

FE148

FE148

Diagram No. 6380-2

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.

Office No..... FE-148

LOCALITY

State Washington

General Locality ... San Juan Islands

Locality Wasp Passage

1957

CHIEF OF PARTY
W.C. Russell

LIBRARY & ARCHIVES

DATE May 21, 1957

☆ U.S. GOV. PRINTING OFFICE: 1976-669-441

NOTE: A new system for registering Field Examinations (FE's) 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.7 1957

**F E No. 7
1957**

FE -148

Diag. Cht No. 6380-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. SPECIAL SHOAL INVESTIGATION
Office No.

F.E. No. 7-1957

LOCALITY

State WASHINGTON

General locality SAN JUAN ISLANDS

Locality WASP PASSAGE

1957

CHIEF OF PARTY

WILLIAM C. RUSSELL

LIBRARY & ARCHIVES

MAY 21 1957

DATE

**F E No. 7
1957**

DESCRIPTIVE REPORT
TO ACCOMPANY

SPECIAL SURVEY-WASP PASSAGE INVESTIGATION

Scale 1:5,000 Ship PATTON W.C. Russell, Comdg.

Surveyed By: W. E. Randall and T. E. Simkin

A. PROJECT

This survey was executed under special instructions of the Seattle District Officer dated 16 April 1957 (copy filed with CL 300, 1957)

B. SURVEY LIMITS AND DATES

The survey covers a small section of Wasp Passage between Shaw Island and Crane Island, San Juan Islands, Washington.

The field work was done on 24 April 1957. Area is covered by prior survey H-8115 (PA-1254).

C. VESSEL AND EQUIPMENT

This survey was executed with Launch No. 87 which has a turning radius of approximately 25 meters at sounding speed.

808 type fathometer No. 51 calibrated for a velocity of 800 fms per second was used for this survey.

D. TIDE AND CURRENT STATIONS

The tide was scaled from the marigram of the Friday Harbor standard gage, using ~~3.6~~^{4.7} feet as the elevation of MLLW on the staff. No time or height correction was applied in this area.

E. SMOOTH SHEET

The smooth sheet was hand constructed in the Seattle Hydrographic Processing Unit, using standard methods. (cut & included in this report)

F. CONTROL STATIONS

Control stations Fog, Hoe, Get, Fez, Eon and Duo were transferred from PA-54-C. Two signals, Mug and Nut (^{New}) were relocated by sextant angles.

Mug - The position on PA-54-C would not satisfy the sextant angles in the area. A new position of Mug was determined by 3-point sextant fix with check angles.

Nut - The position was determined by sextant cuts from Mug, Fez and Duo, the intersection of cuts being reasonably good.

The sounding volume contains all sextant angles used to locate and verify signals. Whitewash still remains on the signals used in 1954. Consequently, the identification of signals is considered positive.

The signals used in the field were transferred from Boat Sheet PA-1354 and it was thought that the trouble with signals Mug and Nut ^{Now}~~(New)~~ may have been due to careless transferring. This is not the case however. The graphic control sheet PA-54-C is still in the Processing Office and upon examination it was found that these two signals do not agree with the sextant angles. It appears likely that there is some error in the signals on H-8115.

See
review
IP 2

G. SHORELINE AND TOPOGRAPHY

Shoreline was transferred from T-²²²⁹~~229~~ executed in 1895 by J. J. Gilbert.

H. SOUNDINGS

All soundings were taken by 808 fathometer No. 51.

Velocity corrections were derived from bar checks. It was necessary to ^{be}interpolate the correction curve to nearly three times the maximum bar check of 7 fathoms, which is not according to the Manual, but since the shoal is the important feature of this survey this was not considered too important.

I. CONTROL OF HYDROGRAPHY

All hydrography was controlled by visual sextant angles on shore signals.

J. ADEQUACY OF SURVEY

The survey appears to be complete and adequate for the purpose intended. Sounding lines are in good agreement.

N. DANGERS AND SHOALS

A. 3.9 fm shoal was found at Lat. $48^{\circ} 35' 30''.5$, Long. $122^{\circ} 59' 24''.2$ which had been reported by Captain Wirick of the Washington State Ferries.

A. 4.4 fm sounding was also found at Lat. $48^{\circ} 35' 36''$, Long. $122^{\circ} 59' 13''.5$.

No kelp was found anywhere near the area reported. Consequently a rather complete system of sounding lines was run over the area. The shoal is part of a ridge that extends offshore from signal FEZ.

It is probable that kelp would grow on the shoal, but at this time of year there is very little kelp anywhere in these waters.

Respectfully submitted

William M. Martin

WILLIAM M. MARTIN
Supervisory Cartographer, C&GS

EXAMINED & APPROVED

William C. Russell

WILLIAM C. RUSSELL, CDR., C&GS
Comdg., Ship PATTON

APPROVED AND FORWARDED

Curtis Le Fever

CURTIS LE FEVER
Captain, C&GS
Seattle District Officer

*
NOTE: The value 4.7 feet was used to reduce the tide to MLLW at the Friday Harbor Gage as per the Director's letter, file 36-234-272, dated 10 May 1955.

Present levels, run since this survey was made, by the Ship PATTON indicate that MLLW is now 4.8 feet on the staff.

Curtis Le Fever

CURTIS LE FEVER

* Tide staff relocated subsequent to the " 3.6 of 1934 " listed in Tide Note. Tide reducers as applied in records are correct.

TABLE I
STATISTICS

Vol. 1, 4-24-57 79 positions. 6.9 stat. miles of sounding lines.
0.04 sq. mile.

TABLE II
Velocity Corrections

| Depth fms | Correction fms |
|--------------|-------------------|
| 0 - 4.0 | 0 |
| 4.1 - 10.0 | 0.1 |
| 10.1 - 16.0 | 0.2 |
| 16.1 - 22.0 | 0.3 |

GEOGRAPHIC NAMES PENCILED ON

WASP PASSAGE SURVEY

CRANE ISLAND

SHAW ISLAND

WASP PASSAGE

RHC

TIDE NOTE FOR HYDROGRAPHIC SHEET

Chart Division: R. H. Carstens

19 June 1957

Plane of reference approved in
1 volumes of sounding records for

HYDROGRAPHIC SHEET FE No. 7 1957

Locality San Juan Islands, Washington

Chief of Party: W. C. Russell in 1957

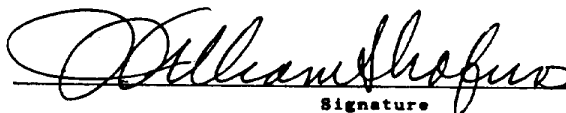
Plane of reference is mean lower low water, reading

3.6 ft. on tide staff ~~at~~ of 1934 at Friday Harbor

12.1 ft. below B.M. 1 (1932)

Height of mean high water above plane of reference is 7.0 feet.

Condition of records satisfactory except as noted below:


Signature

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. F.E.No.: 7, 1957

Records accompanying survey:

Boat sheets .1....; sounding vols. .1...; wire drag vols.;
bomb vols.; graphic recorder rolls 1-Envelope
special reports, etc. .1-Smooth sheet, and .1-Descriptive report.
.....

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

| | |
|---|------------|
| Number of positions on sheet | |
| Number of positions checked | |
| Number of positions revised | |
| Number of soundings revised (refers to depth only) | |
| Number of soundings erroneously spaced | |
| Number of signals erroneously plotted or transferred | |
| Topographic details | Time |
| Junctions | Time |
| Verification of soundings from graphic record | Time |

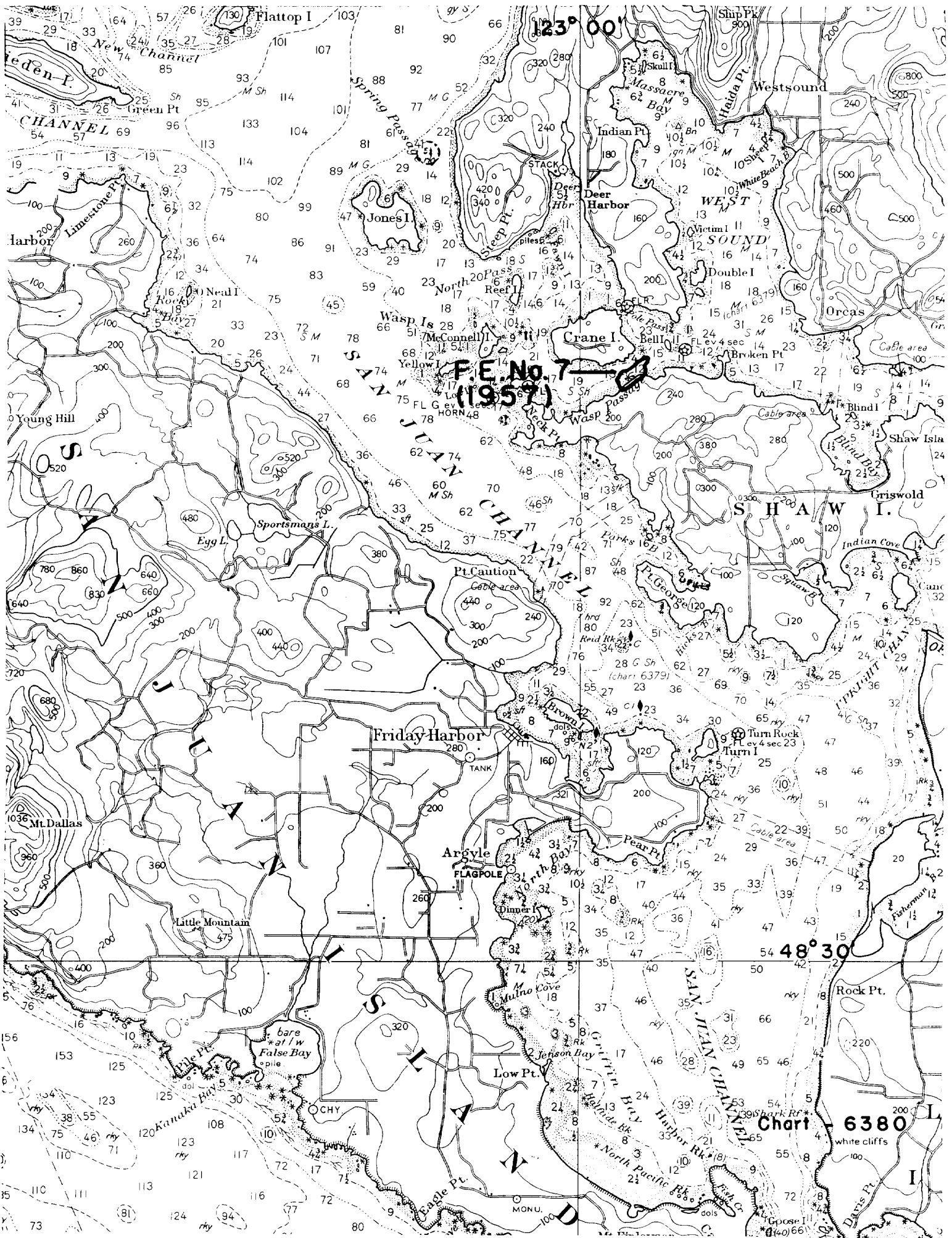
Verification by *W. E. Lane* Total time *23* Date *4/13/57*
Reviewed by Time Date

REVIEW OF FIELD EXAMINATION NO. 7, 1957

1. The purpose of this examination was to investigate a shoal, in Wasp Passage, reported by Capt. Wirick of the Washington State Ferries. A least depth of 3.9 fms. was found on that shoal in lat. $48^{\circ}35.5'$ long. $122^{\circ}59.4'$ by the development of this examination.
2. The sources of shoreline and control are given in the Descriptive Report. The possible error in location of signals NOW and MUG on survey H-8115 (1954) has been found to involve no significant error of position of the sounding lines affected. No replotting on H-8115 is considered necessary.
3. The area of this examination lies entirely within the limits of H-8115 (1954). Except for the least depths on two shoals, the depths of this investigation are in adequate agreement with the hydrography of H-8115. The shoal mentioned in paragraph 1, and a 4.4-fm. shoal in lat. $48^{\circ}35.6'$, long. $122^{\circ}59.22'$ were not developed on H-8115. Least depths on the two shoals from the present development, and other supplementary soundings were transferred to H-8115 and cross-referenced. With the addition of this information H-8115 is considered adequate for charting Wasp Passage.
4. Since the pertinent information from this examination was transferred to H-8115 before review the comparison with charts and prior surveys is covered by the review of that survey.

Reviewed by: L. W. Evans III
11/13/57

Inspected by: R. H. Carstens



45"

59'30"

15"

122° 59'00"

45"

F. E. No. 7, 1957

⊙ Fog

WASHINGTON
SAN JUAN ISLANDS
WASP PASSAGE

36'00"

36'00"

Date of Survey April, 1957
Scale 1 : 5,000
Chief of Party W. C. Russell
Surveyed by W. E. Randall

45"

⊙ Hoe

45"

CRANE ISLAND

Mug

Nut

P A S S A G E

Least depth 32 fms pos. 31-32

48° 35'30"

48° 35'30"

W A S P

GET

Fez

Eon

SHAW ISLAND

Duo

15"

15"

45"

59'30"

15"

122° 59'00"

45"

N.A. 1927 Datum

NAUTICAL CHARTS BRANCH

SURVEY NO. F.E.No.7-1957

Record of Application to Charts

[illegible]

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.