

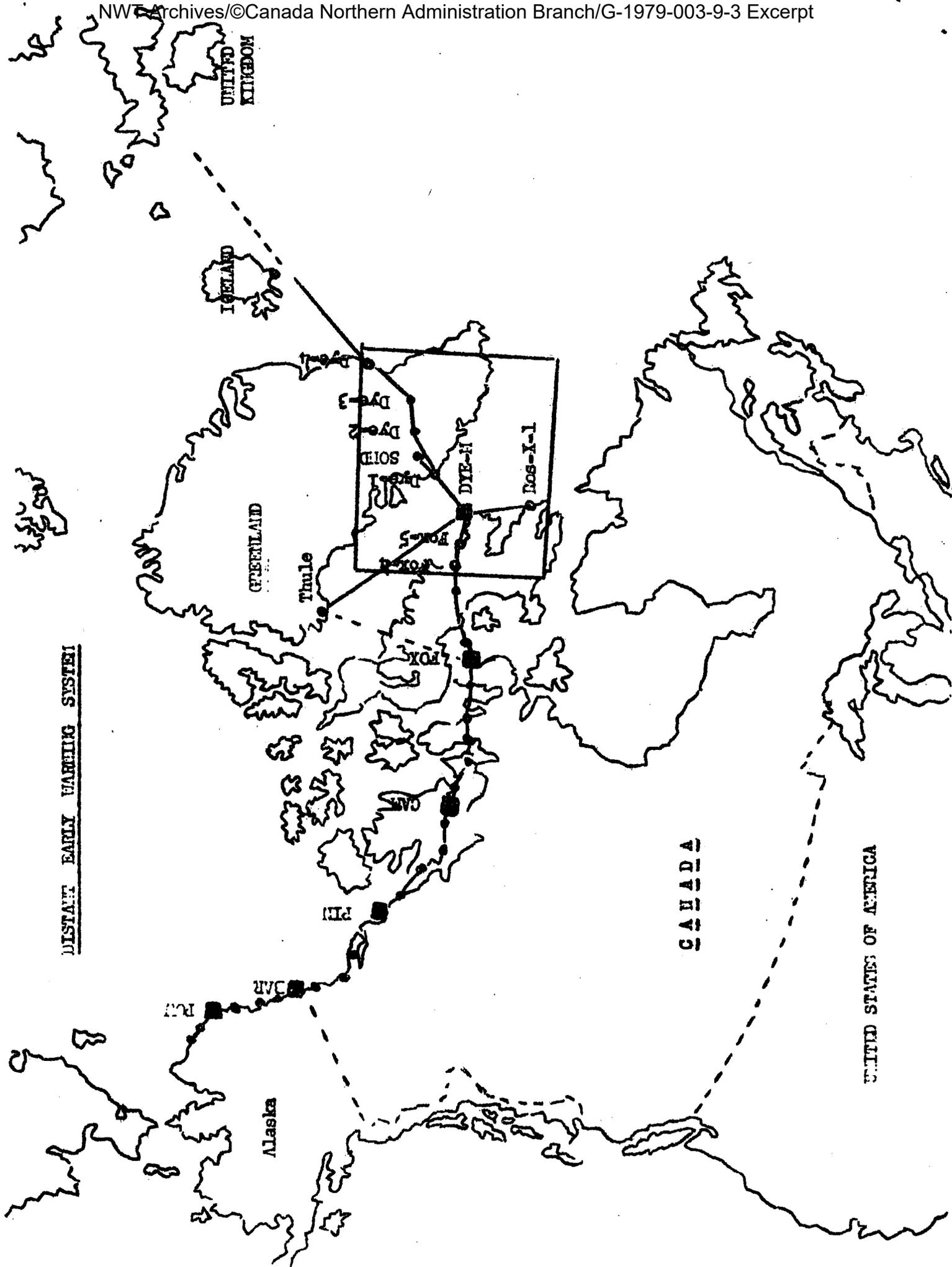
INTRODUCTION TO THE DEWLINE

The Dewline is a chain of radar stations located along the northern coast of Alaska, Canada and across Greenland. Their function is the detection, identification, and rearward reporting of aircraft entering the Distant Early Warning Identification Zone, provision of wide-band communications, and the furnishing of weather reports and air navigation assistance.

The Stations are maintained and operated for the USAF by the Federal Electric Corporation of Paramus, New Jersey, U.S.A., a civilian contractor. Surveillance information is forwarded from the control consoles at each station to the Data Centers at the Main Stations. A military staff mans the Data Center where the surveillance inputs are filtered and pertinent information is transmitted rearward. In the Canadian sectors the Military Commander is a Canadian Armed Forces Officer while the senior USAF Officer is a Technical Representative of the Commander, Detachment 1, First Air Force, monitoring the day to day activities of the Contractor.

For both operational and administrative purposes the Dewline is divided into four sectors, namely, BAR, CAM, FOX and DYE/DEW-EAST. The DYE/DEW-EAST sector is comprised of one Main Station, two Auxiliary Stations and a Relay Station located on Baffin Island and four stations in Greenland with a support facility at Sondrestrom-Fiord. The Main Stations which also support the Sector Headquarters has 'modular' building trains heated by hot water from the power plant, vehicle repair garages, warehouses and aircraft hangars. To a lesser extent the Auxiliary Stations have the same facilities but the Greenland Stations both at the coasts and on the ice-cap are of a very unique composite construction.

Geographically, the Dewline stations are isolated with the regional terrain varying from flat monotonous tundra to majestic mountain peaks. Where possible sites were selected near the sea, gravel services and fresh water lakes thus permitting annual logistics support by sealift and routine weekly support by airlift to the stations. Although the Arctic environment has little or no vegetation wildlife includes many species of migratory birds, polar bears, fox, hares, lemmings, wolves, caribou, seal, whales and walrus. During the summer which brings continuous daylight, rain and temperatures as high as the fifties above zero there is occasional excellent char and lake trout fishing. In the depth of winter there is as little as two hours of daylight per day, snow and temperatures down to an average as low as forty-five degrees below zero. At most stations precipitation is generally low but the Baffin Island coastal sites endure fairly heavy storm conditions.



DISTANT EARLY WARNING SYSTEM

GENERAL INFORMATION - DYE SECTOR

The Dye Sector stations are located in the Dewline's most mountainous terrain, on the coast of Baffin Island, N.W.T., Canada, on the rugged east and west coasts of Greenland and on the high altitude plateau of the Greenland ice-cap. Dye Main at Cape Dyer, Baffin Island is divided into two areas. The upper camp which is at an elevation of 2,400 feet above sea level and situated ten miles away from the lower camp, houses the sector headquarters, the data center, the electronic equipment and the Dewline switching center. The many channels provided by the wide-band communications system converge at Dye Main from the western segment of the Dewline via auxiliary stations Fox-4 and Fox-5, from the north via the Thule-Dyer Dew Drop system, and from the east, Europe and Iceland via the Greenland stations Dye-4, Dye-3, Dye-2 and Dye-1. The communications route south from Dye Main is through the Dye-Sector relay station Res-X-1 at Brevoort Island, N.W.T., and subsequently through other east coast stations. At the Dye-Main Lower Camp there is a five thousand foot gravel surface airstrip, aircraft hangar, logistics warehouses, garage and a separate mess hall. The two auxiliary stations Fox-4 and Fox-5 each have 'module' trains containing the electronics equipment, power plant, accommodations and mess hall, a separate vehicle repair garage and a warehouse. The four Greenland stations are of a composite construction, housing the communications and electronics equipment, the warehouse storage, accommodations and dining area etc. with the exception of a vehicle repair garage which is a separate building. Dye-2 and Dye-3, the ice-cap sites, are built on massive steel 'stilts' and are raised periodically to off-set the natural building up of the ice-cap.

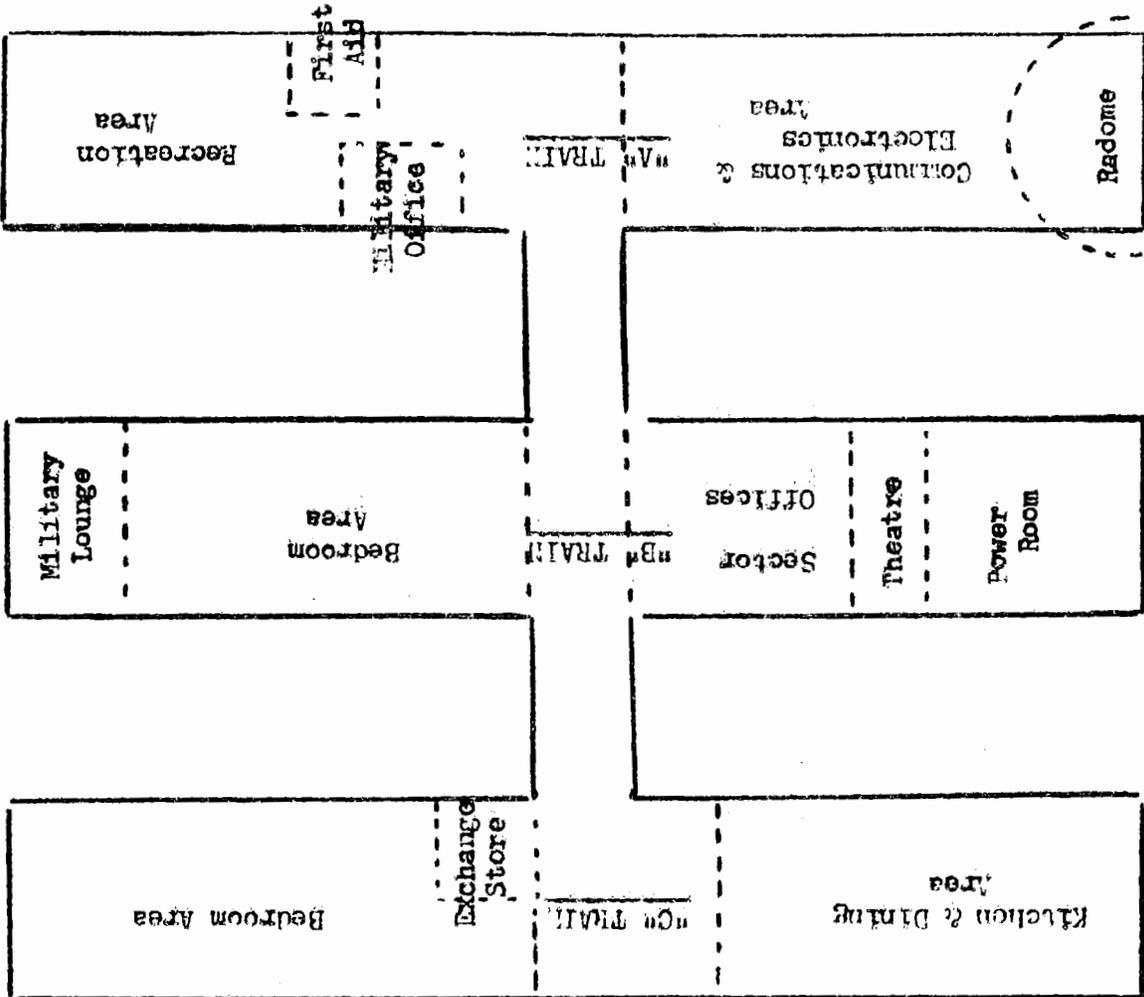
On a weekly basis the Baffin Island stations are supported from Dye-Main which receives a DC-4 aircraft operated by Transair Ltd., bringing personnel, mail, perishable food etc. from the Dew Office, Winnipeg, Manitoba. Air transportation between the stations is provided by a DC-3 aircraft operated by Nordair Ltd of Montreal, on Dewline call from Frobisher Bay. In August these stations are resupplied with fuel, staple food, construction material etc. by an annual sealift which originates from Montreal and is operated by the Canadian Department of Transport. Routine resupply and support of Greenland stations is accomplished from Sondrestrom Air Base. From there, Greenlandair operates a helicopter service into Dye-1 on the west coast, a DC-4 aircraft to Dye-4 on the east coast and once weekly to Dye-Main. The ice-cap stations are supported entirely by Hercules C-130 aircraft on skis, operated by the USAF. A separate annual sealift originating from Davisville, Maryland supports Dye-1, Sondrestrom and Dye-4.

In early 1968 Dye-Main received a special award for being the best operated and maintained Defence Communication Agency station in the world.

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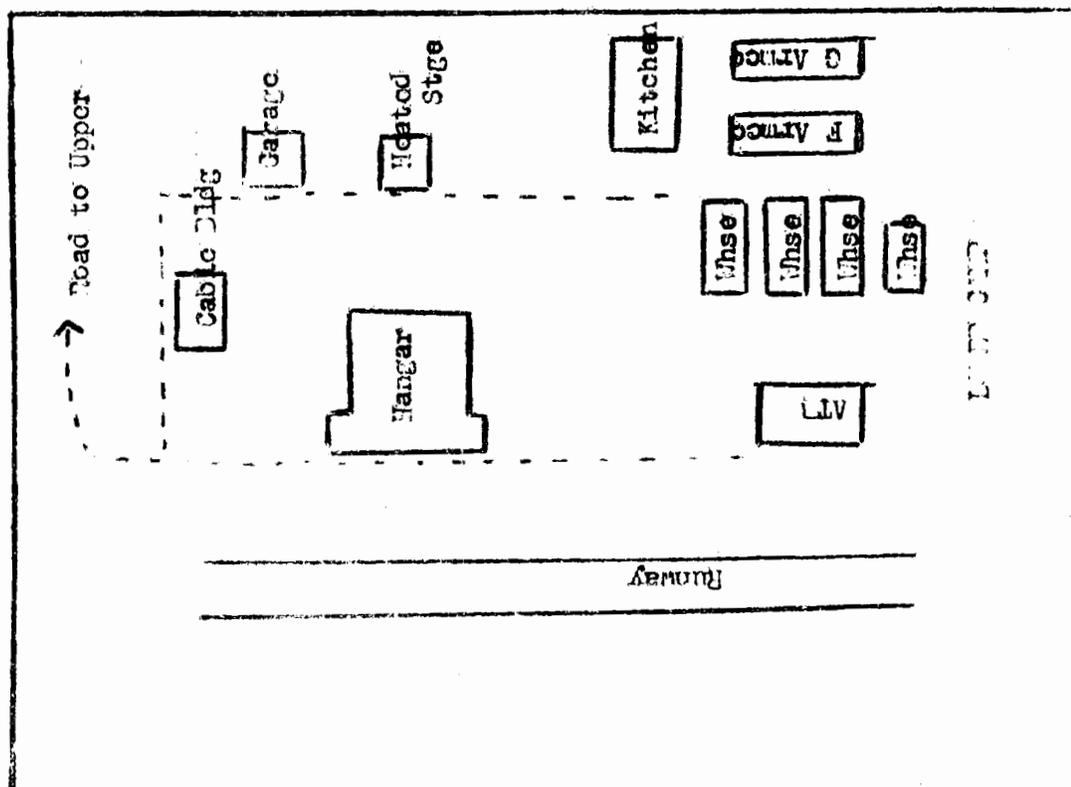
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UPPER CAMP MODULE AREA



Road to Lower Camp

LINE MAIN UPPER & LOWER CAMPS



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HISTORICAL SKETCH OF BAFFIN ISLAND

Bigger than most European countries Baffin Island is one of the largest islands in the world. On the north and east coasts it is composed of extremely rugged alpine type mountains with some steep-sided deep fiords and on the western side there is the semblance of a flat plain. Most of the rock is of the Precambrian age, mainly gneiss with sporadic out-croppings of iron-ore, marble or Palaeozoic limestones. In the Cape Dyer area there is evidence of ancient volcanic activity and near Pond Inlet excessive vegetation which ultimately produced coal.

The Pleistocene ice age buried Baffin with its glacial shield and it is estimated that as late as ten thousand years ago the island was covered with ice fifteen thousand feet thick which depressed the west side as much as three hundred feet. During the next two thousand years the ice receded rapidly leaving fiords like Imugsia which is two thousand feet deep and flanked by vertical five thousand foot cliffs. Today, the Barnes Ice Cap is the last remnant of the great ice cover which stretched as far south as New Jersey, U.S.A.

Baffin Island's first human inhabitants were the Dorset people who were essentially Eskimoid but devoid of dogs and did not hunt whales. Probably, they were in existence when Red Eirik of Greenland pushed into the area to hunt seals and bears. Later they were displaced by the intrusion of the more aggressive whale hunting eskimos of the Thule culture whose influence persists to this day. A definite point in the area's history was established by the British intent to find the North-West passage when in 1576 Martin Frobisher explored the bay which bears his name. In the same pursuit he was followed by John Davis who explored the coast around Cape Dyer and in 1610 Henry Hudson. In 1616 Bylot and his famous navigator Baffin sailing in the late Hudson's 55 ton "Discovery" made an epic voyage around the total extent of Baffin Island while later Foxe and James explored its southern shores. Except for the occasional Hudson Bay Company vessels there was little interest in Baffin Island until after the Napoleonic wars when in 1818 John Ross picked up the search for the elusive North-West passage and for several subsequent years Parry his Lieutenant wintered on the north and north-west coasts. By the middle of the nineteenth century American and Scottish whalers were very active around Baffin Island but towards the end of the century whaling had declined greatly in volume.

In 1880 Canada assumed control over Baffin Island and men like William Mackham, A.P. Low, and Capt. J. Bernier undertook government sponsored work in the area. It was subsequent to this era that Christianity was introduced to the indigenous people of this land. The next sizeable increase in activity occurred after World War I when the Hudson Bay Company established fox fur trading posts in a number of locations. These were followed by the Royal Canadian Mounted Police Detachments whose staffs for many years were responsible for government administration of their areas as well as carrying out law and order duties.

However, corresponding with the initial construction phase of the Dewline sites the government expanded separate administrative facilities and

medical services to all communities. Scientific investigation of the area was started in 1881 by a German party which participated in the activities of the first International Polar Year. In recent years the entire Baffin Island area has been photographically and magnetically surveyed from the air. Government sponsored scientists and their staffs equipped with modern facilities continue deep studies of all aspects of the Island from determining its exact geological features to the habits of the wolves.

The climate of Baffin Island is less severe than that of most of the Arctic regions but there is only sparse vegetation in the south and glaciers remain in the north and east. Coastal wildlife is extensive and includes the Greenland whale, the Narwhal, Walrus, Seal and Arctic Char; on land there are Polar Bears, Foxes, Wolves and Caribou. In addition the Island harbors many species of Arctic or migratory birds. For example, at Cape Scoble, near Paoloping it is estimated that up to five hundred thousand fulmar petrel nest on the rugged cliff while immediately south of Cape Dyer there is a large murre colony.

