8228

Diag. Cht. Nos. 8802-3,8859,& 9302.

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

# DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. PF-2555 Office No. H-8228

LOCALITY

State Alaska

General locality North Side Alaska Peninsula

Locality Herendeen Bay

1955

CHIEF OF PARTY

K. G. Crosby

LIBRARY & ARCHIVES

DATE March 8, 1956

B-1870-1 (1)

8228

Form 537
(Ed. June 1946)

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

# HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

REGISTER No. H-8228

Field No. PF-2555

State ALASKA

General locality North Side of Alaska Peninsula

Locality Herendeen Bay

Scale 1:20,000 Date of survey August 1955

Instructions dated 20 December 1954

Vessel Launches Nos. 1 and 3 (Ship PATHFINDER)

Chief of party K. G. Crosby

Surveyed by W. E. Randall, J. O. Boyer, M. E. Natto, J. P. Randall, and K. E. Taggart

Soundings taken by ~~fathometer~~, graphic recorder, ~~hand lead, wire~~

Fathograms scaled by Fathometer Operators

Fathograms checked by Ship's Officers

Protracted by W. E. Randall and G. W. Thompson

Soundings penciled by W. E. Randall

Soundings in fathoms feet at ~~MLW~~ MLLW and are true depths.

REMARKS: Survey consists of shoran and visually controlled hydrography

U. S. GOVERNMENT PRINTING OFFICE 603019

DESCRIPTIVE REPORT

To Accompany

HYDROGRAPHIC SHEET H-8228 (Field No. PF-2555)

HERENDEEN BAY

NORTH SIDE ALASKA PENINSULA

Scale: 1:20,000

1 9 5 5

USC&GS SHIP PATHFINDER K. G. CROSBY, COMMANDING

A. PROJECT:

1. Project 1375, North Side Alaska Peninsula
2. Instructions dated 20 December 1954

B. SURVEY LIMITS AND DATES:

1. The survey includes Herendeen Bay south of latitude 55° 49' N.
2. Field work began on 10 August and ended on 28 August.
3. No prior surveys were conducted in this area.
4. Junction to the north is with contemporary survey H-8227.

C. VESSELS AND EQUIPMENT:

1. The survey was made by launch No. 3 which operated in the northern and western portion of the area and launch No. 1 which operated in lower Herendeen Bay. The junction was along a line between Marble Point and Bold Bluff Point.

2. Launch No. 1 operated from a shore camp at the abandoned cannery (Lat. 55° 42.9' N., Long. 160° 41.6' W.)

3. The turning radii at normal sounding speeds are:

| | Launch No. 1 | Launch No. 3 |
|---|---|---|
| To Starboard | 16 meters | 20 meters |
| To Port | 21 meters | 13 meters |

4. Type 808-A graphic recorders calibrated at 800 fms/sec. were used for sounding. The transmitting and receiving units were

permanently mounted externally alongside the keel, amidships. Instrument No. 61 was used in Launch No. 1; No. 52 in Launch No. 3. Depths encountered by Launch No. 1 averaged from 100 to 300 feet. Depths encountered by Launch No. 3 were generally less than 50 feet.

D. TIDE AND CURRENT STATIONS:

1. The tide station was at the abandoned Fidalgo Island Cannery where the shore camp was situated (See Tide Note.)
2. No current stations were established.

E. SMOOTH SHEET:

1. The smooth sheet was hand constructed and verified in the Seattle Processing Office. Shoreline was transferred from photogrammetric shoreline manuscripts by burnishing blueline tracings.
2. Verification of shoreline transferring was done in the Processing Office.

F. CONTROL STATIONS:

1. Triangulation

| | NAME | SOURCE | REMARKS |
|---|---|---|---|
| 303 | HAGUE, 1950 | Brittain | Shoran station HAG (plots off sheet) |
| 507 | MARBLE, 1950 | Brittain | Shoran station MAR |
| 761 | EAGLE ROCK, 1950 | Brittain | Visual station ROCK |

2. Topographic

(a) The following stations were preselected in the office as suitable for hydrographic control stations and located in the radial plot.

BAT*=008 On advance manuscript T-11563 (Hydro. No. 221)
DID*=131 On advance manuscript T-11563 (Hydro. No. 222)
GOT*=368 On advance manuscript T-11563 (Hydro. No. 223)
JAB=400 On advance manuscript T-11571 (Hydro. No. 224)
NAT=508 On advance manuscript T-11094 (Hydro. No. 225)
MINE,=535
1950 On advance manuscript T-11094 (unmarked topo sta.)

(b) The following stations were passpoints on the radial plot and proved suitable for field use.

EVA*=280 On advance manuscript T-11563
FAT*=208 On advance manuscript T-11571
HER=327 On advance manuscript T-11563
KEL*=424 On advance manuscript T-11563
LIK*=434 On advance manuscript T-11094
PIP*=636 On advance manuscript T-11094
SAD=701 On advance manuscript T-11094
ZOO*=966 On advance manuscript T-11094

(c) The following stations were selected and located in the field. After transferring the stations to office photographs the positions were determined by radial cuts on blueline acetate tracings.

IDA = 310
LEG =423

3. Hydrographic

ATE*=082 Located by sextant in sounding volume IV
CRY=179 Located by sextant in sounding volume IV
ODD=611 Located by sextant in sounding volume IV
PAM=605 Located by sextant in sounding volume IV
QUO=686 Located by sextant in sounding volume IV

*Form No. 524 cards, "Description of Recoverable Topographic Station" written for these stations.

G. SHORELINE AND TOPOGRAPHY:

1. The shoreline and topography were transferred by the Processing Office to the smooth sheet from blueline acetate tracings of advance manuscripts Nos. T-11094, - 11563, and - 11571, of 1950.

2. No revision of shoreline was made. In a few cases, a slight discrepancy in shoreline as determined by the hydrographer was noted (Launch No. 3, pos. 82-83a, 33-34a, 57e and 62e; Launch No. 1: 29-30e and 49e) but these were attributed to weak or incorrect shoran positions or weak visual fixes.

3. Low water determination was made in areas of gently sloping bottom. In lower Herendeen Bay the bottom sloped abruptly to great depths and in many cases the 60-foot depth curve was the shoalest curve delineated.

H. SOUNDINGS:

1. Sounding were obtained by standard methods using 808-type graphic recorders calibrated for 800 fm/sec.

2. In the area surveyed by Launch No. 1 depths were measured in fathoms and tenths. In the area of Launch No. 3 depths were measured in feet to the limits of "A" scale and in fathoms in deeper areas. This was done because of the steep slopes and great depths encountered.

3. Corrections were obtained by bar checks wherein a receiving unit was lowered in place of the bar. (See special report on echo-sounding corrections.)

I. CONTROL OF HYDROGRAPHY:

1. Standard 3-point fixes on shore objects by sextant were used to control hydrography done by Launch No. 1. Shoran was used to control hydrography done by Launch No. 3. (Shoran stations were erected over HAGUE, 1950 and MARBLE, 1950.)

2. To control shoran hydrography in the baseline area the ship was used as a third station. The ship's position during this period was determined by frequent shoran fixes on the two shore stations.

3. Corrections to shoran readings were obtained by simultaneous shoran fixes and visual 3-point sextant fixes. (See special report on shoran.) The corrected shoran positions retain some error as is evidenced by the junction of shoran and visual controlled hydrography and by the unequal positioning of shoran fixes at the most southern area of shoran work. The corrections are deemed adequate. See P 7b Review

J. ADEQUACY OF SURVEY:

The survey is complete (1955) and adequate. Junction with contemporary survey H-8227 to the north is satisfactory. No holidays exist and depth curves can be drawn. Standard depth curves are drawn (0', 6', 12', 24', 30', 36', 60', 120', 180', 240' and 300') except where steep slopes occur and the curves would be confused by their proximity. In several areas where the depth is great adjacent to high water line the shallower curves are omitted.

K. CROSSLINES:

At least ten percent of the sounding lines are crosslines. All crossings are good except those from Launch No. 1, pos. 171-177e (rejected after being rerun on "k" day; apparently the gain was improper) and Launch No. 1, pos. 118g - 120g (rejected because the speed control apparently was improper-see fathometer record and sounding volume.)

L. COMPARISON WITH PRIOR SURVEYS:

No prior survey was conducted in this area.

M. COMPARISON WITH CHART:

The survey compares favorably with chart 8833, scale 1:79,798, published Feb. 1917 and corrected to 6/11/54. See P6 Review

N. DANGERS AND SHOALS:

No new dangers or shoals were found. The position and least depth were determined for CROW REEF (Lat. 55° 45.~~66~~37' N.; Long. 160° 43.~~32~~31' W.) and for the three adjacent rocks awash (Lat. 55° 43.97'; Long. 160° 39.77') The position of MIDWAY REEF (Lat. 55° 45.84'; Long. 160° 41.75') as determined on photogrammetric sheet T-11094 was verified and a least depth determined. In addition the hydrographic survey verified ~~see~~ all ledges east of the line between Marble Point and Bold Bluff Point. Because of time available and generally adverse weather and sea conditions no extensive verifying was attempted west of this line. No discrepancies in the photogrammetric delineations were detected on the sheet. Several areas were defined and marked foul, as shown on the sheet.

O. COAST PILOT INFORMATION:

See Coast Pilot report.

P. AIDS TO NAVIGATION:

There are no aids in this area.

Q. LANDMARKS:

The landmarks located on the photogrammetric survey should be shown only as possible shelters or camp sites rather than as landmarks. They serve no useful purpose for fixing a vessel's position since they are low and not distinct unless near. The general configuration of the land is more important. See JP6 Review.

R. GEOGRAPHIC NAMES:

The geographic names report submitted with photogrammetric sheets T-11094, -11563, and -11571 is complete except that the feature BOLD BLUFF REEF should more properly be named BOLD BLUFF LEDGE. No determination of local usage was made.

S. SILTED AREAS:

No areas of silting were detected, although bottom samples in the deep areas were generally an ooze.

T. - Y. MISCELLANEOUS

Not applicable.

Z. TABULATION OF APPLICABLE DATA:

| | Name | Date Forwarded |
|---|---|---|
| 1. | Coast Pilot Notes | 13 October 1955 |
| 2. | Fathometer Correction Report | |
| 3. | Shoran Correction Report | |
| 4. | Tide Records, Herendeen Bay | 13 September 1955 |
| 5. | Forms No. 524 "Description of Recoverable Topographic Stations" | 21 February 1956 |

Respectfully submitted,

William E. Randall

William E. Randall
LCDR., USC&GS

APPROVED AND FORWARDED:

K. G. Crosby

K. G. Crosby
Captain, USC&GS

STATISTICS FOR HYDROGRAPHIC SURVEY H-8228

FIELD NO. PF-2555

SHIP PATHFINDER LAUNCHES NOS. 1 and 3

PROJECT 1375

| SDG. VOLUME | DAY LETTER | DATE 1955 | NO. HANDLEADS | NO. POSITIONS | NO. STAT. MILES |
|---|---|---|---|---|---|
| Lch. No. 3 | | | | | |
| I | a | Aug. 10 | - | 137 | 39.2 |
| | b | Aug. 11 | - | 49 | 15.0 |
| | c | Aug. 12 | - | 66 | 19.8 |
| II | d | Aug. 13 | 8 | 40 | 10.4 |
| | e | Aug. 15 | - | 114 | 29.0 |
| | f | Aug. 16 | - | 65 | 16.8 |
| III | g | Aug. 17 | - | 79 | 22.7 |
| | h | Aug. 24 | - | 26 | 7.7 |
| | j | Aug. 25 | - | 65 | 14.8 |
| | k | Aug. 28 | - | 38 | 5.4 |
| | | | 8 | 679 | 180.8 |
| Lch. No. 1 | | | | | |
| IV | a | Aug. 11 | - | 102 | 20.1 |
| | b | Aug. 12 | - | 22 | 4.1 |
| | c | Aug. 15 | - | 34 | 7.6 |
| | d | Aug. 16 | - | 99 | 23.6 |
| V | e | Aug. 18 | - | 211 | 31.2 |
| | f | Aug. 19 | - | 90 | 17.7 |
| | g | Aug. 20 | - | 53 | 13.7 |
| VI | g | Aug. 20 | - | 101 | 17.8 |
| | h | Aug. 21 | - | 199 | 34.5 |
| | j | Aug. 22 | - | 83 | 13.5 |
| | k | Aug. 25 | 9 | 27 | 3.3 |
| | | | 9 | 1021 | 187.1 |
| SHEET TOTALS | | | 17 | 1700 | 367.9 |

TOTAL AREA 25.8 SQUARE NAUTICAL MILES

TIDE NOTE

HYDROGRAPHIC SURVEY H-2828

A portable automatic tide gage was established at the abandoned Fidalgo Island Cannery in lower Herendeen Bay (Lat. 55° 42.86' N. Long. 160° 41.57' W.) to furnish tide information for hydrography in Herendeen Bay.

No natural features were available on which to erect the gage and the slope of the bottom in deep water was too great to permit a detached structure to be built. Consequently one of the cannery buildings that extended out into the water was used. A wood frame structure was built on 50-gallon drum footings and horizontally stabilized to the cannery building about 35 feet offshore from the building. Scrap iron and rocks weighted down the structure.

The tide range was too great to enable the extreme low tides to be recorded at the site of the gage. An auxilliary tide staff was erected on a framework extending an additional 15 feet offshore from the gage. At low tide an observer recorded the staff readings. The auxilliary staff was determined by simultaneous readings to be set 1.8 feet lower than the gage staff.

Tide data were obtained from 9 to 28 August. During this time several mechanical break downs occurred, so the record was not continuous. However sufficient record was obtained to permit a determination of MLLW on the staff and to provide tide corrections for the soundings.

Gage No. 291 operated from 10 to 20 August. At this time the gage was replaced with gage No. 553. A more complete record was obtained thereafter. The gage record was supplemented frequently with observed staff readings.

Because of breaks in the record it was necessary in several instances to construct sections of the tide curve graphically to obtain tide corrections. This was done by matching similar days' curves with the available partial curves or observed heights and obtaining an interpolated or extrapolated curve. *

Information from the Washington Office indicated that the MLLW datum on the gage staff was at 1.8 feet. This value was used to obtain the tide corrections.

* Periods sketched because incomplete tide record

aug 10 1955 11:50 to 14:00 hrs
aug 13 1955 10:20 to 11:20
aug 20 1955 9:20 to 18:00
aug 28 1955 10:40 to 15:30

GEOGRAPHIC NAME LIST

HYDROGRAPHIC SURVEY H-2828

See heading R. "Geographic Names" in the text.

VELOCITY CORRECTION ABSTRACT

HYDROGRAPHIC SURVEY H-2828

Bar checks were substituted for temperature and salinity observations. To obtain better corrections at greater depths, the receiving unit of the graphic recorder was lowered into the water in place of a bar. This gave consistently good results to depths as great as 16 fathoms. Extrapolation of the resulting curves was used for greater depths.

An abstract of corrections follows:

| | CORRECTION | RANGE |
|---|---|---|
| Launch No. 1 ("A" scale) | +0.3 fm. | from 0.0 to 0.6 fm. |
| | 0.4 | 3.8 |
| | 0.5 | 6.3 |
| | 0.6 | 8.3 |
| | 0.7 | 9.9 |
| | 0.8 | 11.5 |
| | 0.9 | 12.9 |
| | 1.0 | 14.4 |
| | 1.1 | 16.2 |
| | 1.2 | 18.2 |
| | 1.3 | 20.6 |
| | 1.4 | 24.0 |
| | 1.5 | 35.0 |
| | +1.6 | 50.0 |
| Launch No. 3 ("A" & "B" scales) | 0.0 ft. | from 0.0 to 2.5 ft. |
| | +0.2 | 3.0 4.0 |
| | 0.4 | 4.5 6.0 |
| | 0.6 | 6.5 9.0 |
| | 0.8 | 9.5 13.0 |
| | 1.0 | 13.5 20.0 |
| | 1.2 | 20.5 end |
| ("A" scale) | +0.2 fm. | all depths |

APPROVAL SHEET

HYDROGRAPHIC SURVEY H-8228 (PF-2555)

HERENDEEN BAY, ALASKA

This survey was done under my supervision. The boat sheet was inspected several times during the period of hydrography when camp personnel visited the Ship. Daily radio communication with shore-based personnel was maintained to insure proper support and to obtain daily reports of progress.

I consider this survey to be complete and adequate for charting. No additional work is recommended within the area covered.

K. G. Crosby

K. G. CROSBY
CAPTAIN, C&GS

GEOGRAPHIC NAMES

Survey No. H-8228

| Name on Survey | A On Chart No. | B On previous survey No. | C On U. S. quadrangle Maps | D From local information | E On local Maps | F P. O. Guide or Map | G Rand McNally Atlas | H U. S. Light List | K | |
|---|---|---|---|---|---|---|---|---|---|---|
| Alaska | | } for title. | | | | | | | | 1 |
| Alaska Peninsula | | | | | | | | | | 2 |
| | | | | | | | | | | 3 |
| Herendeen Bay | | | | | | | | | | 4 |
| Coal Bluff | | | | | | | | | | 5 |
| Marble Point | | | | | | | | | | 6 |
| Mine Harbor | | | | | | | | | | 7 |
| Acorn Rock | | | | | | | | | | 8 |
| Midway Reef | | | | | | | | | | 9 |
| Gull Island | | | | | | | | | | 10 |
| Crow Point | | | | | | | | | | 11 |
| Crow Reef | | | | | | | | | | 12 |
| Gull Point | | | | | | | | | | 13 |
| Portage Creek | | | | | | | | | | 14 |
| Gravel Point | | | | | | | | | | 15 |
| Bold Bluff Point | | | | | | | | | | 16 |
| Deer Valley | | | | | | | | | | 17 |
| Coal Point | | | | | | | | | | 18 |
| Village Spit | | | | | | | | | | 19 |
| Lynden Creek | | | | Names approved | | | | | | 20 |
| Shingle Point | | | | 3-27-56. L. Heck | | | | | | 21 |
| Bluff Point | | | | (other names on | | | | | | 22 |
| Low Point | | | | sheet are approved | | | | | | 23 |
| | | | | if desired to use them) | | | | | | 24 |
| Entrance Point | | (tide station off sheet) | | | | | | | | 25 |
| | | | | | | | | | | 26 |
| | | | | | | | | | | 27 |

M 234

SURVEY #08228
SHIP PATHFINDER

| VOLUME # | VESSEL | BLOCK OF #'s |
|---|---|---|
| 1-3 | Launch #3 (E) | 3001-3673 |
| 4-7 | Launch #1 (V) | 0001-1011 |

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ABSTRACT FOR SURVEY #08228

| MANUAL | | AUTOMATED | |
|---|---|---|---|
| DAY | POSITION #'s | JULIAN DAY | POSITION #'s |
| | LAUNCH #3 | | |
| "A" Day 08/10/55 | 1-137 (2R) | 222 | 3001-3135 |
| "B" Day 08/11/55 | 1-047 | 223 | 3136-3184 |
| "C" Day 08/12/55 | 1-066 | 224 | 3185-3250 |
| "D" Day 08/13/55 | 1-040 | 225 | 3251-3290 |
| "E" Day 08/15/55 | 1-114 | 227 | 3291-3404 |
| "F" Day 08/16/55 | 1-065 (4R) | 228 | 3405-3465 |
| "G" Day 08/17/55 | 1-079 | 229 | 3466-3544 |
| "H" Day 08/24/55 | 1-026 | 236 | 3545-3570 |
| "J" Day 08/25/55 | 1-065 | 237 | 3571-3635 |
| "K" Day 08/28/55 | 1-038 | 240 | 3636-3673 |
| | LAUNCH #1 | | |
| "A" Day 08/11/55 | 1-102 (1R) | 223 | 0001-0101 |
| "B" Day 08/12/55 | 1-022 | 224 | 0102-0123 |
| "C" Day 08/15/55 | 1-034 | 227 | 0124-0157 |
| "D" Day 08/16/55 | 1-099 | 228 | 0158-0256 |
| "E" Day 08/18/55 | 1-211 (7R) | 230 | 0257-0460 |
| "F" Day 08/19/55 | 1-090 | 231 | 0461-0550 |
| "G" Day 08/20/55 | 1-154 (2R) | 232 | 0551-0702 |
| "H" Day 08/21/55 | 1-199 | 233 | 0703-0901 |
| "J" Day 08/22/55 | 1-083 | 234 | 0902-0984 |
| "K" Day 08/25/55 | 1-027 | 237 | 0985-1011 |

## CROSS REFERENCE FOR SURVEY #08228

| VOLUME # | VESSEL | POSITION #'s |
|---|---|---|
| 1 | Launch #3 | 3001-3250 |
| 2 | Launch #3 | 3251-3465 |
| 3 | Launch #3 | 3466-3673 |
| 4 | Launch #1 | 0001-0256 |
| 5 | Launch #1 | 0257-0603 |
| 6 | Launch #1 | 0604-0984 |
| 7 | Launch #1 | 0985-1011 |

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## CROSS REFERENCE FOR SIGNAL NAMES AND THEIR ASSIGNED NUMBERS

| SIGNAL NAME | NUMBER | SIGNAL NAME | NUMBER |
|---|---|---|---|
| ATE | 082 | LIK | 434 |
| BAT | 008 | MAR | 507 |
| CRY | 179 | MINE | 535 |
| DID | 131 | NAT | 508 |
| EVA | 280 | ODD | 611 |
| FAT | 208 | PAM | 605 |
| GOT | 368 | PIP | 636 |
| HER | 327 | QUO | 686 |
| IDA | 310 | ROCK | 761 |
| JAB | 400 | SAD | 701 |
| KEL | 424 | ZOO | 966 |
| LEG | 423 | | |

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. ..8228...

Records accompanying survey:

Boat sheets ..2...; sounding vols. ...7.; wire drag vols. .....;

bomb vols. .....; graphic recorder rolls ~~11~~ 7 Envelopes;

special reports, etc. .1-Descriptive report & 1-Smooth sheet.....

.....

The following statistics will be submitted with the cartographer's report on the sheet:

| | | |
|---|---|---|
| Number of positions on sheet | | 1700 |
| Number of positions checked | | 25 |
| Number of positions revised | | 31 |
| Number of soundings revised (refers to depth only) | | 215 |
| Number of soundings erroneously spaced | | — |
| Number of signals erroneously plotted or transferred | | — |
| Topographic details | Time | 10 |
| Junctions | Time | 6 |
| Verification of soundings from graphic record | Time | 10 |

Verification by D.R. Engle 44hr R.E. Elkins 107 Total time 151 Date 4-10-58

Reviewed by [signature] Time 16 Date 5/23/58

M-2232-1

RHC

Form 712
DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
Rev. Apr. 1950

# TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Coastal Surveys:~~ 28 March 1956

Division of Charts: R. H. Carstens

Plane of reference approved in
7 volumes of sounding records for

HYDROGRAPHIC SHEET 8228

Locality Herendeen Bay, Alaska

Chief of Party: K. G. Crosby in 1955
Plane of reference is mean lower low water, reading
1.8 ft. on tide staff at Herendeen Bay
16.4 ft. below B. M. 1 (1955)

Height of mean high water above plane of reference is 10.9 feet.

Condition of records satisfactory except as noted below:

William Hofens
Chief, ~~Division of~~ Tides ~~and Currents~~ Branch.

U. S. GOVERNMENT PRINTING OFFICE 877023

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8228 FIELD NO. PF-2555

Alaska, North Side Alaska Peninsula, South Part Herendeen Bay

Surveyed: Aug. 1955 Scale 1: 20,0000

PROJECT NO. 1375

Soundings:

808 Depth Recorder

Control:

Shoran
Sextant fixes on shore signals.

Chief of Party - K. G. Crosby
Surveyed by - W. E. Randall, J. O. Boyer, M.E. Natto, J. P. Randall and K. E. Taggert
Protracted by W. E. Randall and G. W. Thompson
Soundings plotted by - W. E. Randall
Verified and inked by - D. R. Engle
Reviewed by - I. M. Zeskind Date: 5/23/58
Inspected by - R. H. Carstens

1. Shoreline and Control

The shoreline originates with reviewed air-photographic surveys T-11094, T-11563 and T-11571 of 1942-54.

The source of the control is given in the Descriptive Report.

2. Sounding Line Crossings

Depths at crossings are in good agreement after corrections noted in paragraph 7 were applied.

3. Depth Curves and Bottom Configuration

The usual depth curves were adequately delineated.

In that portion of Herendeen Bay which lies approximately southeast of Bold Bluff Point and Marble Point the bottom is fairly irregular. Here the bottom generally drops abruptly from shore

to depths of 180 ft. and then less abruptly to the center of the Bay where depths as much as 305 ft. are found. The upper portion of the Bay consists principally of shoal sand and mud flats. Here a natural narrow channel with a controlling depth of 47 ft. has scoured its way.

4. Junctions with Contemporary Surveys

An adequate junction was effected with H-8227 (1955) on the north.

5. Comparison with Prior Surveys

There are no prior surveys of the area by this Bureau.

6. Comparison with Chart 8833 (Latest print date 4-30-56)

A. Hydrography

The charted hydrography originates with the present survey boat sheet (bps. 52854 and 52855). Only minor differences of 1 ft. to 3 fms. are noted between the charted and present survey depths after verification and review. The rock awash charted in lat. 55°47.92', long. 160°45.58', is located on the present survey about 240 meters to the east northeastward.

The hydrographer states (see page 5, Descriptive Report) that the 2 abandoned canneries charted from T-11094 northwest and southward respectively from Gravel Point should only be shown as possible shelters or camp sites. The buildings are low and are not easily seen unless closeby. The abandoned cannery charted in lat. 55°44.7', long 160°43.4' is charted out of position and is actually located 50 meters to the southward.

B. Aids to Navigation

There are no aids to navigation in this area.

7. Condition of Survey

a. The sounding records are complete; the Descriptive Report covers all matters of importance.

b. The smooth plotting was generally adequate, except as follows:

(1) In a portion of the deep area in Herendeen Bay where the bottom consists of ooze, it was necessary to correct a number of soundings by as much as 10 ft. This was accomplished by arbitrarily applying additional corrections to those soundings which appeared

to be in error. These differences in depths were attributed to different gain settings of the fathometer.

(2) Differences in depths between sounding lines controlled visually and those controlled by shoran were noted in the overlapping area lying between Bold Bluff Point and Marble Point. An adjustment of -0.020 statute mile applied to distances from Shoran station HAGUE brought the soundings into agreement in the affected area.

8. Compliance with Project Instructions

The survey adequately complies with the Project Instructions.

9. Additional Field Work Recommended

The survey is considered to be basic and no additional field work is recommended.

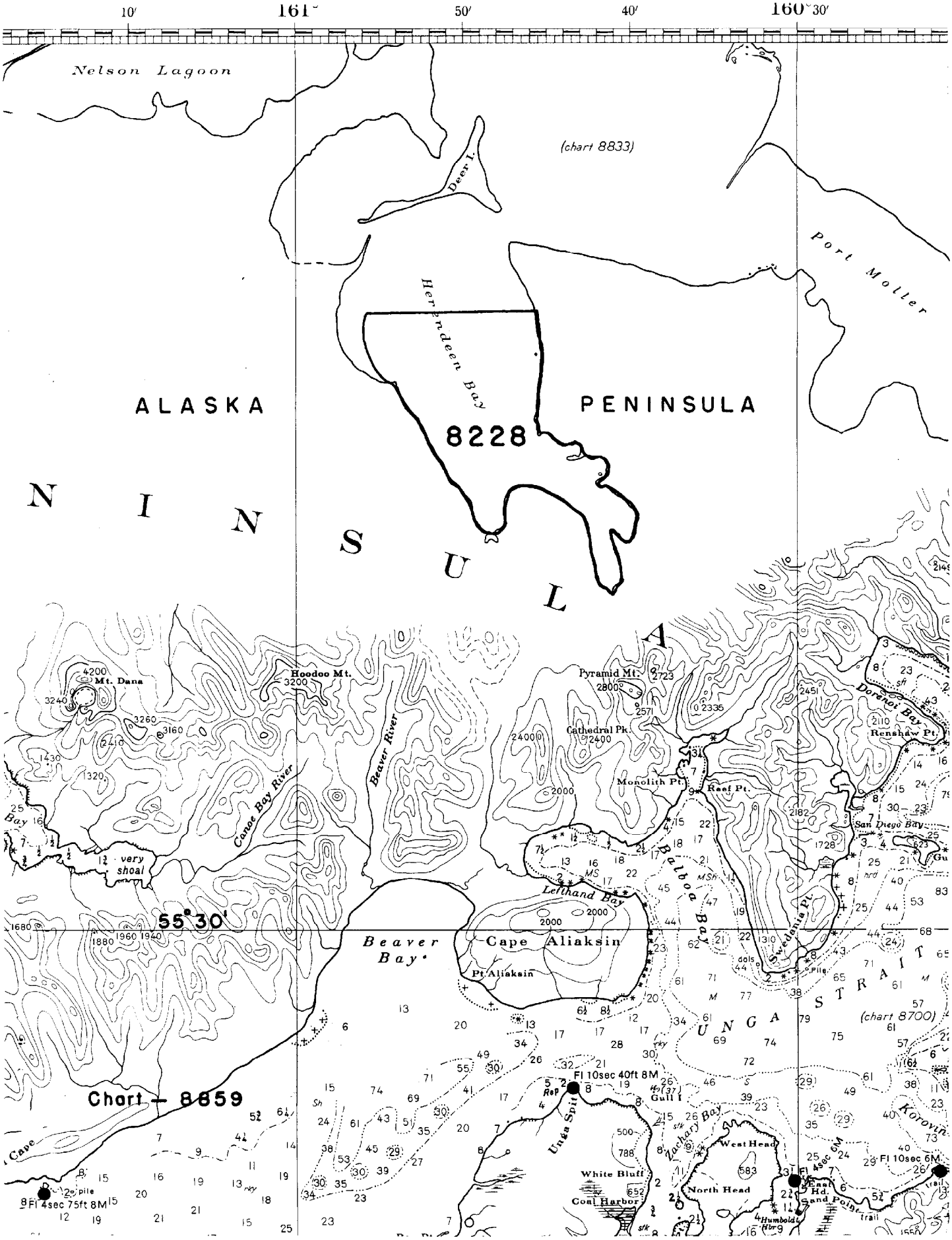
Examined and approved:

Max G. Ricketts
Chief, Nautical Chart Branch

Ernest B. Lewey
Chief, Division of Charts

Karl B. Jeffers
Chief, Hydrography Branch

Samuel B. Grenell
Chief, Division of Coastal Surveys


10′
161°
50′
40′
160°30′
Nelson Lagoon
(chart 8833)
Deer I.
Port Moller
Herendeen Bay
ALASKA
PENINSULA
8228
N I N S U L A
Hoodoo Mt.
3200
Mt. Dana
4200
3240
3260
3160
2410
1430
1320
Beaver River
Canoe Bay River
Pyramid Mt.
2800
2723
2571
2335
Cathedral Pk.
2400
2000
Monolith Pt.
Reef Pt.
Dorenei Bay
Renshaw Pt.
San Diego Bay
Balboa Bay
Lelthand Bay
Swedania Pt.
very shoal
55°30′
Beaver Bay
Cape Aliaksin
Pt Aliaksin
U N G A
S T R A I T
(chart 8700)
Chart — 8859
Fl 10sec 40ft 8M
Gull I
Unga Spit
Zachary Bay
West Head
White Bluff
Coal Harbor
North Head
East Hd.
Sand Point
Humboldt
Korovin
Fl 4sec 6M
Fl 10sec 6M
Fl 4sec 75ft 8M

# NAUTICAL CHARTS BRANCH

SURVEY NO. H-8228

## Record of Application to Charts

| DATE | CHART | CARTOGRAPHER | REMARKS |
|---|---|---|---|
| 3-13-56 | 8833 Reconstr. | R. K. De Lauder | Exam. for crit. corrections to dwg. of reconstr. Before ~~After~~ Verification and Review. |
| | | | |
| 2-27-61 | 8802 | J. M. Albert | applied complete via bromide of pencilled smooth sheet. Before After Verification and Review Inked smooth sheet is missing. |
| | | | |
| 3-2-61 | 9302 | JMA | via 8802 Before After Verification and Review |
| | | | |
| 5-29-63 | 8833 | J. J. Streifler | Complete application Before ~~After~~ Verification and Review for reconstr. |
| | | | Copy of pencilled smooth sheet used– Verified and reviewed Hydro sheet missing this date |
| | | | Before After Verification and Review |
| 7-19-76 | 8833 | D. M. Perkins | Verified & Reviewed H-Sheet still missing |
| | | | Before After Verification and Review |
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| | | | Before After Verification and Review |
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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.