

# 7889

includes H. 7740

Diag. Cht. No. 8864-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

## DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. EX-2250 Office No. H-7889

### LOCALITY

State ALASKA-ALEUTIAN ISLANDS

General locality RAT ISLANDS

Locality EAST END OF AMCHITKA ISLAND

19A/50

CHIEF OF PARTY

H. A. Kero

LIBRARY & ARCHIVES

DATE JULY 24, 1951

B-1870-1 (1)

6887  
7889

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 7889

Field No. Ex-2250

State ALASKA - Aleutian Islands

General locality Rat ~~Aleutian~~ Islands

Locality East End Of 1 Amchitka Island

Scale 1:20,000 Date of survey 13 May to 15 June 1950

Instructions dated 3 February 1938, Supplemental Instr. through 9 Feb 1950

Vessel EXPLORER Launches 2 & 3

Chief of party H. Arnold Karo

Surveyed by M. A. Hecht and R. H. Tryon

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

Protracted by H.C. Parsons

Soundings penciled by H.C. Parsons

Soundings in fathoms ~~feet~~ at MLW MLLW

REMARKS: Fathograms scanned by Young, Frost, Cole, Ellis.

" checked by RLK, FXP, HCP, JSP, CJF, REW, DMW.

DESCRIPTIVE REPORT  
to accompany  
HYDROGRAPHIC SURVEY NO.  
Field No. Ex-2250  
Amchitka Island  
Scale: 1:20,000  
1950

7889

USC&GSS EXPLORER

H. Arnold Karo, Comdg.

Surveyed by: M. A. Hecht and R. H. Tryon

A PROJECT

This survey was executed under instructions dated 3 February 1938, and Supplemental Instructions received through 9 February 1950, for Project CS-218. Additional work required by Director's letter dated 14 April 1949 was accomplished.

B SURVEY LIMITS AND DATES

The survey covers the inshore hydrography for the east end of Amchitka Island on both the north and south sides. It joins H-7042, 1945 on the northwest and H-7040, 1945 on the southwest, and contemporary survey Ex-4150 on the northeast, east and south.

Field work began on 13 May 1950 and was completed on 16 June 1950.

C VESSELS AND EQUIPMENT

EXPLORER launches 2 and 3 were used for the entire period and were operated from the ship. Launch 3 was equipped with shoran after 28 May, while Launch 2 was so equipped for the entire period.

Both launches were operated at full speed except in waters dangerous to small boat navigation.

Soundings were obtained with Submarine Signal Company 808 Depth Recorders, No. 72S on Launch 2 and 127S on Launch 3.

D TIDE AND CURRENT STATIONS

Reducers for tide were obtained from the tide gage at Constantine Harbor and were applied without time or range corrections.

There were no current stations.

E SMOOTH SHEET

The smooth sheet projection was made in the Washington Office by ruling machine. All other data are to be supplied by the Seattle Processing Office.

F CONTROL STATIONS

No triangulation was accomplished in 1950. Existing triangulation has been accomplished from 1943 to 1949. Photo-hydro stations are shown on manuscripts T-5599 and T-5600 as edited in 1950. Signal END was located by sextant cuts on Ex-4150. For location of  $\odot$  END see Proc. aff. notes here with

H-7890 (1950)

G SHORELINE AND TOPOGRAPHY

The shoreline and topographic details are from compilation sheets T5599 and T5600 as edited in 1950. For details, see Field Edit report submitted in 1950 by Ship EXPLORER.

The low water line is not delineated by the hydrography due to a rugged coast line with offlying rocks and too impenetrable beds of kelp.

H SOUNDINGS

The depths were measured in fathoms by 808 type depth recorders. Corrections for tide, velocity, index and phase were applied to the soundings. Speed corrections for 115f to 121f (green) were applied.

I CONTROL OF HYDROGRAPHY

The hydrography was controlled by visual three point fixes and shoran distances. Launch 2 operated on the north side between TINY 6 mile and 7 mile arcs and east of the TINY 8 mile arc. Shoran control was used in these areas. Launch 3 accomplished the remainder of the area using visual fixes on shore objects for most of the work with some shoran work after 28 May.

J ADEQUACY OF SURVEY

The survey is complete and adequate to supersede prior surveys for charting. The junctions with adjoining boat sheets is satisfactory and no holidays or excessive differences are noted. Depth curves can be adequately drawn at the junction of the boat sheets.

Because of heavy kelp and rugged coast line, it was not possible to fill in all inshore areas.

K CROSS LINES

Nine percent of the hydrography was run as crosslines. The agreement is good on the boat sheets and further comparison will be made after smooth plotting.

L COMPARISON WITH PRIOR SURVEYS

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

*Recon. Survey H-6906 (1935) USN falls in this area ✓*

M COMPARISON WITH CHART

The paucity of soundings in this area from Chart 8864 makes comparison with the new survey difficult. The present survey shows much shoaler depths offshore from East Cape. A more detailed comparison with the chart can be made after smooth plotting.

*See P 6  
of Review*

*Soundings on a, B and C (blue) days were transferred to H-7889 from SU 2145, which was originally registered H-7041. Register No. H-7041 was subsequently assigned to another survey. Sounding volumes and fathograms for SU-2145 are filed with H-7889. The Descriptive Report for SU-2145 is attached to this Desc. Rpt.*

N DANGERS AND SHOALS

The area from signal End off East Cape eastward to longitude 179° 30.6'E has numerous shoal spots with least depths of from 1 to 5 fathoms. The 5 fathom spot in latitude 51°-21.5'N longitude 179° 30.6'E marks the eastern limit of the shoal area. From signal End west to East Cape, the bottom is less ragged and at longitude 179° 28.8E 8 ~~10~~ fathoms can be carried through the pass. The entire area off East Cape is covered with kelp which tows under except at slack water. Current rips and a heavy chop will be met in this area in all weather except at slack water when the seas are calm.

An investigation of the 9.6 fathom sounding and delineation of the 10 fathom curve requested in Director's letter dated 14 April 1949 was accomplished on b day, g day and j day for launch 3. No indication of the 9.6 fathom sounding was found during the running of the regular lines. On g day, the launch drifted in the vicinity of the shoal spot for over 57 minutes. Soundings of from 9 to 10 fathoms were found in the immediate vicinity and the shoalest of ~~9.6~~ fathoms is plotted at position 35g (green). (Lat 51° 24.72', Long 179° 22.40')

It is recommended that the ~~9.6~~ fathom sounding be charted according to the data found in 1950.

O COAST PILOT INFORMATION

This report has been submitted.

P AIDS TO NAVIGATION

The following aids to navigation were located at the entrance to Constantine Harbor.

Lighted "bell 1"	37b (green)
N-2	38b
Can 3	39b
N-4	77j (green)

Q LANDMARKS FOR CHARTS

The report for landmarks for charts was submitted on Form 567 on 10 August 1950.

R GEOGRAPHIC NAMES

The recommendations for Geographic Names are covered in the field edit report submitted in 1950.

S-Y

There is nothing to report under these headings.

Respectfully submitted

*Raymond H. Tryon Jr.*  
Raymond H. Tryon Jr.  
LCDR, USC&GS

Forwarded and approved

*S. B. Grenell*  
S. B. Grenell, CDR, USC&GS  
Comdg. Ship EXPLORER

PART III: SHORAN ZERO SETTINGS

<u>Shore Set</u>	<u>Ship</u>	<u>Launch #1</u>	<u>Launch #2</u>	<u>Launch #3</u>
HARP (lf)	99.804	99.818	99.798	99.789
TINY (hf)	99.811	99.804	99.808	99.804
SPAI	99.830			
GARE	99.821			
ROCK (hf)	99.825	99.814	99.812	99.796
DORE (lf)	99.804	99.770	99.773	99.771
DRUM (hf)	99.815	99.791	* (See below)	99.787
HILL (lf)	99.827	99.815	* (See below)	99.801

\* The shoran zero settings for launch #2 at Port Clarence were determined at two distances. The variation in zero settings between the two calibrations was proportional to distance. This variation was attributed to the attenuation of shoran signals at line-of-sight distances.

<u>Calibration No. 10</u>		<u>Calibration No. 12</u>	
DRUM distance	13.820 miles	DRUM distance	6.700 miles
DRUM zero set	99.762	DRUM zero set	99.790
HILL distance	19.356 miles	HILL distance	6.909 miles
HILL zero set	99.780	HILL zero set	99.819

From the above data the zero sets for Launch #2 are:

<u>DRUM</u>		<u>HILL</u>	
<u>Distance</u>	<u>Zero Set</u>	<u>Distance</u>	<u>Zero Set</u>
0 - 7.5 miles	99.790	0 - 8.5 miles	99.819
7.5-10.0 miles	99.780	8.5-11.5 miles	99.810
10.0-12.5 miles	99.770	11.5-14.5 miles	99.800
12.5-out miles	99.762	14.5-17.5 miles	99.790
		17.5-out miles	99.780

VELOCITY CORRECTIONS

1950  
808 Fathometer

Vicinity Amchitka I.  
Surveys Nos. 2150, 2250,  
4150, H-7731, H-7737  
4250, 10150

Vicinity Sledge I. & Port Clarence  
Surveys Nos. 2350, 2650, 2750 & 4350.

		(Ship)		(Launch)	
<u>Corr'n fms</u>	<u>Depth fms</u>	<u>Corr'n ft.</u>	<u>Depth ft.</u>	<u>Corr'n ft.</u>	<u>Depth ft.</u>
				(0.2 reducer)	
0.0	0 to 6.0	0.0	0 to 29.0	0.0	0.0 to 08.5
-0.2	to 14.0	-0.5	to 60.0	-0.2	to 12.0
-0.4	to 22.0	-1.0	to 88.0	(0.5 reducer)	
-0.6	to 30.0	-2.0	to 151.0	0.0	0.0 to 19.0
-0.8	to 38.5	-3.0	to 160.0	-0.5	- 51.0
-1.0	to 46.5			-0.1	- 80.0
-1.2	to 54.5			-2.0	- 141.0
-1.4	to 63.0			-3.0	- 160.0
-1.6	to 71.0				
-1.8	to 79.0				
-2.0	to 87.0				
-2.2	to 95.0				
-2.4	to 103.5				
-2.5	to 114	0.0	0.0 to 19.0	0.0	0.0 to 9.0
-3.0	to 134	-0.2	to 33.5	-0.2	to 23.5
-3.5	to 154	-0.4	to 50.5	-0.4	to 38.0
-4.0	to 175	-0.6	to 60.0	-0.6	to 56.0
				-0.8	to 60.0
				-1.0	to 88.0

Surveys Nos. 2450 & 2550

Speed Correction  
Launch # 3

Ex - 2250

Calibration Speed

$$\frac{1}{2} \times 2.54 = \underline{1.27} \text{ cm} / 1\frac{1}{2} \text{ min fix}$$

$$\frac{2}{3} \times 2.54 = \underline{1.693} \text{ cm} / 2 \text{ min fix}$$

Position 115d - 116d

$$\begin{array}{r} 1.354 \text{ cm} \\ \underline{1.27} \\ 0.084 \text{ cm error} \end{array} \quad \begin{array}{r} \underline{.084} = 6.27\% \\ \underline{1.27} \\ 1.354 \end{array}$$

Position 116d - 117d

$$\begin{array}{r} 1.353 \\ \underline{1.27} \\ 0.083 \text{ cm error} \end{array} \quad \begin{array}{r} \underline{.083} = 6.13\% \\ \underline{1.27} \\ 1.353 \end{array}$$

Position 117d - 118d

$$\begin{array}{r} 1.375 \\ \underline{1.27} \\ 0.105 \text{ cm error} \end{array} \quad \begin{array}{r} \underline{.105} = 7.64\% \\ \underline{1.27} \\ 1.375 \end{array}$$

Position 118d - 119d

$$\begin{array}{r} 1.350 \\ \underline{1.27} \\ 0.080 \text{ cm error} \end{array} \quad \begin{array}{r} \underline{.080} = 5.93\% \\ \underline{1.27} \\ 1.350 \end{array}$$

Position 119d - 121d

$$\begin{array}{r} 1.795 \\ \underline{1.818} \\ 3.613 \end{array} \quad \begin{array}{r} \underline{3.613} = 1.806 \\ 2 \\ \underline{1.806} \\ 1.693 \\ 0.113 \end{array}$$

$$\begin{array}{r} \underline{.113} = 6.26\% \\ \underline{1.693} \\ 1.806 \end{array}$$

Note:

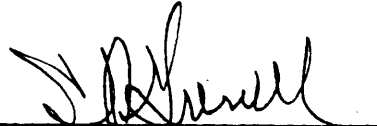
All corrections are negative  
Corrected in Wash Off.

389



APPROVAL SHEET

The boat, smooth sheet and records have been inspected and approved



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S. B. Grenell  
Commander, USC&GS

H 7889 Ex 2250  
H 7890 Ex 4150  
H-7891

Processing Office Notes.

These two sheets, the inshore and Offshore sheets around the east end of Amchitka Island, have been mutually involved in the adjustment of shoran positions so that the same remarks often can be applied to both sheets. (also H-7891)

Smooth sheets.

The projections were ruled on the machine in Washington. Shorelines ~~was~~ <sup>were</sup> transferred from T 5599 and T 5600 which were compiled from photographs inspected in the field. Topographic signals are from the same two sheets. Shoran stations TINY and HART are from the field computations of 1949. Other triangulation stations are from Vol.V of the adjusted positions, Pages 211, 212 & 214. The location of hydro signal END is covered in a separate paragraph herewith.

To control the shoran arcs, positions were computed along two radiating lines from each station TINY and HART, at convenient distances in statute miles. The resultant points were plotted. The intervals along the radii were subdivided carefully into two statute mile spaces on H 7890 and into one mile spaces on H 7889. The distance arcs were drawn thru the points obtained.

Positions, H 7889 & H 7890.

Many of the shoran positions of these sheets have been adjusted after the manner of RAR. The uncertainties of the positions were less than RAR differences, but the shifts of positions amount to a centimeter and more in places.

On beginning the plotting nothing would check. The sounding lines located by shoran were in almost complete disagreement with lines controlled by visual fixes. Visual lines were not consistent. Many visual fixes depended on  $\odot$  PEG and  $\odot$  END. These signals were fixed as related under the heading " $\odot$  END".

The new location of  $\odot$ PEG &  $\odot$  END did not bring visual and shoran controlled lines into agreement, a few cases excepted. It was at first thought that the interference of hills between the positions and shoran signal HART caused discrepancies. An investigation showed that this could account for only a few thousandths of a mile at places while the original observation was recorded in hundredths. In many such cases it later appeared that distances from HART were more reliable than those from TINY while the line to TINY was clear and unobstructed. On both Sheets H 7889 and H 7890 distances from HART have been in better agreement with visual fixes than those from TINY, but this too is subject to variations.

The agreement between TINY and HART and between shoran and visual fixes is better to southeastward from TINY. Near the shoran base line disagreement of shoran distances is not large but shoran intersections were thrown a long way on account of the weakness of the fix. Fortunately there were visual fixes also in this locality. They frequently checked the distances from HART.

On H 7889 the adjustment of the area north and west of East Cape depend on visual fixes which were used on several lines which approximately ran parallel to the shore and crossed the lines run on Shoran arcs. The discrepancies between shoran and visual in this area was considerable. In general the shoran points were too far offshore. There was a gap between the inshore ends of shoran sounding lines and the rocks or reef lines. It had to be brought in closer to shore to make references to rocks at all reasonable and to make crossings with visual lines further out. A lot of fitting and trying was done before a satisfactory adjustment was obtained.

The two plotters have worked together to keep the two sheets in agreement. They are also in agreement with all other adjacent sheets, whether of the current or prior seasons.

It is suggested that the plotting of the positions be accepted as they now lay on the sheet.

In the sounding records, the additional corrections to shoran distances to obtain agreement with the accepted points have been entered at each shoran fix.

*Adjustment by Proc. Off. done by applying varying corrections to shoran distances and is influenced much by dead reckoning.*

*Additional adjustment made on several lines See 7 C of review*

⊙ END (H 7889 & H 7890)

This object is an eight foot high bare rock, so far as we can ascertain the only bare rock in the reef a mile off East Cape. The field party used on the boatsheet the position of a bare rock in the middle of the reef as then shown on the un-inspected photo compilation T 5600, although four hydrographic cuts (H 7889) 89G to 92G-day intersected a hundred and fifty meters to Southward of the boatsheet position. See cuts 5, 6, 7 & 8 on the accompanying print. In trying to settle this difference we found on Sheet H 7041 of 1945 a large number of cuts passing thru a point at an acute angle. These are in the books of H 7041 as positions 1B, 2B, 4b, 6B, 8B, 10B, 11B, 23B, 29B, and 60A-day. They were made in 1945 to locate ⊙ ROK as it was then called. Our photostat copy of H 7041 is not very clear but there seem to be eight good cuts visible. See cuts 9 to 16 of the print. These cuts were transferred by tracing, making correction for datum differences of course. They were approximately at right angles to the four G-day cuts (1950) and were very close to the same intersection.

See P 2  
of D.R.  
re: H-7041

At this point the matter was referred to Washington to settle the matter; whether the rock was in the middle of the reef or on its southern edge; or was the rock at the southern position with the reef all around it.

We received from Washington a print of T 5600 showing the bare rock shifted to the southern edge of the reef and showing cuts 1 to 4 of the accompanying print which intersect at the southern edge of the reef. Also, the important signal PEG was shifted a millimeter to southwestward. The G-day cuts were plotted using the new position of ⊙ PEG. The cuts 1 to 4 from Washington, 5 to 8 from G-day hydro, and 9 to 16 (not all shown) from H 7041 are remarkably consistent. We think we have a very good location of ⊙ END, the most important visual signal of these surveys and the landmark of a dangerous reef. The accepted smooth sheet position scales

φ 51°22' + 200 M.      λ 179°30' + 632 M.  
29 + 522

Attention is called to the following soundings on H 7389.

	$\phi$	$\lambda$		Fms.		$\phi$	$\lambda$		Fms.
51	21.55 <sup>7</sup>	179	25.65 <sup>E</sup>	6.8	51	21.48	179	30.85 <sup>E</sup>	9.1
	21.80		26.65	4.8		21.84		30.05	2.4
	22.45		28.45	2.2		21.65		30.57	5.7
	22.63		28.62	3.8		21.65		30.07	4.3
	22.50		29.10	3.5		21.55		30.20	4.8
	22.57		29.05	3.7		21.43		30.65	10.4
	21.91		29.91	3.1		21.48		30.85	9.1
	21.95		29.62	4.6		21.60		30.10	5.6
	21.73		30.5	6.8					

The breakers listed below were transferred from T 5600, (1950) as shown on the corrected print furnished to us. The print is attached to this report. The breakers are visible on single lens air photo 48-0-506, the only photograph of this reef available to us.

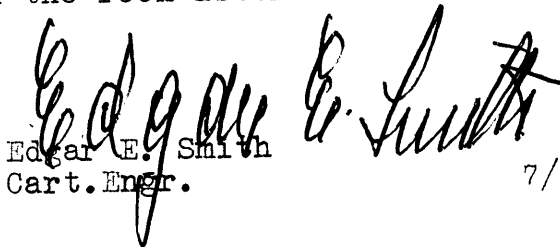
	$\phi$	$\lambda$
51	22.33	179 29.5
	21.9	29.95

The rocks awash shown in ink in the vicinity of  $\phi$   $\odot$  END are from the same corrected print of T 5600. (1950)

The rocks shown in pencil are from boatsheet and notes in the record. These are located in relation to the adjusted sounding lines as well as we can fix them. In the case of the rock at  $\phi$  51 22.28  $\lambda$  179 29.44<sup>E</sup>, Mr. Tryon recalls that it was directly ahead of him as he ran down from the north on line 11-13 f-day and that he turned off to the right to position 13-f with the rock astern.

These rocks were inked on smooth sheet.

Edgar E. Smith  
Cart. Engr.



7/17/1951

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

POST-OFFICE ADDRESS: 1500 Westlake Ave. North, Seattle 9, Wash.

TELEGRAPH ADDRESS:

EXPRESS ADDRESS:

COAST & GEODETIC SURVEY

1951 AUG 14 AM

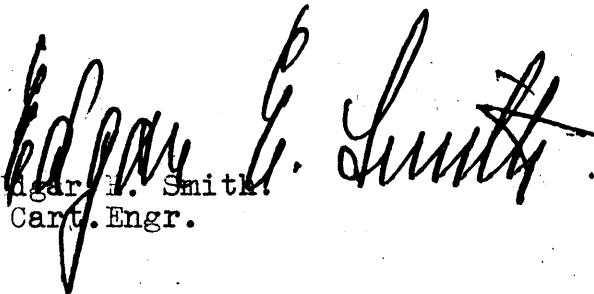
9 August 1951

To: Director  
U S Coast & Geodetic Survey  
Washington, D.C.

Subject: Addition to report hydrographic sheet.

There is inclosed a print of the east end of Amchitka Island. On the reverse is a letter to Lt. Comdr. R.H. Tryon concerning Sea Otter Rock and his reply. It is requested that the correspondence be added to the descriptive report for sheet H 7889.

Edgar H. Smith  
Capt. Engr.



Dutch Harbor, Alaska  
29 June '51

Dear Mr Smith

Your letter must have gotten mixed with 2nd class mail in the Seattle Office to have taken 3 weeks to arrive here. Also an identical looking letter to Tryon was missent here. I have forwarded his letter to the Surveyor at Kodiak - suspect it was about the same subject - if it was he will be able to shed some light on the matter since he sounded in the vicinity of Sea Otter Rk.

I never got closer to the rock than  $\odot$  PEG where I took sextant cuts. The rock was over a mile away and it was a bad day with lots of white water out near the rock. I cut the only rock in that I could see.

Mr Hecht (on Arctic Party) also sounded

END

near Sea Otter Rk. I have take the liberty of sending my sketch to him and asked him to drop you a note. I think you did a good job of piecing together those cuts. The elevation of the rock came from the launch hydrographers (Hecht & Tryon). We noted that the cuts from © PEG did not fit the boat sheet & manuscript position of the rock (© E10). The hydrographers felt they could strengthen it with a few sextant cuts while on hydro lines.

We are enroute north and may stop at NOME for the 4th (July).

Best Regards



Please add to descriptive report

→ H - 7889

E.H.S. 8/9/51

6/8/51

Lt. Comdr. R.H. Tryon:

I thought this might be of interest to you. The bare rock shown at the middle of the reef was used as the boatsheet position of  $\odot$  end. Hydrographic cuts Nos. 5, 6, 7 & 8 showed the signal at the southern edge of the reef. Then we found on a photostat of the 1945 sheet H 7041 eight cuts which fell between 9 and 16. They intersected at an acute angle but passed thru a point. They are approximately at rt. angles to the 1950 cuts and after applying datum differences they intersect almost in the same point.

At this point we referred the matter back to Washington. They shifted  $\odot$  Bow and  $\odot$  Peg slightly to SW. They also furnished cuts 1, 2, 3 & 4.

With the new position of  $\odot$  Peg cuts 5, 6, 7 & 8 were replotted as shown on the reverse hereof.

We are of the impression that  $\odot$  End (Sea Otter Rock), an eight foot high bare rock, is the only bare rock in this reef. I would appreciate your idea on this point.

  
E.H. Smith

1500 Westlake Ave. North.  
Seattle 9.

Aug 6, 1951

Dear Mr. Smith,  
your letter above caught me as we were sailing last trip out and we haven't returned until now.

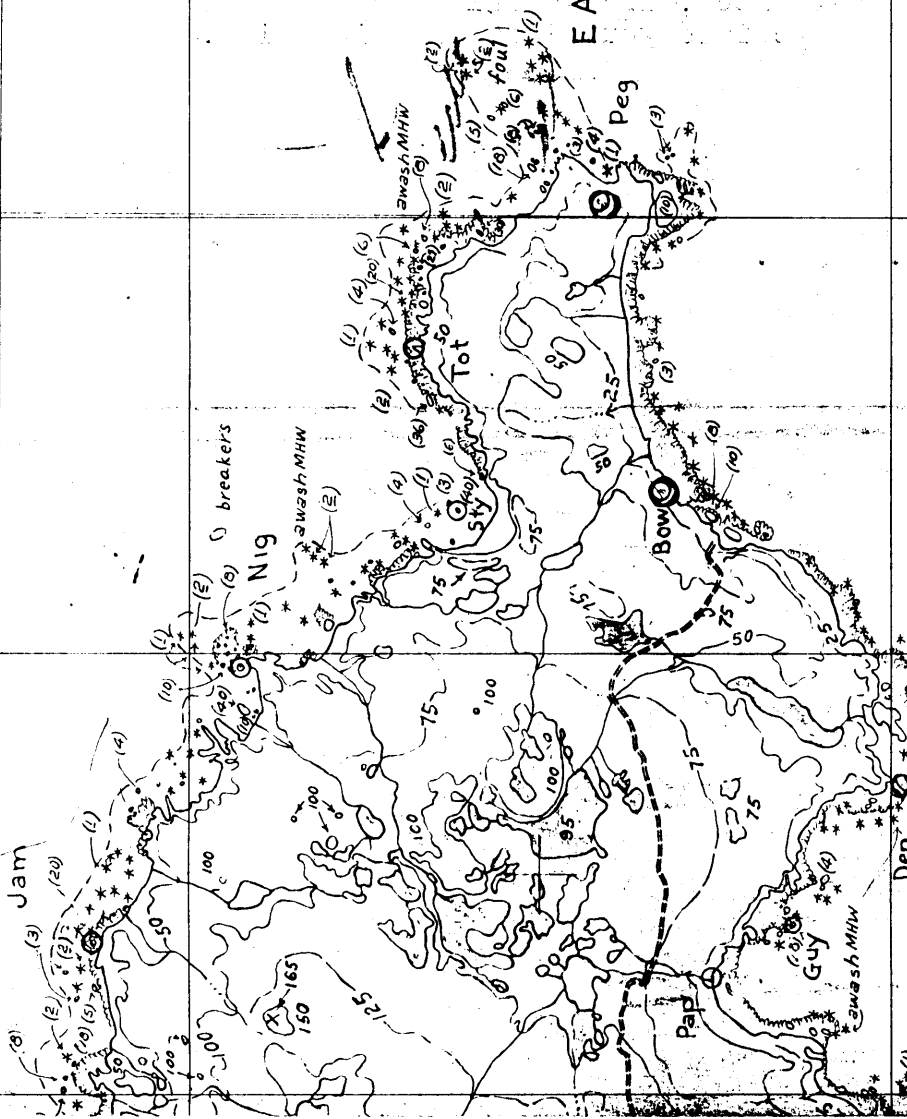
With regard to your impression of one rock in the vicinity of  $\odot$  END, you are absolutely correct and with the exception of the rocks washed as noted in 1950, this is all that ever was visible to us in 1950.

I think you folks have made a fine job of evaluating the data in this case.

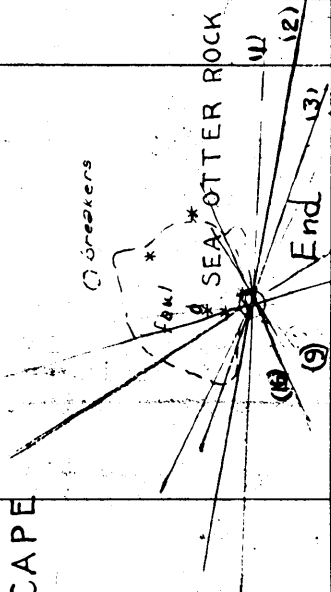
Please excuse this hurried answer to your query but we are pretty much on the go now

Sincerely,

Raymond H. Tryon Jr.



EAST CAPE



- (1) 9-lens photo \* 48-0-506
- (2) Single lens photo \* 48-0-506
- (3) Sextant cuts (A Mist) - 0 Peg - 0 End 157 18.5 by E.L. Jones 5-11-50
- (4) 9-lens photo 906-day 6-10-50
- (5) Sextant cuts H 7889 916 "
- (6) " " " 926 "
- (7) " " " 896 "
- (8) " " " X 7041 (1945) - 8 cuts intersecting
- (9) to (16) " in a point at an acute angle

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

POST-OFFICE ADDRESS: 1500 Westlake Ave. North, Seattle 9, Wash.

TELEGRAPH ADDRESS:

EXPRESS ADDRESS:

1 May 1951

To: The Director  
U S Coast & Geodetic Survey  
Washington, D.C.

Thru: Supervisor NW District

Subject: Signals Sheet H 7889, east end of  
Amohitka Island.

In the area east and south of East Cape, Amohitka we are finding discrepancies between shoran and visual fixes. At many positions both shoran and visual fixes were recorded. The shoran usually plots to northward of the visual point. The visual fixes most often include  $\odot$  Peg and/or  $\odot$  End. Since the visual fixes are not very strong in the vicinity of Sea Otter Rock a slight change in  $\odot$  Peg might be helpful.

Now in the case of  $\odot$  End ( Sea Otter Rock, the eight foot high bare rock in the reef a mile east of East Cape) we have have four cuts spread over an angle of  $26^\circ$  but passing thru a point. On the 1945 sheet H 7041 there are a number of cuts making an acute intersection but passing thru or very close to a point. The 1945 cuts are approximately at right angles to the 1950 cuts and they seem to check on the 1950 intersection, after allowing for datum difference. See section of T 5600 attached.

There appears to be only one bare rock in this reef. Lt. Comdr. R.H. Tryon, now in the SURVEYOR, who ran sounding lines in the immediate vicinity of the rock has been consulted. The hydrographic parties had on the boat sheet the same position of the bare rock that appears on T 5600 and they used this position as the signal. The four cuts ( 1950 ) to  $\odot$  End were made during the survey of H 7890 Ex. 4150, Pos. 900 to 930 Vol. 3 which we still have. Each of these positions depends on  $\odot$  Peg. The ship was about 1.5 miles to SSE from  $\odot$  End. There were both shoran and visual fixes. They plot about a millimeter apart. Shoran arcs on the smooth sheet have been rechecked.

Our only picture of the reef is the single lens photograph 9-19-48 O - 506 which shows the field inspection. From this one picture we are <sup>not</sup> able to say which feature is the bare rock. Perhaps the nine lens photographs are more informative.

We request that the position of ☉ Peg on East Cape be verified and that ☉ End ( Sea Otter Rock) be verified if possible. If you could say that the position loggoted by cuts seems unreasonable we could discard it and proceed.

Sheet H 7888 Ex 2150 is now completed except for examination. It will be forwarded in a day or two. That leaves H 7889 Ex 2250 at the top of the priority list. We have lost time on account of the uncertainty explained herein. It is requested that the reply be sent by air mail.

  
Edgar E. Smith  
Cart. Engr.

Forwarded.

Jack Senior  
Supervisor NW Dist.

MAY 18 1951

IN REPLY ADDRESS THE DIRECTOR  
U. S. COAST AND GEODETIC SURVEY  
AND NOT THE SIGNER OF THIS LETTER  
AND REFER TO NO. 70-241

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY  
WASHINGTON 25

14 May 1951

To: Mr. Edgar E. Smith

Thru: Supervisor, Northwestern District  
U. S. Coast and Geodetic Survey  
705 Federal Office Building  
Seattle 4, Washington

Subject: Signals, East End, Amchitka Island, Alaska

In compliance with your letter of 1 May 1951, this office has rechecked the positions of the hydrographic signals on the east end of Amchitka Island. This has been done without regard to the direction which shore and visual fixes fail to cut on signals Peg and End. The positions of signals Peg and Bow have been changed approximately one half millimeter. The position of signal End has been shifted about 100 meters to the south and east and now agrees quite closely with the hydrographic cuts. The original position of End was the result of misidentification of Sea Otter Rock. The eastern end of Amchitka Island has been photogrammetrically cantilevered from triangulation stations Mist and Chuck and may have progressively weak position determinations eastwardly from those two stations.

It is believed that the best position determinations have been made from the data and photography that can be made and that you must therefore make the best adjustment you can in fitting the hydrographic data to the topographic data of T-5600.

A cut-out of T-5600 showing the revised positions for signals Peg, End, and Bow and the materials you forwarded for the investigation are enclosed.

*K. T. Adams*

Acting Director

6/8/51


Lt. Comdr. E.L.Jones.

I thought this might be of interest to you. The bare rock shown in the middle of the reef was used as the boatsheet position of  $\odot$  End. Hydrographic cuts Nos. 5,6,7 & 8 showed the signal at the southern edge of the reef. Then we found on a photostat of the 1945 sheet H 7041 eight cuts between 9 and 16 which intersected in an acute angle but passed thru a point. They are approximately at rt. angles to the 1950 cuts and after applying datum differences they intersect almost in the same point.

At this point we referred the matter back to Washington. They shifted signals Bow and Peg slightly to SW. They also furnished cuts 1,2,3 & 4.

With the new position of  $\odot$  Peg cuts 5,6,7 & 8 were replotted as shown on the reverse hereof.

We are of the impression that  $\odot$  End (Sea Otter Rock), an eight foot high bare rock, is the only bare rock in this reef. I would appreciate your idea on this point.

  
E.E. Smith

1500 Westlake Ave. North  
Seattle 9.

7 July 1951

Dear Mr. Smith:

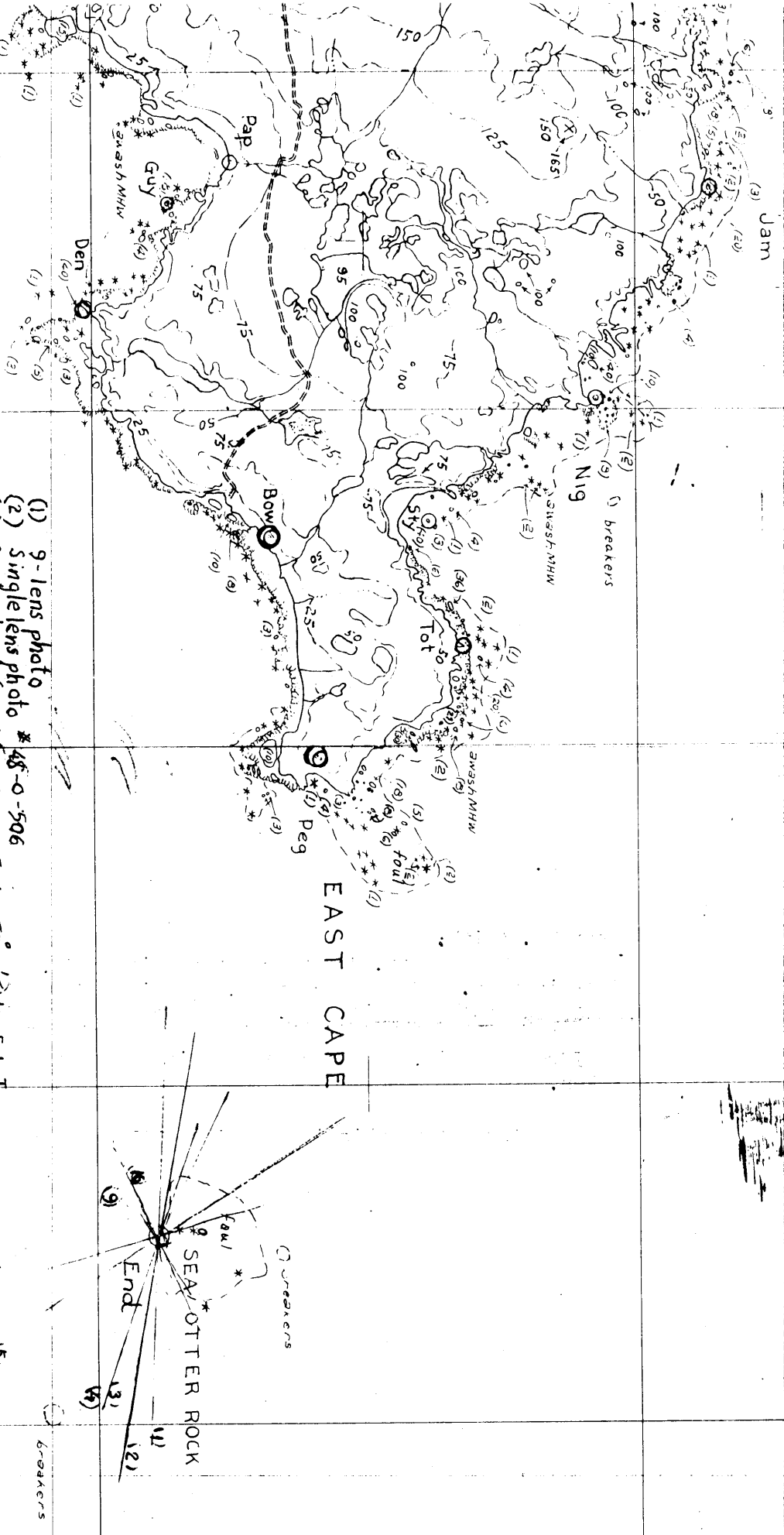
Comdr. Jones referred this to me, because I ran the hydro in this area. You are correct, the eight foot high bare rock is the only bare rock in this reef, and the center of this was Signal END. There is another rock that is just awash at low tide just north about 100 meters as I remember it, but no cuts on this would have been possible or were taken.

Trust that this information will be of value,

Sincerely,

  
M. A. Hecht

- (1) 9-lens photo
- (2) Single lens photo # 48-0-506
- (3) sextant cuts (A Mist - 0 Reg - 0 End 157° 16.5) by E. L. Jones 5-17-50
- (4) 9-lens photo
- (5) Sextant cuts H 7889 909-day 6-10-50
- (6) " " " 916
- (7) " " " 926
- (8) " " " 896
- (9) Te (16) " " X 7041 (1945) - 8 cuts intersecting in a point at an acute angle



T-5600

H 7889  
Ex 2250

East end of Amchitka Island.

List of geographic names  
penciled on smooth sheet.

Amchitka Island

Amchitka Pass

East Cape

South Bight

Constantine Harbor

Pacific Ocean



7889

TIDAL NOTE

Soundings for this survey were reduced from tide data obtained from the portable automatic tide gage located at Kirilloff Wharf, Constantine Harbor, Amchitka Island, Alaska. Latitude  $51^{\circ}-24.8'N$  longitude  $179^{\circ}-16.8E$ .  
55 17.62

This tide gage is in the same location as in 1949, and the same tide staff was used. The plane of reference is MLLW, which is 2.5 feet on the staff. All soundings and tidal observations are based on 165th meridian time (west). No corrections for difference of time or range of tide were applied.

STATISTICS FOR HYDROGRAPHIC SHEET NO. **7889**

Field No. Ex-2250

USC&GSS EXPLORER

DATE	DAY LETTER	VOLUME	NO OF POSITIONS	STATUTE MILES
------	------------	--------	-----------------	---------------

1950

Launch 2

5-29	a	1	47	16.6
5-30	b	1	134	39.5
6-10	c	2	63	16.5
TOTALS		2	244	72.6

Launch 3

5-13	a	1	50	10.5
5-15	b	1	143	20.6
5-17	c	1&2	137	20.7
5-25	d	2	172	32.3
5-29	e	3	69	12.5
5-30	f	3	185	36.5
6-9	g	4	66	11.2
6-10	h	4	14	1.4
6-15	j	4	77	11.3
TOTALS		4	913	157.4

GRAND TOTALS 1157 230.0

AREA square statute miles 17.8

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.

H-7889 (1950)  
H-7740 (1949)  
REGISTER No. ~~H-7041~~

Field No. SU 2145

State ALASKA

General locality ALEUTIAN ISLANDS

Locality SOUTH COAST AMCHITKA ISLAND

Scale 1:20,000 Date of survey June - Aug. 1945

Instructions dated 3 February 1938

Vessel Ship SURVEYOR and Launch No. 2

Chief of party C. D. Meaney

Surveyed by C. D. Meaney and W. R. Porter

Soundings taken by fathometer, graphic recorder, hand lead, wire Graphic Recorder

Protracted by Roy M. Sylar

Soundings penciled by Roy M. Sylar

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

REMARKS:

Smooth Sheet and Plotting by the Seattle Processing Office.

DESCRIPTIVE REPORT

To ACCOMPANY

HYDROGRAPHIC SURVEY H-~~7889~~<sup>7889</sup> (SU-2145)

SOUTH COAST AMCHITKA ISLAND, ALEUTIAN ISLANDS

1945 C.S. 218

*sdgs of 1945 work  
plotted on H-7889 & H-7740*

Scale: 1/20000

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

Field work by: C.D. Meaney and W.R. Porter.

A. PROJECT:

This survey was executed under Instructions for Project C.S. 218 dated 3 February, 1938; Supplemental Instructions dated 16 April, 1943 and 1 February, 1944. Instructions issued by Capt. F.B.T. Siems dated 5 May, 28 May and 11 July, 1945. The purpose of the survey was to extend survey H-7040 offshore and to the eastward and also to furnish hydrographic information to the U.S. Navy engaged in operations to salvage an Army tug stranded on the beach to the westward of East Cape.

B. SURVEY LIMITS AND DATES:

This is an incompleted sheet and consists of parts of three days of ship hydrography and a half day of launch hydrography south and adjacent to work completed on sheet H-7040. The sheet will cover the offshore approaches to the anchorage at South Bight, Amchitka. The work was accomplished June 26, Aug. 5 and 6, 1945

*Register No.  
H-7041(SU-2145)  
Cancelled and  
sdgs. transferred  
to sheets  
H-7740 &  
H-7889*

C. VESSELS AND EQUIPMENT:

The SURVEYOR and Launch No. 2 were used for this work. The launch based from the ship. The ship obtained all depths by the Dorsey III fathometer (No. 42), Type 808 recorder No. 46 was also operated to verify ship soundings. Type 808 recorder No. 59 was used in Launch No. 2.

D. TIDE AND CURRENT STATIONS:

All tide data for reducers was obtained from the portable automatic tide gage at South Bight or from the standard tide gage at Constantine Harbor by applying a range and time correction obtained from the Washington Office.

No current stations were occupied.

*sdgs from SU-2145 transferred as follows:-  
1-6A & 10-30A (green) to H-7740 (1949);  
a, B & C (blue) to H-7889 (1950).*

E. SMOOTH SHEET:

The smooth sheet will be constructed and plotted by the Seattle Processing Office.

F. CONTROL STATIONS:

Previous triangulation on Amchitka before 1945, additional triangulation executed in 1945 supplemented by signals located by topography on T-6989 and ~~T-6990~~ were used for control.  
*See T-8016*

G. SHORELINE AND TOPOGRAPHY:

To be obtained from air photographs.

H. SOUNDING:

Standard methods were used to obtain all depths.

I. CONTROL OF HYDROGRAPHY:

All sounding lines retained were controlled by sextant fixes on shore signals. Several of these signals were temporarily located by sextant outs; later their final position was obtained by topography. A few uncontrolled lines were run by Launch No. 2 thru the kelp bed off the stranded Army tug to aid in salvage operations. These have been rejected as lack of signals and thick fog prevented definite control. The lines were run by compass courses between the stranded tug and a vessel at anchor outside the kelp field.

J. ADEQUACY OF SURVEY:

This survey is not complete.

K. CROSSLINES:

Only a few crossings were obtained. These are satisfactory.

L & M. COMPARISON WITH PRIOR SURVEYS AND CHART:

Sufficient work on a similar scale had not been accomplished previously for comparison.

N. DANGERS AND SHOALS:

None.

O. COAST PILOT INFORMATION:

Submitted with sheet H-7040.

P. AIDS TO NAVIGATION:

None.

Q. LANDMARKS FOR CHARTS:  
Form 567 attached.

R. GEOGRAPHIC NAMES:  
This data to be furnished by the Seattle Processing Office.

S. SILTED AREAS:  
None.

Z. TABULATION OF APPLICABLE DATA:


Triangulation	- Forwarded Sept. 19, 1945 (Washington)
Coast Pilot Report	- Forwarded (Washington)
Velocity Corrections	- Forwarded Processing Office
Topographic Sheets	- Forwarded Processing Office.

Respectfully submitted,



WILBUR R. PORTER  
Lt. Comdr., C. & G. Survey

Approved:




C.D. MEANEY  
Lt. Comdr., C. & G. Survey  
Commanding Ship SURVEYOR

*5dg. records, fathograms and Desc. Rpt. filed  
with H-7889*

H 7889  
H-7740

STATISTICS FOR HYDROGRAPHIC SURVEY ~~H-7041~~ (SU-2145)

Ship				
Day	Date	Vol. No.	No. Pos.	No. Stat. Miles
A	6/26/45	1	78	39.1
B	8/5/45	1	29	9.9
C	8/16/45	1	9	3.6
Launch No. 2				
a	8/6/45	2	54	9.7
				<hr/>
TOTAL			170	62.5

Area Approx. 10 sq. miles.

TIDE NOTE

Portable automatic gage at South Bight

Lat.  $51^{\circ} 22.7'N$   
Long.  $179^{\circ} 22.9'E$

Zero of staff is 4.9 below M.L.L.W.

Standard Automatic Tide gage at Constantine Harbor established  
June 30, 1945.

Lat.  $51^{\circ} 29' 49''N$   
Long.  $179^{\circ} 17' 48''E$

Zero of staff is 6.9 feet below M.L.L.W.

Standard Automatic tide gage at Constantine Harbor to June 30.

Lat.  $51^{\circ} 24.8'N$   
Long.  $179^{\circ} 17.7'E$

The zero of the tide staff was 5.0 feet below M.L.L.W.

-----

Range - 1.3

Time - -30 minutes, from Constantine Harbor.



FATHOMETER CORRECTIONS

Launches 2 & 4

Corrections for Sheets H-7007, (H-7040 (SU-1145) & H-7042 (SU-1245)

Amohitka Id.

		Fathometer No. 52		Fathometer No. 59		
		Depth	Corrections	Depth	Corrections	
Bar Ch. Jk	2.0	9.0 fms.	0.0 fms.	0.0	13.6 fms.	0.0 fms.
	9.1	20.0	-0.2	13.7	20.0	-0.2
T. & S.	20.0	28.7	-0.4	20.0	30.4	-0.4
	28.8	37.5	-0.6	30.5	39.3	-0.6
	37.6	46.2	-0.8	39.4	47.9	-0.8
	46.3	55.0	-1.0	48.0	56.4	-1.0
	55.1	63.5	-1.2	56.5	65.0	-1.2
	63.6	72.2	-1.4	65.1	73.9	-1.4
	72.3	80.8	-1.6	74.0	82.2	-1.6
	80.9	89.8	-1.8	82.3	91.2	-1.8
	89.9	98.4	-2.0	91.3	99.8	-2.0
	98.5	101.0	-2.2	99.9	101.0	-2.2
101.1	124.0	-2.5	101.1	125	-2.5	

Comp. by R.H.B.  
Checked W.R.P.

VELOCITY CORRECTIONS

(Attached)

VELOCITY CORRECTIONS

Ship SURVEYOR Dorsey III & 808 Fathometers

Sheets H-~~7041~~ (SU-2145); H-7040 (SU-1145); H-7042 (SU-1245)

7889  
7740

Amchitka Id.

DEPTH		Fms.					
From	To	Corrections					
	13.0	-0.2					
13.1	21.6	-0.4					
21.7	30.5	-0.6					
30.6	39.2	-0.8					
39.3	47.8	-1.0					
47.9	56.5	-1.2					
56.6	65.2	-1.4					
65.3	73.8	-1.6					
73.9	82.5	-1.8					
82.6	91.0	-2.0					
91.1	101.0	-2.2					
100.1	117.0	-2.5					
117.1	139.5	-3.0					
139.6	162.5	-3.5					
162.6	185.5	-4.0					
<p>Corrections R.C.A. Model N.M.C.</p> <p>No correction 2 - 200 fathoms for Red light.</p> <p>+ 2.2 fathoms for N.M.C. Recorder (Index)</p> <p>Corrections for Recorder No. 46 from the above table.</p>							
<p>Comp. W.R.P. Checked K.B.J.</p>							

H-7889  
H-7740

LIST OF STATIONS ON SHEET H-~~7011~~

NAME	ORIGIN
ARMS	Triangulation
BAKER (Control Tower)	"
BOB	"
CHUCK	"
HIM ( HIM 2)	"
Kof	T-6989
Lad	* <del>T-6990</del>
MIST	Triangulation
Ned	T-6989
Nip	T-6989
Pod	<del>T-6990</del>
Rek (Wreck)	T-6990
Rok (Rock)	Sextant cuts Vols. 1 & 2.

\* Not registered - See T-8016

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

TO BE CHARTED

STRIKE OUT ONE

Seattle, Washington

197

I recommend that the following objects which have ~~(names)~~ been inspected from seaward to determine their value as landmarks, be charted on *(deleted from)* the charts indicated.  
The positions given have been checked after listing.

GENERAL LOCALITY	NAME AND DESCRIPTION	POSITION				METHOD OF LOCATION	DATE OF LOCATION	CHARTS AFFECTED			
		LATITUDE		LONGITUDE				D. P. METERS	HARBOR CHART	INSHORE CHART	OFFSHORE CHART
		°	'	°	'						
	<del>SILO-LIKE STRUCTURE</del> MIST 1945 (Silo-like structure) 30 feet high H-7889	51 22	4302	179 24	4342	Unalaska TPL.	1945				
	North Radio Tower	51 25	7223	179 20	4582	"	"				
	East Radio Tower	51 23	7208	179 20	5623	"	"				
	South Radio Tower	51 23	6083	179 20	5062	"	"				
	Central Radio Tower H-7889	51 23	6943	179 20	4902	"	"				
	West Radio Tower	51 23	6608	179 20	3922	"	"				
	SILO 1945 (Silo-like structure) 30 feet high	51 23	14908	179 14	9412	"	"				
	Highest Radar Tower	51 22	14802	179 16	802	"	"				
	Main Mangar, Baker Runway (East end)	51 22	16008	179 15	5802	"	"				
	Radar Tank (Tank on steel H-7889 framework)	51 21	9908	179 13	3412	"	"				
	TOWER 1944, Oglings H 7889	51 26	14158	179 39	1927	"	"			1944	
	Control Tower - Baker Runway H 7889	51 22	9778	179 15	5972	"	"				
	Control Tower - Charlie Runway H 7889	51 22	15192	179 13	4692	"	"				

C.D. KRABBY  
Chief of Party.

Alutian Islands

Aeronautics

This form should be prepared in accordance with 1934 Field Memorandum, "LANDMARKS FOR CHARTS." The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

17 7889  
H- 7740

LANDMARKS FOR CHARTS

TO BE CHARTED } STRIKE OUT ONE  
~~TO BE DELETED FROM CHARTS~~

Seattle, Washington

1945

I recommend that the following objects which have ~~been inspected~~ been inspected from seaward to determine their value as landmarks, be charted on (deleted from) the charts indicated.  
The positions given have been checked after listing.

GENERAL LOCALITY	NAME AND DESCRIPTION	POSITION						METHOD OF LOCATION	DATE OF LOCATION	CHARTS AFFECTED
		LATITUDE		LONGITUDE		DATUM				
		°	'	°	'		D. P. METERS			
	(South Coast Rader Tower, Yennai Island)	51	40	178	05	687H	Amalasia TPL.	1945		
	Frost Range, Constantine Harbor	51	23	179	16	900E	"	"		
	Bear Range, "	51	23	179	16	738E	"	"		
	New Bear Range, "	51	23	179	16	572E	"	"	Alutian Islands	

C.D. KEARNEY Chief of Party.

This form is all prepared in accordance with 1934 Field Memorandum, "LANDMARKS AND CHARTS." The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

H-7889  
H-7740  
~~H-7041~~

(SU 2145)

South Coast Amohitka Island  
Seattle Processing Office Notes

Datum-

Unalaska.

Shoreline-

No shoreline and no aerial photographs are available. The shoreline is to come from air photos per page 2 of the report by the field party. *Shoreline subsequently compiled on T-5599 and T-5600 (1950)*

Unfinished Sheet-

As work is barely started on this sheet, it is presumed that the sheet will be returned to the Seattle Processing Office for further plotting when the work is available. The boat sheet is retained for use by the field party during the coming season. *Surrey Combined with H-7889 (1950) and H-7740 (1949)*

Rejected work-

The party made an investigation between signal WRECK (mast of wrecked ship) and the sounded area to provide information for salvaging operations. This area is 5 to 9 fms. deep. It was rejected on account of uncertain control. The area is about the size of a half dollar.

15 Fm. Bank-

*on SU-2145*

The 15.5 fm. sounding at Latitude  $51^{\circ} 20'15''$  Longitude  $179^{\circ} 22'12''$  is supported by development on H-7040. *That sheet has not been processed. The sheet shows a sounding of 15 fms. very close to the sounding on H-7040. There is a sounding of 14 fms. at Lat.  $51^{\circ} 20'45''$  Long.  $179^{\circ} 21'75''$  on H-7040.*

*The 15.5 fm. sounding has not been plotted on H-7040, as the area in which it falls is considered adequately developed on H-7040.*

Respectfully submitted,

*Edgar E. Smith*

Edgar E. Smith  
Cartographic Engineer  
Seattle Processing Office .

Approved and Forwarded,

*F. B. T. Siems*

F. B. T. Siems  
Officer in Charge,  
Seattle Processing Office.



GEOGRAPHIC NAMES

Survey No. H-7889

Name on Survey	On Chart No.	On previous survey No.	On U. S. quadrangle Maps	From local information	On local Maps	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List		
	A	B	C	D	E	F	G	H		K
<u>Alaska</u>			(see title)							1
<u>Aleutian Islands</u>			" "							2
<u>Pacific Ocean</u>										3
<u>Amchitka Island</u>									B64	4
<u>Kirilof Point</u>									"	5
<u>Constantine Harbor</u>									"	6
<u>East Cape</u>									"	7
<u>Sea Otter Rock</u>										8
<u>Amchitka Pass</u>									B64	9
<u>Omega Point</u>										10
<u>South Bight</u>										11
<u>Ivakin Point</u>										12
										13
										14
										15
										16
										17
<u>Kirilof Wharf</u>			(location of tide gage)							18
										19
										20
										21
										22
										23
										24
										25
										26
										27
										M 234

Names underlined in red are approved. 9-12-57. L. Heck

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. H-7889

Records accompanying survey:

Boat sheets *2*.; sounding vols. *6*.; wire drag vols. ....;  
 bomb vols. ....; graphic recorder rolls *2*.*env.*;  
 special reports, etc. *1* Smooth Sheet; *1* Descriptive Report ;.....  
 .....

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

Number of positions on sheet		<i>1327</i>
Number of positions checked		<i>82</i>
Number of positions revised		<i>4</i>
Number of soundings revised (refers to depth only)		<i>7</i>
Number of soundings erroneously spaced		<i>0</i>
Number of signals erroneously plotted or transferred		<i>1</i>
Topographic details	Time	<i>8</i>
Junctions	Time	<i>20</i>
Verification of soundings from graphic record	Time	<i>35</i>
<i>Preliminary verification by E.G. Young 20 hrs 12/2/51</i> Verification by <i>additional Prelim Verification - S. Rose</i> Total time <i>68</i> Date <i>9-6-52</i>		
Reviewed by <i>Jan Jeske</i> Time <i>24</i> Date <i>2-13-53</i> <i>20</i> <i>3-10-54</i>		

*Verification Completed* *Stini 13 hrs*  
~~completing~~ *verified* by S. Rose, Feb. 16, 1954, **169** Hours  
 Total verification  $68 + 82 + 169 + 13 = 330$  hrs

DIVISION OF CHARTS  
REVIEW SECTION - NAUTICAL CHART BRANCH  
REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-7889

FIELD NO. SU-2145  
EX- 2250

Alaska - Aleutian Islands, Rat Island, East End of Amchitka  
Island

Project CS-218

Surveyed June, - Aug. 1945 and May, - June, 1950

Scale 1:20,000

Soundings:

808 Fathometer

Control:

Visual fixes on  
shore signals

Chief of Party - H. A. Karo, C. D. Meaney  
Surveyed by - C. D. Meaney, W. R. Porter, M. A. Hecht, R. H. Tryon  
Protracted by - H. C. Parsons  
Soundings plotted by - H. C. Parsons  
Verified and inked by - E. G. Yearley, S. Rose  
Reviewed by - I. M. Zeskind 3/10/54  
Inspected by - R. H. Carstens

1. Shoreline and Control

The shoreline originates with air-photographic surveys T-5599 and T-5600 of 1950.

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

2. Sounding Line Crossings

Depths at crossings are in adequate agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves were adequately delineated except in depths less than 10-fms. where the foul character of the bottom and heavy kelp prevented development to the low water line.

The bottom is very irregular in depths less than 30-fms., and is generally smooth in greater depths. Dangerous detached shoals lie 1-1½ miles offshore from the east end of Amchitka Island.

4. Junctions with Contemporary Surveys

Adequate junctions were effected on the northwest with H-7042 (1945), H-7739 (1949) and H-7007 (1944-45), and on the southwest with H-7040 (1945). The junction with H-7890 (1950) on the east will be considered in the review of that survey.

5. Comparison with Prior Surveys

H-6906 (1935) U.S.N 1:150,000

The present survey falls within the limits of this small-scale U. S. Navy reconnaissance survey. A comparison between the present survey and the few sounding lines controlled by dead reckoning on this prior survey reveals nothing of cartographic importance.

The present survey is adequate to supersede the prior survey within the common area.

6. Comparison with Chart 8863 (Latest print date 1/14/52)  
 Chart 8864 (Latest print date 9/29/52)  
 Chart 9123 (Latest print date 10/6/52)

A. Hydrography

The charted hydrography originates principally with the previously discussed prior survey, with a compilation from advance information of H-7007 (1944) shown on Bp 39015 and with several soundings in the vicinity of Sea Otter Rock from the present survey prior to verification and review. Except as mentioned below unimportant differences of 1-2 fms. were noted.

The 1-fm. sounding charted in lat. 51°21.6', long. 179°30.1', originates with the present survey prior to verification. The least depth on this shoal was revised to 2.4 fms. during verification and review.

The present survey supersedes the charted hydrography within the common area.

B. Aids to Navigation

Minor discrepancies between the charted and present survey positions of buoys are noted, as for example, Buoy N-2 charted in lat. 51°25.05', long. 179°20.03', falls about 80 meters northward on the present survey.

The charted positions adequately mark the features intended. No new features were revealed which might require marking.

7. Condition of Survey

- a. The sounding records and Descriptive Report are complete and comprehensive.
- b. The smooth plotting was accurately done.
- c. Shoran fixes as originally recorded were frequently erroneous as evidenced by discrepancies between sounding lines controlled by visual fixes and sounding lines controlled by shoran. Discrepancies in distances to inshore features from the ends of sounding lines controlled by shoran were also noted. No excessive weaknesses were found in the positions of the visually controlled hydrography. To rectify these discrepancies the processing office has adjusted the shoran controlled lines to agree with the visually controlled hydrography by applying corrections to shoran distances. This adjustment has eliminated the more serious discrepancies at crossings. However, during verification, it was necessary to make additional adjustments in the position of the sounding lines to eliminate other apparent discrepancies in sounding line crossings on the smooth sheet.

8. Compliance with Project Instructions

The present survey adequately complies with the Project Instructions.


9. Additional Field Work Recommended

This is an adequate basic survey of the area and no additional field work is recommended.

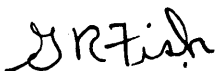
Examined and approved:



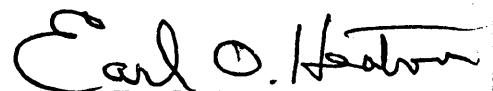
H. R. Edmonston  
Chief, Nautical Chart Branch



H. Arnold Karo  
Chief, Division of Charts



G. R. Fish  
Chief, Section of Hydrography



Earl O. Heaton  
Chief, Division of Coastal Surveys

*Nurn*

TIDE NOTE FOR HYDROGRAPHIC SHEET

April 25, 1946

~~Division of Hydrography and Topography:~~

Division of Charts: H. W. MURRAY

Plane of reference approved in  
3 volumes of sounding records for

HYDROGRAPHIC SHEET <sup>H-7889</sup>  
~~46-2740~~ ~~46-2740~~ (S-2393)

Locality South Coast of Amohitka Island, Aleutian Is., Alaska

Chief of Party: C. D. Meaney in 1945  
Plane of reference is mean lower low water, reading  
4.3 ft. on tide staff at South Bight  
17.5 ft. below B. M. 1

Height of mean high water above plane of reference is 3.5 feet.

Condition of records satisfactory except as noted below:

*C. K. Green*

Chief, Division of Tides and Currents.

RHC

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~District of Columbia Hydrographic Office~~

12 September 1951

Division of Charts: R. H. Carstens

Plane of reference approved in 6  
volumes of sounding records for

HYDROGRAPHIC SHEET 7889

Locality Anchitka Island, Aleutian Islands

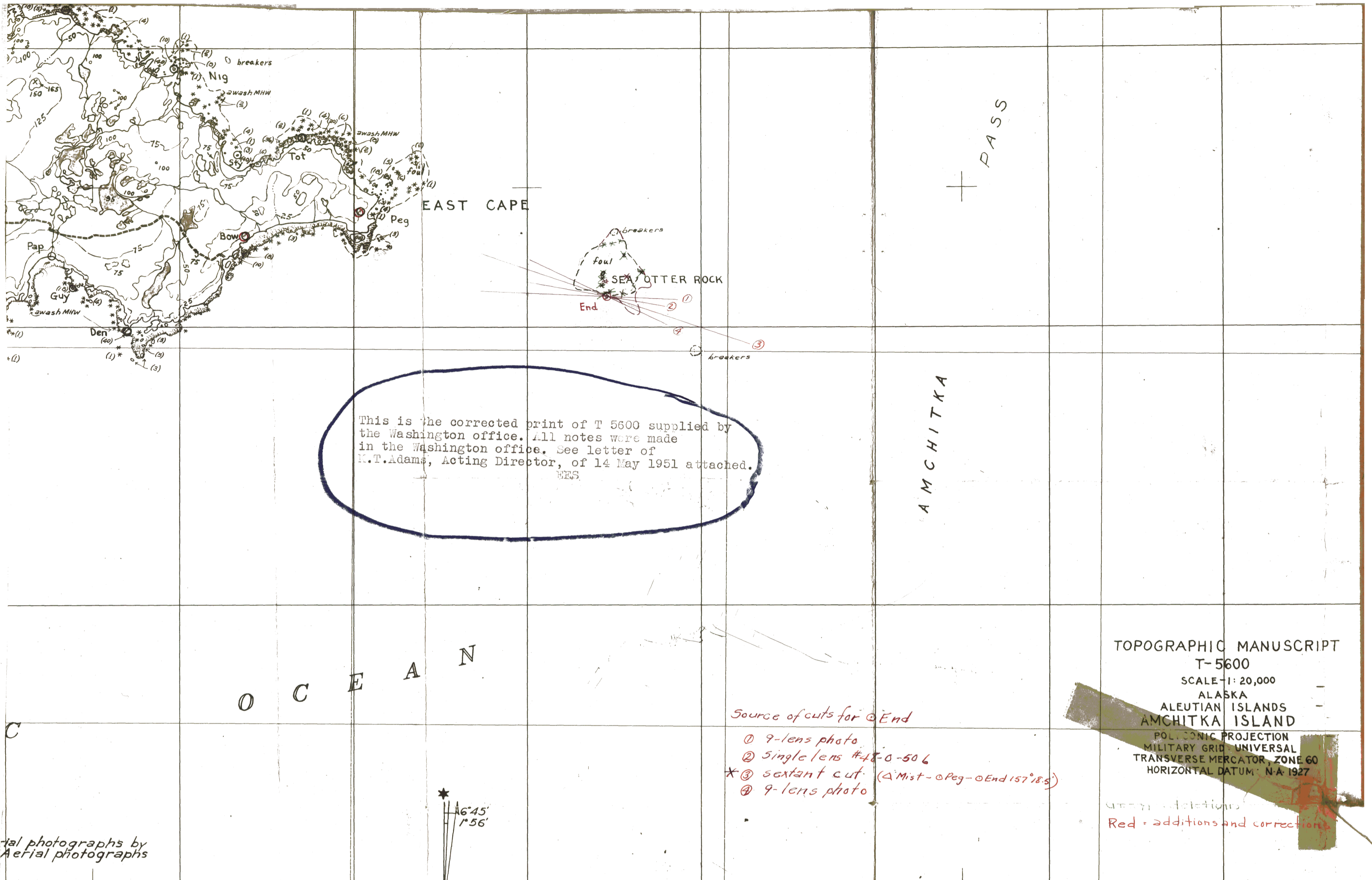
Chief of Party: H. A. Karo in 1950

Plane of reference is mean lower low water, reading  
2.5 ft. on tide staff at Constantine Harbor  
9.9 ft. below B. M. 1 (1944)

Height of mean high water above plane of reference is 2.8 feet.

Condition of records satisfactory except as noted below:

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



This is the corrected print of T 5600 supplied by the Washington office. All notes were made in the Washington office. See letter of K.T. Adams, Acting Director, of 14 May 1951 attached.

PASS

AMCHITKA

O C E A N

TOPOGRAPHIC MANUSCRIPT  
T-5600  
SCALE-1:20,000  
ALASKA  
ALEUTIAN ISLANDS  
AMCHITKA ISLAND  
POLYCONIC PROJECTION  
MILITARY GRID - UNIVERSAL  
TRANSVERSE MERCATOR, ZONE 60  
HORIZONTAL DATUM: N.A. 1927

Source of cuts for @ End  
 ① 9-lens photo  
 ② Single lens #47-0-506  
 \* ③ sextant cut (Δ Mist - @ Peg - @ End 157°18.5)  
 ④ 9-lens photo

Green - deletions  
 Red - additions and corrections

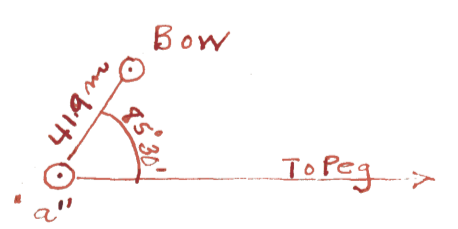
Aerial photographs by

Grid (2500 meter interval)  
 Zone 60 (shown on ticks outside the 10 meter intervals).  
 hydro stations.

APPROXIMATE MEAN DECLINATION 1949

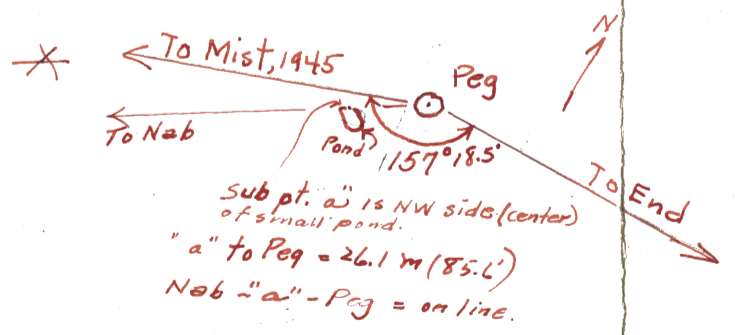
Review Section 9-28-50

E 17  
 T-5600  
 Ph-34(48)



Sub pt. "a" is center of light spot (stone) on MHW line.

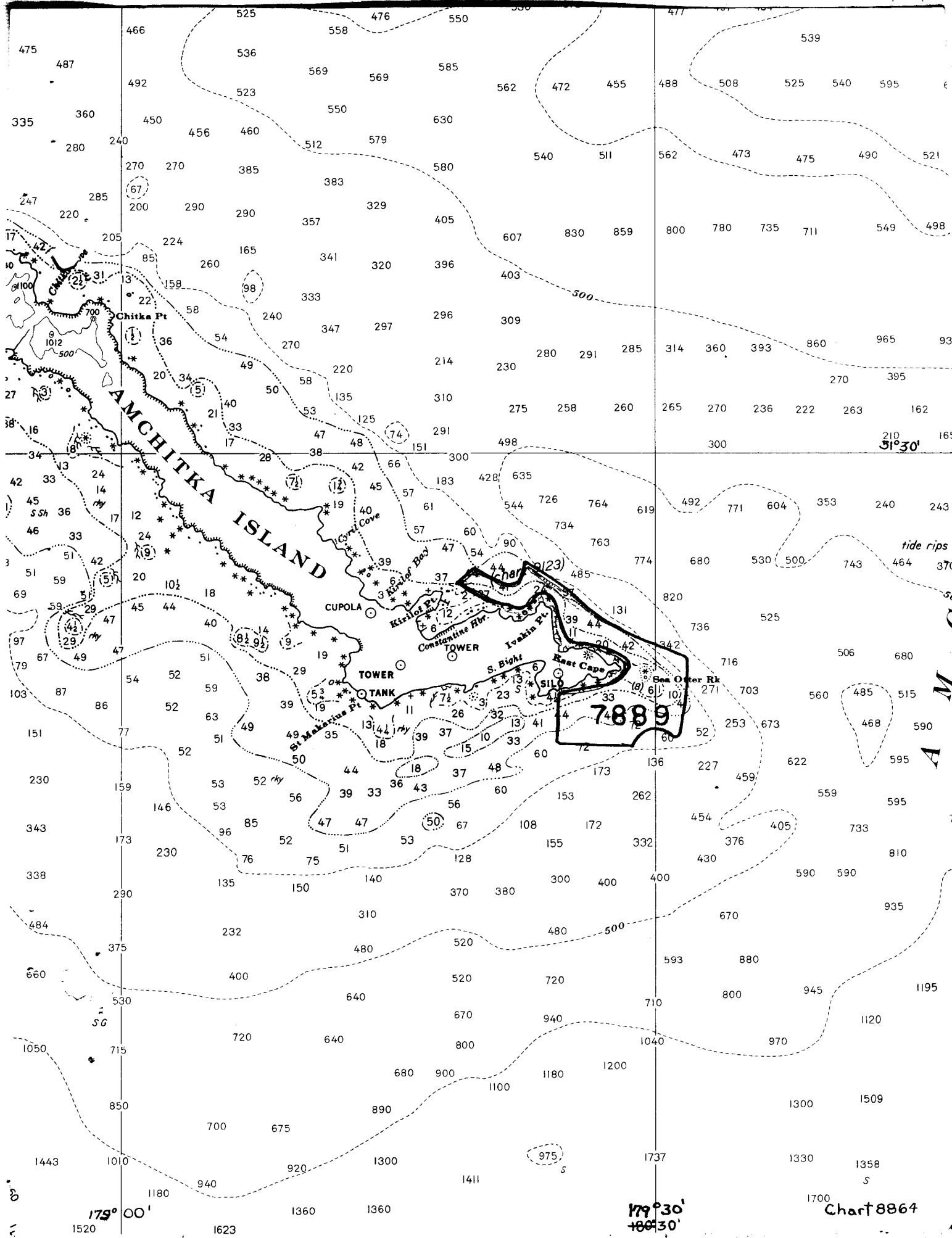
Work of E.L. Jones, 17 May 1950



Above copied from Control Station Identification form originated by E.L. Jones, 17 May 1950

Note:  
 Photo-hydro stations "Peg" and "Bow" relocated. New positions shown by red circle. Photo plot location (nine lens photos) of all other photo-hydro stations ok.





179° 00'

179° 30'  
180° 30'

Chart 8864

A M

# NAUTICAL CHARTS BRANCH

SURVEY NO.     H-7889    

## Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
2/29/52	5864	S.G. McGowan	Before <del>After</del> Verification and Review Examined only - Added Sea Otter Rk.
JAN 1993	16450	Don Corliss	Before <del>After</del> Verification and Review Fully applied New Metric Chart
			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
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
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			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
			Before After Verification and Review
			Before After Verification and Review

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.

# NAUTICAL CHARTS BRANCH

~~7889~~  
~~7740~~  
 SURVEY NO. N. 724+

## Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
6/25/51	8863	Risegari	Before <del>After</del> Verification and Review <i>Partially applied</i>
3/28/56	8863	Stegman	<del>Before</del> After Verification and Review <i>Completely applied</i>
5/24/57	9102	Wittmann	<del>Before</del> After Verification and Review .. - <i>3/1/62</i>
11/61	8864	<i>ME</i>	<del>Before</del> After Verification and Review
01/93	16450	Don Cortto	<del>Before</del> After Verification and Review <i>Fully applied</i> New metric Chart
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
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			Before After Verification and Review
			Before After Verification and Review
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			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.