8455 File Range 12.1

Dia. Cht. No. 8152-2.

Form 504

U. S. DEPARTMENT OF COMMERCE

COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. PA-1158 *Office No.* H-8455

LOCALITY

State Alaska (S.E.)

General locality Tlevak Strait

Locality Vicinity of North Pass

1960

CHIEF OF PARTY

Miller J. Tonkel

USCOMM-DC 5087

8455

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-8455

Field No. PA-1158

State Alaska

General locality Tlevak Strait

Locality Vicinity of North Pass

Scale 1:10,000 Date of survey 16April - 10 May 1960

Instructions dated 22 December 1959

Vessel Ship HODGSON

Chief of party Miller J. Tonkel

Surveyed by R.E. Williams and W.P. Yeager

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

Fathograms scaled by Ship Personnel

Fathograms checked by Ship Personnel

Protracted by W. Paul Yeager

Soundings penciled by W. Paul Yeager

Soundings in fathoms ~~feet~~ at ~~MLW~~ MLLW

REMARKS: This descriptive report is concerned only with the hydrography done by the Ship HODGSON in 1960. That portion of the work done by the Ship PATTON in 1958 was covered by a separate descriptive report forwarded at the time of completion of the first part of the smooth sheet.

U. S. GOVERNMENT PRINTING OFFICE 777032

DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SURVEY H-8455 (Field No. PA-1158)

PROJECT CS-357
NORTH PASS, TLEVAK STRAIT, SOUTHEAST ALASKA

DATE OF SURVEY: APRIL - MAY 1960
SCALE OF SURVEY: 1:10,000

USC&GSS HODGSON, LCDR MILLER J. TONKEL, COMMANDING OFFICER

Surveyed by LCDR R. E. Williams and ENS. W. P. Yeager

A. PROJECT

Survey was undertaken in accordance with revised instructions for Project CS-357, dated 22 December 1959 and addressed to Commanding Officer, USC&GSS HODGSON.

B. SURVEY LIMITS AND DATES

This survey is generally southwest of North Pass in Tlevak Strait. It is bordered on the North by Prince of Wales Island and Horseshoe Island, on the east by Goat Island , and on the south and west it is joined by prior survey H-3691, scale 1:20,000, 1914.

In the northeast corner, at the mouth of North Pass, the survey joins the hydrography done by the Ship PATTON ~~in 1958~~ on this same project. H8456 (1958) DEW

It is located between Latitude 55° 10' 15" and Latitude 55° 13' 45" and between Longitude 132° 55' 45" and Longitude 132° 59' 40". Hydrography began on 26 April and ended on 5 May 1960.

C. VESSELS AND EQUIPMENT

The hydrography was accomplished by the launch CS 95 operating from the Ship HODGSON, at anchor north of Goat Island. The minimum turning radius of the launch is about 30 meters at maximum speed and 50 meters at minimum speed.

An 808 type fathometer, No. 147, was used for one day of hydrography and number 51 was used for one day. DEW The remainder of the hydrography using a graphic recorder was accomplished using a type 808, No. 62S. In areas inaccessable with the launch, soundings were taken with the hand lead from a whaleboat. Reef, rocks, and shoal areas were verified by pole and hand lead soundings. All soundings were recorded in fathoms.

D. TIDE AND CURRENT STATIONS:

A portable automatic tide gage was maintained on a small island south of Goat Island and southeast of the mouth of North Pass. Tide reducers were entered to the nearest 0.1 fathom without time or range corrections. There were no current stations within the limits of this survey.

E. Smooth Sheet:

The projection was made by hand at the C&GS Ship Base in Seattle in 1958. All positions were plotted by use of the three arm protractor. No unusual methods were used in transferring the shoreline or signals.

F. CONTROL STATIONS:

The triangulation scheme was established by Francis X. Popper in 1958. This scheme was brought in from the system on the east side of North Pass established by J. T. Jarman in 1956.

The major portion of the hydrographic signals were located with graphic control by plane table methods and selection of points from aerial photographs, which were radially plotted on Photo Manuscript T-11497 (19) at a scale of 1:10,000 and then transferred to the hydrographic sheet. Part of the signals were dressed triangulation stations and the remainder were cut in by sextant angles. ← date of T-sheet

Refer also to Attached Material (List of Signals).

G. SHORELINE AND TOPOGRAPHY:

The shoreline and topography were obtained from the blue line prints of manuscripts T-11497 and T-11500. The hydrographic survey was in good agreement with conditions as shown on the manuscripts in the water area and most of the shoreline but discrepancies do exist. ← date of T-sheets

Positions 5j; 9j, 12j, 13j, 66k, and 67k plot above the high water line. The questionable j-day positions are located between signals Irk and Cat. The k-day positions are between signals Yoman and Dud. OK other positions plotted above high water line OK

The positions could not be resolved to fall within the shoreline and no errors in the sextant angles could be determined. Graphic control was used for most of the signals in the area and no errors could be found in the locations. Since the shoreline was solid on the blue line print, it was not rejected by the hydrographic survey but was left in pencil on the smooth sheet to be verified in the office.

H. SOUNDINGS:

The soundings were taken in fathoms with 808 fathometers Nos. 147, 51 (one day) and 62S except in areas inaccessible with the launch. All shoals were verified with hand lead or pole soundings. In areas inaccessible with the launch, hand lead and pole soundings were taken to the nearest 0.1 fathom.

Settlement and squat values were determined but no correction was found to be necessary.

I. CONTROL OF HYDROGRAPHY:

Three point sextant fixes were used for horizontal control of the survey. No adjustment of any portion of the hydrography is necessary. EXTENSIVE ADJUSTMENTS WERE MADE IN VERIFICATION D.E.N.

J. ADEQUACY OF SURVEY:

This survey is considered complete and adequate for charting purposes and may supercede prior surveys. Junctions with adjoining surveys and charts are in agreement close enough that depth curves can be adequately drawn at the junctions.

K. CROSSLINES:

Crosslines were run to the extent of 5.2 percent of the regular sounding lines. Crossings were satisfactory. were not satisfactory D.E.N.

L. COMPARISON WITH PRIOR SURVEYS:

The junction soundings taken in this survey differ from prior survey H-~~3196~~ 3691, Den 1:20,000, 1914 in that they are about 1 to 2 fathoms shallower than the prior survey. No valid explanation for this discrepancy could be determined, but after a thorough investigation of this survey's soundings, ~~it is believed that the prior survey is in error.~~ General agreement is good. D.E.N.

M. COMPARISON WITH CHARTS:

The main part of the survey was in an area previously uncharted. The only charted soundings were along the southwest limits of hydrography. The charted soundings were one to two fathoms deeper than those obtained by the survey. The chart used is USC&GS Chart No. 8151, Scale 1:40,000, 7th Ed. July 27, 1959. This difference in soundings was discussed under the preceeding heading.

N. DANGERS AND SHOALS:

Most shoal areas within this survey are adjacent to the rocks shown on the smooth sheet and C&GS Chart 8151, 1:40,000, 7th Ed. July 27, 1959. Since their extent is well defined on the chart, they will not be considered as newly found dangers.

N. DANGERS AND SHOALS (cont'd.):

A shoal of 5 fathoms exists at Lat. 55° 12.12', Long. 132° 58.05' in an area of soundings generally over 15 fathoms. This area is in turn surrounded by depths at least 35 fathoms. Pos. No. 125m.

A shoal with a least depth of 1½ fathoms extends due south about 150 meters from the wooded islet at Lat. 55° 12.65' and Long. 132° 58.72'. Pos. No. 25m.

The island at Lat. 55° 10.65' and Long. 132° 56.62' has a foul area extending northward to the shore of Goat Island. Although there are depths to three fathoms in the area, it should be considered as a danger due to the number of rocks, both sunken and awash, that exist throughout the area.

O. COAST PILOT INFORMATION:

Refer to Coast Pilot Report, Ship HODGSON 1960.

P. AIDS TO NAVIGATION:

There are no aids to navigation within the limits of this survey.

Q. LANDMARKS FOR CHARTS:

No landmarks for charts were selected in this survey.

R. GEOGRAPHIC NAMES:

Refer to Geographic Names report submitted under separate cover.

S. SILTED AREAS:

There is no evidence of any silted areas within the limits of this survey.

T. - Y.

Not used.

Z. TABULATION OF APPLICABLE DATA:

1. Coast Pilot Report
2. Photogrammetric Report
3. Geographic Names Report
4. Attached Report
   a. Statistics
   b. Tide Note
   c. List of Signals
   d. Depth Sounding Report
   e. Approval Sheet

Respectfully submitted,

W. Paul Yeager

W. Paul Yeager
ENS, C&GS

STATISTICS FOR
HYDROGRAPHIC SURVEY H-8455 (1960)

Launch CS-95 (Red)

Day Ltr.	Volume	Date	No. of Positions	Naut. Mi. Sdgs.	Handlead & Pole Sdg.
	1&2	1958	Work by Ship PATTON *		
a	3	26 April	70	11.3	
b	3-4	27 April	118	10.3	
c	4	28 April	137	12.7	
d	4-5	29 April	135	14.5	
e	5-6	30 April	147	13.9	
f	6	2 May	142	9.5	
g	6-7	3 May	100	9.0	
h	7	4 May	101	10.4	
j	7-8	5 May	132	9.6	
k	8-9	7May	89	6.5	
l	9	8 May	72	5.0	9
m	9	9 May	126	8.4	19

Motor Whaleboat (Brown)

a	10	2 May	32	Bottom Samples	
b	10	3 May	49	D. P.s	11
c	10	4 May	46	D. P.s	17
d	10	5 May	56	D. P.s	56

TOTALS

	Positions	Naut. Mi. Hydro.	Stat. Mi. Hydro.
Launch CS-95	1369	121.1	106.0
Whaleboat	183	-----	
Launch CS-87	455	37.9	
	2007	259.0	

TOTAL AREA OF SURVEY: 3.4 Sq. Nautical Miles

* Launch 87 (Ship Patton) 1958

Day Ltr.	Volume	Date	No. of Positions	Naut. Mi. Sdgs.	Handlead & Pole Sdg.
a	1	29 Sept	161	10.8	7
b	1	30 Sept	125	8.4	—
c	1-2	1 Oct	169	18.7	2
			455	37.9	

TIDE NOTES

HYDROGRAPHIC SURVEY H-8455 (FIELD PA- 1158)

A portable automatic tide gage was naintained south of Goat Island, Latitude 55° 12.32', Longitude 132° 56.43'.

No time and range corrections were used.

LIST OF SIGNALS USED

GRAPHIC CONTROL	AERIAL PHOTO		SEXTANT	DRESSED TRIANGULATION
Doc	Ace	Ash	Roc	Chief 1958
Gob	Hat	Fun	Hut	Yoman 1958
Jig	Pin	Rio	Beg	Turki 1958
Hit	Low	Sam		Terry 1958
Cat	Jay	Zig		Kelly 1958
Dud	Nag	Rug		Finis 1958
Con	Cow	Yet		Kathy 1958
Fat	Bum	Pig		Timmy 1958
Fig	Fox	Nun		Seal 1956
Tip	Hip	Mud		Boar 1956
Rat	Wig	Lot		Frog 1956
Hag	Gun			Wolf 1956
Rip	Pup			Beans 1958
Irk	Tre			Mikel 1958
Jug	Wet			Worry 1958
Dip	Ply			Chris 1958
Cap	Mil			Patsy 1958
Tom	Gin			North 1958
Odd	Fop			Tern 1956
His				Colt 1956
Wax				Mimi 1958
Fat				

Addition to List of Graphic Control Signals Used for H 8455

Wag Dog
Quo Man
Lad Add
Leo Dim
Zoo Bed
Ion Cam
Sad
Zag
Bat
Vim
Act
Car
Tar
End
Pad
Cop
Abe
Rag
Far
Gag

REPORT ON
DEPTH SOUNDING EQUIPMENT

Project CS-357 H-8455 (PA-1158) Ship HODGSON 1960

EQUIPMENT:

The 808 No. 147 and 808 No. 62S (808 No. 51) fathometers were used in launch CS-95 for this survey. No. 147 was used only for a-day and No. 62S was used for b-m days. All soundings were taken in feet. (fathoms)

Hand lead soundings were taken with leadlines 23-E and 10-L. Pole soundings were taken with an unnumbered pole.

CORRECTIONS:

The final fathometer correctors applied to the soundings were for echo, index, and phase. These corrections were obtained from tests and comparisons made throughout the time of hydrography. The original results are recorded in the volumes. The index corrections are applied as observed from the fathograms. Phase corrections were averaged from the comparisons in the volumes and entered as required. Echo corrections are the algebraic summation of launch draft, velocity, and instrument errors as determined by bar check and lead line comparisons. Two temperature and salinity observations were made to determine velocity corrections. The only deep water surveying was done at the first of the project, and the temperature and salinity velocity corrections were negligible, since they were below the 0.5% limit. The second temperature and salinity observation gave corrections in excess of 0.5%, but all work was done in shallow depths that could be controlled by bar checks and vertical casts. The average of the two observations was less than 0.5%. The observation data and curves were submitted to the Washington Office in a serarate report.

Settlement and squat corrections were determined by standard methods and found to be negligible.

Leadlines, bar check lines, and poles were calibrated by comparisons with a steel tape.

The following correction values are the summation of comparisons taken throughout the time of the survey.

SUMMATION OF COMPARISONS
Launch No. CS-95, 808 Fathometer NO. 147, a-day

Barline	Echo Correction (Fms.)
1	+0.10
2	+0.20
3	+0.25
5	+0.25
7	+0.30

SUMMATION OF COMPARISONS (Cont'd.)

Launch CS-95, 808 Fathometer No. 62S, b-m days

Barline	Echo Correction (Fms.)
1	+0.20
2	+0.22
3	+0.22
5	+0.18
7	+0.23
Leadline	
7.5	+0.3
11.4	+0.2
11.9	+0.3
12.2	+0.3
12.9	+0.3
14.1	+0.3
14.7	+0.2
15.8	+0.3
16.2	+0.4
17.9	+0.2
18.8	+0.2
21.1	+0.4

FINAL CORRECTION ABSTRACT

808 No. 147
Launch No. 95
H-8455 a-day

Corr'n. (Fms.)	Range
+0.1	0.0 to 1.5
+0.2	1.6 to 3.7
+0.3	3.8 -----

808 No. 62S
Launch No. 95
H-8455 b-m days

Corr'n. (Fms.)	Range
+0.1	0.0 to 0.5
+0.2	0.6 to 5.0
+0.3	5.1 -----

Leadline 23-E

Corr'n. (Fms.)	Range
+0.0	0.0 to 6.0
+0.1	6.1 to 20.0
+0.2	20.1 to 23.0

Leadline 10-L

No Correction

Pole--No Correction

Phase Correction A-B (Launch 95)
H-8455 a-m day
808 No. 147
Average Correction A-B=+5.3 Fms.

APPROVAL SHEET

Hydrographic Sheet H-8455

The boat sheet and field records for this survey were examined by the C. O. daily during the field season. The smooth sheet work was executed by Ensign W. Paul Yeager under supervision of this command.

The survey is complete and adequate with no additional field work considered necessary. Junctions with prior surveys are satisfactory.

Charles W. Clark

Charles W. Clark
CDR, C&GS
Chief of Party

FORM 197
(3-16-55)

GEOGRAPHIC NAMES

Survey No. H-8455

Name on Survey	A On Chart No. 8151	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 BGN	
Goat Island	x								x	1
Horseshoe Island	x									2
North Pass	x								x	3
Prince of Wales I.	x									4
Snag Island	x									5
Tlevak Strait	x								x	6
										7
										8
										9
										10
										11
										12
										13
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										25
										26
										27

George M. Rose
GEOGRAPHIC NAMES SECTION
8 MARCH 1961

Form 946

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. 8455

Records accompanying survey: Smooth sheets 1;

boat sheets 1; sounding vols. 10; wire drag vols. ;

Descriptive Reports 1; graphic recorder envelopes none;

special reports, etc. .....

.....

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

Number of positions on sheet		2007
Number of positions checked		791
Number of positions revised		64
Number of soundings revised (refers to depth only)		56
Number of soundings erroneously spaced		145
Number of signals erroneously plotted or transferred		—
Topographic details	Time	83 hrs
Junctions	Time	20 hrs
Verification of soundings from graphic record	Time	———
Special adjustments	Time	303 hrs

Verification by Daniel E. Neumann Total time 416 hrs Date 5-21-74

Reviewed by ..... Time ..... Date .....

VERIFIER'S REPORT OF HYDROGRAPHIC SURVEY NO. H-8455

The verifier should deal with the present hydrographic survey only, as the reviewer considers its relation to previous surveys and published charts. He should be thoroughly familiar with Chapters 3, 7 and 9 of the Hydrographic Manual.

1. The descriptive report was consulted and appropriate notes were made in soft pencil regarding action taken.

2. Soundings originating with the survey and mentioned in the descriptive report have been verified, including latitude and longitude.

3. All reference to survey sheets mentioned in the descriptive report include the registry number and year.

4. Geographic names of hydrographic features if on sheet are in slanting lettering and of topographic features in vertical lettering.

5. All items affecting the plotting of the survey which are entered in the remarks columns of the sounding records were noted and check marked. In all cases appropriate action was taken.

6. All positions verified instrumentally were check marked in the sounding records.

7. All critical soundings are clear and legible and are a little larger than the adjacent soundings.

8. The ~~metal~~ Plastic protractor has been checked within the last three months.

9. The protracting and plotting of all bad crossings were verified.

10 All detached positions locating critical soundings, rocks or buoys were verified.

11. The boat sheet was compared with the smooth sheet.

12 The spacing of soundings as recorded in the records was closely followed.

13. The bottom characteristics were shown on outstanding shoals.

14. The reduction and plotting of doubtful soundings were checked.

15. The transfer of contemporary topographic information was carefully examined.

16. All junctions were transferred and overlapping curves made identical.

17. The notation "JOINS H- (19--)" was added in ink for all contemporary adjoining or overlapping sheets now registered. Those not verified are shown in pencil.

18. The depth curves have been inspected before inking.

19. All triangulation stations and transfer of topographic and hydrographic signals were checked.

20. Heights of rocks were checked against range of tide.

21. Rocks transferred from topographic surveys have a dotted curve where shown thereon. Rocks located accurately by hydrographer are encircled by dotted red curve. NO

22. Unnecessary pencil notes have been removed.

23. Objects on which signals are located and which fall outside of the low water line have been described on the sheet.

24. The low water line and delineation of shoal areas have been properly shown.

25. Degree and minutes values and symbols have been checked.

26. Questionable soundings have been checked on the fathograms.

27. Source of shoreline and signals (when not given in report).

28. All notes on sheet are in accordance with figure 171 in the Hydrographic Manual.

29. All aids located, with those on contemporary topographic sheets, have been shown on survey.

30. Depth curves were satisfactory except as follows:
All depth curves were satisfactory ✓

31. Sounding line crossings were satisfactory except as follows: Numerous sounding line crossings were not satisfactory. This required construction of sounding overlays, rt. or left angle deletion or adjustment, sum angle plot and time and course modification to obtain agreement. Of significance were unsatisfactory line crossings existing in developments to the north and

32. Junctions with contemporary surveys were satisfactory (cont.)
~~except as follows:~~ Junction were made with H 3691 (1914) and H 8456 (1958). Both junctions were satisfactory. One sounding, i.e. 51 fathoms, is suspect on H 3691. The volumes were ordered and upon their arrival, this sounding will be deleted from the survey and revised to a sounding satisfying adjacent soundings of H 8455.

33. Condition of sounding records was satisfactory except as follows: The volumes contain 48 corrections to depth computation. In addition, in several instances (ex. Vol. 6 days e,f,g) the bar check results do not complement the echo corrections used in the volumes. It appears that all daily bar checks were (cont.)

34. The protracting was satisfactory except as follows: Although there was an extremely high number (63) of sounding positions in error on the smooth sheet, only six or seven position number locations can be attributed to protracting. The problem seems to lie in the field use of the sextant by either the right or left angle man. The sextant itself may (cont.)

35. The field plotting of soundings was satisfactory except as follows: Six hundred thirty-one soundings (631) were added to the smooth sheet to adequately delineate the depth of the survey area and develop its low water line. Deeper soundings between shoaler soundings and shoaler soundings between deeper soundings were frequently omitted. In a few areas the

36. Notes ~~to reviewer~~: shoalest sounding determing the shoal was not smoothplotted. For example, east of TERRY △ a 10 I had indicated the shoalest depth were a verified 10½ sounding is now correctly shown. Channels although generally adequately delineated were in a few instances poorly shown. For example, in the channel between FOX ○ and TRE ○, the (cont.)

Verified by Daniel E Neumann Date 5-21-74

FORM NO. 964A
US COMM-CGS-DC

Additional notes. H 8455

31. cont. and to the south of signal GUN and westward from signal RIP. The absence of fathograms for this survey made agreement exceedingly difficult to obtain.

33. averaged together to determine the final correction abstract in the Descriptive Report. This practice does not seem good. Discrepancies of upto .3 exist between the individual bar check findings and the actual echo corrections applied. These differences may in part explain the cross line disagreement encountered on this survey. Lastly, boat course was not adequately commented upon in the volumes. Numerous turns appear from sounding positioning with no explanation of change of compass setting or annotation of turn.

Additional notes H-8455

34. have been the cause, however there is no mention of the type or model number that was used.

35(cont.) 16 - 3[4] - 3 - 2[7] controlling channel depths were omitted from the smooth sheet. (see 87d). Departing southeastward from this channel the hydro did not agree and subsequently did not adequately delineate the depth configuration in that direction. Extensive replotting was necessary from 84 - 87d.

Notes to Reviewer

(36) This survey was verified without the benefit of any fathograms. In addition the descriptive report for the 1958 portion of this survey has been lost. An attempt was made to systematically incorporate into this descriptive report all pertinent information which would have been listed in the 1958 descriptive report. For example, note the addition of graphic control and dressed triangulation signals.

Additional notes to H8455

(36) cont.

Enclosed are overlays which were very useful in verifying in the developments west of signal RIP and to the north and south of signal GUN. Due to handling and wear, the overlays do not exactly depict the hydro positions of the smooth sheet; however, they are still useful in position location and present a general concept of the cross line disagreement encountered. The overlays are enclosed in the accompaning envelop.

Two Soundings 48a (6thout) and 62c (2ndout) were changed. The first from $38\frac{8}{}$ to $28\frac{8}{}$ and the second from $37\frac{6}{}$ to $28\frac{6}{}$. Partial correction was made in red crk - in both instances indicating the probability of incomplete conversion. After the verified depth change, adjacent hydro was satisfied.

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

RHC

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Coastal Surveys~~ 12 May 1961

Division of Charts: R.H.Carstens

Plane of reference approved in
10 volumes of sounding records for

HYDROGRAPHIC SHEET 8455

Locality Tlevak Strait,S.E.Alaska

F.X.Popper (1958)
Chief of Party: M.J.Tonkel (1960)
Plane of reference is mean lower low water, reading
2.1ft. on tide staff at Natzuhini Bay
14.1ft. below B. M. 1 (1958)
2.8 ft on tide staff at NorthPass, Tlevak Strait
20.8 ft. below B.M. 1 (1958)

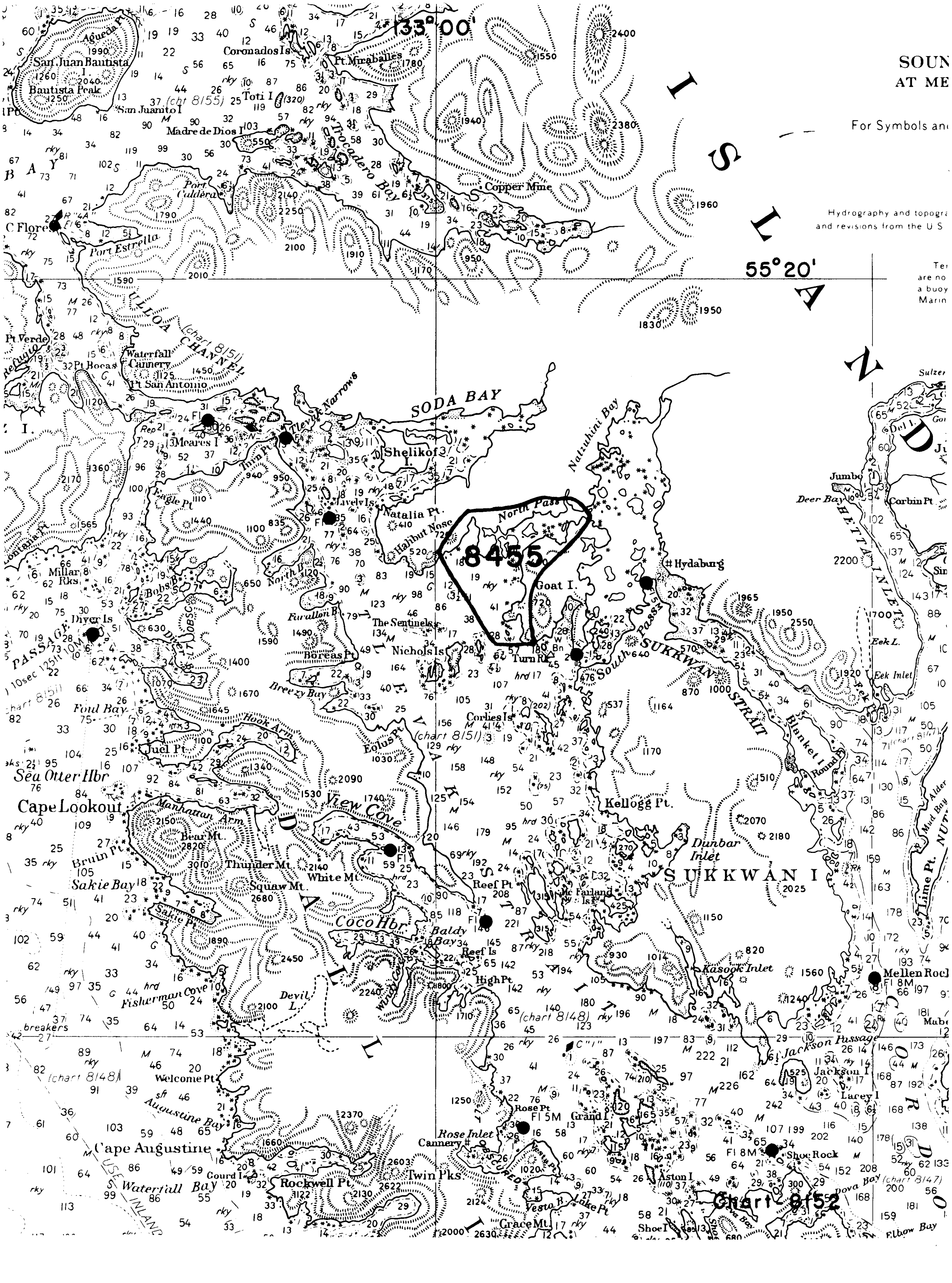
Height of mean high water above plane of reference at both stations is: 12.1 ft.

Condition of records satisfactory except as noted below:

Burt W. Wilcox
Chief, Tides and Currents Branch

~~Chief, Division of Tides and Currents.~~

U. S. GOVERNMENT PRINTING OFFICE 877033


133°00'
55°20'
SOUN
AT ME
For Symbols an
Hydrography and topogra
and revisions from the U S
ISLAND
San Juan Bautista I
Bautista Peak
Agueda Pt
Coronados Is
Pt Miraballes
Toti I
San Juanito I
Madre de Dios I
Trocadero Bay
Copper Mine
Port Caldera
C Flores
Port Estrella
ULLOA CHANNEL
(chart 8151)
Pt Verde
Pt Bocas
Waterfall Cannery
Pt San Antonio
Tlevak Narrows
SODA BAY
Meares I
Shelikof I.
Natzuhini Bay
North Pass
8455
Hydaburg
Goat I.
Lively Is
Natalia Pt.
Halibut Nose
Eagle Pt
North B
Millar Rks
Bobs B
Diver Is
PASSAGE
Farallon B
The Sentinels
Nichols Is
Boreas Pt
Turn Rk
South Pass
SUKKWAN STRAIT
Breezy Bay
Foul Bay
Hook Arm
Corlies Is
Eolus Pt
(chart 8151)
Juel Pt
Sea Otter Hbr
Cape Lookout
Manhattan Arm
View Cove
Kellogg Pt.
Dunbar Inlet
SUKKWAN I
Bruin Pt
Bear Mt.
Thunder Mt.
White Mt
Squaw Mt.
Sakie Bay
Sakie Pt
Reef Pt
Mc Farland Is
Coco Hbr
Baldy Bay
Reef Is
High Pt
Kasook Inlet
Fisherman Cove
Devil L.
Windy Cove
(chart 8148)
DALL
Welcome Pt
(chart 8148)
Augustine Bay
Cape Augustine
Waterfall Bay
Rockwell Pt.
Twin Pks
Rose Pt
Rose Inlet
Cannery
Grand I
Aston I
Shoe Rock
Shoe I
Vesta B
Lake Pt
Grace Mt.
Chart 8152
Jackson Passage
Jackson I
Lacey I
Mellen Rock
Blanket I
Round I
Eek Inlet
Eek L.
HETTA INLET
Jumbo
Deer Bay
Corbin Pt
Lime Pt.
Mud Bay
Elbow Bay
Dova Bay
(chart 8147)
CORDOVA

NAUTICAL CHARTS BRANCH

SURVEY NO. H-8455

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
3-17-60	Chartlet Made 8151	R. K. MacLaughlin	Chartlet made Before ~~After~~ Verification and Review
8/23/61	8151	J. H. Eaton	Part app'd. crit. depths and fill in uncharted area. Before ~~After~~ Verification and Review
1-9-62	8152	R B Howes	Part app'd & crit. depths Before ~~After~~ Verification and Review
5-20-77	8152	M. A. Sager	Examined for critical correction, ~~Before~~ After Verification ~~and Review~~ revised and added sndgs: One correction required. - Partially Applied
2/28/79	8157	Rantok	~~Before~~ After Verification ~~and Review~~ Considered full ~~After~~ as a Cat. I survey
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review

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.