Form 804

U.S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey: Topographic

Project 24050 T-8560 thru
Field No. (Ph-34) Office No. T-8563

LOCALITY

State: Alaska

General locality: Rat Islands of Aleutian Islands
Locality: Semisopochnoi Island

1949-53

CHIEF OF PARTY
H.E. Finnegan, Chief of Field Party
L.W. Swannan, Div. of Photo. Wash, D.C.

LIBRARY & ARCHIVES

DATE: May 23, 1958
DATA RECORD

8560 Semisophochnoi Is. N.W.
8561 "    N.E.
8562 "    S.W.
8563 "    S.E.

Project No. (II): Ph 34(24050) Quadrangle Name (IV):

Field Office (II): USC&GSSPIONEER
Chief of Party: Henry E. Finnegan

Photogrammetric Office (III): Washington, D.C. Officer-In-Charge: L. W. Swanson

Instructions dated (II) (III): 3 February 1948
Supplemental instructions: 18 March 1944
10 February 1948
8 April 1948

Copy filed in Division of Photogrammetry (IV)

Method of Compilation (III): Reading Plotters

Manuscript Scale (III): 1:20,000
Scale Factor (III): none

Date received in Washington Office (IV):

Applied to Chart No. Date: Date registered (IV): 29 Mar. 1958

Publication Scale (IV):

Geographic Datum (III): NA 1927

Vertical Datum (III): MSL
Mean sea level except as follows:
Elevations shown as (2) refer to mean high water
Elevations shown as (3) refer to sounding datum
i.e., mean low water or mean lower low water

Reference Station (III):

Lat.: Long.: Adjusted
Unadjusted

Plane Coordinates (IV):

State: UTM Zone: 60

Roman numerals indicate whether the item is to be entered by (II) Field Party, (III) Photogrammetric Office,
or (IV) Washington Office.

When entering names of personnel on this record give the surname and initials, not initials only.
Areas contoured by various personnel
(Show name within area)
(II) (III)
DATA RECORD

Field inspection by (II): Ernest B. Lewey Date: June-Sept. 1949

Planetable contouring by (II): none Date:

Completion Surveys by (II): none Date:

Mean High Water Location (III) (State date and method of location):
September 1953 (photography) by stereocompilation

Projection and Grids ruled by (IV): A. Riley Date: 8/31/54

Projection and Grids checked by (IV): A. Riley Date: 9/1/54

Control plotted by (III): C. O. DeMarr Date: Sept. 15, 1954

Control checked by (III): J. Aurburn Date: Sept. 16, 1954

Radial Plot or Stereoscopic
Control extension by (III): J. Battley, Jr. Date: Nov. 2, 1956

Stereoscopic Instrument compilation (III):
Planimetry

C. Misfeldt Date: Jan. 1957

Contours

W. Heinbaugh Date: Jan. 1957

Manuscript delineated by (III):
C. Misfeldt Date: Jan. 1957

W. Heinbaugh

Photogrammetric Office Review by (III): L. Levin Date: Feb. 12, 1957

Elevations on Manuscript
checked by (II) (III): L. Levin Date: Feb. 12, 1957
PHOTOGRAPHS (III)

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(from appended tabulation prepared by Div. of Tides)

Tide (III)

Reference Station: Sweeper Cove (observed)

Subordinates Station:

Subordinates Station:

Washington Office Review by (IV):

Final Drafting by (IV):

Drafting verified for reproduction by (IV): W.O. Kehlmeir

Proof Edit by (IV):

Land Area (Sq. Statute Miles) (III):

Shoreline (More than 200 meters to opposite shore) (III):

Shoreline (Less than 200 meters to opposite shore) (III):

Control Leveling - Miles (II):

Number of Triangulation Stations searched for (II): Recovered: Identified:

Number of BMs searched for (II):

Number of Recoverable Photo Stations established (III):

Number of Temporary Photo Hydro Stations established (III):

Remarks:
### Tides: Hourly Heights

Station: Semisopchino Island, Aleutian Is.
Observer: [Name]
Year: 1953

Time Meridian: 165°W
Height datum is MLLW, which is __ ft. below B.M.

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Divisor = (28d) 672; (39d) 666; (30d) 720; (31d) 744. Mean for month = [Calculate]

Tabulated by: [Name] Date: [Date] Summed by: [Name] Date: [Date]
FIELD INSPECTION REPORT FOR AIR PHOTOGRAPHS

South Side of Little Sitkin Island and Semisopochnoi Island

Rat Islands, Aleutian Islands

Project CS-218  Ship PIONEER  H.E. Finnegan, Comdg.

Season of 1949

INSTRUCTIONS:

Original Instructions for this Project were dated 3 February 1938. Applicable Supplemental Instructions were dated 18 March 1944, 10 February 1948, and 8 April 1948. (Items 2, 9, 10, and 11 of the attached List of Instructions).

PHOTOGRAPHS USED:

Little Sitkin Island:

(Note: This report covers the field inspection of the southern part of Little Sitkin Island, which was done in 1949. The remainder of the island was field inspected in 1948).

Coverage of Little Sitkin Island is on U.S. Navy five lens photographs, flown in 1935, approximate scale 1-30,000; and U.S. Army single lens photographs, flown in 1943, approximate scale 1-40,000. Neither set of photographs give good coverage of the southern tip of the island, the Army photos did not extend far enough south and clouds obscured this part of the island on the Navy photos. The Army photos are quite clear, but their small scale made them very difficult to work with. The Navy photos are indistinct and it is difficult to delineate detail on them.

No further field work will be necessary on the southern tip of the island when better photographs are available, since sufficient notes were made on the photos which were field inspected this year.

The following photographs were field inspected: U.S. Army, 1943, WW43; and U.S. Navy, 1935, Nos. 595 and 596.

A section of TOPOGRAPHIC MANUSCRIPT T9134 (Advance Copy), which was field edited, is submitted with this report.
PHOTOGRAPHS USED: (Continued)

Semisopochnoi Island:

The only photographs available for field inspection on Semisopochnoi Island were U.S. Navy Photos flown in 1935 to an approximate scale of 1:30,000. These photos are indistinct and it was difficult to delineate detail on them. Also, the scale is smaller than is desired for field inspection.

The following photographs were field inspected: U.S. Navy, 1935, Nos. 739, 741, 742, 745, 748, 750, 752, 753, 757, 758, 759, 760, 761, 765, 766, 767, 771, 773, 779, 782, 785.

PERSONNEL:

All field inspection was done by LCDR. E. B. Lewey.

ABBREVIATIONS:

Abbreviation of descriptive notes used for field inspection were tabulated. A sheet of these abbreviations is included with this report.

FIELD INSPECTION:

Little Sitkin Island:

See AIR PHOTO REPORT of Field Inspection, Rat Islands, Ship PIONEER, 1948, for General Description, Streams, Lakes, and Lagoons.

Semisopochnoi Island:

General Description: Prominent features of Semisopochnoi Island are:

1. Two volcanic peaks topping the mountain on the northwest side of the island, the northeasterly of the two being the highest and most prominent peak on the island. It is 4005 feet high and is rather symmetrical in shape with steep slopes on all sides and has a large flat top to the northeast of the highest tip.

2. Three cones in the southwest center of the island, the highest of which (the northwesterly one) is 2669 feet. Actually, there are deep craters inside the cones, but from offshore they appear as conical shaped flat-topped peaks.

3. Two volcanoes on the south tip of the island; one 1620 feet high, and the other (northerly of the two) 2862 feet high. Both are conical shaped and have steep slopes, particularly to the east and south.
FIELD INSPECTION (Continued):

4. Two jagged peaks on the southeast side of the island. These peaks are quite sharp and ragged and are probably the most easily identified of any peaks on the island. They are slightly over 3000 feet in elevation.

5. A peak on the northeast side of the island which is 2928 feet high. It is on the north side of a deep valley and is not as symmetrical in shape as are most other peaks on the island. The high point is on the north end of a sharp ridge.

6. A deep valley extending inland from the prominent bight on the east side of the island. The valley is about 0.6 miles in width at its eastern end and rises gradually to the westward for a distance of approximately 1.5 miles, then rises rapidly to a saddle around 500 feet in height and drops off again into a crescent shaped valley in the center of the island. The inner valley is less than 300 feet in elevation.

There are two other rather prominent valleys reaching inland, one from the southeast side of the island, and one from the bight on the west side of the island; but neither are as prominent as the one discussed above.

Generally, the shoreline of the entire island is rocky and is backed by steep bluffs and cliffs from a few feet to several hundred feet high. The island is ragged and rough, being badly cut up with deep gullies. Due to the roughness of the terrain, travel over most of the island is difficult by foot and impossible by vehicle.

Shoreline: (Note: Names used in this report, other than charted names, are indicated on U.S. Army Quad. Maps and are for identification purposes only. They are not necessarily recommended for Geographic Names).

ESE Bight: There is a sand beach, 600-700 meters in length, in the north center of ESE Bight. The slope of the beach is gentle, the low waterline averages about 25 meters from the high waterline. A sand bar appears at times 10-25 meters offshore from the low waterline and hinders landing on the beach at such times. The bar comes and goes with the storms. Dry ramp landings may be made on the beach when the bar is not in evidence, but wet landings result when the bar is present. However, most vehicles may ford the intervening water from the bar to the beach. It is difficult to hold a landing craft on the bar when there is much swell and such operations are restricted to almost flat seas. Exit from the beach is hindered only by sand and dirt banks 20 to 50 feet high. The best landing spot is just south of the stream emptying into the approximate center of the bight and it can be identified (at present) by a hut that stands on the bank just north of the stream. The southern portion of the head of this bight has a boulder beach with some boulders 10-30 meters off the waterline in shoal water. These boulders make beaching of landing craft inadvisable, though landings by skiff or dory can usually be made. The north shore of the bight is formed by vertical rocky cliffs with large boulders at the waterline. The south shore has boulder beaches backed by steep rocky bluffs.
FIELD INSPECTION (Continued):

ESE Head is fringed with rocky ledges and foul areas to 200 meters offshore and has heavy kelp to approximately the same distance. The shoreline is backed by steep rocky bluffs.

Southwestward of ESE Head for a distance of two and one-half miles, the shoreline is at the foot of steep dirt, grass, and rocky bluffs with large boulders at the waterline. The only dangers along this stretch of shoreline are occasional boulders 10-30 meters offshore. The shore is fringed with kelp to about 100 meters offshore.

SSE Bay: This slight indentation is backed with a small low valley extending about a mile to the northwest and is marked with a sharp rocky point to the northeast. A perennial stream empties into the approximate center of the bay and at present a shack stands on the south bank near the shoreline. The bay has a sand beach approximately 300 meters in length, but it is quite flat and dry ramp landings are never possible. Landings are difficult at any time and impossible when there is much swell. The portion of the beach south of the stream is strewn with large boulders. South of SSE Bay to Sugarloaf Knob there are boulder beaches backed by moderately steep grass slopes with no offlying dangers. Sugarloaf Knob is fringed with kelp to 100 meters offshore.

Sugarloaf Head: The shoreline around Sugarloaf Head lies at the base of vertical rocky cliffs. There are boulders at the waterline with some rocky ledges, but there are no dangers more than 50 meters offshore. Back of the shoreline are steep slopes up to the two volcanoes. The slopes are lava flows and ash and are covered by tundra on the lower levels.

South Point to Southwest Knob: The shoreline is at the base of steep cliffs and bluffs, in general, and is rugged with many jutting rocky ledges, narrow rocky points, offlying rocks and pinnacles. However, there are no underwater dangers more than 100 meters offshore, except (1) off the rocky point 0.8 miles northwest of South Point and (2) off SSW Point. A cluster of sunken rocks lies approximately 200 meters off the first mentioned point and a sunken rock lies 150 meters off the center of SSW Point. These rocks do not show on the photographs, but are plotted on launch boat sheets of PI-2249 (H-7726).

Large landing craft may beach on the cobblestone and boulder beach which lies 0.6 miles northwest of South Point. However, landings must be made under almost perfect conditions, since swells of any size break heavily on the beach. Also, the cobblestones and boulders would damage the craft when there is surf. It is seldom possible to land on this beach with pulling boats, due to the surf. Exit from the beach is possible by laying a matting over the boulders.

Approximately 1200 meters west-northwest of the above mentioned beach, just east of a sharp rocky point, and at the mouth of a deep
FIELD INSPECTION (Continued):

ravine, lies a very small cobblestone and boulder beach. There are scattered huge boulders at the waterline which makes the beach unsuitable for landing craft. The swells do not break as heavily on this beach as on the one to the east and pulling boats may land in light swells.

There is a good landing spot for pulling boats just to the west of SSW Point. Landings may be made on large square boulders behind offlying rocks and kelp beds. Exit from the beach is thru a break in the bluff.

A short small boulder beach lies about midway between SSW Point and Southwest Knob, and a small sand beach lies at the bend in the shoreline northeast of Southwest Knob. These beaches are not suitable for landings at any time because breakers are present even in light swells.

Southwest Knob: Southwest Knob is a high-pointed peninsula on the southwest side of Semisopochnoi Island. The outer point is higher than the connecting land. The knob is surrounded with pinnacle rocks to 300 meters offshore, the highest of which is to the westward and is approximately 50 feet high. The waterline around the knob is among large boulders and at the base of vertical rocky cliffs.

There are patches of sand beach to the northwest of Southwest Knob, particularly just east of the stream emptying into SW Indent. This latter mentioned beach is 600 meters long and landing craft may beach on it in calm weather. Moderate swells break on the beach making any kind of landing hazardous in other than calm weather. Exit from the beach by vehicles would be difficult on account of the steep dirt and grass bluffs.

WSW Head: WSW Head is the bold and steep headland on the southwest side of Semisopochnoi Island. The shoreline along WSW Head is at the foot of steep rocky cliffs and is fringed with heavy kelp beds to 200 meters offshore. Waterline is among large boulders all along with occasional boulders 10-50 meters offshore. There are no other dangers.

WSW Bight: From this bight, on the west end of the island, a valley about 0.75 miles wide extends eastward 1.0 mile. The valley floor consists of large boulders covered with tundra which makes any kind of travel difficult.

There is 1100 meters of sand beach 10-20 meters wide in the center of the bight. However, there are boulders under and back of the sand giving this beach a doubtful value for use of landing craft. Also, there is a shoal off the center of the beach over which moderate swells break. At high tide, and with smooth seas, dry ramp landings would be possible. Under other conditions, landings would be wet
FIELD INSPECTION (Continued):

and hazardous. Heavy swells roll into the bight quite frequently.

The shoreline on the southeast and northeast sides of the bight
is at the base of steep bluffs, is fringed with kelp, and has large
boulders at the waterline.

Tuman Head: Tuman Head is the bold, steep, rocky headland on the
west side of Semisopochnoi Island. The shoreline is at the base
of steep rocky cliffs and slides and is fringed with kelp to 300
meters offshore. Waterline is formed by large boulders with occasional
boulders 10-30 meters offshore. A foul area extends 150 meters off
South Tuman Point, marked on the outer end by a rock 4 feet above
high water. Otherwise, there are no dangers.

WNW Bight: WNW Bight is the indentation in the shoreline north-
east of Tuman Head. Except at the three beaches discussed below,
the shoreline is at foot of steep cliffs and is fringed with kelp.
Boulders form the waterline in most places.

There are two offshore rocks in the bight: one baring 4 feet at
high water 100 meters off the north shore of Tuman Head; and one
baring 2 feet at MLLW 300 meters offshore from the gravel and small
boulder beach on the east side of the bight. There are two small
stretches of sand beach just northeast of the gravel and small
boulder beach. Neither of the three beaches are suitable for landing
craft, except under exceptionally good conditions. Besides, exits
from the beach are impractical. Several landings were made with
a LCVP on the west end of the gravel and small boulder beach during
the season of 1949, but good conditions had to be picked and it
was necessary to build a ramp to get vehicles over the boulders.

WNW Point to Petrel Point: This stretch of shoreline is marked by
steep dirt and grass cliffs with boulders at the waterline. Foul
areas and high water rocks extend to 100 meters off the points,
otherwise, there are no dangers. Heavy kelp beds extend to 300
meters offshore.

Dry ramp landings are possible on the small gravel beach at the
bend in the shoreline south of Petrel Point (in NNW Bight) in good
weather. There is no exit from the beach.

A waterfall on the west side of Petrel Point, and near its northern
tip, is prominent to the westward.

Petrel Point to Northeast Point: Except in NNE Bight, the shoreline
is at the base of high rocky slides, has large boulders at the
waterline, and is fringed with scattered kelp 200-300 meters off-
shore.

A very small beach, composed of small boulders, at the bend in the
shoreline on the east side of Petrel Point affords dry ramp landings
in good weather. There is no exit from the beach.
FIELD INSPECTION (Continued):

NNE Bight has a gravel and small boulder beach approximately 1200 meters long and 10-20 meters wide. It is not suitable for landing craft, except under ideal conditions, because of surf and occasional large boulders. The bluffs back of the beach make an exit impractical. There is a thick and extensive kelp patch in this bight.

High water rocks and ledges extend 150 meters off Northeast Point. There are no other dangers along this stretch of shoreline.

Northeast Point to Pochmoi Point: The shoreline is at the base of steep bluffs and cliffs. In general, boulders mark the waterline, but there are stretches of gravel and cobblestone beaches. None of the beaches are suitable for landing craft, because of underwater boulders close inshore and lack of exits.

The only danger any distance offshore is a sunken rock, covered 1 foot at MLLW, 150 meters offshore of the north side of Pochmoi Point. This rock is off a deep ravine and is approximately 1.25 miles northwest of the center of Pochmoi Point.

Pochmoi Point is bounded by almost vertical rocky cliffs and has numerous rocks and pinnacles to 150 meters offshore.

STREAMS, LAKES, LAGOONS:

There are a total of seventeen perennial streams on Semisopochmoi Island that empty into the ocean, and numerous intermittent streams. The more prominent perennial streams are those emptying into ESE Bight, SSE Bay, WSW Bight, WNW Bight, at Petrel Point, and into NNE Bight. All of the perennial streams and the more prominent of the intermittent streams are marked on the photographs. There is a large lake in the center of the island which drains southward and into SSE Bay. Its elevation is approximately 250 feet.

A small lake exists 0.1 miles inland from the southeast side of WSW Bight. No drainage from this lake was noticed, but it probably drains under the boulders and into WSW Bight.

There are several intermittent ponds on Pochmoi Point.

HORIZONTAL CONTROL:

The following triangulation stations were identified on photographs and Control Station Identification Cards have been made for them:

Little Sitkin Island:

Waterfall, W. Side Little Sitkin I., 1948; Large Waterfall, W. Side Little Sitkin I., 1948. These are intersection stations, located in 1948 and identified on photographs in 1949.
HORIZONTAL CONTROL (Continued);

Semisopochnoi Island:

The following are for horizontal control only: RUG; *ARCH (sub.sta.); *POCHNOI; SHACK; *SUGAR (sub.sta.); KEM.

The following are for both horizontal and vertical control: *KNIFE; *DOWN (sub.sta.).

The following are primarily for vertical control, but it is thought that they may be pricked accurately enough for horizontal control also—if needed: Peak #6; *TUMAN; South Volcano; Semi. Volcano; Horn Peak; Anvil Peak; Rim Peak; Peak #4; N. Split Peak; and S. Split Peak. All were located in 1949.

* denotes main scheme stations. Others are intersection stations.

VERTICAL CONTROL:

Vertical control data is being submitted in a separate report.

HYDROGRAPHIC SIGNALS:

All signals necessary for the control of hydrography were located on graphic control sheets. Some were located by planetable; some by sextant cuts; and some by a combination of triangulation, planetable, and sextant cuts.

No photo plots were made in the field.

All signals that could be positively identified were marked on the photographs for future reference, if needed. Control Station Identification Cards are not being submitted for hydrographic signals.

LANDMARKS FOR CHARTS:

The waterfall on the west side of Petrel Point is sufficiently prominent to be charted as a landmark. It is pricked on Navy Photo #742. Control Station Identification Card and Form 567 have been prepared for it and are included with this report.

ABSTRACT:

1- List of Instructions and Supplemental Instructions for Project CS-218.
1- List of abbreviations.
20- Control Station Identification Cards of triangulation stations.
1- Control Station Identification Card of Landmark.
1- Form 567 (Landmarks for Charts).
1- Sketch (Photo Inspection Index).
1- Section of TOPOGRAPHIC MANUSCRIPT T9134.
Submitted by:

Ernest B. Lewy,
LCDR., USC&GS,
Ship PIONEER

Approved and forwarded:

Henry E. Finnegan
CDR., USC&GS
Comdg. Ship PIONEER
LEGEND
FIELDS INSPECTION - AIR PHOTOS

SHORELINE:
- rky = rocky
- rl = rock ledge
- sh = shelving
- st = steep - to
- rp = rocky point
- hwl = high water line
- lwl = low water line

BEACHES:
- bb = boulder beach
- cb = cobblestone beach
- sb = sand beach
  above followed by (d) = dry ramp landing on steep beach
  above followed by (w) = wet ramp landing on gentle beach
- gb = gravel beach

BLUFFS, GLITS, SLIDES, ETC.
- cl = cliff, rocky
- lb = low earth bank
- bl = bluff
- sl = slide
- rp = rocky point

INTERIOR:
- bo = boulders
- gm = grass and moss
- lv = lava
- lo = loose rock
- po = pond
- rl = rock ledge outlier
- sw = swamp
- tu = tundra

STREAMS:
- is = intermittent stream
- ps = perennial stream

OFFSHORE ROCKS, ETC.
- ra = rock awash, give height and time if critical
- rh = rock above high water, and approximate height
- rs = sunken rock
- fa = foul area
- kp = kelp
- tr = tide rips
DEPARTMENT OF COMMERCE
U.S. COAST AND ATODETIC SURVEY

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

TO BE CHARTED
TO BE DELETED

Oakland, California 28 October 1949

I recommend that the following objects which have been inspected from seaward to determine their value as landmarks, be charted on the charts indicated.

The positions given have been checked after listing by E.B. Loway, Chief of Party.

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This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and nonfloating aids to navigation, if redetermined, shall be reported on this form. The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.
1949 Field Inspection

The photos indicated around Semisopochnoi Is. Nos. 739—785 are 1935 U.S. Navy Photos A for quality—see D.R. p. 2
RADIAL PLOT SKETCH
Semisopochnoi Island
Project 24050
Oct-Nov 1949

Note: All control was field identified

△ control held in radial plot
△ control not held (See plot report)
21. Area Covered

This plot was laid on four topographic manuscripts, T-8560, 8561, 8562 and 8563 which cover Semisopochnoi Island entirely.

22. Method

The radial plot was laid on vinylite manuscripts on which the polyconic projection and the UTM grid with 1000 meter intervals, were ruled at 1:20,000 scale. The grid was used to junction the manuscripts.

The photographs were nine-lens metal mounts and were prepared in the conventional manner selecting shoreline pass points, where possible, at intervals of 1/2 inches and points in the interior at a density of about 7 inches.

Vinylite templet stock was used throughout and master calibration templet for photographs 10261 thru 13156 was used for radial adjustments.

The attached sketch shows the layout, photographs used and the density of control.

23. Adequacy of Control

Horizontal control was considered adequate. Eighteen field-identified control stations were furnished by the field party. Of these, ten stations were noted as primarily vertical control, but were thought accurately enough identified for horizontal control (See Field Inspection Report, page 8)

Thirteen of the eighteen stations identified were selected on the office photographs. The other five stations could not be accurately enough identified from the 1935 1:30,000 U.S. Navy photographs used for field inspection.

Of the thirteen control stations selected and used in the radial plot, nine held within 0.3 mm and four did not hold. These four are discussed below:

South
Semi Volcano 1949 (intersection station) ... this station was picked primarily for vertical control. It is believed to be accurately identified on the photographs; but as the radial plot position falls 7.7 mm W of the plotted position, an error in the listed position is indicated.

7.7 mm.
Tuwan 1949 (intersection station) 0.9 mm N of plotted position. This station had a poor field description and office photo-identification was considered doubtful. Other nearby control held.

Pochnoi 1948 ... 0.9 mm N of plotted position. Ground measurements furnished by the field did not appear to conform to the description (high pt.). The highest point in the area was selected, but it was apparent upon laying the plot that the measured position would have held.

Peak 6 1949 ... 0.4 mm W of plotted position. This was an intersection station primarily for vertical control and would not hold tight with other better identified control.

24. **Supplemental Data**

None

25. **Photography**

The photography was more than adequate as to coverage and overlap. There was, however, many photographs obscured by clouds and the abundance of photography was necessary to assure adequate stereoscopic coverage for contouring.

Submitted by:

Jeter F. Battles, Jr.
Cartographer

Approved by:

E. H. Ramey
Chief, Graphic Compilation
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DATE: 10 September 1954
CHECKED BY: L.C. Lande
DATE: 11 September 1954
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CHECKED BY: L. C. Lande          DATE: 11 September 1954
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CHECKED BY: L. C. Lande
DATE: 11 September 1954
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1 FT = 0.3048006 METER
COMPUTED BY: G. O. Demarr
DATE: 10 September 1951
CHECKED BY: L. C. Lande
DATE: 11 Sept. 1951
31. Delineation

Reading Plotters A and B were used to delineate shoreline features and contours. Compilation directly upon the manuscript was thought to reduce over-all time and free the draftsman-compilers. The positive manuscripts, used in the radial plot, were therefore hand-rubbed on the back with an abrasive to produce a grain and details from the negative, nine-lens, rectified prints transferred thereon.

32. Control

Horizontal and vertical control were adequate and, in some areas, abundant.

T-8560 - TUMAN, 1949 (see 23) (See page 8 of Field Inspection Report, 1949). The southwestern end of the top of the peak, instead of the radial plot office's identification at the northeastern end, was held to in compilation.

FLAT PEAK, 1949 could not be held. Compiled position is 2.5mm (500m) westward. The observation from BEACH 1949 probably was on the military crest of the peak and, as the observed position is unchecked, the station was deleted. Elevation retained.

T-8562 - PEAK 6, 1949 (see 23). The southern end of the top of the peak, instead of the radial plot office's identification at the northern end, was held to in compilation.

RAD, 1949 - No tower was visible but the apparent base held the observed position in compilation. The listed elevations of 334 ft. (top) and 264 ft. (ground) could not be held. The 70 ft. tower, noted in description, is probably 20 or 30 ft. and the ground elevation would then be approximately the photogrammetric elevation of 305 ft.

T-8563 - SOUTH VOLCANO, 1949 (see 23) could not be held. Compiled position is 1.7mm (154m) westward. As the observed position is unchecked, the station was deleted. Elevation retained.

SOUTH SPLIT PEAK, 1949 could not be held. Compiled position is 1.35mm (240m) westward. Elevation by vertical angle from UPPER, 1949 is 95 feet too high but elevation obtained from POCHNOI was held. As the observed position is unchecked, the station was deleted.
33. Supplemental Data

C&GS single-lens photos Nos. 52 0 1189 - 1247

34. Contours and Drainage

Clouds and shadows caused considerable difficulty in delineating the contours and drainage. The Zeiss Stereotype was used with the photos listed in paragraph 33 to delineate areas which were covered by clouds on the nine-lens photos. All instrument elevations shown on the manuscript were from the Reading plotters.

35 and 36. Shoreline, Alongshore and Offshore Details

Shoreline inspection was scant but, in conjunction with details visible in the stereo models, was adequate.

37. Landmarks and Aids

Fall on western side of Petrel Point is a landmark described on the appended Form 567 (see Field Inspection Report, page 8). No aids to navigation are known in the area.

38. Control for Future Surveys

Hydrography was completed in 1949 (H-7726, H-7727). No topo stations were established. Hydro signals were located on graphic control sheets in the field.

39. Junctions

All junctions with contemporary surveys were made.

40. Horizontal and Vertical Accuracy

See radial report.

46. Comparison with existing maps

SEMISOPPOCHNOI ISLAND, Sheets 1, 2, 3, 4, 1:25,000
20 ft. contour interval.
War Department, Corps of Engineers, U. S. Army, 1943
from T3-A (3-lens) aerial photography of 1934
RAT ISLANDS, 1:250,000, USGS, 1951
47. Comparison with Nautical Charts

8863  1:300,000
8864  1:300,000

"Items to be Applied to Nautical Charts Immediately"
None

"Items to be Carried Forward"
None

Submitted by

Clarence Misfeldt

Approved by

Clarence Misfeldt
Cartographer (Photo.)

Louis Levin
Supervisory Cartographer
9-Lens Stereo Mapping Unit
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"Names approved" 3-1-57 J.B. Heck
62. **Comparison with Registered Topographic Surveys**

T-6963 1:30,000 1935 (by U. S. Navy)

This survey (with an assumed scale of 1:30,000) compiled by the U. S. Hydrographic Office from 5-lens photography is in good agreement with T-8560 thru T-8563 in shoreline and general expression of relief. The more recent surveys with adequate control and complete detailing are to supercede the above-listed survey for nautical charting purposes.

63. **Comparison with Maps of Other Agencies**

Semisopochnoi Island Sheets 1, 2, 3 and 4 1:250,000 1943
War Dept., Corps of Engineers, U. S. Army, 1943
Rat Islands, 1:250,000 U.S. Geological Survey, 1951

Except for the lack of detailing of off-shore and fore-shore features and disagreement of others, there is, generally, good agreement in presentation of shoreline and relief. There is also a difference in datum (U. S. Army Quads based on local datum).

64. **Comparison with Contemporary Hydrographic Surveys**

H-7726 1:20,000 1949
H-7727 1:20,000 1949
H-7650 1:80,000 1949

These hydrographic surveys have not been verified and are without shoreline. Positions of soundings and depth curves will accommodate shoreline of subject topographic surveys well. A few minor differences in position of fore-shore rocks exist, however, the addition of shoreline onto the hydrographic surveys will resolve these minor disagreements.

65. **Comparison with Nautical Charts**

8863 1:300,000 1951 corrected to 52 1/14
8864 1:300,000 1951 “ to 52 9/29

66. **Adequacy of Results and Future Surveys**

Except for control field inspection was confined to shoreline, and fore-shore and off-shore features. Shoreline inspection, accomplished in 1949 with U. S. Navy
photography of 1935 to approximate scale of 1:30,000, is not complete but appeared adequate. Lack of complete inspection may have resulted in minor errors in office interpretation. Other than that, no deficiencies in accuracy and adequacy were indicated.

Reviewed by:

Josef J. Streifler

Josef J. Streifler

APPROVED:

Le Land
Chief, Review & Drafting Sec. Photogrammetry Div.

Max St. John
Chief, Nautical Chart Branch, Charts Division

Chief, Photogrammetry Division

Chief, Coastal Surveys
History of Hydrographic Information for T-8560 thru T-8563

Hydrography was added to the map manuscript in accordance with AMS Technical Instructions.

Depth curves and soundings are in fathoms at mean lower low water and originate with the following unverified Hydrographic Surveys:

7726, 1:20,000, 1949
7727, 1:20,000, 1949
7650, 1:80,000, 1949

Hydrography was compiled in Photogrammetry Review and verified by Nautical Charts in March 1957.

J. J. Streifler
Summary to Accompany Topographic Maps T-8560 thru T-8563

T-8560 thru T-8563 represents a portion of Project 24050 (Ph-6034 - Ph-34). These four surveys cover all of SEMISOPHOCHNOI ISLAND, one of the group comprising Rat Islands of the Aleutian Islands.

Subject topographic surveys were shoreline-inspected in 1949 from U. S. Navy Photography of 1935 at approximate scale of 1:30,000, and compiled in the Washington Office in 1957 from 1953 Nine-Lens Photography by the Reading Plotter.

After addition of hydrographic information, the maps will be published by the Army Map Service as standard topographic quadrangles at the scale of 1:25,000 and replace a previous publication of 1943.

A photographic positive copy (CRONAR) at manuscript scale and the Descriptive Report, as well as a cloth-backed lithographic print in colors after final printing by AMS will be registered and filed in the Bureau Archives.