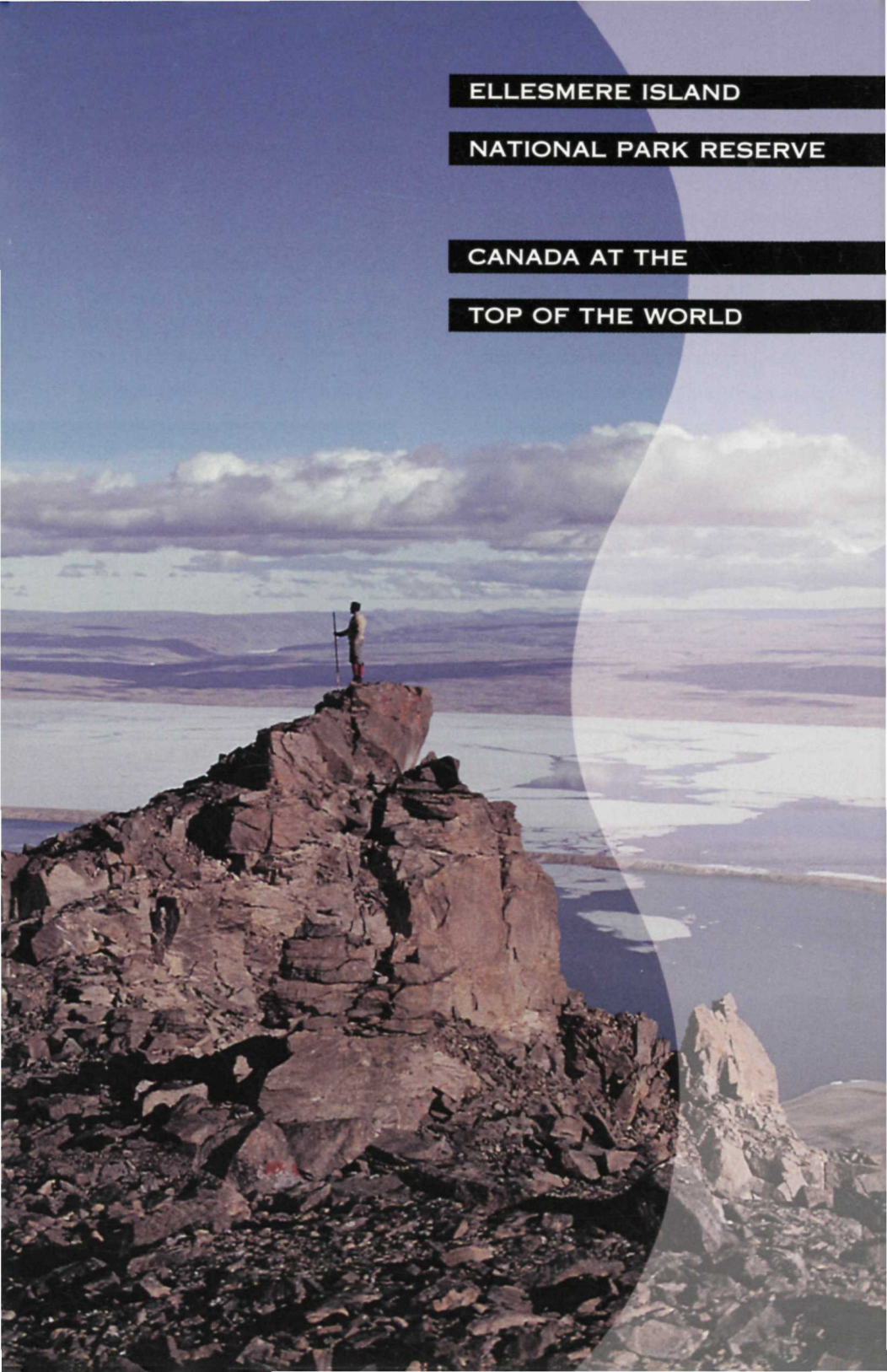
ELLESMERE ISLAND

NATIONAL PARK RESERVE

CANADA AT THE

TOP OF THE WORLD



During the brief arctic summer on Ellesmere Island, the sun remains high in the sky bathing the land in continuous daylight. There is no darkness to mark the passage of time telling you when to sleep and when to wake. There are no trees to remind you of lands further south. The scale of the land is both immense and intimate at the same time. Intricate patterns of rock, frost-cracked ground, willows and wildflowers at your feet extend out from where you stand into endless vistas in the clear, dry air. Glaciers on a mountainside fifteen kilometers away seem to be details in a landscape within reach.

Animals in the park appear innocent in their lack of fear of people. Long-tailed jaegers may hover in front of you while caribou may approach you closely, each curious of your presence.

The signs of men and women that came before you are still clearly evident even though some are 4,000 years old. A stone fox trap, a tent ring (a circle of boulders marking a campsite), and scattered remains of the equipment of North Pole exploration parties all speak of the courage and the adventurous spirit of those who first came to this solitude at the top of the world.

They are all reminders that, regardless of where you have come from, you are a long way from home. On Ellesmere, you have come to Canada at the top of the world.

THE PARK LANDSCAPE

The park reserve was formally established on September 16, 1988, when 37,775 sq. km. of northern Ellesmere Island was set aside. The park "reserve" status of Ellesmere means that while it is governed by the National Parks Act, its existence is contingent upon the completion of negotiations called for within the Nunavut Settlement Area Land Claim. The reserve peacefully asserts Canada's sovereignty over its most northerly lands. Within the national park system, it protects a representative part of the Eastern High Arctic Glacier Natural Region.

Glaciers abound here. Icefields up to 900 m (3000 ft.) thick still cloak the mountains of

Grant Land in the northern portion of the park. This ice is a remnant of the last continental glaciation that once covered most of North America ten thousand years ago. Several nunataks (peaks protruding through the icecap) are over 2,500 m (8,250 ft.) above sea level. The peak of the nunatak, Mount Barbeau, at 2,616 m (8633 ft.) is the highest mountain in eastern North America.

The ocean coastline of the park is deeply incised by glacial valleys and fiords. To the north, where the mountains of Grant Land meet the ocean, unique shelves of sea ice as much as 80 m. thick have held fast to the shore for thousands of years. These shelves, the largest of which is the Ward Hunt Ice Shelf, extend out from shore covering hundreds of square kilometers.

South and east of the mountains, the land abruptly descends to Lake Hazen. At 80 km. (50 mi.) in length and with a surface area of 542 km^2, it is one of the largest lakes north of the Arctic Circle. The headwaters of the Ruggles River, the sole outlet of Lake Hazen and its drainage basin of 8,000 km^2, does not freeze over even in the –60°C winter cold. The rugged Hazen Plateau gradually rises to the southeast of the lake. Dissected by river canyons, the plateau ends in the east at the 700 m (2,000 ft.) cliffs of Archer Fiord and Robeson Channel where the North and East Greenland National Park is clearly visible only a short distance across the channel.

PLANTS AND ANIMALS

Ellesmere is a polar desert, one of the driest areas of the northern hemisphere, with an annual precipitation of only 6 cm (2.5 in.). In areas where ground water is retained, vegetation such as grass-sedge meadows flourish. Ground hugging willows grow wherever enough soil, nutrients, and moisture allows for their survival. Bright arctic wildflowers dot the landscape with yellow, white, pink and mauve.

These plants in turn provide food for muskox, Peary caribou, and Arctic hares. Arctic wolves prey on the herbivores in the next turn of the ecological spiral. During the summer, thirty species of bird nest in the area. Many travel great distances to get here. Arctic terns winter in Antarctica. Ringed plovers, Ruddy turnstones, and Red knots migrate from Eurasia to nest on north Ellesmere.

The Lake Hazen area, particularly the western slopes and north-eastern uplands of the lake basin, is a thermal oasis in this polar desert. A combination of environmental factors have resulted in vegetation and wildlife being more plentiful here than most other areas of Ellesmere Island.

PARK HISTORY

Paleo-Eskimos of the Independence I culture (2000-1700 BC), an ancient race of people who probably came across the Bering Strait from Siberia, first came to Ellesmere about 4,000 years ago. Their campsites in the park, characterized by the box-shaped mid-passage, tell us that their numbers were low and that they only occupied the land for 300 or 400 years. These people hunted muskox and caribou and survived the long, dark arctic winters with very little that could be used to produce heat.

For many centuries afterward, it appears no humans lived on Ellesmere. Then about 3,000 years ago, people returned to the high arctic. A second wave of paleo-eskimo people, the Independence II culture (1000-500 BC) migrated across the arctic islands and reached Ellesmere. A third distinct culture, the Dorset culture (800 AD – AD 1000), endured on Ellesmere up until about 1,000 years ago. They in turn were supplanted by the Thule people who were skillful hunters of whales and other marine mammals. While the Thule culture survived elsewhere and are the ancestors of the modern Inuit, they abandoned Ellesmere because the climate turned colder leading up to the Little Ice Age (AD 1600-1850) making the hunting of marine mammals more difficult.

The lonely outpost of Fort Conger on the north-eastern coast of Ellesmere was first used by Captain Stephenson aboard HMS Discovery. Along with her sister ship the Alert which wintered further north, both ships were part of the 1875-76 British Arctic Expedition lead by Sir George Nares. They explored both the north coast of Ellesmere and Greenland using laborious man-hauled sledges. From 1881 to 1883, the American Adolphus Greely, a lieutenant in the US Signal Corps used the site to carry out explorations of the interior of the park area and to collect meteorological, auroral, and magnetic data as part of the International Polar Year. Robert Peary refitted the encampment and used it sporadically on his various attempts to reach the North Pole between 1898 and 1909.

The artifacts at this and other historic sites in the park are poignant reminders of these early arctic explorers. They came

before the time of aircraft that now shrink the kilometers of unpeopled wilderness from weeks to hours. They came sailing or steaming through the ice-infested waters aboard wooden ships, overcoming their fear of the crushing ice and the endless dark of the frigid arctic winters only to meet the loneliness of many months of isolation far from home.

The Royal Canadian Mounted Police first came to Ellesmere Island in 1922 establishing a post at Craig Harbour with later posts being established at Bache Peninsula and Alexandra Fiord. Their patrols, led by Inuit guides from both north Baffin and the Avanersuaq district of NW Greenland, took them across much of the island including the park area. Operation Hazen, under G. Hattersley-Smith of the Canadian Defense Research Board, was an International Geophysical Year expedition. It manned a base on the north shore of Lake Hazen from April 1957 to August 1959.

In more recent years, government and academic researchers used this and other camps established on Ward Hunt Island and Tanquary Fiord to study glacio-geomorphology, natural, as well as the human history of the park area.

Today, though modern transportation technology has made the park more accessible, it is still a place of adventure and discovery.

GETTING TO THE PARK

To reach the high arctic, you must pass through the second most northerly community in Canada, Resolute Bay, NWT (Qausuittuq — "place of darkness"). This isolated hamlet with a population of 171 (1991) receives scheduled First Air and Canadian Airlines jet services from Montreal, Edmonton, and Ottawa. Check with the air carriers or your local travel agent for their latest schedules and fares. Make reservations well in advance for travel during the summer months.

From Resolute, you will require a charter flight to get to the park reserve. A charter to Tanquary Fiord or Lake Hazen, in a Twin Otter aircraft is approximately $13,500.00 (1993 rates). However, you will need one round trip flight going in and another coming out for a total cost of $27,000.00! A Twin Otter is capable of carrying a load of 1200 kg which is approximately 8 to 10 people and gear. Clearly, you should try to coordinate your trip with other travellers, to ensure that chartered aircraft are full flying in and out and costs to you thereby reduced. Carrying ten people in and ten out would cost about $2700.00 per passenger return airfare from Resolute to the park. It is a four hour flight to the park from Resolute.

Both First Air and Kenn Borek Air provide charter services to and from the park. Both have base managers in Resolute Bay. Charter companies are very busy during the summer. Make your arrangements well in advance.

You may wish to make a side trip to the picturesque community of Grise Fiord (*Aujuittuq* — "the place that never melts"), Canada's most northerly community with a population of 130 (1991). It is about 360 km. northeast of Resolute Bay. Arrangements for accommodations and outfitting services can be made through the Grise Fiord Inuit Co-operative.

A recent innovation in high arctic tourism has been the advent of icebreaking cruise ships. Among other destinations, the cruise ships stop for a brief visit at the park reserve. Contact the park for details.

Please remember that weather conditions in the north may dictate your travel schedule. Be flexible enough to allow for lengthy delays in your plans.

TOUR OPERATORS AND OUTFITTERS

If you are planning your first trip to the high arctic, you would be well advised to enlist the services of a reputable tour operator or outfitter experienced in the logistical difficulties of travel in the north. Among other opportunities, they offer guided hikes and a tent base camp at Lake Hazen from which you can do independent day hikes. Some also have camping equipment and single side band radios for rent and supplies including food and naphtha for sale. Check with the park for current detailed information on licensed outfitters and, again, make arrangements well in advance.

GETTING READY

You will need four map sheets at a scale of 1:250,000 to cover the entire park. These cost $9.35 (1993) from the Canada Map Office, 130 Bentley Ave., Nepean, Ontario, K1A 0E9. 613-952-7000 (Tel), 613-957-8861 (Fax), 1-800-465-6277 (Canada only)

- Clements Markham Inlet 120F and 120G
- McClintock Inlet 340E and 340H
- Tanquary Fiord 340D
- Lady Franklin Bay 120 C&D

Sections of the park are currently being mapped at 1:50,000, but as of writing (1993) only Ekblaw Lake — 340 D10 is available as a multicolour while Tanquary 340 D6 is available as a photomap. Two 1:64,000 air photo mosaic maps of the Tanquary Fiord to Lake Hazen corridor, with some recommended travel routes mapped onto them, are available by writing the park in Pangnirtung or during your mandatory registration and orientation at either the Tanquary Fiord or Lake Hazen warden stations.

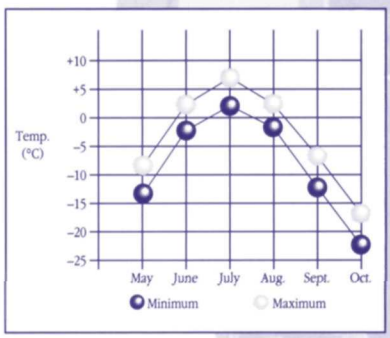
OTHER CONSIDERATIONS

It is difficult to obtain cash or use credit cards in Resolute Bay and Grise Fiord. Travellers' cheques and cash in Canadian funds are recommended. Bring sufficient funds to allow for unexpected expenses and delays. Both communities have nursing stations for emergency health care. Be aware, however, that they are 650 and 900 kilometers from the park respectively and that doctors are rarely available. Ensure that you have an adequate supply of personal medication and a first aid kit. Precautionary vaccinations against rabies and tetanus are recommended.

TEMPERATURE

MAXIMUM AND MINIMUM

Give careful consideration to your equipment and clothing ensuring that it is appropriate for the kinds of activity you plan to undertake and the length of your trip. Layering your clothing will allow you to respond rapidly to changing weather conditions. Fabrics which are wind and waterproof yet breath are particularly useful for a jacket shell and wind-rain pants. Neoprene



booties, (running shoes are a less practical substitute) are recommended for cold stream crossings. A sturdy walking stick or ski pole is also recommended and has many uses from aiding stream crossings to acting as a radio antenna pole. Mosquitos occur even at this latitude, so don't forget your repellent.

EQUIPMENT LIST

The following list is meant as a helpful guide only and not as an exhaustive list.

- Neoprene booties or Running shoes
- Socks, polypropylene/nylon, wool
- Anorak/windpants or raingear
- Heavy jacket (3 season)
- Pants, poly wool, knickers
- Gloves, insulated
- Shirts, (wool, cotton)
- Sweater, medium weight
- Long underwear (2 weights)
- Undershirts (2 weights)
- Shorts
- Balaclava, toque, cap with peak
- Sleeping pad
- Sunglasses
- Sun screen and skin cream
- Mirror, signal
- Packsack (pack frame/internal frame)
- Day pack
- Toiletries and personal medications
- Matches (waterproof, disposable lighter)
- Sturdy hiking boots
- Gaiters
- Walking stick/ Ski pole
- Soft shoes (around camp use)

- First aid kit
- Sleeping bag (3 season)
- Camera, accessories, film
- Notebook (Journal) & Pencil
- Binoculars
- Stuff Sacks
- Cook set
- Backpacking stove complete with repair kit
- Fuel bottles, funnel
- Utensils, cup, bowl
- Pocket knife
- Water bottle
- Toilet Paper (biodegradable)
- Duct tape
- Nylon cord
- Garbage bags
- Maps (see list)
- Windproof tent with fly
- HF radio and appropriate antenna, spare batteries
- Bivouac shell (optional)

For routes crossing glaciers:

- Crampons and straps
- Ice Axe
- 9 mm rope
- Harness
- Carabineers, pulleys, ice screws
- Jumars, prussiks

WHAT TO DO

- Most people will come to Ellesmere to enjoy no-trace backpacking in an ultimate wilderness environment. Many will undertake the trek between Tanquary Fiord and Lake Hazen along several potential routes. Most routes require that you cross several rivers and at least one glacier while covering the 130 kilometers (80 miles). Other groups will do circuits beginning and ending at Tanquary Fiord.

- There are many other options for shorter overnight and day hikes ranging out from the Tanquary Fiord and Lake Hazen camps. The Rollrock and Redrock valleys near Tanquary Fiord or Glacier Pass and Blister Creek near Lake Hazen can provide you with outstanding arctic hiking opportunities.

- You will be overwhelmed by the nature study and photographic opportunities in the park with its unusual landscapes, historic and archaeological sites, dry weather, continuous sunlight, and curious wildlife.

- You can also go to Ellesmere for ski touring and ski-mountaineering or take part in an aerial tour perhaps as part of a short spring visit to the Geographic North Pole via chartered aircraft. It is also now possible to arrive at the park aboard icebreaking cruise ships.

- Sport fishing for Arctic char is possible in Lake Hazen.

- The natural and human history of the park area have been extensively studied. The area is a geologist's dream as most features are not hidden from view by soil and vegetation. Active geological processes and glaciation can be observed throughout the park. The park maintains a small resource library at the Tanquary Fiord Warden Station and visitors may use documents while at the camp. A checklist of mammals and birds is available upon registration.

- Historic sites in the park include rock cairns, caches, and camps of European and American arctic explorers. The camp at Fort Conger is the most extensive and interesting site. However, it may be visited by special arrangement only. If you plan on visiting Fort Conger, discuss your visit with the Warden Service far enough in advance for proper arrangements to be made. A brochure about the site is available upon request.

UPON ARRIVAL

As all access to the park is controlled and all aircraft require the approval of the Superintendent or his designate, the first thing you must do is register your visit. The mandatory registration and orientation process can usually be completed at either the Tanquary Fiord or Lake Hazen Warden stations during the summer (June–August). At other times it is possible to register by phone with the Warden Service in Pangnirtung. The registration process serves a number of functions including ensuring that visitors have the most up-to-date information on park hazards, trail conditions, and high arctic trail etiquette; ensures that visitors are properly provisioned; provides the warden staff with the vital information necessary to initiate and carry out timely search and rescues; as well as ensuring the protection of the fragile, high arctic environment.

EMERGENCIES REQUIRING SEARCH AND RESCUE

Do not underestimate the challenge of visiting Ellesmere. The rugged terrain, changeable weather, and hazards such as river crossings can test to the limit your physical condition, experience in wilderness travel, and the adequacy of your equipment and preparations. Due to decreasing resources and small staff, the park has only a limited capability to undertake search and rescue activities. You can not depend on aircraft being available, park wardens being on hand, or communications links being established. Parks Canada expects that park users will exhibit a large degree of self-reliance and responsibility for their own safety commensurate with the degree of difficulty of activities they undertake. We strongly advise that you carry a single side band radio in the park. Check with the Warden Service to ensure that you have

the correct frequencies, antenna, and radio monitoring schedule. The operation of the radios, which are available to rent in Resolute Bay, is covered during your registration/orientation. An emergency is not the time to learn. Always travel in a group, maintain contact with the Warden Service, and do not allow yourself to get into a situation beyond your capabilities.

An evacuation from the park could prove to be very costly. All medical or emergency evacuation costs from the park are the responsibility of the tour operator, group or individual.

HAZARDS

1) **Polar Bears** are generally uncommon but they may be encountered in coastal areas. At present, park regulations do not allow firearms to be carried by park visitors. A pamphlet and up-to-date information on polar bears is available upon registration.

2) **Extreme Weather Conditions** can occur at any time during the brief arctic summer. You might encounter winter weather conditions even in July. Be properly equipped with clothing that includes wind and waterproof outerwear and some winter weight clothing. Know the signs of hypothermia — cooling of the body core — in yourself and other party members and know how to treat it.

3. **Streams and Rivers** on Ellesmere are mostly glacial fed. Even with continuous daylight, their depth and velocity change throughout the day. If in doubt about your ability to ford a river, wait until late at night or early morning when water levels are usually lower before crossing. **Remember to unfasten the waist and chest straps on your pack when crossing**. A hiking staff can be used as a probe and add stability. Groups may wish to use buddy techniques such as chains with the strongest members upstream and weaker downstream. Neoprene boots with a gripping sole will protect your feet from the numbing effect of the extremely cold water and will help reduce the risk of injuries to your feet.

4. **Glaciers** should only be crossed by parties with experienced leaders and proper equipment. At lower elevations, glaciers have less fresh snow and crevasses are more visible. At higher elevations hidden crevasses are a serious hazard. All parties planning extensive ski-mountaineering trips should be well versed in glacial travel techniques and crevasse rescue.

5. **Rock falls** do occur in areas of the park. Care should be taken in route selection along steep slopes and campsites should be established in protected areas.

6. **Wildlife**, other than polar bears, may also pose hazards. While the park wildlife often appears quite tame due to their lack of experience with people, they can be dangerous. Muskox may charged if approached too closely. Do not approach muskox closer than 100 m, particularly lone bulls. Do not allow wolves or foxes to approach you. Rabies does occur on Ellesmere Island. Under no circumstances should you feed or make food available to wildlife. It is against the law. But more importantly, once accustomed to human food, many wildlife species quickly become troublesome and are capable of causing extensive damage to personal equipment and food stores.

CONSERVATION PRACTICES

During your mandatory registration/ orientation, the Warden Service will outline the appropriate trail etiquette which will help to protect the extremely sensitive environment from human impact. Garbage carelessly discarded will take hundreds of years to decompose. Even paper, cigarette butts and other organic garbage will remain visible for decades and will detract from the wilderness experience of future Ellesmere adventurers. Please respect them and the landscape.

The park has a strict **pack-in/pack-out** policy. Take all your garbage out with you when you leave. Burn and crush cans and foil to reduce the volume and weight of your garbage. Better yet, plan ahead, and avoid cans and excess packaging.

Human waste management in the arctic poses a special problem. At the Tanquary Fiord and Lake Hazen camps, use the toilet facilities provided. Elsewhere, defecate on the surface well away from trails, campsites, and both perennial and seasonal fresh water bodies. If you are travelling in a large group, a shallow communal latrine should be used. In all cases **set aside the toilet**

paper and burn it. It is the toilet paper not the faecal matter that will remain on the landscape long after you have departed.

BE PART OF THE PARK'S ECOSYSTEM MONITORING PLAN

We would appreciate your assistance in gathering information on the parks' natural and cultural resources. You might take special note of the location, number, sex, and age of wildlife seen as well as the presence of young or of a nest or den. Botanical observations including unusual species, their locations, abundance, and blooming dates are also of interest.

If you plan to sport fish in Lake Hazen, a National Park License is available upon registration. A form upon which you can provide important creel census data will be provided. This data provides very valuable information about the Arctic char population of Lake Hazen.

Ellesmere has a rich legacy of prehistoric and historic cultural resources that tell the story of early occupation of the area. Some of the prehistoric sites which have not been excavated can be very difficult to recognize. Partially buried symmetrical arrangements of stone are perhaps all you might see on the surface of the ground. Please do not touch, move or remove any of these features. You may accidently crush or destroy other artifacts in the area and may make their interpretation by experts more difficult. Note the location of archaeological sites (tent rings, etc.) so that the Warden Service can check them against the inventory of known sites.

If you have any slides, prints, or film/video footage that you wish to share with us, let a staff member know. We will place them in the park collection, and, if you indicate that they can be used, will give you the appropriate photo credit should we use them for a park publication.

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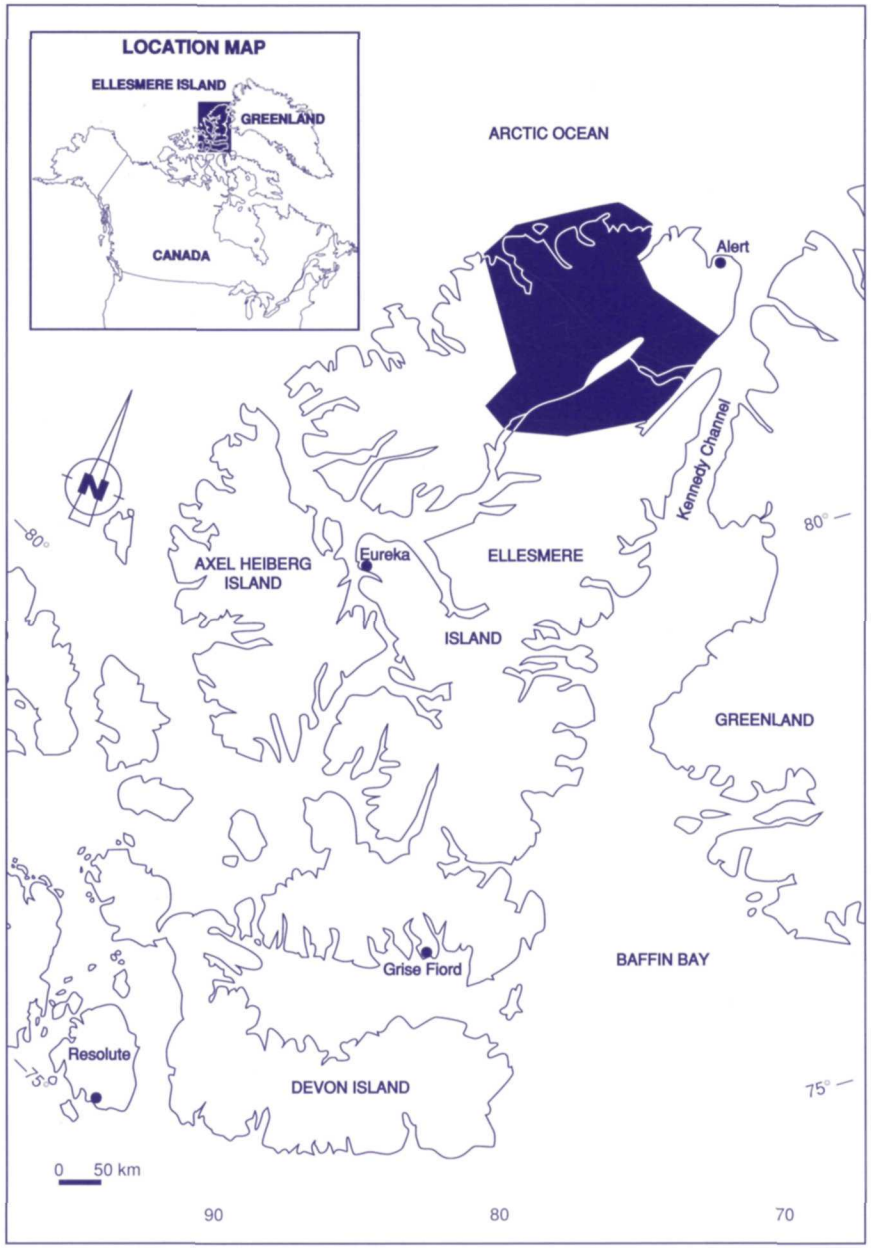

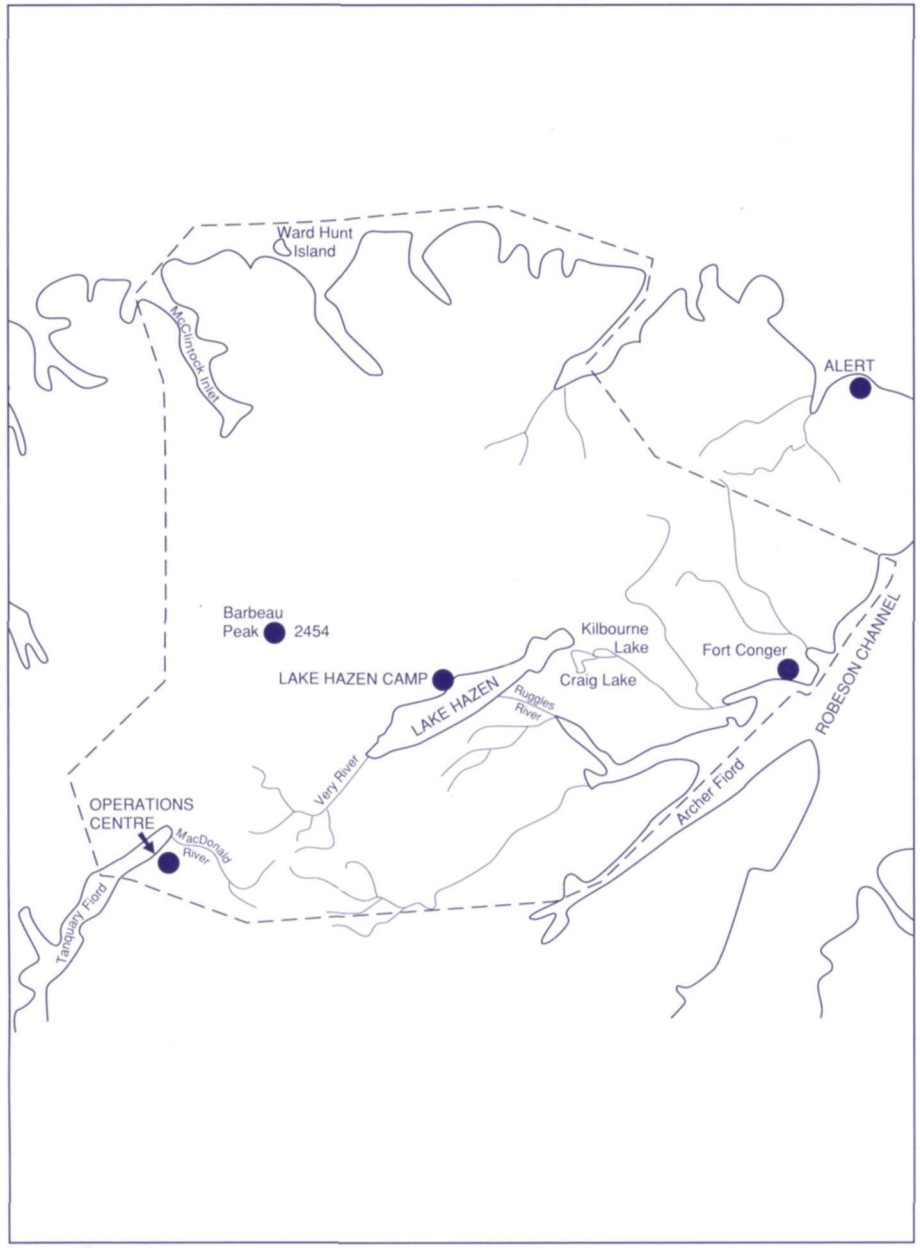

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