

Atqasuk, Alaska (Tundra site)

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Location within Domain: Atqasuk is a small village of ~250 persons located 100 km south of Barrow where the climate is more continental. 70° N 28.329' 157° W 24.467'

History: Research began in 1975 when an NSF three-year program began that succeeded the Barrow IBP. The emphasis was on the role of herbivory in the arctic tundra; however, no largescale studies had been done near Aqasuk so the program included analysis of climate, vegetation, soils, and successional patterns. Many of the reports are included in an 11 paper issue of a journal (Batzli (ed) 1980).

Key characteristics: Compared with Barrow, the climate at Aqasuk is warmer – the July mean temperature is 3.7 at Barrow and 9.0 at Atqasuk. Again compared with Barrow, the tundra has a greater number of vascular plant species, more dwarf shrubs, true shrubs (Barrow has none), and less wet tundra meadow. Haugen and Brown (1980) designate the Barrow climate as maritime and the Aqasuk climate as continental.

Existing infrastructure: The site is accessible by air from Barrow (several flights a day) and then by a spur road off the main airport-town road. The ARM site at Aqasuk is shown at right.

Facilities: The village has electric power and a modern school. The ARM site is located several miles from the village on a spur road on the village—airport road. There are several flights per day between Barrow and Atqasuk and no road connections. The ARM project, based at Barrow, has hired two inhabitants to check the instruments several times a week. The ARM website states "There are no land lines that run to Atqasuk (or to Barrow for that matter). This means that all communications, both voice and data, are through commercially supplied satellite links. We are currently transferring our data through a 56kb line. This is sufficient for the current instrumentation bandwidth load."

References: Batzli, G.O. 1980. Patterns of vegetation and herbivory in Arctic tundra. Results from the Research on Arctic tundra environments (RATE) program. Arctic and Alpine Research 12 (4): 401-578 Haugen, R.K. and J. Brown. 1980 Coastal-Inland Distributions of summer Air Temperature and Precipitation in Northern Alaska. Arctic Alpine Research 12 (4): 403-412.

