

8928

Diag. Cht. No. 6300-2.

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. HO-10-1-67 Office No. H-8928

LOCALITY

State Washington

General locality Straits of Juan de Fuca

Locality Sequim Bay

1967

CHIEF OF PARTY

W. F. Forster, II

LIBRARY & ARCHIVES

DATE June 4, 1968

8928

H-8928

**HYDROGRAPHIC TITLE SHEET**

**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.  
HO-10-1-67

State Washington

General locality Strait of Juan de Fuca

Locality Sequim Bay

Scale 1:10,000 Date of survey 1967

*11*  
*APRIL 2, 1967 - MAY 24, 1967*

Instructions dated 6 February 1967 Project No. OPR 412

Vessel Ship Hodgson

Chief of party Walter F. Forster, II

Surveyed by Lt. W. F. Forster, Lt. (j.g.) D. J. Lystrom, & Ens. A. Hogue

Soundings taken by echo sounder, ~~and tide gauge~~ DE-723 Fathometers

Graphic record scaled by Ship Personnel

Graphic record checked by Ship Personnel

Protracted by Gerber Digital Plotter Automated plot by Pacific Marine Center

Soundings penciled by Gerber Digital Plotter

Soundings in fathoms ~~feet~~ at ~~MHW~~ MLLW ARE TRUE DEPTHS.

REMARKS: \_\_\_\_\_

\_\_\_\_\_  
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*J. J. G.*

To Accompany

HYDROGRAPHIC SHEET H-8928 (HO-10-1-67)

Sequim Bay, Washington

Scale 1:10,000

USC&GS Ship Hodgson, CSS 27

Lt. Walter F. Forster II, COMDG.

A. Project

The survey was accomplished under OPR-412, project instructions dated 6 February 1967. ✓

B. Area Surveyed

The survey includes Sequim Bay and the inshore area north of Washington Harbor to Lat.  $48^{\circ}07.8'W$  and east of Washington Harbor Long.  $122^{\circ}59.3'W$ . The inshore survey extends offshore approximately 0.3 to 0.6 mile past the 20 fathom curve to form a junction with survey H-8927 (HO-20-1-67). The north and east limits of this survey are respectively junctioned by surveys H-8929 (HO-10-2-67) and H-8930 (HO-10-3-67). ✓

The control was predominately established from the sixth to the twelfth of April 1967. Hydrography was started on eleven April 1967 and completed on twenty-four May 1967. ✓

Prior surveys in the area are as follows:

H-1516 A	1881	Scale 1:20,000
H-4573	1926	Scale 1:10,000

C. Sounding Vessel

Soundings were obtained with Launch 122 shown on the boat sheet in lowercase violet letters. Bottom samples taken by Ship Hodgson are shown in uppercase red letters. Bottom samples and field edit locations were obtained by Boston whaler and tin skiff shown in lower case red and orange letters respectively. ✓

The arbitrary numbering system used for automated plotting is as follows:

Launch 122:	nos. 1 to 2570
Ship Hodgson:	nos. 3701 to 3714
Boston Whaler:	no. 3001 to 3123
Tin Skiff:	nos. 3501-3596

D. Sounding Equipment

Raytheon DE-723 fathometers were used on Ship Hodgson and Launch 122. Serial no. 554 was used on launch 122 from 11 April 1967 to 23 April 1967, serial no. 534 was used from 27 April 1967 to 24 May 1967. Ship Hodgson used serial nos. 554 and 534. ✓

The echo sounder corrections were determined from serial temperatures, salinity and B. T. observations. The corrections for launch 122 also include bar check results such that a table of total corrections may be used which include transducer draft, velocity correction and instrument error. These corrections are accounted for under a separate report. An abstract of corrections is included with this report.

E. Smooth Sheet

The signal overlay was plotted by Gerber Digital Plotter and verified by ship personnel. The position overlay will be plotted electronically and verified by personnel at PMC. The soundings will be logged and final smooth sheet will also be plotted electronically and verified by personnel at PMC. *Verification was done at Atlantic Marine Center*

F. Control

All hydrography was accomplished by visual fix methods. The control was obtained from recovered triangulation stations and photo identified stations on incomplete manuscripts, scale 1:10,000, nos. T-13098, T-12052, T-12059 and T-12060. Nine signals were located by sextant and t-2 cuts and plotted on a composite of photo manuscripts.

G. Shoreline was transferred directly to the boat sheet from incomplete manuscripts, scale 1:10,000, nos. T-13098, T-12052, T-12059, and T-12060.

The shoreline for the smooth sheet is to be obtained from advanced manuscripts of the same numbers and will be applied at the *Pacific Marine Center* *Atlantic*

The low water line could not be defined in some areas due to steeply sloping shore.

H. Crosslines

Crosslines, consisting of about 10% of the regular system of sounding lines, were in good agreement except in a few cases of very steep or irregular bottom characteristics.

I. Junctions

Junctions were made with contemporary surveys, nos. H-8927 (HO-20-1-67), H-8929 (HO-10-2-67) and H-8930 (HO-10-3-67). These junctions are adequate and complete. *(1967)*

J. Comparison with Prior Surveys

Comparison <sup>with</sup> prior surveys, Nos. H-1516A, 1881 and H-4573, 1926, indicate a generally good agreement.

Presurvey review item #8, a sunken barge, was found and located by sextant fix on 26 April 1967. The highest point of the barge was bearing 2-ft. *1 ft. 10 in* @ ~~0927~~ P. S. T. on the above date. The barge's position is at lat. 48° 04.88'N and 123°01.77'W.

K. Comparison with the Chart

A comparison of the survey with the chart, no. 6403 29 July 1963, the largest scale chart of the area, indicates that the bottom characteristics have remained generally the same. ✓

L. Adequacy of the Survey

The survey is considered complete and adequate to supersede prior surveys for charting. ✓

M. Aids to Navigation

There are no fixed aids to navigation in the area of this survey. ✓

N. Statistics

	<u>Hodgson</u>	<u>Launch 122</u>	<u>Skiffs</u>	<u>Total</u>
Positions	15	2570	226	2811
Miles of Soundings (nautical)	----	306.5	6.3	312.8
Area Surveyed (sq. nautical miles)	----	11.7	----	11.7
Oceanographic Stations	2	----	----	
Bottom samples	14	----	14	28

O. Miscellaneous

Various rocks and objects were located by sextant fixes and are shown on the boat sheet. ✓

P. Recommendations

None ✓

Q. Reference to Reports

1. Correction to echo soundings, Port Discovery to Dungeness Bay, 1967. ✓

2. Coast pilot report, Port Discovery to Dungeness Bay, 1967. ✓

Respectfully submitted

*Walter F. Forster, II*

Walter F. Forster, II  
 LT. USESSA  
 C. O. USC&GSS Hodgson

TIDE NOTE

Registry Number: H-8928  
Field Number: HO-10-1-67

Sequim Bay, Washington

A Porter Fischer digital tide gage was installed at the Sequim Bay State Park Pier, Lat.  $48^{\circ}02.45'N$  Long.  $123^{\circ}01.4'W$  for the purpose of this survey. A fixed staff was also established and periodic comparisons were made during the course of the survey. Three new tidal bench marks were established and second order level lines were run connecting the marks to first order level line 45.

The digital tide data has been submitted to the Rockville office for verification and computation of tide reducers for soundings.

Time meridian:  $120^{\circ}W$   
MLLW on staff  
MLLW on staff:

Dates of levels to staff: 16 March -67 and 29 June 1967.

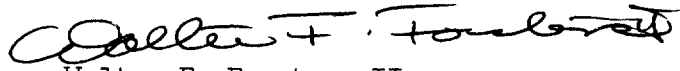
APPROVAL SHEET

Project OPR 412  
Sheet H-8928

Sequim Bay, Washington

The field work on this survey was accomplished under direct supervision of the commanding officer. The boat sheet was given daily inspection to check for adequacy and accuracy. The survey is considered complete and adequate and no additional field work is considered necessary. ✓

The signal overlay was plotted and verified and the positions have been logged. However, the position overlay has not been plotted and the soundings have not been logged or plotted at the time of this approval.



Walter F. Forster, II  
LT. USESSA  
Commanding Officer  
USC&GSS Hodgson

## ABSTRACT OF SIGNALS

H-8928

<u>Name</u>	<u>Number</u>	<u>Latitude</u>	<u>Longitude</u>	<u>Source</u>
AND	041	48031628	123003634	SAND (USE), 1962
ANT	001	48053445	122593398	Vol XII, P. 10 (Hydrographic)
BAR	003	48031120	123021410	T-12059
BEN	004	48053988	122590714	Vol XII, P. 9 (Hydrographic)
BLY	005	48014989	122594879	BLYN (USE) 1962
BUB	007	48012373	122595245	T-12060
BUG	008	48050207	123012033	BUGGY (USE) 1962
CAN	009	48044603	123023840	T-12052
CAR	010	48021068	122595614	T-12060
CON	051	48072072	123041006	Vol XII, P. 8 (Hydrographic)
DAD	012	48060621	123025423	T-12052
DID	013	48022748	123012557	T-12059
DIE	053	48073597	123045787	T-13098
DIP	014	48050903	123005075	Vol. XII, P. 9 (Hydrographic)
DOL	015	48065186	123032500	T-12052
DUK	016	48045607	123014732	Vol XII, P. 4 (Hydrographic)
FAR	017	48073014	123044650	T-13098
FOB	018	48014163	122594194	T-12060
GAB	019	48075021	123052526	T-13098
HED	052	4875008	123052265	T-13098
HIM	020	48041816	123024120	T-12052
JAK	054	48045820	123011613	T-12052
<del>KET</del>	021	48064791	123032659	T-12052
KIL	023	48013308	122594267	T-12060



LAM	011	48021061	123010275	CLAM(USE) 1961
LED	024	48052667	123000743	Vol XII, P. 9 (Hydrographic)
MID	025	48043528	123023753	Vol XII, P. 6 (Hydrographic)
MUF	026	48055015	123024334	T-12052
NOB	055	48045069	123010550	T-12052
OKE	027	48013350	123002893	T-12059
OLD	028	48041178	123023715	T-12052
ONE	029	48072246	123042022	T-13098
ORE	030	48033720	123023699	T-12059
PAT	031	48034892	123001592	T-12052
PIN	032	48045966	132021985	T-12052
PIK	056	48045218	123010854	T-12052
<del>PIT</del> <i>HIP</i>	033	48034552	123022211	PITSHIP, RM 3, 1962
POL	034	48030391	123015943	Vol XII, P. 3 (Hydrographic)
POT	022	48044875	123022405	KIAP <sup>o</sup> NT(USE), 1962
POZ	057	48044525	123011332	T-12052
RAG	035	48042350	123003760	T-12052
RAY	036	48070738	123034692	RAY, 1962
ROK	037	48025128	123001871	T-12059
ROW	038	48033911	123001573	T-12059
SAD	039	48053457	123023595	T-12052
SAK	040	48050032	123023344	T-12052
SAP	042	48015015	123005710	<del>T-12059</del> <i>RS 877</i>
TIK	044	48033257	123002253	T-12059
TRE	050	48081443	123035393	T-13098
TWO	045	48074144	123050793	T-13098
WAC	046	48052544	123023199	T-12052

WEE	047	48062473	123030744	T-12052
YEL	048	48051787	123003143	Vol XII, P. 10 (Hydrographic)
ZED	049	48012123	123000501	T-12059

Tabulated Echo Sounder Corrections for:

Launch 122

<u>Depth</u>	<u>Total Correction (+)</u>
0 to 8 fathoms	+0.3 fathoms
8 to 18	0.4
27	0.5
37	0.6
47	0.7
56	0.8
65	0.9
73	1.0
82	1.1
91	1.2
100	1.3

The above corrections include transducer draft, velocity correction, and instrument error. These corrections are applicable to survey nos. H-8928, H-8929, H-8930, and H-8933.

TIDE NOTE FOR HYDROGRAPHIC SHEET

January 5, 1968

~~Nautical Chart District~~ Pacific Marine Center

Plane of reference approved   
~~and is to be used for~~

HYDROGRAPHIC SHEET 8928; 8930; 8933

Locality: Port Discovery - Dungeness Bay, Washington

Chief of Party: W. F. Forster, 1967

Plane of reference is mean lower low water

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

Sequim Bay  
Cape George

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

Sequim Bay = 6.9 ft.  
Cape George = 6.9 "

Remarks Tide reducers for the following positions have been revised in red and verified.

<u>Day No.</u>	<u>Time</u>
113	9:40 - 11:52
115	10:35 & 11:52
121	14:28 - 16:43
139	12:00
142	8:56 - 11:38

*J. M. Symons*  
Chief, Tides and Currents Branch

GEOGRAPHIC NAMES  
Survey No. H-8928

Name on Survey	A	B	C	D	E	F	G	H	K	
Blyn										1
Gibson Spit										2
Goose Point										3
Hardwick Point										4
Kiapof Point										5
Kulakala Point										6
Pitship Point										7
Port Williams										8
Sequim Bay										9
Washington Harbor										10
										11
										12
										13
										14
										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27

Names approved  
June 6, 1968  
Frank W. Fisher

FORM C&GS-946  
(REV. 11-65)  
(P.F.S.C. BY  
HYDROGRAPHIC  
ANNUAL 20-2,  
6-94, 7-13)

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

HYDROGRAPHIC SURVEY STATISTICS  
HYDROGRAPHIC SURVEY NO. 8928

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

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT			
SMOOTH SHEET	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		1			
VOLUMES	11	1				
BOXES						

T-SHEET PRINTS (List) *12052, 12053, 12054, 12060 and 13098*

SPECIAL REPORTS (List) *1 - FATHOMETER REPORT*

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				2811
POSITIONS CHECKED	350	10	15	
POSITIONS REVISED	327	8	8	
DEPTH SOUNDINGS REVISED			3	
DEPTH SOUNDINGS ERRONEOUSLY SPACED			7	
SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED				
	TIME (MANHOURS)			
TOPOGRAPHIC DETAILS				
JUNCTIONS	1	1	10	2 (12)
VERIFICATION OF SOUNDINGS FROM GRAPHIC RECORDS	18	4	10	22 (32)
SPECIAL ADJUSTMENTS			30	(30)
ALL OTHER WORK	158	89	62	247 (304)
TOTALS	177	94	112	271 (383)

PRE-VERIFICATION BY <i>W. L. Jones</i>	BEGINNING DATE <i>11/20/68</i>	ENDING DATE <i>3/14/69</i>
VERIFICATION BY <i>Allen L. Schugell</i>	BEGINNING DATE <i>5/8/68</i>	ENDING DATE <i>5/27/68</i>
REVIEW BY <i>George R. Myers</i>	BEGINNING DATE <i>9/19/68</i>	ENDING DATE <i>3/26/69</i>

H-8928

- A. Additions and corrections have been furnished the plotter center by the verification unit. **Except those listed for sub-mission by Review.**

Date May 29, 1968

Signed *Charles L. Ruffner*  
Title Chief, Hydro Processing Br. AMC

- B. Additions and corrections have been added to the survey records and the final smooth sheet forwarded to the verification unit.

Date \_\_\_\_\_ Signed \_\_\_\_\_  
Title \_\_\_\_\_

- C. 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).

Date May 29, 1968

Signed *Charles L. Ruffner*  
Title Chief, Hydro Processing Br. AMC

- D. Smooth sheet and records forwarded to Rockville, Maryland Office.

Date May 31, 1968

Fig. 18.

DESCRIPTIVE REPORT DATA RECORD		
PART I SMOOTH SHEET PREPARATION		DATE
		PREPARED BY/OPERATOR
A.	PLOTTER OPERATOR	
B.	DISTORTION MARKS PLOTTED	
C.	PROJECTION INTERSECTIONS PLOTTED	
D.	POINTS OF ELECTRONIC CONTROL ARCS PLOTTED	
E.	OVERLAYS PREPARED BY	
1.	POSITION NUMBER	
2.	EXCESS SOUNDINGS	
3.	PRELIMINARY SMOOTH PLOT	
4.	LIST OTHERS	
	A.	
	B.	
F.	SOUNDING SELECTION BY	
G.	PLOTTER INPUT PREPARED	
H.	CHECKED	
I.	DESCRIPTIVE REPORT ADDENDUMS	
PART II SMOOTH SHEET COMPLETION		DATE
		CARTOGRAPHER
A.	DISTORTION SCALE TICKS IDENTIFIED BY NOTE	ALAN K. SCHUGARD 5/27/68
B.	PROJECTION INTERSECTIONS VERIFIED BY	ALAN K. SCHUGARD 5/9/68
C.	PROJECTION LINES RULED BY	ALAN K. SCHUGARD 5/9/68
D.	ELECTRONIC CONTROL ARCS RULED AND LOCATION VERIFIED	NOT APPLICABLE
E.	OVERLAYS COMPLETED BY	
1.	POSITION NUMBER LEADERS ADDED	ALAN K. SCHUGARD 5/24/68
2.	EXCESS SOUNDING OVERLAY COMPARED	DAN R. MUNFORD 3/12/69
3.	PRELIMINARY SMOOTH PLOTS COMPARED	W.L. JONNS & D.R. MUNFORD 2/24/68 3/4/68
4.	OTHERS UTILIZED	
	A.	
	B.	
F.	DESCRIPTIVE REPORT ADDENDUM	ALAN K. SCHUGARD 5/27/68
G.	CONTROL STATIONS VERIFIED	W.L. JONNS 11/20/67
H.	POSITIONS MANUALLY PLOTTED	W.L. JONNS 12/4/67
I.	MANUAL PLOT VERIFIED	ALAN K. SCHUGARD 5/15/68
J.	SHORELINE APPLIED	ALAN K. SCHUGARD 5/13/68
K.	BOTTOM CHARACTERISTICS ADDED	ALAN K. SCHUGARD 5/20/68
L.	NOTES AND DEPTH CURVES ADDED	ALAN K. SCHUGARD 5/23/68



OFFICE OF HYDROGRAPHY AND OCEANOGRAPHY

MARINE CHART DIVISION

HYDROGRAPHIC SURVEY REVIEW

REGISTRY NO. H-8928

FIELD NO. HO-10-1-67

Washington - Straits of Juan de Fuca, Sequim Bay

SURVEYED: April 11, 1967 - May 24, 1967

SCALE: 1:10,000

PROJECT NO.: OPR-412

SOUNDINGS: Pole Sounding

DE-723 Fathometer

CONTROL: Sextant Angles

on shore signals

Chief of Party..... W. F. Forster II  
Surveyed by..... D. J. Lystrom  
..... A. Hogue  
Protracted by..... Gerber Digital Plotter  
Soundings Plotted by..... Gerber Digital Plotter  
Verified and Inked by..... A. K. Schugeld  
Reviewed by..... G. K. Myers  
..... Date: 03/26/69  
Inspected by..... R. H. Carstens

1. Description of the Area

This is an inshore survey of Sequim Bay and its approach from the Strait of Juan de Fuca. The northern limit of the survey extends to lat. 48°08'N. along Miller Peninsula on the east and the coast of Washington State from Kulakala Point on the west. The entrance of the bay is constricted by Travis Spit which extends 3/4 mile westerly from Miller Peninsula.

The natural channel within the entrance is controlled by a depth of 2 fathoms.

The bottom configuration of the Bay is characterized by steep slopes leading to a relatively flat basin with depths of 10-20 fathoms. The bottom characteristics of this area consists of mud and fine sand. The southern portion of the Bay gradually shoals from 10 fathoms to 5 fathoms.

At the head of the Bay, shoal flats covered by 1 fathom or less extend about 1/2 mile offshore. Here log booms are located within the 1 fathom curve.

In the approaches to Sequim Bay the bottom shoals gradually from maximum depths of about 30 fathoms. The inshore area in the vicinity of Kulakala Point uncovers for a distance of about 1/4 mile offshore. Uncovering boulders are found along the shore east of Travis Spit.

## 2. Control and Shoreline

The origin of control is adequately covered in Part F of the Descriptive Report.

The shoreline was applied by the verifier from reviewed photogrammetric manuscripts T-12052(1960-62), T-12053(1960-62), T-12059(1960-62), T-12060(1960-62), and advance manuscript T-13098(1966).

Additional information was obtained in 1967 from field observations and is shown on revision sheets RS-873, 874, 877, and 878. This additional field information was examined during the review of this survey and corrections were made where necessary.

## 3. Hydrography

A. Depths at crossings are in good agreement and the usual depth curves were adequately delineated.

B. The development of bottom configuration and the investigation of least depths is considered adequate.

## 4. Condition of the Survey

The plotting, sounding records, and the Descriptive Report are adequate and conform to the requirements of the Hydrographic Manual, supplemented by the Instruction Manual for Automated Hydrographic Surveys except for the following:

A. Abstracts and records were not inserted in the Descriptive Report for the following:

1. Parameters for Digital Computing Polyconic Projections (Form #1)

## 2. Tide Correction Abstract (Form # 8502)

B. The Descriptive Report Data Record of smooth sheet preparation was not completed.

C. In some cases signals were incorrectly designated on the hydrographic survey during its verification. For instance, signal "HIP" (033) was designated as "PIT" which did not correspond to the records. Signal "SAP" (042) was incorrectly transferred from the original source.

D. Sounding lines beginning from a slow start near shore were not correctly logged in a manner to account for the reduced speed at the beginning of the line, nor were the correct positions provided during the verification of the survey.

The logging should have included supplementary positions (see item 4-6 of the Instruction Manual) in order to correctly position soundings obtained before the boat had acquired full speed. The hydrographer probably could have alleviated this situation by maintaining a 1/2 normal speed on the first two positions from shore and increasing to full speed on the second position. On scales of 1:10,000 or smaller, this procedure would not likely incur errors of any consequence.

E. The position numbers on the position overlay were generally too faint to be legible. A new position overlay was requested.

## 5. Junctions

Adequate junctions were made with H-8930(1967) on the northeast and H-8927(1967) on the north. The contemporary survey H-8929 on the northwest was not available and will subsequently be discussed during its review.

## 6. Comparison With Prior Surveys

H-1516A	(1881)	1:20,000
H-4573	(1926)	1:10,000

The earlier survey covers the entire area of the present survey; the later survey covers only a portion in the vicinity of the entrance to Sequim Bay.

A comparison with the present survey reveals a generally stable area and only minor differences in depths except through the entrance into Sequim Bay. Here the bar off Gibson Spit has extended eastward about 150 meters since 1881 and about 100 meters since 1926.

A shoaling of 1-3 feet is noted in the channels south of Travis Spit and deepening is noted in the portion of the channel west of Travis Spit.

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

## 7. Comparison With Charts

Chart 6403 (latest print date 9/16/68)  
Chart 6382 (latest print date 10/2/67)

### A. Hydrography

The charted hydrography originates with the present survey before review, supplemented by depths from the previously discussed surveys which require no further consideration. No differences were noted with present survey depths.

### B. Topography

The shoreline piling and rock information originating with topographic data previously discussed in Part 2 of this review are in agreement with the chart and require no further consideration, except for the following:

1. The piles charted at lat.  $48^{\circ}01.55'$ , long.  $122^{\circ}59.81'$  originating with an unavailable source prior to 1933, neither appear on photographs of 1960 nor are mentioned by the hydrographer and should be deleted from the chart.
2. The piling charted at lat.  $48^{\circ}01.71'$ , long.  $123^{\circ}00.78'$  originating with 1960 photographs (T-12059) and superseded by RS-877, were not fully investigated by the hydrographer and should be charted as submerged piling.

C. Aids to Navigation

The floating aids charted at Sequim Bay were reported to have been located subsequent to the date of the present survey in Notice to Mariners 45, 1967, and should be retained on the chart. These buoys 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  
Hydrography and Oceanography

Reg. No. H-8928

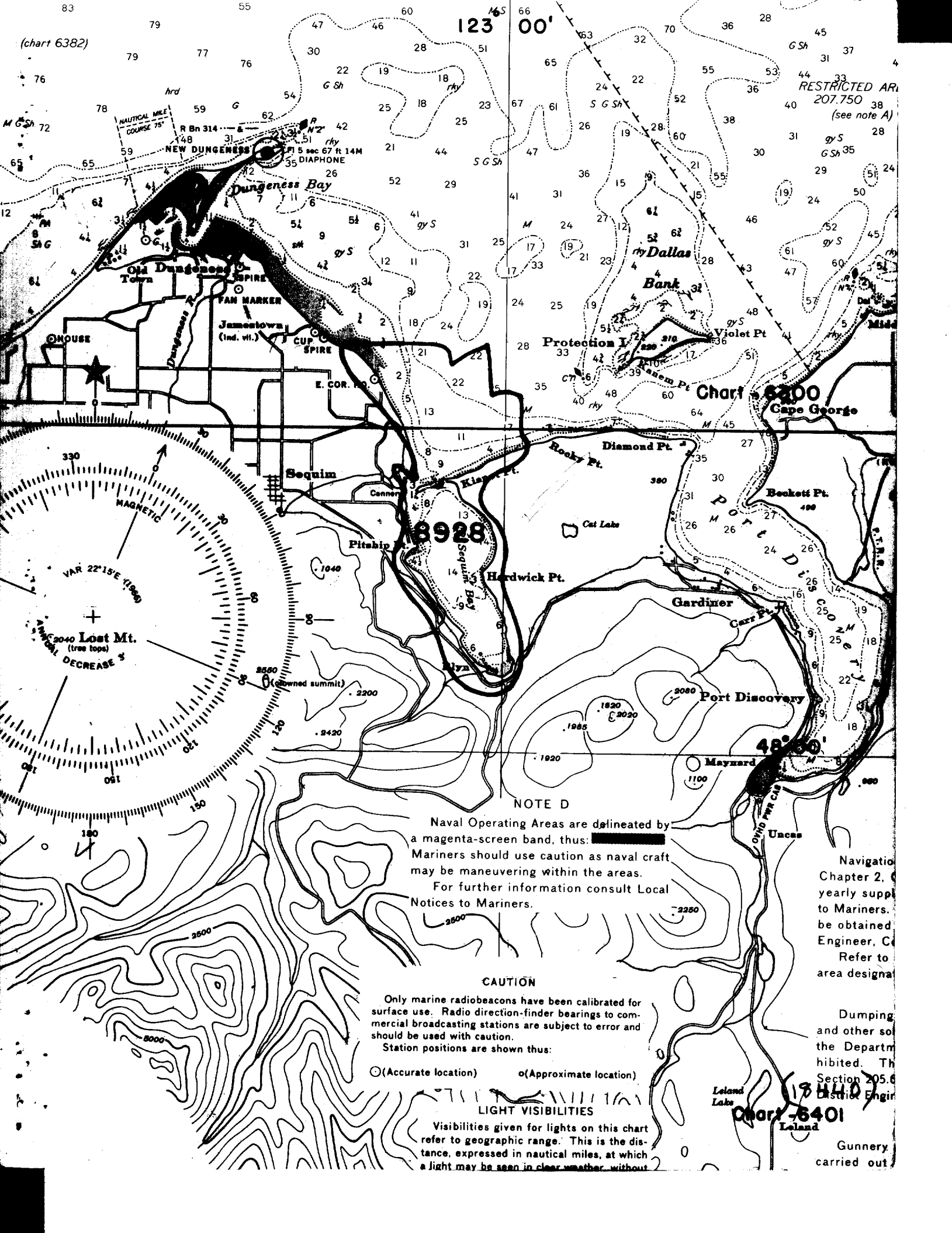
The Computer and Excess Sounding Cards for this survey have not been corrected to reflect the changes made to the Computer Card and Excess Card Printouts at this time of the review.

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:

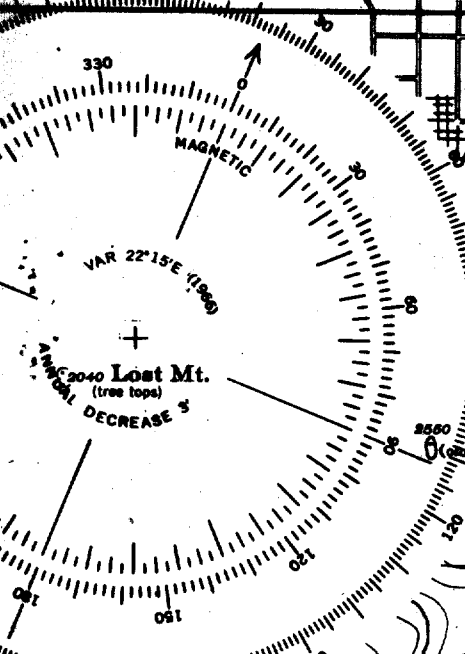


NAUTICAL MILE COURSE 75°

R Bn 314  
NEW DUNGENESS  
DIAPHRAGM

Old Dungeness  
TOWNSHIP  
FAN MARKER  
Jamestown  
(Ind. vi.)  
CUP SPIRE

HOUSE



Lost Mt.  
(tree tops)  
2040

NOTE D  
Naval Operating Areas are delineated by a magenta-screen band, thus: [redacted]  
Mariners should use caution as naval craft may be maneuvering within the areas.  
For further information consult Local Notices to Mariners.

CAUTION  
Only marine radiobeacons have been calibrated for surface use. Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.  
Station positions are shown thus:

○ (Accurate location)      ◦ (Approximate location)

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

RESTRICTED AREA  
207.750  
(see note A)

Chart 6400  
Cape George

48° 30'

Leland  
Labs  
Chart 6401  
Leland  
Navigation Chapter 2, yearly supplied to Mariners, be obtained from the District Engineer, Coast Guard. Refer to area designation.  
Dumping and other operations prohibited. The Department of the Interior, Section 205.6, District Engineer.  
Gunnery carried out

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-8928

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
6403	3 July 68	J M O'Connor	Full <del>Part Before</del> After Verification Review Inspection Signed Via Drawing No. 9
6382	23 July 68	J M O'Connor	Full <del>Part Before</del> After Verification Review Inspection Signed Via Drawing No. 19 Applied thru ckt 6403
6300	8-14-68	Hedden Radda	Full <del>Part Before</del> After Verification Review Inspection Signed Via Drawing No. 31 Appl'd thru ckt. 6382 #19
6450	8-23-68	A J Sunday	Full <del>Part Before</del> After Verification Review Inspection Signed Via Drawing No. # Applied thru 6403 #10
6403	12-14-68	A J Sunday	Full <del>Part Before</del> After Verification Review Inspection Signed Via Drawing No. 10
184-SC	11/11/68	J M O'Connor	Full <del>Part Before</del> After Verification Review Inspection Signed Via Drawing No. 9 Applied thru ckt 6403 #10
6382	6/24/69	J. H. Millan	Part (see history #20) to be fully appl'd w/ 6403 Full <del>Part Before</del> After Verification Review Inspection Signed Via Drawing No. 20 thru ckt 6403
6300	7/23/69	J. H. Millan	Part (see history #32) Full <del>Part Before</del> After Verification Review Inspection Signed Via Drawing No. 32 thru ckt 6382 Dwg #20
(18440)	7/80	Cart 7-29-80	FULL: After VER., REV., INSP. Dwg 32
6401	6-15-70	B. Fennel	Full Part Before After Verification Review Inspection Signed Via Drawing No.
18460	7/80	Cart 7-28-80	FULL: After VER., REV., INSP Dwg #45
6450	10-5-70	J. STUART	Full <del>Part Before</del> After Verification Review Inspection Signed Via Drawing No. 38
SC-184	11-9-70	J. Bailey	Consider fully Appl. HYDRO HAS BEEN DELETED IN THIS AREA.
6382 (18465)	7-12-72	J. S. STURT	Part Applied. Revised rock symbols per 1968 memo
6403 (18467)	4-17-73	J. STUART	Consider fully applied after verification review and inspection
18465	7/80	Cart 7-29-80	FULL: after VER., REV., + INSP Dwg. # 32
18441 (1844)	7/80	Cart 7-29-80	FULL: after VER., REV., + INSP. Dwg # 49