FE98

Diagram No. 8202-2

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-98

LOCALITY

State ..... South East Alaska

General Locality ..... Chilkat Inlet

Locality ..... Letnikof Cove

1951

CHIEF OF PARTY
R.J. Sipe

LIBRARY & ARCHIVES

DATE .....

☆ 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 1951

FE98

FE No.7
1951

Diag. Cht. No. 8202-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. SPECIAL *Office No.* FE- 7 (1951)

LOCALITY

State SOUTH EAST ALASKA

General locality CHILKAT INLET

Locality LETNIKOF COVE

194 51

CHIEF OF PARTY

R. J. Sipe

LIBRARY & ARCHIVES

DATE

B-1870-1 (1)

FE No.7
1951

Form 537
(Ed. Nov. 1941)

REG. NO.

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. FE. No. 7, 1951

Field No. Special

State Southeast Alaska

General locality Chilkat Inlet

Locality Letnikof Cove

Scale 1 : 240 Date of survey 9-11 July, 1951

Instructions dated 14 June, 1951

Vessel PATTON

Chief of party R. J. Sipe

Surveyed by Ship's Officers

Soundings taken by [illegible] hand lead, [illegible]

Protracted by C. F. Kupiec

Soundings penciled by C. F. Kupiec

Soundings in [illegible] feet at [illegible] MLLW

REMARKS: This survey was smooth-plotted in the Washington Office.

U. S. GOVERNMENT PRINTING OFFICE 428975

NOTES

TAG LINE SURVEY - HAINES CANNERY

LETNIKOF COVE - S.E. ALASKA

SHIP PATTON - JULY 9-11, 1951.

An azimuth of the face of the wharf was determined by occupying RAM 1922 and turning an angle to Pt. "A" on the wharf. The instrument was set up and angles turned from RAM 1922 and lines run out from Pt. "A" and "d" every 10°. Line "0" was run on range with RAM 1922 from the corner of the wharf. All other lines at Pt. "A" were from Pt. "A". A short split "0+5" was run between "0" and "10". Lines at "a", "b", "c", and "d" were turned 90° off RAM 1922. Soundings were taken at 10 foot intervals on all lines.

Azimuth RAM 1922 - Letnikof Light 1936	306-03-01
Angle Letnikof Lt. to Pt. "A" on wharf	356-45-32
Azimuth RAM 1922 - Pt. "A"	302-48-33
Angle RAM 1922 to line Pt. "A" to "d" -180°	0-21-00
Azimuth Line Pt. "A" to "d" (Face of wharf)	303-09-33

An attempt was made to identify RAM 1922 and Letnikof Lt. 1936 on the photograph furnished. Due to scale, 1:40,000, and lack of adjacent photograph for use with stereoscope, the identification is doubtful. As there has been no change in the wharf construction since the photographs were taken, the wharf can be shown the same as on photograph.

A statement from the Captain of the FLEMISH KNOT, Alaska Steamship Company, furnished him by the company for docking at Letnikof Cove reads as follows: "While docked at Letnikof Cove, a shoal was found about 100 feet from NW end of dock. Depth was 19 feet at half ebb. Ratio of tide was 18' 2" so at low water shoal spot had about 10 feet of water over it. Ship's bow was hove in close to dock so that there was no grounding".

Mr. Brennan of the Haines Packing Company pointed out the same general location of the shoal area. The area indicated by Mr. Brennan was about on line with the face of the wharf and approximately 150 feet NW of the corner. Soundings verified this 10 foot shoal with soft bottom at 165 feet from the corner. Outer end of rocky point making out from shore bares 2 feet, 60 feet West of the 10 foot shoal.

Least depth on 5/5 is 9 ft.

A sounding of 8.5 fms at the 50 foot mark, Line "a" on "b" day did not appear to be correct. This line was rerun the following day and additional soundings taken at the same distance off the wharf on each side of the 50 mark. These soundings proved the "b" day soundings of 8.5 fms to be in error by one fathom. This sounding has been corrected in the sounding volume.

44 ft + sdg on 5/5.

The soundings appeared too deep on "0" line at 50, 60, and 70 feet. These were resounded on the following day and proved to be 1 fathom too deep on "a" day. They have been corrected in the sounding volume.

A sounding of 6.0 appeared wrong at the 30-foot distance, "b" day on Line 100. The sounding was proven to be correct on the following day.

A sounding of 10.6 fathoms at the 70-foot mark, Line 90, "b" day has been corrected to read 9.6.

Respectfully submitted,

Riley J. Sipe
CDR USC&GS
Cmdg., USC&GSS PATTON

TIDE OBSERVATIONS

HAINES, ALASKA

Time	10 July 1951 Staff Reading, Ft.	Ht.above Ref. Plane
0930	6.95	
30	5.6	
1030	4.4	
1100	3.6	
1110	3.4	
1118	3.3	
1125	3.25	
1130	3.25	
1145	3.1	
1150	3.1	
1200	3.3	0.0
1230	3.9	0.6
1300	4.9	1.6
1330	6.0	2.7
1400	7.5	4.2
1430	9.3	6.0
1500	10.9	7.6
1530	12.5	9.2
1600	13.9	10.6

Time	11 July 1951 Staff Reading,Ft.	Ht.above Ref. Plane
0837	12.1	8.8
0900	11.05	7.75
0930	9.6	6.3
1000	8.4	5.1
1030	7.2	3.9
1100	6.1	2.8
1130	5.2	1.9
1200	4.5	1.2
1230	4.45	1.15
1240	4.5	1.2
1300	4.8	1.5
1330	5.6	2.3
1400	6.5	3.2
1430	7.9	4.6
1500	9.4	6.1
1530	10.8	7.5
1600	12.4	9.1
1615	13.2	9.9

3.3 = MLLW on Staff

120th Mer. Time

H. Hildahl - Observer

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
Form 24A
Rev. Oct., 1932

LIST OF DIRECTIONS

Tagline Survey - Letnikof Cove

Station Pt. "A" *State* S. E. Alaska

Chief of party RJS *Date* 11 July 1951 *Computed by* RJS

Observer RJS *Instrument* #251 *Checked by* JWF

OBSERVED STATION	Observed direction	Eccentric reduction	Sea level reduction*	Corrected direction with zero initial	Adjusted direction*
	° ′ ″	′ ″	″	° ′ ″	′ ″
Ram 1922	0 00 00.00			0 00 00.00	
Line parallel to face of wharf - Letnikof Cove	180 21 —				

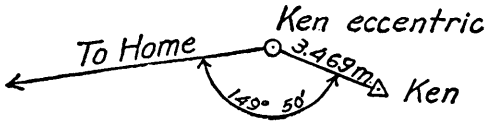
* These columns are for office use and should be left blank in the field.

Station: Ken | *State:* Maryland

Chief of party: C. V. H. | *Date:* 1917 | *Computed by:* O. P. S.

Observer: C. V. H. | *Instrument:* No. 168 | *Checked by:* W. F. R.

OBSERVED STATION	Observed direction	Eccentric reduction	Sea level reduction	Corrected direction with zero initial	Adjusted direction
	° ′ ″	′ ″	″	° ′ ″	′ ″
Chevy	0 00 00.00	− 7.31		0 00 00.00	
Tank west of △ Dulce	29 03 37.0	−1 09.8		29 02 34.5	
Ken (center), 3.469 meters	176 42				
Forest Glen standpipe	313 24 53.0	+3 01.2		313 28 01.5	
Home	326 31 30.21	+ 31.93		326 32 09.45	
Bureau of Standards, wireless pole	352 17 20.8	+ 5.7		352 17 33.8	
Reno	357 28 48.63	− 1.16		357 28 54.78	
Reference mark, 16.32 m	358 31 20				



This form, with the first three and fifth columns properly filled out and checked, must be furnished by field parties. *To be acceptable it must contain every direction observed at the station.*

It should be used for observations with both repeating and direction theodolites.

The directions at only one station should be placed on a page.

If a repeating theodolite is used, do not abstract the angles in tertiary triangulation. The local adjustment corrections (to close horizon only) are to be written in the Horizontal Angle Record, and the List of Directions is to be made from that record directly.

Choose as an initial for Form 24A some station involved in the local adjustment, and preferably one which has been used as an initial for a round of directions on objects not in the main scheme. Use but one initial at a station. Call the direction of the initial 0° 00′ 00.″ 00, and by applying the corrected angles to this, fill in opposite each station its direction reckoned *clockwise* around the whole circumference regardless of the direction of graduation of the instrument. The clockwise reckoning is necessary for uniformity and to make the directions comparable with azimuths.

If a station has been occupied eccentrically, reduce to the center and enter in this form, in ink, the resulting corrections to the observed directions in the column provided for them. If an eccentric reduction is necessary, but not made in the field, leave the column blank. If the station was occupied centrally, and no eccentric reduction is required, put dashes in the column to show that no corrections are necessary.

Directions in the main scheme should be entered to hundredths of seconds in first-order triangulation; otherwise to tenths only. Points observed upon but once, direct and reverse, should be carried to tenths in first-order and second-order triangulation, and to even seconds only in third-order triangulation. In general, but two uncertain figures should be given.

It is recommended that the following simple plan of observing be used with a repeating instrument: Measure each single angle in the scheme at each station and the outside angle necessary to close the horizon. *Measure no sum angles.* Follow each measurement of every angle immediately by a measurement of its explement. Six repetitions are to constitute a measurement. The local adjustment will consist simply of the distribution of the error of closure of the horizon.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
Form 24A
Rev. Oct., 1932

LIST OF DIRECTIONS

Tagline Survey - Letnikof Cove

Station RAM 1922 *State* S. E. Alaska

Chief of party RJS *Date* 10 July 1951 *Computed by* CAS

Observer CAS *Instrument* #251 *Checked by* RJS

OBSERVED STATION	Observed direction	Eccentric reduction	Sea level reduction*	Corrected direction with zero initial	Adjusted direction*
	° ′ ″	′ ″	″	° ′ ″	′ ″
Letnikof Lt. 1936	0 00 00.00			0 00 00.00	
Pt. "A" (Sig. on wharf Letnikof Cove	356 45 32				
Drill Hole in small granite Boulder d. 1.81m 5.9 ft 0.52 m	80 25 —				
Sign, d. 1.7 ft	112 25 —				

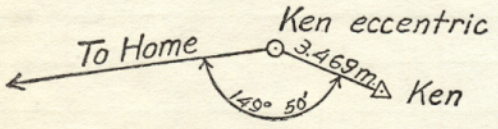
* These columns are for office use and should be left blank in the field.

Station: Ken *State:* Maryland

Chief of party: C. V. H. *Date:* 1917 *Computed by:* O. P. S.

Observer: C. V. H. *Instrument:* No. 168 *Checked by:* W. F. R.

OBSERVED STATION	Observed direction	Eccentric reduction	Sea level reduction	Corrected direction with zero initial	Adjusted direction
	° ′ ″	′ ″	″	° ′ ″	′ ″
Chevy	0 00 00.00	— 7.31		0 00 00.00	
Tank west of △ Dulce	29 03 37.0	−1 09.8		29 02 34.5	
Ken (center), 3.469 meters	176 42				
Forest Glen standpipe	313 24 53.0	+3 01.2		313 28 01.5	
Home	326 31 30.21	+ 31.93		326 32 09.45	
Bureau of Standards, wireless pole	352 17 20.8	+ 5.7		352 17 33.8	
Reno	357 28 48.63	— 1.16		357 28 54.78	
Reference mark, 16.32 m	358 31 20				



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CONTROL STATION IDENTIFICATION

Photogrammetry

STATION RAM 1922

STATE SE ALASKA COUNTY CHILKAT INLET

IDENTIFIED BY C. A. Schoene DATE 10 JULY 1951

ACCURACY OF IDENTIFICATION Doubtful

CHIEF OF PARTY Riley J. Sipe

REMARKS:

Substitute station A is a large light colored rock on a steep slope covered with grass and small bushes.

INFORMATION REQUIRED FOR SUBSTITUTE STATION

INST. STA RAM 1922

AZ. STA Letnikof Light 1936

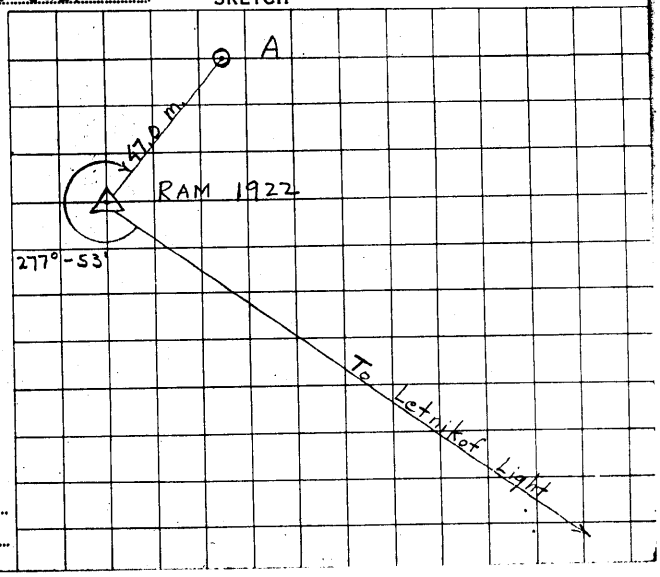
< TO STA 277°-53' R DISTANCE { FT. ..... M. 47.0

MAP NO.

PHOTO NO. FFL 153, 42 NM

PROJECT NO. SPECIAL

SKETCH



M-2226-12

CONTROL STATION IDENTIFICATION

Photogrammetry

STATION LETNIKOF LIGHT 1936

STATE SE ALASKA COUNTY CHILKAT INLET

IDENTIFIED BY C.A. Schoene DATE 11 July 1951

ACCURACY OF IDENTIFICATION FAIR

CHIEF OF PARTY Riley J. Sipe

REMARKS:

Pricked Direct

INFORMATION REQUIRED FOR SUBSTITUTE STATION

INST. STA

AZ. STA

< TO STA R/L DISTANCE { FT. ..... M. .....

MAP NO.

PHOTO NO.

PROJECT NO. Special

SKETCH

M-2226-12

TAGLINE SURVEY -- LETNIKOF COVE

GRAPH FOR TIDE REDUCERS (FATHOMS)

HAINES

11 July 1951

To 0838	1.5
0852	1.4
0905	1.3
0919	1.2
0932	1.1
0946	1.0
1000	0.9
1014	0.8
1030	0.7
1047	0.6
1102	0.5
1121	0.4
1144	0.3
1300	0.2
1323	0.3
1344	0.4
1402	0.5
1415	0.6
1428	0.7
1440	0.8
1452	0.9
1503	1.0

Comp

10 July 1951

To 1315	0.3
1330	0.4
1343	0.5
1355	0.6
1404	0.7
1415	0.8
1425	0.9
1437	1.0
1448	1.1
1458	1.2
1509	1.3
1519	1.4
1531	1.5
1543	1.6

11 July 1951

10 JULY

Height of tide (above datum)

Tide Reducers (in fathoms)

Time in hours

B-3576-5 (1) ++

Form 712
DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
Rev. June 1937

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Hydrography and Topography~~ 14 August 1951

Division of Charts: R. H. Carstens

Plane of reference approved in 1
volumes of sounding records for

HYDROGRAPHIC SHEET FE No. 7, 1951

Locality Letnikof Cove, Southeast Alaska

Chief of Party: R. J. Sipe in 1951
Plane of reference is mean lower low water, reading
2.3 ft. on tide staff at Haines
26.1 ft. below B. M. 2 (1921)

Height of mean high water above plane of reference is 15.8 feet.

NOTE: Tide reducers have been revised and verified in red for A and B days and entered and verified in red for C day. Revised tide reducers are based on the latest determination of mean lower low water which corresponds to a staff reading of 2.3 feet as compared to 3.3 feet used in the field determination.

Condition of records satisfactory except as noted below:

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

U. S. GOVERNMENT PRINTING OFFICE 756675

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. F.E.-#7 (1951)

Records accompanying survey:

Boat sheets ../...; sounding vols. ../...; wire drag vols. .....;

bomb vols. .....; graphic recorder rolls .....;

special reports, etc. .....

.....

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

Number of positions on sheet		382
Number of positions checked		382
Number of positions revised		—
Number of soundings revised (refers to depth only)		382
Number of soundings erroneously spaced		—
Number of signals erroneously plotted or transferred		—
Topographic details	Time	3
Junctions	Time	—
Verification of soundings from graphic record	Time	hand lead

Verification by Charles F. Tapscott Total time 52 Date April 21, 1952

Reviewed by Lu Zeskind Time 6 Date June 30, 1952

M-2232-1

REVIEW OF FIELD EXAMINATION 7, 1951

The purpose of this field examination was to confirm or disprove the existence of a reported 10-ft. shoal 100 to 150 ft. northwest of the corner of the Haines Packing Company Cannery Wharf in Litnikof Cove, Chilkat Inlet, Alaska.

The field examination shows the edge of a shoal in depths of 9 ft. about 145 ft. northwest of the corner of the wharf mentioned in the above paragraph.

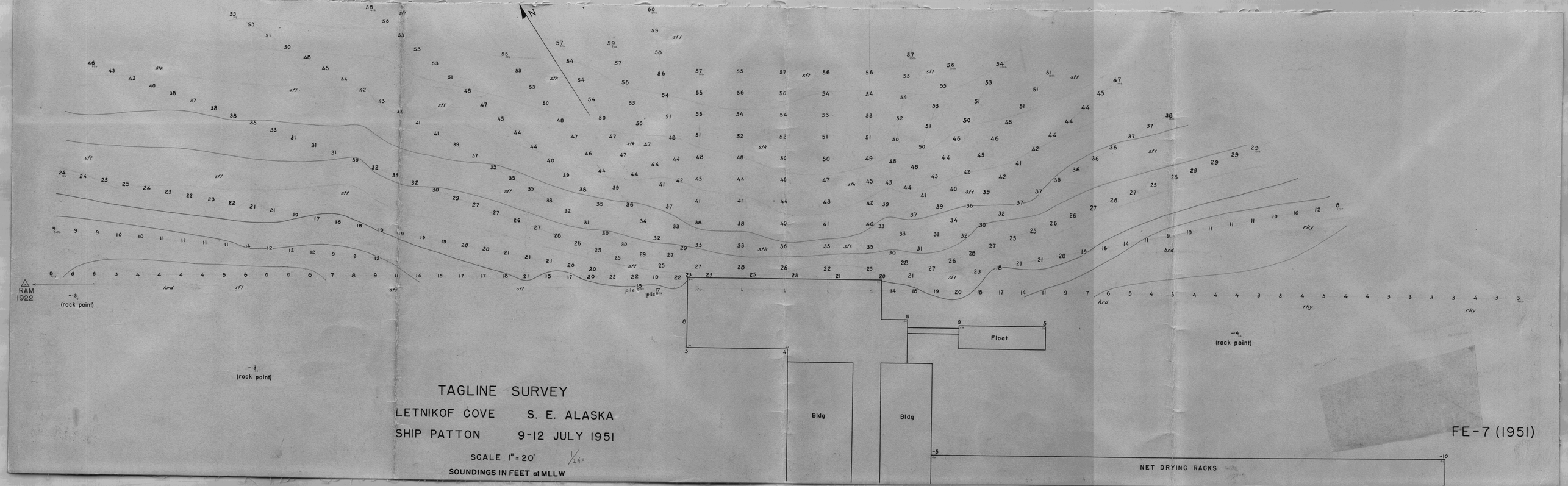
Prior survey H-2057 (1890-1905) on a scale of 1:40,000 shows no detailed inshore hydrography for comparison with the present field examination.

Chart 8303 (latest print date 1-22-51) shows only depth curves in the vicinity of the field examination.

The Descriptive Report and the Instructions dated 14 June 1951, adequately cover all matters pertaining to the examination. No further discussion is considered necessary.

Reviewed by - I. M. Zeskind

Inspected by - R. H. Carstens



TAGLINE SURVEY

LETNIKOF COVE S. E. ALASKA

SHIP PATTON 9-12 JULY 1951

SCALE 1" = 20' 1/240

SOUNDINGS IN FEET at MLLW

FE-7 (1951)

7·5·48
153 42MM

153 42MM

"A"

RAM 1922

STA.

Letnikof Light
1936
1922

SEA 67

115

NAUTICAL CHARTS BRANCH

SURVEY NO. ________

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
5-10-54	8303	R. K. De Lawder	Fully applied ~~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
			Before After Verification and Review
			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.