

8482

Original

Diag. Cht. No. 8554.

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Shoreline

Field No. Ph-164 Office No. T-8482

LOCALITY

State Alaska

General locality Cook Inlet

Locality Seldovia

194 53-56

CHIEF OF PARTY

Field - G. A. Nelson

Office - L. W. Swanson

LIBRARY & ARCHIVES

DATE May 1963

B-1870-1 (1)

8482

DATA RECORD

T- 8482

Project No. (II):

PH 164

~~2279~~

Quadrangle Name (IV):

Field Office (II): Ship: EXPLORER

Chief of Party: G. A. Nelson

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

Officer-in-Charge: L. W. Swanson

Instructions dated (II) (III): 22 August 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): 10-4-56

Date reported to Nautical Chart Branch (IV): 10-11-56

Applied to Chart No.

Date:

Date registered (IV): 7/25/62

Publication Scale (IV):

Publication date (IV):

Geographic Datum (III): NA 1927

Vertical Datum (III): MHW

Mean sea level except as follows:
Elevations shown as (25) refer to mean high water
Elevations shown as (2) refer to sounding datum
i.e., mean low water or mean lower low water

Reference Station (III):

Lat.:

Long.:

Adjusted
Unadjusted

Plane Coordinates (IV): UTM

State:

Zone: 6

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

Planetable contouring by (II): Inapplicable

Date:

Completion Surveys by (II): Inapplicable

Date:

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

Identified in field on photographs of 1956

Projection and Grids ruled by (IV): A. Riley

Date: Aug. 1956

Projection and Grids checked by (IV): A. Riley

Date: " "

Control plotted by (III): W. Taylor

Date: 14 Sept. 1956

Control checked by (III): G. Amburn

Date: 14 Sept. 1956

Radial Plot or Stereoscopic
Control extension by (III): J. Battley

Date: 17 Sept. 1956

Planimetry
Stereoscopic Instrument compilation (III):
Contours

Date:

Date:

Manuscript delineated by (III): R. Sugden

Date: 1 Oct. 1956

Photogrammetric Office Review by (III): E. Ramey

Date: 2 Oct. 1956

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

Date:

Camera (kind or source) (III): C&GS 9-lens

| Number | Date | PHOTOGRAPHS (III) Time | Scale | Stage of Tide |
|-------------|--------------|---------------------------|----------|---------------|
| 41114-41117 | 29 July 1953 | 1417 | 1:10,000 | 12.8 |
| 41120 | " | 1424 | " | " |
| 41129 | " | 1434 | " | " |

Tide (III)

Difference between MHW
and MLLW = 17.0
Diurnal

Reference Station: Seldovia, Kachemak Bay, Alaska

Subordinate Station:

Subordinate Station:

| Ratio of Ranges | Mean Range | Spring Range |
|--------------------|---------------|-----------------|
| | 15.1 | 17.8 |
| 0.9 | 14.4 | 16.5 |
| | | |

Washington Office Review by (IV):

Date:

Final Drafting by (IV):

Date:

Drafting verified for reproduction by (IV):

Date:

Proof Edit by (IV):

Date:

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):

Recovered:

Identified:

Number of BMs searched for (II):

Recovered:

Identified:

Number of Recoverable Photo Stations established (III):

Number of Temporary Photo Hydro Stations established (III):

Remarks:

FIELD INSPECTION REPORT

for

Maps T-8482, T-8608, T-9560
T-9566, T-9568, T-9742

2. AREAL FIELD INSPECTION.

This map covers shoreline from Seldovia Point southwestward to Point Bede including all of Seldovia Bay and Port Graham.

On the outer coast the shoreline is very rugged with generally rocky shoreline backed by steep cliffs and bluffs. From tops of cliffs the terrain rises abruptly to higher mountain a short distance inland. There are short stretches of boulder and gravel beach along the outer coast.

Inside of bays shoreline is mostly rocky with some boulder and gravel beaches. The heads of bays are low with tide flats extending well offshore. There are cliffs and bluffs along most of the shoreline but they are generally low.

Cultural features are the town of Seldovia, the cannery and native village at Port Graham and a native village at Alexandrovsk in English Bay.

There is good photo coverage of the entire area and photographs are generally good. Shadow in some areas obscures the high-water line and some off-lying detail.

Field inspection is not as complete as required for standard maps. The foreshore area was not field inspected in all areas at low tide. High-water line obscured by shadow was not clarified in detail.

3. HORIZONTAL CONTROL.

(a) The following horizontal control stations were established in 1956 by third-order triangulation:

| | | |
|--------|---------|----------------------------|
| WEST | GOOSE | LUCKY |
| EAST | BIRD 2 | OSAGE |
| WATCH | DOWN 2 | FLAT ISLAND |
| RAISA | MAPLE | HERON |
| ATLAS | GRASS 2 | POINT BEDE |
| CROWN | SPIKE 2 | Gray Cliff Light |
| POWDER | POINT 2 | Seldovia Entrance Light |
| DIXIE | IVORY | Seldovia, church, cross |
| ELBOW | JEWEL | Port Graham Entrance Light |
| FLINT | ROUND 2 | Flat Island Light |
| | | Magnet Rock |

The following horizontal control stations were established by fourth-order theodolite observations:

CRAB GABE DUKE

In addition to the above fourth-order stations several hydro signals located by fourth-order theodolite observations were pricked on the photographs and can be used for horizontal control if desired.

(b) All horizontal control is computed on the N.A. 1927 datum and no datum adjustments are necessary.

(c) All control was established by the Coast and Geodetic Survey except station SEIDOVIA 2 (USE).

(d) In Seldovia Bay about 100 per cent more than the required number of stations were identified. Station SEIDOVIA, 1910 was not identified accurately enough for horizontal control. There was no sub-station available in the brush covered area around the station. Station CRAB was established at the base of the bluff and was identified instead of SEIDOVIA.

Between Seldovia Bay and Port Graham station DANGEROUS was identified as required.

A complete new scheme of triangulation was established in Port Graham and all recovered and established stations were identified with one exception. Station OSAGE was not identified.

South of Port Graham one new station was established and identified in the vicinity of English Bay as required. Station BEDE, 1908 was identified with some difficulty because of snow over most of the area. Bede Mtn., 1908 was not identified as required. There is some doubt as to whether it is actually on the photograph. Four new stations were established in the vicinity of Point Bede and Flat Island and three were identified.

It is considered that a sufficient number of stations was identified to control the radial plot adequately.

(e) A thorough search was made for all described stations except PORT GRAHAM EAST BASE and at least a superficial search was made for all undescribed stations.

4. VERTICAL CONTROL.

Inapplicable.

5. CONTOURS AND DRAINAGE.

Inapplicable.

6. WOODLAND COVER.

Lower elevations are generally covered with a thick growth of coniferous trees with some alder brush. Trees and brush can easily be distinguished on the photographs.

7. SHORELINE AND ALONGSHORE FEATURES.

(a) Shoreline inspection extended from the east limit of Map T-8482 to Point Bede and included Flat Island which is slightly west of the project limits. All shoreline was inspected from a launch running as close inshore as was safe. The high-water line is indicated at various places on the photographs. On the south and west sides of Seldovia Bay and Port Graham some of the high-water line is in shadow and is not visible on the photographs. Some of it is not defined in detail.

(b) The low-water line is not defined except approximately in some places. A hydrographic survey will be necessary to define the low-water line in most of the area.

(c) Most of the foreshore on these maps is rocky or boulders, some of it is gravel and in the heads of both bays the foreshore is mud. Different types of foreshore are indicated on the photographs.

(d) Bluffs and cliffs are noted along most of the shoreline. Cliffs are mostly obvious on the photographs.

(e) Wharves, piers and floats exist along the waterfront of Seldovia and are indicated on the photographs. One pier exists in Port Graham.

(f) There are no submarine cables in the area of this project.

(g) Most of the shoreline buildings in Seldovia are built on piles outside the normal high-water line.

In Port Graham southeast of the pier are several small marine railways or boat skids. These are used mostly for hauling out boats for winter storage.

8. OFFSHORE FEATURES.

There are two fish traps within the project area. The two existing traps were built during the period of field inspection at approximately the same position as previous traps visible on the photographs. These traps are temporary inasmuch as the law requires that they be removed after the fishing season. The two existing traps were not located.

There are several piles outside the high-water line near the pier in Port Graham. These are indicated on the photographs.

All rocks visible at the time of field inspection were noted on the photographs or located by other means. Heights of rocks were estimated either above MHW or above the water surface at the time of field inspection. In the latter case the time and date is noted on the photographs. Some rocks uncovered only at lower stages of tide were probably missed since it was not possible to complete all shoreline inspection at low tide. Photo images that appeared to be possible rocks were checked when possible. Because of the large range of tide a hydrographic survey would probably be required to check all features.

There is a hull of a wrecked boat close to shore in the first small bay south of station CROWN in Seldovia Bay. In the northerly part of the same bay are the ruins of an old pier. Only low broken piles remain in place.

Kelp areas are outlined approximately.

9. LANDMARKS AND AIDS.

All (four) fixed aids to navigation in the project area were located by triangulation and were reported on Form 567.

One charted fixed aid, Passage Island Spit Daybeacon, has been removed and replaced by a red nun buoy.

No landmarks are recommended for charting.

10. BOUNDARIES, MONUMENTS AND LINES.

Inapplicable.

11. OTHER CONTROL.

Recoverable topographic stations established are: GRAB, GABN, DUKE and JADE. The first three were located by fourth-order theodolite observations and were identified for horizontal control. JADE is a photo-topo station.

Hydro signals were located by third or fourth-order triangulation. There are no photo-hydro stations.

The project instructions required location of several signals on old hydrographic sheets. A discussion of each of these follows:

HAT - Could not be positively identified. Could be high pinnacle or a large boulder about 75 meters south of pinnacle. The pinnacle is pricked on photo 41115.

SON - Not identified.

KNOB - Could not be positively identified. The same as or very close to HXK.

BOX - Not identified.

HEAD - Not identified.

LONE - A small detached rock, the most positive identification of all old signals. Same as DMB.

GREEN - Could not be positively identified. Station is somewhere on detached rock and is probably about the same as EVA. Theodolite directions were also observed on highest point of rock.

BUSH - Same as GREEN except that it is about the same location as FOX.

GRAVE - Not identified.

POST - Not identified.

STORE - Not identified.

CHURCH - Not positively identified but assumed to be the same as Seldovia. Church, Cross, 1956.

PETE - Fairly positive identification. Small low pinnacle at end of point. Same as GAS.

CAVE - Not identified.

WHARF - Destroyed.

END - Not identified.

MID - Not identified.

ILE - Could not be positively identified. If signal was a banner in a tree it is probably the same as PINE. If it was a whitewash signal it was probably on the point of rock 6 meters south-west of PINE.

NUT - Could not be positively identified. Appears to be on point rather than on one of two detached rocks. See photo 41127.

FUR - Not identified.

FLAG - Not identified.

RAY - Not identified.

POX - Not identified.

KEY - Could not be positively identified. May be pinnacle. See photo 41121.

PIN - Probably the same as NIP (Pinnacle) although PIN may have been a whitewash on side of pinnacle.

UNO - Could not be positively identified. May be high point at end of low rocky point at ATLAS R.M. No. 1. There is evidence of a possible old whitewash on the face of the bluff back of station ATLAS. See List of Fourth-Order Directions.

HOIE - Could not be positively identified. There is a hole in the rocky point which could have been the signal but it is not visible from the northeast. The logical place for a whitewash signal is on the sharp point of the rock cliff at BON.

SEL - Could not be identified. On the old sheets this signal is on the end of the point which indicates that either the location of the signal is incorrect or the shoreline is incorrect. Signal CAB is very close to the end of the point and is about 75 meters north of SEL.

12. OTHER INTERIOR FEATURES.

There is a small bridge over a stream at the south end of Seldovia.

There is an operational airstrip at Seldovia.
Roads and other interior features were not field inspected.
There are no overhead cables.

13. GEOGRAPHIC NAMES.

Only charted names are used. No new names are recommended.

14. SPECIAL REPORTS AND SUPPLEMENTAL DATA.

Data forwarded with this report are:

Field photographs.
1 volume of observations of fourth-order directions.
Lists of fourth-order directions.
Control station identification cards.
Lists of fourth-order directions.
Carbon copies of description of triangulation stations.
Computations of triangles - fourth-order stations.
Computations of fourth-order positions.
List of fourth-order positions.
Carbon copy of list of third-order positions.
Copy of Form 567. Non-floating aids to navigation.
Description of Recoverable Topographic Stations.
Photostat of USE description of SELDOVIA 2 (USE)

Complete triangulation data will be forwarded to the Washington Office in the near future.

15. COMMENTS AND RECOMMENDATIONS.

Control requirements in Port Graham and Seldovia Bay are dissimilar and the reason therefor is not apparent. The apparent plethora of control in Port Graham is illusory since published triangulation data indicate that not more than about 10 per cent of the old stations are recoverable.

Control requirements such as these lead to confusion and uncertainty on the part of field personnel.

It is recommended that horizontal control requirements be more general. If control is required in a particular area that should be so stated; but such requirements should be as liberal as conditions permit. Obviously existing control should be utilized to the best advantage. Often the field party is in better position to utilize existing control in accordance with general control requirements. If old stations are specified for control all published triangulation data including descriptions should be used to determine the probability of recovery of the old station. Often published data will indicate that a station is not recoverable and such stations should not be considered as existing control

stations in establishing control requirements. This condition existed on most of the old stations in Port Graham.

Respectfully submitted,

Charles W. Clark
Charles W. Clark
Commander, C&GS

Approved and forwarded:

George A. Nelson
George A. Nelson
Captain, C&GS
Comdg. Ship EXPLORER

Stage of Tide

3

Photogrammetric Plot Report
Seldovia Bay, Alaska
Project 27370
17 September 1956

Area Covered:

This report discusses the radial plot for shoreline surveys T-8482 and T-9566 at a scale of 1:10,000 in the area of Seldovia Bay, Alaska.

Method:

The plot was laid directly on the map manuscripts which were ruled on mylar with polyconic projection and UTM grid. Positype nine-lens prints were used for the entire plot. Templates were constructed on vinylite applying corrections as indicated by the master templet. The plot was extended without difficulty holding to adequate, well-spaced control.

Adequacy of Control:

Control for the plot consisted of field computed positions for third- and fourth-order triangulation stations. Generally two or more substitute stations were given for each station. One station (Gray Point Lt. 1956) was rejected because identification in the office was uncertain. Substitute Station No. 2 for East 1956 did not hold whereas No. 1 did hold. The radial plot position for Substitute Station No. 2 indicated a recording error in the measured distances (field: 49 ft. - 16.1 meters should be 161 ft. - 49 meters). Except for this all control used was held and was adequate for shoreline delineation for these two surveys.

Supplemental Data: None

Photography:

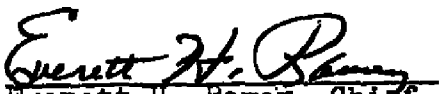
The photographs were adequate as to coverage, overlap and definition. Alternate photographs were not printed for some flights which caused some difficulty in transferring photo-centers. Some photographs were tilted but not badly enough to effect an appreciable displacement in radials.

Junctions:

The plot was extended westward beyond the limits of these two surveys in order to effect a junction with the future plot for that area.

Sketch and Control Station List: Attached

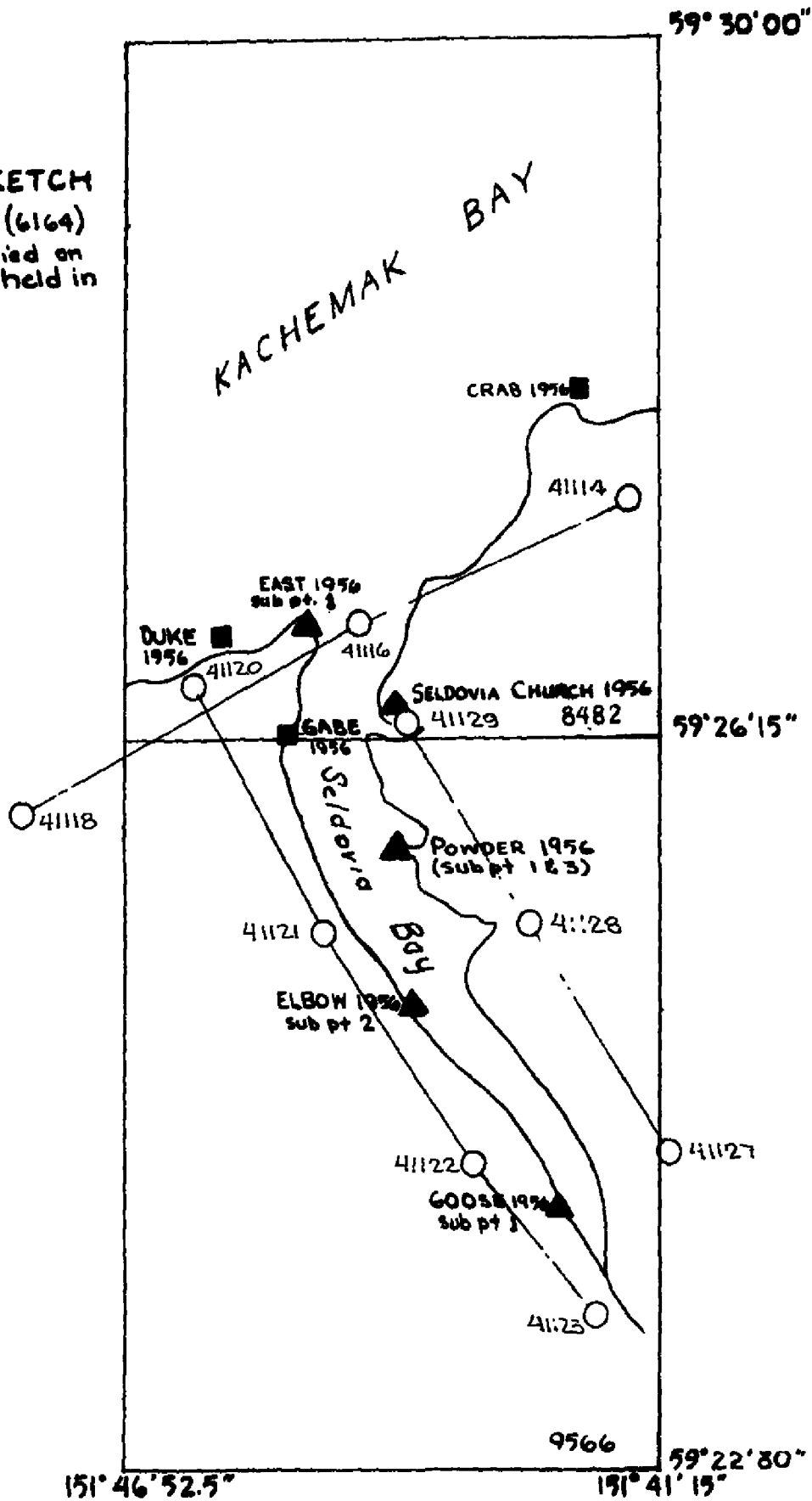
Approved:


Everett H. Ramey, Chief,
Graphic Compilation Unit

Submitted by:


Jeter P. Battley, Jr.

CONTROL SKETCH
Project 27370 (6164)
 All control identified on
 the photographs held in
 the radial plot.



MAP T-8482 PROJECT NO. 27370 SCALE OF MAP 1:10,000 SCALE FACTOR

| STATION | SOURCE OF INFORMATION (INDEX) | DATUM | LATITUDE OR ψ -COORDINATE LONGITUDE OR λ -COORDINATE | DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD (BACK) | DATUM CORRECTION | N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK) | FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK) |
|--------------------------------|-------------------------------|------------|--|---|---------------------|--|--|
| EAST, 1956 | Field Comp. | NA 1927 | 59 27 05.545 151 44 24.601 | 171.6 (1685.2) 387.6 (557.7) | | | |
| SELDOVIA, 1910 | V 421 | | 59 28 12.905 151 42 08.004 | 399.4 (1457.4) 126.0 (818.9) | | | |
| GRAY CLIFF LIGHT, 1956 | Field Comp | | 59 27 09.919 151 43 08.189 | 306.9 (1549.8) 129.0 (816.3) | | | |
| SELDOVIA CHURCH CROSS, 1956 | " | | 59 26 24.045 151 42 51.303 | 744.0 (1112.7) 808.6 (137.1) | | | |
| CRAB, 1956 (Topo) | Form 524 | | 59 28 151 42 | 550.2 (1306.6) 104.0 (840.8) | | | |
| DUKE, 1956 (Topo) | " | | 59 26 151 46 | 1726.6 (130.2) 287.1 (658.4) | | | |
| EAST 1956 Sub.Sta.No. 1 | | | 59 27 151 44 | 207.0 (1649.8) 505.7 (439.7) | | | |
| EAST 1956 Sub. Sta. No.2 | | | 59 27 151 44 | 157.0 (1699.8) 394.4 (551.0) | | | |
| SELDOVIA -2 USE, 1951 | USE | | 59 28 13.118 151 42 04.877 | 405.9 (1450.8) 76.8 (868.1) | | | |
| BALSA, 1956 | Field Comp. | | 59 27 09.867 151 43 08.255 | 305.3 (1551.4) 130.1 (815.3) | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

1 FT. = .3048006 METER
COMPUTED BY: E. H. Ramey

DATE 12 September 1956

CHECKED BY: G. Amburn

DATE 13 S

Compilation Report
Shoreline Survey T-8482

31. Delineation

Features were delineated on plastic work sheets by stereoscopic examination of nine-lens photographs aided by field inspection photographs. The work sheets were then adjusted to the scale of the map manuscripts for the compilation.

Details shown include shoreline and alongshore features and some adjacent interior features. Interior features were not field-inspected.

32. Control

See the Photogrammetric Plot Report which is filed as part of this Descriptive Report.

33. Supplemental Data: None

34. Contours and Drainage: Inapplicable.

35. Shoreline and alongshore details

The field inspection was adequate for the delineation of shoreline.

See Sub-heading 7 regarding other alongshore features. Contrary to paragraph 7(d), landmark bluffs and cliffs were not obvious on the photographs because of overhang and shadow.

36. Offshore Features

The compilation was based on field inspection notes which were incomplete (See Sub-heading 8). Some field inspection notes were ambiguous which required some office interpretation.

37. Landmarks and Aids

Two lights fall in the area of this survey. A copy of the form 567 submitted by the field party for the entire project is attached.

38. Control for Future Surveys

Two forms 524 are filed for field-located topographic stations.

39. Junctions

This survey junctions with T-9566 to the South, with T-9560 to the West. No contemporary surveys were available for junctioning to the East.

40. Horizontal and Vertical Accuracy

Except for approximated foreshore and offshore features, all areas of the survey are considered accurate. (See Photogrammetric Plot Report for more detailed discussion of accuracy.)

41. through 45.

Inapplicable

46. Comparison with Existing Maps

T-2880, 1:10,000 1906 and 1908

T-3106, 1:40,000 1910

Seldovia (B-5) Alaska (USGS), 1:63,360, 1953

T-8482 does not show rocks awash offshore from Red Bluff because they were not visible at the time of field inspection. T-8482 shows shoreline features in greater detail than these prior surveys. It shows less bluff symbol but it is believed that all bluffs of landwork significance are shown.

47. Comparison with Nautical Charts

8589 1:20,000 corrected to 51-6/18

The same differences under Sub-heading 46 above apply here.

Items to be applied to nautical charts immediately: None

Items to be carried forward: None

Submitted by:

Robert L. Sugden by *ETH*
Robert L. Sugden,
Cartographer

Approved:

Everett H. Ramey

Everett H. Ramey, Chief, Graphic Compilation Unit

49. Notes to the Hydrographer:

Topographic Stations:

Duke 1956

Crab 1956

Limits of foreshore, foul and kelp are approximate
(Sub-headings 8 and 9, Field Inspection Report).

STRIKE OUT ONE

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

15 June 1956

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 by J. G. Ballantine

George A. Higgins *Chief of Police*

[illegible]

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and *nonfloating aids* to navigation, if redetermined, shall be reported on this form. The data should be considered for the charts of the area and not individual field survey sheets. Information under each column heading should be given.

48. Geographic Names:

Camel Rock

*Cook Inlet (~~should be added to this sheet~~)

*Gray Cliff

*Kachemak Bay (~~incorrectly applied, should be east
Seldovia Point~~)

*Point Naskowhak

Red Bluff

Seldovia

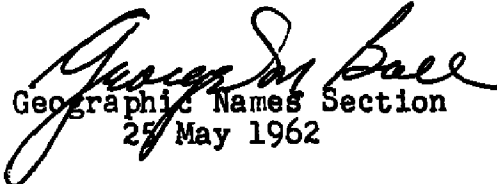
Seldovia Bay

Seldovia Point (~~misspelled on this sheet~~)

Seldovia Slough

Watch Point

* BGN decision


Geographic Names Section
25 May 1962

REVIEW REPORT
of Topographic map T- 8482
June 1962

62. Comparison with Registered Topographic Surveys

See Item 46

63. Comparison with Maps of Other Agencies

Seldovia B-5 Alaska (USGS) 1:63,360, 1953

Because of the scale difference only a visual comparison can be made. T-8482 is more complete and supersedes the above survey for common area.

64. Comparison with Contemporary Hydrographic Surveys

H-8285, 1956, 1:10,000 (Wire Drag)

The shoreline from T-8482 was applied prior to the hydrographic survey and are in agreement.

65. Comparison with Nautical Charts

8589 1:20,000 Corrected to June 1951

See Item 46

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 this, no deficiencies in accuracy were indicated.

Reviewed by:

L. C. Lande
L. C. Lande

Approved by:

Charles L. Luman Chief, Cartographic Br.
J. L. Luman Chief, Nautical Chart Div.
J. W. Waugh 11/16/62 Chief, Photogrammetry Div.
Wm. S. Connelly Chief, Operations Div.

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. T-8482

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.

[illegible]