Form 864
U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey: Shoreline
Field No.: Fh-164
Office No.: T-8608

LOCALITY
State: Alaska
General locality: Cook Inlet
Locality: Port Graham

1953-56

CHIEF OF PARTY
G.A. Nelson, Chief of Party
L.W. Swanson, Div. of Photo. Wash., D.C.

LIBRARY & ARCHIVES
DATE: May 1963
DATA RECORD

T - 8608

PH 164

Project No. (II): 22-23

Quadrangle Name (IV):

Field Office (II): Ship Explorer

Chief of Party: G. A. Nelson

Photogrammetric Office (III): Wash. D. C.

Officer-in-Charge: L. W. Swanson

Instructions dated (II) (III): 22, Aug 1956

Copy filed in Division of Photogrammetry (IV)

Method of Compilation (III): Graphic

Manuscript Scale (III): 1:10,000

Stereoscopic Plotting Instrument Scale (III):

Scale Factor (III):

Date received in Washington Office (IV): Date reported to Nautical Chart Branch (IV):

Applied to Chart No. Date: Date registered (IV): 7/25/62

Publication Scale (IV):

Publication date (IV):

Geographic Datum (III): N. A. 1927

Vertical Datum (III): MHW

Mean sea level except as follows:
Elevations shown as (2) refer to mean high water
Elevations shown as (g) refer to sounding datum
i.e., mean low water or mean lower low water

Reference Station (III):

Lat.: Long.:

Adjusted

Unadjusted

Plane Coordinates (IV): UT M

State: Zone: 5

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)

Inapplicable
DATA RECORD

Field inspection by (II): C. W. Clark Date: May 1956

Plane stable contouring by (II): Inapplicable Date:

Completion Surveys by (III): Inapplicable Date:

Mean High Water Location (III) (State date and method of location):
Identified in field on 1953 photographs

Projection and Grids ruled by (IV): A. Riley Date: 9-7-56

Projection and Grids checked by (IV): A. Riley Date: 9-7-56

Control plotted by (III): J. Battley Date: 9-26-56

Control checked by (III): G. Amburn Date: 9-27-56

Radial Plot or Stereoscopic
Control extension by (III):

Stereoscopic Instrument compilation (III):

Manuscript delineated by (III): G. Amburn Date: 11-1-56

Photogrammetric Office Review by (III): Date:

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

<table>
<thead>
<tr>
<th>Number</th>
<th>Date</th>
<th>Time</th>
<th>Scale</th>
<th>Stage of Tide</th>
</tr>
</thead>
<tbody>
<tr>
<td>01160 thru 01162</td>
<td>24 Jul 1953</td>
<td>1458-59</td>
<td>1:10000</td>
<td>10.9 ft above MLLW</td>
</tr>
<tr>
<td>01133, 01134</td>
<td></td>
<td>1440</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Tide (III)

Reference Station: Seldovia, Kachemak Bay
Subordinate Station: Port Graham
Subordinate Station: 

Washington Office Review by (IV): 
Final Drafting by (IV): 
Drafting verified for reproduction by (IV): 
Proof Edit by (IV): 

<table>
<thead>
<tr>
<th>Ratio of</th>
<th>Mean Range</th>
<th>Spring Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ranges</td>
<td>Range</td>
<td></td>
</tr>
<tr>
<td>0.9</td>
<td>15.4</td>
<td>17.5</td>
</tr>
</tbody>
</table>

Land Area (Sq. Statute Miles) (III):
Shoreline (More than 200 meters to opposite shore) (III):
Shoreline (Less than 200 meters to opposite shore) (III):
Control Leveling - Miles (II):
Number of Triangulation Stations searched for (II):
Number of BMs searched for (II):
Number of Recoverable Photo Stations established (III):
Number of Temporary Photo Hydro Stations established (III):

Remarks:

* Ht. of MHW referred to MLLW = 15.8
Photogrammetric Plot Report  
Port Graham, Alaska  
Project 27370


22. Method.- Polyconic projection and U.T.M. grid Zone 5 were ruled at 1:10,000 scale on Mylar manuscripts for the radial plot. A tab was extended west of T-9568 for the addition of three triangulation stations, Flat l. Light 1956, Point Bede 1956 and Magnet Rock 1956. The grid was used to junction the manuscripts and held scale well.

The 1953 master calibration template was used to prepare the mylar and vinylite templates.

The photographs were positype paper prints. No unusual problems were encountered in photograph preparation. Excellent to Satisfactory closures were maintained on control stations used in the plot. All control and pass points were drilled with a number 80 twist drill through the templates to the manuscript. The manuscript positions were then circled with red GPO ink.

23. Adequacy of control.- The distribution and density of horizontal control was considered adequate (see photogrammetric plot sketch). Seventeen field identified triangulation stations were used in controlling the radial plot. Of these only two did not hold in the plot and are discussed below:

BIRD 2 1956.... 0.3 mm. South of plotted position. The accuracy of identification was regarded as doubtful by both the field and the office.

HERON sub.pt.3 1956....0.4 mm. West. Photographic identification was difficult and considered doubtful. Surrounding control held very well.

24. Supplemental data.- None

25. Photography.- The photography is considered adequate as to coverage and overlap. As every other photograph was not ordered in the two flights bordering Port Graham, difficulty was encountered in accurately transferring conjugate centers. However, the abundance of control counteracted this deficiency in extending the plot.

26. Junctions.- A satisfactory junction of common pass points and control was effected with the previous radial plot falling east and adjacent to this plot.
Submitted by:

Jeter P. Battley Jr.
Jeter P. Battley, Jr.
Cartographer

Approved by:

Everett H. Ramsey
Everett H. Ramsey, Chief
Graphic Unit
<table>
<thead>
<tr>
<th>STATION</th>
<th>SOURCE OF INFORMATION (INDEX)</th>
<th>LATITUDE OR ( y )-COORDINATE</th>
<th>LONGITUDE OR ( x )-COORDINATE</th>
<th>DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS</th>
<th>N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dangerous 1910</td>
<td>421</td>
<td>59.25</td>
<td>30.146</td>
<td>932.9 (923.8)</td>
<td></td>
</tr>
<tr>
<td>Bird 2, 1956</td>
<td>Field Comp.</td>
<td>59.23</td>
<td>21.578</td>
<td>667.8 (1189.0)</td>
<td></td>
</tr>
<tr>
<td>Down 2, 1956</td>
<td></td>
<td>59.23</td>
<td>22.183</td>
<td>686.5 (1170.3)</td>
<td></td>
</tr>
<tr>
<td>Rough 1908</td>
<td>434</td>
<td>59.23</td>
<td>37.71</td>
<td>1167.0 (689.7)</td>
<td></td>
</tr>
<tr>
<td>Down 2, 1956</td>
<td></td>
<td>59.23</td>
<td>22.65</td>
<td>706.0 (1150.7)</td>
<td></td>
</tr>
</tbody>
</table>

1 FT. = 0.0254 METER

COMPUTED BY: E.H. Ramey  DATE: 24 September 1956  CHECKED BY: DATE:
31. Delineation:

Features were delineated on plastic work sheets by stereoscopic examination of nine-lens photographs using field inspection photographs as a guide. The work sheets were then adjusted to the scale of the map manuscript for the compilation.

32. Control:

See the attached PHOTOGRAMMETRIC PLOT REPORT.

33. Supplemental Data: None

34. Contours and Drainage: Inapplicable

35. Shoreline and Alongshore Details:

Field inspection was generally adequate for the delineation of shoreline. (See Sub-heading 7 of FIELD INSPECTION REPORT.)

36. Offshore Features:

The field inspection required some office interpretation (See Sub-Heading 8 of the FIELD INSPECTION REPORT.)

37. Landmarks and Aids: None

38. Control for future surveys: None

39. Juncions:

This survey junctions with T-9560 to the East and T-9568 to the South. No contemporary surveys are available to the North and West.

40. Horizontal and Vertical Accuracy:

See the PHOTOGRAMMETRIC PLOT REPORT for a detailed discussion of accuracy. No deficiencies are indicated.

41. Through 45 Inapplicable
46. Comparison with existing maps:

T-3106  Scale 1:40,000  Dated 1910
T-2879  Scale 1:10,000  Dated 1908

Seldovia (B6) Alaska (USGS) Scale 1:63,360 date 1953

Features that are not visible on the photographs that appear on T-2879 and Seldovia (B6) are, Dangerous Cape Reef off Dangerous Cape, a pier and a coal mine at Goal Cove. The above features also were not field inspected. Survey T-8608 generally shows alongshore features in much greater detail than the above maps.

47. Comparison with Nautical Charts:

The manuscript was compared with Nautical Chart No. 8580, scale 1:20,000, published in 1909, corrected to 6-18-51. See Item No. 46.

Items to be applied immediately: None

Items to be carried forward: Features below the plane of MHW are subject to revision by hydrographic surveys.

Approved by: Everett H. Ramsey
Chief, Graphic Compilation Unit

Submitted by: Garnett S. Amburn
Cartographic Aide
I recommend that the following objects which have (have not) been inspected from seaward to determine their value as landmarks be charted on (deleted from) the charts indicated.

The positions given have been checked after listing in

<table>
<thead>
<tr>
<th>Light List</th>
<th>Latitude</th>
<th>Longitude</th>
<th>Datum</th>
<th>Method of Location and Survey No.</th>
<th>Date of Location</th>
<th>Charts Affected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flat Island Light</td>
<td>2726</td>
<td>59.19</td>
<td>168.0</td>
<td>151.59</td>
<td>586.1</td>
<td>1927</td>
</tr>
<tr>
<td>Fort Graham Entrance Light</td>
<td>2727</td>
<td>59.22</td>
<td>713.0</td>
<td>151.52</td>
<td>722.0</td>
<td>1927</td>
</tr>
<tr>
<td>Gray Cliff Light</td>
<td>2728</td>
<td>59.27</td>
<td>706.9</td>
<td>151.49</td>
<td>129.0</td>
<td>1927</td>
</tr>
<tr>
<td>Soldier Mary Entrance Light</td>
<td>2729</td>
<td>59.25</td>
<td>807.4</td>
<td>151.43</td>
<td>147.0</td>
<td>1927</td>
</tr>
<tr>
<td>Horse Split Light</td>
<td>2730</td>
<td>59.34</td>
<td>81.3</td>
<td>151.24</td>
<td>446.3</td>
<td>1927</td>
</tr>
<tr>
<td>Horse Head Light</td>
<td>2731</td>
<td>59.33</td>
<td>782.5</td>
<td>151.29</td>
<td>682.3</td>
<td>1927</td>
</tr>
</tbody>
</table>

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and non-floating aids to navigation, if redetermined, shall be reported on this form. The data should be considered for the charts of the area and not by
48. Geographic Names:

Bird Reef
Coal Cove
*Cook Inlet
Dangerous Cape
Point Fogibshi
Port Graham

* BGN decision

Geographic Names Section
25 May 1962
62. **Comparison with Registered Topographic Maps**

See Item 46

63. **Comparison with Maps of Other Agencies**

Seldovia B-5 and B-6 Alaska 1:63,360 1953

Because of the scale difference only a visual comparison was made. T-2608 is more complete and supersedes the above survey for common area.

64. **Comparison with Contemporary Hydrographic Surveys**

There are no contemporary hydrographic surveys of this area.

65. **Comparison with Nautical Charts**

8589 1:20,000 Corrected to June 1951

There are no major discrepancies in the chart and the subject manuscripts.

66. **Adequacy of Results and Future Surveys**

Shoreline inspection is not complete in all areas. Lack of inshore inspection may have resulted in minor errors in office interpretation. Other than these, no deficiencies in accuracy were indicated.

Reviewed by:

L. C. Lande

Approved by:

Chief, Cartographic Branch

Chief, Nautical Charts Div.

Chief, Photogrammetry Division

Chief, Operations Division
## 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.

<table>
<thead>
<tr>
<th>CHART</th>
<th>DATE</th>
<th>CARTOGRAPHER</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>8589</td>
<td>7/16/63</td>
<td>D. E. W.</td>
<td>Full Part Before After Verification Review Inspection Signed Via Drawing No.</td>
</tr>
<tr>
<td>8589</td>
<td>12/1/70</td>
<td>E. Fay</td>
<td>Full Part Before After Verification Review Inspection Signed Via Drawing No.</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Revised shoreline, rock ledge, hill areas</td>
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