9335 9336
9337 9338

9338 9338

Diag. Cht. No. 8861-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey TOPOGRAPHIC

Field No. ~~PH-34(48)~~ *Office No.* T-9335, 9336, 9337, 9338

LOCALITY

State ALASKA

General locality ALEUTIAN ISLANDS

Locality UMNAK ISLAND

194 3

CHIEF OF PARTY

Division of Photogrammetry, Washington, D.C.

LIBRARY & ARCHIVES

DATE Oct - 18 - 1951

B-1870-1 (1)

9335 9337

DATA RECORD

T-9335,36,37, and 38

9335: Umnak Island - Cape Sagak
9336: " " - Elbow Hill
9337: " " - Cape Udak
9338: " " - Samalga Island

Project No. (II): Ph-34(48) Quadrangle Name (IV):

Field Office (II): Chief of Party:

Photogrammetric Office (III): Washington, D. C. Officer-in-Charge: Louis J. Reed, Chief, Stereoscopic Mapping Sec.

Instructions dated (II) (III): 8 April 1948 (III)
3 Feb. 1938 (II)

Copy filed in Division of Photogrammetry (IV) Office Files

Method of Compilation (III): Stereoplanigraph

Manuscript Scale (III): 1:20,000 Stereoscopic Plotting Instrument Scale (III): 1:12,000
Photo scale (III) 1:24,000

Scale Factor (III): 1.000

Date received in Washington Office (IV) JAN 30 1951 Date reported to Nautical Chart Branch (IV): 2-5-51

Applied to Chart No. Date: Date registered (IV): 10-4-51

Publication Scale (IV): 1:25,000 Publication date (IV):

Geographic Datum (III): NA 1927 Vertical Datum (III):

Mean sea level except as follows:
Elevations shown as (25) refer to mean high water
Elevations shown as (5) refer to sounding datum
i.e., mean low water or mean lower low water

Reference Station (III):

Lat.: Long.: Adjusted
~~Unadjusted~~

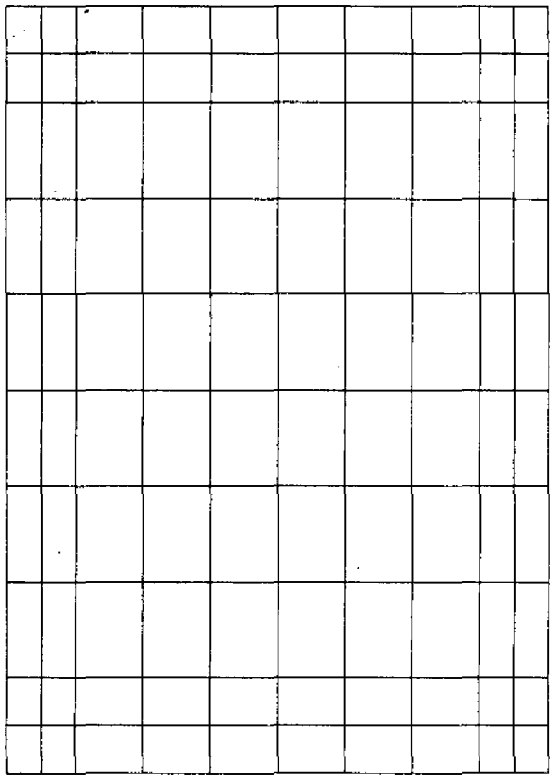
Plane Coordinates (IV): State: Zone:

Y= X=

Military Grid, Universal Transverse Mercator, Zone #2

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)

100%

on

Stereoplanigraph

by

Michael G. Misulia

DATA RECORD

Field Inspection by (II): Date:

Planetable contouring by (II): Date:

Completion Surveys by (II): Date:

Mean High Water Location (III) (State date and method of location):

Shoreline on the manuscripts was taken directly from the 1943 compilation photography during instrument delineation, using field topographic surveys of 1938 and 1939 as guides. No other field work was available.

Projection and Grids ruled by (IV): Ruling Machine Date: 10 Jan. 1950

Projection and Grids checked by (IV): Theodore L. Janson Date: 10 Jan. 1950

Control plotted by (III): Michael G. Misulia Date: 16 Jan. 1950

Control checked by (III): Robert L. Sugden Date: 16 Jan. 1950

Radial ~~Plot or~~ Stereoscopic Control extension by (III): Michael G. Misulia Date: 5 April 1950

Stereoscopic Instrument ~~compilation~~ delineation (III): Planimetry Michael G. Misulia Date: 5 April 1950

Contours Date:

Manuscript ~~delineated~~ compiled and inked by (III): Robert L. Sugden Date: 11 May 1950

Photogrammetric Office Review by (III): Louis J. Reed Date:

Elevations on Manuscript checked by ~~(II)~~ (III): Louis J. Reed Date: 30 Jan 51

Camera (kind or source) (III): US Air Force (11AF) 6" wide angle

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
Strip No. 162 11,12,13,15,16	9-10-43	unknown	24,000	
Strip No. 164 2,3,4,5,7,8,9, 10,12,13	9-10-43	"	24,000	
Strip No. 165 8, 9	9-10-43	"	24,000	
Strip No. 166 1,2,3,4	9-10-43	"	24,000	
Strip No. 167 15,16	9-10-43	"	24,000	
Strip No. 175 88 and 89	11-7-43	"	30,000	

Tide (III)

Ratio of Ranges	Mean Range	Spring Range

Reference Station:
Subordinate Station:
Subordinate Station:

Washington Office Review by (IV): K.N. Maki Date: 2-23-51

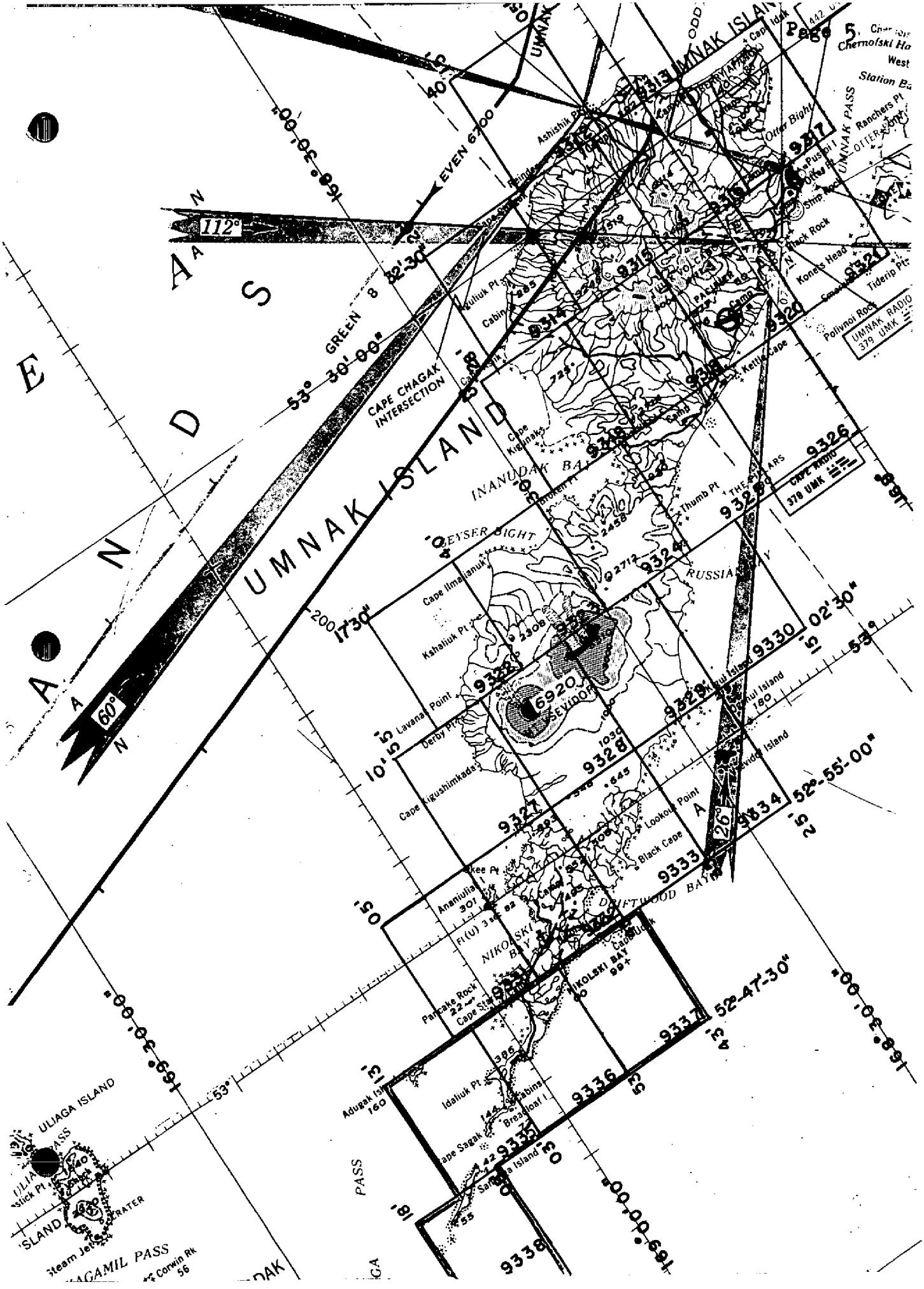
Final Drafting by (IV): W. Taylor T-9335 Date: 6-27-51
S. Dean T-9336 6-18-51
J. Bailey T-9337 6-14-51
H. Lucas T-9338 6-13-51

Drafting verified for reproduction by (IV): C. Kupiec T-9335 Date: 6-28-51
T-9336 6-20-51
T-9337 6-9-51
T-9338 6-19-51

Proof Edit by (IV): Date:

Land Area (Sq. Statute Miles) (III): See remarks below.
Shoreline (More than 200 meters to opposite shore) (III): See remarks below.
Shoreline (Less than 200 meters to opposite shore) (III): none
Control Leveling - Miles (II): none
Number of Triangulation Stations searched for (II): none Recovered: Identified:
Number of BMs searched for (II): none Recovered: Identified:
Number of Recoverable Photo Stations established (III): none
Number of Temporary Photo Hydro Stations established (III): none
Remarks: Two topo stations Rex-Bow filed under T-4710.

	AREA	SHORELINE
T-9335	3 sq mi	17 miles
T-9336	10 sq mi	20 miles
T-9337	2 sq mi	8 miles
T-9338	1 sq mi	6 miles
TOTALS=	16 sq mi	51 miles



UMNAK ISLAND
UMNAK PASS
Chernofski Ha
Station Ba
Otter Bight
Ranchers Pt
Ship Rock
Black Rock
Konets Head
Tiderip Pt
Polivnoi Rock
UMNAK RADIO 379 UMK
Kettle Cape
Cape Kigunak
INANUDAK BAY
GEYSER BIGHT
Thumb Pt
THE PILLARS
CAPE RADIO 378 UMK
RUSSIAN BAY
Cape Ilmanianuk
Kshaliuk Pt
Lavanak Point
Derby Pt
Cape Kigushimkada
SEVIDOF
Lookout Point
Black Cape
DRIFTWOOD BAY
NIKOLSKI BAY
Pancake Rock
Cape Sagak
Idaliuk Pt
Breadloaf I
Adugak Isl
ULIAGA ISLAND
ULIAGA PASS
Steam Jet
CRATER
Corwin Rk
PASS
CAPE CHAGAK INTERSECTION
GREEN 8
EVEN 6700
112°
60°
53° 30' 00"
52°-55'-00"
52°-47'-30"
169°-30'-00"
168°-30'-00"
169°-00'-00"

Summary to Accompany T-9335 to T-9338

Topographic maps T-9335 to T-9338 inclusive are four of a group of similar maps in Project Ph-34(48). These four maps of the Aleutian Islands area cover Samalga Island, the southwest end of Umnak Island from Cape Sagak to Cape Udak and Adugak Island. No field inspection was done in the area covered by these four surveys. Graphic control surveys made in 1938-39 were utilized to supplement photogrammetric compilation methods.

These maps were compiled in the Washington Office on the stereoplanigraph from 1943 U. S. Air Force single lens photographs using a contour interval of 50 feet supplemented by a contour interval of 25 feet. The compilation was delineated on metal mounted boards in pencil. These boards were photographed and black line impressions on vinylite were processed to form the manuscripts.

In addition to the polyconic projection at 1:20,000 scale on the North American 1927 Datum a military grid, one thousand meter universal transverse mercator, Zone No. 2, is included on each map

Depth curves and critical soundings were applied to the manuscripts by the Division of Charts. These features do not appear on the preliminary registration prints.

A single descriptive report was prepared for this series of four topographic maps. A cloth-backed lithographic print of each map, at compilation scale, will be registered with the combined descriptive report in the Bureau Archives. After publication a cloth-backed color print of each map will also be registered.

FIELD INSPECTION REPORT

2-20. No field inspection was made in the area covered by the four quadrangles of this report and therefore no field inspection report has been executed. A substitute has been found in the graphic control surveys made in the field as a basis for hydrographic operations in the neighboring waters. These surveys were made in the years 1938 and 1939, and reference is made to their accompanying reports, as follows:

T-6648b Umnak Island, Black Cape area
1:20,000
1938
SURVEYOR - Ray L. Schoppe

T-6710 Umnak Island, Samalga Island
1:20,000
1939
SURVEYOR - Ray L. Schoppe

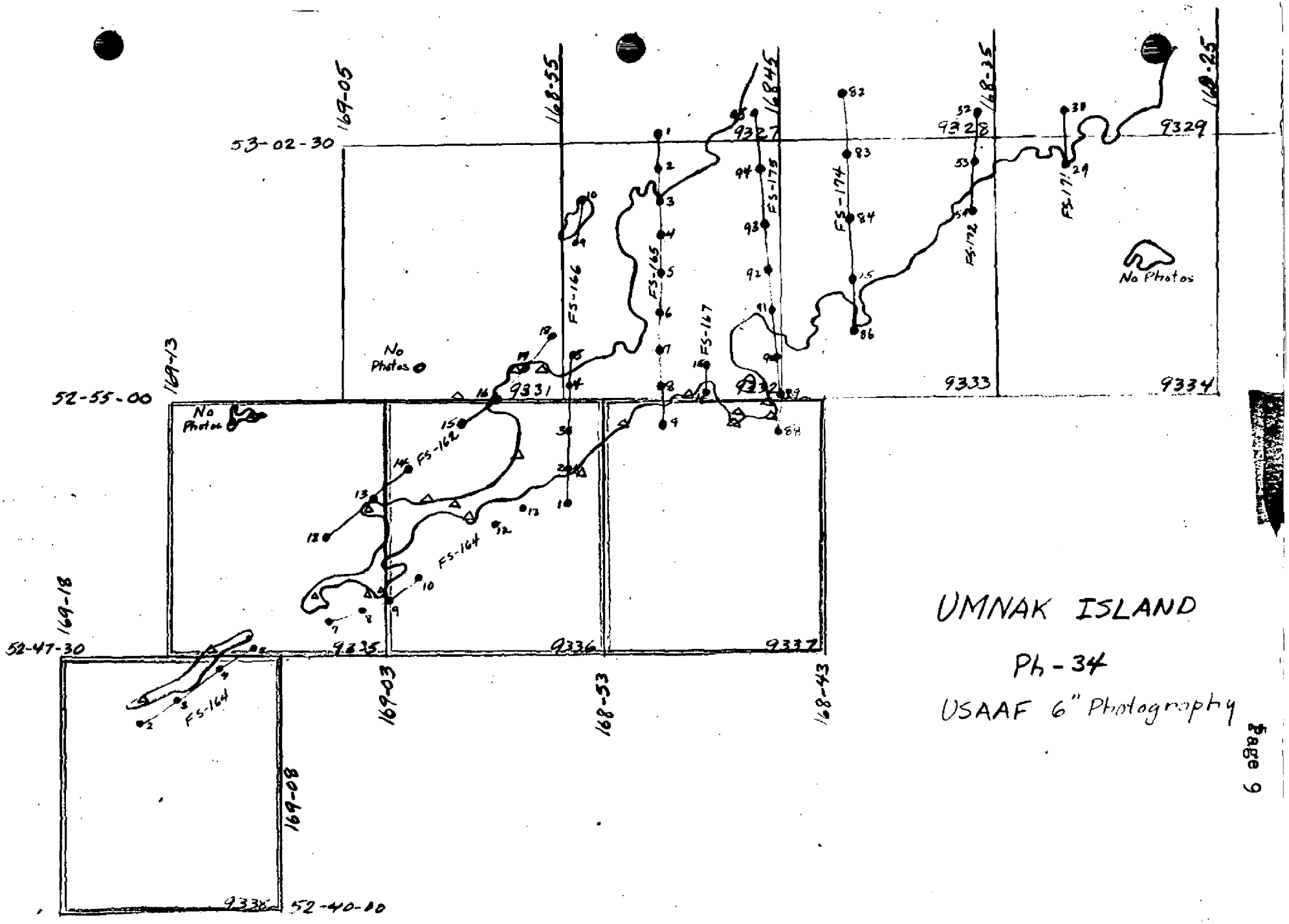
T-6711 Umnak Island, Cape Sagak area and Adugak Island
1:20,000
1939
SURVEYOR - Ray L. Schoppe

T-6712 Umnak Island, Cape Starr Area
1:20,000
1939
SURVEYOR - Ray L. Schoppe

Louis J. Reed, Chief,
Stereoscopic Mapping Section

RADIAL PLOT REPORT

21-30. No radial plot report is submitted inasmuch as this project was compiled by means of the Stereoplanigraph, which method requires no radial plot.



UMNAK ISLAND

Ph-34

USAAF 6" Photography

COMPILATION REPORT

31. Delineation:

The stereoplanigraph was employed as a means of delineation of the four quadrangles covered by this report.

Photo coverage used was not obtained by USC&GS cameras, it was single-lens coverage obtained by the U.S. Air Force in 1943. Photographic qualities varied between the several flights and in general was not the best from which to print diapositives for use in the plotting instrument. The coverage was complete except for two areas: (Shown on manuscript in RED as copied direct from FIELD SURVEY)

a. Adugak Island on T-9335

b. A small coastal area in the vicinity of 52°54' and 168°57' on T-9336.

No field inspection was made particularly for use in the compilation of this project. However, very complete topographic surveys were made of the area in 1938 and 1939, and the records of these surveys became the sole basis of field control identification and general guide for delineation and compilation.

32. Control:

Horizontal control was considered adequate in density and placement. Identification was satisfactorily accomplished after a thorough study of available descriptions of triangulation stations in conjunction with topographic surveys of 1938-9.

All existing triangulation stations are plotted on the manuscript and shown there in proper name and symbol. They were all identified and used to control the maps, except for EWE, 1938, and UM, 1938, on T-9336, and WOP, 1938, and REM, 1938, on T-9337.

A good many topographic control stations were furnished by the field surveys. Their identification was governed by their location on the four graphic survey boards and relative descriptive data given in the reports accompanying each survey. Most of the recoverable topographic stations were used in conjunction with the triangulation stations to control the maps. All recoverable stations are correctly symbolized and named on the manuscripts. In addition, several topographic stations that the field man did not consider recoverable, were identified and in agreement with the other horizontal control; these few stations are also symbolized and named on the manuscripts, red ink being used to distinguish them as probably non-recoverable in the field at this late date.

Vertical control was abundant. The primary source was the MHW line, and it was supplemented by elevations recorded during the course of the 1939 field surveys. In general, each stereoscopic model, leveled on the shoreline, established good agreement with the field elevations. Occasionally an apparent bust was discovered and the instrument value has been shown on the manuscript; otherwise, planetable elevations have been repeated.

33. Supplemental Data:

a. Graphic Control Surveys:

See listing in Field Inspection Report, page 7 of this report.

b. Field Inspection photography: none.

c. Compilation photography: See enclosed graphic index.

d. Hydrographic Surveys:

(1) H-6504, South side of Umnak Island west of Cape Ugak, 1:20,000, 1939, SURVEYOR, Ray L. Schoppe.

(2) H-6610, North Shore of Umnak Island, between Nikolski, Cape Sagak, and Adugak Island, 1:20,000, SURVEYOR (85% in 1939) commanded by Ray L. Schoppe, and EXPLORER (15% in 1940) in command of J. H. Peters.

(3) H-6611, Southern Part of Umnak Island, Vicinity of Cape Sagak and Samalga Island, 1:20,000, SURVEYOR (1939), Ray L. Schoppe, and EXPLORER (1940), J. H. Peters.

34. Contours and Drainage:

The quality of the negatives was poor for delineation purposes; photographic details were not sharp. However, satisfactory results have been obtained. Where the Bluffs were not portrayed by contours, the bluff symbol was used.

35. Shoreline and Alongshore Details:

The shoreline was delineated from office inspection of the photographs, being guided by the available field topographic surveys. Discrepancies were encountered; in many instances it was difficult to agree exactly with the field established MHWL. These differences occurred mainly where the shoreline was irregular. The shoreline on the manuscript is a compromise and it is considered to be the best possible location without the aid of a field photo-identified MHWL. Further, it was noted that MHWL location

Shoreline and Alongshore Details (continued):

varied between field topographers in irregular reef areas; one field man would tend toward showing a more receded shoreline than another. In these cases a compromise was also made to get the best results.

36. Offshore Details:

All ledge lines were taken directly from the field topographic surveys, since it was discovered that the instrument location of the reefs generally fell inshore from that of the field location. This was done because the exact tide stage of the compilation photographs was not known; no time of photography was available. The foul line on the manuscript is office delineated and it is not in disagreement with the hydrographic surveys.

37. Landmarks and Aids:

None are recommended by the field parties or the compilation office.

38. Control and Future Surveys:

As explained in the control paragraph above (No. 32), an abundance of topographic control was established during field hydrographic operations about 10 years ago. Data regarding this control is contained in 4 graphic control planetable boards and reports accompanying each. Two of the reports included lists of topo stations with a brief description of each and a classification of "Recoverable", or otherwise. The following stations were used to control the plot since they were identifiable:

a. T-9335:
Can, Frau, May, Belt, Car, Pinsag, Pant, Mit, Ray, Wed, Dix, Toy, Bug, Hig, Gip, Nod.

b. T-9336:
Dry, Oak, Any, Far, Sis, Bee, Ale, Ken, Rug, Jar, Dol, Siv, Gor, Big, Erg, Tel, Gud.

c. T-9337:
Job

d. T-9338:

Mit, Lay, Off, End, Pin, Tax, Bow, Rex, Nip, Sis.

39. Junctions:

Match edges are pictured on the graphic map layout page elsewhere in this report. All junctions are in agreement.

40. Horizontal and Vertical Accuracy:

Standard

46. Comparison with Existing Maps:

A general agreement is noted between the manuscripts of this report and the 1:25,000 scale set of War Dept. Corps of Engrs., U.S. Army Maps, Umnak Island Edition of 1944. Our topographic surveys were apparently available to the Corps of Engrs. during the compilation procedure since offshore details agree almost exactly. The Engr. shoreline is a combination of the ledge line and MHW line shown on our topographic surveys.

47. Comparison with Nautical Charts:

Unalaska I. to Amukta I., No. 8861, 1:298,300, May 1942.

48. Geographic Name List:

See separate lists following.

49. Notes for the Hydrographer:

None.

50. Compilation Office Review:

See T-2 form following.

Stereoplanigraph Delineation by:

Michael G. Misulia

Michael G. Misulia,
Cartographer - Photogrammetric

Manuscript Compilation and Inking by:

Robert L. Sugden

Robert L. Sugden,
Cartographic Aid - Photogrammetric

Approved and Submitted by:

Louis J. Reed

Louis J. Reed, Chief,
Stereoscopic Mapping Section

GEOGRAPHIC NAMES

Survey No. T-9335
T-9336
T-9337
T-9338

Name on Survey	A On Chart No.	B On previous survey No.	C On U. S. quadrangle Maps	D From local information	E On local Maps	F P. O. Guide or Map	G Rand McNally Atlas	H U. S. Light List	K	
T-9335										1
Adugak Island ✓	•									2
Bering Sea ✓	•									3
Breadloaf Island ✓	•									4
Cape Sagak ✓	•									5
Idaliuk Point ✓	•									6
Pacific Ocean ✓	•									7
Samalga Island ✓	•									8
Umnak Island ✓	•									9
										10
T-9336										11
Bering Sea	•									12
Elbow Hill	•									13
Pacific Ocean	•									14
Umnak Island	•									15
										16
T-9337										17
Cape Udak ✓	•									18
Pacific Ocean ✓	•									19
										20
T-9338										21
Bering Sea ✓	•									22
Pacific Ocean ✓	•									23
Samalga Island ✓	•									24
										25
										26
										27
										M 234

OK 6-20-51 a.d.w.

Names approved 2-15-51 a.d.w.

O.K. 6-19-51

OK 6-19-51 a.d.w.

Form T-2

PHOTOGRAMMETRIC OFFICE REVIEW

T- 9335, 36, 37, 38

1. Projection and grids ✓ 2. Title ✓ 3. Manuscript numbers ✓ 4. Manuscript size ✓

CONTROL STATIONS

5. Horizontal control stations of third-order or higher accuracy ✓ 6. Recoverable horizontal stations of less than third-order accuracy (topographic stations) ✓ 7. Photo hydro stations N 8. Bench marks N
9. Plotting of sextant fixes N 10. Photogrammetric plot report ✓ 11. Detail points N

✓ = checked
N = non-existent

ALONGSHORE AREAS
(Nautical Chart Data)

12. Shoreline ✓ 13. Low-water line ✓ 14. Rocks, shoals, etc. ✓ 15. Bridges N 16. Aids to navigation N 17. Landmarks N 18. Other alongshore physical features ✓ 19. Other alongshore cultural features N

PHYSICAL FEATURES

20. Water features ✓ 21. Natural ground cover N 22. Planetable contours N 23. Stereoscopic instrument contours ✓ 24. Contours in general ✓ 25. Spot elevations ✓ 26. Other physical features ✓

CULTURAL FEATURES

27. Roads ✓ 28. Buildings ✓ 29. Railroads N 30. Other cultural features N

BOUNDARIES

31. Boundary lines N 32. Public land lines N

MISCELLANEOUS

33. Geographic names ✓ 34. Junctions ✓ 35. Legibility of the manuscript ✓ 36. Discrepancy overlay N 37. Descriptive Report ✓ 38. Field inspection photographs N 39. Forms ✓
40. [signature] Reviewer — Louis A. Reed, Chief, Supervisor, Review Section or Unit — Stereoscopic Mapping Section.

41. Remarks (see attached sheet)

FIELD COMPLETION ADDITIONS AND CORRECTIONS TO THE MANUSCRIPT

42. Additions and corrections furnished by the field completion survey have been applied to the manuscript. The manuscript is now complete except as noted under item 43.

Compiler _____ Supervisor _____

43. Remarks:

M-2623-12

History of Hydrographic Information

T-9335

Samalga Island - Unmak Island, Aleutian Islands

Hydrography was applied to the map manuscript in accordance with the general specifications of 18 May 1949 and with Army Map Service TM-~~35-XVII~~ 45-14, Chapter 14.

The depth curves and soundings are in fathoms at Mean Lower low water and originate with the following surveys.

Hydrographic Survey		H-6610 (1939-40)	1:20,000
"	"	H-6611 (1939-40)	1:20.000

History of Hydrographic Information

T-9336, Umnak Island

Hydrography was applied to the map manuscript in accordance with the general specifications of 18 May 1949 and Army Map Service TM 45-14, Chapter 14.

The depths are in fathoms at mean lower low water and originate with the following surveys:

USC&GS Hydrographic Surveys
H-6504 (1939) 1:20,000
H-6610 (1939-40) 1:20,000
H-6611 (1939-40) 1:20,000
H-6503 (1938-40) 1:80,000

Depth curves are shown at 1, 3, 5, and 10 fathoms. Hydrography was compiled by C. Theurer and checked by R. K. DeLawder.

Charles Theurer
C. Theurer
5-25-51

History of Hydrographic Information

T-9337, Umnak Island

Hydrography was applied to the map manuscript in accordance with the general specifications of 18 May 1949 and Army Map Service TM 45-14, Chapter 14.

The depths are in fathoms at mean lower low water and originate with the following surveys:

USC&GS Hydrographic Surveys
H-6380 (1938) 1:20,000
H-6504 (1939) 1:20,000
H-6503 (1938-40) 1:80,000

Depth curves are shown at 3, 5, and 10 fathoms. Hydrography was compiled by C. Theurer and checked by R. K. DeLawder.

Charles Theurer

C. Theurer
5-25-51

History of Hydrographic Information
T-9338

Samalga Island - Umnak Island, Aleutian Islands

Hydrography was applied to the map manuscript in accordance with general specifications of 18 May 1949, and with Army Map Service TM-45-14, Chapter 14.

Depth curves and soundings are in fathoms at Mean Lower Low Water and originate with the following surveys:

Hydrographic survey H-6611 (1939-40) 1:20,000
Hydrographic survey H-6503 (1938-39-40) 1:80,000

The depth curves are shown at 3, 5, and 10 fathoms.

Depth curves and soundings were compiled by K. N. Maki and checked by R. K. DeLawder.

K. N. Maki

K. N. Maki

5 June 1951

Review Report T-9335 to T-9338

Topographic Maps

8 March 1951

62. Comparison with Registered Topographic Surveys.

T-6648b, 1:20,000, 1938 (T-9337)
T-6710 , 1:20,000, 1939 (T-9338)
T-6711 , 1:20,000, 1939 (T-9335-36)
T-6712, 1:20,000, 1938 (T-9336-37)

These surveys were used to supplement the photogrammetric compilation. They are superseded for nautical charting purposes by T-9335 to T-9338 inclusive.

63. Comparison with Maps of Other Agencies.

Umnak Island, Corps of Engineers,
1:25,000, 1943
Sheet No. 20 of 22 (T-9335)
21 of 22 (T-9336)
22 of 22 (T-9337)

Samalga Island, Corps of Engineers,
1:25,000, 1944. (T-9338)

64. Comparison with Contemporary Hydrographic Surveys.

H-6380, 1:20,000, 1938 (T-9337)
H-6503, 1:80,000, 1938-39-40 (T-9335,38)
H-6504, 1:20,000, 1939 (T-9336-7)
H-6610, 1:20,000, 1939-40 (T-9335-36)
H-6611, 1:20,000, 1939-40 (T-9335-36,38)

These surveys were compared with T-9335 to T-9338 inclusive and are in agreement.

65. Comparison with Nautical Charts.

Chart 8861, 1:300,000, ed. 1942, corr. 12/13/48
" 8802, 1:1,023,188 ed. 1944, corr. 12/25/50
9025, 1:40,000, ed. 1947, corr. 1/6/47

A rock awash at high tide at approximate latitude 52° 45.6' longitude 169° 15.7' shown on chart 8861 is not shown on the map (hydro signal Fin on H-6503 and H-6611).

A rock awash at approximate latitude 52° 45'+ and longitude 169° 17'+ about two miles SW of the west tip of Samalga Island shown on chart 8861 is not shown on the map (see also H-6503).

The road following along the west shore shown on chart 9025 is not shown on the map.

A pinnacle shown on chart 9025 at approximate latitude 52° 52.0' longitude 169° 01.6' is not shown on the map. The point of land immediately north of this pinnacle is shown as an island on the map.

66. Adequacy of Results and Future Surveys.

T-9335 to T-9338 inclusive are complete topographic maps and have been compared and reconciled with all hydrographic and topographic surveys of record in this Bureau and become, therefore, the most authoritatively complete and accurate maps of record for the area covered as of the date of this report.

Available photo coverage supplemented by field surveys, well distributed horizontal and vertical control and instrument compilation guarantee the conformance of these maps to the National Map Accuracy Standards.

No vertical accuracy tests have been made. All contours meet the national map accuracy standards for a contour interval of 50 feet and, where shown, for a contour interval of 25 feet.

67. Detailing.

Review corrections were generally minor. Considerable clarification of the black line impressions on vinylite was required. The extremely heavy line weights produced tended to reduce definition of detail particularly at critical points such as contours at stream crossing and small irregularities in contours, shoreline and other detail.

A fence line has been shown on T-9335 based on photo interpretation. This is substantiated to some extent by the fact that the area is used for grazing by sheep and cattle.

Bluff symbols were retained where the feature was not adequately portrayed by contours. An example of this is the bluff symbol on the 25 foot contour on Samalga Island and the Cape Sagak area which emphasizes the characteristically uniform drop-off at that elevation.

68. Geographic Names.

A list of geographic names was prepared by the Geographic Names Section, Division of Charts, for each map and attached to the descriptive report.

69. Classification.

The area covered by these maps is classified as "Restricted".

Reviewed by:

K. N. Maki

Approved:

Chief, Review Section
Div. of Photogrammetry

Chief, Nautical Chart Branch
Division of Charts

Chief, Div. Photogrammetry

Chief, Div. of Coastal Surveys