U.S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey: TOPOGRAPHIC
Field No.: Ph-6 (46) Office No.: T-9244

LOCALITY
State: ALASKA
General locality: BRISTOL BAY AREA
Locality: SECURITY COVE

1948

CHIEF OF PARTY
A.N. Stewart, Chief of Field Party
E.N. Clark, Portland Photo. Office

LIBRARY & ARCHIVES
DATE: June 11, 1953
DATA RECORD

T- 9244

Project No. (II): Ph-87(46)  Quadrangle Name (IV): SECURITY COVE

Field Office (II): Bristol Bay Area, Alaska  Chief of Party: A. Newton Stewart
Photogrammetric Office (III): Portland, Oregon (Plots)  In-Charge: Charles W. Clark
Washington, D. C.  Chief: Louis J. Reed, Chief
Instructions dated (II) (III): 4 February 1949 (Radial Plot)
21 April 1948 (Field)

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): 5 Apr. 1953

Publication Scale (IV): Publication date (IV):
Geographic Datum (III): North American 1927

The difference between Unadjusted Datum
and N.A. 1927 Datum is lat. plus/minus 17 m.
and long. minus 26 m.

Reference Station (III):
Lat.:  Long.:  

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)

Clarence E. Misfeldt
and
Louis Levin
Camera (kind or source) (III):
Number       Date       Time     Scale
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

* Clock in camera not functioning

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): 6
Shoreline (More than 200 meters to opposite shore) (III): 8
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

Remarks: Tide Predictions, Alaska prepared by the Division of Tides and Currents 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.
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 h 30 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: Mataranı
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

PHOTOGRAMMETRIC PLOT REPORT

See descriptive report for T-9238, Project Ph-87(46).
31. **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 (three-lens field prisms).

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.


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.

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 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:**


47. **Comparison with Nautical Charts:**


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, Cartographer-Photogrammetric

Approved and Forwarded:

Louis J. Reed, Chief, Stereoscopic Mapping Section Washington Office
<table>
<thead>
<tr>
<th>Name on Survey</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>K</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bristol Bay</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Chagyan Mtn</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Kuskokwim Bay</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Nanvak Bay</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Security Cove</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5</td>
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<tr>
<td>Slug River</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6</td>
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<tr>
<td>Gap Mt.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7</td>
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<tr>
<td>Alaskaia</td>
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<td></td>
<td></td>
<td></td>
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<td></td>
<td>8</td>
</tr>
<tr>
<td>Castle Rock</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9</td>
</tr>
</tbody>
</table>

Names underlined on red are approved.

10-8-57
L. Heck
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 alongshore 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. Juncions
35. Legibility of the manuscript
36. Discrepancy overlay
37. Descriptive report
38. Field Inspection photographs
39. Forms

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:

N-2623-12
<table>
<thead>
<tr>
<th>Signal No.</th>
<th>Photo No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>354</td>
<td>20537</td>
<td>Sharp rock projects 3 m above MHW</td>
</tr>
<tr>
<td>355</td>
<td>20537</td>
<td>Sharp rock projects 2 meters above MHW. (Highest of 2 rocks.)</td>
</tr>
<tr>
<td>356</td>
<td>20533</td>
<td>Highest point (tuft of grass) of point of land about 200 ft. above MHW.</td>
</tr>
<tr>
<td>357</td>
<td>20532</td>
<td>Highest point of jagged rocks about 300 ft. elevation above MHW.</td>
</tr>
<tr>
<td>358</td>
<td>20532</td>
<td>Highest point of large rock just offshore.</td>
</tr>
<tr>
<td>359</td>
<td>20532</td>
<td>End of strip of grass at end of small spit.</td>
</tr>
<tr>
<td>375</td>
<td>20521</td>
<td>High water rock about 1 m above MHW and 6 x 10 ft. across top (flat top.).</td>
</tr>
<tr>
<td>391</td>
<td>20537</td>
<td>Outer end of rock about 15 m high connected to shore by low rock ridge.</td>
</tr>
<tr>
<td>392</td>
<td>20538</td>
<td>Lone grass topped rock 40 m out from base of bluff and about 7 m above MHW.</td>
</tr>
<tr>
<td>393</td>
<td>20538</td>
<td>Low rock about 2 m above MHW and at about mean low water line.</td>
</tr>
<tr>
<td>394</td>
<td>20538</td>
<td>Low rock about 35 m out from base of bluff.</td>
</tr>
<tr>
<td>395</td>
<td>20531</td>
<td>Sharp rock just offshore about 10 m.</td>
</tr>
<tr>
<td>396</td>
<td>20531</td>
<td>Sharp rock just offshore about 7 m.</td>
</tr>
<tr>
<td>397</td>
<td>20531</td>
<td>Pinnacle rock on top of rock ledge that extends out from mainland.</td>
</tr>
<tr>
<td>398</td>
<td>20531</td>
<td>Sharp symmetrical rock outcrop on top of the west end of a ridge. Elevation 950 ft.</td>
</tr>
<tr>
<td>565</td>
<td>20523</td>
<td>Pinnacle rock about 15 m above MHW and 25 m out from base of bluff.</td>
</tr>
<tr>
<td>Signal No.</td>
<td>Photo No.</td>
<td>Description</td>
</tr>
<tr>
<td>-----------</td>
<td>-----------</td>
<td>-------------</td>
</tr>
<tr>
<td>566</td>
<td>20523</td>
<td>Large white topped rock about 5 m above MHW and 10 m out from shore.</td>
</tr>
<tr>
<td>567</td>
<td>20523</td>
<td>Grass topped sharp rock just out from shore.</td>
</tr>
<tr>
<td>568</td>
<td>20523</td>
<td>Highest point and outer edge of white topped rock about 3 m above MHW and 40 m out from shore.</td>
</tr>
<tr>
<td>570</td>
<td>20522</td>
<td>Outer and west end top of grass topped rocky point about 25 m about MHW.</td>
</tr>
</tbody>
</table>

**Recoverable Topographic Stations**

BACK 1948 — GOOD 1948 —
BASE 1948 — NELL 1948 —

**Photo Hydrographic Stations Continued**

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

[Signatures of approved individuals]
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

<table>
<thead>
<tr>
<th>T-9038 thru T-9040</th>
<th>T-9041 thru T-9043</th>
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<tbody>
<tr>
<td>9047</td>
<td>9048</td>
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<tr>
<td>9057</td>
<td>9058</td>
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<tr>
<td>9065, 9070</td>
<td>9066, 9069</td>
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<tr>
<td>9074, 9075, 9076</td>
<td>9072, 9073</td>
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<tr>
<td>9227 thru 9253</td>
<td>9076, 9078</td>
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Ph-8A(46), PLANIMETRIC

<table>
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<th>T-9041 thru T-9043</th>
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<td>9048</td>
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<tr>
<td>9051</td>
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<tr>
<td>9058</td>
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<tr>
<td>9066</td>
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</table>

Ph-8B(46), SHORELINE

T-8873 (E&W) and T-8874
# NAUTICAL CHARTS BRANCH

## SURVEY NO. T.9244

### Record of Application to Charts

<table>
<thead>
<tr>
<th>DATE</th>
<th>CHART</th>
<th>CARTOGRAPHER</th>
<th>REMARKS</th>
</tr>
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<tbody>
<tr>
<td>Feb. 1958</td>
<td>910.3</td>
<td>L. S. S.</td>
<td>Before After Verification and Review</td>
</tr>
<tr>
<td>12-29-69</td>
<td>9103</td>
<td>H. Cadden</td>
<td>Checked after review (considered adequate work)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>New chart after Verification and Review</td>
</tr>
</tbody>
</table>

Before After Verification and Review

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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.