

# FE182

Diagram No. 8552

NOAA FORM 76-35A

U.S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEAN SURVEY

## DESCRIPTIVE REPORT (HYDROGRAPHIC)

Type of Survey ... Field Examination.....  
Field No. .... PF-10-1-61.....  
Office No..... FE-182 (1961).....

### LOCALITY

State ..... Alaska.....  
General Locality ... Alaska South Coast.....  
Locality ..... Resurrection Bay, Seward.....

1961

CHIEF OF PARTY  
CAPT A.L. Wardwell

### LIBRARY & ARCHIVES

DATE ..... February 5, 1962.....

☆ U.S. GOV. PRINTING OFFICE: 1978-668-172

NOTE: A new system for registering Field Examinations was established in 1980. All FE's are now consecutively numbered as shown hereon. The date shown in the new format is the actual date of survey. This material was previously registered as;

FE No.1 1962

FE182

# FE No. 1 1962

FE-182

Diag. Cht. No. 8552.

|                                                                              |                                            |
|------------------------------------------------------------------------------|--------------------------------------------|
| <b>Form 504</b><br>U. S. DEPARTMENT OF COMMERCE<br>COAST AND GEODETIC SURVEY |                                            |
| <b>DESCRIPTIVE REPORT</b>                                                    |                                            |
| Type of Survey                                                               | <b>HYDROGRAPHIC</b>                        |
| Field No.                                                                    | PF-10-1-61                                 |
| Office No.                                                                   | FE #1, 1962                                |
| <b>LOCALITY</b>                                                              |                                            |
| State                                                                        | <b>ALASKA</b>                              |
| General locality                                                             | <b>ALASKA SOUTH COAST</b>                  |
| Locality                                                                     | <b>RESURRECTION BAY<br/>SEWARD, ALASKA</b> |
| <b>1961</b>                                                                  |                                            |
| <b>CHIEF OF PARTY</b>                                                        |                                            |
| <b>ARTHUR L. WARDWELL, CAPT, C&amp;GS,<br/>COMDR, USCGCSE PATHFINDER</b>     |                                            |
| <b>LIBRARY &amp; ARCHIVES</b>                                                |                                            |
| <b>FEB 5 - 1962</b>                                                          |                                            |
| DATE                                                                         |                                            |

USCOMM-DC 5087

FE No. 1  
1962

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. ~~F.E.~~ #1, 1962

Field No. PF-10-1-61

State ALASKA

General locality ALASKA SOUTH COAST

Locality RESURRECTION BAY, SEWARD, ALASKA

Scale 1:10,000 Date of survey 4-8 May 1961

Instructions dated Wire 18 April 1961, Letter 19 April 1961  
DIRECTOR'S

Vessel PF-3 of USC&GS PATHFINDER (LAUNCH #3)

Chief of party ARTHUR L. WARDWELL, CAPT, C&GS, COMDG

Surveyed by GERALD C. SALADIN

Soundings taken by ~~XXXXXXXX~~, graphic recorder, ~~XXXXXXXX~~

Fathograms scaled by SHIP PERSONNEL

Fathograms checked by GERALD C. SALADIN

Protracted by JOHN P. WEIR

Soundings penciled by JOHN P. WEIR

Soundings in fathoms ~~500~~ at ~~XXXXX~~ MLLW

REMARKS: Soundings are reduced with PREDICTED TIDES.  
Checked against records of Seward  
gage by Tides Division.

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DESCRIPTIVE REPORT TO ACCOMPANY

F.E.#1,1962  
HYDROGRAPHIC SURVEY # (PF-10-1-61)

SCALE: 1:10,000  
YEAR: May 1961

ARTHUR L. WARDWELL, COMDG  
USC&GSS PATHFINDER

A. PROJECT:

This Project was completed in accordance with instructions by Wire dated 18 April 1961 and the Director's letter dated 19 April 1961, file 211/mmy, (except as noted in the Tides Note.) *Tides checked by Tides Division and found to be adequate.*

B. AREA SURVEYED:

The survey was made between <sup>4</sup> May and 8 May 1961. Sounding lines were run in the vicinity of the Alaska Railroad Wharf and the Standard Oil Company pier, in Resurrection Bay at Seward, Alaska. ✓

C. SOUNDING VESSEL:

Hydrography was run by Launch #3 of the USC&GSS PATHFINDER. Day letters and positions are in green. ✓

D. SOUNDING EQUIPMENT:

An 808-type depth recorder, number 57-23, was used in the survey. The recorder was calibrated at 800/fathoms per second. A bar check was <sup>made</sup> at the beginning of the day to determine the echo sounder correction. The depths recorded ranged from 0.7 to 51 fathoms. ✓

E. SMOOTH SHEET:

The smooth projection was made by hand aboard the USC&GSS PATHFINDER. The shoreline was transferred from the inset of C&GS Chart 8529. The Signals were located by standard methods. Smooth plotting was done in accordance with standard practices and no position adjustments were made. ✓

See  
Part F.  
Control

F. CONTROL:

Triangulation control for this sheet was established in 1927, recovered in 1932 and is practically non-existent in 1961 - see Special Report Letter from CO, USC&GSS PATHFINDER to the Director, PATH/JOP/wd, Serial 11; File 708, dated 26 September 1961. Topographic signals ABE, CAT, BIT AND WARD were taken from C&GS Chart 8529 and verified with T-2 and Sextant cuts. ✓  
All other signals were located by T-2 and Sextant cuts.

G. SHORELINE:

Shoreline was transferred to the smooth sheet from a tracing of the inset of C&GS Chart 8529. There were some discrepancies found. The pier directly south of the small boat harbor has been torn down. Cuts taken to the northern navigation light at the entrance to the small boat harbor showed it to be further east than it is shown on the chart. The geographic position of the southern navigation light at the entrance to the small boat harbor shows it to be south and east of the charted position. No inquiry was made to ascertain if the lights have been moved or rebuilt since 1932. In the Special Report Letter-Triangulation, recovery of the southern light is considered "most questionable".

The southern end of the Standard Oil Pier, on which station BIT is located, has been rebuilt after being hit by a ship in 1959. It was not inked on the smooth sheet because no information on its new design was obtained.

Most of piers and docks destroyed by earthquake of 27 March 1964.

H. CROSSLINES:

Approximately 12% of the sounding lines run as crosslines. There was generally good agreement.

I. JUNCTIONS:

There are no junctions to this small area investigation.

J. COMPARISON WITH PRIOR SURVEYS:

A comparison with a US Department of Interior Bottom Elevation Survey (1" : 60', 15 January 1958) for the Alaska Railroad was made. This survey sheet also had leadline soundings taken by the USC&GSS PATHFINDER on 7 June 1958.

BP-56746

The soundings from the "1961 Investigation" indicates shoaling along the face of the Alaska Railroad Wharf and northeast of the wharf where the sewer empties into the bay.

No other prior survey sheets were furnished.

See Review Part.4.

K. COMPARISON WITH THE CHART:

The survey was compared with the inset (1:10,000) of Chart 8529 (1:81,847) 25 April 1949, revised 19 January 1959. Shoaling was found along the east approach to the Alaska Railroad Wharf at latitude 60°06'02"N and longitude 149°26'05"W. A sounding of 2.3 fathoms was found very close to a charted 6 3/4 fathoms.

No! This sdg. was out of position.

L. ADEQUACY OF SURVEY:

This was a reconnaissance survey and standard methods were used throughout. Unless observed tides from the Seward gage cause a change in depth, this survey is adequate to supersede prior surveys.

} Tides checked  
by Tides  
Division  
o.k.

M. AIDS TO NAVIGATION:

A comparison was made between floating aids to navigation and the 1961 LIST OF LIGHTS, Vol 111, PACIFIC COAST. The black can buoy number 1, hydrographic position 5b, at latitude 60°06.58N and longitude 149°25.68W, agreed with the light list and charted position. The red spar buoy number 2b, hydrographic position 2b, latitude 60°06.86N and longitude 149°25.25W was found to be in 64 feet of water and not in 39 feet as given in the light list. The charted position is latitude 60°06.83N and longitude 149°25.07W.

2) } This  
position  
rejected  
in records  
Swinger  
fix.

N. STATISTICS:

| <u>Launch #3</u> | <u>DAY</u>    | <u>NO. OF</u>    | <u>N. MILES OF</u>   | <u>AREA IN SQUARE</u> |
|------------------|---------------|------------------|----------------------|-----------------------|
|                  | <u>LETTER</u> | <u>POSITIONS</u> | <u>SOUNDING LINE</u> | <u>NAUTICAL MILES</u> |
| a                |               | 3                | 0                    | 0                     |
| b                |               | 103              | 15.6                 | 0.2                   |
|                  |               | <u>106</u>       | <u>15.6</u>          | <u>0.2</u>            |

There were no bottom samples taken.

O. MISCELLANEOUS:

There was found to be silting in the area where the sewer empties into the Bay. It appears that this is a continuation of the shoaling found in the area by previous surveys.

P. RECOMMENDATIONS:

It is recommended that the shoal mentioned in the Comparison with the Chart section be checked in the future to see if shoaling continues. Any additional shoaling will necessitate the dredging of this area and an alteration of the sewer outlet.

} See L  
Review  
Part 5,

*John P. Weir*  
for  
John P. Weir  
Cartographer  
USC&GSS PATHFINDER

GEOGRAPHIC NAMES LIST

HYDROGRAPHIC SURVEY ~~H-~~  
F.E. 1, 1962

PF-10-1-61)

SEWARD

RESURRECTION BAY

ALASKA SOUTH COAST

SEWARD MUNICIPAL AIRPORT

ALASKA RAILROAD WHARF

} not used

FATHOMETER CORRECTION ABSTRACT

F.E. # 1, 1962  
HYDROGRAPHIC SURVEY ~~H~~ (PF-10-1-61)

Launch #3

Fathometer # 57-23

Correction is  $\downarrow$  0.5 fathoms for all depths.

TIDAL NOTE

F.E. #1, 1962  
HYDROGRAPHIC SURVEY B- (PF-10-1-61)

Predicted Tides from the 1961 Tide Tables were used for both the Boat and Smooth Sheets. The Tide Station plotted on the Smooth Sheet was ~~not~~ used. ← Tide reducers checked by Tides Division with records from gage at Seward. O.K.

LIST OF SIGNALS FOR  
 HYDROGRAPHIC SURVEY <sup>F.E. #1, 1962</sup> (PF-10-1-61)

|                        |                                                     |
|------------------------|-----------------------------------------------------|
| ABE                    | PF-10-1-61, Vol 1, Pg 5                             |
| BIT                    | " " "                                               |
| CAT                    | " " " , 7                                           |
| DOG                    | " Distance and direction<br>to EGG taken from Chart |
| EGG                    | " Vol 1, Pg 7                                       |
| EPI                    | SEWARD EPISCOPAL CHURCH STEEPLE,<br>1927, r. 1932   |
| FOX                    | PF-10-1-61, Vol 1, Pg 3                             |
| GAG                    | " , Vol 1, Pg 4                                     |
| HOW                    | "                                                   |
| JESSIE LEE HOME        | "                                                   |
| KIRH (Radio Tower)     | "                                                   |
| NIG                    | "                                                   |
| PATH                   | " , Vol 1, Pg 6                                     |
| WARD (Catholic Church) | Chart 8529                                          |
| WEST WIND SOCK         | PF-10-1-61                                          |

APPROVAL SHEET

F.E. #1, 1962  
HYDROGRAPHIC SURVEY # (PT-10-1-51)

SEWARD, ALASKA

This survey was done under my supervision. The Boat Sheet was inspected during the period of hydrography.

I consider this reconnaissance survey to be complete and adequate for charting. No additional work is recommended within the area covered.

*Arthur L. Wardwell*

ARTHUR L. WARDWELL  
CAPT, C&GS, COMDG  
USC&GSS PATHFINDER



DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

TO BE CHARTED  
~~TO BE DELETED~~

STRIKE OUT ONE

23 Sept, 1961

I recommend that the following objects which have ~~(been charted)~~ 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 by

J. O. Phillips

John Phillips  
A. L. Wardwell  
Chief of Party.

| CHARTING NAME | DESCRIPTION                  | SIGNAL NAME     | POSITION  |              |            |              |         |            | METHOD OF LOCATION AND SURVEY NO. | DATE OF LOCATION | HARBOR CHART | INSHORE CHART | OFFSHORE CHART | CHARTS AFFECTED |
|---------------|------------------------------|-----------------|-----------|--------------|------------|--------------|---------|------------|-----------------------------------|------------------|--------------|---------------|----------------|-----------------|
|               |                              |                 | LATITUDE* |              | LONGITUDE* |              | DATUM   |            |                                   |                  |              |               |                |                 |
|               |                              |                 | ° ' "     | D. M. METERS | ° ' "      | D. P. METERS |         |            |                                   |                  |              |               |                |                 |
| RADIO TOWER   | Radio tower, red and white * | KIBH            | 60 06     | 55.80        | 1726.9     | 149 26       | 19.56   | N. A. 1927 | T-2 and sextant                   | 3 May, 1961      | X            |               | 8529           |                 |
| FLAGPOLE      | At Jessie Lee Home           | Jessie Lee Home | 60 07     | 37.16        | 1150.2     | 149 26       | 36.8475 | N. A. 1927 | T-2 and sextant                   | 3 May, 1961      | X            |               | 8529           |                 |
| SOCK          | Western most wind sock       | West Wind Sock  | 60 07     | 34.04        | 1053.5     | 149 25       | 10.07   | N. A. 1927 | T-2 and sextant                   | 3 May, 1961      | X            |               | 8529           |                 |
| CHIMNEY       | Chimney of burner at sawmill | HOW             | 60 07     | 30.00        | 928.5      | 149 22       | 29.45   | N. A. 1927 | T-2 and sextant                   | 3 May, 1961      | X            |               | 8529           |                 |
|               | * red flashing light         |                 |           |              |            |              |         |            |                                   |                  |              |               |                |                 |

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and nonfloating aids to navigation, if redetermined, shall be reported on this form. 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.

RHC

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Hydrography and Topography~~

June 4, 1962

Division of Charts: R. H. Carstens

Plane of reference approved in  
1 volumes of sounding records for

HYDROGRAPHIC SHEET FE NO 1 1962

Locality Resurrection Bay, Alaska

Chief of Party: A. L. Wardwell in 1961  
Plane of reference is mean lower low water  
5.7 ft. on tide staff ~~at~~ (1944) at Seward, Alaska  
60.9 ft. below B. M. K 11 (1923)

Height of mean high water above plane of reference is 9.7 feet

Condition of records satisfactory except as noted below:

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

~~Division of Hydrography and Topography~~

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. F.E.No.1-1962

Records accompanying survey: Smooth sheets ...1...;  
 boat sheets ...1...; sounding vols. ...1...; wire drag vols. ....;  
 Descriptive Reports ...1...; graphic recorder envelopes ...1...;  
 special reports, etc. ....  
 .....

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

|                                                         |              |
|---------------------------------------------------------|--------------|
| Number of positions on sheet                            | ..104.       |
| Number of positions checked                             | ..38.        |
| Number of positions revised                             | ...1..       |
| Number of soundings revised<br>(refers to depth only)   | ...19.       |
| Number of soundings erroneously spaced                  | ....5.       |
| Number of signals erroneously plotted<br>or transferred | .....        |
| Topographic details                                     | Time .....   |
| Junctions                                               | Time .....   |
| Verification of soundings from<br>graphic record        | Time ...1.0. |
| Special adjustments                                     | Time .....   |

Verification by *Rale E. Westbrook* Total time ..19.0 hrs Date *8/26/64*  
 Reviewed by *Rale E. Westbrook* Time ..8.0 hrs Date *8/27/64*

REVIEW  
FIELD EXAMINATION NO. 1, 1962  
ALASKA  
RESURRECTION BAY  
SEWARD

1. The field examination was made in compliance with the Director's letter of 19 April 1961, 211/mmy.
2. The purpose of the examination was to investigate a shoal sounding of 3 1/2-fm. at MLLW recorded by the S. S. ILIAMNA on 3 April 1961. The shoal was reported to be about 100 yards ENE of the Alaska Railroad Wharf in Chart Letter No. 354 of 1961.
3. The results of the examination are shown on a section of smooth sheet appended to this report.

Most of the control stations used to locate the hydrography have been cut away in order to suitably restrict the size of the smooth sheet.

4. A comparison between the field examination and prior survey H-5262 a (1:5,000) 1932 shows extensive changes in the wharf area due to construction and dredging.

The latest hydrographic information prior to the field examination is shown on BP-56746, an after dredging survey by the Alaska Railroad which includes leadline soundings by Ship PATHFINDER personnel along the face of the wharf in June 1958. This survey shows that at least 6-fms. were once available in the area of the reported shoal.

The field examination did not locate a shoal depth of 3 1/2-fms. in the reported position, but does show that considerable shoaling had taken place since the after-dredging survey. General shoal depths of 3-4 fathoms are shown to the seaward of the extended wharf face, NE of the wharf. It is possible that the S. S. ILIAMNA was close enough to this shoal bank to have registered 3 1/2-fms.

5. Chart 8529, SUPPLEMENT, PROVISIONAL EDITION, May 4, 1964 shows the Seward area after the Alaska Earthquake of March 27, 1964. Soundings in the wharf area on this chart originate with BP-65704 (a), a post-earthquake reconnaissance survey by the C&GS Ship PATHFINDER on April 13-14, 1964.

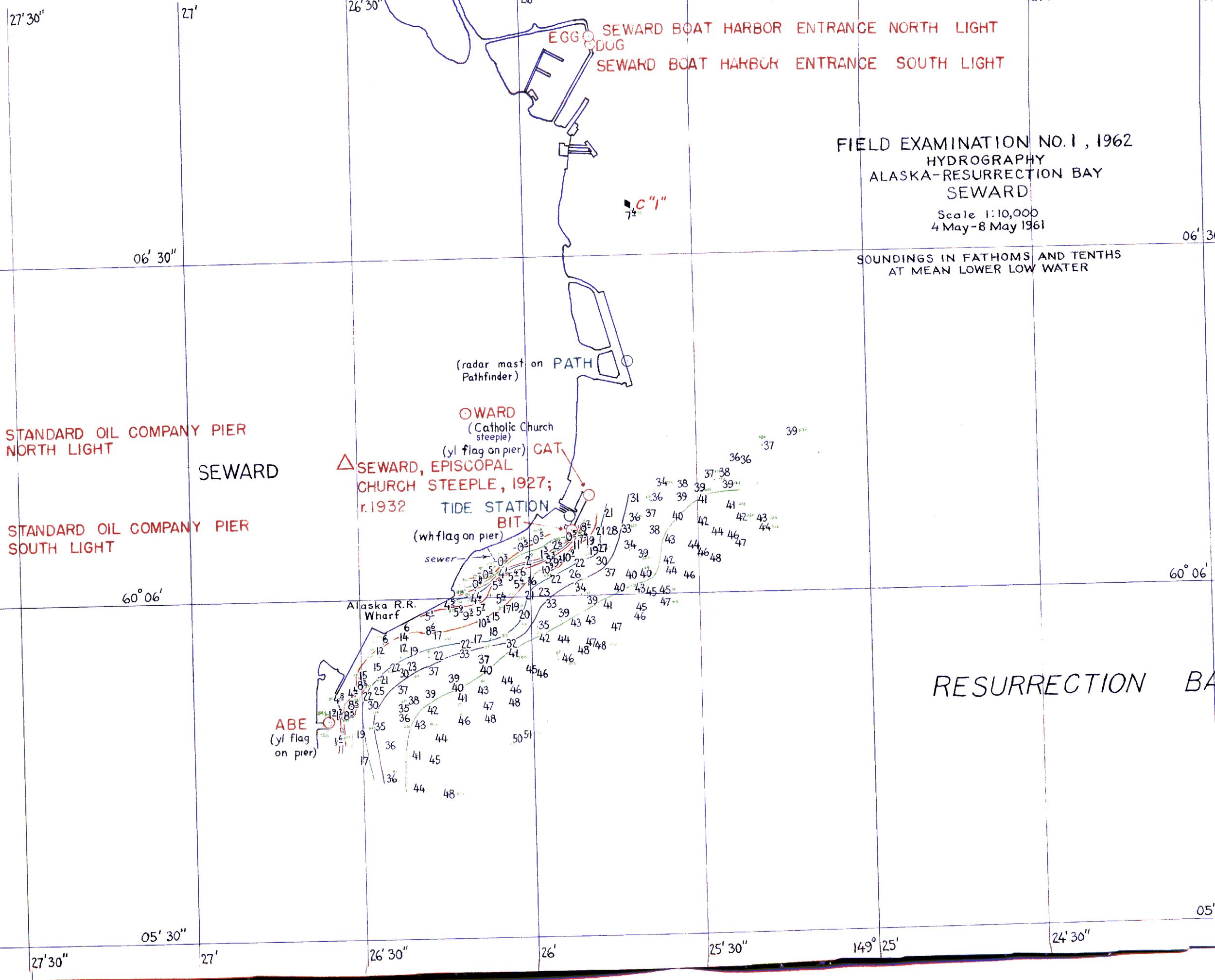
This reconnaissance survey shows a general increase in depths, in the area of the field examination, of 5-10 fms, believed to have been caused by sediments sloughing off into deeper water during the earthquake.

The field examination is considered to be superseded by the post-earthquake survey.

6. The Descriptive Report adequately covers all matters pertaining to this field examination. No further discussion is considered necessary.

Reviewed by  
Dale E. Westbrook  
8/27/64

Inspected by  
R. H. Carstens



EGG DUG  
SEWARD BOAT HARBOR ENTRANCE NORTH LIGHT  
SEWARD BOAT HARBOR ENTRANCE SOUTH LIGHT

FIELD EXAMINATION NO. 1, 1962  
HYDROGRAPHY  
ALASKA-RESURRECTION BAY  
SEWARD  
Scale 1:10,000  
4 May-8 May 1961

SOUNDINGS IN FATHOMS AND TENTHS  
AT MEAN LOWER LOW WATER

CAT- STANDARD OIL COMPANY PIER  
NORTH LIGHT

BIT- STANDARD OIL COMPANY PIER  
SOUTH LIGHT

SEWARD

WARD  
(Catholic Church  
steeple)  
(yl flag on pier) CAT  
SEWARD, EPISCOPAL  
CHURCH STEEPLE, 1927;  
r. 1932

TIDE STATION  
BIT  
(wh flag on pier)

Alaska R.R.  
Wharf

ABE  
(yl flag  
on pier)

RESURRECTION BAY

