

9036

Diag. Cht. No. 6450-2.

FORM C&GS-504

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. DA-10-2-69 Office No. H-9036

LOCALITY

State Washington

General locality Hood Canal

Locality Hazel Point to Quatsap Point

1969

CHIEF OF PARTY

R. E. Moses

LIBRARY & ARCHIVES

DATE 11-20-72

USCOMM-DC 37022-P66

9036

HYDROGRAPHIC TITLE SHEET

H-9036

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

FIELD NO.

DA-10-2-69

State WASHINGTON

General locality ~~Western Washington - Puget Sound~~ Hood Canal

Locality ~~Hood Canal~~ Hazel Point to Quatsap Point

Scale 1:10,000 Date of survey 25 Feb - 15 Apr 1969

Instructions dated 17 December 1968 Project No. OPR-112

Vessel Ship DAVIDSON, Launch 2 (C&GS 1196), 17' Boston Whaler

Chief of party CDR Ray E. Moses

Surveyed by Lt. K.A. Domoto, LTjg S. H. Endrud, LTjg W.W. Fisher

Soundings taken by echo sounder, ~~hand lead~~ ^{DE-723} #926, 1276, 919, 1286

Graphic record scaled by DAVIDSON Personnel

Graphic record checked by DAVIDSON Personnel

Positions verified by

~~DAVIDSON~~ Virginia Davis

Automated plot by PMC

Gerber Digital Plotter

Soundings ~~checked~~ ^{verified} by Virginia Davis

Soundings in fathoms ~~XXXX~~ at ~~XXXX~~ MLLW

REMARKS:

cht
6450
6422
6401

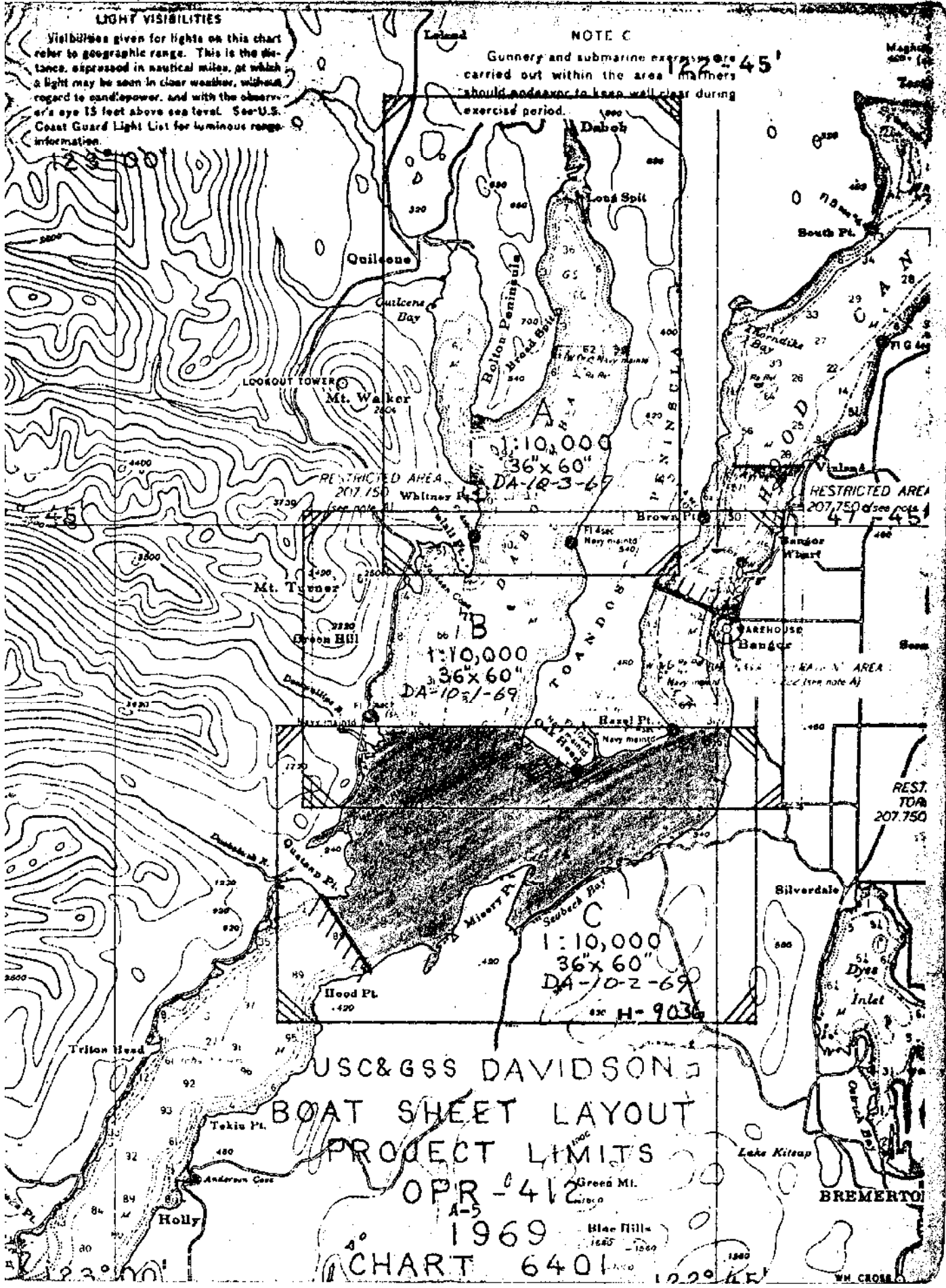
Applied to atlas 12/15/72
[Signature]

LIGHT VISIBILITIES

Visibilities given for lights on this chart refer to geographic range. This is the distance, expressed in nautical miles, at which a light may be seen in clear weather, without regard to candlepower, and with the observer's eye 15 feet above sea level. See U.S. Coast Guard Light List for luminous range information.

NOTE C

Gunnery and submarine exercises are carried out within the area markers should endeavor to keep well clear during exercise period.



USC&GSS DAVIDSON
BOAT SHEET LAYOUT
PROJECT LIMITS
OPR-412
A-5
1969
CHART 6401

BREMERTON

WM CROSS

A. PROJECT

This survey was accomplished according to Project Instructions: OPR-412, HOOD CANAL, DABOB BAY AND ELLIOTT BAY, WASHINGTON dated 17 December, 1968 and the following supplements:

- Change No. 1: Amendment to Instructions 31 January 1969
- Change No. 2: Supplement to Instructions 20 February 1969
- Change No. 3: Supplement to Instructions 13 March 1969.

B. AREA SURVEYED

The survey covered the area of Hood Canal, Washington between the latitudes $47^{\circ} 38' 30''$ and $47^{\circ} 41' 30''$ and longitudes $122^{\circ} 45' 00''$ and $122^{\circ} 55' 00''$. Work was accomplished between 25 February and 15 April 1969. The survey makes a junction with the following contemporary survey: DA-10-1-69, H-9035.(969)

C. SOUNDING VESSEL

The following vessels were used to survey this area:

<u>Vessel</u>	<u>Color Used On Sheet</u>
Launch 2 (C&GS 1196)	Green
17' Whaler (WZ 3041)	Orange (soundings), Violet (field edit DP's).

A summary of each vessel's work by position numbers is attached. Bottom samples were taken by the Ship DAVIDSON shown in blue and by the 17' whaler shown in orange.

D. SOUNDING EQUIPMENT

Raytheon DE-723 fathometers were used:

Launch 2	#926, #1276
17' Whaler	#919
Ship DAVIDSON	#1286.

Echo sounder corrections were determined from bar checks taken

daily by the launches and sounding machine comparisons obtained by the ship. Launch and whaler fathometers were initialed at zero. The ship's fathometer was initialed at the ship's draft. All soundings are in fathoms.

E. SMOOTH SHEET

The smooth sheet ^{was} ~~will be~~ constructed and plotted by the Processing Division, Pacific Marine Center, Seattle, Washington.

F. CONTROL

Visual three-point fixes were used for control in this survey. There were three types of visual signals used: triangulation, photogrammetric, and hydrographic. Triangulation signals were machine plotted on the sheet; stations QUATSAP 2, 1934 and PLEASANT 1934 were found to be in error so were hand plotted on the sheet. Photogrammetric signals were located by either direct or radial plots from the office photographs. Hydrographic signals were cut in with sextant angles. An abstract of signals and manuscripts is included in the appendix.

G. SHORELINE

Shoreline and shoal area outlines were traced onto the boat sheet from the photo manuscripts (see appendix) by ship's officers. Verification of the shoreline was carried out by ship's officers in the manuscript field edit covered by "Field Edit Report, Hood Canal & Dabob Bay, Washington, March-April 1969." Features were checked in location by sextant

*See Review
Par. 2*

fixes. A recent slide area at $47^{\circ} 39.9'N$, $122^{\circ} 45.7'W$ was delineated by sextant fixes. There is good agreement between the photogrammetric and hydrographic location of features on this survey. The low water line is defined by soundings except in isolated areas where the beach is very steep.

H. CROSSLINES

The percentage of crosslines to sounding lines is 10.2% (27.8 miles). There is good agreement at crossings.

I. JUNCTIONS

Junction was made with contemporary survey DA-10-1-69 (H-9035).

There is good agreement at this junction.

J. COMPARISON WITH PRIOR SURVEYS

There are six areas of investigation from the pre-survey review:

1. Area #2 ($47^{\circ} 38.6'N$, $122^{\circ} 49.2'W$)
No remains of a sunken wreck at this location were found. *No wreck charted in this area. See Review for 6.*
2. Area #3 ($47^{\circ} 38.5'N$, $122^{\circ} 49.7'W$)
This area was investigated for sunken piles at low water; none were found. The pier is as shown on the boat sheet. *Recommend this area be charted in accordance with the present survey. Visible piles were located.*
3. Area #4 ($47^{\circ} 39.75'N$, $122^{\circ} 55.0'W$)
The present position and condition of the piles, ruins and pier at this location are as shown on the boat sheet. Sextant fixes were used to determine location. Positions 9025-9028 in volume 18 list these fixes. The main part of the log boom is as shown on the photographs. These features should be charted. *concur.*
4. Area #5 ($47^{\circ} 40.16'N$, $122^{\circ} 54.1'W$)
This shoal was covered by regular sounding lines and closely spaced development lines. A reduced sounding of 3.9 fathoms was obtained by the whaler at 1316⁰⁰, 25 March 1969, 120 W. as the shallowest sounding (position 7108⁰² volume 17). *Soundings on this shoal should be brought into agreement with the reviewed present survey.*

5. Area #6 (47 40.3'N, 122 54.3'W)
 The structures at this location are dolphins and the [✓] ruins of a pier. Their locations are as shown on the boat sheet. Signal 141 was on one of the dolphins. These features should be charted. *Structures should be charted in accordance with reviewed present survey.*
6. Area #7 (47 41.0'N, 122 53.7'W)
 There is no log boom at this location as shown on the [✓] pre-survey review. There is an array of piling closer to shore, however, which is located on the boat sheet. Signal 142 is on the piling on the seaward corner of the array. *Chart should be revised to conform to the present survey.*

K. COMPARISON WITH THE CHART

Comparison of this survey with C&GS chart #6422, 4th edition, [✓] 10 June 1968, is generally very good. This present survey shows greater refinement of the depth curves.

L. ADEQUACY OF SURVEY

This survey is complete and adequate to supersede prior surveys. [✓]

M. AIDS TO NAVIGATION

There is one navigational aid on this survey:

<u>Lat.</u>	<u>Long.</u>	<u>Name</u>	<u>Characteristic</u>
47 41.6'N	122 46.2'W	Oak Head Light (LL No. 2366)	Fl. W., 10s (1s fl) [✓]

This aid serves a useful navigational purpose. The characteristic was not verified. Refer also to the separate report on Landmarks for Charts and Fixed Aids to Navigation for OPR-412.

N. STATISTICS

<u>Vessel</u>	<u>No. Positions</u>	<u>Nautical Miles Sounding Lines</u>	<u>Bottom Samples</u>
Launch 2	2470	278.1	0
17' Whaler	398	22.3	3
Ship DAVIDSON	95	0.0	95

The total area surveyed is 14.8 square nautical miles. There ✓
are 19 sounding volumes for this survey. Volume 18 includes
the bottom samples. A tide gauge maintained by the University
of Washington Oceanography Dept. was established on the pier
at Seabeck Bay. Its position was at signal 122. The time
meridian used for this survey was 120° W. The soundings on the
boat sheet were reduced using predicted tides for Seabeck, Wash.

O. MISCELLANEOUS

Logging: the HUL Logger (BCD code)/Friden Flexowriter logging ✓
system was used for this survey. A "dual indicator" format
was used which combines both the sounding and the position
information into one "position and sounding tape." An example
and explanation of this format is included in the appendix.

P. RECOMMENDATIONS

There are no recommendations for this boat sheet. ✓

Q. REFERENCES TO REPORTS

Corrections to Echo Soundings - OPR-412 (forwarded with this ✓
survey)

Field Edit Report - OPR-412 (forwarded to CFS3, 7 June 1969,
Transmittal Letter No. DA-31-69)

Geographic Names Report - OPR-412 (forwarded with this survey)

Landmarks Report - OPR-412 (forwarded with this survey)

Respectfully submitted,

Glenn H. Endrud

Glenn H. Endrud
LTJG USESSA

TIDE NOTE

The tide station used for this survey was the Seabeck tide gauge. ✓

Location-	Signal 122 (47° 38.5'N, 122° 49.7'W)
Plane of Reference-	MLLW (20.1 ft. on the staff)
Time Meridian-	120° W
Type of Gauge-	Fischer-Porter Digital (maintained by the Univ. of Wash. Ocean. Dept.)

The tide height data were corrected for differences in time and height.

Tide tape printout is filed with Sounding & Position Printouts.

LIST OF OBSTRUCTIONS ** DA-10-2-69

<u>Item</u>	<u>Pos. No.</u>	<u>Vol.</u>	<u>P.</u>	<u>Lat.</u>	<u>Long.</u>
Rock	7129	17	43	47 39.6'N	122 54.2'W ✓
Rock	7189	17	67	47 39.3'	122 49.7' ✓
Rock	2605	19	11	47 38.0'	122 52.4' ✓
Rock	2606	19	11	47 38.0'	122 52.4' ✓
Rock	2607	19	11	47 38.0'	122 52.4' ✓
Boulder	Signal 113 ✓			47 39.8'	122 46.1'

There are 30 DP's on rocks, pilings and other obstructions
in vol. 18, pp. 47-53 (pos. 9001-9030).

LIST OF STATIONS ON DA-10-2-69 ✓

<u>Signal No.</u>	<u>Origin of Signal</u>
101	Vol. 2, p. 61 ✓
102	Vol. 2, p. 61 ✓
103	OAK HEAD LT 1963 ✓
104	Vol. 2, p. 61 ✓
105	MAPLE 3 1963 ✓
106	HAZEL PT LT 1963 ✓
107	T-12314 ✓
108	T-12314 ✓
109	T-12314 ✓
110	T-12261 — its on T-12314 ✓
111	T-12261 ✓
112	T-12261 ✓
113	LONE ROCK 1878 ✓
114	T-12261 ✓
115	T-12261 ✓
116	T-12261 ✓
118	T-12261 ✓
120	T-12260 ✓
122	T-12260 ✓
123	T-12260 ✓
124	T-12260 ✓
125	T-12260 ✓
126	Vol. 1, pp. 28-29 ✓
127	T-12260 ✓
128	BOULDER 1878 ✓
129	T-12260 ✓
130	T-12260 ✓
131	Vol. 1, pp. 28-29 ✓
132	T-12259 ✓
134	HOODS PT 1878 ✓
135	QUATSAP 2 1934 ✓
136	Vol. 1, pp. 28-29 ✓
137	PLEASANT 1934 ✓
138	T-12259 ✓
139	T-12259 ✓
140	T-12259 ✓
141	Vol. 1, pp. 28-29 ✓
142	Vol. 1, pp. 28-29 ✓ ?
143	Vol. 1, pp. 28-29 ✓
144	Vol. 1, pp. 28-29 ✓

LIST OF MANUSCRIPTS

T-12255 ✓
T-12256 ✓
T-12257 ✓
T-12259 ✓ ← T-12258 ✓
T-12260 ✓
T-12261 ✓
T-12314 ✓

DUAL INDICATOR POSITION-SCOUNDING TAPE

<u>Time</u>	<u>Ind</u>	<u>SNDG</u>	<u>Pos.</u> <u>No.</u>	<u>Day</u>	<u>Ft</u> <u>Fm</u>	<u>LA</u>	<u>RA</u>	<u>LO</u>	<u>CO</u>	<u>RO</u>
080000	01	0232	0111	123	0	000000	000000	0000	000	000
080015	01	0243								
080030	01	0222								
080045	01	0302								
080100	01	0293	0112	123	0	000000	000000	0000	000	000

Time- Hour, min, sec

Ind- Indicator: 00-soundings recorded in whole units
01-soundings recorded in units and tenths

SNDG- Depth in feet or fathoms

Pos. No.-Position number

Day- Julian day No.

Ft/Fm- Indicator: 0-Ft
1-Fm

LA- Left angle

RA- Right angle

LO- Left object

CO- Center object

RO- Right object

ABSTRACT OF POSITIONS ✓

<u>Day</u>	<u>Launch 2</u>	<u>17' Whaler</u>	<u>Ship DAVIDSON</u>
56	1-60		
57	61-252		
58	253-341	9001-9012	
59	342-556		
62	557-743		
63	744-908		
64	909-1017		
65	1018-1277		
69	1278-1435		
70	1436-1663		
71	1664-1861		
72	1865-2021		
73	2026-2173		8000-8006, 8007-8009
76			
77	2178-2336		
78	2337-2486		
79		2487-2574	8010-8017
80			8019-8027
83			8028-8046
84		7001-7188	
85		7189-7197, 9013-9030	
92			8047-8065
97		2575-2607	
99		2608-2654, 8066-8067	
100			8068-8080
104			8081-8098
105		8099	

ABSTRACT OF CORRECTIONS TO ECHO SOUNDERS

In all corrections, Table 2 refers to Launch 2, Table 3 refers to the 17' whaler. The combined position-sounding tape does not call for specific correction tables so corrections dependent upon vessel must be entered with care. All position-sounding tapes were logged separately for each vessel used. No corrections were logged for the Ship DAVIDSON since it was used only for bottom sampling.

Modified* Velocity Corrections (Fathoms)

<u>Launch 2</u>	<u>Corr'n</u>	<u>Whaler</u>	<u>Corr'n</u>
2.7	+0.2	1.4	+0.3
5.4	+0.3	15.5	+0.2
9.8	+0.4	21.1	+0.1
14.4	+0.3	42.5	0.0
21.7	+0.2	200.0	+0.1
42.4	+0.1		
200.0	+0.2		

* includes draft correction--see special report on Velocity Corrections - OPR-412

Fathometer Initial Correction (Fathoms)

<u>Launch 2</u>			<u>Whaler</u>		
<u>Day</u>	<u>Time</u>	<u>Corr'n</u>	<u>Day</u>	<u>Time</u>	<u>Corr'n</u>
56	134900	-0.2	79	080000	0.0
57	093315	0.0		093345	-0.1
	110100	+0.2		094745	-0.2
	112000	0.0		095745	-0.1
	153700	0.0		101430	-0.2
58	080000	-0.1		130900	0.0
	124700	0.0	84	080000	0.0
59	080000	0.0		090200	-0.1
62	080000	0.0		091230	0.0
63	080000	0.0		100430	-0.1
64	080000	0.0		160030	-0.2
65	080000	0.0		160900	-0.1
69	080000	0.0	97	080000	0.0

<u>Launch 2</u>			<u>Whaler</u>		
<u>Day</u>	<u>Time</u>	<u>Corr'n</u>	<u>Day</u>	<u>Time</u>	<u>Corr'n</u> ✓
✓ 70	080000	0.0	✓ 97	124400	-0.1
✓ 71	080000	0.0		133800	0.0
✓ 72	080000	0.0	✓ 99	080000	0.0
	110430	+0.2			
	110900	+0.4			
	111330	+0.6			
	111800	+0.8			
	113130	0.0			
✓ 73	080000	0.0			
✓ 77	080000	0.0			
✓ 78	080000	0.0			
	084145	-0.3			
	090215	0.0			
	090430	-0.3			
	091145	-0.2			
	095715	0.0			
	095830	-0.3			
	105345	0.0			
	112230	+0.2			
✓	144100	0.0			

All times are 120° W.

Also refer to special report Corrections to Echo Soundings --
OPR-412.

T R I A N G U L A T I O N P L O T T E R C A R D S

H-NO.		LATITUDE	LONGITUDE	X	Y	
31029	001	69 47440677	122441541	14226	07518	001
31029	002	69 47434721	122443302	13841	06881	002
31029	003	69 47431755	122444414	13598	05919	003
31029	005	69 47430139	122444923	13488	05395	005
31029	006	69 47423086	122445061	13458	04405	006
31029	007	69 47415886	122443568	13786	03368	007
31029	008	69 47412950	122443903	13713	02416	008
31029	009	69 47411668	122444263	13635	02000	009
31029	010	69 47410094	122443793	13739	01489	010
31029	011	69 47404277	122444765	13526	00901	011
31029	012	69 47403474	122445034	13468	00640	012
31029	013	69 47445349	122433255	15161	09034	013
31029	014	69 47450392	122451762	12863	09368	014
31029	015	69 47444640	122453115	12568	08800	015
31029	016	69 47443422	122465995	10626	08405	016
31029	017	69 47434656	122463402	11194	06860	017
31029	018	69 47425045	122465009	10843	05040	018
31029	019	69 47423594	122464840	10880	04570	019
31029	020	69 47413539	122461041	11713	02607	020
31029	021	69 47411447	122470460	10527	01928	021
31029	022	69 47410845	122475955	09324	01733	022
31029	024	69 47413005	122480273	09254	02433	024
31029	025	69 47413283	122481223	09046	02524	025
31029	026	69 47414067	122482105	08853	02778	026
31029	027	69 47405511	122483658	08513	01300	027
31029	028	69 47410871	122490269	07941	01741	028
29	029	69 47413002	122495467	06803	02432	029
31029	031	69 47424682	122491530	07665	04923	031
31029	033	69 47432833	122484103	08415	06269	033
31029	034	69 47444335	122483154	08623	08701	034
31029	035	69 47444821	122483327	08585	08859	035
31029	036	69 47444765	122483092	08636	08841	036
31029	039	69 47420605	122532331	02236	03601	039
31029	040	69 47401761	122541572	01085	00089	040
31029	042	69 47405041	122535120	01623	01152	042
31029	043	69 47405385	122534468	01766	01263	043
31029	044	69 47412629	122531779	02356	02312	044
31029	045	69 47415109	122533794	01916	03116	045
31029	046	69 47424423	122530648	02606	04839	046
31029	047	69 47424964	122530206	02703	05014	047
31029	048	69 47435203	122530192	02708	07037	048
31029	049	69 47443014	122523662	03262	08273	049
31029	050	69 47435249	122523239	03354	07052	050
31029	051	69 47435074	122522054	03613	06995	051
31029	052	69 47444131	122522909	03427	08635	052
31029	053	69 47442998	122521872	03654	08268	053

31029	054	69	47443843	122520610	03930	08542	054
31029	055	69	47444465	122514229	04451	08743	055
31029	057	69	47444319	122512275	04878	08696	057
31029	058	69	47441638	122510360	05297	07827	058
31029	059	69	47444883	122510643	05235	08879	059
31029	060	69	47443205	122522054	03614	08335	060
31029	061	69	47411538	122480638	09174	01958	061
31029	062	69	47411943	122480211	09268	02089	062
31029	063	69	47412652	122480566	09190	02319	063
31029	064	69	47412529	122480691	09163	02279	064
31029	065	69	47411438	122475979	09318	01925	065

APPROVAL SHEET


OPR-412

DA-10-2-69 H-9036 (1969)

Hood Canal

Washington

The field work on this survey was accomplished under my supervision. Frequent inspections were made of the boat sheet and other records.


Ray E. Moses
CDR USESSA
Commanding Officer
USC&GSS DAVIDSON

APPENDIX

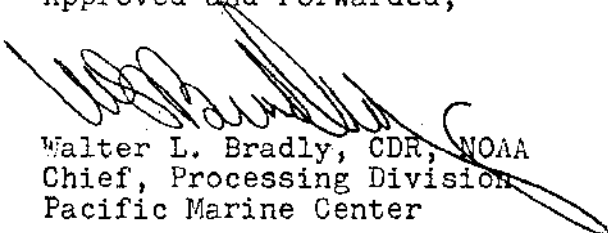
APPROVAL SHEET

The smooth sheet has been inspected, is complete, and meets the requirements of the General Instructions for automated surveys and the Hydrographic Manual. (Note: All exceptions are listed in the Verifier's Report.)

Examined and approved,

Romelius A. J. Paun
for: William M. Martin
Supervisory Carto. Tech.

Approved and Forwarded,


Walter L. Bradley, CDR, NOAA
Chief, Processing Division
Pacific Marine Center

TIDE NOTE FOR HYDROGRAPHIC SHEET

November 6, 1969

~~Navy Hydrographic Division~~ C.O., USC&GSS DAVIDSON

Plane of reference approved in
~~volumes of sounding records~~ for Tide tape printout

HYDROGRAPHIC SHEET 9036

Locality: Hood Canal

~~Chart Date~~ Year: 1969

Plane of reference is mean lower low water

Tide Station Used (Form C&GS-681):

Seabeck, Hood Canal, Washington

Height of Mean High Water above Plane of Reference is as follows:

10.5 feet

Remarks


Chief, Tides and Currents Branch

HYDROGRAPHIC SURVEY STATISTICS
HYDROGRAPHIC SURVEY NO. H-9036

RECORDS ACCOMPANYING SURVEY: To be completed when survey is registered.

RECORD DESCRIPTION		AMOUNT	RECORD DESCRIPTION		AMOUNT	
SMOOTH SHEET & PNO		1	BOAT SHEETS		1	
DESCRIPTIVE REPORT		1	OVERLAYS		5	
DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/SOURCE DOCUMENTS
ENVELOPES			*			
CAHIERS	1					
VOLUMES	9					
BOXES			1			
T-SHEET PRINTS (List)						
SPECIAL REPORTS (List)						

OFFICE PROCESSING ACTIVITIES

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

PROCESSING ACTIVITY	AMOUNTS			
	PRE-VERIFICATION	VERIFICATION	REVIEW	TOTALS
POSITIONS ON SHEET				2963
POSITIONS CHECKED		2453	295	
POSITIONS REVISED		249	55	
DEPTH SOUNDINGS REVISED		1422	15	
DEPTH SOUNDINGS ERRONEOUSLY SPACED		-	-	
SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED		-	-	
	TIME (MANHOURS)			
TOPOGRAPHIC DETAILS		135	16	
JUNCTIONS		1	2	
VERIFICATION OF SOUNDINGS FROM GRAPHIC RECORDS		606	8	
SPECIAL ADJUSTMENTS		-	-	
ALL OTHER WORK		296	234	
TOTALS		1038	260+12	
PRE-VERIFICATION BY	BEGINNING DATE		ENDING DATE	
VERIFICATION BY V. DAVIS / J. LOTS HAW	6/14/70		9/25/72	
REVIEW BY Edmund G. Brunson	4/15/74		5/21/74	

Inspection By D. R. Enright 4/24/74

10-24-74

11/27/74 - 15-74

Reg. No. H-9036

The Computer and Excess Sounding Cards for this survey have not been corrected to reflect the changes made to the Computer Card and Excess Card Printouts at this time of the review.

When the cards have been updated to reflect the final results of the survey, the following shall be completed:

CARDS CORRECTED

DATE _____ TIME REQ'D _____ INITIALS _____

REMARKS:

Geographic Position will be updated from positions 947 through 951, and will be plotted at final update.

H-9036

Items for Future Presurvey Reviews

The bottom is considered adequately developed on the present survey. Only minor differences were noted in the bottom since the prior surveys. These differences are attributed to shifting sediment and differences of survey methods.

<u>Position</u>	<u>Index</u>	<u>Bottom Change</u>	<u>Use</u>	<u>Resurvey</u>
<u>Lat.</u>	<u>Long.</u>	<u>Index</u>	<u>Index</u>	<u>Cycle</u>
473	1230	2	2	50 Years
474	1230	2	2	50 Years
473	1225	2	2	50 Years
474	1225	2	2	50 Years

OFFICE OF MARINE SURVEYS AND MAPS

MARINE CHART DIVISION

HYDROGRAPHIC SURVEY REVIEW

REGISTRY NO. H-9036

FIELD NO. DA-10-2-69

Washington, Hood Canal, Hazel Point to Quatsap Point

SURVEYED: February 25 - April 15, 1969

PROJECT NO. OPR-412

SCALE: 1:10,000

SOUNDINGS: DE-723 Depth Recorders
Leadline

CONTROL: Sextant Fixes on
Shore Signals

Chief of Party R. E. Moses
Surveyed by K. A. Domoto
 S. H. Endrud
 W. W. Fisher
Automated Plot by Gerber Digital Plotter (PMC)
Verified and inked by V. Davis
 J. L. Lotshaw
Reviewed by E. G. Brunson
 Date: 5/21/74
Inspected by D. R. Engle

1. Description of the Area

This survey covers a portion of Hood Canal in the vicinity of Dabob Bay Entrance. The bottom generally slopes sharply from the LWL to depths of 40 to 50 fathoms and then gradually to maximum depths of about 90 fathoms in the southwest part of the survey area. Some offshore shoal features exist in the south-eastern part of the area where the bottom slope is more gradual.

The inshore area is foul with numerous rocks, piles, dolphins and logs.

Predominant bottom characteristics in the area are sand, mud, and clay.

2. Shoreline and Control

The origin of control is adequately covered in Part F of the Descriptive Report. The position of hydrographic station 101 (Tskutsko Pt. Light) located by two cuts on T-12256 falls about 50 meters north of the hydrographer's position. The hydrographic position, determined by numerous sextant angles, was accepted.

The shoreline originates with advance photogrammetric manuscripts T-12255, T-12256, T-12257, T-12259, T-12260, T-12261, and T-12314 (1962-69). Revisions appearing in red are by the hydrographer.

3. Hydrography

A. Depths at crossings are in good agreement.

B. The usual depth curves are adequately delineated except, that the low water curve was not completely defined by soundings in some areas.

C. The development of the bottom configuration and the investigation of least depths are adequate. A few soundings have been carried forward to delineate the low-water line in some areas.

4. Condition of the Survey

The smooth plotting, sounding records, Descriptive Report and various sounding printouts are adequate and conform to the requirements of the Hydrographic Manual, supplemented by the Instruction Manual-Automated Hydrographic Surveys.

5. Junctions

An adequate junction was effected with H-9035 (1969) on the north. There are no contemporary surveys to the south. However, present survey soundings are in general harmony with the charted information.

6. Comparison with Prior Surveys

- A. H-1640a (1884) 1:20,000
H-1640b (1884) 1:20,000

These prior surveys cover the area of the present survey. A comparison of the prior and present depths indicates stable bottom in this area. Differences in depths are minor, generally no greater than one fathom. These differences can be attributed to the natural shifting of sand and sediments due to current action and differences in survey methods, leadline on the prior work versus depth recorder sounding on the present survey.

The sunken wreck located on the prior survey in lat. 47° 38.65', long. 122°49.18' (Presurvey Review Item #2) was never charted. While the development on the present survey is not considered adequate to disprove the possible existence of a wreck in this area, no evidence subsequent to the above 1884 survey could be found to justify charting the wreck at this late date. The wreck was not carried forward to the present survey.

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

7. Comparison with Charts 6422, 6th Edition October 21, 1972
 6450, 21st Edition January 12, 1974

A. Hydrography

The charted hydrography originates with the previously discussed prior surveys which require no further consideration, supplemented by the partial application of information from the present survey boat sheet and smooth sheet before verification and review and miscellaneous blueprints. Only minor differences are noted between the present survey and charted depths.

1. Numerous piles, log booms and piers charted along the shoreline from Seabeck Bay to Stavis Bay and in Pleasant Harbor originate with Bp-82738, 1971 photography, subsequent to the date of the present survey and should be retained on the chart. These items are encircled in purple on Bp-88887, showing the source of information charted in the common area subsequent to the present survey.

2. The following items charted from 1962 air photographs are considered to be discredited by the 1969 photogrammetric field edit of T-12261 and T-12314. It is recommended that they be deleted from the chart.

<u>Item</u>	<u>Location</u>
a. Pier-in-ruins	lat. 47°40.20', long. 122°45.01'
b. Pier	lat. 47°40.50', long. 122°44.87'
c. Four Piers	lat. 47°40.36', long. 122°54.20'

Except as noted above, the present survey is adequate to supersede the charted hydrography within the common area.

B. Aids to Navigation

The aids presently charted adequately mark the features intended.


8. Compliance with Instructions

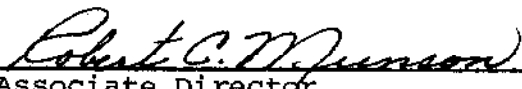
The survey adequately complies with the Project Instructions.

9. Additional Field Work

This survey is considered to be a good basic survey and no additional hydrography is recommended.

Examined and Approved:


 Chief
 Marine Chart Division


 Associate Director
 Office of Marine Surveys and Maps

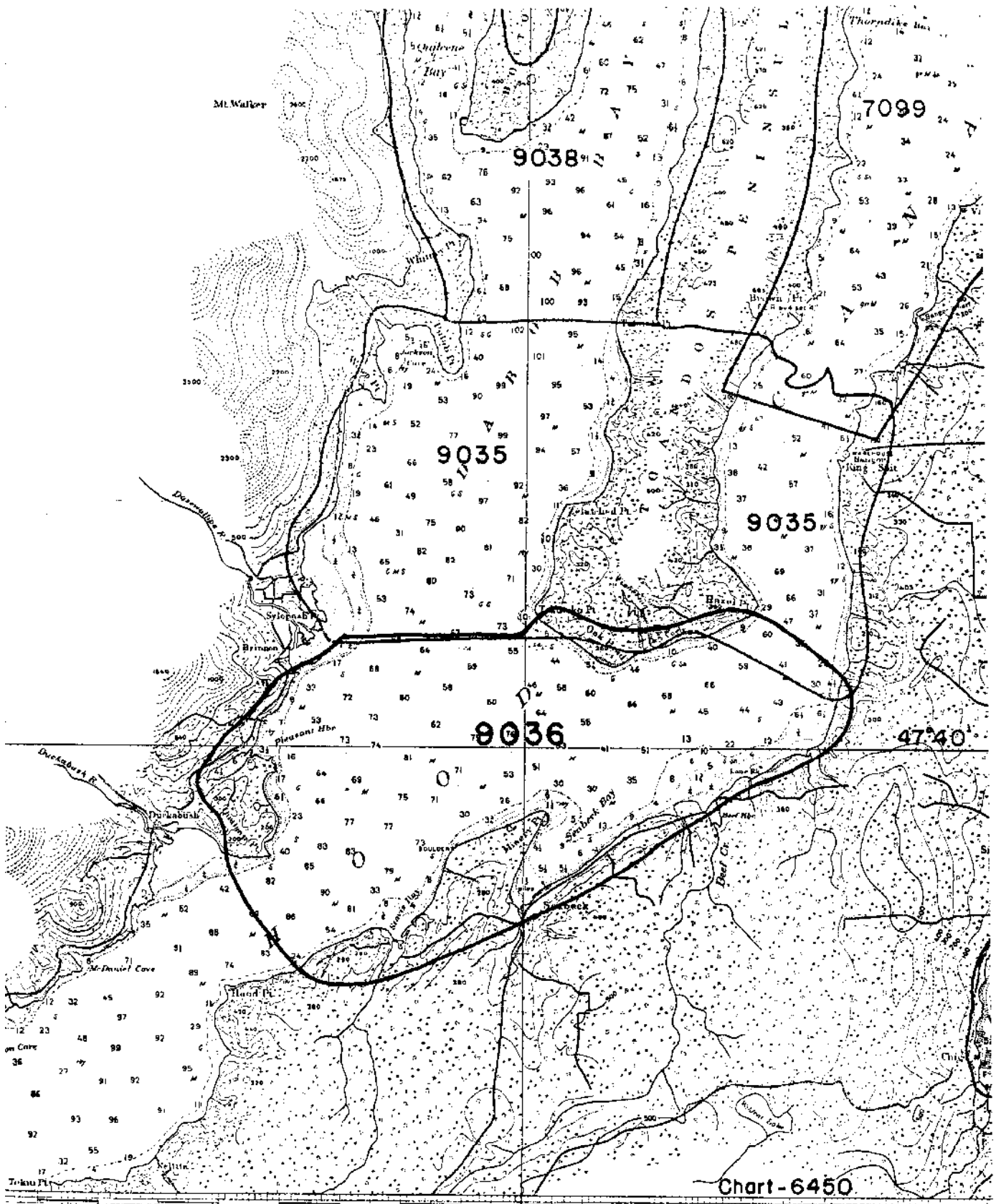


CHART 6450) 5.5 122° 50' 45'

10/11/47-4/21/9/8

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-9036

INSTRUCTIONS

- A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.
1. Letter all information.
 2. In "Remarks" column cross out words that do not apply.
 3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

CHART	DATE	CARTOGRAPHER	REMARKS
6450	8-2-73	STUART	Full Part Before After Verification ^{before} Review Inspection Signed Via Drawing No.
6401	10-16-73	Chandler	Full Part Before After Verification ^{before} Review Inspection Signed Via Drawing No.
185-50	11-12-73	Chandler	Full Part Before After Verification ^{before} Review Inspection Signed Via Drawing No.
6422	3-4-73	Shaw	Full Part Before After Verification ^{before} Review Inspection Signed Via Drawing No.
6422	2-25-75	Hamilton	Full Part Before After Verification, Review, Inspection Signed Via Drawing No.
6450	4/8/75	Green	Full Part Before After Verification Review Inspection Signed Via Drawing No.
6401	4/8/75	Green	Full Part Before After Verification Review Inspection Signed Via Drawing No.
19476	12/10/83	<i>W. J. Janis</i>	Full Part Before After Verification Review Inspection Signed Via Drawing No.
			Full Part Before After Verification Review Inspection Signed Via Drawing No.
			Full Part Before After Verification Review Inspection Signed Via Drawing No.