

9253

ORIGINAL

Diagram Cht. No. 8802

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Topographic

Field No. Ph-8-B (46) Office No. T-9253

LOCALITY

Territory

State Alaska

General locality Bristol Bay, Walrus Island

Locality Round Island

194 7 - 48

CHIEF OF PARTY

A. N. Stewart, Chief of Party
Div. of Photogrammetry, Wash., D.C.

LIBRARY & ARCHIVES

DATE MARCH 25, 1955

8-1870-1 (1)

9253

DATA RECORD

T-9253

Project No. (II): Ph-8-B(46)

Quadrangle Name (IV): ROUND ISLAND

Field Office (II): Bristol Bay, Alaska

Chief of Party: A. Newton Stewart

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

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

Instructions dated (II) (III): 8 Apr 48

Copy filed in Division of
Photogrammetry (IV)
Office Files

Method of Compilation (III): Reading Plotter, Model A

Manuscript Scale (III): 1:20,000

Stereoscopic Plotting Instrument Scale (III): 1:20,000

Scale Factor (III): 1:1

Date received in Washington Office (IV): 6-6-50

Date reported to Nautical Chart Branch (IV): 9 June 50

Applied to Chart No.

Date:

Date registered (IV): 7/30/53 R.J. Colner

Publication Scale (IV):

Publication date (IV):

Geographic Datum (III): N.A. 1927 unadjusted

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): None

The difference between Unadjusted Datum
and N.A. 1927 Datum is Lat. plus/minus 8 m.
and Long. ~~plus~~/minus 5 m.

Lat.:

Long.:

✓ 122

~~Adjusted~~

Unadjusted

Plane Coordinates (IV):

State:

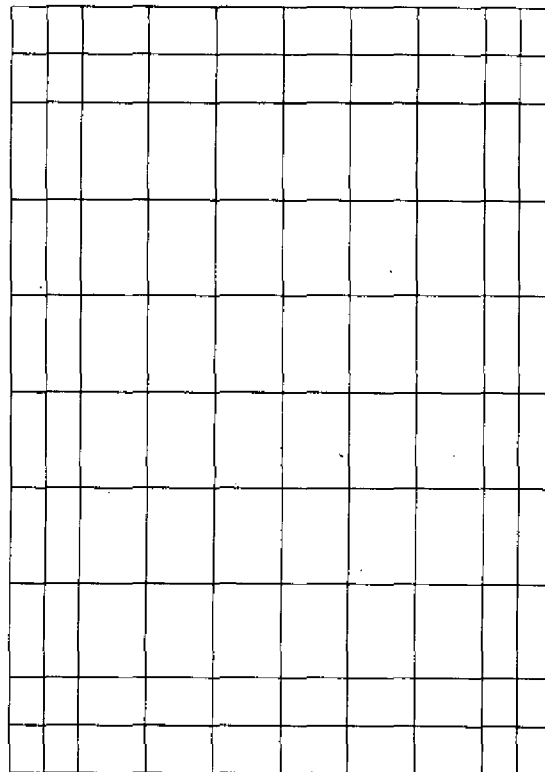
Zone:

Y=

X=

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)

~~Clarence B. Misfeldt~~
and
Louis Levin

DATA RECORD

Field Inspection by (II): A. Newton Stewart

Date: 1947-48

Planetable contouring by (II): None

Date: _____

Completion Surveys by (II): None

Date: _____

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

Manuscript shoreline is dated "summer of 1947". It was delineated on the Reading Plotter, Model A, guided by shoreline indications on field inspection photographs.

Projection and Grids ruled by (IV): Ruling Machine

Date: 16 Apr. 50

Projection and Grids checked by (IV): Theodore L. Janson

Date: 16 Apr. 50

Control plotted by (III): Orvis N. Dalbey

Date: 4 Apr. 49

Control checked by (III): William D. Harris

Date: 4 Apr. 49

Radial Plot or Stereoscopic
Control/extension by (III):

Orvis N. Dalbey

Date: 28 June 49

Planimetry ~~Clarence E. Misfeld~~
and

Stereoscopic Instrument compilation (III):

Contours Louis Levin

Date: 2 Mar. 50

Manuscript delineated by (III): Orvis N. Dalbey

Date: 8 May 50

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

Date: 6 June 50

Elevations on Manuscript
checked by (II)(III):

Louis J. Reed

Date: 6 June 50

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
23197 R	1 Sept. 48	12:58	1:20,000	6.1' above
23198 A	1 Sept. 48	12:59	1:20,000	MLLW

Field Inspection Photos:

17961	23 Sept. 46	1:20,000
17962	23 Sept. 46	1:20,000

Tide (III)

Reference Station: Black Rock Observations

Subordinate Station:

Subordinate Station:

Ratio of Ranges	Mean Range	Spring Range	Diurnal Range
0.4	5.9		9.6

Washington Office Review by (IV): *G. B. Willey*

Date: 21 March 1952

Final Drafting by (IV): *M. J. Day*

Date: Oct 22 '52

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

Date: 10-26-52

Proof Edit by (IV): *W. O. Halluin*

Date: 11-19-52

Land Area (Sq. Statute Miles) (III): 1.1 sq. mi.

Shoreline (More than 200 meters to opposite shore) (III): 5 miles

Shoreline (Less than 200 meters to opposite shore) (III): none

Control Leveling - Miles (II): none

Number of Triangulation Stations searched for (II):

Recovered:

Identified: two

Number of BMs searched for (II): none

Recovered:

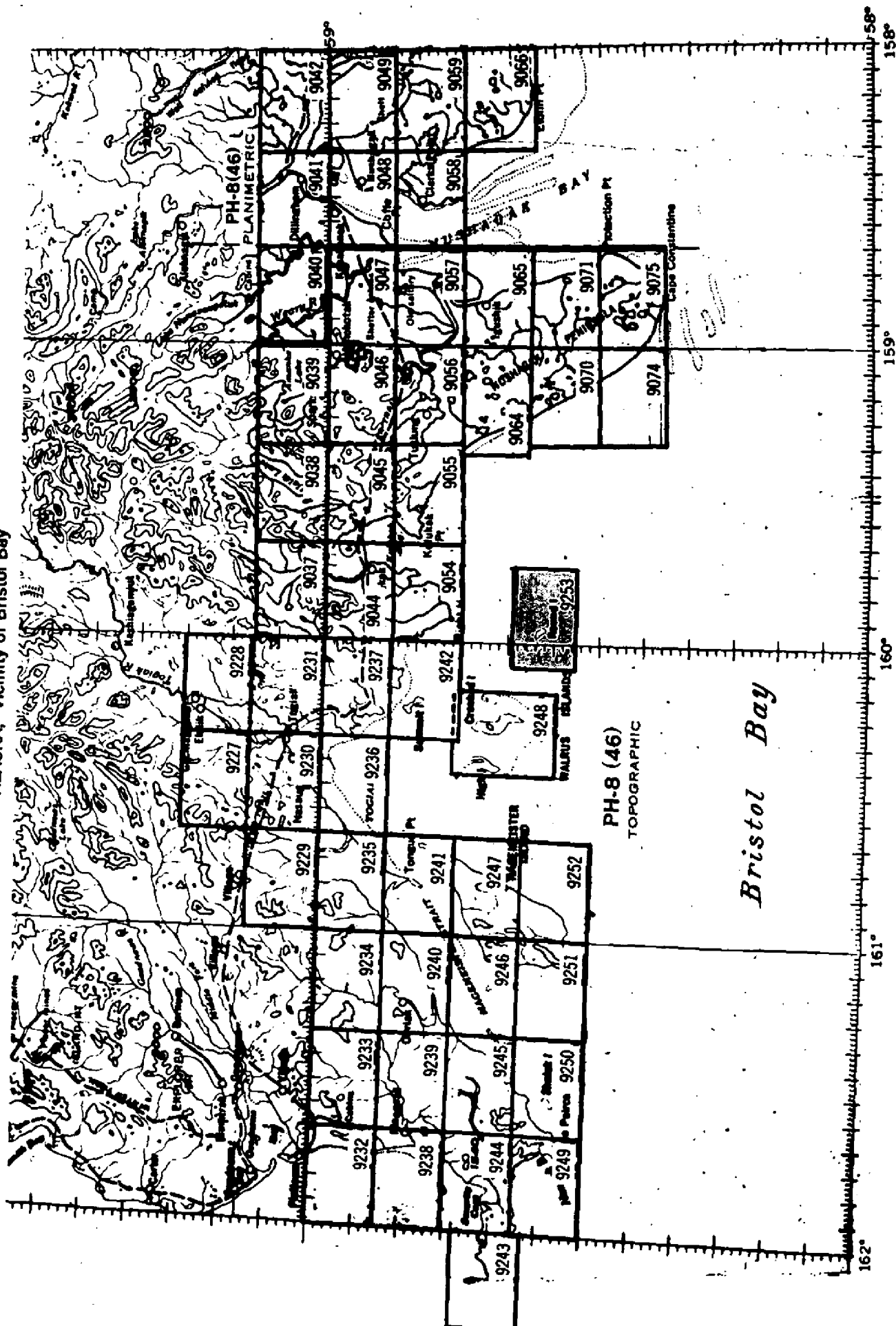
Identified:

Number of Recoverable Photo Stations established (III): three (524 cards prepared in field)

Number of Temporary Photo Hydro Stations established (III): six (field selected)

Remarks:

ALASKA, Vicinity of Bristol Bay



Summary to Accompany T-9253

Ph-8(46) is a topographic map project consisting of 45 maps extending from Nushagak Peninsula to Cape Newenham and north to Goodnews Bay, including the offshore islands, along the northern shore of Bristol Bay, Alaska. Ph-8(46)A consists of 23 planimetric maps covering the area from Egegik Bay to Nushagak Bay including Kvichak Bay, Alaska. Ph-8(46)B consists of 2 shoreline surveys. The hydrography has not been completed in the area of the topographic maps.

T-9253 covers Round Island, the most easterly of the Walrus Islands in Bristol Bay, Alaska, the projection extending from Latitude $58^{\circ}-32'$ to $58^{\circ}-40'$ and Longitude $159^{\circ}-45'$ to $160^{\circ}-05'$ at a scale of 1:20,000. Planimetry and contours were delineated on the Reading Plotter using photographs taken in 1948. The field inspection, consisting of the identification of control, selection of topographic and hydrographic station sites, establishment of vertical control and partial shoreline inspection, was accomplished in 1947.

A cloth-backed lithographic print of this map at the compilation scale and the descriptive report will be registered~~x~~ in the Bureau Archives. These maps will not be published. The manuscripts and a copy of the Descriptive Report will be filed in the Division of Photogrammetry.

Field Inspection Report

See p. 8 for references to Field Reports.

1. Description of the Area.

The Walrus Group of islands lies about 13 miles southwest of Right Hand Point on the mainland, about the same distance straight east of Hagemeister Island, and nearly straight south of the head of Togiak Bay about 20 miles. The group consists of 6 separate islands, Crooked, High, Round, Black Rock, and 2 large rocks known as the Twins.

The general characteristics of the islands are similar in that the shorelines are largely of rocky cliff, with some gravel beaches, and the tops tundra covered. However, each island will be treated separately below.

Crooked Island

Crooked Island is the largest of the Walrus Group. It is about $6\frac{1}{2}$ miles long by a maximum width of $1\frac{1}{2}$ miles and lies in a north-south direction east of High Island. Elevations of around 1000 feet exist in the north and south portions of the island with an east-west saddle thru the center separating them, the higher elevation being to the north. Gravel beaches exist at both ends of the saddle with grass covered benches extending inland. Rocky and steep bluffs rise out of the beaches to the north and south to form the balance of the island's shoreline. The bluffs average about 75 feet in height but rise to nearly 400 feet around the bulge on the west side. In general the shores are rocky but gravel beaches are interspersed between rocky areas. At low water one can walk around the entire island along the shore.

High Island

High Island is the most westerly of the Walrus Group of islands and is also the highest, being about 1200 feet at the northern end of the ridge forming the backbone of the island. It is about 5 by $1\frac{1}{2}$ miles, the long dimension being very close to north-south. It lies to the west and north of Crooked island, about 3 miles of sea separating the two. For the most part, the shoreline is a high rocky cliff with occasional short gravel beaches, short except on the west side of the island where one beach is over a mile in length. Most of the eastern side of the island has cliffs 30 to 40 feet high topped with a narrow bench beyond which tundra and brush covered slopes rise to the central ridge. The cliffs at the south end of the island are much higher, reaching up several hundred feet out of the sea, with the highest elevations being about $\frac{1}{2}$ mile from the south tip of the island on both east and west shores.

Round Island

Round Island is very small, about two miles long and half as wide, but is very high in comparison being around 1000 feet

1410

at the top. It lies to the southeast of the other islands of the Walrus Group and is separated from the nearest one by at least 10 miles of sea. The long axis of the island runs northwest and southeast, the southern end being rounded while the northern end is a sharp point from which a submerged reef extends at least 2 miles towards Crooked Island. The shorelines are steep bluffs varying from 30 to 400 feet except the western side of the island which is an abrupt cliff rising to nearly the top of the island with broken rocks and some gravel lying at its base. A narrow tundra covered bench tops the 30 to 60 foot cliff on the eastern shore and steep slopes extend from it to the top of the island. A prominent rock pinnacle, a landmark, is located on the sharp point forming the northwest end of the island. Both sides of the point are gravel beaches which are habitats for walrus herds. The water around the island appears shoal and contains many rocks, both sunken and exposed at low tide.

Black Rock

This island is a single rock which appears to be an up-thrust on a submerged ridge paralleling and about 3 miles to the east of the northern half of Crooked Island. Its maximum dimension is only about 700 feet.

The Twins

The Twins consist of two sharp rocks located about 3 miles south and 1 mile west off the southern tip of Crooked Island. They form the southern extremity of the Walrus Group of islands and are separated by some 2000 feet of open water, the smaller of the two being to the south. Both rocks are somewhat longer in a north-south direction than they are wide, the larger one being at least four times the longer and measuring about 1000 feet in length.

1-2⁰₈.

Photogrammetric Control identification was made prior to compilation by a Photogrammetric field party under the direction of A. N. Stewart. The field report on this work is included in two Season's Reports entitled, "Project Report - Aerial Photograph Control and Inspection, Bristol Bay, Alaska - Project Ph-8(46)", dated "May to ⁽¹⁹⁴⁷⁾ September 1947" and "May to ⁽¹⁹⁴⁸⁾ July 1948".

* Filed in Bureau Library under Library No. 138⁽¹⁹⁴⁷⁾ and 172⁽¹⁹⁴⁸⁾, respectively.

Louis J. Reef
Louis J. Reef, Chief
Stereoscopic Mapping Section

RADIAL PLOT REPORT

21. Area Covered: Round Island only.
22. Method: Only two 9-lens photographs were required to cover this small island but a simple radial plot was laid to locate hydro signals and secondary points needed for compilation. The photos were 23197R and 23198A.
23. Adequacy of Control: Only two triangulation stations were furnished for control. They were well identified on field photographs and therefore adequate for controlling this small island. In future photogrammetric surveys of this nature, it would be well to plan for a third control point for checking purposes. The stations were ROUND, 1948 and PINNACLE, 1948, the first being photo-identified(sub-station), and the second being identified from field description. A pricking card was submitted for ROUND, 1948 only.
Filed in Div. Photogrammetry general files.
24. Supplemental Data:
 Field inspection photographs 17961 and 17962.
25. Photography: Adequate in all respects

Radial Plot by:

Orvis N. Dalbey
 Orvis N. Dalbey
 Cartographer - Photogrammetrist

Approved by:

Louis J. Reed
 Louis J. Reed, Chief,
 Stereoscopic Mapping Section



COMPILATION REPORT

31. Delineation:-Delineation was accomplished on the Reading Plotter, Model "A".

32. Control:-

a. Horizontal: See side-heading No. 23.

b. Vertical: The water surface furnished the primary vertical control. ~~It was present in both models.~~ In addition, the field furnished elevations for the two triangulation stations which were held to and which are shown on the manuscript in proper symbol. It is to be noted that approximate elevations are given on the 524 cards for the three (3) topographic stations photo-identified in the field; during the instrument delineation two (2) of the elevations ~~found to be not in agreement with~~ ^{measures} and it was deducted that it was because the stations were selected from the air. Vertical control was adequate.

33. Supplemental Data:-Field inspection photographs 17961 and 17962.

34. Contours and Drainage:-There is nothing unusual to report.

35. Shoreline and alongshore Details:-Shoreline inspection was not adequate since the MHWL was indicated along the west coast only. The balance of the shoreline was delineated on the plotting instrument. No shoal line or MLLWL was field identified; the long narrow shoal extending to the NW from the island and ledge along the shoreline of the island proper were delineated on the plotting instrument also.

36. Offshore Details:-There is nothing unusual to discuss.

37. Landmarks and Aids:-The field inspector has recommended a pinnacle rock on the island as a landmark. His description is a bit confusing and it is guessed that triangulation station PINNACLE, 1948, was what he meant to indicate. If not, this office recommends the station ~~anyhow~~ since it is about 250 ft. high and is the only existing pinnacle of any size on Round Island. The island itself could well be considered a landmark and aid to both air and water navigation.

38. Control and Future Surveys:-Three (3) topographic stations were field located and photo-identified, and recovery cards (form 524) have been submitted for each; *MEAT 1947, *NEST 1947, and *NOSE 1947. All three (3) were located by the radial plot and are shown on the manuscript in proper symbol and label.

* Forms 524 filed in Div. Photogrammetry general files.

Six (6) hydro signals, numbers 35 thru 40, were selected by the field inspector, photo-identified and numbered, and described. No additional signals were office selected. A separate page contains the descriptions by numbers; see side-heading No. 49, Notes for the Hydrographer.

39. Junctions:- None

40. Horizontal and Vertical Accuracy:- Standard

46. Comparison with Existing Maps:- No maps of this island exist.

47. Comparison with Nautical Charts:

- a. Bering Sea, Eastern Part, No. 9302,
1:1,534,076, 1st Edition 1900, 16th Edition 1945.
- b. Alaska, Alaska Peninsula and Aleutian Islands
to Segum Pass, No. 8802, 1:1,023,188, 1st Edition
1909, 17th Edition 1944.

48. Geographic Name List:

Bristol Bay See list attached.
Round Island

49. Notes for the Hydrographer:- See separate page.

50. Compilation Office Review:- See T-2 form following

Delineated by:

Louis Levin
Louis Levin
Cartographer-Photogrammetric

Compiled by:

Orvis N. Dalbey
Orvis N. Dalbey
Cartographer-Photogrammetric

Approved and Forwarded by:

Louis J. Reed
Louis J. Reed, Chief,
Stereoscopic Mapping Section

T-9253

Geographic Names

Alaska
Bristol Bay
Walrus Islands
Round Island

Names underlined in red are
approved. 3-18-52.

W. H. R.

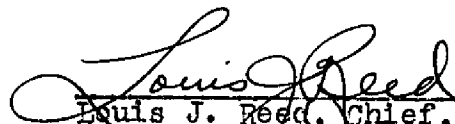
NOTES FOR THE HYDROGRAPHER

Topographic stations, 524 forms

MEAT 1947
NEST 1947
NOSE 1947

Hydrographic Signals

- ✓ No. 35 The highest point of a shoulder of rock protruding from the island.
- ✓ No. 36 A small grass and rock pinnacle on a small rocky promontory about 30 ft. above H.W.
- ✓ No. 37 A rock outcrop about 100 ft. inland and 40 ft. above H.W.L.
- ✓ No. 38 A rock pinnacle, 25 ft. high, and about 30 ft. offshore.
- ✓ No. 39 A large rock about 30 ft. offshore
- ✓ No. 40 The highest point of a detached mass of rock.


Louis J. Reed, Chief,
Stereoscopic Mapping Section

PHOTOGRAMMETRIC OFFICE REVIEW

T-9253

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 ☒ 8. Bench marks ☒ 9. Plotting of sextant fixes ☒ 10. Photogrammetric plot report ☒ 11. Detail points ☒

ALONGSHORE AREAS

(Nautical Chart Data)

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

PHYSICAL FEATURES

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

CULTURAL FEATURES

27. Roads ☒ 28. Buildings ☒ 29. Railroads ☒ 30. Other cultural features ☒

BOUNDARIES

31. Boundary lines ☒ 32. Public land lines ☒

MISCELLANEOUS

33. Geographic names ☒ 34. Junctions ☒ 35. Legibility of the manuscript ☒ 36. Discrepancy overlay ☒ 37. Descriptive Report ☒ 38. Field inspection photographs ☒ 39. Forms ☒ 40. ☒

41. Remarks (see attached sheet)

Supervisor, Review Section or Unit

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-9253
Topographic Map
21 March 1952

62. Comparison with Registered Topographic Surveys:

None.

63. Comparison with Maps of Other Agencies:

None.

64. Comparison with Contemporary Hydrographic Surveys:

None.

65. Comparison with Nautical Charts:

Chart 8802 1:023,188 Scale 17th Edition (1944) 51-6/11

This chart shows the elevation of Round Island to be 1107 Ft., while this survey shows it to be 1110 feet.

66. Adequacy of Manuscript:

This topographic map complies with Bureau standards and with project instructions.

Reviewed by:

Gordon B. Willey
Gordon B. Willey

Approved by:

L. C. Laid 11/23/54 Wallace A. Bruder
Chief, Review Section ~~Branch~~ Acty. Chief, Nautical Chart Branch
Division of Photogrammetry Division of Charts GFI

Max P. Ricketts Carl O. Heaton
Chief, Div. of Photogrammetry Chief, Div. of Coastal Surveys

HORIZONTAL DATUM ADJUSTMENT

Bristol Bay, Alaska

The subject maps were radial plotted on unadjusted (Field) datum which was subsequently adjusted to the North American 1927 datum by the Division of Geodesy. The datum correction has been computed for each sheet, and stamped into the Descriptive Report on page 1, and on the manuscripts and registered cloth-backed copies near the title block. However, as the title block of each clothback sheet contains the note, "1927 North American Datum", it was necessary to stamp the word, "(Unadjusted)" beside this datum note in the title block of each sheet.

See the special report, Horizontal Control Datum, Ph-8(46), Ph-8A(46), and Ph-8B(46), filed with the Completion Report for the project for details and lists of the maps, reports, and registration copies marked with this adjustment. The following is a list of the maps in the projects:

Ph-8(46), TOPOGRAPHIC

T-9038 thru T-9040
9044 " 9047
9054 " 9057
9064,-9065,-9070
9071,-9074,-9075
9227 thru 9253

Ph-8A(46), PLANIMETRIC

T-9041 thru T-9043
9048 " 9053
9058 " 9063
9066 " 9069
9072,-9073
9076,-9078

Ph-8B(46), SHORELINE

T-8873 (E&W) and T-8874