

7031

Diag'd. on Diag. Ch. No. 8860-3

Form 504

U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. SU-05345 Office No. H-7031

LOCALITY

State Alaska

General locality Cold Bay, Alaska Peninsula

Locality Leonard Harbor

1945

CHIEF OF PARTY

C.D. Meaney, Commanding Ship Surveyor

LIBRARY & ARCHIVES

DATE Nov. 13, 1946

7031

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.
H-7031

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-7031

Field No. SU 05345

State ALASKA

General locality COLD BAY, ALASKA PENINSULA

Locality LEONARD HARBOR

Scale 1:5,000 Date of survey May 2 to 9, 1945

Instructions dated April 20, 1945

Vessel SURVEYOR

Chief of party C. D. Meaney

Surveyed by C.D. Meaney, H.J. Healy, R.C. Rowse

Soundings taken by fathometer, graphic recorder, ~~hand lead, etc.~~

Protracted by H. C. Parsons

Soundings penciled by H. C. Parsons

Soundings in fathoms ~~xxxx~~ at ~~MLLW~~ MLLW

REMARKS:

Plotted in the Seattle Processing Office

Descriptive Report

To Accompany

Hydrographic Sheet H-7031 (Field No. SU-05345)

Lenard Harbor, Cold Bay, Alaska Peninsula

1945

Scale: 1 - 5000

Chief Of Party: C.D. Meaney, Commanding Ship SURVEYOR, 1945

Field Work by: C.D. Meaney and H.J. Healy

A. Project: This survey was made at the request of the U.S. Navy to facilitate maneuvering, anchoring, and landings of landing craft in Lenard Harbor. Instructions were received at Dutch Harbor April 20 to proceed to Cold Bay and make surveys requested by the U.S. Navy. Written Instructions were issued by the U.S. Navy May 4, 1945. ✓

B. Survey Limits and Dates: This survey extends from a junction with H-7030 at about Longitude $162^{\circ} - 26'W$ northeastward to approximately Longitude $162^{\circ} - 30'W$ at the entrance to Lenard Harbor, where it has been junctioned with H-6702 (1941) ✓

C. Vessels and Equipment: This work was accomplished by the Ship SURVEYOR and Launches Nos. 2 and 4. The launches operated from the ship. The turning radius of the SURVEYOR was about 250 meters and of the launches about 15 meters. ✓

D. Tide and current stations: A portable tide gage, used for reducing all soundings, was maintained at Cold Bay throughout the period of this survey. No current stations were occupied. ✓

E. Smooth Sheet: The smooth sheet will be constructed and plotted by the Seattle Processing Office. ✓

F. Control Stations: All signals other than those over existing triangulation stations were located by topography. ✓

G. Shoreline and Topography: Shoreline and signals to be obtained from Topographic Surveys 6985 and 6986. ✓

H. Soundings: Standard methods of obtaining depths were employed throughout this survey. On the Ship SURVEYOR, soundings were measured by the Dorsey III Fathometer and verified by an 808 Type Depth Recorder. Launches Nos. 2 and 4 used 808 Type Depth Recorders. ✓

I. Control of Hydrography: All sounding lines were controlled by sextant fixes. ✓

J. Adequacy of Survey: The survey was accepted as adequate by the U.S. Navy. ✓

K. Crosslines: Crossings are good. (par. 2, Review)

L & M. Comparison with Chart: Closer development was obtained on this survey than on previous ones. The results compare favorably with earlier surveys. ✓

N. Dangers and Shoals: No dangers or shoals not already charted were discovered. ✓

P. Aids to Navigation: No aids to navigation had been established in the area covered by this report. ✓

Q. Landmarks for charts: No changes. ✓

Respectfully submitted

Wilbur R. Porter
WILBUR R. PORTER
Lt. Cmdr. C. & G.S.

Approved:

C.D. Meaney

C.D. MEANEY
Lt. Cmdr., C. & G. Survey
Comdg. Ship SURVEYOR

Statistics for Hydrographic Survey H-7031

Ship SURVEYOR

Project: Cold Bay Special

Day	Date	Volume	No. of Pos.	Stat. Miles
Ship SURVEYOR				
A	5-2	1	108	16.2
B	5-3	1 & 2	232	29.3
C	5-7	2	54	4.7
Launch No. 2				
a	5-4	3	115	16.0
b	5-7	3 & 4	163	17.1
c	5-8	4	27	2.2
d	5-9	4	86	9.6
Launch No. 4				
a	5-9	5	130	14.3
TOTAL.....			915	99.4

Area - 3.8 sq. miles

Tide note for Hydrographic Survey H-7031

Tide Station - Cold Bay, Alaska Peninsula

Latitude 55° - 12.4'N
Longitude 162° - 41.9'W

All tidal data for this survey was obtained from the Cold Bay gage. The plane of mean lower low water corresponds to a staff reading of 3.8 feet.

Reference: Director's letter of 24 May, 1945.

Geographic Name List: Hydrographic Survey H-7031

(Data to be supplied by the Seattle Processing Office)

Abstract of Velocity corrections.

(Attached)

LIST OF STATIONS
Sheet No. SU-05345
H-7031

Name used in
hydrographic survey

Origin of Station

BARE	BARE 1923
BOL	BOL 1923
Box	SU-B T-6986
Cal	SU-B T-6986
CUT	CUT 1923
DUB	DUB 1923
Keg	SU-A T-6985
Man	SU-A T-6985
Nat	SU-A T-6985
Old	SU-A T-6985
ROCK	ROCK 1923
Red	SU-B T-6986
Run	SU-A T-6985
Sam	SU-B T-6986
Saw	SU-A T-6985
Tin	SU-B T-6986
Ute	SU-B T-6986
Val	SU-B T-6986
Wax	SU-B T-6986
WILD	WILD 1923
Yet	SU-B T-6986
Zoo	SU-B- T-6986

H-7031
SU 05345

Lenard Harbor - Alaska Peninsula

Seattle Processing Office Notes

Smooth Sheet-

Projection is hand made on Paragon paper, not watermarked. The shoreline was pantographed from T-6985 and T-6986 of 1945 and has been left in pencil. The topographic signals and the rocks shown in ink were scaled from both sides, balanced against the polyconic tables and plotted to scale on the smooth sheet. Triangulation stations were located by Lukens in 1923. See G.P. #81563. The Datum is Unalaska.

as of 3/14/47, control stas. in this area have not been adjusted to the N.A. 1927 datum.

Launch #2, "b" day, May 7-

There was something wrong with the fathometer on this day. Crossings varied from one to three fathoms. Positions 1 to 95b near the north shore were poor and the "b" day lines parallel to the south shore were questionable.

The fathogram showed that on positions 1 to 95, the double echoes did not agree with the initial echo or with the cross line. The error was in inverse proportion to the depth. (see conclusions below)

The error seemed to be due to a loose connection and not to variations in motor speed.

The soundings on position 1 to 95b were not penciled on the smooth sheet. These soundings were inked on an overlay tracing along with the questionable lines 110b to 120b, 131b to 140b, and 160b to 162b. (50% of sdgs. used see par. 2, Review)

Examination of the fathograms in the Washington Office resulted in the following conclusions:

1. Both agreement & disagreement are found between the double echoes and the initial echo.
2. The errors are not found to be in inverse proportion to the depth.
3. The discrepancies in fathogram echoes follow no definite pattern but appear erratically at various depths up to 10 fms.

H-7031

Geographic Names Penciled on the Smooth Sheet

Alaska Peninsula

Lenard Harbor

Respectfully submitted,

Edgar E. Smith
Cartographic Engineer
Seattle Processing Office

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. H-7031...

Records accompanying survey:

Boat sheets 2...; sounding vols. .5...; wire drag vols.; bomb vols.; graphic recorder rolls 5...; special reports, etc.

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

Table with 2 columns: Description and Time/Count. Rows include: Number of positions on sheet (915), Number of positions checked (182), Number of positions revised (18), Number of soundings revised (1), Number of soundings erroneously spaced (10), Number of signals erroneously plotted or transferred, Topographic details (8 hrs), Junctions (8 hrs), Verification of soundings from graphic record (17 hrs).

Verification by [Signature] Total time 156 hrs Date 2/25/47 (Salvaging part of rejected work) 21 hrs TAD. Reviewed by [Signature] Time 45 hrs Date 3/24/47

GEOGRAPHIC NAMES

Survey No. **H7031**

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
Cold Bay			(location of "tidestaff)						3
Kenard Harbor									4
									5
									6
									7
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Never included in the appendix
by L. Heck on 3/24/47

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Hydrography and Topography:~~

January 13, 1946

Division of Charts: H. W. MURRAY

Plane of reference approved in
5 volumes of sounding records for

HYDROGRAPHIC SHEET 7031

Locality - Leonard Harbor, Cold Bay, Alaska Peninsula, Alaska

Chief of Party: C. D. Meaney in 1945
Plane of reference is mean lower low water, reading
3.8 ft. on tide staff at Cold Bay
52.3 ft. below B. M. 4 (1945)

Height of mean high water above plane of reference is 6.4 feet.

Condition of records satisfactory except as noted below:

E.C. McKay
Section
Chief, ~~Division of Tides and Currents.~~

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. 7031

FIELD NO. SU-05345

Alaska; Cold Bay, Alaska Peninsula; Lenard Harbor
Surveyed in May, 1945 Scale 1:5,000
Project No.-Requested
by U. S. Navy

Soundings:

808 Depth Recorder
Dorsey III Fathometer

Control:

Sextant fixes on shore signals

Chief of Party - C. D. Meaney
Surveyed by - C. D. Meaney, H. J. Healy, R. C. Rowse
Protracted by - H. C. Parsons
Soundings plotted by - H. C. Parsons
Verified and inked by - H. A. Curtis
Reviewed by - T. A. Dinsmore, March 24, 1947
Inspected by - H. W. Murray

1. Shoreline and Signals

The shoreline and signals are from topographic surveys T-6985 and T-6986 of 1945.

2. Sounding Line Crossings

Depths at crossings are in good agreement except that about fifty-percent of "b" days work (Launch No. 2) was rejected because of excessive differences in depths at crossings. These discrepancies were detected by the Processing Office. The disagreements amounted to as much as 3 fms. in depths of 1 to 10 fms. Use of the remainder of the day's work was considered justified by comparison with other development on both the present and prior surveys. Thorough examination of the fathograms and records in this office produced no reasonable solution to the cause of the discrepancies.

3. Depth Curves and Bottom Configuration

The usual depth curves were satisfactorily drawn. The bottom is generally smooth.

At lat. $55^{\circ} 08' 15''$, long. $162^{\circ} 27' 45''$, a narrow distinctive ridge, defined by the 30-fm. curve and rising about 18 fms. above the bottom, extends entirely across the deeper portion of the bay.

4. Junctions with Adjoining Surveys

A satisfactory junction was effected with H-6702 (1941) on the west.

Adjoining survey H-7030 (1945) on the southeast is not registered in this office at the present time.

5. Comparison with Prior Surveys

A. H-4314 (1923-24) 1:20,000

Comparison of this prior survey with H-6702 (1941) has been made in the review of the latter survey. However, since the 1941 survey did not include inshore hydrography, a comparison of prior inshore depths is therefore necessary. The sparse inshore development on this early survey is in good agreement with present depths. Several prior soundings have been carried forward to supplement present depths in inshore areas which were sparsely developed through rejection of the work discussed in paragraph 2 of this review.

B. H-6702 (1941) 1:20,000

The present survey falls entirely within the area of this prior survey. Prior depths, with minor exceptions, are in excellent agreement with those of the present survey.

The 29-fm. sounding (charted) in lat. $55^{\circ} 07.70'$, long. $162^{\circ} 26.40'$ and another 29 fms. (not charted) in lat. $55^{\circ} 08.10'$, long. $162^{\circ} 26.57'$ should be disregarded. Both soundings were found to be erroneously scanned on the fathogram and should actually be 31 fms. The corrected soundings are in agreement with present depths.

The present survey, with the indicated additions, supersedes the prior surveys within the common area.

6. Comparison with Chart 8703 (Latest print of Nov. 2, 1946)

A. Hydrography

Charted hydrography originates with the previously discussed surveys and is entirely superseded by the present survey.

B. Aids to Navigation

No aids to navigation are charted in this area. No new dangers which might require marking were discovered.

7. Condition of Survey

- a. The sounding records and Descriptive Report are complete and comprehensive.
- b. The smooth plotting was satisfactory.
- c. The rocks awash shown in the vicinity of lat. 55° 09' 25", long. 162° 28' 14" originates solely with a note in Vol. 3 of the present survey's sounding records which states "Rocks Awash 100 meters off BOL". The rocks are not shown on the accompanying boat sheet nor are their existence confirmed by prior hydrographic or topographic surveys. The rocks are shown in their present position by the reviewer.

8. Compliance with Project Instructions

This survey was made at the request of the U. S. Navy. Written instructions contained no detailed specifications. The survey is considered adequate for the purpose intended.

9. Additional Field Work Recommended

This is an excellent basic survey. A more definite location of the inshore rocks awash, discussed in par. 7c of this review, is not considered of sufficient importance to warrant special investigation.



I. E. Rittenburg

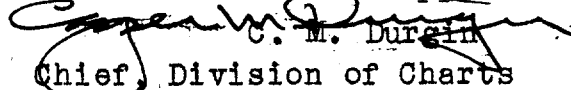
Chief, Nautical Chart Branch



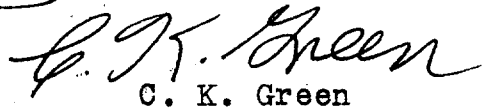
K. G. Grosby

Chief, Section of Hydrography

Examined and approved:



C. M. Durain
Chief, Division of Charts



C. K. Green

Chief, Division of Coastal Surveys

NAUTICAL CHARTS BRANCH

SURVEY NO. H7031

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
5/10/48	8860	<i>H. E. MacEwen</i>	Before After Verification and Review
5/10/48	8703	<i>H. E. MacEwen</i>	Before After Verification and Review <i>One sdy. at ent. to Land H.C.</i>
27 June 49	8859	<i>Nichols</i>	Before After Verification and Review
2/27/70	8703	<i>J. Knoll</i>	Before ^{fully} After Verification and Review
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			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.