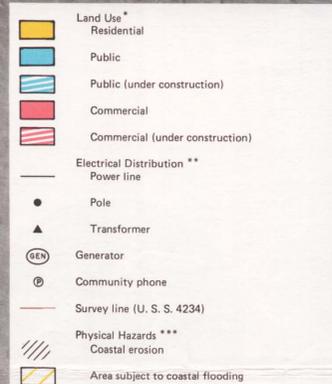


# COMMUNITY MAP KAKTOVIK

70° 08' N - 143° 38' W



Prepared by the Arctic Environmental Information and Data Center, University of Alaska, under contract to the United States Geological Survey, in cooperation with the Bureau of Land Management for National Petroleum Reserve-Alaska Task Force studies, July, 1978.



\*These data were collected from interviews with people who had recently visited the village and have not been field checked.

\*\* These data were adapted from Crews, McInnes, and Hoffman, Consulting Engineers, August 15, 1977, Distribution Plan. They have not been field checked.

\*\*\* These data were determined by interpreting summer photographs and have not been field checked.

## Land Use and Community Facilities

**Housing**—According to the North Slope Borough's Capital Improvements Plan, housing in Kaktovik is the poorest in the borough. Most houses were constructed by individuals using secondhand materials and old Quonsets that date back to the construction of the DEW Line in the early 1950s and 1960s. Nearly all have been designated by the village corporation for replacement. In 1974 eight prefabricated units were constructed by the Alaska State Housing Authority as part of their Remote Housing Program. Five additional prefabricated units were completed in 1977 by the North Slope Borough. These new houses tend to be larger and considerably more expensive than older units. In total, Kaktovik has 36 houses owned by individuals, two teachers housing units owned by the Borough, and an apartment in the school also for teachers. There appears to be sufficient land available in Kaktovik for anticipated residential expansion, but suitability of many lots has not been determined.

**School**—Kaktovik is in the North Slope Borough School District. The school complex consists of two separate but connected school buildings, two storage buildings, a maintenance shop, a playground, and a basketball court. Together, the two school buildings contain three classrooms and a vocational education room. During the 1977-78 school year, 30 students attended grades K through six, and 14 students attended grades seven through 12.

**Other Structures**—The Kaktovik Inupiat Corporation operates the village cooperative store and has an office located in a private home. The village also has a church, a boat launch, a coffee shop, a garage (under construction), a community center, a city hall, a post office, and a mobile equipment storage building.

**Power**—The electrical power system in Kaktovik is owned and operated by the North Slope Borough and consists of two 30-kw diesel generators and a distribution system. The school purchases power from the DEW Line station and also has a standby generator. Fuel oil for individual cooking and heating is stored by and purchased from the Kaktovik Inupiat Corporation, which also sells fuel to the Borough for its electrical generators. In 1978 electricity cost \$0.25 per kilowatt hour, and fuel oil cost \$0.82 per gallon. Since the present electrical system does not meet community needs, the Borough plans to replace it during the summer of 1978. The new system will consist of one 55-kw and two 90-kw diesel generators, an insulated generator building with sufficient space for a fourth generator, and streetlights.

**Water**—Kaktovik has no central water supply in the village and no distribution system. Residents pump all their water with a portable pump and haul almost all their ice from Fresh Water Lagoon. Villagers also obtain some water by melting glacial sea ice. Water is piped to the DEW Line station from Fresh Water Lagoon and treated. Chemical data for the water source are available.

Present per capita consumption is estimated at about 2 gallons per day (gpd) or 7.6 liters per day (l/day) in individual homes, some of which have indoor storage tanks that hold several hundred gallons. Consumption is somewhat higher at the school, which has a storage tank and interior piping. Per capita consumption for the 80 people at the DEW Line station is 60 gpd (227 l/day).

The U. S. Public Health Service (PHS) completed preliminary engineering for a central community water facility in 1977 and construction is underway. The facility will contain water storage and treatment, laundry, showers, and toilets. The North Slope Borough plans to upgrade the gravel haul road from Fresh Water Lagoon to the village and may provide a water-haul vehicle.

**Waste Disposal**—"Honey buckets" wastes and trash are collected in 55-gallon (208-l) drums and either burned or hauled to the DEW Line dump at the edge of the ocean, about one-half mile (0.8 km) west of the village. Unfortunately, some of these wastes are washed out to sea and spread back along the beaches. PHS plans to develop a

sewage lagoon, and the Borough will then buy a sewage-haul vehicle and plans to construct a gravel road to a new dump south of Fresh Water Lagoon.

**Health Care**—The Borough's Health and Social Service Agency (HSSA) operates a health clinic in the village, staffed by a primary and an alternate health aide. The clinic consists of an examination room, waiting room, bathroom, and kitchen. PHS trains the health aides to provide preventative and primary health care to both Native and non-Native patients. They also screen patients and make referrals to the medical staff at the Indian Health Service (IHS) Barrow Service Unit Hospital for further treatment. In emergencies, patients are sometimes flown to Inuvik, Northwest Territories, Canada. PHS provides dental care at the IHS dental clinic at Barrow and furnishes itinerant medical and dental care personnel to the Kaktovik clinic. A state public health nurse visits the village to hold well-baby clinics and to screen for and treat communicable diseases. HSSA is attempting to upgrade mental health, dental, optometric, and alcoholic detoxification and rehabilitation care through more itinerant clinics in the village and expanded facilities for these services at Barrow.

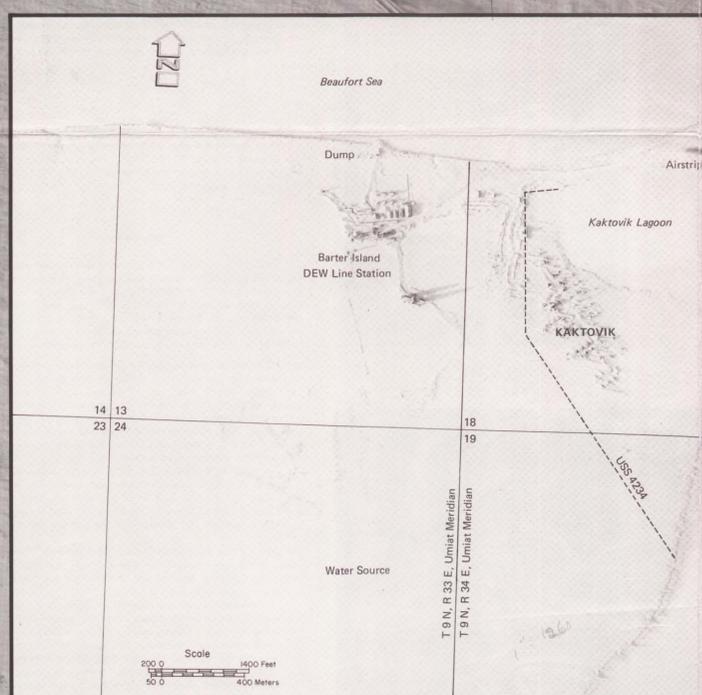
**Public Safety**—The North Slope Borough provides police protection, while the City is responsible for fire protection. No police personnel are stationed in Kaktovik, nor are there any police facilities. When necessary, borough police or state troopers are flown in. The Borough is planning to station a full-time officer and construct a public safety building in 1978. Fire protection is provided by a volunteer fire department, but it has no equipment. The fire truck from the DEW Line station is used in emergencies. Water for fire fighting must be drawn from tanks of private homes and the school. Fire is a continuous hazard in Kaktovik due to the prevalence of old wooden structures built closely together, the frequency of high winds, and the lack of water in quantity in the village.

**Communication**—Since there is no satellite earth station in the village, the community phone is linked by cable to the Barter Island DEW Line station as part of the station's exchange. All calls must be operator assisted. A small television studio at the school produces its own videotapes and live programs for local use as well as transmits videotapes made in Barrow. The school has an HF radio for communicating with the school district headquarters in Barrow, and the health aide communicates by radio with the IHS hospital in Barrow.

**Transportation**—Air travel provides Kaktovik's only year-round access, while marine and to a lesser extent land transport provide seasonal access. Since there is no community airstrip, civil air traffic uses the DEW Line station airstrip, but 48-hours prior landing clearance must be obtained from the Air Force. Scheduled air service from Deadhorse is provided by ERA Helicopter, Inc. under contract to Wien Air Alaska, Arctic Guide, Fel-Air, Inc., and Jen-Air, Inc. provide air taxi service from Barrow and Sea Air Service and ERA Helicopters from Deadhorse. Audi Enterprises has an air taxi service at Kaktovik, but its license limits it to service within a 75-mile (121-km) radius of the village. (See the climate section for information on flying weather.)

Demand for marine transport of goods has so far been too low to cover the cost of the trip. However, the DEW Line station receives barge services during the ice-free season. Privately owned small boats are used for traveling to subsistence areas. There is a boat launch from the village into Kaktovik Lagoon.

Land transport is limited since no roads link Kaktovik to other communities in the region. Summer travel is mainly by three-wheel motorcycle, while in winter, snow machines and all-terrain vehicles are extensively used. Land travel outside the local vicinity is mainly to hunting and fishing areas and, occasionally, to other communities.



**Community Base Map**—Maps are needed to show land use, ownership, location of utilities, and to plan for future village improvements. These maps can be prepared by either surveying the land on the ground or through enlargement of aerial photos or by a combination of both. Air photos can be taken at various heights. The height determines the extent of the area covered by the photograph. The community base map was prepared from a BLM photograph taken in 1978 at a height of 8,400 feet and enlarged to a scale of 1:2,400 (1 in. = 200 ft.). This map was used to locate the present utilities, residential development, and various community services and can be used in the future to evaluate the area for village expansion and to locate new construction.

Note: This community base map has been prepared from low-altitude aerial photographs which contain unavoidable distortions in scale. Property and utility information has been generalized from many sources and may contain minor inconsistencies. This map should not be construed as a survey.

Gravel Airstrip 4,817 feet long

## KAKTOVIK LAGOON

- 1 Fuel storage
- 2 Kaktovik Inupiat Corporation office
- 3 Church
- 4 Teachers housing
- 5 School
- 6 School fuel storage
- 7 Coffee shop
- 8 Community center
- 9 Boat launch
- 10 Generator building
- 11 Community water facility
- 12 City hall
- 13 Post office
- 14 Garage
- 15 Mobile equipment storage
- 16 Village cooperative store
- 17 Health clinic