

9244

Diag. Cht. No. 9103

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey TOPOGRAPHIC

Field No. Ph-8 (46) Office No. T-9244

LOCALITY

State ALASKA

General locality BRISTOL BAY AREA

Locality SECURITY COVE

194 8.

CHIEF OF PARTY

A. N. Stewart, Chief of Field Party

E. W. Clark, Portland Photo. Office

LIBRARY & ARCHIVES

DATE June 11 - 1953

8-1870-1 (1)

9244

DATA RECORD

T- 9244

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

Quadrangle Name (IV): SECURITY COVE

Field Office (II): Bristol Bay Area, Alaska Chief of Party: A. Newton Stewart

Photogrammetric Office (III): Portland, Oregon (Plot) Officer-in-Charge: Charles W. Clark
Washington, D. C. Louis J. Reed, ChiefInstructions dated (II) (III): 4 February 1949 (Radial Plot) Copy filed in Division of
21 April 1948 (Field) Stereoscopic Mapping Section
Photogrammetry (IV)

Method of Compilation (III): Reading Plotter

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): 9-20-50 Date reported to Nautical Chart Branch (IV): 9-22-50

Applied to Chart No.

Date:

Date registered (IV): 15 Apr. 1953

Publication Scale (IV):

Publication date (IV):

Geographic Datum (III): North American 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

The difference between Unadjusted Datum
and N.A. 1927 Datum is Lat. plus/minus 17 m.
and Long. minus 25 m.

Reference Station (III):

Lat.:

Long.:

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)
(X) (III)

Clarence E. Misfeldt
and
Louis Levin

Camera (kind or source) (III):

		PHOTOGRAPHS (III)		Scale	Stage of Tide
Number	Date		Time		
20520 to 20524 incl.	8/24/47	*		1:20,000	--
20531 to 20535 incl.	8/24/47	*		1:20,000	--
23167 to 23169 incl.	9/1/48		11:47	1:20,000	3.0' below MSL (MLLW)

* Clock in camera not functioning

Tide (III)

Reference Station: Matarani, Peru

Subordinate Station:

Subordinate Station:

Washington Office Review by (IV):

Final Drafting by (IV):

Drafting verified for reproduction by (IV):

Proof Edit by (IV):

Land Area (Sq. Statute Miles) (III): 66

Shoreline (More than 200 meters to opposite shore) (III): 38

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

Control Leveling - Miles (II): none

Number of Triangulation Stations searched for (II): 5

Number of BMs searched for (II): none

Number of Recoverable Photo Stations established (III): 4

Number of Temporary Photo Hydro Stations established (III): 20

Recovered: 5
Recovered:Identified: 3
Identified:

Remarks:

Tide Predictions, Alaska ^{were} prepared by the Division of
Tides and Currents ~~prep~~ for the more accurate prediction
of tides at various points in this part of project Ph-8.
Details for T-9244 are on reverse side of this page.

Diurnal

Ratio of Ranges	Mean Range	Spring Range
*2.8	6.2	8.9

*Ratio of rise for high
waters. Date:

Date: 1-30-53

Date: 2-5-53

Date: 2/25 53

Tide Predictions, Alaska

Bristol Bay Reference Station Nushagak Bay Time Meridian 150°W

Hagemeister Island to Cape Newenham:

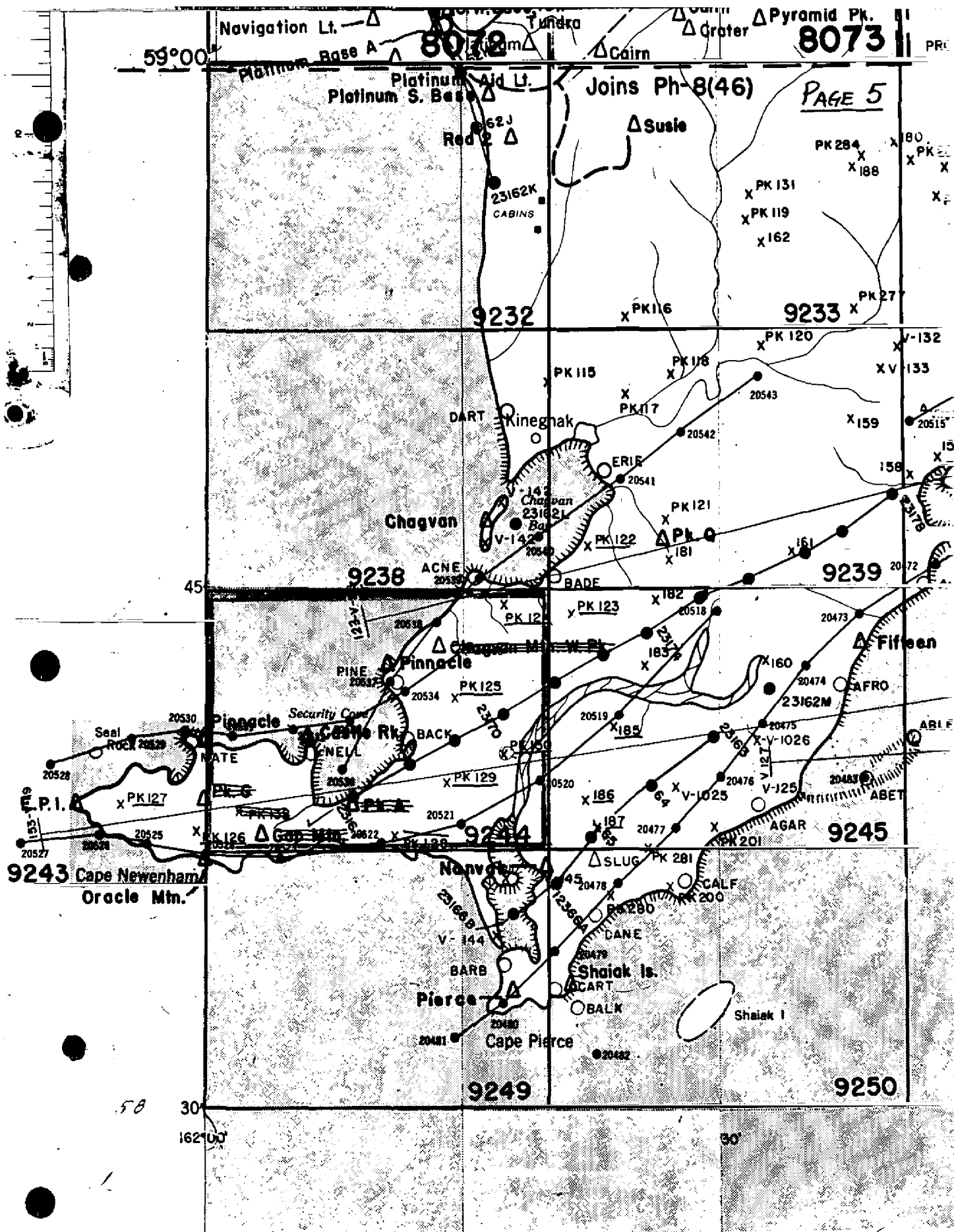
Times of high and low waters subtract $4^{\text{h}} 30^{\text{m}}$
Heights of high waters multiply by ratio 0.55
Heights of low waters multiply by ratio 0.85
Subtract 6.0 ft. to refer heights to MSL

Kuskokwim Bay

Reference Station Matarani
Time Meridian 150°W

Cape Newenham to Goodnews Bay:

Times of high and low waters subtract 10 minutes
Heights of high waters multiply by ratio 2.8
Heights of low waters multiply by ratio 2.0
Subtract 3.7 feet to refer heights to MSL



Summary to Accompany T-9244

Ph-8(46) covers the north shore of Bristol Bay in Alaska and runs from the Egegik River and Kvichak Bay on the East to Cape Newenham on the West.

It is divided into three parts as follows:

Ph-8(46)A includes 23 planimetric maps in the general area of Kvichak Bay and extends from Egegik Bay to Nushagak Bay.

Ph-8(46)B is composed of two shoreline surveys on the Egegik River between Egegik Bay and Lake Becharof.

Ph-8(46) includes 45 topographic maps covering the area from Nushagak Peninsula westward to Cape Newenham and north to Goodnews Bay. It includes offshore islands such as Hagemeister and the Walrus Islands.

T-9244 is on the western portion of the project and is bounded by Bristol and Nanvak Bays on the South and Kuskokwim Bay and Security Cove on the north and west.

The map manuscript consists of one sheet, 8 minutes in latitude and 20 minutes in longitude, at a scale of 1:20,000, with a contour interval of 50 feet. A cloth-backed lithographic print of the map at the compilation scale will be registered with the Descriptive Report in the Bureau Archives. This map will not be published.

FIELD INSPECTION REPORT

Refer to "PROJECT REPORT, AERIAL PHOTOGRAPH CONTROL and
INSPECTION, BRISTOL BAY, ALASKA", Project Ph-8(46) May to
July 1948. A. Newton Stewart, Chief of Party. *Library #172/48.*

PHOTOGRAMMETRIC PLOT REPORT

See descriptive report for T-9238, Project Ph-87(46).

COMPILATION REPORT
Washington Office31. Delineation:

Contours, shoreline, and all cultural features were delineated simultaneously on the Reading Plotter, Model A. Photo coverage was complete. Field inspection covered the shoreline on the sheet but was very limited in the amount of detail and information furnished; map detail is mostly of office origin.

32. Control:

Refer to descriptive report for map manuscript T-9238, side-heading No. 23, where it is stated that field selection and identification of control was very poor but that after considerable consultation with field personnel who did the work adequate stations to control the radial plot were identified. This office made a thorough study of the station identification and agrees with the Portland Office as regards the quality of the field work. However, no alteration of the plot was considered feasible and the plot was accepted.

Vertical Control was furnished primarily by the surface of the sea surrounding Cape Newenham. In addition, elevations were furnished by the field for five peaks falling within the limits of this map, and for several other peaks located just outside. All peaks are underlined on the map layout and control sketch, page 5. Vertical control was adequate for contouring.

33. Supplemental Data:

- a. Plotting Instrument Photographs:
20520, 21, 22, 23, 24, 30, 31, 32, 33, 34, 38, 39.
23168, 70, 72.
- b. Field Inspection Photographs:
20521, 22, 30, 33, 38, 39 (dine-lens field prtins).
- c. Graphic Control Surveys:
 - (1) T-3310, "West Coast of Alaska - Bering Sea - Security Cove", Explorer, R. S. Patton, 1912, 1:20,000
 - (2) T-3311 and 12, "Alaska - West Coast, Cape Newenham to Chagvan Bay and Chagvan Bay to Goodnews Bay", Explorer, R. S. Patton, 1912, 1:20,000.

d. Hydrographic Surveys:

- (1) H-3409, "Alaska - West Coast - Bering Sea - Cape Newenham - etc.", Explorer, R. S. Patton, 1:60,000, July - September 1912.
- (2) H-3410, "Alaska - West Coast - Bering Sea - Security Cove", Explorer, R. S. Patton, 1:20,000, 1912.

34. Contours and Drainage:

No particular difficulty was had with the photography other than photographic quality which could have been improved somewhat, and no areas of questionable contours exist.

35. Shoreline and Alongshore Details:

The shoreline around the Cape is very rugged and therefore very little alongshore detail was indicated by the field inspector. Likewise, very little shoreline was identified on the photographs; it was shown only where gravel beaches existed in the vicinity of Security Cove on the north coast of the peninsula and in Upper Nanvak Bay on the south. Field inspection showed no shoal or low water lines; shoal lines on the manuscript are plotting instrument delineated. The stage of the tide when the photographs were taken was about three feet below mean sea level. The instrument operators had this in mind during delineation and the shoreline and offshore details are considered to be in good position in spite of the lack of field inspection.

36. Offshore Details: Not applicable.

37. Landmarks and Aids:

One landmark was selected in the field and recommended to be shown on the map as such, Castle Rock by name. Reference form 567, page 47, in A. N. Stewart's 1948 season report No. 172, entitled, "Aerial Photograph Control and Inspection, Bristol Bay, Alaska". Castle Rock can be identified on the manuscript since a triangulation station was located on it and labeled "Castle Rock, 1948". It comprises the elevated nose of the small peninsula jutting seaward at the west side of Security Cove.

Landmark added to chit. 9103 377a 3-20-58

38. Control for Future Surveys:

Reference side-heading No. 49 of this report, "Notes to the Hydrographer", where recoverable tape and hydro stations are listed with descriptions and number of photo on which each is identified. All stations have been located by the radial plot and are shown by symbol on the

38. Control for Future Surveys: (Continued)

map manuscript. No additional stations were added during instrument delineation. 524 cards were furnished for the three topo stations ~~stations~~ located on this quadrangle.

39. Junctions:

This map sheet junctions T-9243, T-9245, T-9238, and T-9249. All junctions are in agreement.

40. Horizontal and Vertical Accuracy: Standard. See Item 66 of the Review Report.

46. Comparison with Existing Maps:

USGS Alaska Map 18, Goodnews District, Alaska, 1:250,000, 1938 edition.

47. Comparison with Nautical Charts:

Chart No. 9103, Kuskokwim Bay, 1:200,000, published September 1916 (2nd Edition), last correction 21 April 1947.

48. Geographic Name List:

See separate page following.

49. Notes for the Hydrographer:

See two separate unnumbered pages following.

50. Compilation Office Review:

See T-2 form following.

Submitted by:

Orvis N. Dalbey
Orvis N. Dalbey,
Cartographer-Photogrammetric

Approved and Forwarded:

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

GEOGRAPHIC NAMES

Survey No.

T-9244

Name on Survey

On Chart
No.

A

B

C

D

E

F

G

H

K

On previous survey
No.

On U. S. quadrangle
Maps

From local
information

On local Maps

P. O. Guide or Map

Rand McNally Atlas

U. S. Light List

✓ Bristol Bay

1

✓ Chagvan Mtn

2

✓ Kuskokwim Bay

3

✓ Nanvak Bay

4

✓ Security Cove

5

Slug River

6

✓ Gap Mt.

7

Alasria

8

✓ Castle Rock

9

Names underlined in
red are approved

10-8-52
L. Heck

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PHOTOGRAMMETRIC OFFICE REVIEW

T. 9244

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 ☒

*✓ = checked
n = non-existent*

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)

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

49: NOTES FOR THE HYDROGRAPHER:

Map Manuscript T-9244

Photo Hydrographic Stations

<u>Signal No.</u>	<u>Photo No.</u>	<u>Description</u>
✓ 354	20537	Sharp rock projects 3 m above MHW
✓ 355	20537	Sharp rock projects 2 meters above MHW. (Highest of 2 rocks.)
✓ 356	20533	Highest point (tuft of grass) of point of land about 200 ft. above MHW.
357	20532	Highest point of jagged rocks about 300 ft. elevation above MHW.
✓ 358	20532	Highest point of large rock just offshore.
✓ 359	20532	End of strip of grass at end of small spit.
✓ 375	20521	High water rock about 1m above MHW and 6 x 10 ft. across top (flat top.).
391	20537	Outer end of rock about 15 m high connected to shore by low rock ridge.
✓ 392	20538	Lone grass topped rock 40 m out from base of bluff and about 7 m above MHW.
393	20538	Low rock about 2 m above MHW and at about mean low water line.
✓ 394	20538	Low rock about 35 m out from base of bluff.
✓ 395	20531	Sharp rock just offshore about 10 m.
✓ 396	20531	Sharp rock just offshore about 7 m.
✓ 397	20531	Pinnacle rock on top of rock ledge that extends out from mainland.
✓ 398	20531	Sharp symmetrical rock outcrop on top of the west end of a ridge. Elevation 950 ft.
✓ 565	20523	Pinnacle rock about 15 m above MHW and 25 m out from base of bluff.

<u>Signal No.</u>	<u>Photo No.</u>	<u>Description</u>
566	20523	Large white topped rock about 5 m above MHW and 10 m out from shore.
567	20523	Grass topped sharp rock just out from shore.
568	20523	Highest point and outer edge of white topped rock about 3 m above MHW and 40 m out from shore.
570	20522	Outer and west end top of grass topped rocky point about 25 m about MHW.

Recoverable Topographic Stations

BACK 1948 ✓	GOOD 1948 ✓
BASE 1948 ✓	NELL 1948 ✓

Photo Hydrographic Stations Continued

<u>Signal No.</u>	<u>Photo No.</u>	<u>Description</u>
571	20522	Highest point of white topped rock about 20 m out from base of bluff.
572	20522	Highest and west of top of large rock about 15m about MHW and about 7 m out from shore.

Review Report T-9244
Topographic Map
November 17, 1952

62. Comparison with Registered Topographic Surveys.-

T-3311 1:20,000 1912

This map manuscript supersedes this survey for nautical charting purposes.

63. Comparison with Maps of other Agencies.-

Goodnews District, Alaska, 1:250,000, 1938 - USGS

no discrepancies noted.

64. Comparison with Contemporary Hydrographic Surveys.- None

65. Comparison with Nautical Charts.-

See Item 47.

Chart No. 9103, Kuskokwim Bay, 1:200,000, published September 1916 (2nd edition), last correction 10 October 1950. There are no significant differences between T-9244 and the chart.

66. Adequacy of Results and Future Surveys.- Further field edit is not considered necessary prior to hydrographic surveys in the area.

This map complies with project instructions and is adequate as a base for hydrographic surveys and the construction of nautical charts.

Reviewed by:




B. J. Colner

APPROVED:



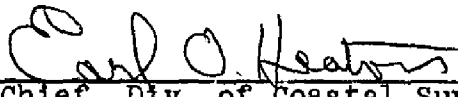
Chief, Review Section
Div. of Photogrammetry



Chief, Nautical Chart Branch
Division of Charts GFI



Chief, Div. of Photogrammetry
RLL



Chief, Div. of Coastal Surveys
HCF

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

NAUTICAL CHARTS BRANCH

SURVEY NO. T.9244

Record of Application to Charts

[illegible]

M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.