7849

Diag. Cht. No. 9380

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. PI-2650 *Office No.* H-7849

LOCALITY

State ALASKA

General locality BERING SEA

Locality CAPE PRINCE OF WALES

194 50

CHIEF OF PARTY

T. B. Reed

LIBRARY & ARCHIVES

DATE FEBRUARY 12, 1951

B-1870-1 (1)

7849

FEB 12 1951

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-7849

Field No. PI-2650

State Alaska

General locality Bering Strait

Locality Cape Prince of Wales

Scale 1:20,000 Date of survey 2-13 September 1950

Instructions dated 19 May 1950

Vessel Ship PIONEER

Chief of party CDR. Thos. B. Reed

Surveyed by Ship's officers

Soundings taken by fathometer, graphic recorder, ~~hand lead or pole~~

Fathograms scaled by Fathometer Readers

Fathograms checked by Ship's officers

Protracted by P.O. Reimer

Soundings penciled by P.O. Reimer

Soundings in ~~fathoms~~ feet at XXXX MLLW and are true depths

REMARKS: The Descriptive Report of the plane table survey PI-D-50 follows the Report of H-7849.

U. S. GOVERNMENT PRINTING OFFICE 777032

DESCRIPTIVE REPORT TO ACCOMPANY HYDROGRAPHIC SURVEY

H-7849 (Field PI-2650)

CAPE PRINCE OF WALES

Project CS-341
Ship PIONEER
Scale 1:20,000

Season of 1950
Thos. B. Reed, Chief of Party
Surveyed by: Ship's officers

A. PROJECT

The work was done in accordance with the following instructions for project CS-341:

Original Instructions dated 19 May 1950
Ammended Instructions dated 19 May 1950
Telegram dated 1 August 1950

B. SURVEY LIMITS AND DATES

This survey is located at Cape Prince of Wales. It is an inshore survey extending from the foot of the bluff about 5 nautical miles south and about 3 nautical miles west.

Junctions are made with other contempoary surveys shown on index of surveys. see Revie par. 4

Field work was begun on 2 Sept. 1950 and ended 13 Sept. 1950.

C. VESSEL AND EQUIPMENT

The hydrography was performed by the Ship PIONEER and by Launches 3 & 4 operating from the ship. The following sounding equipment was used:
On the PIONEER Type 808J, 69S & 103S. The ship conducted all offshore hydrography from depths of about 60 feet to 160 feet.
On Launch 3 Type 808J, No. 129S. The majority of the inshore sounding was done by Launch 3 in depths of 3 feet to 100 feet.
On Launch 4 Type 808J, No. 107S. A portion of the inshore soundings from depth of 20 feet to 110 feet were taken by Launch 4.

Turning radius of the ship was approximately 400 meters.

D. TIDE AND CURRENT STATIONS

Tide reducers were obtained from the portable gage at Lopp Lagoon for the period 2 to 7 September. Reducers were obtained from the portable gage at Port Clarence for the period 10 to 13 September.

A tide note and abstract of tide reducers is included in this report.

A current station was occupied at Lat. 65° 36.25' N, Long. 168° 08.80' W from 31 August to 3 September by the Ship PIONEER.

The ship was again anchored at Lat. 65° 36.18' N, Long. 168° 08.90' W and currents were observed from 5 September to 8 September, 1950.

E. SMOOTH SHEET

The projection was made by hand on the Ship PIONEER.

F. CONTROL STATIONS

All of the triangulation stations used for control in this survey were located by the Coast & Geodetic Survey and are on the NA 1927 Datum.

A supplemental scheme of 4th. order triangulation was executed from TIN CITY, 1944 to the vicinity of station Fin for additional control of the planetable traverse. (See G. below). A theodolite and tape traverse was run in the vicinity of WALES, 1944 for location of hydrographic signals and a shoran station for adjacent surveys.

G. SHORELINE AND TOPOGRAPHY

Topographic signals were located on unregistered Graphic Control Sheet PI-D-50 and transferred to the smooth hydrographic sheet for visual control of hydrography. Short stretches of shoreline were located near the planetable set-ups by rod or tape distances. A section of shoreline at TIN CITY and extending west about 1 nautical mile was sketched by the Hydrographer during sounding operations. This section of shoreline was transferred from the boat sheet to the smooth sheet. — estimated distances by

in re... Report. disregarded

The very steep rocky nature of the majority of the shoreline and the slight tide differential prevented the defining of the low water line by soundings.

H. SOUNDINGS

Depths were obtained by the 808J fathometers enumerated in Paragraph C. All soundings were scanned from the graphs and then verified. Ship soundings were corrected for tide, velocity, initial and instrumental errors. Launch soundings were corrected for tide, initial, and an echo correction computed from daily bar checks.

I. CONTROL OF HYDROGRAPHY

All hydrography was controlled by 3 pt. fixes on visual signals.

J. ADEQUACY OF SURVEY

This is a complete integrated survey and is considered adequate to supersede prior surveys for charting. Sounding line 158D to 159D overlaps 66B to 67B. Agreement of soundings was not satisfactory in the instance but the B line checked surroundings. 158D to 159D was not plotted due to a possible position error which may have displaced the line to the south.

present survey coverage in this area is adequate

Junctions with all adjoining sheets are satisfactory.

K. CROSSLINES

Crosslines consist of approximately 7% of the total lines run.

All crossings are in good agreement.

L. COMPARISON WITH PRIOR SURVEYS

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

M. COMPARISON WITH CHARTS

The largest scale chart of this area available, is No. 9380 published Oct. 1914 with latest revision 13 February 1950. The small scale of the chart and few soundings in this area makes detailed comparison impossible. In general, however, the 10 fathom curve should be closer to the shoreline and the shoal area south of Cape Prince of Wales should be deleted (See N below). It is recommended that this survey supersede all prior work for charting purposes.

chart has been revised from advance information of the present survey.

N. DANGERS AND SHOALS

There are no dangers to major surface navigation within the limits of this survey. There is a foul area dangerous to small boat landings adjacent to the beach at TIN CITY. The dangers include a submerged rocky outcropping and tailings from the mining operations extending seaward from the shore. A launch of 3½ feet draft grounded on this ledge 15 meters from the general shoreline at approximately 1230 on 11 September 1950 for which period the tide reducer is 0.0. Present construction has resulted in floating debris particularly in this area. The area enclosing the above dangers is indicated on the smooth sheet and marked "foul, not thoughly surveyed".

The 6-7-9 fathom shoal shown on Chart No. 9380 immediately south of Cape Prince of Wales at Lat. 65° 30.5' N., 168°01.0' W was not substantiated although the area was fully sounded. A uniform bottom sloping to the southwest from the 10 to 20 fathom curve was indicated instead of the shoal.

charted shoal was removed, see L.799(1950)

There were no previously charted rocks, shoals or dangers except as indicated above and none were found to exist during the course of this survey.

O. COAST PILOT INFORMATION

See "Coast Pilot Notes, 1950", submitted 20 Oacober 1950.

W. DATA INCLUDED IN THIS REPORT

1. Index of Surveys
2. Velocity Corrections
3. Abstract of Instrumental Corrections
4. Shoran Summary, 1950 removed - not applicable
5. Shoran Corrections, 1950
6. Initial Corrections
7. Abstract of Statistics
8. Approval Sheet
9. Tide Note
10. Tide Reducers

Z. TABULATION OF APPLICABLE DATA

The following reports apply to this survey:

1. Instrumental Corrections, CS-341, 1950 - to be submitted.
2. Graphic Control Survey, PI-D-50 - Submitted to Portland Photogrammetric Office 8 January 1951. To be destroyed
3. Velocity Corrections, CS-341, 1950 - to be submitted. See H-7844
4. Coast Pilot Notes, 1950 - Submitted 20 October, 1950.
5. Current Data, CS-341, 1950 - to be submitted.

Respectfully submitted:

Paul O. Reimer

Paul O. Reimer
Ensign USC&GS

Approved and Forwarded:

Thos. B. Reed

Thos. B. Reed
CDR. USC&GS
Comdg. Ship PIONEER

see par "H" of this report

VELOCITY CORRECTIONS
Ship PIONEER 1950
To be applied to Sheet PI-2650, Ship ~~and Launches~~ and to Sheet PI-2250, Launches, from 29 August to 13 September 1950

DEPTH, Feet From	DEPTH, Feet To	CORR'N., Feet
17.0	18.5	0.0
19.0	32.0	-0.2
32.5	45.0	-0.4
45.5	58.0	-0.6
58.5	73.0	-0.8
73.5	88.0	-1.0
88.5	103.0	-1.2
103.5	117.0	-1.4
117.5	131.0	-1.6
131.5	144.0	-1.8
144.5	158.0	-2.0
Over 158.0		-2.2

	DEPTH, Fms.	CORR'N., Fms.
	12.2	-0.1
12.3	19.5	-0.2
19.6	26.4	-0.3
26.5	33.0	-0.4

Comp. PAW
Checked WNM
Copy Checked

ABSTRACT OF
INSTRUMENTAL CORRECTIONS, CS-341
808J PATHOMETERS # 69S, 103S, 108S, & 129S

18 July - 13 Sept., 1950
PI-2250, 2350, 2450, 2550, 2650, 4250 & 16250

					FEET		FATHOMS	
808J	From 1950	To 1950	Corr A	Corr. B	Corr. C	Corr. D	Corr. A	
69S	4 Aug.	12 Aug.	-1.0	-1.0	-0.8	-0.4		
	13 Aug.	13 Aug.	-0.4	0.2	0.0	-0.2		
	10 Sep.	12 Sep.		-0.8	-1.2	-1.4		
103S		0400						
	4 Aug.	16 Aug.	-1.0	-0.6	-4.4	-9.4	0.0	
	0401							
	16 Aug.	13 Sep.	+ 0.4	+0.4	-3.6	-8.6	0.0	
108S	18 July	22 July	-1.0	-1.8	-2.4	-2.4	-0.4	
129S	18 July	20 July	+1.2	0.0	+1.2			
	27 July	0408						
		29 July		+0.4				
	0409							
	29 July	5 Aug.		-0.6				Except as noted below
	27 July	5 Aug.	-0.6		+1.4	+3.6		Except as noted below
	17 July	21 Aug.					0.0	
	15-34-30	16-39-00						Special corr. based on Sim. Comp. take, 1600, 30 July
	30 July	30 July	+0.2	+0.2				*Arbitary correction Survey H-7846
	0849	0909						
	1 Aug.	1 Aug.		+1.4				**Arbitnary correction Survey H-7846
	0909	1721						
	1 Aug.	1 Aug.	+0.4	+0.4				
	0541	1803						
	2 Aug.	2 Aug.	+ 0.4	+0.4				**Arbitrary corr. H-7846

* Correction of plus 2.0 ft. applied to mean correction
** Correction of plus 1.0 ft. applied to mean correction

INITIAL CORRECTIONS

PI-2650 Ship PIONEER Draft 11.4 ft.

A day	ft.
1 33+3	9.6
33 4 to 37 7	9.4
38 to 95	9.2
97 7	9.4
98 to 99 5	9.2
99 6 to 101 3	9.0
101 4 to 103 3	8.8
103 4 to 105	8.6
105 1 to 106	8.4
107 to 107 4	9.4
107 5 to 108 4	9.6
108 5 to 109 4	9.8
109 5 to 110 1	10.0
110 2 to 130	9.4

B day	ft.
1 to 8	9.4
8 1 to 23	9.6
23 1 to 38	9.8
39 to 80	9.4
81 to 86	-0.6
86 1 to 93	-0.4
93 1 to 97	-0.2
98 to 148	-0.6
149 to 165	-1.2
166 to 179	-1.8
188 to 232	-0.6
232 to 240	-0.6
240 1 to 248	-0.8
249 to 279	-0.6

C day	ft.
1 to 3 4	-0.6
3 5 to 11	-0.8
11 1 to 15	-1.0
16 to 66	-0.6

	fms.
67 to 84 4	-0.1
4 5 to 86 4	0.5
86 5 to 144	-0.1
146 to 168 3	0.0
168 4 to 172	-0.1

	ft.
173 to 237	9.2

D day	ft.
1 to 48	9.4
48 1 to 53	9.6
53 1 to 59	9.8
60 to 96	9.4
96 1 to 98	9.2
99 to 126 4	9.4
126 5 to 130	9.2
130 1 to 131	9.0
132 to end	9.4

Launches 3 & 4 Initial set at 1.0

Launch #3

a day	ft.
All day	0.0

b day	ft.
1 to 5	0.0
6 to 6 1	0.2
6 2	0.0
6 3 to 17 2	0.6
17 3 to 23	0.4

c day	ft.
All day	0.0

d day	ft.
1 to 27	0.0
28 to 37 1	-0.2
37 2 to 90	0.0

e day	
All day	0.0

b day (Cont'd)	
24 to 46	0.0
47 to 51	0.4
52 to 58	0.0
59 to 73 1	0.2
73 2 to 125	0.0

Launch #4

a day	ft.
All day 0.0 (except 173 to 18 1 & 36 to 44 2	= 1.0 = -0.2)

b day	ft.
All day	0.0

STATISTICS FOR HYDROGRAPHIC SURVEY

H-7849 (PI-2650) CS-341

Day Letter	Vol. No.	Date 1950	No. of Pos.	Stat. miles sdg. line	Vessel
A (blue)	1	10 Sept.	130	55.0	PIONEER
B "	1,2	11 "	279	117.0	"
C "	2,3	12 "	237	101.5	"
D "	4	13 "	159	63.8	"
a (red)	5	2 Sept.	71	19.4	Launch 3
b "	5	5 "	125	27.7	"
c "	5	7 "	66	14.6	"
d "	5	11 "	90	24.4	"
e (Green)	6	12 Sept.	164	43.0	"
a (Green)	7	2 Sept.	48	11.3	Launch 4
b "	7	5 "	47	10.9	"
Sheet Totals			1416	488.6	

The area of this survey is 73.9 sq. statute miles

TIDE NOTE

Project CS-341 Ship PIONEER Field Season 1950

Surveys H-7845,H-7846,H-7847,H-7848,H-7849,H-7850

The portable tide gage at Lopp Lagoon, Cape Prince of Wales, Alaska,(Lat.65° 46' N., Long. 167° 43' W.) was used for the reduction of all soundings with the exception of those on 18,19,21 & 22 August and 10,11,12 & 13 September. On these days the portable tide gage at Port Clarence, Alaska, (Lat. 65° 15.42' N.,Long, 166° 50.8J,W) was used with a time correction of plus 3 hours and a range correction of 0.5 '.

A height of 2.8 feet on the staff at Lopp Lagoon corresponds to mean lower low water.

A height of 2.4 feet on the staff at Port Clarence corresponds to mean lower low water.

Hourly heights from the gage at Port Clarence were obtained from the Ship EXPLORER.

Tide Reducers

PI-2650 Feet

From	to	Corr.
	Lopp Lagoon	
	2 Sept. 1950	
0843	1154	-0.6
	5 Sept. 1950	
0849	1100	-0.4
1101	1650	-0.6
	7 Sept. 1950	
0830	1205	-0.4

From	to	Corr.
	Port Clarence	
	10 Sept. 1950	
1211	1250	-1.4
1251	1500	-1.2
1501	1700	-1.0
1701	1900	-0.8
	11 Sept. 1950	
0618	0730	+0.4
0731	0900	+0.2
0901	1300	0.0
1301	1700	-0.2
1701	1921	-0.4
	12 Sept. 1950	
0649	0800	0.0
0801	1615	-0.2
1616	1903	0.0
	Fathoms	
1114	1557	0.0
	13 Sept. 1950	
0608	0815	+0.2
0816	0915	0.0
0916	1100	-0.2
1101	1505	-0.4

APPROVAL SHEET TO ACCOMPANY SURVEY H-7849

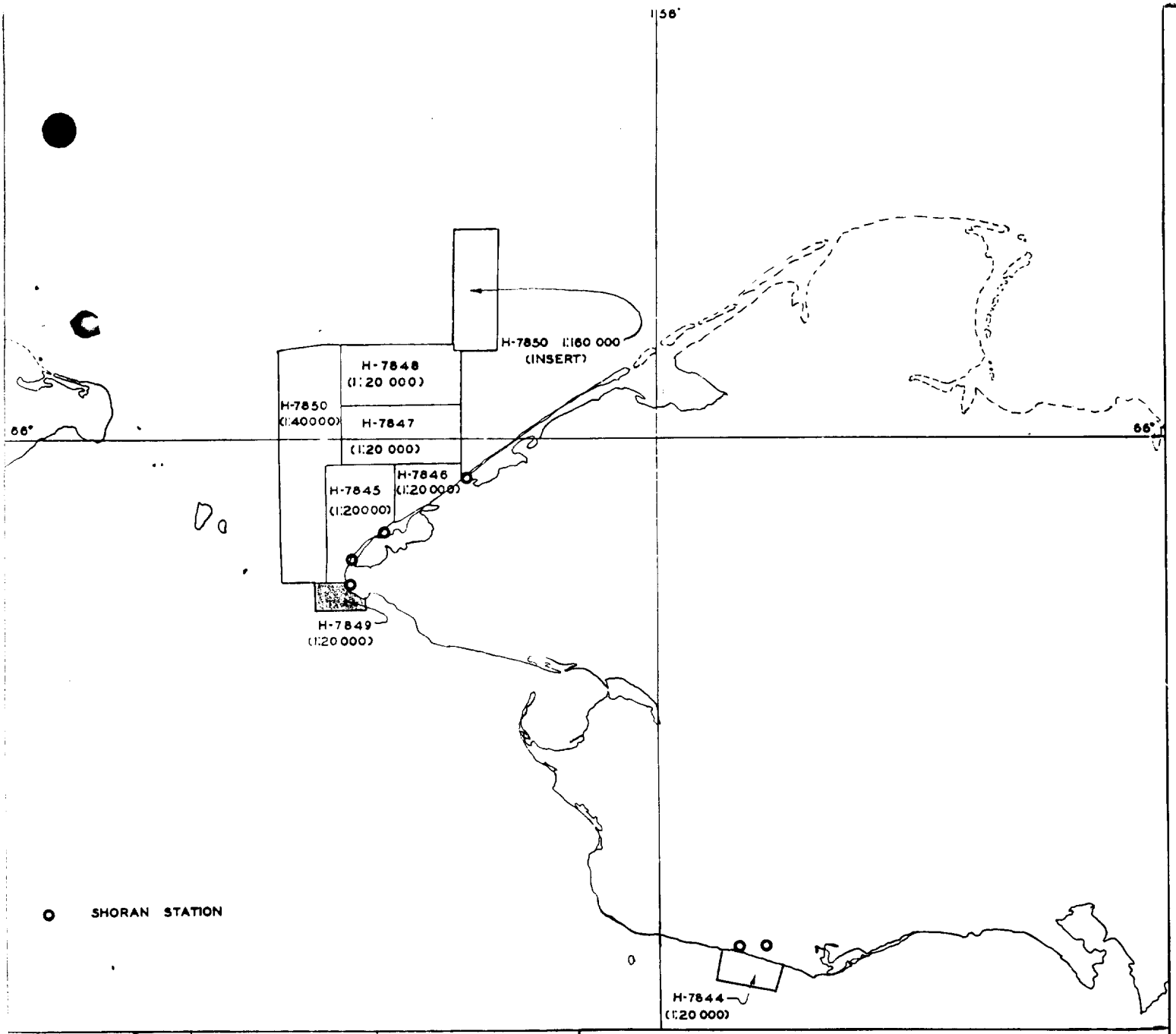
(Field No. PI-2650)

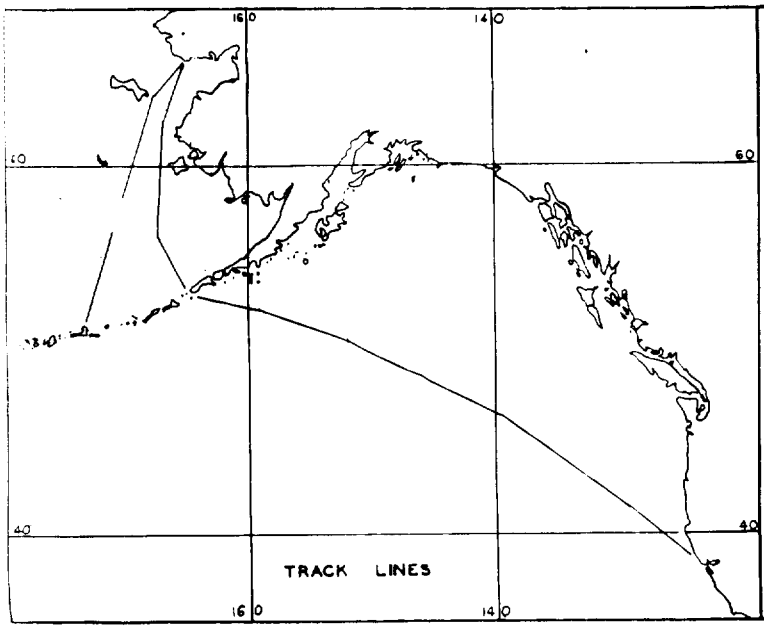
The field work was supervised closely and the boat sheet was inspected daily.

The records and smooth sheet have been inspected and approved.

The survey is considered adequate.

Thos. B. Reed
CDR. USC&GS
Comdg. Ship PIONEER





PROGRESS SKETCH
TO ACCOMPANY SEASONS REPORT

U.S. COAST & GEODETIC SURVEY

COMBINED OPERATIONS

9 JUNE 23 SEPT. 1950

SEWARD PENINSULA
NOME & CAPE PRINCE OF WALES

SHIP PIONEER
THOS. B. REED COMDG.

PROJECT C.S. 341

Form 537a
Ed. Nov., 1929

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

TOPOGRAPHIC TITLE SHEET

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

Field No. PI-D-50 to be
(Graphic Control sheet subsequently destroyed)
REGISTER NO.

State ALASKA

General locality Seward Peninsula

Locality Cape Prince of Wales

Scale 1:20,000 Date of survey July & Sept., 1950

Vessel Ship PIONEER

Chief of party CDR. Thos. B. Reed

Surveyed by W.N. Martin

Inked by W.N. Martin

Heights in feet above to ground to tops of trees

Contour, Approximate contour, Form line interval feet

Instructions dated , 19

Remarks: Project No. CS-341

DESCRIPTIVE REPORT TO ACCOMPANY GRAPHIC CONTROL
SURVEY PI-D-50

INSTRUCTIONS: Instructions dated 19 May 1950.

A. GENERAL DESCRIPTION OF COAST.

This sheet covers the shoreline from a point about 2 miles north of the village of Wales, south and southeast around Cape Prince of Wales to Tin City, Alaska. Cape Prince of Wales is the east side of Bering Strait and the Western extremity of Seward Peninsula. It is a bold headland rising out of the sea and culminating into Cape Mountain whose relativeley regular and well defined crest is 2,000 feet above the water, The south and southwest slopes of the mountain are very steep and drop to the water line at an approximate angle of 60 degrees. The base of the mountain to the west, where the small Eskimo village of Wales is located, and to the north , is a low, flat sandy beach. About one mile north of Wales is a C.A.A. range station. The five radio towers of this station are visible for about 15 miles from the south, west, north and northeast on a clear day. The small dwellings at Wales and Tin City are visible for about four or five miles from their sea approach.

B. LANDMARKS.

The five radio towers noted above and Cape Mountain itself are the only objects distinctively prominent enough to warrent charting as landmarks.

C. CHARACTER OF CONTROL USED.

The basic control for this sheet were triangulation stations WALES and TIN CITY established in 1944. Supplemental control was established as follows:

A theodolite and tape traverse was run from Wales 1944 to LAW. From this traverse shoran station PRIM and several other stations in the area were located by theodolite cuts. These stations were computed and plotted on the sheet and used as control to locate the remaining topographic stations in the Wales area to and including signal Zag.

A low order scheme of triangulation was carried from triangulation station TIN CITY 1944 westward to topo station Zoo. Additional signals along and within this scheme were located by theodolite and tape. (A 200, 1950)

Signals between Zag and Zoo were located by plane table traverse. As noted above, this stretch of coast line not only has very steep slopes it also bends sharply around the cape in a very tight curve. Suitable plane table setup were difficult to find. On two-set-ups it was necessary to rod distances with the alidade resting on a rock and turn azimuth angles with a 4-inch theodolite. These data were plotted on the sheet with a steel protractor.

D. CLOSING ERROR OF TRAVERSE AND HOW ADJUSTED.

The closing error at signal Zoo was 15 meters or about 5½ meters per mile. A straight live adjustment was made of this closure.

E. LIST OF PLANE TABLE POSITIONS.

See list attached.

F. COMPUTATIONS USED IN LOCATING SUPPLEMENTARY POINTS BY THEODOLITE AND TAPE ARE INCLUDED IN THIS REPORT.

G. SHORELINE: filed as GTZ-69265 published- IV p 217&218

The mean high water line was rodded or taped in at planetable. and theodolite ste-ups in accordance with the instructions, paragraph 12.

5 January 1951

Respectfully submitted,

for William N. Martin
LCDR., USC&GS
Ship PIONEER

Approved and Forwarded:

Thos. B. Reed
CDR., USC&GS
Comdg. Ship PIONEER

PLANE TABLE POSITIONS

Object & Description	Lat. °	'	DM mi	Long. °	'	DP mi	Remarks
Cape Prince of Wales Light ⊙	65	38	92.0	168	07	23.0	Lighted Aug. 1 to Nov. 1 White wooden house, about 25 feet above sea level
Wales U.S. Weather Bureau No. House, Weathervane △ IV 2/8	65	36	1433.8/2	168	05	382.7	North house in village, white, weathervane on north gable.
Wales, Thornton Memorial Cahpel, Belfrey △ IV 2/8	65	36	707.3	168	05	41.5/6	Height about 30 feet. Only spire in village
LAW LAW △ IV 2/8	65	36	436.0	168	04	701.1/2	Marked with standard hydrographic disk.
PIN Pin ⊙	65	34	1234.2	168	03	762.0	Large rock, about 30 feet high, almost detached from shoreline. Shows as a detached rock from north west.
FIN Fin ⊙	65	33	1053.7	167	59	174.9	Rock formation extending out from sheer cliff in the form of a bracket or finger pointing skyward About 180 ft. above water.
Wales azimuth Mark 1944 △ IV 2/8	65	37	06.7/6	168	03	479.8/1	Located by low order triangulation, 4th?
Tin City azimuth mark, 1944	65	33	1310.6	167	57	765.7	Located by low order triangulation
Soc. SOC △ IV 2/7	65	33	1160.8/2	167	56	254.1	Wind sock at Tin City airfield.

RHC

Form 712
DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
Rev. June 1937

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Hydrography and Topography~~ 24 April 1951

Division of Charts: R. H. Carstens

Plane of reference approved in 7
volumes of sounding records for

HYDROGRAPHIC SHEET 7849

Locality Cape Prince of Wales, Bering Strait

Chief of Party: T. B. Reed in 1950
Plane of reference is mean lower low water, reading
2.8 ft. on tide staff at Lopp Lagoon
17.8 ft. below B. M. 1 (1950)

*2.4 ft. on tide staff at Port Clarence
9.5 ft. below B. M. 1 (1950)

Height of mean high water above plane of reference is as follows:
Lopp Lagoon = 0.3 foot
*Port Clarence = 1.2 feet

*NOTE: Tide reducers referred to the Port Clarence tide gage were verified by using the following allowances.

~~Condition of records satisfactory except as noted below:~~

Time of Tide	Ratio of Range
+ 3 00 hrs.	0.5

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

U. S. GOVERNMENT PRINTING OFFICE 756675

GEOGRAPHIC NAMES

Survey No. H-7849

Name on Survey	On Chart No. A	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
Bering Strait				(" ")					USLHB	2
										3
Cape Prince of Wales									USLHB	4
Wales				(village on cape)						5
Tin City										6
										7
										8
										9
					Names underlined in red are approved. 4-11-51 L. Heck					10
										11
										12
										13
										14
Lopp Lagoon			(location of tide gage)							15
Port Clarence			(" " " ")							16
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27

M 234

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. H-7849

Records accompanying survey:

Boat sheets 2; sounding vols. 7; wire drag vols. .....;
bomb vols. .....; graphic recorder rolls 10 env.
special reports, etc. Computation of Velocity Corrections, CS-341 (see H-7844)
1 Smooth Sheet.

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

Number of positions on sheet		1416
Number of positions checked		15
Number of positions revised		2
Number of soundings revised (refers to depth only)		11
Number of soundings erroneously spaced		15
Number of signals erroneously plotted or transferred		—
Topographic details	Time	2 hr
Junctions	Time	4 hr
Verification of soundings from graphic record	Time	20 hr

Preliminary verification by --O.Svendsen time 22 hrs 10-11-51

Verification by G.A.Kozemczak in Norfolk Total time 484 Date 11-23-53

Completion of Verification -- R.E.Elkins time 16 hrs 1-27-54

Reviewed by A. J. Hoffman Time 32 hrs. Date 6/4/52

Review Addendum by R.E.Elkins 8 hrs 1-28-54

M-2232-1

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-7849 FIELD NO. PI-2650

Alaska, Bering Strait, Cape Prince of Wales

Project No. CS-341

Surveyed in September 1950 Scale 1:20,000

Soundings:

808 Fathometer

Control:

Sextant fixes on shore signals

Chief of Party - T. B. Reed
Surveyed by - Ship's Officers - J.O. Phillips, B.C. Stokes, Jr., A.R. Benton, Jr., H.W. Keith, P.A. Weber, A.E. Greaves, F. Natella, W.N. Martin, E.B. Latham and A.C. Holmes
Protracted by - P. O. Reimer
Soundings plotted by - P. O. Reimer
Preliminary Verification by - O. Svendsen
Verified and inked by - G.A. Kozemczak
Reviewed by - A. J. Hoffman, 4 June 1952
Inspected by - R. H. Carstens

1. Shoreline and Signals

The high water line will be added to the present survey at the time the inking of the survey is completed. Air-photographic surveys T-9644 and T-9645 of 1950 cover the area of the present survey. see addendum to review

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

2. Sounding Line Crossings

Depths at crossings are in good agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves are adequately delineated, except inshore where the low-water line was not developed by the regular system of sounding lines because of steep-to banks and foul areas.

The bottom for the most part is smooth except for a steep gradient inshore from 36-ft. depths.

4. Junctions with Contemporary Surveys

The present survey junctions adequately with H-7850 (1950) on the northwest. The junction with H-7845 (1950) on the north will be considered in the review of that survey. There are no other contemporary adjoining surveys registered at the present time.

5. Comparison with Prior Surveys

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

6. Comparison with Chart 9380 (Print date 8/6/51)

a. Hydrography

The charted hydrography originates mainly with advance information of the present survey contained in Chart Letter No. 799 (1950). Charted soundings are not materially affected by revisions made during smooth-plotting and preliminary verification.

see addendum to review

b. Aids to Navigation

There are no charted aids to navigation in the area of the present survey. No new features which might be considered dangers to navigation were revealed by the present survey.

7. Condition of Survey

a. The sounding records and Descriptive Report are complete and comprehensive.

b. The smooth plotting was very well done.

c. The preliminary verification of this survey was confined to critical soundings, discrepancies at crossings and junctions, and an inspection for conflicts with topographic detail. Completion of the verification, inking and application of remaining shoreline is deferred until some future date, at which time the inspection of the junctions, curves and shoreline will be completed by the reviewer.

8. Compliance with Project Instructions

The survey adequately complies with the Project Instructions.

9. Additional Field Work Recommended

This is an excellent basic survey and no additional field work is recommended.

Examined and approved:

H. R. Edmonston
Chief, Nautical Chart Branch

H. Arnold Karo
Chief, Division of Charts

L. S. Hubbard
Chief, Section of Hydrography

Earl O. Heaton
Chief, Division of Coastal Surveys

Addendum to Review

H-7849 (1950)

Verified and inked by - G. A. Kozemczak in Norfolk
Review Addendum by - R. E. Elkins 1/28/54
Inspected by - R. H. Carstens

The verification of this survey has been completed. Soundings and depth curves are now inked, the shoreline has been added and junctional soundings have been transferred from verified contemporary surveys.

Shoreline

The shoreline originates with reviewed air photographic surveys T-9644 and T-9645 (1949-50).

Comparison with Chart 9380 (Print date 9/8/52)

The charted hydrography originates principally with advance information, Chart Letter 799 (1950), of the present survey. Minor differences amounting to 1 to 3 fms. are noted between charted and verified smooth sheet soundings. As for example, in lat. 65°36.5', long. 168°14' a charted 25-fm. sounding falls in 22-fm. depths on the present survey. In general, the present survey depths are less than charted depths. Several odd-interval soundings which were not included in the advance information, are now shown on the smooth sheet.

The present survey is complete and adequate and entirely supersedes the charted information within the common area.

Condition of Survey

Completion of the verification reveals that the smooth plotting was well done.

Approved by

H. A. Karo
Chief, Chart Division

NAUTICAL CHARTS BRANCH

SURVEY NO. H-7849

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
4-12-51	9380	[illegible]	Before ~~After~~ Verification and Review Partially applied-chiefly through L. 799 (1950)
5/18/51	9302	Pisegari	Before ~~After~~ Verification and Review Partially applied. Thru Cht. 9380
9/4/54	9302	GAE	~~Before~~ After Verification and Review
2/13/56	Reconstr. 9380	GAE	~~Before~~ After Verification and Review Rev. thru Cht. 9369 GAE
6/1/56	Ch 9369	GAE	~~Before~~ After Verification and Review
2-11-58	9402	RKD	~~Before~~ After Verification and Review thru Cht 9380 Reconstr.
2-13-58	9400	RKD	~~Before~~ After Verification and Review thru chart 9402
			Before After Verification and Review
			Before After Verification and Review
			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.