories is in preparation.

The Geomagnetism Division also carries out research on magnetism in space aided by data from the MAGSAT satellite circling this planet.* See Figure 2 for a diagram of the Earth’s magnetic environment -- in somewhat more detail than Gilbert's 'Orbis Virtutis', shown in Figure 1. The section of Palaeomagnetism had undertaken surveys all over the country and has added greatly to our understanding of rock magnetism, as have the electromagnetism induction studies also.

* The satellite was in orbit around the Earth from October 30, 1979 to June 11, 1980, at a maximum altitude of 561 km.
The magnetic repeat station network has evolved over the years and there are 100 stations available for occupation. Observations are still carried out routinely at many of these stations, with control of diurnal variation and disturbance being attained by the operation of a temporary magnetic observatory for several days at each site. A declination map of Canada, epoch 1980.0 has been published recently. Data is supplied regularly to the Hydrographic and Topographical Surveys for inclusion on their maps.

The positions of the north magnetic pole, past and present, are shown on Fig. 3. The present location of the pole (for mid-1982) has been computed to be: Lat. 77°36' North, Long. 101°45' West.

The network of magnetic stations where observations are repeated at regular intervals is outlined on Fig. 4.

During the International Polar Years, scientists observed the Aurora Borealis in the North and the Aurora Australis under southern skies. The zones of maximum auroral frequency are shown in Fig. 5.

Fig. 2. The magnetosphere of the earth, viewed from the plane of the ecliptic.
Fig. 3. The present location of the north magnetic pole, showing its northward march in the last 151 years.
Figure 4. Network of secular change stations and location of principal magnetic observatories in Canada. Dashed lines indicate zones used in planning reoccupation of stations.
Fig. 5. The average location of the zones where aurorae are visible most often during the year.
The vast amount of research that has been carried out in Labrador over the years, mostly by outsiders, has given local people the feeling they are living in a "laboratory fishbowl," comments Tony Williamson, executive director of the Labrador Institute of Northern Studies.

To help counter that feeling in May of 1979 the institute opened in Goose Bay as an integral part of Memorial University's Extension Service to Labrador.

"We do our best to see that Labrador research is conducted according to high standards, with the informed consent of the people and a return of the data to them, allowing Labradorians to benefit from the knowledge as much as possible," says Williamson.

The Labrador Institute incorporates the activities of the Extension Service and the Professional Schools in its programs. Although the Extension Service has had a presence in Labrador for 13 years, and submits its own report to the university, its staff now operates under the aegis of the Labrador Institute.

Due to its location, small size and flexible structure, the first two years of the institute's existence have seen a merging of research, teaching, consulting and community service for the 12-member staff, irrespective of departmental and faculty designation.

The institute's governing committee is composed of deans and directors at the university, while its advisory committee includes representatives from all segments of Labrador society.

The centre in Goose Bay has become a focus for public events, with over 100 conferences, seminars, workshops and other meetings held there in the past two years.

A conference in 1980 entitled LABRADOR IN THE 80's brought together over 100 delegates from every community in Labrador to reflect on major events of the past decade and to project a vision for Labradorians regarding human and resource development. The institute is now seeking funds to publish the conference papers and proceedings in book form.
Approximately 300 people register each year for courses offered throughout Labrador by correspondence, videotape and teleconference, as well as by live instruction.

Many of the institute's projects are generated within Labrador. In 1979-80 when northern Labrador people were investigating what type of corporate enterprise they should set up to exercise a federal shrimp licence and to manage the inshore fishery, the Labrador Institute organized a group of specialists in arctic and fisheries co-operatives to travel to the coastal communities to explain the basic principles of co-operatives.

The project played a key role in the founding of the Torngat Fish Producers Co-operative in December, 1981.

"We are ready to assist any interest group," explains Williamson, "whether it's a community council, a native people's organization, a private company, or a government department."

In keeping with its mandate to promote the well-being of the people of Labrador, the institute has undertaken numerous research contracts. Research guidelines ensure there is informed consent wherever research impinges upon people's lives and environment.

A project nearing completion this spring is a $2-million occupational health study on mixed dust pneumoconiosis in the mining communities of Labrador City and Wabush. The study was undertaken in 1979 at the request of a technical committee composed of the Iron Ore Companies in Labrador, the unions and the Newfoundland Department of Labour and Manpower.

The unions had insisted that an independent group investigate the dust conditions and related matters in the iron ore mining and processing industries in western Labrador, so the institute was a logical choice.

A study of the use and importance of native and imported foods in six representative communities on the coast will also be completed this year. Funded by the Donner Canadian Foundation, Health and Welfare Canada and Canada Employment and Immigration, the study will assess the quantity, quality, availability, cost, distribution and nutritive value of local fish, game and plants, as well as food brought in from the outside.
A fault of much Labrador research to date is that the local people were subjects but not participants. Similarly, public hearings into proposed developments have too often been forums for dispute between supporters and opponents of the project, instead of a sharing of information and reviewing the various costs versus benefits.

In response, staff and fieldworkers at the Labrador Institute of Northern Studies have been conducting leadership workshops, offering assistance to groups in planning and writing briefs, helping to organize a tenants association, giving staff training to local and regional organizations and chairing their conferences.

"Our aim with this education program," says Williamson, "is to help people prepare for future environmental reviews and to train Labradorians as environmental monitors and technicians -- to be their own researchers."

Reprinted from:

ARCTIC COLLEGE, LEARNING CENTRES PROPOSED

After two years of public hearings, the NWT Legislative Assembly's Special Committee on Education has tabled a report which could radically change the northern education system.

The report, entitles LEARNING: TRADITION AND CHANGE IN THE NORTHWEST TERRITORIES makes 49 recommendations which would, among other things, set up an arctic college with campuses in the Eastern and Western Arctic, stress bilingual education, and give greatly increased local control over education to regional school boards.

Two "Centres for Learning and Teaching" would be established to train teachers, develop curricula, and conduct educational research. Teachers who were among the over 1,500 witnesses heard at the public hearings said that their effectiveness was hampered by lack of training in English as a second language, and that the lack of an orientation course before going North meant that their effectiveness was hindered during the first part of the school year. This was seen as a serious problem due to
the high turnover of teachers and the high proportion of teachers new to the North. The average length of stay for a non-native teacher in the NWT is three years, and regions may lose more than one third of their teaching staff in any given year.

The report concludes that the long-term answer to this problem is the training of more indigenous teachers. It recommends that the NWT Department of Education work closely with one or more southern universities in a "formal association" to take advantage of skills and knowledge and to ensure recognition of teachers' qualifications. There are now approximately 140 classroom assistants in the NWT, some with more than ten years of practical experience, and the report says that many CA's are enthusiastic about improving their academic qualifications.

Implementation of the report's recommendations is beginning immediately with four demonstration projects ranging from a pilot project to inform parents about the educational system to "a fresh experimental approach to the perennial problem of the recruitment and orientation of teachers."

The report suggests that the school boards be set up, the arctic college be in place, and the centres for learning and teaching be in operation by July, 1983. The report recognizes, however, that additional funding is needed, which will entail either increased support from the federal government, or a radical shifting of priorities within the NWT government.

Reprinted from:
The Government of Canada has undertaken a review of legal and moral obligations resulting from Canada's signing of the final James Bay Agreement on November 11, 1975, in response to criticism which has surrounded the implementation of the Agreement.

The Minister of Indian Affairs and Northern Development, John Munro, in collaboration with the Minister of Justice and Minister of State for Social Development, Jean Chrétien, established a joint Review Team to investigate the grievances identified by the Cree Indians and Inuit people of James Bay and Northern Quebec.

Special efforts were made by the Government of Canada to ensure that native input was obtained not only during the examination phase but subsequently. Representatives of the native beneficiaries and their advisors had the opportunity to comment on drafts of the report and its findings and to have their observations incorporated into the final Report.

**MANDATE OF THE IMPLEMENTATION REVIEW**

The deficiencies in the Agreement identified by the Cree and Inuit surfaced in testimony before the House of Commons Standing Committee on Indian Affairs and Northern Development on March 26, 1981. The all-party Committee, in a statement dated March 31, 1981, urged the Ministers of Indian Affairs and National Health and Welfare to consider the grievances described by the Cree and Inuit which had arisen from a disappointment with the performances of Canada and Quebec in discharging their obligations under the Agreement.

On the same day, the Minister of Indian Affairs announced in the House of Commons that a Review Team had been formed with representatives from his Department and the Department of Justice. The Terms of Reference for the review were: to determine if Canada had fulfilled, in spirit and letter of the law, the obligations which it assumed under the Agreement, relevant statutes, and federal letters; to review Canada's performance in the implementation process; and to recommend remedies for deficiencies. The Review Team did not investigate the actions of the Province of Quebec with respect to its obligations under the Agreement.
In consultation with Cree and Inuit leaders, the Review Team identified and studied specific allegations in areas of federal jurisdiction and certain matters of joint federal-provincial jurisdiction.

FEATURES OF THE AGREEMENT

Signatories to the Agreement were: The Government of Québec; Société de développement de la Baie James; Commission hydroélectrique de Québec; Northern Québec Inuit Association; Grand Council of the Crees (of Québec); Société d'énergie de la Baie James; and the Government of Canada.

The Agreement was necessary to resolve the land claims of the Crees and Inuit in order to permit Québec to construct the James Bay Hydro Electric Development Project. It stipulated that approximately 6,650 Cree Indians and 4,386 Inuit surrendered native title to 1,040,000 km² (400,000 sq. mi.) in return for:

- cash compensation of an estimated $232.5 million (of which Canada's share is $32.8 million);
- specified land rights;
- hunting, fishing, and trapping rights;
- hydro development project modifications and remedial measures;
- future development and environmental considerations;
- provisions for local and regional government;
- creation of native-controlled health and educational authorities;
- measures relating to policing and administration of justice;
- continuing federal and provincial benefits; and
- native development and economic measures.

The Report states that compensation funds paid out by the federal government to March 31, 1981, total $23 million. Two-thirds of all compensation payments or $155 million have been paid to date by both governments. The Department of Indian Affairs and Northern Development, between 1975-76 and 1980-81, has spent $138 million in Cree and Inuit communities in the region. Other departments like the Solicitor General, Environment Canada, Transport Canada, Employment and Immigration, and Health and Welfare have contributed to bring total federal expenditures, including compensation payments, to $177 million for the same period.
The Agreement has resulted in a reorganization of administrative and budgetary responsibilities for education, health, income security, and Inuit local government. Native organizations have taken over most aspects of program administration and local government previously carried out by the Department of Indian Affairs and Northern Development and other government agencies. The Agreement also provided for several committees, municipal corporations, authorities, boards, and other legal entities through which, it was hoped, native beneficiaries would again meaningfully control over their affairs.

GENERAL CONCLUSIONS OF THE REVIEW

On November 11, 1975, when the Agreement was signed, the Cree and Inuit, Canada and Quebec, had high expectations that the Agreement would enable the Inuit and Cree people of James Bay and Northern Quebec to advance and prosper as full participants in the social and economic life of Quebec and Canada while still preserving their traditional culture and lifestyles. Now, more than six years after the signing, it is clear that many of these expectations have not been met.

The Report concludes that, although Canada has not committed any legal breaches of the Agreement, there are serious problems in the way certain aspects of Canada's obligations have been implemented. These problems have contributed to the apprehension expressed by the Cree and Inuit that their expectations of the Agreement, which they felt were shared by all the parties, may not be met.

FACTORS CONTRIBUTING TO NATIVE GRIEVANCES

Five factors were identified in the Report:

(1) The imprecise, often vague, wording of certain provisions.

(2) The flexible, dynamic nature of the Agreement which left exact meanings and interpretations to be fleshed out in day-to-day interaction by all parties.

(3) The misconception among some public servants and the general public that the Cree and Inuit are, as a result of compensation payments they have received, now relatively well off, and therefore, do not require the same access to government funds and assistance made available to other Indians and Inuit groups in the country.
(4) The high expectations shared by all negotiating parties for this first, major, modern claims settlement in Canadian history.

(5) Budgetary restraints since 1975 affecting all government services and programs.

GRIEVANCES

The grievances which were identified and which the Minister of Indian Affairs and Northern Development, John Munro, his Parliamentary Secretary, and members of the Standing Committee on Indian Affairs and Northern Development have investigated firsthand in Cree and Inuit communities, fall into three categories relating to:

- ongoing federal programs, services, and benefits to which native people are entitled;
- special federal programs, services, and rights to which the signatories are also entitled; and implementation procedures.

Regarding ongoing federal programs in such areas as housing and sanitation, the findings indicate that Canada has been careful to ensure that native entitlements are respected. While the overall level of ongoing funding is described as disappointing in the Report, it reflects the needs of the Cree and Inuit communities relative to the needs of other native communities in Quebec and Canada, and relative to Parliament's budgetary priorities.

UNRESOLVED ISSUES

Regarding special supplementary programs and services, the Report states that there continue to be unresolved disputes. Often these have been the direct result of thorny jurisdictional issues. Problem areas documented in the Report include: housing, education, Cree health services; economic development; core funding programs; and the process of implementation of the Agreement.

In general, the report says, the implementation process has been found to lack some mechanisms, structures, and procedures that might have provided for a smoother implementation process. If these had been set in place, minor difficulties might have been alleviated, potentially grave grievances defused, and full-blown conflicts avoided.

The Report indicates that all parties underestimated the complexity, duration and cost of the implementation process necessary to ensure the native parties received their full entitlements under the Agreement. It was never intended that a major proportion of the compensation received from the settlement would be used to provide services, nor be spent on the implementation process.
SUMMARY

The Report concludes that, although a number of psychological, social, and economic factors may have contributed to some "sense of frustration," there are solid indications that the Cree, Inuit and government representatives believe the Agreement is basically sound and are eager to see the Agreement work.

Progress of the Cree and Inuit people towards prosperity and meaningful control over their lives and affairs has been discouragingly slow and this has tended to undermine the fragile implementation process. However, action is being taken and results are already acknowledged.

The Report notes that, with regard to several grievances, the cooperation of all the parties, including Quebec, is required if current problems are to be overcome. The jurisdictional regime established by the Agreement is such that successful implementation of the Agreement can occur only if all the parties cooperate to arrive at mutually acceptable solutions.

The Report states that "having regard to difficulties and mistakes of the past and to the spirit and importance of the Agreement," special efforts are necessary to build on "achievements already made, to work together to breathe new life into the Agreement."

Indian and Northern Affairs
Canada
Background Documentation,
June 1982.

INUIT

In 1971 the Manitoba Museum of Man and Native in Winnipeg exhibited a collection of Inuit abstracts and tools collected by the Right Reverend Donald B. Marsh, Bishop of the Arctic. An illustrated and annotated catalogue of this exhibition was issued at that time. This interesting catalogue is now being sold by the Museum for twenty-five cents.
STEPS TAKEN TO ESTABLISH PARK

OTTAWA, Ont. -- A Memorandum of Understanding was signed in late February of this year which marks a major step in the establishment of a national park reserve on Ellesmere Island, Canada's most northerly lands.

The Memorandum, signed by John Roberts, federal Minister of the Environment and Tom Butters, Territorial Minister of Economic Development and Tourism, outlines actions which must be taken prior to designation of the area as a national park reserve.

Both signatories have stated that they will request that Indian and Northern Affairs Minister John Munro withdraw the proposed park reserve lands for a period of two years. This withdrawal will provide time for the two governments to carry out a public consultation program on the terms of the Memorandum and to develop plans for the implementation of a final agreement expected to be signed at the end of the two years.

Of particular interest and concern to Munro is the ensuring that the Memorandum stipulates that establishment of a national park will not interfere with native land claims; that native people may harvest renewable resources; and that communities in the region will have a significant voice in its development and operation.

"National Park Reserve status will be maintained until the settlement of native claims," promised Roberts.

The closest permanent settlement, Grise Fiord, and groups such as the Inuit Tapirisat, the Baffin Regional Inuit Association and the Baffin Regional Council will be encouraged to take an active part in the park management planning process.

Over the next two years, Parks Canada will prepare a socio-economic action plan for the area including a strategy for assisting residents and businesses to take advantage of development opportunities associated with a national park reserve.

The proposed park reserve would cover 39,500 square kilometres which includes mountain ranges, glaciers, fiords and Lake Hazen, the largest lake north of the Arctic Circle. A recent inventory of non-renewable resources does not identify any significant mineral or petroleum resources within the proposed boundaries.
In spite of its high latitude and very short growing season, Ellesmere Island has a wide variety of vegetation types supporting populations of musk ox, Feary caribou, polar wolf, Arctic fox and approximately 25 species of birds including gyfalcons.

Although there are musk ox and caribou, their populations are low and will require special protection to ensure that their numbers return to a healthy state.

Backed by remains of ancient cultures, historians believe that some 4,000 years ago a migratory people crossed Ellesmere on their way from the mainland barren grounds to Greenland. It was warmer at that time and it is believed that these early hunters followed the musk oxen as they migrated north. The route they travelled is now called the Musk Ox Way and is of interest to archaeologists in that it may yield valuable evidence of prehistoric times on this continent.

The first Europeans to reach this area were searching for the Sir John Franklin Expedition, lost in 1845, on its search for the Northwest Passage. Expeditions in 1854 and 1871 began mapping the island and in 1875 the H.M.S. Alert and H.M.S. Discovery established a base at Fort Conger from which to make sled journeys inland across to Greenland.

The north coast of Ellesmere was not completely mapped until 1906. Since that time the area has attracted the daring and the adventurous, mountain climbers and modern-day explorers, attempting to reach the North Pole.

Indian News, April 1982.

RECENT PUBLICATIONS OF THE PUBLIC ARCHIVES OF CANADA


SOURCES FOR THE STUDY OF THE CANADIAN NORTH, by Terry Cook. Ottawa, 1980. 21p. (Federal Archives Division. Special Publication Series). (This guide is linked almost exclusively to the study of technical federal government records, which are the most valuable single archival source for northern research).
GOVERNMENT TO DEAL WITH OUTSTANDING INDIAN CLAIMS

(OTTAWA, May 13, 1982) -- Indian and Northern Affairs Minister John C. Munro today announced that the government has reaffirmed and strengthened its commitment to meeting its lawful obligations to Indians through the resolution of specific claims.

The revised policy clearly establishes the basis for claims, provides guidelines for compensation and commits the government not to apply statutes of limitation or the doctrine of laches to the process of negotiation.

The government has also substantially increased funding to Indian associations from $2.2 million in 1981-82 to $3.7 million in 1982-83. The loan fund to support the development and negotiation of accepted claims has been increased as well. Starting in 1982-83, $1.5 million annually will be available for this purpose compared to $300,000 annually in the three previous years. These loans are repayable from the proceeds of claims settlements.

"Specific" claims result from the actions of government in the administration of the Indian Act and treaties, and usually involve the management of band assets or the fulfillment of treaty obligations. The other kind of claims negotiated by government are referred to as "comprehensive" and are based on traditional use and occupancy of land by native groups. The government's policy on comprehensive claims was released by Mr. Munro on December 16, 1981.

The government first introduced a specific claims policy in 1973. Mr. Munro said, "To date progress in resolving specific claims has been very limited. This could not be allowed to continue. The Government of Canada, therefore, undertook a review of the situation including consultation with Indian groups across the country."

Outstanding Business, the booklet that Mr. Munro released today, clarifies the government's position on the type of claims the government will accept and the manner in which they will be negotiated. The booklet is intended to ensure that the basis for negotiating this type of claim is clearly stated and widely available to all Canadians.

The Minister said that he hopes these new measures will improve the process of specific claims settlement. "I think that success is within reach," said Mr. Munro, "because success in this endeavour is in the interest of both Indians and government, indeed of all Canadians."
The Canadian Arctic Resources Committee has announced that this workshop will take place at the Northern United Place, Yellowknife, N.W.T., Wednesday, 1 June 1983 to Friday, 3 June 1983. The tentative agenda is as follows:

**TENTATIVE AGENDA**

**Wednesday, June 1**

- **morning**
  - Opening plenary
  - Resource development policies in the circumpolar world.
  - Development in northern Canada: the national and regional interests.
  - Panel discussion.
- **afternoon**
  - Concurrent working groups
  1. conservation of environmentally significant areas
  2. regional planning and land use planning
  3. natural resource jurisdiction and political development
  4. mineral development
  5. renewable resources management
  6. ocean management
  7. inland water resources
  8. development in the Beaufort Sea region

**Thursday, June 2**

- **morning and afternoon**
  - Concurrent working groups
  1. conservation of environmentally significant areas
  2. regional planning and land use planning
  3. natural resource jurisdiction and political development
  4. mineral development
  5. renewable resources management
  6. ocean management
  7. inland water resources
  8. development in the Beaufort Sea region
- **evening**
  - Plenary session on the federal government's land claims policy.

**Friday, June 3**

- **morning**
  - Closing plenary, summation, and recommendations.
THE ARCTIC CIRCLE

ARCTIC CIRCLE MEETINGS - The regular meetings of the Arctic Circle are held on the second Tuesday of every month, October to May, at 8:30 p.m. at the Staff Lounge, University of Ottawa.

Out-of-town members who wish to receive notices of these meetings, and, thereby, be informed in advance regarding the guest speakers and the topics to be discussed, should address their requests to the Secretary.

MEMBERSHIP DUES - Dues are payable as of 1 January. New members joining the Arctic Circle in the Fall or at any time during the period between the last meeting in the Spring and the first meeting in the Fall (usually May-October) will be considered paid up members for the following year. The dues are:

- Members living in the Ottawa area: $10.00
- Out-of-town members: $5.00
- Student Memberships: $10.00
- Libraries and institutions: $5.00

THE ARCTIC CIRCULAR is published four times a year. Correspondence, papers and reports are welcomed from all members, from persons living in the north, or from anyone having information on general northern activities, research and travel, or on technological, industrial or social developments. Contributions and correspondence should be addressed to Nora Corley Murchison, Editor, The Arctic Circular, 185 Kamloops Avenue, Ottawa, Ontario. K1V 7E1.

Back issues of The Arctic Circular on micro-film are available, single copies at $1.50 and complete sets (Volume 1 to XXV) at $100.00. Requests should be addressed to the Publications Secretary.

CORRESPONDENCE should be addressed to the officer concerned,

c/o The Arctic Circle,
Box 2457, Station "D",
Ottawa, Ontario.  
K1P 5W6.
Site of Greely's house, Fort Conger. 1965.
THE ARCTIC CIRCULAR

VOL. XXX Published by the Arctic Circle Ottawa, Canada September 1982

NO. 3

CONTENTS

Cover Picture: Site of Greely's House, Fort Conger - 1965; from the sketchbooks of Dr. Maurice Haycock. See description page 12.

Page No.

Massey Medal 1982: Trevor Lloyd .......... 39

Association of Canadian Universities for Northern Studies Appoints New Director 41

While Visiting the North ......................... 42

Decision Announced on James Bay Agreement . 43

Association of Canadian Universities for Northern Studies (ACUNS) Receives Donner Canadian Foundation Grant to Begin Canadian Northern Studies Trust ...... 44

Natives Appointed Associate Directors at Department of Indian Affairs and Northern Resources .................... 46

ISBN: 0004 086X
One of the premier awards in the geographical profession, the Massey Medal of the Royal Canadian Geographical Society was presented by the Rt. Hon. Edward Schreyer, honorary patron of the Society, to Dr. Trevor Lloyd of Ottawa on May 28 at a ceremony in Rideau Hall.

In 1959, in his presidential address to the Canadian Association of Geographers, Trevor Lloyd included in one paragraph an exposition of two passions which recur throughout his career. "Geography is one of the five schools subjects that is necessarily concerned with all parts of the world irrespective of nation, bloc, continent or hemisphere. The geographer ranges freely over the globe, whether in the classroom, his study, the laboratory, map library or on field work. No other discipline has quite the same constant need for this freedom of movement, and obligations to persist in being universal. To the geographer national boundaries are, as if by definition, only one kind of regional limit, and not necessarily the best or the most lasting. It is his business to know what is over the other side of the fence and he judges what he sees there by the same standards as he does what lies on his own side."

Thus did Dr. Lloyd give definition to geography as a subject for study in schools while at the same time declaring his conviction that geography is, by its nature, a global science.

He is remembered as a brilliant and inspiring teacher, beginning with secondary schools in Winnipeg, where he was influential in establishing geography in the Manitoba curriculum. He chaired the department of geography at Dartmouth College, where he formed a close and lasting friendship with Vilhjúmur Stefansson, and returned to Canada in 1959 as professor of human geography at McGill University. He remained at McGill until 1976, having served as chairman and director of the Geography Summer School. He has been a visiting professor at a number of universities in Canada, the United States and Sweden.

During World War II, Dr. Lloyd served as a senior research officer in the Wartime Information Board in Ottawa and as consul for Canada in Greenland. He was appointed chief of the Geographical Bureau in Ottawa in 1947 and was instrumental in promoting the recognition of the value of geographers in the federal government. He directed the Centre for Northern Studies & Research at McGill from 1974 to 1977 and was the first executive secretary of the Association for Northern Studies in Canadian Universities, an organization...
of which he was the prime founder. He maintains a research position with the McGill Centre and continues to be invited to serve on panels and to participate in seminars at McGill and elsewhere.

Trevor Lloyd was often called on to speak for the profession of geography and to provide wise counsel on Royal Commissions and advisory committees, and to represent our country at international forums. In recognition of his devotion to the discipline, he was named the 1977 recipient of the Canadian Association of Geographers' award for service to the profession. He took his academic training at the University of Bristol and Clark University, and has received a number of honorary degrees as well as being elected a Fellow of the Royal Society of Canada.

His forte was as an articulate, persuasive exponent of practical resource development policies and as an effective, indefatigable expeditor of interdisciplinary research. In developing an early interest and a comprehensive knowledge of the Canadian northland, Dr. Lloyd formed and maintained close relationships with research establishments in other countries, especially in Scandinavia and the Soviet Union, and his writings clearly express his conviction that the wise use of our northern resources depends on the interchange of research findings between scientists and administrators in circumpolar lands. Our corporate knowledge and appreciation of the geography and resource potential of Canada's Arctic were greatly enhanced by his perceptive analyses which appeared in a variety of journals, including Canadian Geographic.

He was instrumental in pointing out the strategic position of Canada in northern geopolitics, in particular with regard to the development of commercial transpolar aviation.

For his distinguished contributions to geography and science in general, for the influential role he played in the development of Canada and its Arctic regions, for his long service as a teacher, administrator and public-spirited scientist, but perhaps most of all for his humanity, depth of understanding and knowledge he so freely shared with people of all cultures, the Society takes pride in recognizing Trevor Lloyd by awarding him its Massey Medal for 1982.

Reprinted from Canadian Geographic, v.102, no.3, June/July 1982
The Association of Canadian Universities for Northern Studies has announced the appointment of David A.W. Judd as its new Executive Director. No stranger to the North, Mr. Judd has lived in the Yukon and worked in the Mackenzie Valley, and throughout the past 20 years has studied and travelled the North extensively. His commitment to northern studies and research spans an early involvement in the development of northern policies for the federal government, a first-hand experience of the North as Administrator of the Yukon Territory, and the years he later spent studying the international "middle north" as a Fellow of the Crane Foundation.

In 1972, Mr. Judd became Project Director at the Ministry of State for Science and Technology and was the Ministry's representative to the several conferences which led to the founding of the Association. Since 1978, Mr. Judd has been Senior Policy Advisor, International Division, MOSST. He was born in Hamilton and is a graduate of McMaster University. Mr. Judd is a former Governor of the Arctic Institute of North America. His appointment as ACUNS Executive Director is initially for a two-year term under the Interchange Canada Program.

In announcing the appointment, the President of ACUNS, Dr. J. Gordon Nelson said "Our Board of Directors was especially pleased to be able to attract a man of the quality and experience of David Judd. His experience as a student of the Canadian North, his northern studies at Cambridge and in the U.S.S.R., and his experience as a northern administrator and science advisor should provide the basis for an excellent contribution to Canadian universities' work and research and education generally in the North."

The purpose of the Association of Canadian Universities for Northern Studies is the advancement of northern scholarship through education, professional and scientific training and research. Thirty-three Canadian universities and members of ACUNS and through them, the Association represents the vast majority of Canadian scholars interested in the North. ACUNS cooperates with other public, private and international agencies and organizations concerned with the advancement, application, and impact of northern scholarship. The head office of the Association is in Ottawa.

Mr. Judd succeeds Mr. P. Campbell Mackie who has returned to a position with the Federal Government.
Scientific support and logistic services for university researchers operating in the North are offered by the Northern Research Laboratories of the Department of Indian Affairs and Northern Development. Accommodation for visiting researchers is provided at two Scientific Resource Centres located at Inuvik and Igloolik in the Northwest Territories.

At the Inuvik Centre in the western Arctic, three mobile homes, each capable of sleeping seven persons, are available for visiting scientists. A fourth mobile home, which used to occupy the site, was recently borrowed by the Department of Public Works for use as the Post Office in Aklavik. A new 100 square metre warehouse was added in 1981 to provide additional, unheated storage space.

Additional boats and motors have been purchased to help meet peak summer demands for water transport within the Delta. Also, a preliminary reorganization of the map and air photo collection has been completed, the photographic darkroom has returned to operational status, and a restructuring of the book collection has been initiated.

Plans for this year include improvements to the main building, including the installation of emergency eyewash facilities and drench-showers in the laboratories and the construction of a boat storage rack.

Recent staff changes at the Centre have been minimal. Mr. Peter Lewis, scientist-in-charge from 1977 to 1981, left to join the Terrain Sciences Division of the B.C. Department of Mines in Victoria. He has been replaced by David Sherstone, formerly of the Glaciology Division, Environment Canada and the Nova Scotia Land Survey Institute.

Because of limitations of space, anyone wishing to visit the area is encouraged to notify the Centre as soon as possible. Further information may be obtained from:

Western Arctic Scientific Resource Centre
P.O. Box 1430
Inuvik, N.W.T.
X0E 0T0

or

Mr. Harold Finkler, Coordinator
Northern Laboratories
Northern Social Research Division,
DIAND
10 Wellington Street
Hull, Quebec
K1A 0H4
(819) 997-9666

Reprinted from:
OTTAWA (July 8, 1982) -- Measures to ensure that Canada's obligations under the James Bay and Northern Quebec Agreement are fully met were announced today by John C. Munro, Minister of Indian Affairs and Northern Development. The Federal Government will provide approximately $61.4 million in the five years ending March 31, 1987 to overcome difficulties in the implementation of the agreement.

Funds will be made available for accelerated construction of Inuit schools and housing, for Cree sanitation facilities, electrical service and housing and for repayment to the Cree of certain health care expenses. Money has also been allocated for Cree Regional Authority core funding, Cree implementation funding and Inuit implementation funding. These additional funds are being made available to ensure the agreement works well and to deal with problems identified in a year-long review undertaken in close consultation with the Cree and Inuit people. It should be viewed as an indication of the importance the federal government attaches to making the James Bay settlement work, Mr. Munro said. This announcement comes as a result of a review of the letter and the spirit of the James Bay Agreement which Canada signed on November 11, 1975 and the obligations arising from it.

Mr. Munro and Justice Minister Jean Chretien established a joint review team in March, 1981 to investigate grievances by the Cree and Inuit people of James Bay and Northern Quebec regarding the agreement. The review process was unprecedented in nature both by its close, regular and open consultation with native leaders, and by the way the federal government examined its own success or failure in meeting its commitments under the agreement.

The report concluded that while Canada did not breach the agreement's legal provisions, there have been serious problems with its implementation. Details of how the money will be applied to address particular areas of native concern will be confirmed in further discussions with the Cree and Inuit. Mr. Munro praised Cree and Inuit leaders, in particular, Grand Chief Billy Diamond of the Grand Council of the Cree of Quebec, Mary Simon, President of the Makivik Corporation and Charlie Watt, past President of Makivik Corporation, for their efforts and persistence on behalf of the native communities.

In making the announcement, Mr. Munro said he is gratified that the government accepted his advice to go beyond purely legalistic interpretations of the agreement and deal with the spirit of its provisions. The federal government will follow the same approach in subsequent discussions with the Quebec government on aspects of implementation which fall within provincial jurisdiction.
The Quebec government and its agencies responsible for hydro development in the James Bay region were signatories to the 1975 agreement, along with the Cree, the Inuit and the federal government. The review team's mandate did not encompass Quebec's obligations under the agreement, some of which will be the subject of future discussion. Mr. Munro, Minister responsible for overall coordination of federal implementation of the agreement, expressed confidence that the measures announced today will ensure that federal obligations under the James Bay Agreement are fully met.

ASSOCIATION OF CANADIAN UNIVERSITIES FOR NORTHERN STUDIES (ACUNS) RECEIVES DONNER CANADIAN FOUNDATION GRANT TO BEGIN CANADIAN NORTHERN STUDIES TRUST

The Donner Canadian Foundation has awarded ACUNS $400,000 to support a new initiative in northern scholarship - the Canadian Northern Studies Trust. As an arm of ACUNS, the Trust has as its basic mission the granting of senior Fellowships, Studentships and Special Awards in support of northern scholarship. In providing the award, the Donner Canadian Foundation has stipulated that the first $50,000 is to be used for the Northern Studentships, and has also stipulated that in the three subsequent years the Trust must find matching funds of $150,000, $200,000, and $250,000 from other sources.

In developing the Canadian Northern Studies Trust, ACUNS has consulted widely with industrial, governmental and non-governmental groups, universities and interested individuals. In the course of this consultation, ACUNS has played a co-ordinating and catalytic role which it hopes to continue in the future. To carry the Canadian Northern Studies Trust forward, a Management Committee has been established. Its members are: Prof. J.K. Stager, University of British Columbia (Chairman); Prof. A.W.R. Carrothers, University of Ottawa; Mr. M. Coolican, Consultant, Halifax; Prof. H.M. French, University of Ottawa; Prof. Louis-Edmond Hamelin, Université du Québec à Trois-Rivières; Ms. C.D. Hunt, Mobil Oil; Mr. Peter Ittinuar, M.P.; Mr. P.C. Mackie, Federal Government; Mr. I. Smyth, Canadian Petroleum Association; Prof. T.H.B. Symons, Vanier Professor, Trent University; Mr. H.A. Williamson, Memorial
University; and Prof. J.G. Nelson, President, ACUNS (ex-officio). Among the first tasks of the Committee was the development of procedures and criteria for the award of the first Studentships by March 1, 1983. A fund-raising plan was also developed to secure the financial basis of the Trust and permit it to undertake the senior Fellowships and Special Awards, as well as the Studentships.

In developing the various aspects of the Trust program, ACUNS has attempted to complement existing and planned support activities as much as possible. In the Northern Studenships, stress will be placed on high performance by individuals and preference will be given to students who will work in established scholarly contexts or with experienced people in new contexts. Special means of identifying and supporting northerners have been developed by the Management Committee and $10,000 has been allocated in 1983-84 to assist three individuals from the Canadian North to engage in an educational experience at a Canadian university or in a university-sponsored program.

One of the main reasons for wishing to have Special Awards is the flexibility attached to such awards which could permit special adjustments to be made to meet applicant needs, such as advanced work by non-degree applicants, shorter term support for special training or research purposes, and assistance to holders of NSERC or comparable awards in meeting special costs.

The ultimate aim is to make the Canadian Northern Studies Trust part of the institutional fabric of Canada, a long term response to the challenge of a country which is northern. The Association requires tangible support as it carries forward an initiative which is clearly in the common interest of all sectors concerned with northern scholarship, skilled manpower needs, higher education, and sound development. Any university, industry, government office or individual interested in the Trust program should write to ACUNS.

Further information: David A.W. Judd, Executive Director, Association of Canadian Universities for Northern Studies, 130 Albert Street, Suite 1915, Ottawa, Ontario. K1P 5G4 Telephone: (613) 238-3525
OTTAWA, Ontario (September 7, 1982 -- Native candidates are being appointed to 11 key positions in the Department of Indian Affairs and Northern Development. Eleven Associate Director positions are being filled at Headquarters and in the Regional Offices of Indian and Inuit Affairs.

The new positions are the result of the department's recent initiatives to increase the representation and participation of indigenous people (status and non-status, Métis, and Inuit) in senior management.

The successful candidates will have the opportunity to enhance their skills and qualifications to facilitate their access to other positions within DIAND and elsewhere in government through regular selection processes.

The names and assignments of those selected to date are attached. Person-years and financial resources will be made available from the Native Employment Programs Directorate.

The Public Service Commission announced December 4, 1981 that it was prepared to facilitate the appointment of qualified native persons through two special programs, the Indian and Inuit Recruitment and Development Program and the Native Development Program, operated by the Native Employment Programs Directorate within the department.

The Canadian Human Rights Commission supported this initiative as a "special temporary measure" to reduce the disadvantages faced by indigenous people with respect to employment in the Public Service. An evaluation of the program is required by December 31, 1984.
The following individuals have been appointed Associate Directors:

HEADQUARTERS

INDIAN & INUIT AFFAIRS PROGRAM

Reserves and Trusts: George R. Munroe
Housing and Band Support: Percy Barnaby
Program Planning: Darrel J. Paul

FINANCE & PROFESSIONAL SERVICES PROGRAM

Administration Services: Harry M. Bombay
Office of Native Claims: Marcel J.A. Donio

REGIONAL OFFICES:

INDIAN & INUIT AFFAIRS PROGRAM

British Columbia: Daniel P. Smith
Alberta: Fred E. Jobin
Manitoba: Oscar Lathlin
Ontario: Appointment pending
Quebec: Georges Bacon
Saskatchewan: Appointment pending
THE ARCTIC CIRCLE

ARCTIC CIRCLE MEETINGS - The regular meetings of the Arctic Circle are held on the second Tuesday of every month, October to May, at 8:30 p.m. at the Staff Lounge, University of Ottawa.

Out-of-town members who wish to receive notices of these meetings, and, thereby, be informed in advance regarding the guest speakers and the topics to be discussed, should address their requests to the Secretary.

MEMBERSHIP DUES - Dues are payable as of 1 January. New members joining the Arctic Circle in the Fall or at any time during the period between the last meeting in the Spring and the first meeting in the Fall (usually May-October) will be considered paid up members for the following year. The dues are:

<table>
<thead>
<tr>
<th>Category</th>
<th>Dues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Members living in the Ottawa area</td>
<td>$10.00</td>
</tr>
<tr>
<td>Out-of-town members</td>
<td>5.00</td>
</tr>
<tr>
<td>Student Memberships</td>
<td>10.00</td>
</tr>
<tr>
<td>Libraries and institutions</td>
<td>5.00</td>
</tr>
</tbody>
</table>

THE ARCTIC CIRCULAR is published four times a year. Correspondence, papers and reports are welcomed from all members, from persons living in the north, or from anyone having information on general northern activities, research and travel, or on technological, industrial or social developments. Contributions and correspondence should be addressed to Nora Corley Murchison, Editor, The Arctic Circular, 185 Kamloops Avenue, Ottawa, Ontario. K1V 7B1.

Back issues of The Arctic Circular on micro-film are available, single copies at $1.50 and complete sets (Volumes 1 to XXV) at $100.00. Requests should be addressed to the Publications Secretary.

CORRESPONDENCE should be addressed to the officer concerned,

c/o The Arctic Circle,
Box 2457, Station "D",
Ottawa, Ontario.
K1P 5W6.
Site of Greeley's house, Fort Cooley - 1965

H. Haynes
THE ARCTIC CIRCULAR

VOL. XXX  Published by the Arctic Circle  December
NO. 4  Ottawa, Canada  1982

CONTENTS

Cover Picture:  Site of Greely's House, Fort Conger - 1965; from the sketchbooks of Dr. Maurice Haycock.  See description page 12.

All Around the Circle ...................... 49

Constitutional Development in Canada's North .............................. 50

A Special Invitation to Use the Resources at the Elmer E. Rasmuson Library .... 52

Summer Courses ............................. 53

Government of Yukon News Releases on Wolves ................................. 54

Government of Yukon News Releases ........ 61

ISBN: 0004 086X
274th Meeting, Tuesday, 9 November 1982. Dr. P.G. Johnson, Chairman of the Department of Geography at the University of Ottawa addressed The Arctic Circle at its first meeting of the 1982/83 season. His talk was entitled Rockeries and Rock Glaciers: of, The Importance of Integrating Teaching and Research in the North which emphasized the need to introduce both undergraduate and graduate students to northern environments. Dr. Johnson has worked for many years in Kluane National Park examining rock glaciers and has conducted field schools in both the Park and the nearby Ruby Ranges.

275th Meeting, Tuesday, 14 December 1982. Dr. Hans Weber gave an illustrated talk on Maps of the Arctic Ocean Basin. He covered the history of the exploration of the Arctic Ocean from the discovery of the Lomonosov Ridge by the Soviet scientists in 1948 (which was kept secret until 1954) through the airborne expeditions and the ice islands research stations of the United States, supplemented, after 1957, by submarine exploration. In 1958 Canada created the Polar Continental Shelf Project, which supported and coordinated field activities in the High Arctic, including the very successful LOREX 79 expedition. Dr. Weber went on to compare the LOREX bathymetric map with earlier ones produced by the Soviets and the Americans.

Members News

Sally MacDonald, Secretary of The Arctic Circle, died on 19 November 1982. Many members of The Arctic Circle attended the Memorial Service held at the Church of St. John the Evangelist in Ottawa. Deepest sympathies are extended to Sally’s family and friends.

Louis-Edmond Hamelin appointed National Library Advisory Board Member. Louis-Edmond Hamelin, eminent geographer and author, was appointed to the National Library Advisory Board on August 4, 1982, for a three-year term. Dr. Hamelin, who has made major contributions to our knowledge of the geography and geomorphology of the Canadian North, studied geography and economics at the Séminaire de Joliette and the Université Laval, respectively. He was awarded a Ph.D. in geography from the Université de Grenoble, France, in 1951. Louis-Edmond Hamelin was the first director of l'Institut de Géographie (1955-61) and founding director of the Centre d'études nordiques (1961-72), both at the Université Laval. Translations of his major published works include Illustrated Glossary of Periglacial Phenomena and Canadian Nordicity, It is Your North Too. A Member of the Order of Canada, Dr. Hamelin is currently the president of the Université du Québec à Trois-Rivières. He was awarded a Molson Prize by the Canada Council in 1982.
OTTAWA (November 26, 1982) -- Northerners will take greater control over their own governments as the result of landmark policy decisions announced today by John Munro, Minister of Indian and Northern Affairs.

"The development of political structures in the North has had its noteworthy milestones," Mr. Munro told a press conference. "I am confident today will take its place amongst these important dates and events in the history of the North. Today I can announce decisions which will have a far-reaching and positive impact on political boundaries in the North and the manner in which northerners govern themselves."

The Federal Government is prepared to accept in principle the sub-division of the Northwest Territories. Acceptance is contingent on settlement of comprehensive land claims and on northerners' forging a consensus on such crucial issues as boundaries, future locations of any new administrative centres and the distribution of powers with respect to local, regional and territorial levels of government.

Provincial status for Yukon and the NWT is not a realistic objective in the foreseeable future. Mr. Munro explained, "I am confident that most northerners will acknowledge the realities which underly this broad restraint. The small population base, a vast area, an undeveloped and narrowly based economy and the need of the Federal Government to protect Canada's national interests all militate against serious consideration of provincial status at this time."

The Federal Government has, however, renewed its long-standing commitment to responsible government and reinforced that commitment with new measures that will provide a solid base for future political growth.

The Yukon Act will be amended as soon as native claims have been settled. It will confirm in law the steps already taken toward achieving responsible government in Yukon. This process will be delayed somewhat in the NWT while such fundamental issues as division are resolved.

The Federal Government will also move rapidly to introduce a formula-based approach to providing financial support to the territories from the Federal Government. In announcing this initiative, Mr. Munro expressed the belief that "the effect of this will be to allow improved fiscal planning and to enable northern governments to assume full accountability for their budget decisions."
To further strengthen the territorial governments and help them deal with the related costs of resource development, the Federal Government has also committed itself to give the territories a certain level of discretionary revenue. Specific proposals will be worked out in the near future.

"The past decade has seen great progress toward self-determination in Canada's North, which has excited and exhilarated everyone associated with it," Mr. Munro concluded. "These accomplishments are a source of great pride to northerners. I share their pride on behalf of the Federal Government, which has worked toward creating a favourable environment for these achievements in response to the people's stated aspirations. The Canadian nation as a whole can only benefit from the growing strength and responsibility of the political institutions in the North."

Communiqué
Indian and Northern Affairs
Canada

PLACE NAMES


ISBN: 2-551-04691-2. (This document contains information on the regions general toponymic characteristics, the history of several of Nouveau-Québec's geographical names and the names of the inhabitants of a few villages. In addition it summarizes the state of inventories in Cree and Inuit villages and describes some of the problems related to the toponymie of Québec).
The Alaska and Polar Collection at the University of Alaska, Fairbanks, has become internationally known as one of the most complete collections in existence. This collection consists of more than 45,000 bibliographic items, a rare book and map collection with over 2,400 items, the archives and manuscript section which includes many historic Alaskan records and documents, and a historic photograph collection with 95,000 prints and negatives.

Especially of interest to anyone researching early Alaskan history would be the recent additions to the rare book and map collection. During December 1980 and January 1981, Rasmuson Library was given by the National Bank of Alaska the personal libraries of both Valerian Lada-Mocarski (advisor to the Russian Collection at Yale University and author of standard Bibliography of Books on Alaska Published Before 1868) and George Davidson (scientist and geodesist). The acquisition of these libraries enlarged the rare book collection by almost 450 volumes and nearly 100 maps and prints.

The collection includes the Russian maps that George Davidson used (complete with his penciled notes and comments) in producing the first official map of Alaska for the American government. The maps of the Collins Overland Telegraph project, which was to have connected Europe with North America via Alaska and Siberia, are also part of this collection and contain a great deal of fascinating detail about the interior. Many of these maps are the only known copies in North America.

As well as maps the collection includes books emphasizing rare and early works written in Russian, English, and other languages dealing with the discovery, exploration, and settlement of Alaska in the late 1700s and early 1800s. Items from the collection include:

A Voyage Round the World (1803-06) Urey Lisiansky
The first English translation of this work on Sitka, Kodiak, and other parts of the Northwest coast.

Printed Decrees Concerning the Establishment of the Russian American Company (1799) Paul I and Nicholas I, Emperors of Russia.
The only copy of five documents basic in establishing the Russian American Fur Company. English translations attached.

Sranvit' nye slovar' vsiekh jazykov i nariechii (1790)
Feder Ivan Iankovich De Marievo
The first dictionary containing Aleutian and Kodiak words.
To anyone pursuing Alaska or Arctic studies, the Elmer E. Rasmuson Library can be a valuable aid. For assistance in planning research activities, please feel welcome to contact Robert H. Geiman, Director of Libraries or Paul McCarthy, Head, Alaska and Polar Regions Department.

SUMMER COURSES

The Center for Northern Studies in Wolcott, Vermont, USA, is offering three summer courses in 1983.

1) **Introduction to the Polar Environment**, 6-24 June 1983; tuition $635.00. This course will stress the physical characteristics of the polar regions, the ecosystems of the tundra, boreal forest, arctic and antarctic regions and polar seas, the environmental history of the polar regions in relation to geological live, and the relationships of polar environments to pre-industrial and western man.

2) **The Environments of South-Central Alaska**, 2-30 June, 1983; tuition $995.00 which includes tuition, all travel, food and fees in Alaska (excluding travel to and from Anchorage). This course will explore the Alaskan environments. The processes that formed them, and the effects of human activity on these environments. Students will participate in field studies of coastal, glacial and periglacial geomorphology, geology, ecology, ornithology and botany.

3) **Introduction to Northern Environments of Newfoundland and Labrador**, 1-28 June, 1982; tuition $982.00 (includes tuition, travel, all expenses). This course will emphasize the relationship to and dependences of humans on the natural environment. Participants will explore the land and the people of Newfoundland and southern Labrador, studying the traditional and hispanic customs of these areas and the geologic processes by which the land was formed.

For more information on these courses contact:

The Center for Northern Studies
Wolcott Vermont 05680 USA
(802)888-4331
Government of Yukon News Releases on Wolves

Wolf Trapping Program Begins in Takhini Hot Springs Area.
Whitehorse October 5, 1982. Two professional Yukon trappers have been hired for a one-month period to trap wolves in the Mayo Road - Takhini Hot Springs Road area, Renewable Resources Minister Howard Tracey announced today.

The two trappers, Ernie Smith, and Francis Tchulokovsky, both members of the Yukon Trappers Association, began work with the department this week.

Ernie Smith will be trapping in the region closest to the Mayo/Takhini Hot Springs Road, while Tchulokovsky has been flown into an unnamed lake about six kilometers west of the Mayo Road, says chief conservation officer Ed Russell.

Smith and a local conservation officer are meeting individually with area residents this week to explain the program and to advise owners to confine their animals during the programs.

The two hired trappers will use about 100 sets of snares and traps during the month, says Russell. Attempts will also be made to live trap wolves to collar them to monitor their movements and locate the pack.

The department is also contacting all trappers in the Whitehorse area to solicit their support in trapping wolves on their own respective lines.

The trapping program is one of four measures announced recently by Tracey to deal with wolf control problems in the Takhini Hot Springs area, and follows last week's meeting of the Yukon Trappers Association in which trappers agreed to take part in the program.

"We are very pleased to have the co-operation of these trappers and hope that they can help eliminate wolf predation problems in the Takhini Hot Springs area," said Tracey.

In addition to the trapping effort, some limited aerial reconnaissance will be continued by the department to locate wolves, identify trapping areas, and to determine sites for poison baits.

A limited poisoning program will be introduced only if the trapping program is unsuccessful, and will be subject to strict controls, said Tracey. Residents of the region will be individually informed if and when poison bait is used.

There have been no reported incidents of wolf attacks on livestock in the area in the last two weeks, department officials say. Conservation officers have been patrolling the region since mid-September.
Wolf Trapping Expert to Assist Renewable Resources

Whitehorse, November 1, 1982. A wildlife biologist from Saskatchewan will give workshops on effective and humane wolf trapping methods later this month as part of the Department of Renewable Resources wolf control program, Renewable Resources Minister Howard Tracey announced today.

Ed Kowal, an expert in wolf trapping techniques with the Saskatchewan Department of Tourism and Renewable Resources, will give presentations to Yukon trappers and renewable resources staff over four days, from November 23-26.

The workshops will involve field demonstrations of trap sets, and will be held in several Yukon communities. Locations are still to be confirmed.

"Mr. Kowal has been instrumental in introducing an effective wolf trapping program in Saskatchewan," said Tracey, "and we hope he will be able to assist in improving the effectiveness of trapping efforts here."

Brian Slough, a biologist with the renewable resources department, says that because wolves are relatively difficult to trap, Yukon trappers do not spend much time trying to harvest the species, despite the fact that wolf pelts are quite valuable.

Tracey added that Kowal's workshops are part of the department's efforts to reduce wolf predation on livestock and wildlife in the southern Yukon. There have been about 16 reported attacks on livestock in the Takhini Hot Springs area since last spring.

Two Yukon trappers hired by the department in October have just completed a month-long trapping effort in the area, with limited success. Two wolves were trapped by Ernie Smith near a farm on the Mayo Road.

Tracey said the department will be preparing a long-term policy and action plan on wolf management this fall.

The minister noted that while there have been increased attacks on livestock, concern about attacks on humans, particularly children, is totally unfounded.

"There are no documented cases of attacks by healthy wolves on humans in Yukon," he said.

Biologists with the department say they are not certain why the attacks on livestock are occurring primarily in the southern Yukon. They suspect that the current decline in hare populations may be an influencing factor, and that other predators dependant on this food source may be competing with wolves for moose and caribou.
Renewable sources conservation officers are continuing to patrol the areas most frequented by wolves, and are available to advise and assist area residents who have concerns about this problem.

WOLF MANAGEMENT PROGRAM ANNOUNCED

WHITEHORSE November 25, 1982. Renewable Resources Minister Howard Tracey today announced a three-year wolf management program to deal with wolf predation on domestic animals, and on certain moose and caribou populations in the territory.

In addition to the control measures announced, the department will also be studying predator/prey relationships to develop long-term management criteria for moose and wolves.

"It has become apparent from the increase in wolf attacks and from our moose and caribou studies, that wolf predation has become a significant problem in Yukon, a problem which must be addressed through the implementation of some control measures," said Tracey.

The program will be conducted in three specific management areas, said Tracey. Two of the areas are in the southern Yukon, while the third encompasses the home range of the Finlayson caribou herd, in the east-central Yukon.

The program will be conducted differently in each area, depending on the objectives established for those areas, said Tracey.

The department will be authorizing permits for aerial hunting, and will be carrying out a controlled and closely monitored poisoning program in areas outside communities and populated areas. Wolf trapping and resident hunting activities will also be encouraged in the management areas.

"Wolf control measures will begin immediately in the area west and north of Whitehorse," said Tracey.

Similar control measures will be carried out in another area in the southern Yukon to reduce wolf densities to certain levels to allow moose populations to recover to harvestable levels.

These two management areas are part of a large study area in the southern Yukon that also includes areas where no wolf control activities will take place; these are separated by buffer zones in which no wolf management activity will be conducted.
"A monitoring program will continue to 1989 to allow the department to evaluate the effectiveness of the strategies applied and provide base line data from which a long term predator management program will be developed, such as determining appropriate moose/wolf ratios," Tracey said.

During the three year management program, the department will also be carrying out control measures to reduce wolf populations in the Finlayson Lake Area, through aerial hunting.

Up to 30 wolves will be killed in this area winter for the next three winters, in an effort to restore stability to the Finlayson caribou herd.

In announcing the program, Tracey noted that it had the support of the enforcement, technical and biological research staff of the department and represented "a consensus of views on how this problem should be addressed."

He said the program would be strictly administered by a three member Wolf Management Group that has been established, representing both enforcement and research staff.

Its members are Mark Hoffman, director of the wildlife and parks services branch, Doug Linklater, a special services officer with the branch, and Doug Larsen, a department biologist who has been studying Yukon's moose populations for two years.

"Isolated incidents of predation on domestic animals will continue to be dealt with on an individual basis, by our conservation officers," said Tracey, "and I would like to encourage all Yukoners to report any wolf incidents or sightings to their local conservation officer. We need the co-operation of all Yukoners to address this problem."

An information package on the program with details about the management areas and control measures, will be available through conservation officers, or by writing directly to the Wolf Control Group, A-8, Box 2703, Whitehorse, Y1A 2C6, or by calling: 667-5786.
TRACEY OFFERS INCENTIVES FOR TRAPPERS IN WOLF MANAGEMENT PROGRAM.

WHITEHORSE December 22, 1982. The Department of Renewable Resources will be offering economic incentives and new trapper education programs to encourage the harvesting of wolves by Yukon trappers, Renewable Resources Minister Howard Tracey announced today.

"After discussions with the Yukon Trappers Association we have decided to give trappers a greater opportunity to participate in the wolf management program and to increase their revenue from trapping when the value of wolf pelts is low."

Recent wolf pelt prices at auctions average about $70 and do not currently provide an economic incentive for trappers, said Tracey. Therefore, the department will offer $200 for each skinned and stretched wolf pelt in an effort to stabilize the value of the pelts and to encourage trappers to make long term investments in their equipment.

"Trappers will have the option to sell the pelts wherever they can obtain a better price," he said.

The minister also announced that the department will be expanding its trapper education program to include presentations on effective snaring techniques. Videotapes of the recent workshops given by Saskatchewan expert Ed Kowal, and sponsored by the department, will also be included in the program which will be offered in various communities throughout Yukon.

"Yukon trappers have indicated that they are interested and willing to control wolves, and we hope these incentives will assist and encourage them to participate more effectively in our program," said Tracey.

Tracey said that other elements of the program would be continued and that poison would be used only on a limited basis to control depredation on livestock in the area near Whitehorse. Only one bait station has been set in this area, and a maximum of two others will be set later this week. At this time, poison will not be used in the wildlife management areas where trapping and aerial hunting will be conducted.

The department has issued eight permits for aerial hunting in Areas A and C, and a further four permits are currently being reviewed for approval.

The department will continue with its plans to carry out a study on predator prey relationships, said Tracey.
WOLF MANAGEMENT PROGRAM

MANAGEMENT AREAS

CONTROL AREAS

BUFFER AREAS
The study will involve collaring a number of wolves and moose to determine their population, distribution, behaviour and other factors. Snow depth and forage will also be studied to see how they affect population growth.

"Our aim is to determine long range management criteria for moose and wolves in areas where we require a harvestable surplus of moose each year," said Tracey, adding that the department considers hunting restrictions as part of that criteria.

ON THE FRONTIER/FRONTIERES

This new book published by Energy, Mines and Resources Canada. Presents a collection of early photographs taken by geologists of the Geological Survey. It provides a remarkable insight into history and photographic record of the opening up of the frontier areas of Canada, including: the West, Hudson Bay, James Bay, the Barrens, Labrador-Ungava, Mackenzie Valley, British Columbia, the Yukon and the Arctic. This publication will interest and delight all Canadians with its documentation of a rich part of our heritage and of a period gone forever.

134 pp. 21.5cm x 28cm 1982
M41-8-27 Paperbound $19.95
PEARSON, SHEFFIELD, KING MEET TO DISCUSS WHITE PASS

WHITEHORSE December 2, 1982. Following an initiative
taken by Yukon Government Leader Chris Pearson, Alaska
Governor Elect, Bill Sheffield convened a meeting in
Juneau yesterday to examine ways and means in which White
Pass and Yukon Route could be assisted in resuming its
rail service between Whitehorse and Skagway.

W.P. & Y.R. President, Tom King suspended the service
when Cyprus Anvil Mine, which had accounted for about
70% of the railway's freight business, failed to re-open.

In response to a question from Governor Elect Sheffield,
in yesterday's meeting, King said that the railway could
operate profitably, at a reduced level of service, with-
out the Cyprus Anvil business, provided it could come to
more favourable terms with its unions. King pointed out
that Alaskan legislation required White Pass to man each
of its trains with a five man crew whereas, in Yukon, the
same train is operated by three. He asked that this legis-
lation be repealed. Governor Elect Sheffield gave an
undertaking that this legislation would be reviewed.

King told the meeting that, at present with no trains
running, the rail operation was losing $95,000 per week
and, if the trains were running, it would be losing
$350,000 per week. However, King continued to be opti-
mistic about the prospects of re-opening the railway for
the forthcoming tourist season which is already heavily
booked, "but only," King went on, "if the unions can agree
to the company's proposed employment package which we hope
to have ready for presentation to them by mid-January."

The south end of the White Pass general cargo dock at
Skagway is in a bad state of disrepair, King told the
meeting, and the possibility of its purchase by the State
of Alaska was discussed. Sheffield undertook to explore
the possibility of the State purchasing and rehabilitating
the dock and turning it over to the City of Skagway as a
revenue earner. Government Leader Chris Pearson emphasized
the every increasing importance of the tourist industry to
both Alaska and Yukon and stressed the importance, to both
Skagway and Whitehorse, of the White Pass rail link.

The meeting concluded with all parties agreeing to consult
again in mid-January and report progress.
MUSEUM WORK IN DAWSON CITY

WHITEHORSE December 14, 1982. The Dawson City Museum is to be the subject of a $225,000 Yukon government sponsored building stabilization and job creation program between January and March 31, 1983, Renewable Resources Minister Howard Tracey and Tourism, Heritage and Cultural Resources Minister Bea Firth announced today.

The project will see the former Yukon government administration building's foundation repaired and stabilized in time for the summer tourist season and will result in the creation of about 80 person-weeks of employment.

Parks Canada in Dawson is providing design assistance for the project and Parks Canada employees, who are members of the Dawson City Historical and Museum Society will be active in the day to day supervision of the project.

Work is not expected to begin until the end of January and tenders are in the process of being called for the supply of materials. It is anticipated that a further tender will be called for labour and other materials.

The Department of Renewable Resources is providing $200,000 of the total, funding under its Yukon River stabilization and historic buildings' budget and a further $25,000 is allocated from the Canada-Yukon Tourism Agreement budget for visitor attraction improvements.

Renewable Resources Minister Tracey said the Yukon River stabilization program was designed to be labour intensive.

"A good 80 per cent of the funding is to go directly into salaries and the remaining 20 per cent will go towards materials. The project is an excellent component of the Yukon government's over-all employment development program announced several weeks ago," Tracey said.

Tourism Minister Firth had met with the Dawson City Historical and Museum Society several months ago to discuss the stabilization of the building.

"I strongly support this project as a worthwhile one. The museum is extremely important to our tourism industry and to the preservation of artifacts about life in Dawson," Firth said.
MORE INQUIRIES EXPECTED
WHITEHORSE December 29, 1982. The Department of Tourism, Heritage and Cultural Resources is gearing up for what could be a record year in the number of inquiries from persons interested in visiting Yukon.

The department's marketing section has expanded its promotional efforts this year to reach a far larger audience and the new inquiries are starting to come in.

"There is no way we can forecast an increase in traffic for the coming year," said Tourism Minister Bea Firth, "but by reaching a wider range of people we can hope to maintain our recent high levels.

"We are expecting an increase in inquiries over 1982 because of changes in our advertising done in conjunction with the State of Alaska, both in Canada and the U.S.A.," Firth said.

The Canadian promotion will be aimed at large volume publications such as Time, Macleans and Readers Digest.

The State of Alaska is expanding its promotion into television in selected markets on both sides of the border.

The marketing section responds to all inquiries by mailing out its recently published Yukon travel guide.

The individual inquiries plus mailings to automobile associations, visitors information centres and the Canadian government result in 200,000 travel guides being distributed each year.

The Yukon government's computer service is helping out in the co-ordination of replies and a computer mailing list will be offered to the tourism industry to help in promotional efforts.

NEW PARK FOR N.W.T.

John Munro, Minister of Northern Affairs, announced in July that some 40,000 square kilometres had been set aside on Ellesmere Island for a new national park. "The land has been set aside for a two-year period."
THE ARCTIC CIRCLE

ARCTIC CIRCLE MEETINGS - The regular meetings of the Arctic Circle are held on the second Tuesday of every month, October to May, at 8:30 p.m. at the Staff Lounge, University of Ottawa.

Out-of-town members who wish to receive notices of these meetings, and, thereby, be informed in advance regarding the guest speakers and the topics to be discussed, should address their requests to the Secretary.

MEMBERSHIP DUES - Dues are payable as of 1 January. New members joining the Arctic Circle in the Fall or at any time during the period between the last meeting in the Spring and the first meeting in the Fall (usually May-October) will be considered paid up members for the following year. The dues are:

- Members living in the Ottawa area: $10.00
- Out-of-town members: $5.00
- Student Memberships: $10.00
- Libraries and institutions: $5.00

THE ARCTIC CIRCULAR is published four times a year. Correspondence, papers and reports are welcomed from all members, from persons living in the north, or from anyone having information on general northern activities, research and travel, or on technological, industrial or social developments. Contributions and correspondence should be addressed to Nora Corley Murchison, Editor, The Arctic Circular, 185 Kamloops Avenue, Ottawa, Ontario. K1V 7E1.

Back issues of The Arctic Circular on micro-film are available, single copies at $1.50 and complete sets (Volumes I to XXV) at $100.00. Requests should be addressed to the Publications Secretary.

CORRESPONDENCE should be addressed to the officer concerned.

c/o The Arctic Circle,  
Box 2457, Station "D",  
Ottawa, Ontario.  
K1P 5W6.