9972 9973
9974

ORIGINAL

Diag. Cht. No. 8860-2 & 8802

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-9972 T-9973 T-9974

LOCALITY

State Alaska

General locality Aleutian Islands, Fox Islands, Krenitzin Islands

Locality Akun Island

194 51

CHIEF OF PARTY

Div of Photogrammetry, Washington, D. C.

LIBRARY & ARCHIVES

DATE JUL 19 1955

8-1870-1 (1)

9972 9973 9974

DATA RECORD

T-9972, 9973, 9974

Project No. (II): Ph-34(48)

Quadrangle Name (IV): T-9974 = BILLINGS HEAD
T-9973 = LITTLE BAY
T-9972 = ~~MT GILBERT, WEST SHORE~~ West of Mt Gilbert

Field Office (II):

Chief of Party:

Photogrammetric Office (III): Washington, D.C.

Officer-in-Charge: Louis J.Reed, Chief Stereomap Section

Instructions dated (II) (III): None

Copy filed in Division of Photogrammetry (IV)

Method of Compilation (III): Single Lens - Kelsh Plotter, with pantograph

Manuscript Scale (III): 20,000

Stereoscopic Plotting Instrument Scale (III): 8500

Scale Factor (III): Photograph Scale = 41,000
Pantograph Reduction = 8500 to 20,000

Date received in Washington Office (IV): DEC 16 1952

Date reported to Nautical Chart Branch (IV): DEC 19 1952

Applied to Chart No.

Date:

Date registered (IV): 6-21-55

Publication Scale (IV):

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:

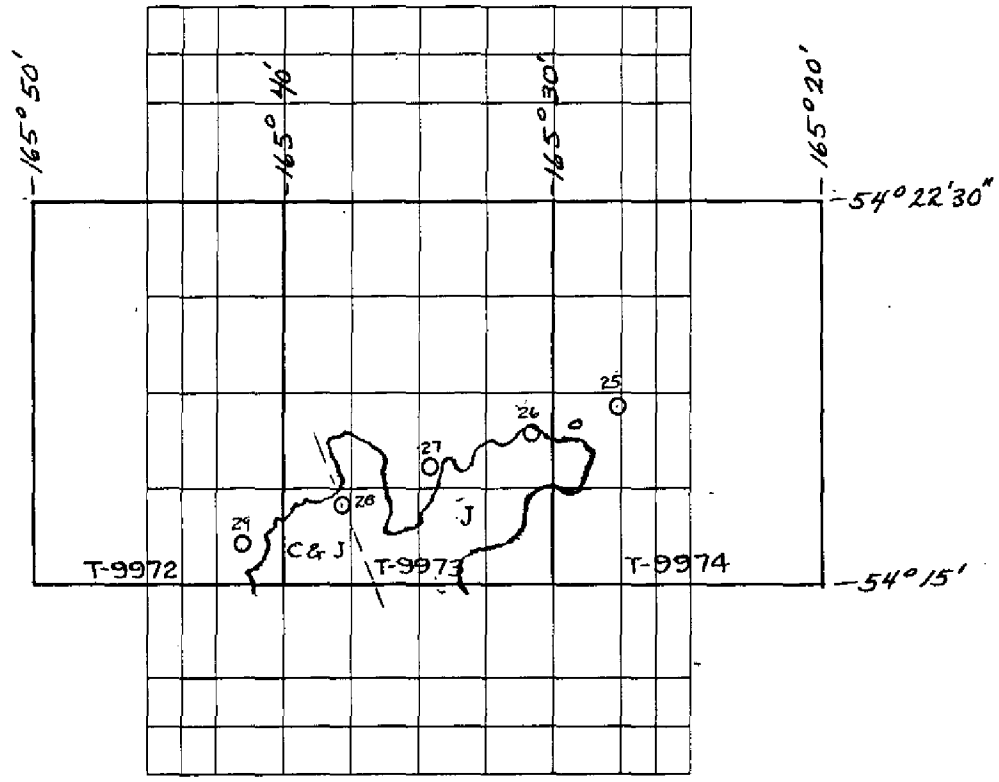
Y=

X=

MILITARY GRID = UTM, Zone 3, 2500 meter interval

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)
(N) (III)

Compiled on the Kelsh Plotter, model "B", by:

J = Ivan R. Jarrett
C&J = Bernard J. Colner and Ivan R. Jarrett

INDEX OF TOPOGRAPHIC SURVEYS AND HYDROGRAPHIC SURVEYS

Shoreline (~~~) = T-4931 and H-5970
Shoreline (~~~) = T-6601 and H-6319

DATA RECORD

Field Inspection by (II): None — Date:

Planetable contouring by (II): None — Date:

Completion Surveys by (II): None — Date:

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

MHWL on these manuscripts is dated 1951 since theyphotographs used for the instrument delineation were taken in 1951.

Projection and Grids ruled by (IV): Jack Allen on the Reading Ruling — Date: 6 jun 52

Projection and Grids checked by (IV): Howard D.Wolfe — Date: 6 Jun 52

Control plotted by (III): David F.Romero — Date: 16 Jun 52

Control checked by (III): Louis J.Reed — Date: 16 Jun 52

Radial Plot or Stereoscopic Control extension by (III): Ivan R.Jarrett and Bernard C. Colner — Date: 18 Jul 52

Stereoscopic Instrument delineation compilation (III): Planimetry Ivan R.Jarrett and Bernard C.Colner — Date: 18 Jul 52

Contours — Date:

Manuscript compiled delineated by (III): John B. McDonald — Date: 2 Dec 52

Photogrammetric Office Review by (III): Louis J. Reed and William D. Harris — Date: 12 Dec 52

Elevations on Manuscript checked by (II) (III): Louis J. Reed and William D. Harris — Date: 12 Dec 52

Camera (kind or source) (III): U S Navy 6" wide-angle

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
025-03V thru 029-03V	19 Jun 51	2324 Z	41,000	2ft below MSL 3ft below MHHW

NOTE:
Tide data computed by Mr Wilcox of Tides and Currents, 10 Dec 52.

Tide (III)

Ratio of Ranges	Mean Range	diurnal Spring Range
	2.2	3.7
0.8	1.6	3.0

Reference Station: Dutch Harbor
Subordinate Station: Akun
Subordinate Station:

Washington Office Review by (IV): Date:

Final Drafting by (IV): T-9972 M.Charity 1-18-55 to 1/20/55 T-9973 M.Charity 1-21-55 to 1-26-55 T-9974 M.Charity 1-27-55 to 1-31-55 Date:

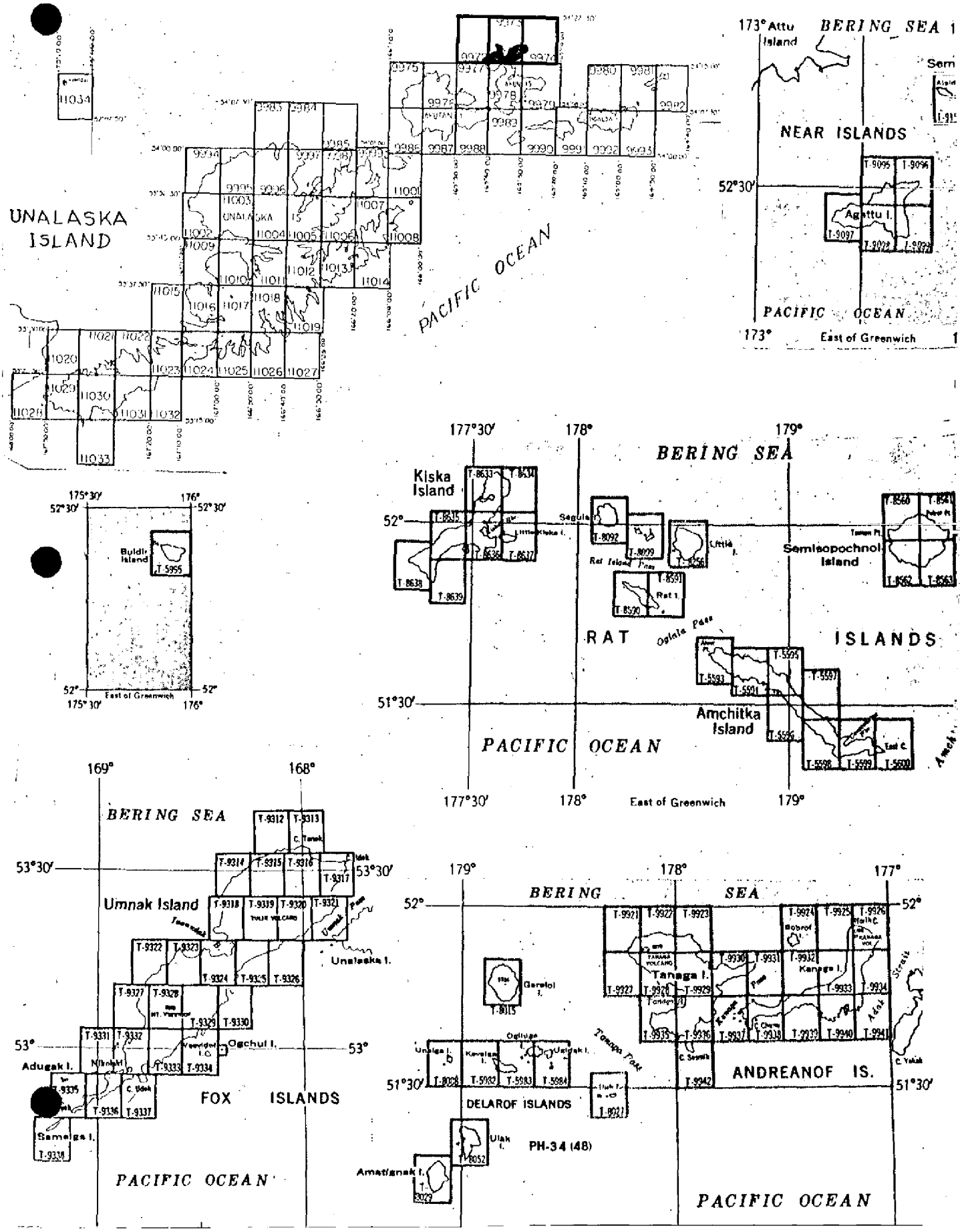
Drafting verified for reproduction by (IV): T-9972 W.O'Kelley Date: 2-21-55

Proof Edit by (IV): Date:

Land Area (Sq. Statute Miles) (III): T-9972 =0.5 sq mi; T-9973 = 14 sq mi; T-9974 =0.9
Shoreline (More than 200 meters to opposite shore) (III): T-9972 = 2 mi; T-9973 = 22; 9974 = 3
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:

ALASKA-BERING SEA Aleutian Islands



Summary

T-9972, T-9973, and T-9974

These maps are three of seven 7.5 x 10 minute quadrangles that cover Akun Island in the Aleutian Islands and are part of Project Ph-34. This project will be discussed in its entirety in the Project Completion Report when all of the maps are registered.

These maps were compiled by Kelsh Plotter from 1:40,000 scale Navy photographs taken in 1951. There was no field inspection or field edit on these maps. Topographic and hydrographic surveys completed 1934 to 1937 were used for control identification and as an aid in delineating foreshore features. The compilation is at 1:20,000 scale with a contour interval of 50 feet with an occasional 25 foot supplementary contour where needed.

Depth curves, soundings and all available hydrographic information will be added to the map manuscripts from hydrographic surveys for publication.

Cloth-backed lithographic prints of each map at compilation scale will be registered with the Descriptive Reports in the Bureau Archives. After publication by the Army Map Service, a cloth-backed color print of each map will also be registered.

COMPILATION REPORT

31. Delineation:

In the absence of field inspection or control identification for this project, 1935 topo and hydro surveys have served both purposes. Therefore no field inspection report is written as a part of this report; only the reports with each topo and hydro survey are involved. Filed in Bureau Archives

No Radial Plot Report is included as a part of this report since no radial plot was required by the compilation process employed. Delineation was accomplished on the Kelsh Plotter by direct setting of each model to the topo survey of the area of each model. Established triangulation was first plotted on the manuscript sheets, and while holding this same control on the topo sheet, two stations at a time, the shoreline and offshore rocks between the two stations were transferred to the manuscripts. Any of this transferred detail then became the control for establishing the scale and orientation of each model. Offshore rocks in the near vicinity of each station were considered the more stable control and were given preference when conflicts occurred. For leveling each model for contouring purposes, the sea-level datum at the shoreline was used, with occasional checks on inland elevations established during the plane table operations. A great deal of shoreline existed in each model and therefore each model was established separately, both horizontally and vertically.

The entire land area of these three quads has been mapped.

32. Control:

Twentyone triangulation stations exist in the area of the three quads of this report, a majority of then being along the shoreline. Several hydro signals were established along the shoreline also, between the primary control stations. No identification cards exist for any of these control points; The triangulation stations were described in the printed Description List, No 21. Hydrographic signals are not shown on map manuscripts.

As stated in side-heading 31 above, vertical control consisted of sea-level at the shoreline and points of elevation fixed during the field topo survey.

Both horizontal and vertical control was sufficient for controlling this compilation. Very few of the permanent stations were held directly because of lack of identification, but the great number of detail points near each station permitted a choice or selection of control points such that a majority of the group were held to.

33. Supplemental Data:

a. Hydro Surveys:

H-5970: AKUTAN BAY & NORTH COAST AKUN ISLAND, ALEUTIAN ISLANDS, 20,000 scale, 1935 season, USC&GS Ship SURVEYOR, A.M.Sobieralski comdg.

33. Supplemental Data (continued):

a. Hydro Surveys (continued):

H-6319: AKUN COVE, AKUN ISLAND, ALEUTIAN ISLANDS, 1937-8, 1:20,000, USC&GS SHIP SURVEYOR, A.M.Soberalski comdg

b. Topo Surveys:

T-4931: NORTH COAST OF AKUN ISLAND, ALEUTIAN ISLANDS, Alaska, 1:20,000, 1935 season, USC&GS SHIP SURVEYOR, A.M.Soberalski comdg.

T-6601: AKUN COVE, AKUN ISLAND, ALEUTIAN ISLANDS, ALASKA, 1:20,000, 1937 season, USC&GS SHIP SURVEYOR, A.M.Soberalski comdg.

34. Contours and Drainage:

The photographic quality of the photographs used was only average, yet satisfactory except in shadow areas caused by extreme high and steep terrain. Only questionable contours could be mapped in these shadow areas and they can be identified on the manuscript as dashed contours.

35. Shoreline and Alongshore Details:

In the absence of field inspected shoreline, the shoreline transferred from the topo surveys to the manuscript or instrument worksheets served as a guide during instrument delineation of the shoreline. The entire shoreline was recompiled because the tendency was for the majority of it to need remapping; changes were never very great in distance, mostly in shaping. All offshore details shown on the Topo or Hydro surveys were investigated in the models; if visible they were detailed. After compilation, a comparison was made with the hydro surveys and all unmapped details thereon that had not been seen and detailed were added to the manuscripts in red ink; these details included a few rocks, most of the sunken rocks, and kelp. The shoreline and alongshore details as shown on the mansucripts, the combination of both instrument details in black and those from the hydro surveys in red, are not in disagreement with the soundings and depth curves on the hydro sheets.

rocks awash

36. Offshore Details: Covered in side-heading 35 above.

37. Landmarks and Aids: None recommended - Billings Head Light not visible in photographs.

38. Control for Future Surveys: Not applicable.

39. Junctions:

Maps joining the three maps of this report are shown on the map layout sketch, page5. All junctions are in agreement since the total area of Akun Island was mapped as one project.

40. Horizontal and Vertical Accuracy:

The scale of these maps is 1:20,000 and the contour interval is 50ft. They meet the requirements set up by map accuracy standards for maps of that scale and interval.

46. Comparison with Existing Maps:

No maps of comparable scale exist; the follwoing map does cover the same area:

"UNIMAK, Alaska Reconnaissance Topographic Series, Third Judicial Division", USGS, 1:250,000, 1951 edition.

47. Comparison with Nautical Charts:

The largest scale chart covering the north portion of Akun Island that falls within the three sheets of this report is: "KRENITZIN ISLANDS", No 8720, 1:80,000, June 1943(1st edition), last correction date of 1 January 1952.

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY = None

ITEMS TO BE CARRIED FORWARD = Billings Head Light

48. Geographic Name List: See page 10.

49. Notes for the Hydrographer: Not applicable.

50. Compilation Office Review: See page 11.

Submitted by

Stanley W. Trow

Stanley W.Trow, Chief,
Single Lens Plotting Instrument Unit

Approved by

Louis J. Reed

Louis J. Reed, Chief
Stereoscopic Mapping Section
Photogrammetric Engineer

GEOGRAPHIC NAMES

Survey No.

T-9973, 74, 72.

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-9972										1
AKUN ISLAND										2
AKUTAN BAY										3
BERING SEA										4
										5
										6
T-9973										7
AKUN BAY ✓										8
AKUN HEAD ✓										9
AKUN ISLAND ✓										10
BERING SEA ✓										11
BIDLINGS HEAD	Does not belong here; it applies to extremity of cape, on T-9974.									12
LITTLE BAY ✓										13
MT GILBERT ✓										14
										15
										16
										17
T-9974										18
AKUN BAY ✓										19
AKUN ISLAND ✓										20
BERING SEA ✓										21
BILLINGS HEAD ✓										22
					Names approved 4-5-54. L. Heck					23
										24
										25
										26
										27

Form T-2

PHOTOGRAMMETRIC OFFICE REVIEW

T-9972, 73, 74

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 N 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 N

CULTURAL FEATURES

27. Roads N 28. Buildings N 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 N

40. William D. Harris
Reviewer

Louis J. Reed
Supervisor, Review Section or Unit
Louis J. Reed, Chief
Stereoscopic Mapping Section
Photogrammetric Engineer

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

Review Report

T-9972, T-9973, and T-9974

62. Comparison with Registered Topographic Surveys.-

T-2546	1:40,000	1901
T-4931	1:20,000	1935
T-6601	1:20,000	1937

T-4931 and T-6601 were used to supplement the photogrammetric compilation. See items 31 and 35 of the Compilation Report. These surveys are superseded by the map manuscripts for nautical charting purposes.

63. Comparison with maps of other Agencies.-

Unimak	1:250,000	1951

Scale difference makes comparison impractical.

64. Comparison with Contemporary Hydrographic Surveys.-

H-5970	1:20,000	1935
H-6319	1:20,000	1937-38

There are no discrepancies between the map manuscripts and these surveys.

65. Comparison with Nautical Charts.-

Chart No. 8720	1:80,000	1943

Billings head light was not visible on the photographs and is not shown on T-9973.

66. Adequacy of Results.- These maps ~~is~~ are adequate for use in hydrographic surveys and nautical chart construction.

Reviewed by:

C. Theurer

APPROVED

L. C. Lande
Chief, Review Branch
Div. of Photogrammetry

H. A. Edmonston
Chief, Nautical Chart Branch
Division of Charts GFU

L. W. Swanson
Chief, Div. of Photogrammetry
July 5, 1955

Earl O. Heaton
Chief, Div. of Coastal Surveys

History of Hydrographic Information
Quadrangle T-9972
Akun Island, Alaska

Hydrography was applied to the map manuscript of this quadrangle in accordance with Division of Photogrammetry, General Specifications, dated 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:

H-5970 (1935) 1:20,000
H-5971 (1935) 1:20,000

Depth curves are shown at 5 and 10 fathoms. Hydrography compiled by C. Theurer and checked by O. Svendsen 14 May 1954.

Charles Theurer
C. Theurer
Div. of Photogrammetry
5/4/54

History of Hydrographic Information
Quadrangle T-9973
Akun Island, Alaska

Hydrography was applied to the map manuscript of this quadrangle in accordance with Division of Photogrammetry General Specifications dated 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:

H-5970 (1935) 1:20,000
H-5971 (1935) 1:20,000

Depth curves are shown at 1,3,5, and 10 fathoms. Hydrography compiled by C. Theurer and checked by O. Svendsen 14 May 1954.

Charles Theurer
C. Theurer
Division of Photogrammetry
5/5/54

History of Hydrographic Information
Quadrangle T-9974
Akun Island, Alaska

Hydrography was applied to the map manuscript of this quadrangle in accordance with Division of Photogrammetry General Specifications dated 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:

H-5761 (1934-35) 1:40,000
5971 (1935) 1:40,000
6319 (1937-38) 1:20,000

Depth curves are shown at 3, 5, and 10 fathoms. Hydrography compiled by C. Theurer and checked by O. Svendsen 14 May 1954.

Charles Theurer
C. Theurer
Div. of Photogrammetry
5/14/54

FORM C&GS-8352
(3-25-63)

NAUTICAL CHART DIVISION

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO.s 9972, 9973, 9974

INSTRUCTIONS

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.
1. Letter all information.
2. In "Remarks" column cross out words that do not apply.
3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

	CHART	DATE	CARTOGRAPHER	REMARKS
T-9972	8720	10-20-64	George Mayes	~~Full~~ (Part) ~~Before~~ (After) Verification Review Inspection Signed Via
				Drawing No. Examined only no corrections made at this time MR 11/12/64.
T-9973	8720	"	" "	~~Full~~ Part ~~Before~~ After Verification Review Inspection Signed Via
				Drawing No. Appld Peak elevations only. MR
T-9974	8720	"	" "	~~Full~~ Part ~~Before~~ After Verification Review Inspection Signed Via
				Drawing No. Examined only - no corr made MR
				Full Part Before After Verification Review Inspection Signed Via
				Drawing No.
				Full Part Before After Verification Review Inspection Signed Via
				Drawing No.
				Full Part Before After Verification Review Inspection Signed Via
				Drawing No.
				Full Part Before After Verification Review Inspection Signed Via
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