



U.S. Army Corps
of Engineers
Alaska District

ALASKA BASELINE EROSION ASSESSMENT

Erosion Information Paper - Diomedes, Alaska

Current as of December 9, 2007

Community Information

Diomedes (DIE-oh-meed, a.k.a. Inalik), population 110, is on the west coast of Little Diomedes Island in the Bering Straits, 80 miles northwest of Teller and 135 miles northwest of Nome. The community is incorporated as a 2nd class city within the unorganized borough. A state-owned heliport allows for weekly mail delivery. There is no airstrip, but ski-planes land on an ice strip in winter. Boat, snowmachine and ATV ramps, barge access, boat storage, fishing, hunting, processing catch, beachcombing, and cultural/social events use the shoreline.

Description of Erosion Problem

Based on the community survey, Diomedes' coast is eroded by the Bering Sea. High tides, storm surges in the fall, wind and waves, melting permafrost, and late-forming coastal cause or contribute to the erosion. The south side beach in front of the old tank farm near the village corporation office is being eroded. The Survey reported major erosion events in 1990, 2003, and 2005. In 2005, the shoreline eroded 3 feet.

Potential Damages

Some of the structures and facilities in the community are less than 100 feet from the eroding shoreline. Specific measurements or a list of structures were not provided with the community survey. The August 1999 *Local Economic Development Plan* for Diomedes, by Kawerak, describes the #2 infrastructure priority for the community as: "*Prevent erosion: create a harbor, dock, gabion or breakwater.*"

According to the community survey, structures and facilities threatened by advancing erosion include residences, water tanks, fuel tanks, road, boat launch/storage/repair, sites of significant cultural or archeological value, schools, clinics, churches, and facilities that store heavy equipment, snowmachines, and boats.

A major erosion protection measure undertaken by the community was the 2003 installation of a gabion rock wall, at a cost of approximately \$55,000. No costs have been reported for repairs, operation, or maintenance associated with the protective measure. According to the community survey, the gabion wall needs maintenance because some of the wall fell during the 2005 fall storm.

The Corps is conducting a feasibility study at Little Diomedes to evaluate potential navigation improvements and storm damage reduction alternatives. The project may have a collaborative

component with the Alaska Department of Transportation and Public Facilities to integrate construction of an airfield runway offshore as part of a breakwater structure.

Photos and Diagrams

No photos were provided by the community; and a photo from the Department of Commerce Community Economic Development website is attached. Also, attached is a diagram depicting the linear extent of the erosion.

References

- Kawerak. 1999.** *Local Economic Development Plan*. Kawerak, Inc.
- USACE. 1986.** *Community Information: Diomedede*. Alaska District, U.S. Army Corps of Engineers.
- USACE. 1994.** *Navigation Improvement Technical Report LittleDiomedede*. Alaska District, U.S. Army Corps of Engineers.
- USACE. 2007.** *Alaska Community Erosion Survey, OMB approved number 07100001*, expires September 30, 2009 faxed back by Frances Ozenna, city of Diomedede administrator on November 20, 2007.
- USACE. 2007** *Feasibility Study Peer Review Plan Navigation Improvements and Storm Damage Reduction Little Diomedede, Alaska*. Alaska District, U.S. Army Corps of Engineers.

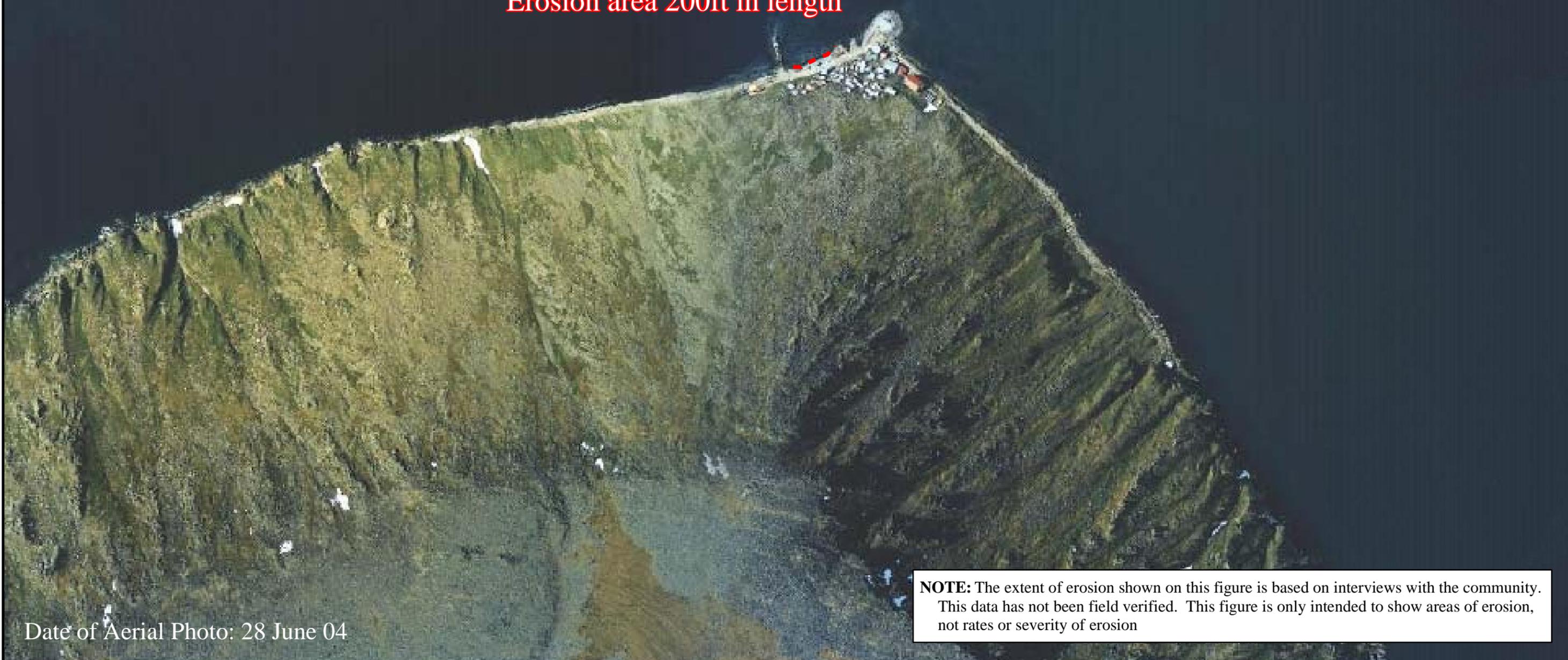
Additional Information

This information paper, as well as those for other communities, can be accessed on the internet at www.alaskaerosion.com. For more information please contact the Corps of Engineers, project manager at (907) 753-5694 or email Alaska.Erosion.POA@usace.army.mil



Photo 1: Aerial view of Diomedede; DCCED photo library©, 1998.

Erosion area 200ft in length



Date of Aerial Photo: 28 June 04

NOTE: The extent of erosion shown on this figure is based on interviews with the community. This data has not been field verified. This figure is only intended to show areas of erosion, not rates or severity of erosion



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--- Linear Extent of Erosion



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