

REPORT OF LORAN SITE SURVEY ON ATTU ISLAND

A survey to locate a site for Loran transmitting station on Attu Island was carried out on 26 and 28 August 1943. The siting party consisted of:

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Lt. J. F. Martin, U.S.C.G.
Lt. L. G. Carpenter, U.S.N.R., Public Works Engrg. Officer NAF,
Attu Island
Lt. (jg) J. D. Roberts, U.S.N.R.
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From preliminary investigation of charts and taking into consideration the service area desired and the requirements of a direct overwater path to Amchitka Island, two points appeared as possible sites: Nebidiskov Point and Theodore Point. From the charts available and calculations made, it was determined that the bearing from each point to the Amchitka site was 107 degrees. The bearing from Nebidiskov Point to Theodore Point was less than this indication that both points were possible sites. However, after reaching Attu Island, the Coast and Geodetic Survey ship "Explorer" was contacted and from the corrected chart which they had worked up, the bearing from Nebidiskov Point to Theodore Point was changed to 116 degrees. If Nebidiskov Point was to be used, this would cause Theodore Point to be projected into the path of the base line from Nebidiskov Point to Amchitka. Consequently, Nebidiskov Point was rejected as being technically unsuitable. This left Theodore Point as the only possibility for a site.

Theodore Point is accessible from the military facilities in Massacre Bay only by sea. The distance is approximately 11 miles. The shore around Point Theodore was investigated for a suitable landing place and a small cove, named Baxter Cove, was found to be the only suitable place. This cove is on the east coast of Theodore Point approximately three air line miles from the part of the point selected. There are three land projections at the tip of Theodore Point and the center of these was selected for the site since it was the only one that had sufficient ground area and had clearance in the desired directions. The site is reached by traveling overland from Baxter Cove.

The site is quite level and is covered by approximately 3 feet of tundra. The point is rectangular in shape being 300 yards wide in an east-west direction and slopes up gradually to the north for a distance of about 500 yards and then rises very sharply to 1600 feet. The location selected for the center of the ground system is on the western side of this area approximately 100 yards from the western edge and 100 yards from the southern edge. A cliff exists at the edge of the area approximately 225' in height. From the edge of the top of the cliff the horizontal distance to the water's edge is in no place more than 50 yards. There are various small rocks off shore projecting above the surface of the water.

Appendix (A) is a sketch of the portion of the point selected for the site.

The exact geographical coordinates of the center of the ground system could not be determined at the time of the survey due to weather conditions making it impossible to take required sights. However, a request was made by the Advanced Command Post, Commander, Alaskan Sector to the Coast and Geodetic Survey Ship EXPLORER to determine these coordinates. The EXPLORER was contacted and it was indicated that the information will be forwarded by AdComALSec to the Vice Chief of Naval Operations when obtained.

The clearance to the nearest headland to the Northwest is 296 degrees and to the nearest headland to the Northeast is 73 degrees. This gives a service angle of 223 degrees through which direct overwater path to the service area is obtained.

No communication facilities exist near the site. There is a small temporary army outpost on the south side of Theodore Point approximately one mile from the site. Other than this the site is completely isolated.

Selection of this site was coordinated with Commanding General, U. S. Army Forces, Attu.

Appendices (B) through (I) are pictures of the site selected and are self explanatory.

CONSTRUCTION NOTES AND REQUIREMENTS

Baxter Cove was the most practical landing place discovered. It is a small rocky beach, covered with large rock and is approached through a reef. It can be used for the landing operations required by building a small jetty or dock about 100 feet in length. Difficulty will be experienced in anchoring the supply ship because of very deep water close to shore which does not allow swinging room. Soundings were taken for the approach to the beach to establish more fully the feasibility of using this beach for landings. A sketch, Appendix (J) is included and shows soundings taken, general beach contour and other pertinent information.

It will be necessary to build a road from Baxter Cove to the site. The entire route is tundra of depth from one to three feet with gravel and rock subsurface. Several small streams are encountered enroute and it will be necessary to place culverts or small bridges over them. For a distance of approximately 2-1/2 miles, it is estimated that grades will average 15%. From that point to the site, it is estimated that the road will be built on terrain where grades will reach a high of 50%. This is a distance of approximately 1-1/2 miles. About one mile from the site it will be necessary to make a heavy cut in the grade to get over a high point. The approximate route of the road is shown on Appendix (K).

Considerable work with heavy equipment will be necessary to build the road from proposed landing point to the proposed site. The following equipment will be required in addition to that shown in "Western Area Loran Construction Equipment and Material List" furnished to Commandant, Coast Guard.

- 1 - Dragline with capacity 1/2 to 3/4 yards
- 2 - D7 Caterpillar tractors with wide treads winches and bulldozers.
- 3 - Athey trailers - 10 ton capacity
- 1 - Portable compressor and jack hammer
- 1/2 ton of dynamite

It is estimated that a construction crew of at least one hundred men will be needed if this installation is to be completed this winter. It is estimated, and this estimate is confirmed by local Public Works Officer, that with the above force and favorable weather conditions, it will take from three weeks to one month to build the road. This estimate does not allow time for assembly of equipment.

There are no particular construction difficulties present at site. Sand and gravel in sufficient quantities for concrete are available on beach to west of site. A small gasoline driven hoist and tramway will be necessary to raise aggregates from this beach up vertical cliff 225 feet to site. A water supply is available close to the site. Sewage disposal over cliff is feasible.

Some materials, such as lumber, cement, Quonset huts, wood stave sewer pipe, etc., are available immediately from Attu C.S. Supply to get the work started. However all of these materials should be ordered to replace any obtained from this source. The Commanding Officer 9th Construction Regiment is authority for the above information.

Enclosure (B)

TRUE
N

MAG. DEC.
UNCERTAIN
APPROX.
35°-45° E

ATTU ISL.
THEODORE POINT

SCALE 1" = 200' AUG. 1943

APPROX. SHORE LINE

LORAN GROUND SYSTEM
PROPOSED LOCATION

STAKE SET
BY FLAG

BASE LINE TO ANGULAR
107° 15' 00"

TOP EDGE 220'-240' BLUFF

ROCKS
OFF SHORE

PACIFIC OCEAN

Appendix A
Enclosure (B)

Appendix B
Attu

Baxter Cove from off shore.



Appendix C
Attu

Baxter Cove - Showing landing at
end of channel. See sketch.



Appendix D
Attu

Baxter Cove - Showing rocky shore-
line. View taken looking south
from the end of channel.



Enclosure (B)

Appendix E
Attu

View of terrain over road location.
Baxter Cove in center to left of
ship.



Appendix F
Attu

View showing ground over which
road must be built.



Appendix G
Attu

View showing gradient to high
ground on road location. Baxter
Cove to extreme left.



Appendix H
Attu

View looking easterly showing part
of proposed site.



Appendix I
Attu

View of proposed site location.
View looking south-easterly.

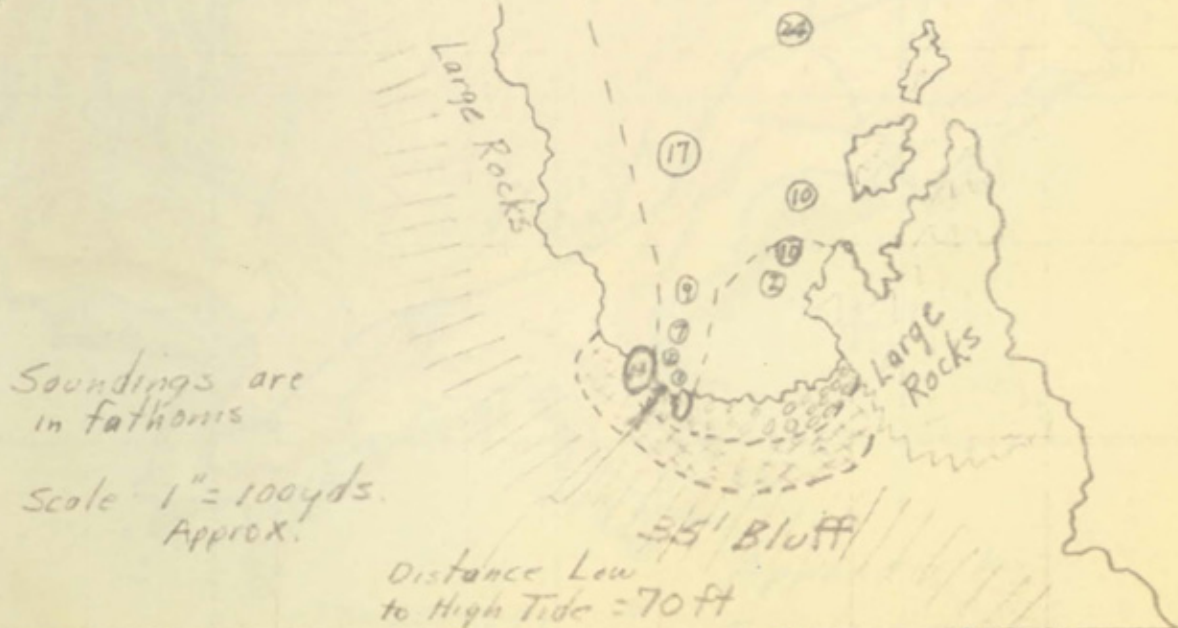
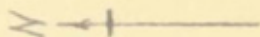


Enclosure (B)

Baxter Cove

Teminal Bay

Attu Island



Soundings are
in fathoms

Scale 1" = 100 yds.
Approx.

Distance Low
to High Tide = 70 ft

Appendix J
Enclosure (B)

TAKEN FROM WAR DEPARTMENT MAP
ATTU ISLAND

N5242 - E17255, Sheet No. 16 of 17

172° 57' E (1' interval)

52° 46' N (1' interval)

Proposed Road

Site

Theodore Pt

Appendix K
Enclosure (B)