

6867  
6868

Diag. CH. 8862 Form 504  
Rev. April 1935

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

## DESCRIPTIVE REPORT

*Topographic* } Sheet No. D & E 1941  
*Hydrographic* }

U. S. COAST & GEODETIC SURVEY  
LIBRARY AND ARCHIVES

MAR 26 1942

Acc. No. \_\_\_\_\_

State ~~Alaska~~ Aleutian Islands

### LOCALITY

West + North sides of  
Seguam Island

1941

### CHIEF OF PARTY

F. B. T. Siems

U. S. GOVERNMENT PRINTING OFFICE 102221

DECLASSIFICATION BY NOAA  
PURSUANT TO DOC SYSTEMATIC REVIEW  
GUIDELINES AS DESCRIBED IN SECTION  
3.3 (a), EXECUTIVE ORDER 12356

Finch Cove applied to new chart 9030, before revision.

J.H.S. Apr. 2, 1942

applied to chart 9102, June 10, 1942 J.H.S.

T6868 applied to new chart 8862 - July 23, 1942 - JFW  
T6867 " " " " " " " " " " " " " " " "

applied to chart 8802 July 29, 1942 J.H.S.

T6868 applied to Finch Cove Insert - Ch 8862 - Oct 1942 - JFW

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

TOPOGRAPHIC TITLE SHEET

REG. NO.

T6867

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. D

REGISTER NO. **T6867** Confidential

State Alaska Aleutian Islands

General locality Aleutians Islands

Locality West side of Seguam Island  
Seguam Island -- West and South Coasts

Scale 1:20000 Date of survey Aug- Sept 1941, 19

Vessel EXPLORER

Chief of party F. B. T. Siems

Surveyed by H. A. Paton, E. R. McCarthy

Inked by E. R. McCarthy

Heights in feet above HW to ground ~~to tops of trees~~

~~Contour, Approximate contour,~~ Form line interval 100 feet

Instructions dated February 3 1938, 19

Remarks: \_\_\_\_\_



DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

TOPOGRAPHIC TITLE SHEET

REG. NO.

T6868

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. F

REGISTER NO. T6868

State ~~Alaska~~ Aleutian Islands

General locality Aleutian Islands

Locality Seguam Island - North Coast North side of Seguam I.

Scale 1:20000 Date of survey Aug-Sept, 19 41

Vessel EXPLORER

Chief of party F. B. T. Siems

Surveyed by E. R. McCarthy, E. B. Brown, F. X. Popper.

Inked by E. R. McCarthy

Heights in feet above HW to ground to tops of trees

~~Contour, Approximate contour,~~ Form line interval 100 feet

Instructions dated February 3 1938, 19 41

Remarks: \_\_\_\_\_



T-6867      T-6868

DESCRIPTIVE REPORT TO ACCOMPANY TOPOGRAPHIC SHEETS D-1941 and E-1941

AUTHORITY

Instructions dated February 3 1938. Issued to Commanding Officer of the Ship SURVEYOR. *Project HT-218*

LIMITSSheet D. (T-6867)

Sheet extends from a junction with sheet ~~D~~<sup>(T-6869)</sup> at a point 0.3 miles west of BURN, west to include the west point and thence northeasterly to the north-west point of the Island, *to T-6868*

Sheet E. (T-6868)

Sheet extends from a junction with Sheet ~~E~~<sup>D (T-6867)</sup> as given above, easterly along the north shore to the north point of the Island, *to T-6866*

CONTROL

Adequate triangulation control exists along the north shore and along the south shore of the island. Supplemental control was extended along the north-west shore as explained below.

Sheet D. (T-6867)

The south shore was controlled by the following triangulation stations-- BURN, PFAU, TURF, GREEN, PIKE, RUE, BALD, and VULCAN. The northwest point was controlled by triangulation stations AIR and FISH.

Control between RUE (on the south shore) and AIR (on the northwest point) was established by the ship. Points were located at approximate mile intervals. Three or more cuts were taken in practically all cases.

Station Off was located by a topographic cut taken from RUE and a cut taken by the ship at a point at the intersection of the ranges TURF-RUE and AIR-Camel. Theodolite cuts had been taken from TURF to RUE and from AIR to Camel by the Pioneer party. The angle at the intersection (Point A) was measured with a sextant and found to check the computed angle exactly. The location of Off was checked by topographic traverse.

The remaining supplemental points were located by simultaneous sextant cuts. Station Off was used as a right object in the determination of locations to the northward.

Cuts are shown on the sheet--red for topographic and blue for ship cuts.

Sheet E (T-6868)

The north shore was controlled by the following triangulation stations-- LIME, FINCH, TIT, BROWN, AND AIR. As the stations were high and difficult of access, signals on the beach were located from the ship by taking fixes on the triangulation stations and cutting in the beach signals.



METHODSSheet D. (T-6867)

The topography from BURN west to RUE was done by standard methods-- plane table stadia traverse with resections on any available signals. A short traverse was run from RUE to Off and the location of Off checked within the allowable limit.

The topography from Cow (near AIR) south was controlled by random traverse which (when the positions became available) was adjusted to the supplemental ship control.

As all the traverses were short\* little if any adjustment was necessary to close in on the control points.

\* RANDOM TRAVERSES WERE 3-5 MILES LONG- DISTANCES BETWEEN ADJUSTED POINTS 1 MILE.

Sheet E (T-6868)

All the shoreline on Sheet E was run in advance of control. Random traverses were run from LIME to Side, from Side to Cow, and from Finch to the east limits. These traverses were later fitted to the control established by the ship cuts. Very little adjustment was necessary.

COMPARISON WITH PREVIOUS SURVEYS.

No detailed surveys had been previously made.

MAGNETICS

A declinatoire observation was made at TURF. (Sheet D). No observation was made on Sheet E. (T-6868)

GENERAL APPEARANCE

The north shore of the island presents a ragged appearance. The beach is principally of lava or boulders and there is a cliff or grass covered bluff directly behind it. Cliffs are comparatively low, irregular, and the slopes at the top are covered with a heavy growth of grass and ~~grade~~ gently toward the high land in the approximate center of the island. Numerous draws or valleys break up the ridges and lead--approximately perpendicular to the general trend of the shore -- one or two miles inland. The ground is of volcanic formation, either lava flow or cinders. Frequent waterfalls.

The northwest point is foul and apparently was caused by the erosion of a lava flow as numerous detached rocks of varying heights extend about 0.3 mile offshore.

The ~~northwest~~ <sup>Western</sup> coast, west of AIR and south to Off, is a boulder beach directly in front of a high (200-600) irregular cliff which cliff --at a few points-- comes to the high water line. There are numerous detached rocks offshore. The slopes at the tops of the cliffs are steeper than those east of AIR as the mountains at this end of the island are the highest on the island. The draws and valleys are steeper and come at less frequent intervals. There are numerous waterfalls that dry in the late summer. South of Una, the slope is very steep and the cliffs high. Between Two and Fan, a deep valley with gentle slope extends for one or two miles toward the mountains.



GENERAL APPEARANCE (Cont'd)

The south shore east of Off and to GREEN is high and precipitous. The cliffs are very close to the beach and in places--overhang it. The peaks behind are high. Grass extends to the 1100' elevation. East of GREEN the grass is more in evidence and the point on which TURF is located is low (80') and conspicuous by contrast. East of TURF there are more cliffs which are comparatively low.

In general the country is rugged, numerous waterfalls, and draws, and off-shore rocks.

The following are conspicuous--

CONE-- a cinder ash conical peak that is frequently uncovered. (T-6868) Lat. 52° 21.45', Long. 172° 25.3'  
CAIRN--a flat topped mesa --rocky. (T-6868) Lat. 52° 22.42', Long. 172° 26.40'  
TIT-- a sheer 300' cliff. (231') T-6868 Lat. 52° 21.62', Long. 172° 32.25'  
NW Point --- hen and chickens--a detached 98' rock stands out. Lat 52° 21.25', Long. 172° 34.45'  
Camel--an offshore detached rock resembling a camel's hump. \* T-6867 - Lat 52° 19.23', Long. 172° 36.15'  
Two-- a 178' offshore rock--only identified when on tangent. T-6867 - Lat 52° 16.9', Long. 172° 37.9'  
Off--a low, offshore rock--not particularly conspicuous except by its location. (T-6867) Lat. 52° 15.9', Long. 172° 38.4'  
Rue--an offshore rock conspicuous when on the tangent. (T-6867) Lat. 52° 15.12', Long. 172° 36.40'  
TURF-- a low grassy bluff. (T-6867) Lat. 52° 15.0', Long. 172° 32.1'  
\* FROM ALONG SHORE

LANDMARKS

All of the above may be construed as landmarks but should not be charted with a landmark symbol. Station Wet ( waterfall) on the northcoast is a definite landmark that should be charted by symbol. It was conspicuous even in late summer when the snow had melted. Other waterfalls shown on the sheet--~~drive~~ dry up in the summer time.

STATISTICS

Sheet D		Sheet E
15.6	Statute miles of shoreline	12.3
28.8	Square statute miles	9.0

MISCELLANEOUS

All signals shown outside of the high water line are rocks or some natural object.

The form lines are incomplete due to lack of opportunity to obtain them.

Cut data is appended.

There are no inhabitants. There are numerous foxes as the island is used as a game preserve.

MISCELLANEOUS (Cont'D)

Small boat landings may be made under good conditions. The best landings are on the sand beach west of BROWN, the cove east of AIR, the bight west of AIR between Cat and Ken, bight east of TURF between stations A & B, and the bight north of Bus (about 0.7 mile west of BURN). The easiest landings were along steep offshore rocks.

Respectfully submitted,

*E. R. McCarthy*  
E. R. McCarthy  
Jr H & G Eng'r

Approved and forwarded.

*F. B. T. Siems*  
F. B. T. Siems  
Commanding EXPLORER



## RANDOM TRAVERSES

In the topographic surveys of Amukta and Seguan Islands, plane-table traverses in advance of the triangulation were run along strait-a-way or rounded sections of the coast. Control schemes, partly established at the time, covered interior areas adjacent to these sections with stations along the shore ridges generally inaccessible to the topographer and often invisible from the shore. By reason of this, the triangulation control eventually had to be carried to signals along the shore by sextant observations from the ship. The completion of an appreciably usable part of the control could not be effected, under existing circumstances within a moderate period of time.

In order to employ units of the party to the best advantage and also to utilize the few favorable opportunities afforded for landing, it was considered urgently necessary that the topographic work should proceed in advance of the delayed control.

Signal building of course preceded the topographic work. A suitable station along the shore was selected for starting the traverse. Its corresponding position on a blank, aluminum mounted sheet was assumed. The plane table was placed in an assumed orientation which was held during the progress of the traverse. All set-ups of the traverse were marked semi-permanently so that if any question arose as to the correctness of any part of the work in later adjusting it to the control, a field investigation could be made readily.

The shores of Amukta and Seguan Islands for the most part do not lend themselves to plane table triangulation or other graphic methods of breaking down the control. This is the case particularly along those sections covered by the advanced topographic surveys; here, there are no pronounced bays or coves nor offlying islets or neighboring islands, and the interior regions are obstructed from view by elevated land adjacent to the shores. Only the immediate vicinity and a limited stretch along the shore are available to the topographer from his traverse stations and the plane table survey is confined mainly to the location of signals, and the delineation of the shoreline.

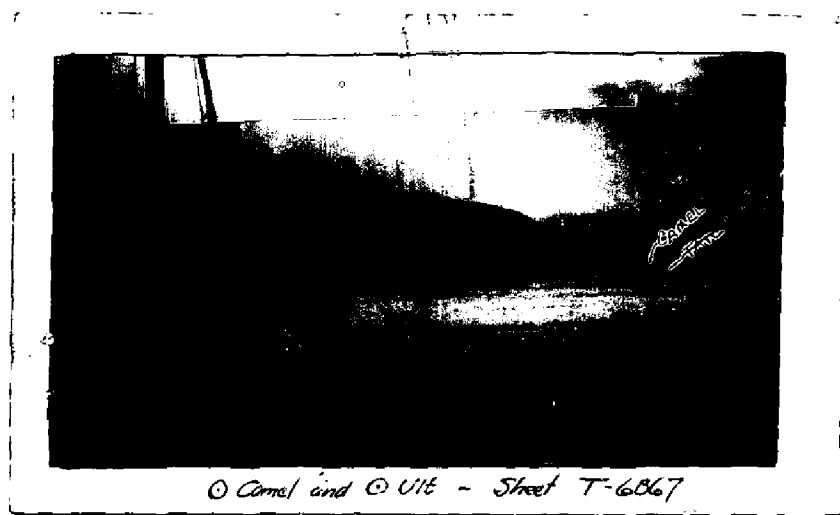
Hence it did not involve any complex adjustment in the transfer of the independently mapped stretches of shore topography to a master projection, on which the subsequent control was plotted. As previously stated the control consisted mainly of sextant locations along the shore based on elevated triangulation stations. Sextant locations of topographic signals about one mile apart along the shore formed an accurate framework on which the traverse work was assembled.

Special care was exercised in securing accurate sextant locations of the topographic signals. The ship was brought to a still position for the sextant observations. A fix was based on four rather than three triangulation stations whenever possible. The angles for the fix and for cuts to various topographic signals were taken simultaneously, with observers grouped close to one another. The reading of the sextant in each case was verified by a second person. Generally the fix and the same cuts were taken a second time from approximately the same position. A large number of cuts for each location was observed. Elevation angles of the stations and signals were observed for reduction of inclined angles to the horizontal plane. Indirect rather than direct measurement of an inclined angle was made when this increased the accuracy in reduction to the horizontal.

Special care was also exercised in the plotting of the sextant work. For this purpose, a sheet of "Paragon" linen-backed drawing paper was secured to the top of one of the EXPLORER's drawing tables with rubber cement and with a large number of fine wire staples along the edges of the sheet. In some cases where great accuracy was deemed necessary, the three-point fix was computed and plotted, rather than protracted on the sheet, and the cuts were plotted as azimuths using computed intercepts.

F. B. F. Siens,  
Commanding Officer,  
U.S.C. & G.S.S. EXPLORER.





© Camel and © Ute - Street T-6867

Alaska No. 58 T-6867  
UNITED STATES COAST AND GEODETIC SURVEY  
Descriptions of Triangulation Stations

Seguam Island to Atka Island, Alaska

**PINCH** (Aleutian Islands, Alaska, R.D.H., 1940)--Station is on the NE end of Seguam Island, on the first prominent point NW of the broken, rocky point forming the NW limit of Finch Cove, on the highest point of the ridge dropping abruptly to the water edge to the E and to the mouth of a ravine through which runs a stream fed by a fresh water spring located about 1/3 mile back from the shore, about 50 meters S of the extreme N end of the point, and about 175 feet above the sea.

Station and reference marks are standard bronze disks, set in iron pipes. Station mark is stamped "PINCH 1940." Reference marks are stamped "PINCH No.1 1940" and "PINCH No.2 1940."

Reference mark No.1 is distant 15,555 feet from station.

Reference mark No.2 is distant 81,350 feet from station.

Station is reached by following a well-defined trail leading up the hill in back of the Finch Cabin, past an old Russian cross, bearing to the right and along the shore to the westward.

\*\*\*\*\*

**FLAT ROCK** (Aleutian Islands, Alaska, R.D.H., 1940)--Station is high flat grass-covered topped rock on the NE end of Seguam Island. Estimated about 60 feet high and detached from adjacent lower but larger rock. It is possible to climb lower adjacent rock from shore. It is an unmarked intersection station.

\*\*\*\*\*

**LINE ROCK** (Aleutian Islands, Alaska, W.D.P., 1941)--Station is the prominent lime-covered rock, about 10 feet high, off the northern point of Seguam Island just N of Finch Cove. This is an unmarked intersection station.

\*\*\*\*\*

**GUAM** (Aleutian Islands, Alaska, R.D.H., 1940)--Station is on the N side of Seguam Island, about 3 miles W of the E end of the island and about 3/4 mile W of the trapper's cabin on the west side of a small cove. On the ridge running in from the second point W of the cabin, about 1/2 mile SW of the top of the bluff and on the first knoll from the bluff. Station is on the highest point in the vicinity.

Station and reference marks are 2-inch iron pipes with standard disks reduced in diameter and fastened to the tops of the pipes with perforated caps. No underground mark was set.

Reference mark No.1 is NE of the station in a small moss-covered swale and in line with a rock at the water line.

Reference mark No.2 is SE of the station in a small moss-covered swale.

OBJECT	DISTANCE	DIRECTION
SEA	meters	0°00'00"0
R.M.No.2	16.808	13 08 10
R.M.No.1	16.093	282 18 00

\*\*\*\*\*

**SEA** (Aleutian Islands, Alaska, R.D.H., 1940)--Station is about 1 3/4 miles S of the most northerly point of Seguam Island. The point has numerous off-lying rocks and is the northern boundary of Finch Cove (local name). It is on the highest and most southern of 2 flat bluff lands that lie S of the cove. Elevation of station about 650 feet. It is about 1/2 mile S of the prominent bluff point, on the S side of the cove. It is on a small hummock about 200 meters inshore from the break of the bluff top and about 75 meters E of the head of a gully. There is a lone rock on a ridge bearing 225° magnetic from the station about 200 meters distant. No underground mark was set.

Station and reference marks are standard disks fastened to 3-inch pipes, and protrude about 8 inches above ground.

Reference mark No.2 is in range with station GUAM.

To reach station, land at N side of Bluff Point and follow trail in a southwesterly direction crossing 2 streams. Then ascend steep slope keeping well inshore and approach station from westward.

OBJECT	DISTANCE	DIRECTION
GUAM	meters	0°00'00"0
R.M.No.1 SSW (slope)	18.265	253 00 50
R.M.No.2 NW (slope)	16.120	359 45 50

\*\*\*\*\*

**SEGUAM SOUTH BASE** (Aleutian Islands, Alaska, W.D.P., 1941)--Station is on Seguam Island about 1 mile SW of Finch Cove, about 1/2 mile E of station CAIRN, on the E side of 2 large ravines, and on the N edge of a barren and moss-covered area where it begins to slope more steeply to the N. This is a broken base line and the line to station PINCH crosses some of the ravines to the N of the station.

Station and reference marks are 3-inch iron pipes with standard disks reduced in diameter and fastened to the tops with pipe fittings.

OBJECT	DISTANCE	DIRECTION
PINCH	meters	0°00'00"0
R.M.No.1	14.459	177 14
R.M.No.2	16.396	265 04

\*\*\*\*\*

**CONE** (Aleutian Islands, Alaska, R.D.H., 1940)--Station is on Seguam Island on the highest point of a black cone-shaped hill S of the Finch Cove Cabin. The hill is about 1,500 feet high.

Station and reference marks are standard disks milled down to fit inside 30-inch sections of 2 1/2-inch pipes and secured by means of collars and sleeves.

Station can best be reached by following a trapper's trail from the sand beach at the second ravine E of the cabin up the E side of the ravine to the table land and thence to the upper limit of the grass.

OBJECT	DISTANCE	DIRECTION
TIT	meters	0°00'00"0
R.M.No.1	8.90	145 52 00
R.M.No.2	8.75	223 37 40

\*\*\*\*\*

**CAIRN** (Aleutian Islands, Alaska, R.D.H., 1940)--Station is on Seguam Island on the highest point of a prominent, rocky, flat-topped hill SW of the Finch cabin.

Station and reference marks are standard disks set in rock outcrop and stamped.

The distance from station to reference mark No.1 is 13.725 feet.

The distance from station to reference mark No.2 is 16.820 feet.

\*\*\*\*\*

**MID** (Aleutian Islands, Alaska, W.D.P., 1941)--Station is on the N side of Seguam Island about 3/4 mile inshore and midway between the NE corner of Seguam Island and the trapper's cabin on the N side of the island.

All marks are standard disks set in tops of 3-inch pipes driven with 8 inches of pipe protruding above the ground.

Station can be reached by proceeding 2 miles W of the NE corner of the island and landing on a very rocky beach at the mouth of a draw. Proceed up the E edge of the draw until the station is reached. It is about 75 meters E of the E edge of this draw, about 200 meters N of the S end of this draw, and about 150 meters N of a fork in the draw. No depressions are crossed in going from the beach to the station. Grass is short in vicinity of marks.

OBJECT	DISTANCE	DIRECTION
CONE	meters	0°00'00"0
R.M.No.1	19.925	65 370
R.M.No.2	10.171	33 376

\*\*\*\*\*

**BROWN** (Aleutian Islands, Alaska, W.D.P., 1941)--Station is on the N side of Seguam Island about 3 miles W of Finch Cove and cabin (NE end of Seguam Island). The station is on a small, grassy mound at the N end of a flat-topped hill with grassy slopes and bare, rocky top.

The station is marked by a standard disk set in the end of a section of 3-inch pipe and driven into the ground.

Reference marks are standard bronze disks set in concrete in depressions in outcropping bedrock.

Station can be reached best by landing at the first sand beach W of Finch Cove. This beach is at the foot of the above hill and can be recognized from the water side by a large, off-lying rock at the W end and a water fall coming out of a ravine at the E end.

OBJECT	DISTANCE	DIRECTION
CONE	meters	0°00'00"0
R.M.No.2	7.155	50 57
R.M.No.1	14.820	291 17

\*\*\*\*\*

**BARE** (Aleutian Islands, Alaska, W.D.P., 1941)--Station is on the N side of Seguam Island on a bare ridge 2.0 miles S of the cabin on the beach. It is about 100 meters N of the highest point of a prominent knoll on the ridge.

Station mark is a standard disk in top of 3-inch iron pipe driven at a slant 4 inches above ground.

Reference mark No.1 is a 1-inch iron pipe, unstamped, driven with 6 inches left above ground.

Reference mark No.2 is a 1-inch iron pipe, unstamped, driven at a slant with 12 inches left above ground.

The station is best reached by landing at the cabin, where straight sand beach runs to the W and rocky point to the E. Climb ridge to W of stream and continue up this ridge to station without crossing any draws. The ridge forms a general curve, starting in at about a southeasterly direction at the beach then changing to a southerly and finally a southwesterly direction just before station is reached.

OBJECT	DISTANCE	DIRECTION
CAIRN	meters	0°00'00"0
R.M.No.2	11.565	37 940
R.M.No.1	10.102	33 140

\*\*\*\*\*

**TIT** (1940) (Aleutian Islands, Alaska, R.D.H., 1940)--Station is prominent sharp rock on W edge of high crater located near the E central part of Seguam Island. Shows on the sky line from the NE side of the island.

This is an unmarked intersection station.

**FIN** (Aleutian Islands, Alaska, R.D.H., 1940; W.D.P., 1941)--Station is prominent sharp rock on W edge of high crater located near the E central part of Seguam Island. Shows on the sky line from the NE and S sides of the island. Station was not marked.

NOTE: This is same station that was called TIT in 1940, only one direction taken to it that year from station GUAM.

\*\*\*\*\*

**TIT** (1941) (Aleutian Islands, Alaska, W.D.P., 1941)--Station is on the N side of Seguam Island about 1 1/2 miles NE of the point with off-lying rocks which makes out near the W end of this side of the island. It is on top of a hummock at the outer end of a minor point which is prominent because of its steep sides.

All marks are standard disks set in the tops of 2-inch iron pipes.

OBJECT	DISTANCE	DIRECTION
BROWN	meters	0°00'00"0
R.M.No.2	5.914	19 04
R.M.No.1	4.455	14 62

\*\*\*\*\*

**SIDE** (Aleutian Islands, Alaska, W.D.P., 1941)--Station is on the N side of Seguam Island, near the W end, and about 1 1/4 miles E of the prominent bight in the shore line. It is on a small bench, formed by a rock outcrop, on the N side of the central mountain on the island and the only place in the vicinity which will see station CONE to the E. A thumb-like rock about 5 feet high is situated on the N slope of the bench a few feet below the station.

Station mark is a standard disk set in a boulder flush with the ground.

Reference marks No.1 and No.2 are standard disks set in concrete in depressions in the rock outcrop forming the N edge of the bench and are flush with the ground.

OBJECT	DISTANCE	DIRECTION
UP	meters	0°00'00"0
R.M.No.1	5.583	18 35
R.M.No.2	4.852	15 81

\*\*\*\*\*



AIR (Aleutian Islands, Alaska, W.D.P., 1941)--Station is on the N side of Segum Island, near the W end, and on the ridge running out to the point which forms the E side of a prominent bight in the shore line. It is on a grass-covered portion of the ridge and is E of the middle of the bench on the W side of the ridge.

All marks are standard bronze disks wedged in drill holes in boulders, which were carried into position.

OBJECT	DISTANCE		DIRECTION
	meters	feet	
TIT (1941)			0°00'00"0
R.M.No.1	11.495	37.72	64 33 10
R.M.No.2	4.516	14.82	202 16 20

\*\*\*\*\*

FISH (Aleutian Islands, Alaska, W.D.P., 1941)--Station is on the N side of Segum Island, near the W end, and SE of the prominent bight in the shore line. On top of the rock and cinder-covered ridge which runs up to the W end of the central mountain on the island, about 150 yards S of the top of the bluff and on the highest point along the shore line in the vicinity.

All marks are standard disks set in tops of 2-inch iron pipes.

Elevation of station is approximately 830 feet.

OBJECT	DISTANCE		DIRECTION
	meters	feet	
AIR			0°00'00"0
R.M.No.2	19.036	62.45	65 29 10
R.M.No.1	17.523	57.49	160 17 50

\*\*\*\*\*

UP (Aleutian Islands, Alaska, W.D.P., 1941)--Station is on the N side of Segum Island, near the W end, and about 3/4 mile SE of the prominent bight in the shore line. On a rock and cinder-covered knoll near the top of the ridge running from the back of the bight to the W end of the central mountain on the island. A higher knoll, long in the E-and-W direction, lies about 1/4 mile SE of the station.

Station mark is a standard disk set in a drill hole in a boulder flush with the ground.

Reference mark No.1 is a standard bronze disk set in concrete in a depression in a rock outcrop, about 1 foot above ground level.

Reference mark No.2 is a standard disk set in concrete in a depression in a rock outcrop, about 3 feet high and conspicuous because of its height.

Elevation of station is approximately 1,550 feet.

OBJECT	DISTANCE		DIRECTION
	meters	feet	
FISH			0°00'00"0
R.M.No.1	10.214	33.51	12 19 14
R.M.No.2	32.981	108.21	253 27 58

\*\*\*\*\*

PYRE (Aleutian Islands, Alaska, W.D.P., 1941)--Station is near the central western part of Segum Island. It is the northeasterly and highest of 2 summits on the N side of a crater-like formation forming the highest part of Segum Island. This is an unmarked intersection station.

\*\*\*\*\*

SAM (Aleutian Islands, Alaska, W.D.P., 1941)--Station is on the E side of Segum Island, about 3 miles S of Finch Cove. It is on the black-rock point that appears most easterly as viewed from Finch Cove. The station is on the northerly part of the point about 15 meters from the edge of the point in very rough lava rock. A definite sharp prominence bears 22° true, distant 9.6 meters, from station mark. It is about 6 feet higher in elevation than the station and is the highest part of the point in that vicinity.

Station and reference marks are standard bronze disks wedged in drill holes in outcropping bedrock.

OBJECT	DISTANCE		DIRECTION
	meters	feet	
SEA			0°00'00"0
R.M.No.1	2.774	9.100	202 14 40
R.M.No.2	5.409	17.746	309 23 00

\*\*\*\*\*

CRATER (Aleutian Islands, Alaska, W.D.P., 1941)--Station is the highest point on the E edge of the easternmost crater on Segum Island. This is an unmarked intersection station.

\*\*\*\*\*

JAO (Aleutian Islands, Alaska, R.D.E., 1940)--Station is the highest point of the high jagged peak SE of triangulation stations SEA and GUAM on the eastern part of Segum Island. From station GUAM the peak appears very rugged and rough and is about 6° to the right (S) of the SEA-GUAM line.

This is an unmarked intersection station.

\*\*\*\*\*

VENDO (Aleutian Islands, Alaska, W.D.P., 1941)--Station is near the middle of Segum Island, on the E-and-W, rock and cinder-covered ridge at the S side of the pass across the island. About 1 mile E of the knobby-looking knoll in the middle of the ridge and on the W end of a hump in the ridge.

Station CONE to the N is nearly cut off by the mountain to the E.

Station ICY is not visible from the ground and a 24-foot pole signal is required on each end of the ICY-VENDO line.

Station and reference marks are standard bronze disks wedged in drill holes in boulders.

Station is best reached from the S side of the island by climbing nearly to station ICY and thence E over the cinder-covered area.

Elevation of station is approximately 1,700 feet.

OBJECT	DISTANCE		DIRECTION
	meters	feet	
ICY			0°00'00"0
R.M.No.1	12.046	39.52	203 07 14
R.M.No.2	11.469	37.62	294 04 46

\*\*\*\*\*

ICY (Aleutian Islands, Alaska, W.D.P., 1941)--Station is on a prominent cinder peak at W end of a long cinder ridge and E of a large crater. This peak slopes sharply in all directions; and marks the W side of saddle in hills near E end of Segum Island. This peak is plainly visible from the N and S sides of the island.

Station mark is a standard disk cemented in a drill hole in buried rock.

Reference mark No.1 is SE of the station.

Reference mark No.2 is N of W of the station. Both marks are standard disks cemented in drill holes in buried rocks.

OBJECT	DISTANCE		DIRECTION
	meters		
CAIRN			0°00'00"0
R.M.No.1	10.70		162 42
R.M.No.2	8.25		249 27

\*\*\*\*\*

TWIN (Aleutian Islands, Alaska, W.D.P., 1941)--This station is on the SE side of Segum Island just NE of the point forming the E end of Lava Cove. It is a prominent grass-covered rounding peak about 1 mile inshore. This is an unmarked intersection station.

\*\*\*\*\*

BOS (Aleutian Islands, Alaska, W.D.P., 1941)--This station is on the SE side of Segum Island just NE of the point forming the E end of Lava Cove. It is a prominent bare flat-topped peak about 1/2 mile inshore. This is an unmarked intersection station.

\*\*\*\*\*

LAVA (Aleutian Islands, Alaska, W.D.P., 1941)--This station is on the S side of Segum Island about 5 miles W of the SE end. Station is about 1/2 mile inland and is on a small knob at the top of a steep, grassy slope. This slope is cut by several small ravines and can be identified from the water side by a large lava bed just to the W and a grassy sloped peak to the E. There is also a prominent, off-lying pinnacle rock approximately opposite the station.

Station mark is a standard disk set in the end of a section of 3-inch pipe which projects about 6 inches above ground.

Reference marks are sections of 1-inch pipe projecting about 1 foot above the ground.

Station can be reached by landing at the foot of the slope and following one of the ravines to the top.

OBJECT	DISTANCE		DIRECTION
	meters		
VENDO			0°00'00"0
R.M.No.2	10.26		72 39
R.M.No.1	22.69		289 42

\*\*\*\*\*

RUN (Aleutian Islands, Alaska, W.D.P., 1941)--Station is on the S side of Segum Island about 6 1/2 miles W of the SE end. It is about 1 mile inland and is slightly below the crest and near the E end of a short, bare, black ridge. This ridge is approximately 1 mile W of a group of prominent, high waterfalls. It is SE of a prominent black volcanic cone and is just to the E of a large lava bed extending down to the water's edge.

Station and reference marks are standard bronze disks wedged in drill holes in outcropping bedrock.

Station can be reached by landing on the sand beach just E of the lava bed and going inland up the second ravine to the E of the lava which leads directly to the ridge.

OBJECT	DISTANCE		DIRECTION
	meters		
VULCAN			0°00'00"0
R.M.No.1	6.99		193 41
R.M.No.2	7.54		331 55

\*\*\*\*\*

COVE (Aleutian Islands, Alaska, W.D.P., 1941)--This station is on the S side of Segum Island, on the SW side of a cove, the first cove W of the SE end of the island. This cove is easily distinguished by several lava flows forming the cove. It is known by the Coast Survey as Lava Cove. The station is located on a lava flow, about 50 feet above high water, and about 30 meters back from high water.

The station mark is a standard disk cemented into a small outcropping lava rock, in a small grass area, and it is stamped "COVE 1941."

Reference mark No.1 is NW of the station. It is a standard disk stamped "COVE NO.1," and cemented into outcropping lava rock on the edge of grass area.

Reference mark No.2 is E of the station. It is a standard disk stamped "COVE NO.2," and is cemented into outcropping lava rock, on the E edge of grass area.

There are several off-lying rocks showing at high water just SE of the station.

OBJECT	DISTANCE		DIRECTION
	meters		
RUN			0°00'00"0
R.M.No.2	2.960		113 24 20
R.M.No.1	4.690		316 48 35

\*\*\*\*\*

POINT (Aleutian Islands, Alaska, W.D.P., 1941)--This station is on top of a grassy knoll on first grassy point W of Lava Cove; about 150 meters N of edge of slope to beach and approximately 1/4 mile N of off-lying rock bare at all stages of tide.

Station and reference marks are standard disks set in 2-inch iron pipes projecting about 6 inches above ground.

OBJECT	DISTANCE		DIRECTION
	meters		
PFAU			0°00'00"0
R.M.No.2 N	8.78		55 22 40
R.M.No.1 E	8.23		162 58 10

\*\*\*\*\*

VULCAN (Aleutian Islands, Alaska, W.D.P., 1941)--Station is on the S side of Segum Island, about 1 1/4 miles inshore on a wide lava flow formation consisting of loose rocks, at an elevation of 1,400 feet. It is on the easterly of 2 prominent lava mounds, being the highest mounds on the seaward face of the flow. A prominent small cone-like ash formation of reddish hue is located some 200 meters SE of the station. This landmark is lower than the lava flows on each side of it but is visible from the beach.

Station and reference marks are standard bronze disks wedged in drill holes in boulders.

To reach station, land at base of old lava flow just W of grassy point with off-lying rock. Then proceed across lower lava flows to grassy area which leads to cinder tongue that extends all the way up to, and ends at, the red cinder patch mentioned above.

(continued on p. 3)

UNITED STATES COAST AND GEODETIC SURVEY  
Descriptions of Triangulation Stations

Seguam Island to Atka Island, Alaska.

VOLCAN (continued)

OBJECT	DISTANCE	DIRECTION
PFAU	meters feet	0°00'00"0
R.M.No.2	3.611 12.83	42 35
R.M.No.1	3.943 12.93	130 44

\*\*\*\*\*  
BALD (Aleutian Islands, Alaska, W.D.P., 1941)--Station is on the S side of Seguam Island, on the top of a high, long, rounding, grassy slope between 2 lava flows, and which terminates in a steep bluff. This bluff is about 1/4 mile back from the shore line, and directly inshore from the westerly end of a prominent boulder beach. The station is about 1/4 mile up the slope from the face of the bluff. It is best reached by way of the most westerly and oldest lava flow at the point where the general bluff line changes from E-and-W direction to a N-and-S direction.

Station and reference marks are standard disks cemented in drill holes in boulders.

No underground or azimuth marks were established.

OBJECT	DISTANCE	DIRECTION
PFAU	meters	0°00'00"0
R.M.No.2 (slope)	12.160	81 30 30
R.M.No.1 (slope)	6.140	330 55 20

\*\*\*\*\*  
BURN (Aleutian Islands, Alaska, W.D.P., 1941)--Station is on the S side of Seguam Island, roughly midway between stations POINT and PFAU, and about 1/3 mile E of a prominent boulder beach. The station is about 25 feet back from the edge of the bluff, at about 25 feet elevation, and in an area of lava rock that has been burned to a brownish color. It is about 100 meters W of the E end of the burned area.

Station and reference marks are standard disks cemented in depressions in outcropping lava rock.

Station not occupied.

Reference mark No.1 is distant 4.52 meters NW from station.

Reference mark No.2 is distant 1.47 meters NE from station.

No underground mark was established.

\*\*\*\*\*  
PFAU (Aleutian Islands, Alaska, W.D.P., 1941)--Station is on the S side of Seguam Island, and on the top of a high grassy topped headland. This headland is a continuation of the E side of the long grassy point on which station TURF is located.

The station is not on the highest point of the headland, but well toward the southerly end at approximately 350 feet elevation. It is about 3 meters inshore (W) of the point where the slope breaks sharply down to the beach, and stations PIKE and RUE are on range with the station.

Station is marked by a standard disk milled to fit inside a 3-inch pipe 30 inches long and secured by a collar and sleeve. The turf was removed around the station, and the mark projects about 2 inches.

Reference mark No.1 is SW of, and on same ridge as the station.

Reference mark No.2 is NW of the station, and on a small knoll. Both are marked by a standard disk of construction similar to the station mark, and project 8 inches.

No underground or azimuth marks were established.

OBJECT	DISTANCE	DIRECTION
MIL	meters	0°00'00"0
R.M.No.2 (slope)	31.548	69 21 50
R.M.No.1 (slope)	7.353	341 34 10

\*\*\*\*\*  
TURF (Aleutian Islands, Alaska, W.D.P., 1941)--Station is on the S side of Seguam Island, on the top, and at the seaward end of a long grassy point. This is the first grassy point E of the SW point of the island. The station is near the easterly end of the face of the point, 15 meters back from the top of the sharp slope down to the beach, and about opposite the middle of the extensive reef off the point.

The station is marked by a standard disk milled to fit inside a 3-inch pipe 30 inches long, and secured by a collar and sleeve. The turf was removed around the station, and the mark projects 2 inches.

The reference marks are standard disks set in pipe of construction similar to the station mark, and project 8 inches above the surface.

No underground or azimuth marks were established.

OBJECT	DISTANCE	DIRECTION
PFAU	meters	0°00'00"0
R.M.No.1	8.982	58 08 40
R.M.No.2	19.250	317 42 50

\*\*\*\*\*  
GREEN (Aleutian Islands, Alaska, W.D.P., 1941)--Station is on the S side of Seguam Island, on top of a high grassy topped headland, and at about 700 feet elevation. This is the first high headland westward of the long grassy point on which station TURF is located. The headland is topped by a long grassy slope, and its seaward face is notched by a deep draw. The station is on the westerly and higher of the two summits thus formed, and about 5 meters in from the point where the slope breaks sharply down to the beach. A large grassy-topped offshore rock bears 226 1/2° true.

The station is marked by a standard disk milled to fit inside a 3-inch pipe 30 inches long and secured by a collar and sleeve. The turf was removed around the station and mark projects about 2 inches.

Reference marks are standard disks set in pipe of same construction as the station mark, and project about 8 inches above the ground surface.

No underground or azimuth marks were established.

OBJECT	DISTANCE	DIRECTION
TURF	meters	0°00'00"0
R.M.No.1	13.940	172 30 10
R.M.No.2	10.445	276 31 00

\*\*\*\*\*  
PIKE (Aleutian Islands, Alaska, W.D.P., 1941)--This is an intersection point located on the large grassy topped rock SW of station GREEN.

The point observed upon is the highest tit on the low position of the rock near its southerly end. This is an unmarked intersection station.

\*\*\*\*\*  
RUE (Aleutian Islands, Alaska, W.D.P., 1941)--This station is a large rock off the SW point of Seguam Island. The top of the rock slopes upward, and terminates in a vertical face at the northward end.

The point observed upon is the small tit at the vertical face, this being the highest point of the rock. This is an unmarked intersection station.

\*\*\*\*\*  
MIL (Aleutian Islands, Alaska, W.D.P., 1941)--Station is at the E end of Amia Island on top of a high bluff about 700 feet in elevation; the N and E sides of this point are bold; and slope to the W and S.

Station and reference marks are standard disks set in iron pipes driven into the ground.

Reference mark No.1 is E of the station in range with highest point of Agligadak Island.

Reference mark No.2 is S of the station and in range with the right tangent of Tanadak Island.

Station is reached as follows: On the N side of Amia Island follow up the first draw E of the first high ridge W of the E point of the island to saddle thence easterly to E point of island.

OBJECT	DISTANCE	DIRECTION
IDA	meters	0°00'00"0
R.M.No.1	8.65	157 43 24.4
R.M.No.2	18.27	270 11 50.5
R.M.No.1 to R.M.No.2	23.00	

\*\*\*\*\*  
TIP (Aleutian Islands, Alaska, W.D.P., 1941)--Station is at the SE point of Amia Island on top of a prominent hill which breaks away sharply to the S and slopes to the N, E, and W.

Station and reference marks are standard disks set in the tops of 2 1/2-inch iron pipes driven into the ground.

OBJECT	DISTANCE	DIRECTION
CREST	meters	0°00'00"0
R.M.No.1 N (slope)	8.57	95 28 38.0
R.M.No.2 E	11.10	173 59 26.0
R.M.No.1 to R.M.No.2 (slope)	12.70	

\*\*\*\*\*  
AMLIA EAST BASE (Aleutian Islands, Alaska, W.D.P., 1941)--Station is about 1/2 mile W of the E end of Amia Island and about 250 yards S of the bluff line on the N side of the island. It is on top of a small grassy knoll and the line to W BASE to the SW has fewer undulations than locations to the E or W would give.

Station mark is a standard disk reduced in size and fastened on top of a section of 3-inch iron pipe.

Station is best reached from the N side of the island by landing on the small cobble stone beach about 1 mile W of the E end of the island, and then climbing up a gravel and grass-covered slope between 2 rock walls. The gravel at the bottom of the slope has a tendency to slide and a hand rope is a welcome aid.

No reference marks were established.

\*\*\*\*\*  
AMLIA WEST BASE (Aleutian Islands, Alaska, W.D.P., 1941)--Station is about 1 mile W of the E end of Amia Island, about 1/2 mile W of the pointed, prominent knoll on which station TIP is located, a short distance W of a group of large rocks, or small islands, along the S shore, and about 50 yards NW of the top of the bluff line in line to station TAN. The line to EAST BASE to the NE passes a few feet W of an indentation in the bluff about 50 meters NE of the station.

Station mark is a standard disk reduced in diameter and fastened on top of a section of 3-inch iron pipe.

See description of EAST BASE for best way to reach station.

No reference marks were established.

\*\*\*\*\*  
TAN (Aleutian Islands, Alaska, W.D.P., 1941)--The station is on the E side of Tanadak Island, on top of the most southerly knoll of three similar knolls which make up from the tableland of this island and terminate in a steep rocky bluff to the E.

The station was marked by a standard disk cemented in a drill hole at the center of the top of a 4-sided truncated pyramid, and buried flush with the surface of the ground.

The dimension of the rock in which the station was placed is as follows: 1 foot 8 inches high, 1 foot 8 by 11 inches at the base and 1 foot by 10 inches at the top.

Reference marks are standard disks, cemented in drill holes in the center of the top of rocks similar to the station mark rock and buried flush with the surface of the ground.

OBJECT	DISTANCE	DIRECTION
TIP	meters	0°00'00"0
R.M.No.2	4.448	166 26
R.M.No.1 (slope)	20.080	259 46 30

\*\*\*\*\*  
CREST (Aleutian Islands, Alaska, W.D.P., 1941)--Station is located on the southerly one of two prominent humps on top of a short N-and-S ridge about 2 miles W of the E end of Amia Island. The ridge slopes to the E-and-W.

Station and reference marks are standard disks set in the tops of 3-inch iron pipes driven into the ground.

Reference mark No.1 is N of the station on the northerly one of two humps on top of same ridge as station.

OBJECT	DISTANCE	DIRECTION
MIL	meters	0°00'00"0
R.M.No.2 (slope)	8.60	168 49 37.6
R.M.No.1	83.9	262 13 38.8

LIA (Aleutian Islands, Alaska, W.D.P., 1941)--The station is on the N side of Amlia Island and about 6 miles from the E end of the island, on a rocky point which makes out farthest to N at this point. The cliffs in back of this point are very high, steep and overhanging. A deep bight makes in just to the E of this point. There is another bight E of the above mentioned bight which terminates at the mouth of a large cave.

The station is on the rocky point about 1 meter in from the high-water line, and is marked by a standard disk set in concrete in a drill hole in rock. No reference marks were set. Station was not occupied.

\*\*\*\*\*

AM (Aleutian Islands, Alaska, W.D.P., 1941)--Station is on the N side of Amlia Island about 6 miles E of Cape Idalg, on the highest part of the Rocky Island which is separated from another island by a deep narrow channel.

This island is about 90 feet high and has a bold steep face to seaward at the base of which is a long flat surface washed fairly smooth by wave action.

Reference mark No.1 is a drill hole in a high knob to the E, 8.725 meters from station.

Reference mark No.2 is a drill hole in a high knob to the SSW, 5.165 meters from station. This station was not occupied.

\*\*\*\*\*

IDA (Aleutian Islands, Alaska, W.D.P., 1941)--Station is about midway and on the N side of Amlia Island, on the NW side of Cape Idalg, near a prominent rocky point. The station is located on top of a grassy hill, about 1,000 meters S of a prominent pinnacle rock on an off-lying rock island, and about 1 mile NE of a prominent mountain. The hill on which the station is located is the highest in the immediate vicinity, about 250 feet above and about 200 meters S of high water.

Station mark is stamped "IDA 1941" and projects about 4 inches above ground.

Station and reference marks are standard disks set in the tops of 2 1/2-inch iron pipes.

Reference mark No.1 is E of the station on line with the N tangent of Amlia Island. It is stamped "IDA NO.1, 1941" and projects about 3 inches above ground.

Reference mark No.2 is N of the station on line with a pinnacle rock on an off-lying rock island. It is stamped "IDA NO.2, 1941" and projects about 3 inches above ground.

Reference mark No.3 (Azimuth mark) is WSW of the station, on the N side of a slope, about 50 meters W of a small pond. It is stamped "IDA NO.3, 1941" and projects about 4 inches above ground. It is the S end station of IDA base line.

Reference mark No.4 (Azimuth mark) is NW of the station, on top and just back from edge of bluff. It is stamped "IDA NO.4, 1941" and projects about 4 inches above ground. It is the N end station of IDA base line.

OBJECT	DISTANCE	DIRECTION
CLIFF	meters	0°00'00"0
R.M.No.4 (Az.mk.)	411	04 19 57.8
R.M.No.2	21.625	70 20 30
R.M.No.1	24.430	166 00 00
R.M.No.3 (Az.mk.)	206	317 42 35.8

\*\*\*\*\*

PINNACLE ROCK (Aleutian Islands, Alaska, W.D.P., 1941)--Most prominent pinnacle rock about 1/2 mile off Cape Idalg, on the N side and central part of Amlia Island. It is about 50 meters SE of station IDA 2, being visible from both the E and W. It is the most prominent landmark on the N side of Amlia Island.

This is an unmarked intersection station.

\*\*\*\*\*

IDA NO.2 (Aleutian Islands, Alaska, W.D.P., 1941)--Station is about midway and on the N side of Amlia Island, on the NW side of Cape Idalg, on an off-lying rock island, in a group of small rock islands, at a prominent point of land. The station is about 75 meters W of a lone prominent 50-foot pinnacle rock, about 15 feet S and E of the NW corner of the island. It is about 6 feet above high water, and about 2 feet lower than the highest point on the W side of the islands.

Station mark is a standard disk stamped "IDA NO.2, 1941," cemented into a drill hole in rock. This station was established as an eccentric to IDA in order to observe station ROUND.

No reference marks were established.

\*\*\*\*\*

PEAK "C" (Aleutian Islands, Alaska, W.D.P., 1941)--This is the prominent cone-shaped peak 1,528 feet high located about 1 mile SW of station IDA on Cape Idalg, N shore and central part of Amlia Island. This is an unmarked intersection station.

\*\*\*\*\*

PEAK "D" (Aleutian Islands, Alaska, W.D.P., 1941)--This peak is on the N side, central part of Amlia Island, about 4 miles W of Cape Idalg. It is 2,080 feet high, about 1/2 mile inshore, and the northernmost of 2 peaks which form a prominent saddle. This is an unmarked intersection station.

\*\*\*\*\*

ROUND (Aleutian Islands, Alaska, W.D.P., 1941)--On the highest point of a prominent, grassy island off the N side of Amlia Island. The island is about 14 miles W of Cape Idalg, about 6 miles E of the W end of Amlia Island and is about 1/2 mile off a prominent point which puts out in a northerly direction. It is the largest off-lying island in this vicinity and is partly surrounded by large rocks.

The station and reference marks are standard disks set in the ends of sections of 3-inch pipe and driven into the ground.

OBJECT	DISTANCE	DIRECTION
SUN	meters	0°00'00"0
R.M.No.2	4.73	149 24
R.M.No.1 (slope)	5.22	243 34

\*\*\*\*\*

POG (Aleutian Islands, Alaska, H.B.C., 1934)--Locality: Atka Island (Nazan Bay). Station is located on the S shore of Nazan Bay.

Station mark is a standard disk cemented in a drill hole in

rock, and is on the highest point of a 6-foot rock at the offshore end of the reef off Ida Bay. Two high grass-covered rocks lie in this reef inshore and about halfway to the beach.

Reference marks are standard disks cemented in drill holes in bedrock.

OBJECT	DISTANCE	DIRECTION
PASS	meters	0°00'00"0
R.M.No.1	9.150	161 02 00
R.M.No.2	4.245	317 29 00

POG (Aleutian Islands, Alaska, H.B.C., 1934; W.D.P., 1941)--Recovered as described with the exception of Reference mark No.1.

Reference mark No.1 is marked by a copper cartridge shell wedged in a drill hole in the rock, not as described, by a disk. Reference mark No.2 is a standard disk cemented in drill hole in bedrock marked "POG II, 1934."

\*\*\*\*\*

PASS (Aleutian Islands, Alaska, H.B.C., 1934; W.D.P., 1941)--Locality: Atka Island (Nazan Bay). On the S shore of Nazan Bay, about halfway between Cape Utes and Ida Bay.

Station mark is a standard disk cemented into a drill hole in rock, on the highest point of the 10-foot rock at the offshore end of a reef. This reef extends off the point on the SW side of a small bay where the largest summer camp of Atka natives is located.

Reference mark No.1 is a standard disk set in a drill hole in rock. This mark is set in the top of another 10-foot rock just inshore of station and is set near the edge of this rock nearest station.

Reference mark No.2 is standard disk cemented in a drill hole in rock.

OBJECT	DISTANCE	DIRECTION
UTES	meters	0°00'00"0
R.M.No.1	11.326	228 44 07
R.M.No.2	5.097	336 30 27

PASS (Aleutian Islands, Alaska, H.B.C., 1934; W.D.P., 1941)--Recovered as described.

\*\*\*\*\*

KUDUGNAK (Aleutian Islands, Alaska, H.B.C., 1934; W.D.P., 1941)--Locality: Atka Island (Nazan Bay). Station is located on top of the knoll on the highest point of land on Cape Kudugnak.

Station is marked with a standard disk set in a concrete monument and is stamped "KUDUGNAK 1934."

Reference marks are standard disks, wedged in drill holes in outcropping bedrock.

Reference mark No.1 is stamped "NO.1, KUDUGNAK 1934."

Reference mark No.2 is stamped "NO.2, KUDUGNAK 1934."

OBJECT	DISTANCE	DIRECTION
BEACH	meters	0°00'00"0
R.M.No.1	11.472	29 25 48
R.M.No.2	10.388	69 21 38

KUDUGNAK (Aleutian Islands, Alaska, H.B.C., 1934; W.D.P., 1941)--Recovered as described. Original description adequate.

\*\*\*\*\*

CLIFF (Aleutian Islands, Alaska, W.D.P., 1941)--Station is on the E side of Atka Island, about 3 miles N of Cape Kudugnak, about 2 meters inshore from the edge of the highest rocky bluff N of broad valley separating the ridge the station is on and Kudugnak.

The station is on the only outcropping rocky mound in the vicinity and is a standard disk (turned down to 2 1/4 inches in diameter) cemented in a drill hole in the outcropping rock.

Reference marks are standard disks cemented in drill holes in outcropping rock.

OBJECT	DISTANCE	DIRECTION
SUN	meters	0°00'00"0
R.M.No.1	4.211	13.818
R.M.No.2	4.000	13.120

\*\*\*\*\*

SUN (Aleutian Islands, Alaska, W.D.P., 1941)--This station is on the easternmost point of Atka Island, about 5 miles NE of Cape Kudugnak. It is approximately 1/4 mile inshore and 170 feet above sea level. The station is on the highest mound in vicinity on this point. The grass was cleared off the top of the mound making it flat topped.

Station and reference marks are standard disks set in tops of 3-inch iron pipes, projecting about 6 inches above ground. No distances or directions to reference marks were taken.

\*\*\*\*\*

SHAW (Aleutian Islands, Alaska, W.D.P., 1941)--On the E side of Atka Island on a brown-topped knoll 450 feet high and about 1/2 mile in from the beach. It is about 1 1/2 miles S of a very definite small straight sand beach which is the mouth of a low valley. The knoll that the station is on forms part of a ridge, drops about 75 feet and then rises again as it continues inshore to a rock strewn shoulder some 800 feet high before continuing up the steep sides of the large peak. The station mark is 10 meters E of the highest part of the knoll.

Station mark is a standard disk cemented in a boulder.

Reference mark No.1 is a standard disk set in a small red lava boulder. Reference mark No.2 is a standard disk set in a large gray boulder about 2 feet high.

OBJECT	DISTANCE	DIRECTION
SUN	meters	0°00'00"0
R.M.No.1	11.502	37.740
R.M.No.2	11.554	37.910

\*\*\*\*\*



Alaska No. 58  
 UNITED STATES COAST AND GEODETIC SURVEY  
 Descriptions of Triangulation Stations  
Seswas Island to Atka Island, Alaska

INDEX

Name of Station	Page No.
Air	2
Am	4
Amia East Base	3
Amia West Base	3
Bald	3
Barb	1
Bos	2
Brown	1
Burn	3
Calm	1
Cliff	4
Cone	1
Cove	2
Crater	2
Crest	3
Pin	1
Finch	1
Fish	2
Flat Rock	1
Fog	4
Green	3
Guan	1
Ioy	2
Ida	4
Ida No. 2	4
Jag	2
Kudugnak	4
Lava	2
Lia	4
Lime Rock	1
Mid	1
Mil	3
Pass	4
Peak "G"	4
Peak "P"	4
Pfau	3
Pike	3
Pinnacle Rock	4
Point	2
Pyre	2
Round	4
Rue	3
Rum	2
Sam	2
Sen	1
Seswas South Base	1
Shaw	4
Side	1
Sun	4
Tan	3
Tip	3
Tit (1940)	1
Tit (1941)	1
Turf	3
Twin	2
Up	2
Vendo	2
Vulcan	2

# SEXTANT FIXES TO LOCATE SIGNALS ON SHEET D-41

1. At Point A  
 Rue and Turf in Range  
 Camel and Air in Range  
 Rue to Off 34 18.5  
 Rue-Oak 38 46  
 Rue-Ina 61 49  
 Rue-Zed 48 01  
 Rue-Una 58 44

2. At Point A  
 Rue-Off 34 23  
 Rue-Camel 62 03  
 Rue-Camel 62 04  
 Rue-Camel 62 05

3. At Point A  
 Rue-Off 34 23  
 Rue-Oak 38 51  
 Rue-Zed 48 05  
 Rue-Una 58 38  
 Rue-Ina 61 54

4. At Point A  
 Rue-Off 34 26  
 Rue-Oak 38 50  
 Rue-Zed 48 02  
 Rue-Una 58 36  
 Rue-Ina 61 50

5. Rue-Camel 81 08  
 Rue-Air 84 15  
 Rue-Oak 17 26  
 Rue-Ina 76 03  
 Rue-Una 63 13  
 Rue-Dim 45 09  
 Rue-Zed 34 15  
 Rue-Off In Range

6. Rue-Camel 80 33  
 Rue-Air 83 50  
 Rue-Oak 16 58  
 Rue-Ina 75 13  
 Rue-Dim 44 04  
 Rue-Zed 33 17  
 Rue-Una 61 58  
 Rue-Off In Range

7.	Off-Camel	78	11	
	Camel-Air	28	33	
	Ina-Camel	37	30	
8.	Off-Camel	76	32	
	Camel-Air	30	35	
	Oak-Camel	71	32	
	Una-Camel	60	27	
9.	Off-Camel	74	59	
	Camel-Air	32	27	
	Zed-Camel	68	30	
	Una-Camel	60	04	
10.	Off-Camel	72	26	
	Camel-Air	35	36	V.A. 0 45
	Oat-Camel	17	39	
	Slip-Camel	05	15	
	Dim-Camel	62	50	
	Camel-Ult	0	23	
11.	Off-Camel	54	48	
	Camel-Air	54	36	
	Off-Brown	113	33	
	Ina-Camel	36	22	
	Camel-Knob	28	17	
	Oat-Camel	14	42	
	Slip-Camel	1	03	
	Camel-Ult	0	10	
12.	Off-Air	109	43	0 58
	Air-Brown	04	21	0 42
	Camel-Air	55	56	
	Ina-Camel	36	06	
	Camel-Knob	28	51	
	Oat-Camel	14	29	
	Slip-Camel	0	46	
	Camel-Ult	0	10	
13.	Off	39	52	
	Ina	56	40	
	Air	56	40	
	Ina-Oat	16	12	
	Ina-Slip	25	24	
14.	Off	94	58	
	Air			1 54
	Tit	18	02	0 49



14.(contd)	Camel-Cow	81	58
	Camel-Air	75	42

15.	Off	94	05
	Air		
	Tit	18	07
	Cow-Tit	12	11
	Camel-Air	74	26

V.A.	1	54
	0	49

# INVERSE POSITION COMPUTATION

$$s_1 \sin \left( \alpha + \frac{\Delta\alpha}{2} \right) = \frac{\Delta\lambda_1 \cos \phi_m}{A_m}$$

$$s_1 \cos \left( \alpha + \frac{\Delta\alpha}{2} \right) = \frac{-\Delta\phi_1 \cos \frac{\Delta\lambda}{2}}{B_m}$$

$$-\Delta\alpha = \Delta\lambda \sin \phi_m \sec \frac{\Delta\phi}{2} + F(\Delta\lambda)^2$$

in which  $\log \Delta\lambda_1 = \log (\lambda' - \lambda)$  - correction for arc to sin\*;  $\log \Delta\phi_1 = \log (\phi' - \phi)$  - correction for arc to sin\*; and  $\log s = \log s_1 +$  correction for arc to sin\*.

		NAME OF STATION			
1. $\phi$	52 20 58.696	AIR	$\lambda$	172 34 23.536	
2. $\phi'$	52 14 58.643	Turf	$\lambda'$	172 32 10.167	
$\Delta\phi (= \phi' - \phi)$	6 00.053		$\Delta\lambda (= \lambda' - \lambda)$	2 13.369	
$\frac{\Delta\phi}{2}$	3 00.026		$\frac{\Delta\lambda}{2}$	1 06.684	
$\phi_m (= \phi + \frac{\Delta\phi}{2})$	52 17 58.669				
$\Delta\phi$ (secs.)	360.053		$\Delta\lambda$ (secs.)	133.369	
$\log \Delta\phi$	2.556 365		$\log \Delta\lambda$	2.125 055	
cor. arc - sin			cor. arc - sin		
$\log \Delta\phi_1$			$\log \Delta\lambda_1$		
$\log \cos \frac{\Delta\lambda}{2}$			$\log \cos \phi_m$	9.786 422	
$\text{colog } B_m$	1.490 090		$\text{colog } A_m$	1.491 196	
$\log \left\{ s_1 \cos \left( \alpha + \frac{\Delta\alpha}{2} \right) \right\}$	4.046 455 + (opposite in sign to $\Delta\phi$ )		$\log \left\{ s_1 \sin \left( \alpha + \frac{\Delta\alpha}{2} \right) \right\}$	3.802 674 -	
			$\log \left\{ s_1 \cos \left( \alpha + \frac{\Delta\alpha}{2} \right) \right\}$	4.046 455 +	
$\log \Delta\lambda$	2.125 055	$3 \log \Delta\lambda$	$\log \tan \left( \alpha + \frac{\Delta\alpha}{2} \right)$	9.856 218	
$\log \sin \phi_m$	9.898 297	$\log F$	$\frac{-\Delta\alpha}{\alpha + \frac{\Delta\alpha}{2}}$	347 12 19	
$\log \sec \frac{\Delta\phi}{2}$		$\log b$	$\log \sin \left( \alpha + \frac{\Delta\alpha}{2} \right)$	9.345 292	
$\log a$	2.023 352		$\log \cos \left( \alpha + \frac{\Delta\alpha}{2} \right)$	9.989 080	
a	105.52		$\log s_1$	4.057 375	
b			cor. arc - sin	+	
$-\Delta\alpha$ (secs.)	105.52		$\log s$		
$\frac{\Delta\alpha}{2}$	52.76				
$\alpha + \frac{\Delta\alpha}{2}$	347 12 19				
$\alpha$ (1 to 2)	347 11 26				
$\frac{\Delta\alpha}{2}$	1 46				
	180				
$\alpha'$ (2 to 1)	167 13 12				

\* Use the table on the back of this form for correction of arc to sin.

NOTE.—For  $\log s$  up to 4.52 and for  $\Delta\phi$  or  $\Delta\lambda$  (or both) up to 10', omit all terms below the heavy line except those printed (in whole or in part) in heavy type or those underscored, if using logarithms to 6 decimal places.

Table of arc-sin corrections for inverse position computations

$\log s_1$	Arc-sin correction in units of seventh decimal of logarithms	$\log \Delta\phi$ or $\log \Delta\lambda$	$\log s_1$	Arc-sin correction in units of seventh decimal of logarithms	$\log \Delta\phi$ or $\log \Delta\lambda$	$\log s_1$	Arc-sin correction in units of seventh decimal of logarithms	$\log \Delta\phi$ or $\log \Delta\lambda$	
4.177	1	2.686	5.223	124	3.732	5.525	497	4.034	
4.327	2	2.836	5.234	130	3.743	5.530	508	4.039	
4.415	3	2.924	5.243	136	3.752	5.534	519	4.043	
4.478	4	2.987	5.253	142	3.762	5.539	530	4.048	
4.526	5	3.035	5.260	147	3.769	5.543	541	4.052	
4.566	6	3.075	5.269	153	3.778	5.548	553	4.057	
4.599	7	3.108	5.279	160	3.788	5.553	565	4.062	
4.628	8	3.137	5.287	166	3.796	5.557	577	4.066	
4.654	9	3.163	5.294	172	3.803	5.561	588	4.070	
4.677	10	3.186	5.303	179	3.812	5.566	600	4.075	
4.697	11	3.206	5.311	186	3.820	5.570	613	4.079	
4.716	12	3.225	5.318	192	3.827	5.575	625	4.084	
4.734	13	3.243	5.326	199	3.835	5.579	637	4.088	
4.750	14	3.259	5.334	206	3.843	5.583	650	4.092	
4.765	15	3.274	5.341	213	3.850	5.587	663	4.096	
4.779	16	3.288	5.349	221	3.858	5.591	674	4.100	
4.792	17	3.301	5.356	228	3.865	5.595	687	4.104	
4.804	18	3.313	5.363	236	3.872	5.600	702	4.109	
4.827	20	3.336	5.369	243	3.878	5.604	716	4.113	
4.857	23	3.366	5.376	251	3.885	5.608	729	4.117	
4.876	25	3.385	5.383	259	3.892	5.612	743	4.121	
4.892	27	3.401	5.390	267	3.899	5.616	757	4.125	
4.915	30	3.424	5.396	275	3.905	5.620	771	4.129	
4.936	33	3.445	5.403	284	3.912	5.624	785	4.133	
4.955	36	3.464	5.409	292	3.918	5.628	800	4.137	
4.972	39	3.481	5.415	300	3.924	5.632	814	4.141	
4.988	42	3.497	5.422	309	3.931	5.636	829	4.145	
5.003	45	3.512	5.428	318	3.937	5.640	845	4.149	
5.017	48	3.526	5.434	327	3.943	5.644	861	4.153	
5.035	52	3.544	5.440	336	3.949	5.648	877	4.157	
5.051	56	3.560	5.446	345	3.955	5.652	893	4.161	
5.062	59	3.571	5.451	354	3.960	5.656	909	4.165	
5.076	63	3.585	5.457	364	3.966	5.660	925	4.169	
5.090	67	3.599	5.462	373	3.971	5.663	941	4.172	
5.102	71	3.611	5.468	383	3.977	5.667	957	4.176	
5.114	75	3.623	5.473	392	3.982	5.671	973	4.180	
5.128	80	3.637	5.479	402	3.988	5.674	989	4.183	
5.139	84	3.648	5.484	412	3.993	5.678	1005	4.187	
5.151	89	3.660	5.489	422	3.998				
5.163	94	3.672	5.495	433	4.004				
5.172	98	3.681	5.500	443	4.009				
5.183	103	3.692	5.505	453	4.014				
5.193	108	3.702	5.510	464	4.019				
5.205	114	3.714	5.515	474	4.024				
5.214	119	3.723	5.520	486	4.029				



COMPUTATION OF TRIANGLES

State: Sequoyia DO - Alaska

11-0121

NO.	STATION	OBSERVED ANGLE	CORR'N	SPHER'L ANGLE	SPHER'L EXCESS	PLANE ANGLE AND DISTANCE	LOGARITHM
	2-3						4.057 375 ✓
	1 Pt. A	(62 04 16) ✓					0.053 779 ✓
	2 AIR	44 19 59 ✓					9.844 370 ✓
	3 Turf	73 35 45 ✓					9.981 952 ✓
	1-3						3.955 524 ✓
	1-2						4.093 106 ✓
		179 58 120					
	2-3						
	1						
	2						
	3						
	1-3						
	1-2						
	2-3						
	1						
	2						
	3						
	1-3						
	1-2						
	2-3						
	1						
	2						
	3						
	1-3						
	1-2						

Do not write in this margin

POSITION COMPUTATION, THIRD-ORDER TRIANGULATION

		to 3		to 2		to 1		to 0		to 1		to 2		to 3		to 4		to 5		to 6		to 7		to 8		to 9		to 10		to 11		to 12		to 13		to 14		to 15		to 16		to 17		to 18		to 19		to 20		to 21		to 22		to 23		to 24		to 25		to 26		to 27		to 28		to 29		to 30		to 31		to 32		to 33		to 34		to 35		to 36		to 37		to 38		to 39		to 40		to 41		to 42		to 43		to 44		to 45		to 46		to 47		to 48		to 49		to 50		to 51		to 52		to 53		to 54		to 55		to 56		to 57		to 58		to 59		to 60		to 61		to 62		to 63		to 64		to 65		to 66		to 67		to 68		to 69		to 70		to 71		to 72		to 73		to 74		to 75		to 76		to 77		to 78		to 79		to 80		to 81		to 82		to 83		to 84		to 85		to 86		to 87		to 88		to 89		to 90		to 91		to 92		to 93		to 94		to 95		to 96		to 97		to 98		to 99		to 100		to 101		to 102		to 103		to 104		to 105		to 106		to 107		to 108		to 109		to 110		to 111		to 112		to 113		to 114		to 115		to 116		to 117		to 118		to 119		to 120		to 121		to 122		to 123		to 124		to 125		to 126		to 127		to 128		to 129		to 130		to 131		to 132		to 133		to 134		to 135		to 136		to 137		to 138		to 139		to 140		to 141		to 142		to 143		to 144		to 145		to 146		to 147		to 148		to 149		to 150		to 151		to 152		to 153		to 154		to 155		to 156		to 157		to 158		to 159		to 160		to 161		to 162		to 163		to 164		to 165		to 166		to 167		to 168		to 169		to 170		to 171		to 172		to 173		to 174		to 175		to 176		to 177		to 178		to 179		to 180		to 181		to 182		to 183		to 184		to 185		to 186		to 187		to 188		to 189		to 190		to 191		to 192		to 193		to 194		to 195		to 196		to 197		to 198		to 199		to 200		to 201		to 202		to 203		to 204		to 205		to 206		to 207		to 208		to 209		to 210		to 211		to 212		to 213		to 214		to 215		to 216		to 217		to 218		to 219		to 220		to 221		to 222		to 223		to 224		to 225		to 226		to 227		to 228		to 229		to 230		to 231		to 232		to 233		to 234		to 235		to 236		to 237		to 238		to 239		to 240		to 241		to 242		to 243		to 244		to 245		to 246		to 247		to 248		to 249		to 250		to 251		to 252		to 253		to 254		to 255		to 256		to 257		to 258		to 259		to 260		to 261		to 262		to 263		to 264		to 265		to 266		to 267		to 268		to 269		to 270		to 271		to 272		to 273		to 274		to 275		to 276		to 277		to 278		to 279		to 280		to 281		to 282		to 283		to 284		to 285		to 286		to 287		to 288		to 289		to 290		to 291		to 292		to 293		to 294		to 295		to 296		to 297		to 298		to 299		to 300		to 301		to 302		to 303		to 304		to 305		to 306		to 307		to 308		to 309		to 310		to 311		to 312		to 313		to 314		to 315		to 316		to 317		to 318		to 319		to 320		to 321		to 322		to 323		to 324		to 325		to 326		to 327		to 328		to 329		to 330		to 331		to 332		to 333		to 334		to 335		to 336		to 337		to 338		to 339		to 340		to 341		to 342		to 343		to 344		to 345		to 346		to 347		to 348		to 349		to 350		to 351		to 352		to 353		to 354		to 355		to 356		to 357		to 358		to 359		to 360		to 361		to 362		to 363		to 364		to 365		to 366		to 367		to 368		to 369		to 370		to 371		to 372		to 373		to 374		to 375		to 376		to 377		to 378		to 379		to 380		to 381		to 382		to 383		to 384		to 385		to 386		to 387		to 388		to 389		to 390		to 391		to 392		to 393		to 394		to 395		to 396		to 397		to 398		to 399		to 400		to 401		to 402		to 403		to 404		to 405		to 406		to 407		to 408		to 409		to 410		to 411		to 412		to 413		to 414		to 415		to 416		to 417		to 418		to 419		to 420		to 421		to 422		to 423		to 424		to 425		to 426		to 427		to 428		to 429		to 430		to 431		to 432		to 433		to 434		to 435		to 436		to 437		to 438		to 439		to 440		to 441		to 442		to 443		to 444		to 445		to 446		to 447		to 448		to 449		to 450		to 451		to 452		to 453		to 454		to 455		to 456		to 457		to 458		to 459		to 460		to 461		to 462		to 463		to 464		to 465		to 466		to 467		to 468		to 469		to 470		to 471		to 472		to 473		to 474		to 475		to 476		to 477		to 478		to 479		to 480		to 481		to 482		to 483		to 484		to 485		to 486		to 487		to 488		to 489		to 490		to 491		to 492		to 493		to 494		to 495		to 496		to 497		to 498		to 499		to 500		to 501		to 502		to 503		to 504		to 505		to 506		to 507		to 508		to 509		to 510		to 511		to 512		to 513		to 514		to 515		to 516		to 517		to 518		to 519		to 520		to 521		to 522		to 523		to 524		to 525		to 526		to 527		to 528		to 529		to 530		to 531		to 532		to 533		to 534		to 535		to 536		to 537		to 538		to 539		to 540		to 541		to 542		to 543		to 544		to 545		to 546		to 547		to 548		to 549		to 550		to 551		to 552		to 553		to 554		to 555		to 556		to 557		to 558		to 559		to 560		to 561		to 562		to 563		to 564		to 565		to 566		to 567		to 568		to 569		to 570		to 571		to 572		to 573		to 574		to 575		to 576		to 577		to 578		to 579		to 580		to 581		to 582		to 583		to 584		to 585		to 586		to 587		to 588		to 589		to 590		to 591		to 592		to 593		to 594		to 595		to 596		to 597		to 598		to 599		to 600		to 601		to 602		to 603		to 604		to 605		to 606		to 607		to 608		to 609		to 610		to 611		to 612		to 613		to 614		to 615		to 616		to 617		to 618		to 619		to 620		to 621		to 622		to 623		to 624		to 625		to 626		to 627		to 628		to 629		to 630		to 631		to 632		to 633		to 634		to 635		to 636		to 637		to 638		to 639		to 640		to 641		to 642		to 643		to 644		to 645		to 646		to 647		to 648		to 649		to 650		to 651		to 652		to 653		to 654		to 655		to 656		to 657		to 658		to 659		to 660		to 661		to 662		to 663		to 664		to 665		to 666		to 667		to 668		to 669		to 670		to 671		to 672		to 673		to 674		to 675		to 676		to 677		to 678		to 679		to 680		to 681		to 682		to 683		to 684		to 685		to 686		to 687		to 688		to 689		to 690		to 691		to 692		to 693		to 694		to 695		to 696		to 697		to 698		to 699		to 700		to 701		to 702		to 703		to 704		to 705		to 706		to 707		to 708		to 709		to 710		to 711		to 712		to 713		to 714		to 715		to 716		to 717		to 718		to 719		to 720		to 721		to 722		to 723		to 724		to 725		to 726		to 727		to 728		to 729		to 730		to 731		to 732		to 733		to 734		to 735		to 736		to 737		to 738		to 739		to 740		to 741		to 742		to 743		to 744		to 745		to 746		to 747		to 748		to 749		to 750		to 751		to 752		to 753		to 754		to 755		to 756		to 757		to 758		to 759		to 760		to 761		to 762		to 763		to 764		to 765		to 766		to 767		to 768		to 769		to 770		to 771		to 772		to 773		to 774		to 775		to 776		to 777		to 778		to 779		to 780		to 781		to 782		to 783		to 784		to 785		to 786		to 787		to 788		to 789		to 790		to 791		to 792		to 793		to 794		to 795		to 796		to 797		to 798		to 799		to 800		to 801		to 802		to 803		to 804		to 805		to 806		to 807		to 808		to 809		to 810		to 811		to 812		to 813		to 814		to 815		to 816		to 817		to 818		to 819		to 820		to 821		to 822		to 823		to 824		to 825		to 826		to 827		to 828		to 829		to 830		to 831		to 832		to 833		to 834		to 835		to 836		to 837		to 838		to 839		to 840		to 841		to 842		to 843		to 844		to 845		to 846		to 847		to 848		to 849		to 850		to 851		to 852		to 853		to 854		to 855		to 856		to 857		to 858		to 859		to 860		to 861		to 862		to 863		to 864		to 865		to 866		to 867		to 868		to 869		to 870		to 871		to 872		to 873		to 874		to 875		to 876		to 877		to 878		to 879		to 880		to 881		to 882		to 883		to 884		to 885		to 886		to 887		to 888		to 889		to 890		to 891		to 892		to 893		to 894		to 895		to 896		to 897		to 898		to 899		to 900		to 901		to 902		to 903		to 904		to 905		to 906		to 907		to 908		to 909		to 910		to 911		to 912		to 913		to 914		to 915		to 916		to 917		to 918		to 919		to 920		to 921		to 922		to 923		to 924		to 925		to 926		to 927		to 928		to 929		to 930		to 931		to 932		to 933		to 934		to 935		to 936		to 937		to 938		to 939		to 940		to 941		to 942		to 943		to 944		to 945		to 946		to 947		to 948		to 949		to 950		to 951		to 952		to 953		to 954		to 955		to 956		to 95	
--	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	-------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	--------	--	-------	--

SEXTANT FIXES TO LOCATE SIGNALS ON SHEET E-41

1.	Air	15	37.5	V.A.	0	47
	Tit				3	11
	Brown	106	55		1	25
	Tit-Cairn	110	59.5		2	52
	Air-Ledge	38	11			
	Air-Round	47	46			
	Air-Apex	62	20.5			
2.	Air	15	39			
	Tit					
	Brown	106	43			
	Tit-Cairn	110	53			
	Air-Wall	79	36			
	Air-Notch	91	09			
	Air-Small	101	34			
3.	Air	15	34.5			
	Tit					
	Brown	106	42			
	Tit-Cairn	110	56			
	Air-Gush	105	31	Gush	1	06
	Air-Tea	115	16			
	Air-Side	123	20			
4.	Air	15	34			
	Tit					
	Brown	106	45			
	Tit-Cairn	110	59			
	Air-Apex	62	02			
	Apex-Tiny	63	22			
	Apex-Wet	69	20.5			
5.	Air	15	36.5			
	Tit					
	Brown	106	30			
	Tit-Cairn	110	48			
	Air-Apex	61	58			
	Apex-Bulk	73	44			
	Apex-Sand	86	18	-4° I.C.		
	Apex-Slant	84	07.5			
6.	Air	15	34			
	Tit					
	Brown	106	36			

6.(contd)	Tit-Cairn	110	57
	Air-Apex	61	56
	Apex-Min	82	03
	Apex-Black	86	44
	Apex-Out	88	56

7.	Air	15	30.5
	Tit		
	Brown	107	12
	Tit	110	22.5
	Air-Peak	30	51

8.	Air	18	58	V.A.	0	51
	Tit				01	34
	Brown	107	11		02	47
	Flat-Brown	100	20			

9.	Air	39	54.5	1	10
	Tit			2	08
	Brown	85	56	1	58
	Air-New	49	11		
	Air-Flat	55	01		
	Air-Peak	69	18		
	Air-Ledge	79	51		
	Air-Round	88	23		

10.	Air	39	45		
	Tit				
	Brown	84	40		
	Air-Apex	98	22		
	Air-Wall	106	12		
	Air-Notch	112	17		
	Air-Small	116	12		
	Air-Gush	116	05	0	41.5

11.	Air	41	31
	Tit		
	Brown	83	33
	Air-Apex	98	37
	Apex-Tea	24	11
	Apex-Side	29	42
	Round-Tiny	39	20
	Apex-Bulk	35	05

12.	Air	41	40.5
	Tit		
	Brown	83	22.5
	Air-Apex	98	37



12.(contd)	Apex-Tea	24	04		
	Apex-Side	29	35		
	Apex-Tiny	29	42		
	Apex-Bulk	34	59		
13.	Air	42	01	V.A.	1 09
	Tit				2 10
	Brown	82	44		1 53
	Tit-Slant	96	44		
	Tit-Band	97	20		
14.	Air	42	17		
	Tit				
	Brown	82	41		
	Tit-D	73	00	1	50
	Tit-E	67	11	1	27
15.	Air	42	25		
	Tit			2	10
	Brown	82	26		
	Tit-Bare Hill	68	45	2	26
	Under-Brown	82	52		
16.	Air	42	33		
	Tit				
	Brown	82	25		
	Snow-Brown	81	42		
	F-Tit	28	30	1	25
17.	Air	42	47	1	10
	Tit				
	Brown	82	06		
	Tit-W fall	87	50		
	Air-Sad	1	15 (hor. angle)	1	22 for elev. Sad.
18.	Brown	59	00	1	21
	Line				
	Sam	37	53		
	Cairn-Line	34	38		
	Zone-Line	20	31		
	Foo-Line	41	01		
	Ina-Line	55	07		
	Slant-Line	65	42		
19.	Brown	58	08	1	17
	Line				
	Sam	31	45		
	Cairn-Line	33	47	2	42
	Zone-Line	17	09		

19. (contd)	Foo-Line	35	14
	Ins-Line	49	50.5
	Slant-Line	63	41

20.	Brown	70	57	V.A.	1	40
	Line					
	Sam	6	24			
	Cairn-Line	40	12		2	56
	Zone-Line	11	19			
	Foo-Line	23	33			
	Ins-Line	39	50			
	Slant-Line	74	56			

21.	Brown	70	10		1	34
	Line					
	Sam	08	30			
	Cairn-Line	40	05		2	55
	Zone-Line	12	04			
	Foo-Line	25	17			
	Ins-Line	41	59			
	Slant-Line	72	12			
	Black-Line	56	19			

22.	Brown	73	21		1	37
	Line					
	Sam	07	19.5			
	Cairn-Line	42	01		3	03
	Min-Line	78	45			
	Foo-Line	26	06			
	Ins-Line	43	55.5			
	Slant-Line	75	48			
	Side-Line	81	17			

23.	Tit	40	33		0	36
	Brown				2	28
	Line	70	32			
	Brown-Cairn	33	40		3	11
	Zone-Line	06	09			
	Foo-Line	10	17			
	Ins-Line	17	47.5			
	Slant-Line	61	07			
	Side-Line	82	32			

24.	Tit	45	34		0	39
	Brown				2	57
	Finch	69	04		0	54
	Brown-Cairn	37	29		3	37
	Min-Finch	66	09			0
	Apex-Finch	100	03			0
	Small-Finch	84	55			0
	...ch-Finch	90	40			0

25.	Tit	74	29	V.A.	0	55
	Brown				3	30
	Mid	27	41		2	50
	Side-Mid	39	59			03
	Side-Min	32	08			
	Apex-Side	37	42			
	Peak-Side	53	20.5			
	Small-Side	11	28			
	Notch-Side	20	43			
26.	Air	30	33		0	57
	Tit				1	36
	Brown	84	18		2	08
	Air-Under	30	04		0	01
	Dor-Under	21	27			
	Eat-Under	33	37			
	Under-New	7	40.5			
	Mag-Under	35	09			
	Gir-Under	12	56			
27.	Air	25	46		0	54
	Tit				1	33
	Brown	90	15		2	23
	Air-Under	25	06			01
	Dor-Under	18	12			
	Ear-Under	28	34			
	Under-New	7	30			
	Mag-Under	30	09			
	Gir-Under	11	04			
28.	Air	63	37		1	35
	Tit				2	00
	Brown	52	48		1	30
	Air-Under	64	06			0
	Dor-Under	41	49			
	Eat-Under	69	20			
	Under-New	5	10			
	Mag-Under	70	48			
	Gir-Under	22	40			
29.	Air	60	05.5		1	49
	Tit				1	25
	Brown	30	39		1	10
	Air-Under	60	41			01
	Dor-Under	28	40			
	Eat-Under	64	50.5			



29.(contd)	Under-New	01	15.5
	Mag-Under	63	12
	Gir-Under	13	23

30.	Air	47	07	V.A.	1	18
	Tit				1	09
	Cairn	33	53		1	32
	Air-Under	47	30		0	01
	Star-Under	60	04.5			
	Ult-Under	67	09			
	Mag-Under	49	04			
	Cow-Under	53	20			
	-Under	58	21			







## Remarks

## Decisions

1	On T6866: E. of Seguin I. OK for title as it is U.S. 6-8 decision	
2		520720 U.S. 6-8
3		520725
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
M 234		

## GEOGRAPHIC NAMES

Survey No.

T6867

Name on Survey

On Chart  
No.On previous survey  
No.On U. S. quadrangle  
MapsFrom local  
information

On local Maps

P. O. Guide or Map

Rand McNally Atlas

U. S. Light List

A,

B,

C,

D

E

F

G

H

K

~~Amukta Pass~~Seguam IslandSeguam Pass

Names underlined in red approved

by L. Heck on 6/18/42

Turf Point

Rue Ledge

see coast pilot

do.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

M 234

## Remarks.

## Decisions

1	For title only.	520715 U.S.-B
2		520720 "
3		"
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		



# GEOGRAPHIC NAMES

Survey No. **T6868**

Name on Survey

	On Chart No.	On previous survey No.	On U. S. quadrangle Maps	From local information	On local Maps	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List	
A,	B,	C,	D	E	F	G	H	K	
<u>Amukta Pass</u>									1
<u>Seguam Island</u>									2
<u>Bering Sea</u>									3
									4
									5
									6
Turf Point			See Coast Pilot.						7
Rue Ledge			7						8
Camel Islet			4						9
Saddle Ridge Pt			2						10
									11
									12
									13
									14
									15
									16
									17
									18
									19
									20
									21
									22
									23
									24
									25
									26
									27

Names underlined in red approved  
by L. Heck on 6/18/42

# MEMORANDUM

## IMMEDIATE ATTENTION

SURVEY  
DESCRIPTIVE REPORT  
PHOTO STAT OF

No. H  
~~No. H~~

No. T T6867  
~~No. T T6867~~

received March 26, 1942  
registered April 8, 1942  
verified  
reviewed  
approved

This is forwarded in order that your attention may be directed to the matters as indicated below. Please initial in column 3 as an acknowledgement that your attention has been thus directed. The complete original records are available if desired. If you cannot give this your immediate attention, please initial, note, and forward to the next section marked, calling for the records at your convenience.

ROUTE		Initial	Attention called to
20			
22			
24			
25			
26			
30			
40			
62			
63			
82			
83			
88			
90			

RETURN TO

82	R. W. Knox
----	------------

*RWC*

# MEMORANDUM

## IMMEDIATE ATTENTION

SURVEY  
DESCRIPTIVE REPORT  
PHOTOSTAT OF

~~No. 11~~

No. T **T6863**  
~~XXXXXXXXXX~~

received March 26, 1942  
registered April 8, 1942  
verified  
reviewed  
approved

This is forwarded in order that your attention may be directed to the matters as indicated below. Please initial in column 3 as an acknowledgement that your attention has been thus directed. The complete original records are available if desired. If you cannot give this your immediate attention, please initial, note, and forward to the next section marked, calling for the records at your convenience.

ROUTE		Initial	Attention called to
20			
22			
24			
25			
26			
30			
40			
62			
63			
82			
83			
88			
90			

RETURN TO

82	R. W. Knox
----	------------

*RW*

DIVISION OF CHARTS

SURVEYS BRANCH

REVIEW OF TOPOGRAPHIC SURVEY

REGISTRY NOS. 6867

6868

Field Nos. D & E

Aleutian Islands; West and North Sides of Segum Island  
Surveyed August and September 1941; Scale 1:20,000  
Instructions dated February 3, 1938

Plane Table Survey

Aluminum Mounted

Chief of Party - F. B. T. Siems

Surveyed by - Ship's Officers

Inked by - E. R. McCarthy

Reviewed by - G. F. Jordan

Inspected by - H. R. Edmonston, January 12, 1942

1. Junctions with Contemporary Surveys

These two surveys make satisfactory junction with each other at the northwest point of the island. Satisfactory junctions are made by T-6867 (1941) on the southeast with T-6869 (1941) and by T-6868 (1941) on the northwest with T-6866 (1941).

2. Comparison with Prior Surveys

This is an original survey, and there are no prior surveys by this Bureau.

3. Comparison with Chart 8802 (print of Aug. 31, 1942)

a. Topography

This chart is of such small scale that a comparison with the present survey is not feasible.

b. Magnetic Meridian

The magnetic observation on T-6867 is in satisfactory agreement with the charted value. The Descriptive Report does not note that the declinoire had been checked.



4. Compliance with Instructions for the Project

The survey complies with the instructions with the exception that form lines are incomplete, as noted in the Descriptive Report.

5. Condition of Survey

a. Random traverses run on the west and northwest sides of the island were originally drawn on the reverse sides of the survey sheets in this area and transferred to the present surveys. A considerable number of errors and omissions were found in comparing the original work with the smooth sheets.

b. The Descriptive Report is very comprehensive and covers all matters of importance.

6. Additional Field Work

The completion of form lines would be desirable whenever work is resumed in this area.


Some elevations  
and form lines  
added from  
data submitted  
by F.B.T. Siems.  
J.A.M., 1/29/44.


7. Superseded Surveys


This is an original survey.

Examined and approved:

  
Chief, Surveys Branch

  
Chief, Division of Charts

  
Chief, Section of Hydrography

  
Chief, Division of  
Coastal Surveys