FE-238

Diagram No. 8556-3

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT

Type of Survey Field Examination

Field No. FA-10-2-82

Office No. FE-238

LOCALITY

State Alaska

General Locality Marmot Bay

Locality Narrow Strait

1981

CHIEF OF PARTY
CDR N.C.Austin

LIBRARY & ARCHIVES

DATE January 20, 1984

AREA 6
CHT.
16594 + INSET } to sign off see
16580 } Record of Application

☆U.S. GOV. PRINTING OFFICE: 1980—766-230

NOAA FORM 77-28 (11-72)

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

HYDROGRAPHIC TITLE SHEET

REGISTER NO.

FE-238

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.

--

State Alaska

General locality Marmot Bay

Locality Narrow Strait ~~Ouzinkie Narrows~~

Scale 1:10,000 Date of survey August 5 - 7, 1981

Instructions dated April 8, 1981 Project No. S-P908-DA-81

Vessel NOAA Ship DAVIDSON, Launch DA-1 (3131)

Chief of party CDR Ned C. Austin

Surveyed by LTJG S. Konrad

Soundings taken by echo sounder, hand lead, pole Ross Fineline, Model 5000 & Leadline

Graphic record scaled by Ship's Personnel

Graphic record checked by Ship's Personnel

Verification ~~Protracted~~ by John E.Lotshaw, Thelma O. Jones, James N. Shofner, Chas. R. Davies Automated plot by PMC Xynetics Plotter

Evaluation ~~Verification~~ by Gordon E. Kay

Soundings in fathoms ~~feet~~ at ~~MLW~~ MLLW

REMARKS: Survey Time Zone: GMT

STANDARDS CK'D 1-23-84

C. Loy

AWOIS ✓ RWD 3-06-84

NOAA FORM 77-28 SUPERSEDES FORM C&GS-537.

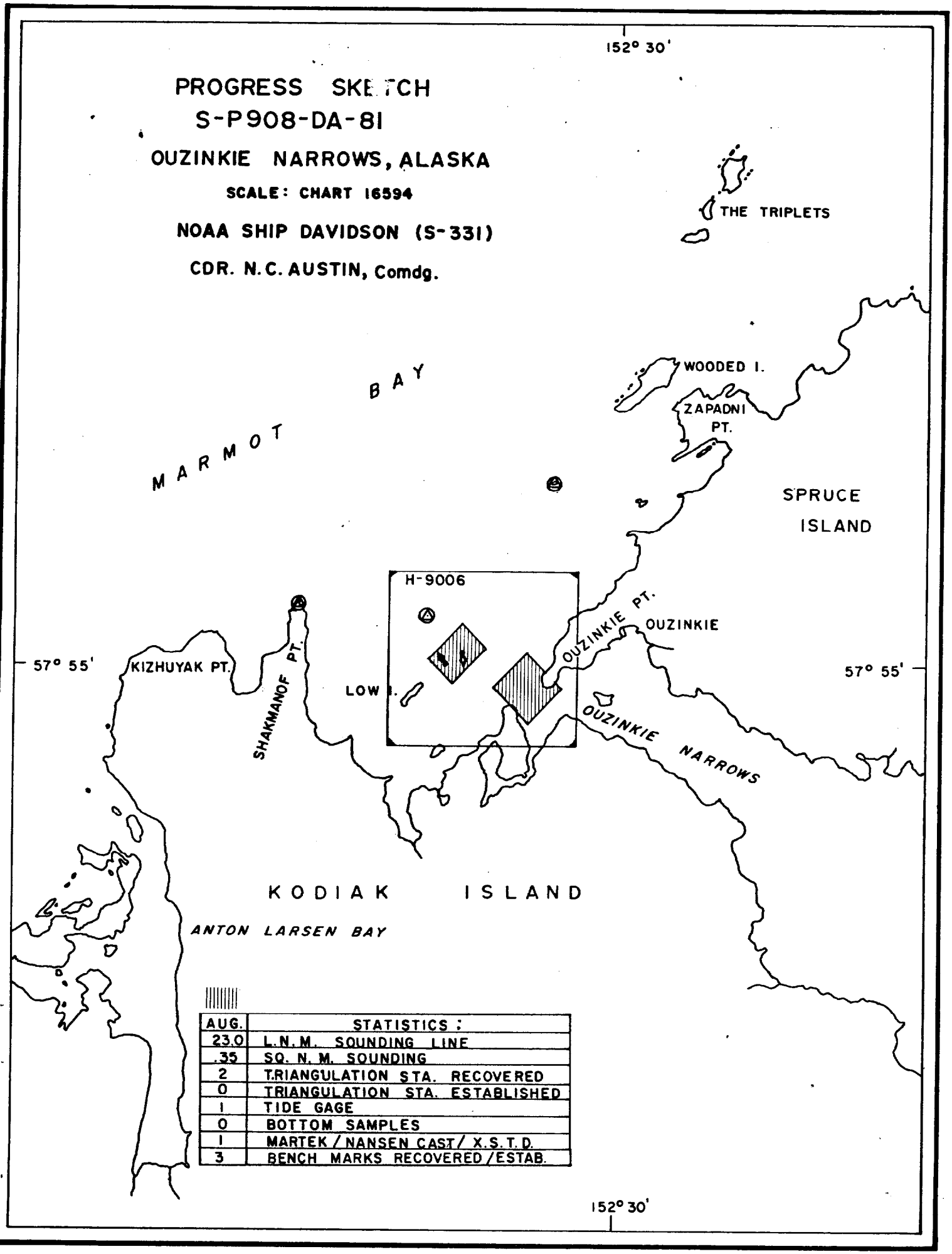
☆ U. S. GOVERNMENT PRINTING OFFICE: 1976—665-661/1222 REGION NO. 6

PROGRESS SKETCH
S-P908-DA-81
OUZINKIE NARROWS, ALASKA

SCALE: CHART 16594

NOAA SHIP DAVIDSON (S-331)

CDR. N.C. AUSTIN, Comdg.



AUG.	STATISTICS :
23.0	L.N.M. SOUNDING LINE
.35	SQ. N. M. SOUNDING
2	TRIANGULATION STA. RECOVERED
0	TRIANGULATION STA. ESTABLISHED
1	TIDE GAGE
0	BOTTOM SAMPLES
1	MARTEK / NANSEN CAST / X.S.T.D.
3	BENCH MARKS RECOVERED / ESTAB.

Descriptive Report
~~Ouzinkie Narrows~~ Narrow Strait Field Examination
S-P908-DA-81

A. PROJECT

The field examination of ~~Ouzinkie Narrows~~ Narrow Strait was accomplished in accordance with Hydrographic Project Instructions S-P908-DA-81, dated 8 April, 1981. This field examination was conducted in response to a letter from the Commander of the Seventeenth Coast Guard District to the Director of PMC (dated 17 July, 1979) regarding an uncharted rock in Ouzinkie Narrows. Scale of the survey is 1:10000, although the final field sheet is a 1:5000 blow-up.

B. AREA SURVEYED

The examination was conducted in two areas. Area 'A' is directly northeast of Low Island, and northwest of Ouzinkie Narrows. The area surveyed is a rectangle oriented in a northeast - southwest direction, the four corners of which have the following G.P.'s:

North: (East)	57/55/23.0 N	152/32/32.0 W
South:	57/54/50.4 N	152/32/43.0 W
~~East~~ North :	57/55/~~10~~.0 N	152/32/~~07~~30.5 W
West :	57/55/0~~4~~.0 N	152/33/08.5 W

Area 'B' is that portion of ~~Ouzinkie Narrows~~ Narrow Strait between Ouzinkie and Entrance Points, and the immediate waters surrounding the area. The area surveyed is an approximate square oriented in a northeast - southwest direction, the four corners of which have the following G.P.'s:

North:	57/55/14.0 N	152/31/31.0 W
South~~west~~	57/54/~~20~~50.0 N	152/32/06.0 W
~~East~~ North	57/54/~~49~~.5 N	152/~~30~~31/~~53~~.0 W
~~West~~ : (Southeast)	57/54/~~20~~.0 N (36.0)	152/~~32~~/~~06~~.0 W (31 18.0)

Bottom samples were not required for this field examination. However, divers report the bottom to be rocky. Inclusive dates of this survey are 5 August, 1981 (JD 217) to 7 August, 1981 (JD 219).

D. SOUNDING EQUIPMENT AND CORRECTIONS TO ECHO SOUNDINGS

Sounding and recording equipment aboard DA-1 consist of the following:

Ross Model 5000 Fineline Recorder S/N 1048

Digitizer	S/N 1081
Echo Sounder (Transceiver)	S/N 1081

Depths in the survey area range from 0 - ~~16~~ 20 fathoms. The recorder trace is excellent for all hydrographic work. The recorder initial was maintained at zero, and phase calibration checks were made each morning and after every fathometer paper change. Checks were made from 0 - 150 fathoms at 10 fathom intervals. The recorder phase was adjusted so that error was minimal at shoal depths. All recorder traces were scanned and compared to the digitized depths. All peaks and deeps were incorporated into a separate corrector tape. Soundings on the final field sheet have been corrected for predicted tides and transducer depths. Bar checks were made twice a day to determine the TRA correction. The TRA correction for DA-1 is +0.3 fathom (See corrections to Echo Soundings Report). ✓

Predicted tides were computed from daily predicted tides for Kodiak, Alaska, with the following correctors applied:

Time Correctors

High Water	Low Water	Range Ratio
+ 19 min	+ 19 min	* 1.04

These correctors were obtained from the project instructions. Heights of tide were computed at 0.2 fathom intervals, and applied to all soundings. Real tides were recorded on a bubbler tide gage installed by DAVIDSON personnel, on a pier in Ouzinkie, station number 945-7287. The gage was operated well throughout the duration of hydrographic operations (See Field Tide Note).

Settlement and squat corrections and TC/TI data were not applied to the final field sheet. See corrections to Echo Soundings report for this data.

Two diver verified least depths were obtained in Area B. Post 2285, 2286 day 219
The procedure used to obtain these depths is as follows: Divers examined the feature in question, and marked its least depth with an inflatable float on a taut line. Vessel 3131 was brought alongside the float and a detached position taken. The float and line were recovered and the depth determined by measuring the line with a steel tape. Tide correctors were applied to these depths to reduce them to the MLLW datum.

E. HYDROGRAPHIC SHEETS

Field sheets for the field examination were prepared using the Hydroplot system on board the DAVIDSON. A PDP 8/e computer (S/N 10756) was used in conjunction with a complot DP-3 Plotter (S/N 6166-2) to produce the sheets. The survey is comprised of a 1:10000 scale sheet and a 1:5000 scale blow-up. The final field sheet is 1:5000 scale. Two separate areas were surveyed, identified as area 'A' and area 'B' in the project instructions. The least depth in area 'A' is 2.8 fathoms at lattitude 57/55/13.0 N and longitude 152/32/32.5 W. The least depth in area 'B' is 1.3 fathoms (obtained by divers) at lattitude 57/54/46.5 N and longitude 152/31/32.8 W.

F. CONTROL STATIONS

Two existing, third - order control stations, and one third - order fixed aid to navigation, were recovered in the working area for support of hydrography. The control stations are NOF 2 1967, and SMALL 1933. The aid is Three Brothers Reef Light 8. Refer to the signal list for signal numbers and geographic positions.

G. Position Control

The Motorola Miniranger III positioning system was used in the range-range mode for sounding control. The serial numbers of all miniranger equipment employed are:

Vessel	Console	R/T Unit	Transponder
DA-1 (#3131)	710	721	Code 2 (S/N 772) Code 3 (S/N 773)

Throughout the survey, code 2 was on station NOF 2 1967, and code 3 was on station SMALL 1933. A system check of both miniranger codes was performed twice a day as follows: The system was warmed up for 30 minutes, then the launch was driven alongside Three Brothers Reef Light 8, and three sets of ranges were recorded. Daily correctors were obtained by comparing observed ranges with the corresponding inverse distance between the station and the light. Daily correctors were within 5 meters of baseline correctors to comply with 1:10000 scale standards. Only baseline correctors were applied to the preliminary and final field sheets.

Baseline correctors for minirangers were determined from calibrations conducted on 30 July, 1981 (JD 211) and 5 September, 1981 (JD 248). Results are:

JD	Console/R-T Unit	Code	Baseline Corrector
211	710/721	2	+3
		3	-2
248	710/721	2	0
		3	-5

For plotting the final field sheet, correctors from the 30 July calibration were applied. The two calibrations above, which bracket the time of hydrography, have a maximum drift of 3 meters, well within 1:10000 scale standards.

H. SHORELINE

Shoreline was transferred from Manuscript T - 11714 (1:10000 scale, 1970). Hydrography agrees well with the ledge limits on the manuscript, although two submerged ledges extending northward from Entrance Point are evident on the field examination but not shown on the manuscript. Both these submerged ledges appear on the chart and should be retained.

The exposed ledge extending eastward from the east shore of Entrance Point is shown as a detached ledge on the chart. It is recommended the ledge be charted as shown on the field examination.

I. CROSSLINES

Crosslines compromise 13.5% of total hydrography run. Agreement between crosslines and mainscheme lines is excellent. A maximum discrepency of 0.3 fathom was noticed at the 10 fathom depth.

J. JUNCTIONS

The field examination junctions with survey H-9006 (1:10000 scale, 1968). Agreement is excellent. Differences never exceed 0.5 fathom at depths up to 5 fathoms, and 1.0 fathom at greater depths. See section K, Comparison with Prior Surveys, for further discussion.

SEE V.R. PAGE 5. SECTION

K. COMPARISON WITH PRIOR SURVEYS

This examination was compared with prior survey H-9006, 1:10000 scale, dated 1968. Agreement is excellent.

SEE VR SECTION 6

Area A

Observed soundings agree with 0.4 fathom of prior soundings at all depths. Depth curves also agree well. The least depth observed in Area A is a 2.~~8~~7 fathom sounding at lattitude 57/55/13.0 N and longitude 152/32/3[illegible] W. This agrees well with the prior depth of 2.8 fathoms at lattitude 57/55/12.8N and longitude 152/32/31.0 W on Survey H-9006. NOTATION RK WAS TRANSFERRED FROM H-9006 SEE V.R. SECTION 7. Bs#2166

Area B

Differences between observed and prior soundings never exceed 0.5 fathom at 5 fathom depths, and 1.0 fathom at 10 fathom depths. Of particular interest in Area B is the 1.~~3~~3 fathom depth observed at lattitude 57/54/48.09N and longitude 152/31/33.15W. This is the shoalest offshore depth observed in Area B. On survey H-9006, a 1.2 fathom depth at lattitude 57/54/~~46.5~~ 47.8 N, and longitude 152/31/32.8 W, agrees with the observed depth. Also of importance is the 1.~~6~~7 fathom depth observed at lattitude 57/54/47.6 N, and longitude 152/31/32.5 W. This depth falls between the 1.2 fathom depth previously mentioned, and a 1.8 fathom depth at lattitude 57/54/45.3 N and longitude 152/31/35.1 W on survey H-9006. Rest#2285 WAS EXCESSED Rest#2286.

Depth curves on the field examination and survey H-9006 agree well, with two exceptions.

Survey H-9006 shows the one fathom curve on the east side of Entrance Point extending further north than the observed one fathom curve. The field examination clearly delineates the one fathom curve in this area and should be used for future charting purposes.

The other discrepency has to deal with the 10 fathom curve in the vicinity of lattitude 57/54/58.5 N, and longitude 152/31/30.0 W. Survey H-9006 does not show the 10 fathom curve to extend through Ouzinkie Narrows in a northwest - southeast direction. On the field examination, the situation with the 10 fathom curve at this point is ambiguous. Upon closer examination of H-9006, the ambiguity can be seen here also. It is recommended that the 10 fathom curve be charted as shown on the field examination, which is to have a continuous

10 fathom depth run through Ouzinkie Narrows.

L. COMPARISON WITH THE CHART

SEE H.R. SECTION 7

The field examination was compared with a 1:10000 scale blow-up of chart 16594 (1:20000 scale, 9th Edition, December 30, 1978).

Area A

Agreement between the chart and the field examination is excellent. At depths less than 10 fathoms, observed depths agree within 0.8 fathom of charted depths. At depths of 10 - 15 fathoms, observed and charted depths differ no more than 1.0 fathom. Depth curves agree well.

Area B

Agreement between the chart and the field examination is generally good. At depths less than 10 fathoms, observed depths agree within 1.0 fathom of charted depths. At depths greater than 10 fathoms, maximum differences were seen to be 1.5 fathoms or less.

The 1~~1~~3 fathom sounding (position 2285) falls just outside the charted 1 fathom depth curve. Divers reported this feature to be the high point and terminus of a rock ledge extending northward from Entrance Point. Although the chart adequately delineates this feature, it is recommended a submerged rock symbol be used to show the 1~~1~~3 fathom depth on future charts.

SOUNDING RK WAS USED.

Depth curves agree well, with two exceptions. The chart shows the one fathom curve on the east side of Entrance Point extending further north than the one fathom curve on the field examination. With the depth curves shown as on the field examination, the observed 1.1 fathom depth will lie inside a 2 fathom peak, rather than outside the one fathom curve, as shown on the chart. The field examination adequately delineates the one fathom curve in this area and should be used for all future charting purposes.

The other depth curve discrepency deals with the 10 fathom curve in the vicinity of lattitude 57/54/58.5 N and longitude 152/31/30.0 W. An observed 8.~~1~~8 fathom depth at lattitude 57/54/55.7 N and longitude 152/31/3~~0~~0.~~1~~4 W, lies outside the charted 10 fathom curve. No charted sounding exists for a direct comparison. It is recommended the 8.~~1~~8 fathom depth be retained for charting purposes and that the 10 fathom curve be charted as shown on the field examination.

POS# 21643

M. ADEQUACY OF SURVEY

The field examination is complete and adequate, for revising the chart. SEE V.R. Section 7

N. AIDS TO NAVIGATION

Three charted and one uncharted floating aids to navigation within the hydro limits were located during survey operations. In addition, one uncharted aid near the survey area was located. The floating aids were positioned to 1:10000 scale standards.

On 25 August, 1981, the ship received Alaska Local Notice to Mariners Number 35, which indicated three changes worthy of note:

(1) Three Brothers Light (LLNR 3522) was renamed Three Brothers Light 8, and the navigation light changed to a flashing red 4 second light with a nominal range of 3 miles. The third order position may have been lost when the navigation light was changed, but the structure was not moved. The old position for the light is adequate for charting, and Miniranger system checks. Indications are that the navigation light was moved less than 10 cm from the published position.

(2) Shakmanof Point Light 9 (LLNR 3522.50) was installed by the USCG in August 1981. It is a flashing white 6 second light with a nominal range of 6 miles. It does not appear on the current edition of chart 16594.

(3) Entrance Point Shoal Temporary Lighted Buoy 1 (LLNR 3521.75, not previously charted) was made permanent, and renamed Entrance Point Shoal Lighted Buoy 5.

Three Brothers Reef Buoy 6 and Low Island Reef Buoy 7 are inaccurately numbered on the chart. Charted buoy C "1" (Low Island Reef Buoy 7) should be charted as buoy C "7", and charted buoy R, N "2" (Three Brothers Reef Buoy 6) should be charted as buoy R, N "6".

Floating Aids in the working area have the following positions:

Light List Name	Light List Number	1981 Position	Charted Position
OUZINKIE NARROWS Entrance Point Shoal Lighted Buoy 5	3521.~~75~~ 50	57/54/50 N ✓ 152/31/31 W ✓	None
Three Brothers Reef Buoy 6	~~3521~~ 8248 L.L.	57/55/1~~8~~ 2 N 152/32/36 W ✓	57/55/11 N ✓ 152/32/36 W ✓
Low Island Reef Buoy 7	3~~521~~ 8248 L.L.	57/55/05 N ✓ 152/32/50 W ✓	57/55/04 N ✓ 152/32/48 W ✓

See Horizontal Control Report for fixed aid positions.

O. STATISTICS

Total Number of Positions	~~300~~ 297.0
Nautical Miles of Sounding Line	23.0
Square Miles of Hydrography	0.35
Bottom Samples	0
Tide Stations	1

P. MISCELLANEOUS

None

Q. RECOMMENDATIONS

It is recommended this survey be used to supplement H-9006, 1968 for all charting purposes.

R. AUTOMATED DATA PROCESSING

The following programs were used on the DAVIDSON's PDP 8/e Hydroplot System to prepare field sheets and to collect and process data:

Program		Version
RK 112	Hyperbolic, Range-Range Hydroplot	3/19/81
RK 201	Grid, Signal, and Lattice Plot	4/18/75
RK 211	Range-Range Non Real Time Plot	2/02/81
RK 300	Utility Computations	10/21/80

Program (Continued)		Version
RK 300	Reformat and Data Check	5/4/76
RK 407	Geodetic Inverse/Direct Computation	9/25/78
RK 500	Predicted Tide Generator	11/10/72
RK 530	Layer Corrections for Velocity	5/10/76
AM 602	ELINORE	5/20/75

S. REFERENCE TO REPORTS

Field Tide Note
Corrections to Echo Soundings Report
Electronic Control Report
Horizontal Control Report

Respectfully Submitted:

LT(jg) Stephen J. Konrad

Approved and Forwarded:

N. C. Austin, CDR, NOAA

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SURVEY

NOAA Ship DAVIDSON S331
1801 Fairview Avenue East
Seattle, Washington 98102

Ref: CPM331/101-3N
Ser 7-15

20 July 1981

Ouzinkie Native Corporation
P.O. Box 89
Ouzinkie, Alaska 99664

Dear Sir or Madame:

The NOAA Ship DAVIDSON plans to conduct hydrographic survey operations in Kazakof Bay, Afognak Island, during the months of July and August, 1981, for the purpose of updating the nautical chart of the area. The survey operations will include installation of survey marks, temporary hydrographic signals, and tide gages. This will have a small impact on land under your jurisdiction.

I hereby request authorization to conduct these activities, which are described in greater detail in the accompanying material. Also enclosed is a copy of the chart showing the locations of our survey operations. At the conclusion of the survey, the sites will be returned to their natural state.

This request was originally filed with the Chugach National Forest. The forest supervisor informed me that the area in question had been conveyed to the Ouzinkie Native Corporation, hence the delay in this request.

In addition, the DAVIDSON will be conducting a brief survey in the Ouzinkie Narrows area to investigate reports of uncharted rocks. This is tentatively scheduled for early September.

If you require further information or would like to discuss the projects or our survey operations, please contact the NOAA Ship DAVIDSON, call sign WTEK, via the Kodiak marine operator on VHF-FM channel 16 or HF 2182KHZ.

Thank you for your cooperation.

Sincerely,

N. C. Austin, CDR, NOAA
Commanding Officer
NOAA Ship DAVIDSON

Incls: a/s

NCA:jaf

Recd 8/27/81

//////////////NOTICES TO MARINERS ////////////////

USCG DISTRICT SEVENTEEN JUNEAU ALASKA NOTICE TO MARINERS
NR. 606. ALASKA. KODIAK ISLAND. OUZINKIE NARROWS. THE FOLLOWING CHANGES TO AIDS TO NAVIGATION IN OUZINKIE NARROWS HAVE BEEN MADE:

1. PROKODA ISLAND LIGHT (LLNR 3521) HAS BEEN RENAMED PROKODA ISLAND 2 (LLNR 3521) NOMINAL RANGE HAS BEEN CHANGED TO 4 MILES

2. OUZINKIE NARROWS DAYBEACON (LLPG 240) HAS BEEN RENAMED OUZINKIE NARROWS DAYBEACON 4.

3. THREE BROTHERS LIGHT (LLNR 3522) HAS BEEN RENAMED THREE BROTHERS LIGHT 3 AND CHANGED TO A FLASHING RED 4 SECOND RED LIGHT WITH A NOMINAL RANGE OF 3 MILES.

4. SHAKMANOF POINT LIGHT 9 (LLNR 3522.50) HAS BEEN ESTABLISHED IN POSITION APPROXIMATE 57-55-36N, 152-36-14W. IT IS A FLASHING WHITE 6 SECOND LIGHT WITH A NOMINAL RANGE OF 6 MILES, ON A SKELETON TOWER 60 FEET ABOVE THE WATER AND DISPLAYING SQUARE GREEN DAYMARKS.

5. ENTRANCE POINT SHOAL TEMPORARY LIGHTED BUOY 1 (LLNR 3521.75) HAS BEEN MADE PERMANENT, AND RENUMBERED ENTRANCE POINT SHOAL LIGHTED BUOY 5.

UNQUOTE

2TV((((((((((((((((((((((WAVE PROPS))))))))))))))))))))))

S-2908-DA-81
FIELD EXAMINATION
OUZINKIE NARROWS, ALASKA

PARAMETER TAPE PRINTOUT

FEST=4000
CLAT=6418000
CMER=152/32/00
GRID=30
PLSCL=10000
PLAT=57/53/52
PLON=152/34/38
VESNO=3131
YR=81
ANDIST=00.0

SKEW: 0,18,20

ENLARGEMENT, SCALE 1:5,000

FEST=4000
CLAT=6418000
CMER=152/32/00
GRID=15
PLSCL=5000
PLAT=57/54/20
PLON=152/33/40
VESNO=3131
YR=81
ANDIST=00.0

SKEW: 0,20,24

FIELD TIDE NOTE
S-P908-DA-81
FIELD EXAMINATION
OUZINKIE NARROWS, ALASKA

Field tide reduction of soundings on S-P908-DA-81 is based on predicted tides for Kodiak, Alaska, corrected as specified in section 5.9 of the project instructions. Tide reducers were interpolated from tabular extrema by the DAVIDSON's PDP 8/e computer and program AM500. All times of predicted and observed tides are Greenwich Mean Time.

Two tide stations were occupied to provide data for this field examination. They are listed below.

Station	GP	Period of Operation	S/N
Kizhuyak Pt. (945-7332)	57/53.7 N 152/39.1 W	6/12/81 - 9/4/81	73A233 (two gages) 64A11030
Ouzinkie (945-7287)	57/55'~~.3~~ 22" N 152/29'~~.9~~ 52.5" W	8/4/81 - 8/9/81	723275

Kizhuyak Pt. (945-7332)

The Kizhuyak Pt. tide station is on a small island approximately one mile south of Kizhuyak Pt. Two gages were installed at this site to provide redundancy in case of gage failure. Gage S/N 73A233 was designated the "upper" gage and gage S/N 64A11030 was designated the "lower" gage. These designations were based on the placement of the gages at the site and serve only to distinguish between the two gages.

The "upper" gage continuously provided good data. The clock mechanism required adjustment initially. No other problems were experienced with the gage. Based on 58 staff-to-gage comparisons, including three hours of observations at 12 minute intervals on 14 June 1981, a marigram reading of 2.28 feet corresponds to the staff zero.

The "lower" gage had a series of problems which caused interruption of the record. Data from this gage will be submitted, however, it is recommended that only data from the "upper" gage, S/N 73A233, be applied to soundings on this field examination.

Ouzinkie (945-7287)

This gage continuously provided good data. Based on 22 staff-to-gage comparisons, including three hours of observations at 12 minute intervals on 4 August 1981, a marigram reading of 1.42 feet corresponds to the staff zero.

Leveling

The Kizhuyak Pt. tide staff was leveled to two historic bench marks (1933) and three newly established bench marks at the time of installation and removal. Bench mark No.1, 1933, is under an overhang which prevented the use of a two part level rod. A steel tape was used to level to BM 1 on 12 June 1981. A three part level rod was used successfully on 4 September 1981. An apparent change in the elevation of the staff of -0.010 meters was observed. This may be attributed to the different leveling techniques. Movement of the staff is not suspected since the staff rested on a solid rock bottom and was lag bolted directly to the rock face.

The Ouzinkie tide staff was leveled to three recovered bench marks (1933, 1968) at the time of installation and removal. No shift in the staff was observed.

Respectfully submitted,

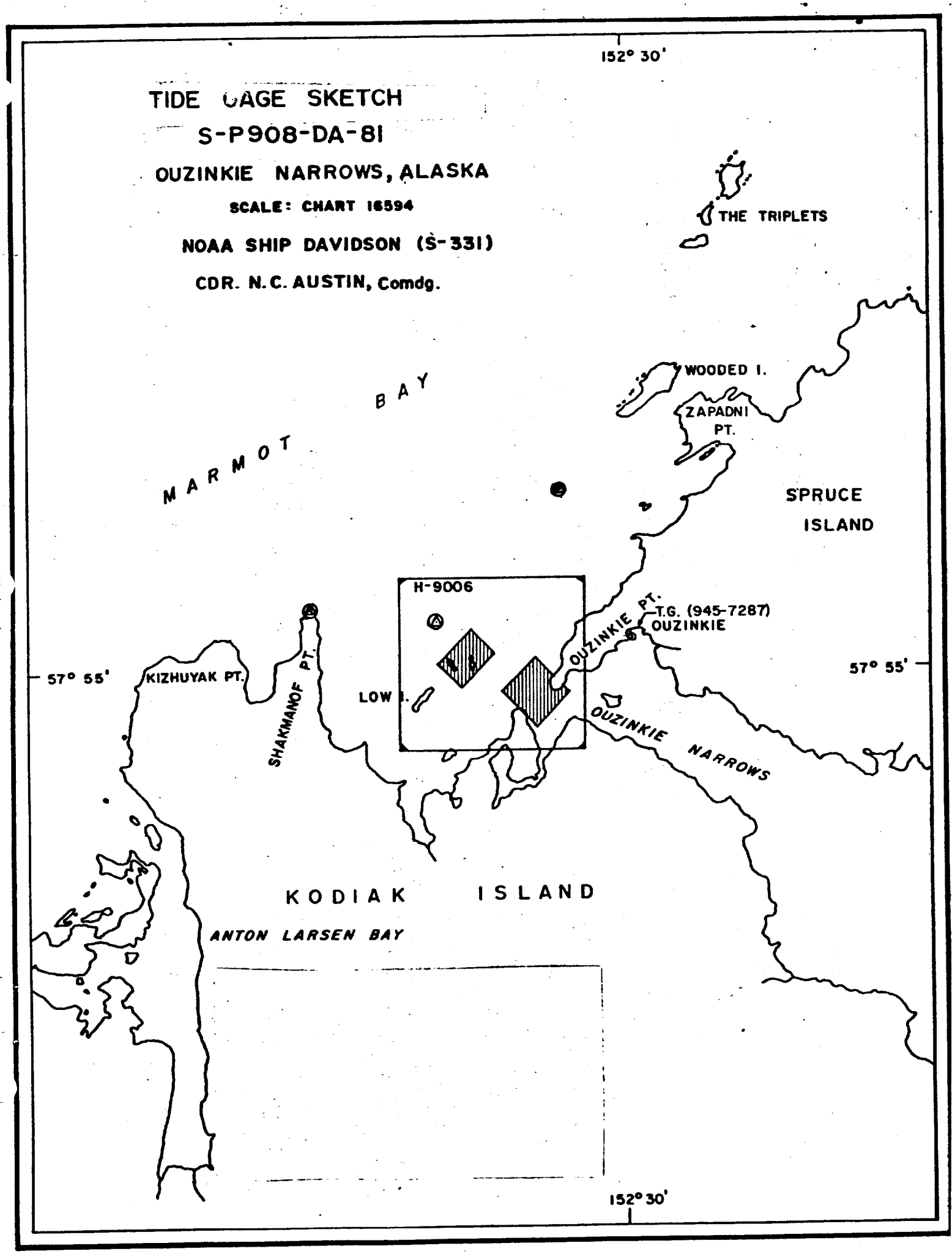
Neil M. Bogue

Neil M. Bogue
LTJG, NOAA

Approved and forwarded,

N C Austin

N. C. Austin, CDR, NOAA
Commanding Officer
NOAA Ship DAVIDSON


TIDE GAGE SKETCH
S-P908-DA-81
OUZINKIE NARROWS, ALASKA
SCALE: CHART 16594
NOAA SHIP DAVIDSON (S-331)
CDR. N.C. AUSTIN, Comdg.
152° 30'
THE TRIPLETS
WOODED I.
ZAPADNI PT.
BAY
MARMOT
SPRUCE ISLAND
H-9006
T.G. (945-7287)
OUZINKIE
OUZINKIE PT.
57° 55'
KIZHUYAK PT.
SHAKMANOF PT.
LOW I.
OUZINKIE NARROWS
KODIAK ISLAND
ANTON LARSEN BAY
152° 30'

S-P908-DA-81
FIELD EXAMINATION
OUZINKIE NARROWS, ALASKA

PREDICTED TIDES CORRECTOR TAPE PRINTOUT

KODIAK, ALASKA
OUZINKIE NARROWS, MARMOT BAY)
57 53 152 30 0.19 0.19 0.0 0.0 1.04 1.04
000
FM
0.2

NOAA FORM 76-155
(11-72)

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

GEOGRAPHIC NAMES

SURVEY NUMBER

FE-238

Name on Survey	A ON CHART NO. 16594	B ON PREVIOUS SURVEY NO.	C ON U.S. QUADRANGLE MAPS	D FROM LOCAL INFORMATION	E ON LOCAL MAPS	F P.O. GUIDE OR MAP	G RAND MCNALLY ATLAS	H U.S. LIGHT LIST TK 11774		
ENTRANCE POINT	X								X	1
THREE BROTHERS									X	2
OUZINKIE POINT	X								X	3
MARMOT BAY										4
NARROW STRAIT										5
ALASKA (title block)										6
										7
										8
										9
										10
										11
										12
										13
										14
										15
										16
					Approved:					17
										18
					Charles L. Hamrick					19
					Chief Geographer - N|CG275					20
					17 Aug. 1983					21
										22
										23
										24
										25

NOAA FORM 76-155 SUPERSEDES C&GS 197

OPR S-P908-DA-81

SOUNDING CORRECTION ABSTRACT

VESSEL 3131 Fathometer No. 1048 FIELD NO. FE-238

REGISTRY NO. H-

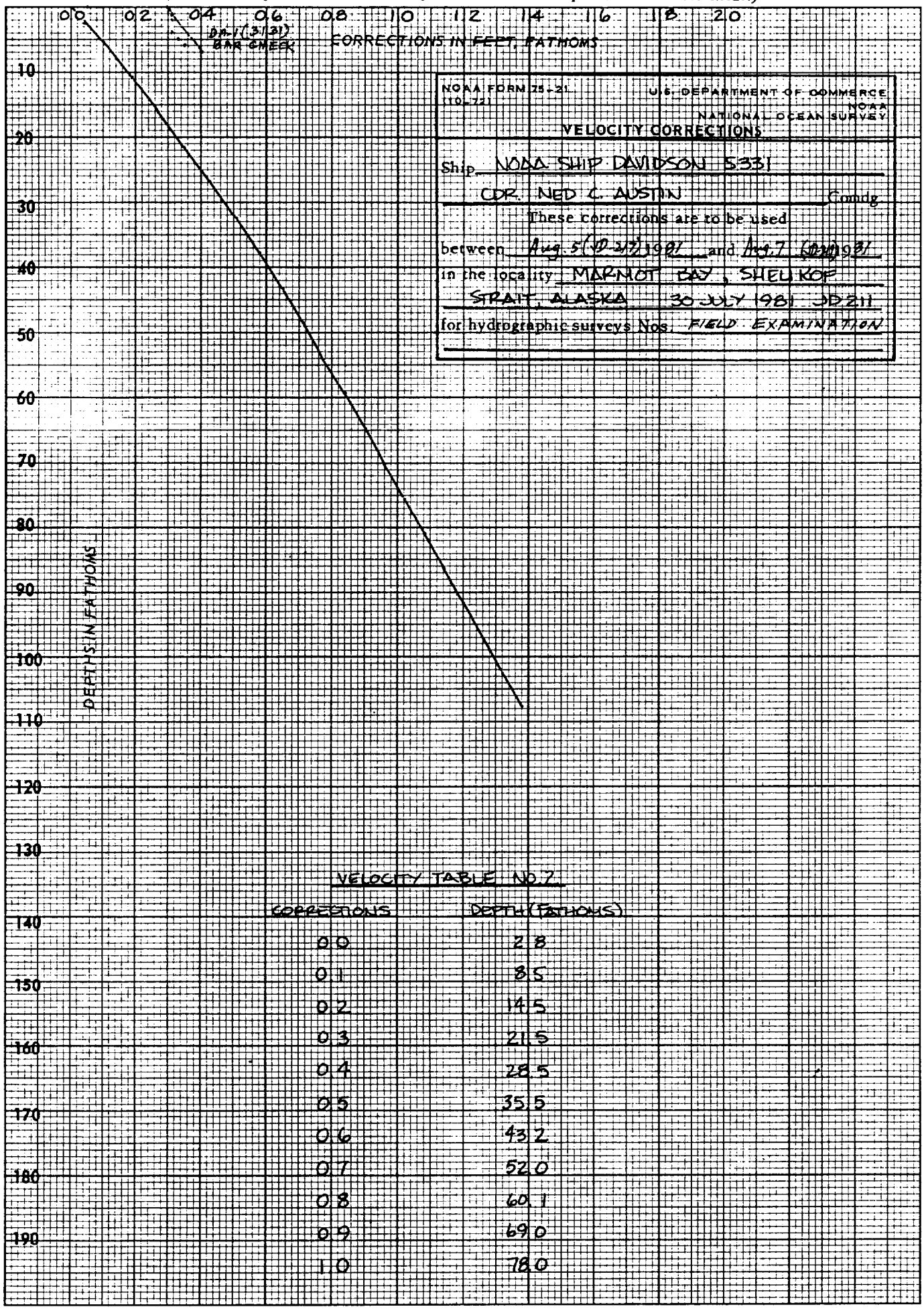
Julian Date	From Time (GMT)	To Time (GMT)	Velocity Corr Table No.	(Note: TRA Corr. is the algebraic sum of these columns) Draft Corr	Instrument Error Corr	Initial Corr	S&S Corr	TRA Corr ft/fm	Remarks
Entire Survey			2	0.3fm	0	0	0	0.3fm	

S-P908-DA-81
FIELD EXAMINATION
OUZINKIE NARROWS, ALASKA

VELOCITY TAPE PRINTOUT

000028 0 0000 0002 001 000000 009006 ✓
000085 0 0001
000145 0 0002
000215 0 0003
000285 0 0004
000355 0 0005
000432 0 0006
000520 0 0007
000601 0 0008
000690 0 0009
000780 0 0010

(Let 1 inch equal 4 fathoms for deep water and 1 inch equal 0.4 fathom for shoal.)



NOAA FORM 25-21 (10-72) U.S. DEPARTMENT OF COMMERCE NOAA NATIONAL OCEAN SURVEY

VELOCITY CORRECTIONS

Ship NOAA SHIP DAVIDSON 5331

CDR. NED C. AUSTIN Comdg

These corrections are to be used

between Aug. 5 (JD 217) 1981 and Aug. 7 (JD 219) 1981

in the locality MARMOT BAY, SHELIKOF STRAIT, ALASKA 30 JULY 1981 JD 211

for hydrographic surveys Nos. FIELD EXAMINATION

VELOCITY TABLE NO. 2

CORRECTIONS	DEPTH (FATHOMS)
00	2 8
01	8 5
02	14 5
03	21 5
04	28 5
05	35 5
06	43 2
07	52 0
08	60 1
09	69 0
10	78 0

S-P908-DA-81
FIELD EXAMINATION
OUZINKIE NARROWS, ALASKA

TC/TI TAPE PRINTOUT

181037 0 0003 0002 217 313100 000000
181600 0 0000 0002 219 313100 000000
194905 0 0003 0002 219 313100 000000
235900 0 0003

FORM CD-26
(12-11-46)

U.S. DEPARTMENT OF COMMERCE

WORKSHEET

Launch DA-1 (3131) S-P908-DA-81 Ouzinkie Field Examination

JD OBSERVED	TRUE DEPTH 1.0	2.0	3.0	4.0	5.0	6.0	7.0	REMARKS	QUALITY
217		1.7	2.7	3.7	4.7	5.7		AM	GOOD
	0.7	1.7	2.7	3.7	4.6	5.6			
	0.7	1.7	2.7	3.7	4.7	5.7		PM	GOOD
	0.7	1.7	2.7	3.7	4.7	5.7			
218	0.7	1.7	2.7	3.7	4.7	5.6		AM	GOOD
	0.7	1.7	2.7	3.7	4.7	5.6			
	0.7	1.7	2.7	3.7	4.7	5.7		PM	GOOD
	0.7	1.7	2.7	3.7	4.7	5.7			
219	0.6	1.6	2.7	3.7	4.6	5.6	6.6	AM ONLY	FAIR
	0.7	1.7	2.6	3.6	4.6	5.6	6.6		
MEAN	0.69	1.69	2.69	3.69	4.67	5.65	6.60		
	0.31	0.31	0.31	0.31	0.33	0.35	0.40		

TRA = 0.3 FM

* U.S. GOVERNMENT PRINTING OFFICE: 1973-762-353

DA-1
24 MAR 1981
PUGET SOUND

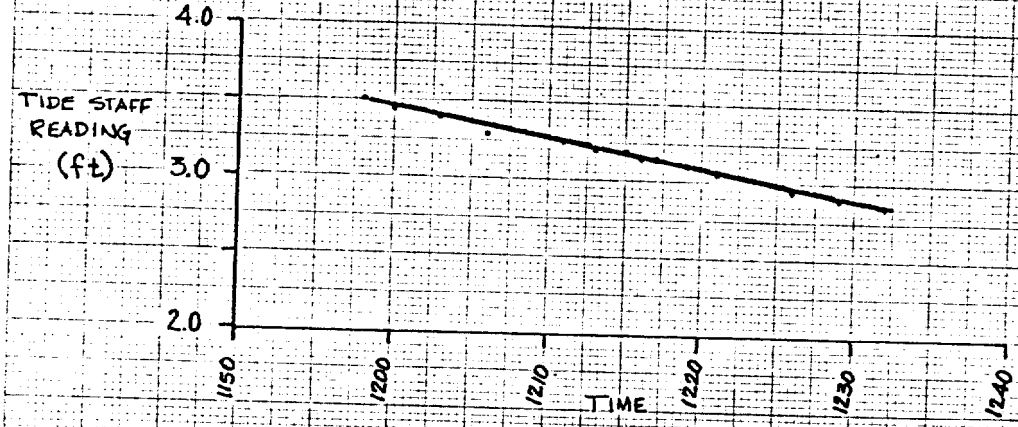
	RUN #	TIDE CORR'N (3.5 − STAFF RDG)	OBSERVED ELEVATION	CORRECTED ELEVATION (OBS − TIDE CORR'N)	SETTLEMENT & SQUAT (CORR ELEV − STATIC)	ENGINE RPM
PORT	1158.	0.0	3.9	3.9	0.0	IDLE
	1203	0.1	4.1	4.0	0.1	1000
	1213	0.3	4.45	4.15	0.25	1200
	1216	0.35	4.55	4.20	0.30	1500
	1219	0.4	4.65	4.25	0.35	2000
	1226	0.55	4.4 (AV)	3.85	−0.05	2400
	1232	0.65	4.35 (AV)	3.70	−0.20	2600
STBD	1200	0.05	3.93	3.88	0.0	IDLE
	1206	0.2	4.1	3.9	0.02	1000
	1211	0.25	4.35	4.10	0.22	1200
	1215	0.3	4.45	4.15	0.27	1500
	1217	0.35	4.50	4.15	0.27	2000
	1221	0.55	4.28 (AV)	3.73	−0.15	2400
	1229	0.6	4.0 (AV)	3.4	−0.48	2600

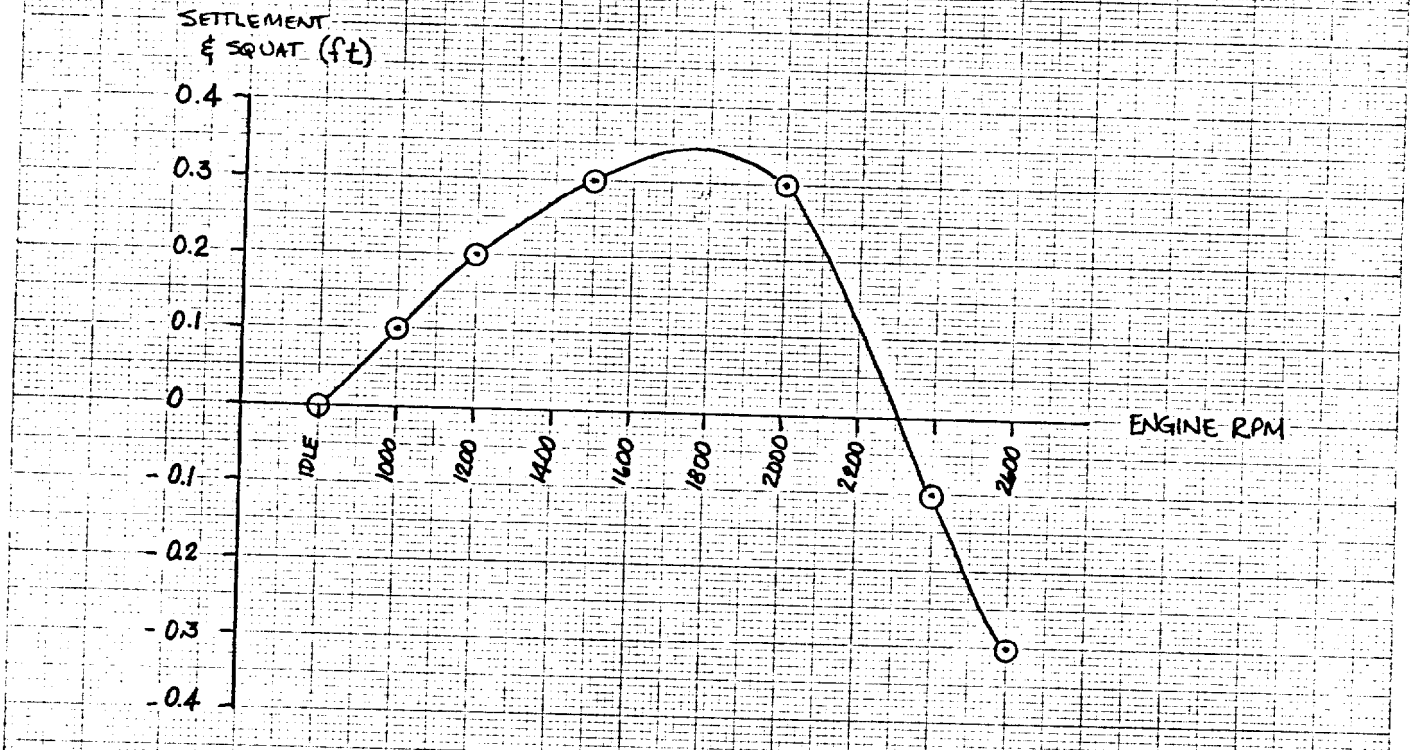
COMBINED PORT & STBD OBSERVATIONS

ENGINE RPM	SETTLEMENT & SQUAT (FT)		
IDLE	0.0	=	0.0
1000	0.06	=	0.1
1200	0.24	=	0.2
1500	0.28	=	0.3
2000	0.31	=	0.3
2400	−0.10	=	−0.1
2600	−0.34	=	−0.3

LAUNCH DA-1
3/24/81

SETTLEMENT AND SQUAT





Millimeters to the Centimeter

ELECTRONIC CORRECTOR ABSTRACT

VESSEL : 3131 SHEET : OUZINKIE

TIME	DAY	PATTERN 1	PATTERN 2
181037	217	+00002	-00003
~~000001~~	~~216~~	~~+00002~~	~~-00003~~
~~174931~~	~~216~~	~~+00002~~	~~-00003~~
181500	219	+00000	+00000
194905	219	+00002	-00003

NOAA FORM 75-44
(11-72)

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

OCEANOGRAPHIC LOG SHEET - M
BOTTOM SEDIMENT DATA

VESSEL	PROJ. NO.	YEAR		CHECKED BY	DATE CHECKED
Launch DA-1 (3131)	S-P908-DA-81	1981	Field Examination OUZINKIE NARROWS, ALASKA		

SERIAL NO.	DATE	SAMPLE POSITION		DEPTH (Fathoms)	WEIGHT OF SAMPLER	APPROX. PENETRATION	LENGTH OF CORE	COLOR OF SEDIMENT	FIELD DESCRIPTION	REMARKS (Unusual conditions, cohesiveness, dented cutter, stat. no., type of bottom relief i.e., slope, plain, disposition, etc.)	OBS. INIT.
		LATITUDE	LONGITUDE								
N/A											

Use more than one line per sample if necessary.

☆ U.S. G.P.O. 1972-769-565/530 REG. #6

S-P908-DA-81
FIELD EXAMINATION
OUZINKIE NARROWS, ALASKA

SIGNAL TAPE PRINTOUT

001 6 57 55 33251 152 35 07983 250 0027 000000
NOF2, 1967
027 3 57 55 28804 152 33 05815 250 0000 000000
THREE BROTHERS LIGHT 1967
038 1 57 56 40338 152 31 01795 250 0007 000000
SMALL, 1933

ABSTRACT OF POSITIONS
Field Examination
OUZINKIE NARROWS, Alaska

DAY	POSITIONS	CNTRL	S1	M	S2	REMARKS
217	2001-2040	042	001	---	038	Mainscheme
217	2041-2076	042	001	---	038	Splits
217	2077-2091	042	001	---	038	X-Lines
217	2092-2094	042	001	---	038	DP's
217	2096-2174	042	001	---	038	Mainscheme
217	2175-2187	042	001	---	038	X-Lines
217	2188-2194	042	001	---	038	Shoreline
218	2195-2284	042	001	---	038	Splits
219	2285-2286	042	001	---	038	DP's(Dive Operation)
219	2287-2301	042	001	---	038	Splits

PACIFIC MARINE CENTER
VERIFICATION/EVALUATION REPORT

REGISTRY NO: FE-238 FIELD NO: N/A

Alaska, Marmot Bay, Ouzinkie Narrows

SURVEYED: August 5 through August 7, 1981

SCALE: 1:10,000 PROJECT NO: S-P908-DA-81

SOUNDINGS: Ross Fineline Fathometer CONTROL: Range-Range Mini-Ranger

Chief of Party.....CDR N. C. Austin

Surveyed by.....LTJG S. Konrad

Automated Plot by.....PMC Xynetics Plotter

Verified by.....J. E. Lotshaw
T. O. Jones
J. N. Shofner
R. R. Davies

Evaluated by.....G. E. Kay

1. INTRODUCTION

NOTE: This survey has been processed utilizing a procedure developed to work in conjunction with the Verification Branch realignment, which established an evaluation process. The survey data was first verified and a smooth sheet compiled by a verifier. Then an evaluator reviewed the work of the verifier, made the necessary comparisons with prior surveys and charts and wrote the Verification/Evaluation Report.

NOAA Ship DAVIDSON (S-331) conducted this field examination off of Entrance Point in Ouzinkie Narrows, Alaska, in search of reported uncharted rocks. The field examination search is comprised of two areas; both are portrayed on the same smooth sheet enclosed in this report.

Projection parameters used to prepare the field sheet have been revised to center the hydrography on the smooth sheet. Smooth sheet parameters and all other correctors used to reduce the soundings by the Pacific Marine Center, Seattle, Washington, are appended in the smooth printouts. The tide correctors and sounding analysis statistics are in the raw data cahier. Field tide reductions are based on predicted tides

from Kodiak, Alaska, corrected as specified in Section 5.9 of the project instructions. See Field Tide Note in the ship Descriptive Report FE-238 for an adequate description of tides. Smooth sheet reduced soundings are based on observed tides at Ouzinkie, Alaska (945-7287).

No unusual problems were encountered during verification or evaluation of FE-238.

2. CONTROL AND SHORELINE

No unusual problems were encountered during verification of positioning or control. See Horizontal Control Report and Electronic Control Report for S-P908-DA-81 and ship Descriptive Report, paragraphs F and G for an adequate description of positioning and control.

The shoreline on FE-238 was transferred from the following reviewed manuscript (April 1970):

Sheet Number	Scale	Date of Photography	Date of Field Edit
T-11714	1:10,000	July 1967	June 1968

One rock at latitude 57°54'39"N, longitude 152°31'28.5"W originating from H-9009 was transferred onto FE-238.

3. HYDROGRAPHY

a. Crosslines and main scheme sounding lines are in very good agreement. Differences between soundings at points of coincidence are within ±2 tenths of a fathom. This difference is attributed to the rough sub-surface terrain.

b. Standard depth contours were easily and completely drawn (0, 1, 2, 3, 5, 10).

c. Field Examination FE-238 is adequate and complete to determine least depths and portray the bottom configuration in this area.

4. CONDITION OF SURVEY

The smooth sheet, accompanying overlays and hydrographic records are adequate and conform to the requirements of the Hydrographic Manual (H.M.), but with the following exception:

Geographic Names were not submitted as per Section 4.2.4 of the project instructions.

5. JUNCTIONS

FE-238 completely (on all sides) junctions with H-9006, 1:10,000 (1968). No problems were encountered in making a butt junction; however, some soundings, a bottom sample, a tide rips note and a rock are carried forward. Depth contours and marginal notes (in red) have been inked on FE-238. In making this butt junction, FE-238 supersedes the common areas of H-9006.

6. COMPARISON WITH PRIOR SURVEYS

H-9006 (1968) is the latest prior survey covering this area. See Section 5, Junctions, of this report for disposition of H-9006.

7. COMPARISON WITH CHART

FE-238 was compared to Chart 16594, 1:20,000, 9th edition, dated Dec. 30, 1978.

a. Hydrography - The source of the charted hydrographic data for the survey area of FE-238 is the junction survey H-9006 (1968) (see enclosed chartlet and Section 5 of this report), and H-2922.

Two areas were investigated on FE-238. Area A (see D.R. paragraph K), a least depth of 2.7 fathoms was obtained (position #2006). The notation RK was carried forward from H-9006. The charted 2 fathom 5 feet sounding (2.8 fathoms) located at latitude 57°55'15"N, longitude 152°32'24"W comes from H-2922 (1907) 1:20,000 and is an approximate position. Due to the age, questionable position and close proximity to the newly discovered 2.7 fathom sounding (position #2006) this 2 fathom 5 feet sounding should be removed from the chart. Area B (see D.R. paragraph K), a least depth of 1.3 fathoms was obtained (position #2285), but H-9006 has a 1.2 fathom sounding. This 1.2 fathom sounding falls 16 meters south-southwest of the 1.3 fathom sounding. Both soundings are shown on the smooth sheet.

It is recommended that FE-238 supersede the charted hydrography over their common areas.

b. Controlling depths - There are no controlling depths within the limits of this field examination.

c. Aids to navigation - There is one fixed aid to navigation and three floating aids, as follows:

1. Three Brothers Light 8
2. Ouzinkie Narrows Entrance Point Lighted Buoy 5
3. Three Brothers Reef Buoy 6
4. Low Island Reef Buoy 7

These aids adequately mark the features intended. (See ship Descriptive Report, paragraph N.)

8. COMPLIANCE WITH INSTRUCTIONS

FE-238 complies with the project instructions for S-P908-DA-81, Field Examination, Ouzinki Narrows, Alaska, dated April 8, 1981.

9. ADDITIONAL FIELD WORK

This is a good field examination. Additional field work is neither recommended nor required at this time.

Submitted by

Gordon E. Kay
Cartographer

Approved:

James S. Green
Chief, Verification Branch

NOAA FORM 77-27 (5-77) | U. S. DEPARTMENT OF COMMERCE NOAA | HYDROGRAPHIC SURVEY NUMBER

HYDROGRAPHIC SURVEY STATISTICS

FE-238

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

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT
SMOOTH SHEET	1	2 BOAT SHEETS & PRELIMINARY OVERLAYS	2
DESCRIPTIVE REPORT	1	SMOOTH OVERLAYS: POS. ARC, EXCESS 3 5	8

DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/ SOURCE DOCUMENTS
ENVELOPES	0		1 - Smooth Plo			
CAHIERS	1		1 - Raw			
VOLUMES	0					
BOXES						

T-SHEET PRINTS (List) T-11714 Class I Mylar Reviewed

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	TOTALS
POSITIONS ON SHEET			
POSITIONS CHECKED		297	297
POSITIONS REVISED		13	13
SOUNDINGS REVISED		33	33
SOUNDINGS ERRONEOUSLY SPACED		0	0
SIGNALS (CONTROL) ERRONEOUSLY PLOTTED		0	0
	TIME - HOURS		
CRITIQUE OF FIELD DATA PACKAGE (PRE-VERIFICATION)	11	*(VER)/(EVAL)	11
VERIFICATION OF CONTROL			
VERIFICATION OF POSITIONS		23/00	23
VERIFICATION OF SOUNDINGS		77/00	77
COMPILATION OF SMOOTH SHEET		52/00	52
APPLICATION OF TOPOGRAPHY		03/00	03
APPLICATION OF PHOTOBATHYMETRY			
JUNCTIONS		20/04	24
COMPARISON WITH PRIOR SURVEYS & CHARTS		00/08	08
VERIFIER'S REPORT		02/02	04
OTHER		00/12	12
TOTALS 9/1/82	11	177/36	224

Pre-Verification by James S. Green	*Beginning Date* 2/5/82	*Ending Date* 2/6/82
Verification by Evaluation by: Gordon E. Kay J.E.Lotshaw, T.O.Jones, J.N.Shofner, C.R.Davies	*Beginning Date* 2/16/82 10/20/82	*Ending Date* 10/13/82
Verification Check by James S. Green, James L. Stringham	*Time (Hours)* 32	*Date* 10/13/82
Marine Center Inspection by H.I.T.	*Time (Hours)* 6	*Date* 10/22/82
Quality Control Inspection by	*Time (Hours)*	*Date*
Requirements Evaluation by	*Time (Hours)*	*Date*

* Time in this column is for Verification (VER) and Evaluation (EVAL)

FE238

Diagram - 8556-3

NOAA FORM 76-35A

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

S-P908-DA-81

DESCRIPTIVE REPORT

Type of Survey ..... FIELD EXAMINATION .....

Field No. ..... N/A .....

Office No. ..... FE-238 .....

LOCALITY

State ..... ALASKA .....

General Locality ..... MARMOT BAY .....

Locality ..... OUZINKIE NARROWS .....

.....

19 81

CHIEF OF PARTY
CDR NED C. AUSTIN

LIBRARY & ARCHIVES

DATE ..... Nov 18, 1982 .....

☆U.S. GOV. PRINTING OFFICE: 1980—766-230

FE238

SURVEY APPROVAL SHEET

A. Amount and degree of personal supervision of field work and frequency of record and sheet inspection:

Supervision of personnel and inspection of sheets and field records were accomplished on a daily basis through the Executive Officer and Field Operations Officer. The Commanding Officer inspected sheets daily and field records, periodically.

B. State whether the survey is complete and adequate or if additional field work is recommended.

The survey is complete and adequate. No additional field work is recommended.

C. Cite additional information or references that may be of assistance for vierifying and reviewing the survey:

See "Reference to Reports" in the Descriptive Report.

D. Signed statement of approval of the field sheet and all accompanying records:

Date: 10/21/81

Approved and forwarded by:

N. C. Austin
CDR, NOAA
Commanding Officer

OUZINKIE NARROWS, AK.
FIELD EXAMINATION

DAY #	LAUNCH	COMMENTS AND INITIALS OF OIC
~~196~~	~~3131~~	~~Least depth diving and predicting on 6^7 and 4^0 shoal areas just east of Illcognat Rk. Development run on 13 FM shoal area NW of Illcognat Rk. FIX #s 3153 - 3242 - 3241 (6^7)~~ 3242 (4^0) Illcognat (1) Sage (3) Uzkos (4) DRH
~~204~~ / ~~205~~	~~3131~~	~~MAINTENANCE ON 10~~ [illegible] ~~CODE 1 KAZAKOF~~ CODE 2 DEER ~~CODE 3 CHICK~~ DIA
217 / 218	3131	Ouzinkie Field Examination - R/R — no problems fixes 2001 - 2194 Codes 2 + 3 on stations NOF2 & SMALL calibrated against Three Brothers Light - good results. SJK
218	3131	Ouzinkie Field Examination - R/R no problems Pos 2195 2284 Spent AM ~~[illegible]~~ developing 1^4 fm sounding in Ouzinkie Narrows and afternoon doing splits on the 2 fm shoal in the northern development. SJK
219	313[1]	Ouzinkie F.E. R/R Splits of 2^8 shoal near Nun buoy "6" ~~[illegible]~~ Also Dives on 1^4 sounding turned up two peaks 1^2 and 1^6 goo positions - dive on 2^8 shoal proved little — obtained DP with .- check.
~~211~~	~~3131~~	~~[illegible] no problems [illegible]~~ ~~pos # 3123 - 3169~~ CODE 2 ~~DEER~~ CODE 3 CHICK CODE 4 KAZAKOF ~~DH~~

FIELD SHEET # ____________ (H-________)

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

ABSTRACT OF TIME OF HYDROGRAPHY ~~OR FIELD EDIT~~

Date August 5, 1981

Project No. S-P908-DA-81 Vessel Launch DA-1 (3131)

Date of Survey August 5-7, 1981

Fieldsheet No. _____ Registry No. _____

Fieldsheet is Complete/~~Incomplete~~

J.D.	Time(z)		J.D.	Time(z)
217	181037	-	218	000558
218	174931	-	218	195425
219	181600	-	219	200359

J.D.	Time(z)		J.D.	Time(z)
		-		

ADDENDUM TO EVALUATION REPORT FOR FE-238

The Evaluation Report for this survey is supplemented by the following statement:

The digital records for this survey have been updated to include categories of information required to comply with N/CG2 Hydrographic Survey Guideline No. 23, Completion of Digital Hydrographic Surveys, September 7, 1983. Certain descriptive information, however, may not be included in the digital record due to the restrictions of the presently available cartographic codes. The user should refer to the smooth sheet for complete information.

Paragraph 7.c, Aids to Navigation, is supplemented by the following:

Aids to navigation shown in the control file have been updated from field positions to preliminary adjusted positions. The Form 76-40, NonFloating Aids or Landmarks for Charts, applicable to Three Brothers Light should be updated to reflect this improved position.

Respectfully submitted,

James S. Green
Supervisory Cartographer
December 12, 1983

APPROVED:

12/15/83

Ned C. Austin
Chief, Nautical Chart Branch

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SURVEY
Pacific Marine Center
1801 Fairview Avenue East
Seattle, Washington 98102

October 28, 1982 CPM3/NCA

TO: C3 - C. William Hayes

FROM: CPM - Charles K. Townsend

SUBJECT: Administrative Approval of FE-238, ~~Ouzinkie Narrows~~ Narrow Strait, Marmot Bay, Alaska

The smooth sheet and reports of this survey have been examined and the survey is adequate for charting and to supersede common areas of prior surveys.

APPROVAL SHEET
FOR
SURVEY H FE-232

A. This hydrographic survey has been verified, evaluated and inspected. It meets the requirements of the Hydrographic Manual except as noted in the Verification/Evaluation Report. The automated data file has been updated to reflect the data presented on the smoothsheet.

Date: 10/21/82

Signed: [signature]

Title: Chief, Verification Branch

B. The verified smooth sheet has been inspected, is complete, and meets the requirements of the Hydrographic Manual. Exceptions are listed in the Verification/Evaluation Report.

Date: 10/22/82

Signed: [signature]

Title: Chief, Marine Surveys Division

DATE: March 31, 1982

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

TIDE NOTE FOR HYDROGRAPHIC SHEET

Processing Division: Pacific Marine Center:

Hourly heights are approved for

Tide Station Used (NOAA Form 77-12): 945-7287 Ouzinkie, AK

Period: August 5-7, 1981

HYDROGRAPHIC SHEET: FE-238

OPR: S-P908

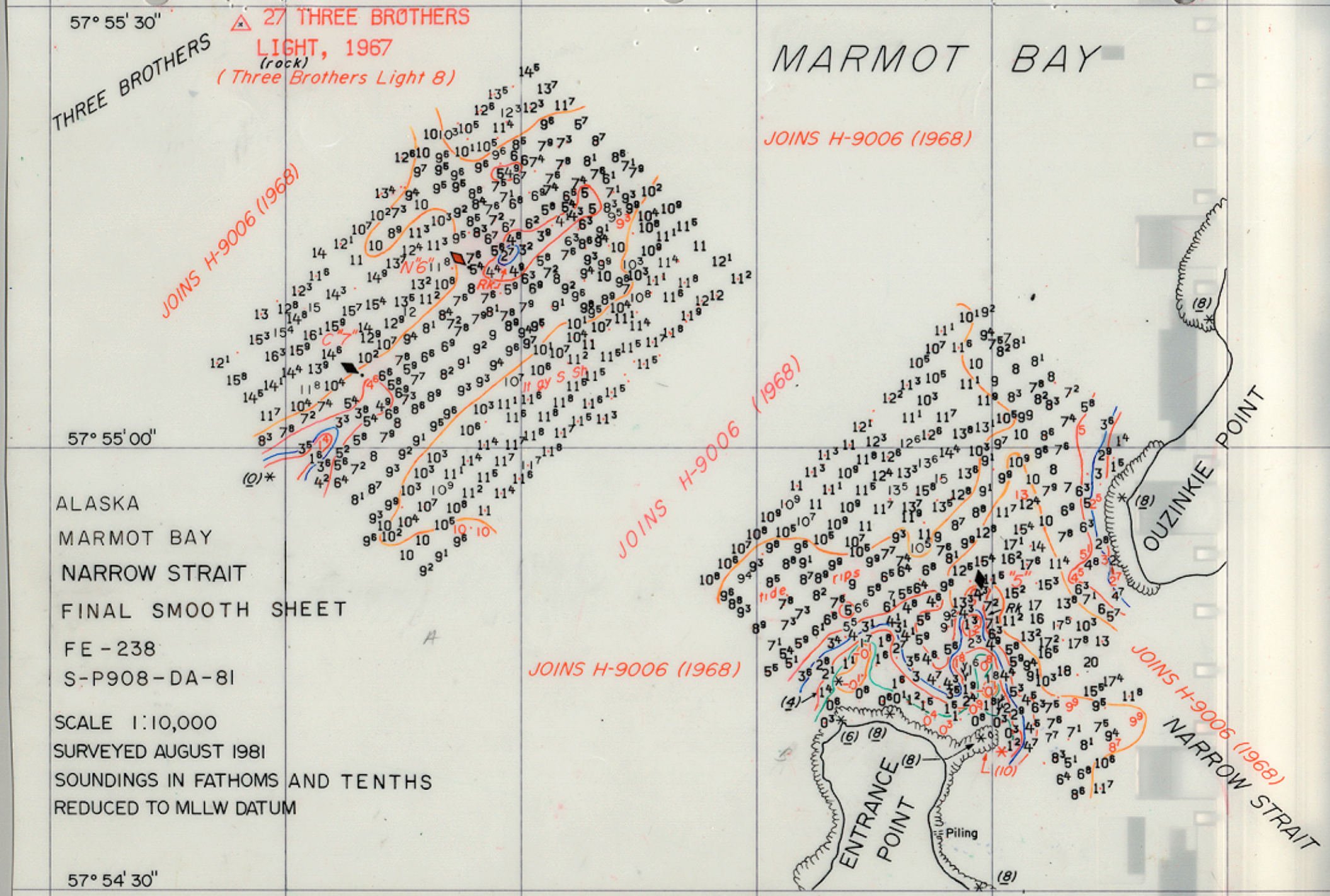
Locality: Ouzinkie Narrows, Marmot Bay, Alaska

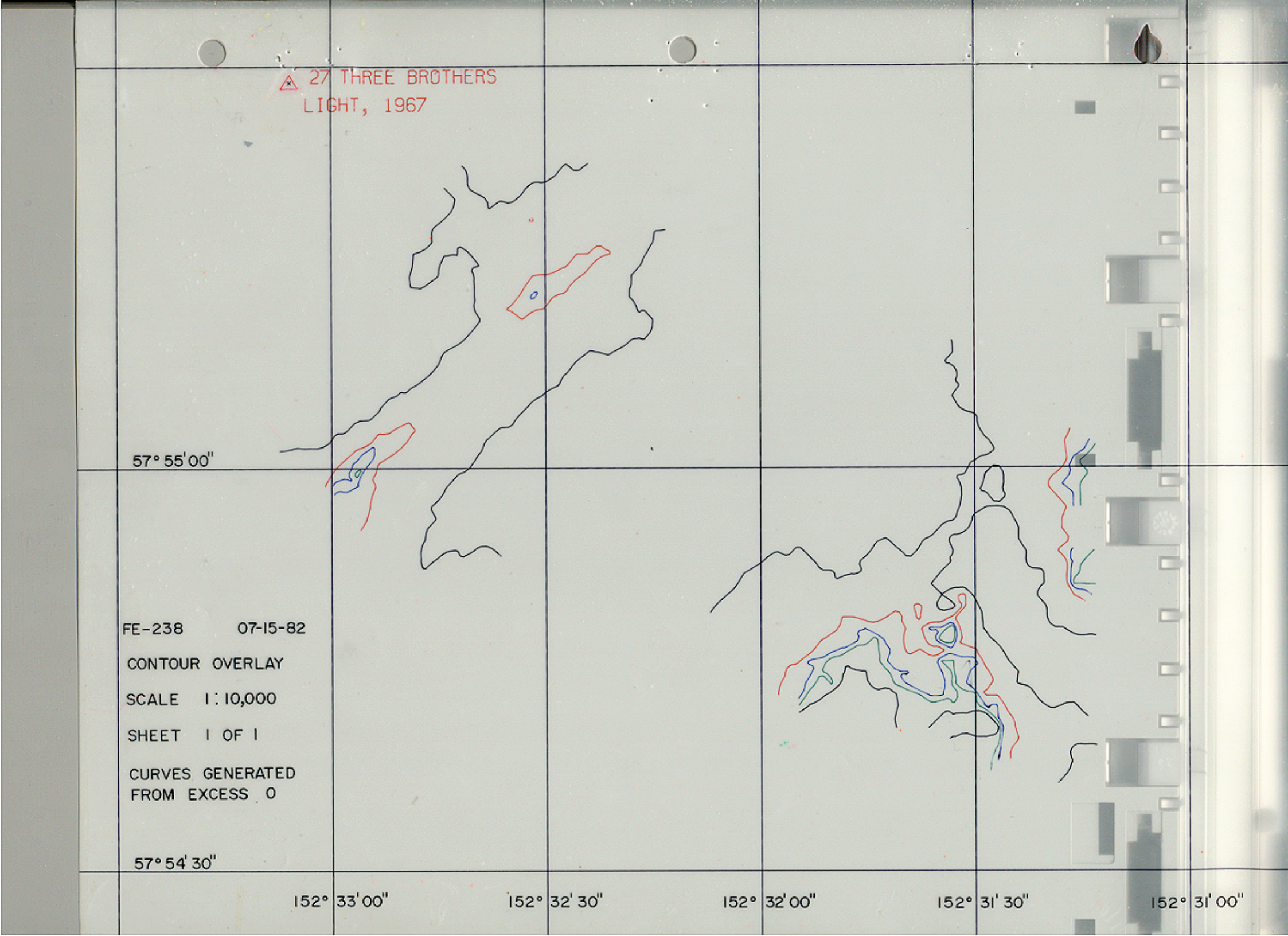
Plane of reference (mean lower low water): 3.0 ft.

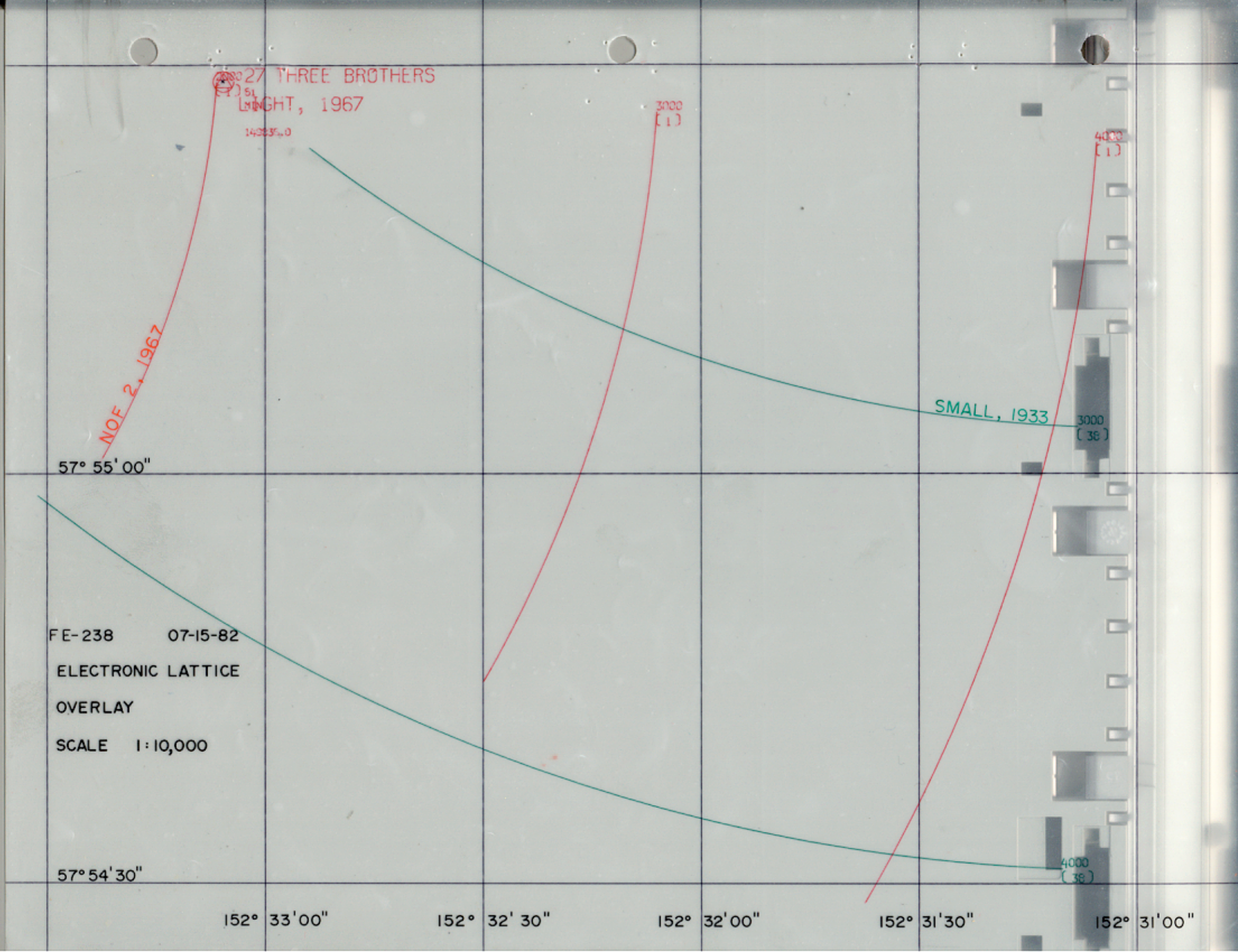
Height of Mean High Water above Plane of Reference is 7.8 ft.

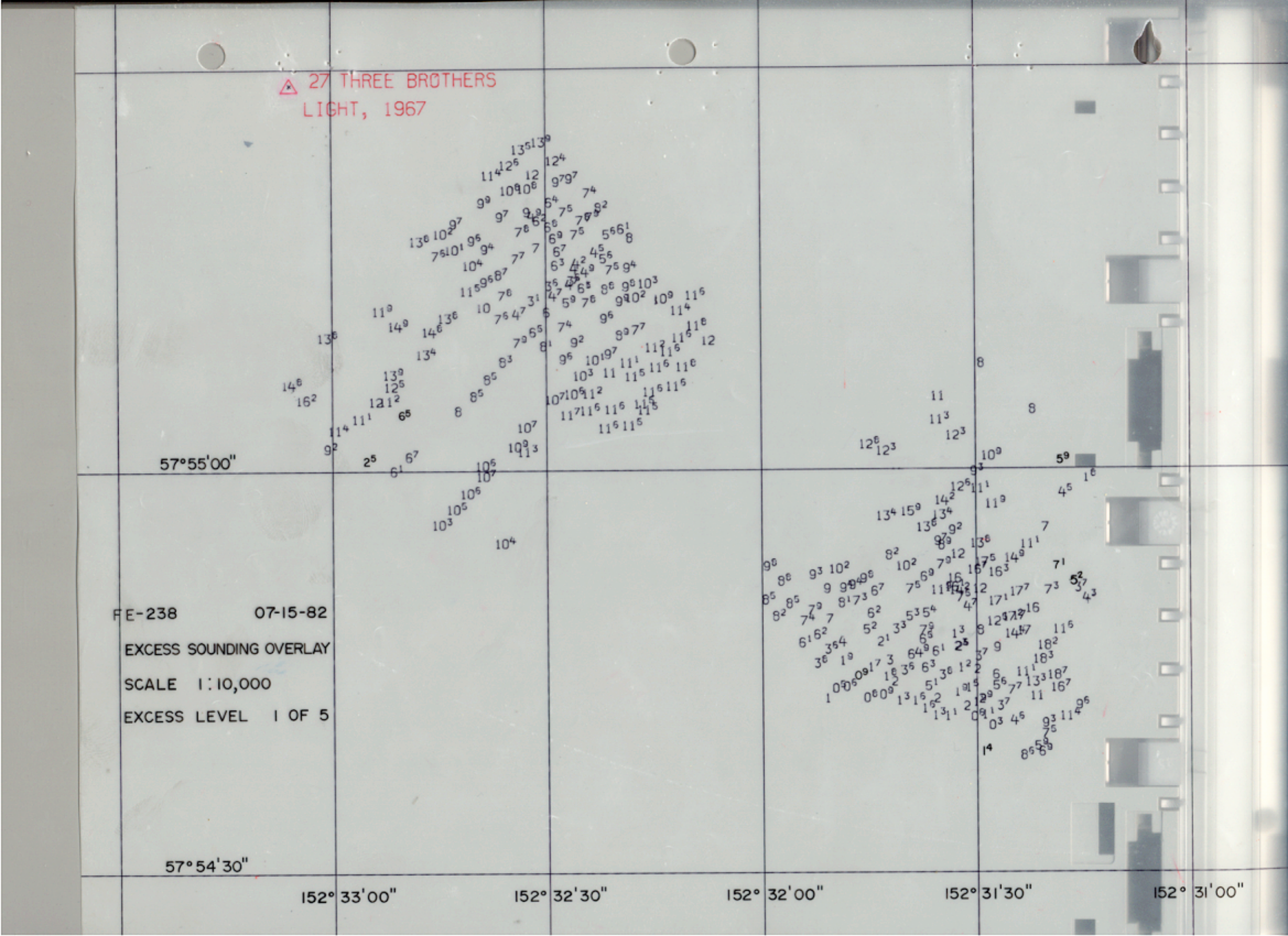
REMARKS: Zone Direct

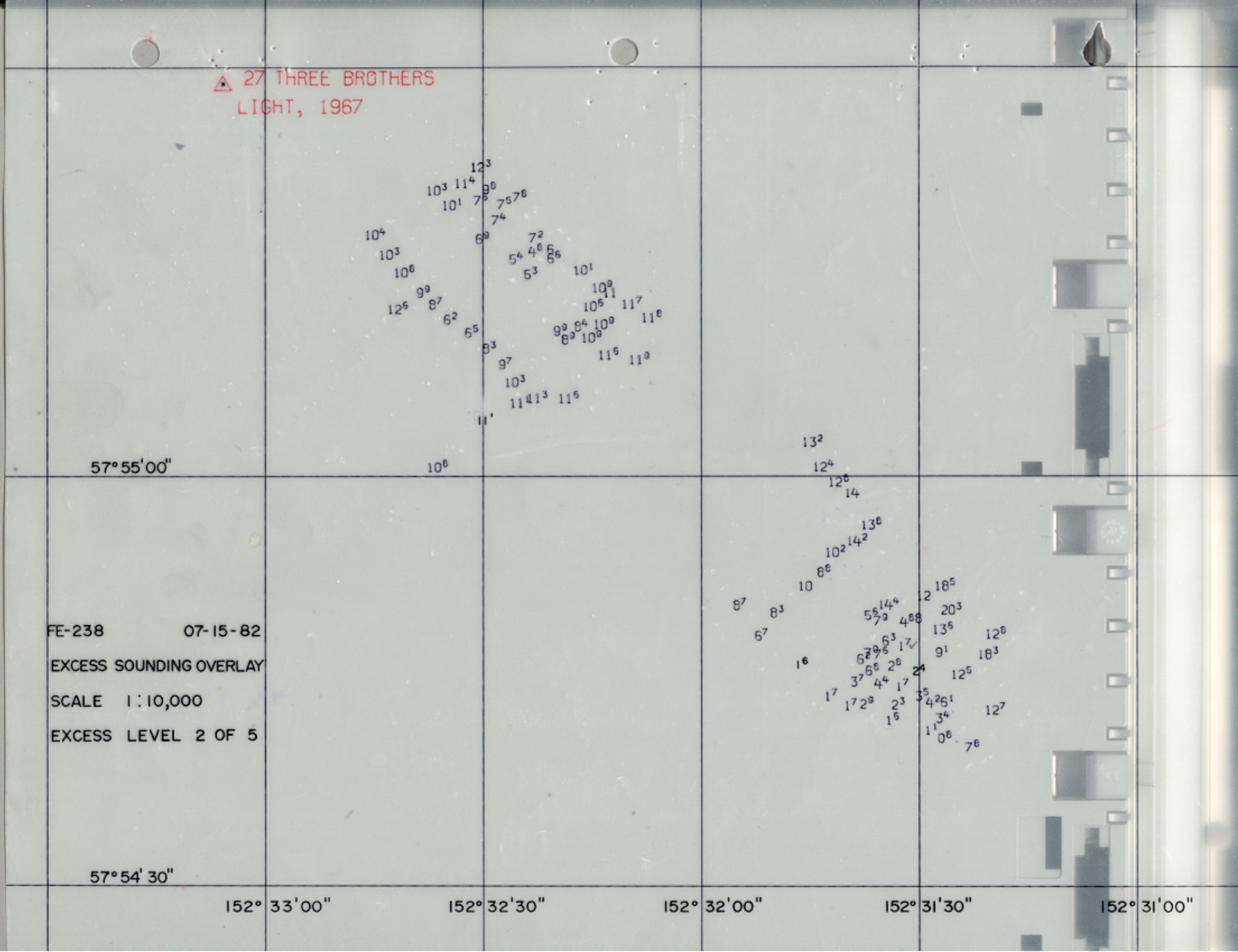
Chief, Tidal Datums and Information Branch

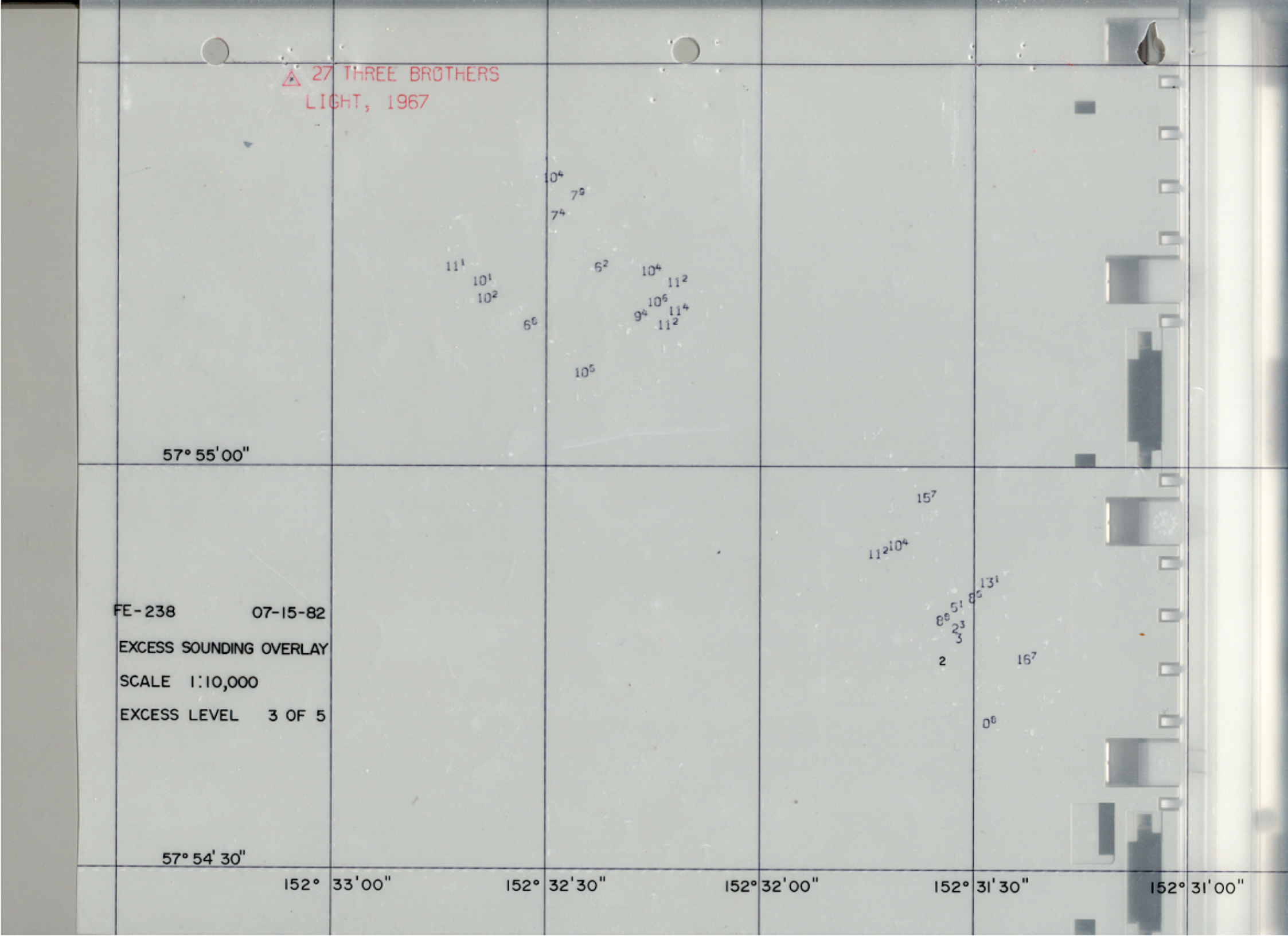

57° 55' 30"
THREE BROTHERS
27 THREE BROTHERS LIGHT, 1967
(rock)
(Three Brothers Light 8)
MARMOT BAY
JOINS H-9006 (1968)
JOINS H-9006 (1968)
JOINS H-9006 (1968)
JOINS H-9006 (1968)
JOINS H-9006 (1968)
57° 55' 00"
OUZINKIE POINT
ENTRANCE POINT
Piling
NARROW STRAIT
ALASKA
MARMOT BAY
NARROW STRAIT
FINAL SMOOTH SHEET
FE-238
S-P908-DA-81
SCALE 1:10,000
SURVEYED AUGUST 1981
SOUNDINGS IN FATHOMS AND TENTHS
REDUCED TO MLLW DATUM
57° 54' 30"
152° 33' 00"
152° 32' 30"
152° 32' 00"
152° 31' 30"
152° 31' 00"

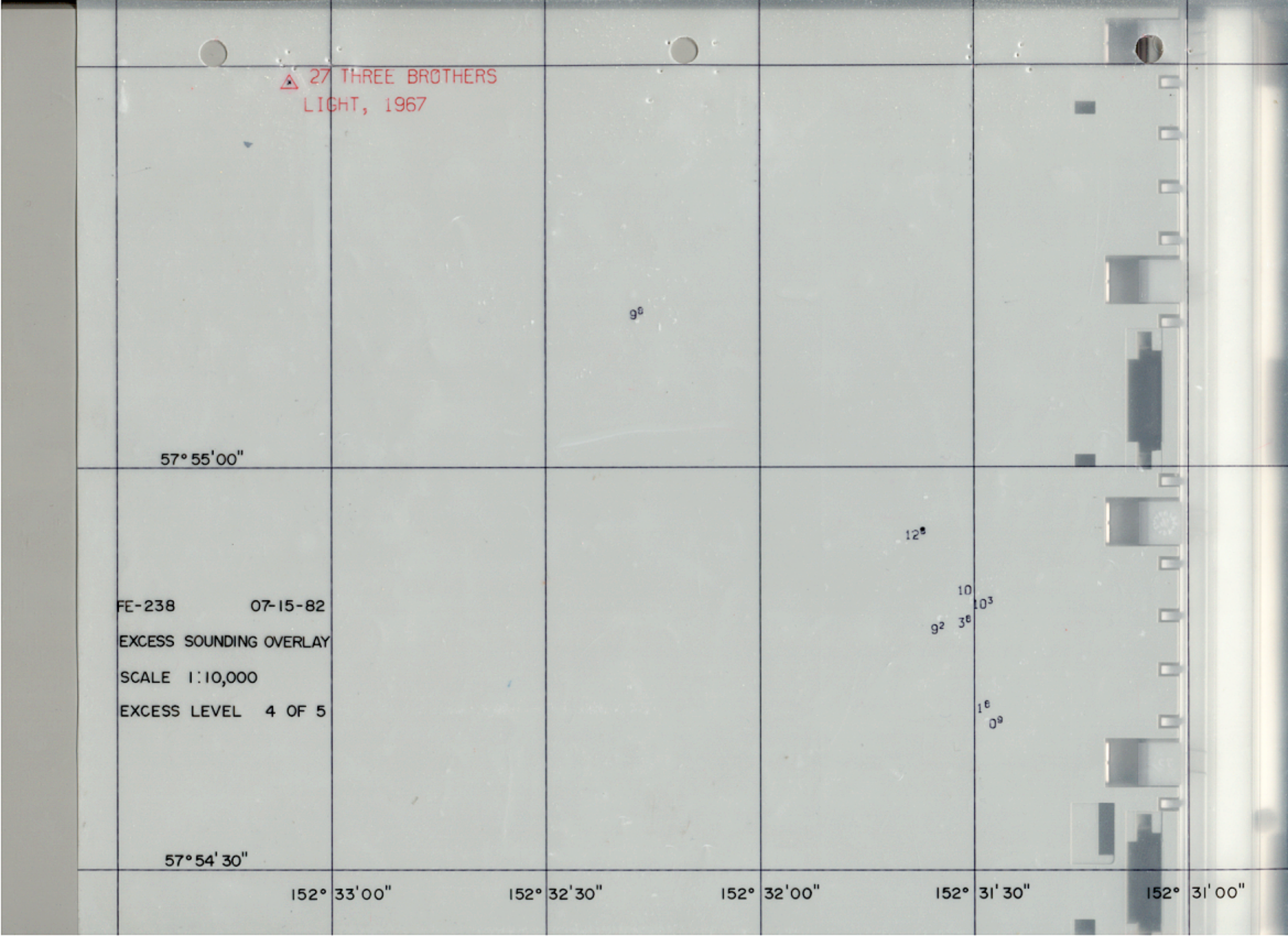

27 THREE BROTHERS
LIGHT, 1967
57° 55' 00"
FE-238 07-15-82
CONTOUR OVERLAY
SCALE 1 : 10,000
SHEET 1 OF 1
CURVES GENERATED
FROM EXCESS 0
57° 54' 30"
152° 33' 00"
152° 32' 30"
152° 32' 00"
152° 31' 30"
152° 31' 00"

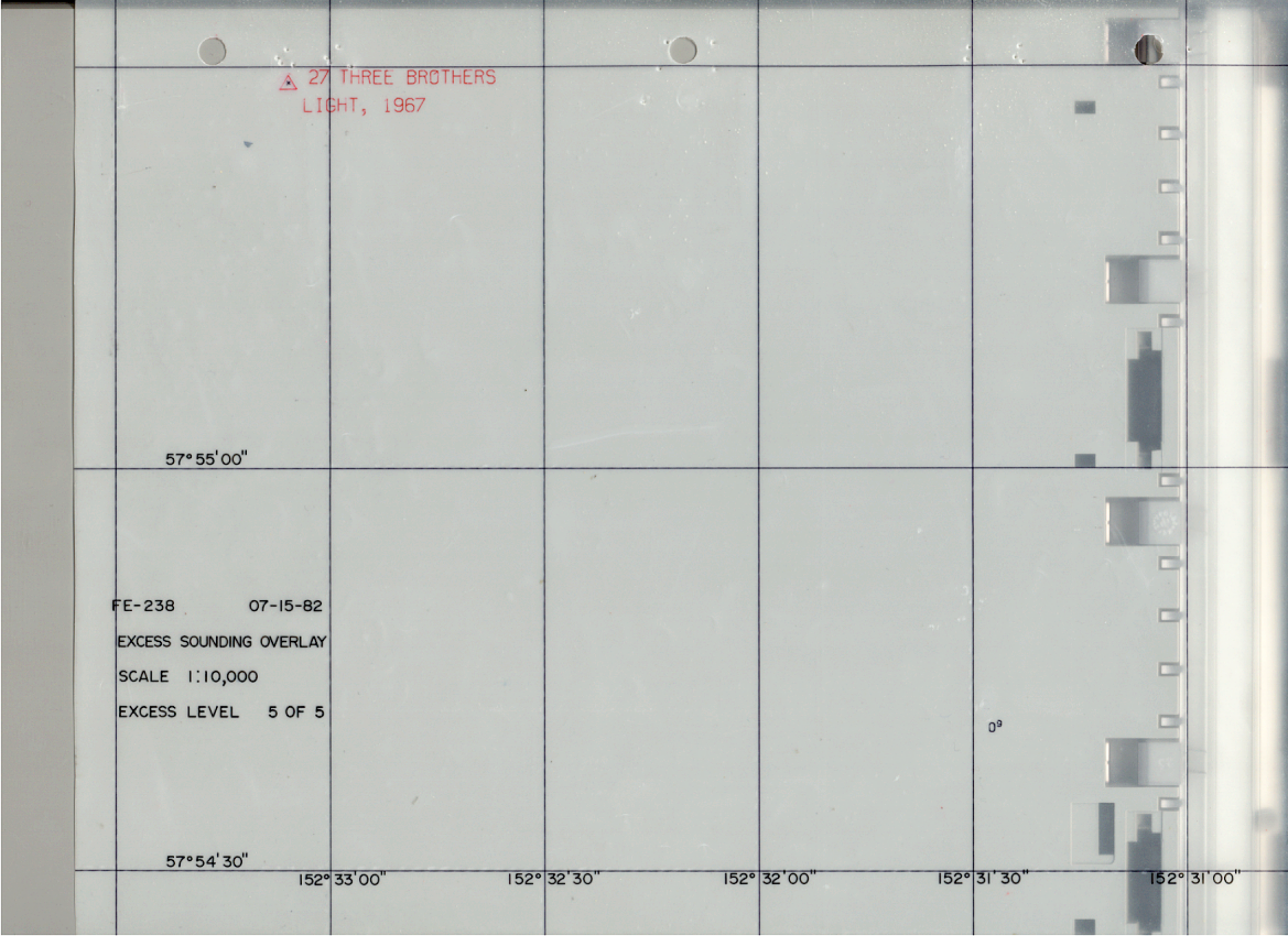

27 THREE BROTHERS
LIGHT, 1967
NOF 2, 1967
SMALL, 1933
3000
(1)
3000
(38)
4000
(1)
4000
(38)
57° 55' 00"
57° 54' 30"
FE-238 07-15-82
ELECTRONIC LATTICE
OVERLAY
SCALE 1:10,000
152° 33' 00"
152° 32' 30"
152° 32' 00"
152° 31' 30"
152° 31' 00"


27 THREE BROTHERS
LIGHT, 1967
57°55'00"
57°54'30"
152° 33'00"
152° 32'30"
152° 32'00"
152° 31'30"
152° 31'00"
FE-238 07-15-82
EXCESS SOUNDING OVERLAY
SCALE 1:10,000
EXCESS LEVEL 1 OF 5


27 THREE BROTHERS
LIGHT, 1967
57°55'00"
57°54'30"
152° 33'00"
152° 32'30"
152° 32'00"
152° 31'30"
152° 31'00"
FE-238 07-15-82
EXCESS SOUNDING OVERLAY
SCALE 1:10,000
EXCESS LEVEL 2 OF 5


27 THREE BROTHERS
LIGHT, 1967
57° 55' 00"
57° 54' 30"
152° 33' 00"
152° 32' 30"
152° 32' 00"
152° 31' 30"
152° 31' 00"
FE-238 07-15-82
EXCESS SOUNDING OVERLAY
SCALE 1:10,000
EXCESS LEVEL 3 OF 5


27 THREE BROTHERS
LIGHT, 1967
9⁶
12⁸
10
10³
9² 3⁶
1⁸
0⁹
57°55'00"
57°54'30"
152° 33'00"
152° 32'30"
152° 32'00"
152° 31'30"
152° 31'00"
FE-238 07-15-82
EXCESS SOUNDING OVERLAY
SCALE 1:10,000
EXCESS LEVEL 4 OF 5


27 THREE BROTHERS
LIGHT, 1967
57°55'00"
FE-238 07-15-82
EXCESS SOUNDING OVERLAY
SCALE 1:10,000
EXCESS LEVEL 5 OF 5
57°54'30"
152° 33'00"
152° 32'30"
152° 32'00"
152° 31'30"
152° 31'00"

GAGE#: 1
GAGE: OUZINKIE, AK.
LATITUDE: 57/55/22.0
LONGITUDE: 152/29/52.5
HIGH WATER RANGE: 7.8
PLOT VECTOR DIS: .6
PLOT VECTOR DIR: 270.0

TIME CORRECTORS FOR GMT

CORR	YR/DAY/TIME
0	81/220/235959

DATUM VALUES

VALUE	YR/DAY/TIME
3.0	81/220/235959

ZONE NUMBER: 1
CORR INTERVAL: .1 FA
ZONE TYPE: SINGLE-GAGE
GAGE NUMBER USED: 1
RATIO: 1.000
TIME CORRECTION: 0

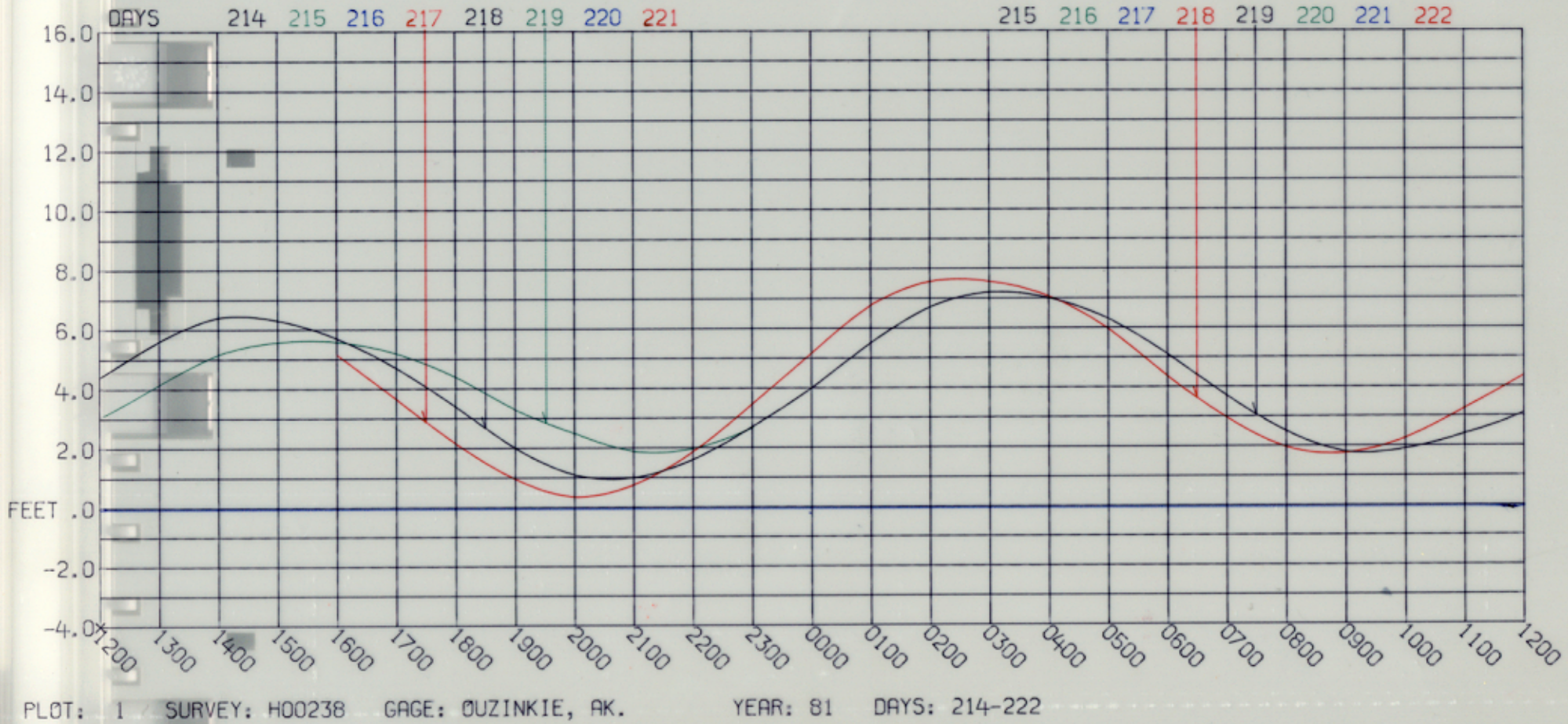
ZONE BY TIME: NO

ZONE BY SOUNDING#: NO

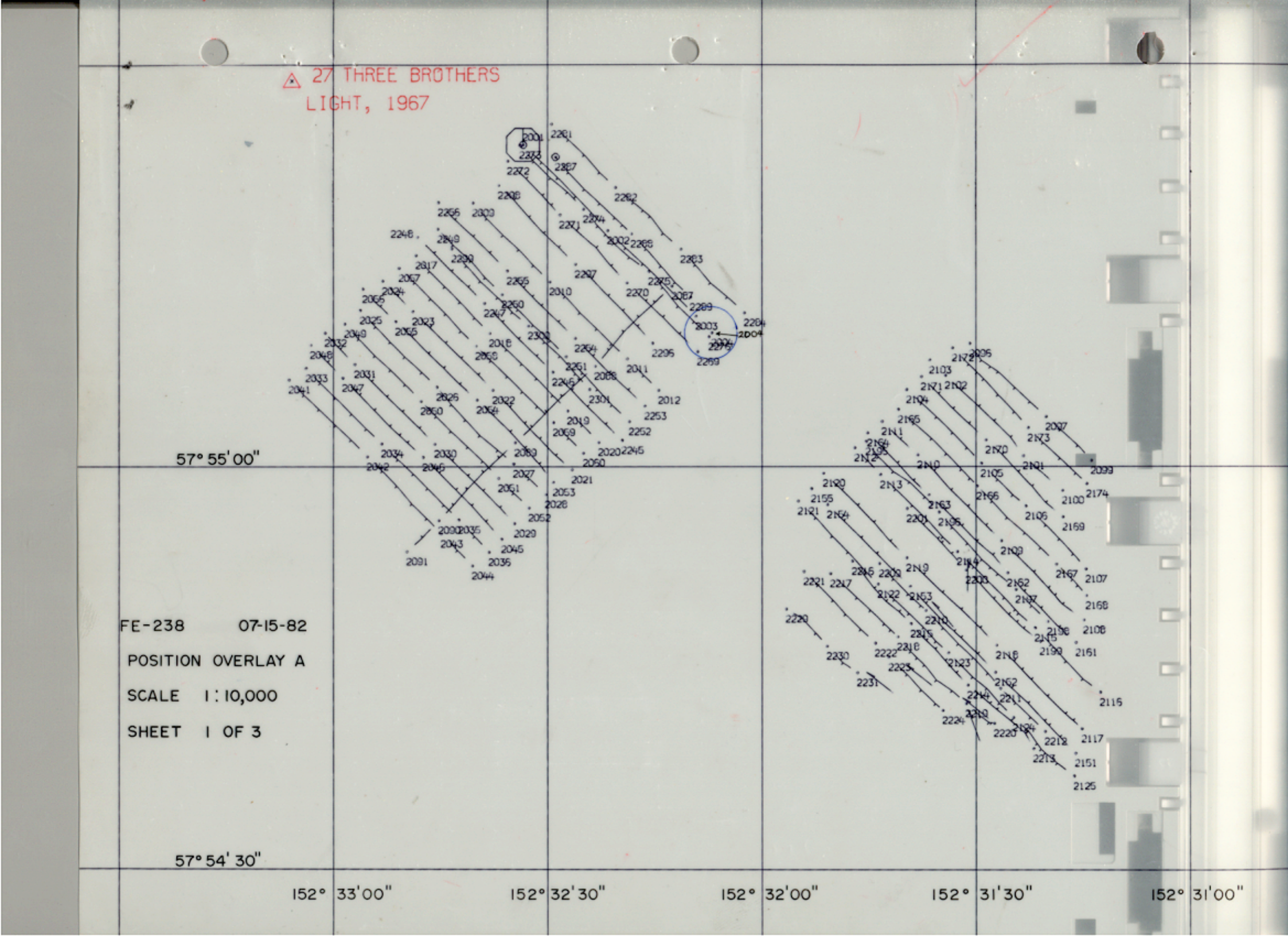
ZONE BY RECORD#: NO

ZONE BY AREA: NO

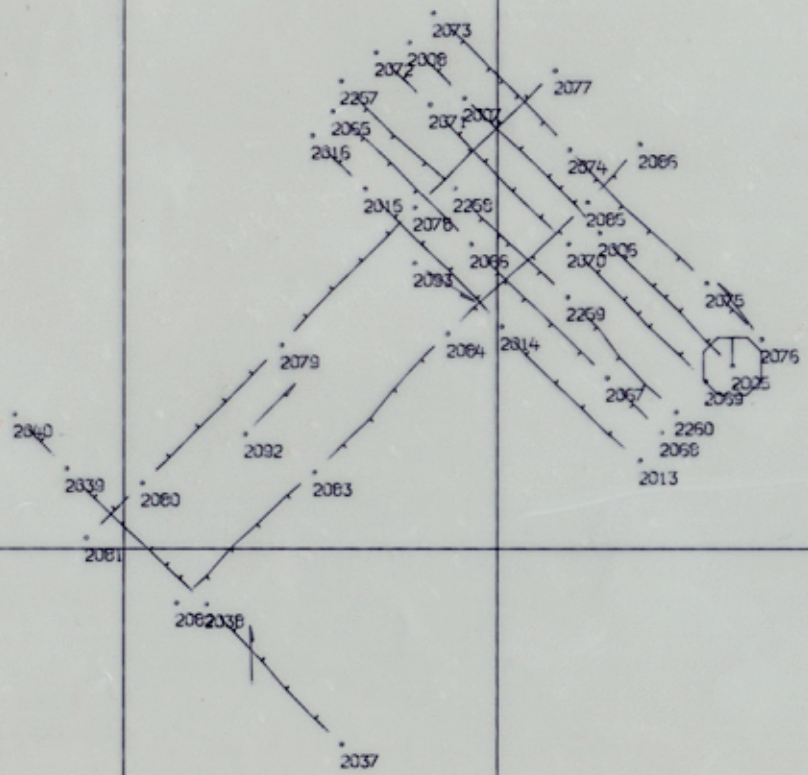
TIDE PLOTS FOR H00238, 07-15-82, SHEET 1 OF 1

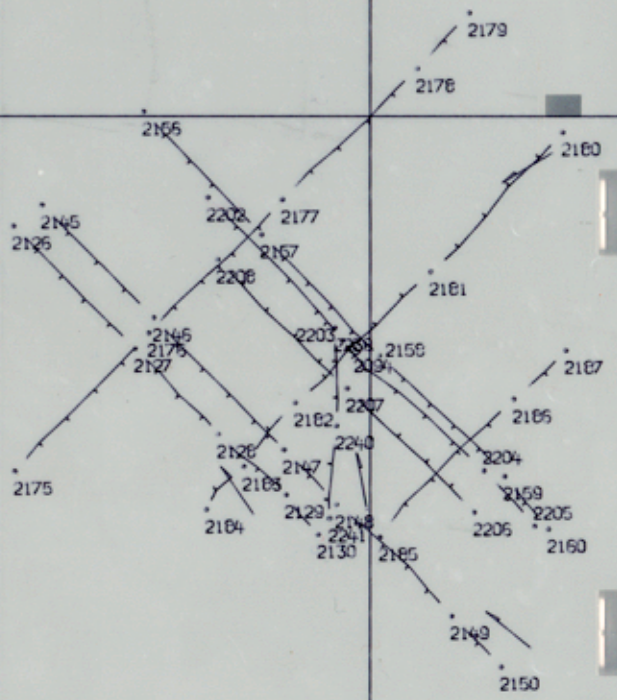


PLOT: 1 SURVEY: H00238 GAGE: OUZINKIE, AK. YEAR: 81 DAYS: 214-222


△ 27 THREE BROTHERS
LIGHT, 1967
57° 55' 00"
57° 54' 30"
152° 33' 00"
152° 32' 30"
152° 32' 00"
152° 31' 30"
152° 31' 00"
FE-238 07-15-82
POSITION OVERLAY A
SCALE 1 : 10,000
SHEET 1 OF 3

△ 27 THREE BROTHERS
LIGHT, 1967





57° 55' 00"

FE-238 07-15-82

POSITION OVERLAY B

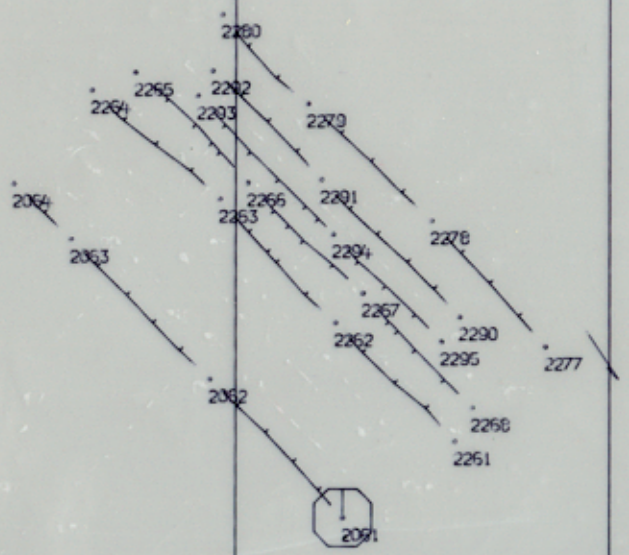
SCALE 1 : 10,000

SHEET 2 OF 3

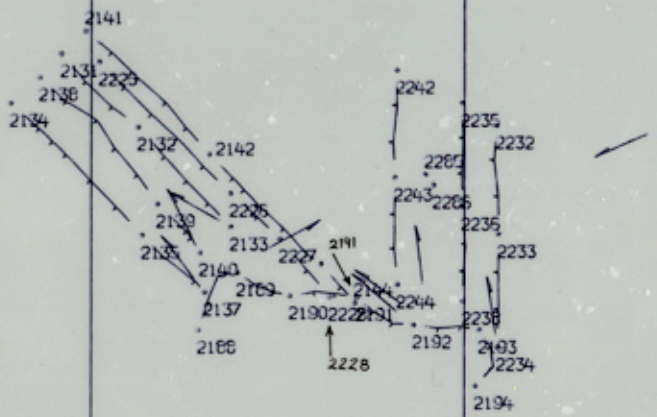
57° 54' 30"

152° 33' 00" 152° 32' 30" 152° 32' 00" 152° 31' 30" 152° 31' 00"

△ 27 THREE BROTHERS
LIGHT, 1967



57° 55' 00"



FE-238 07-15-82

POSITION OVERLAY C

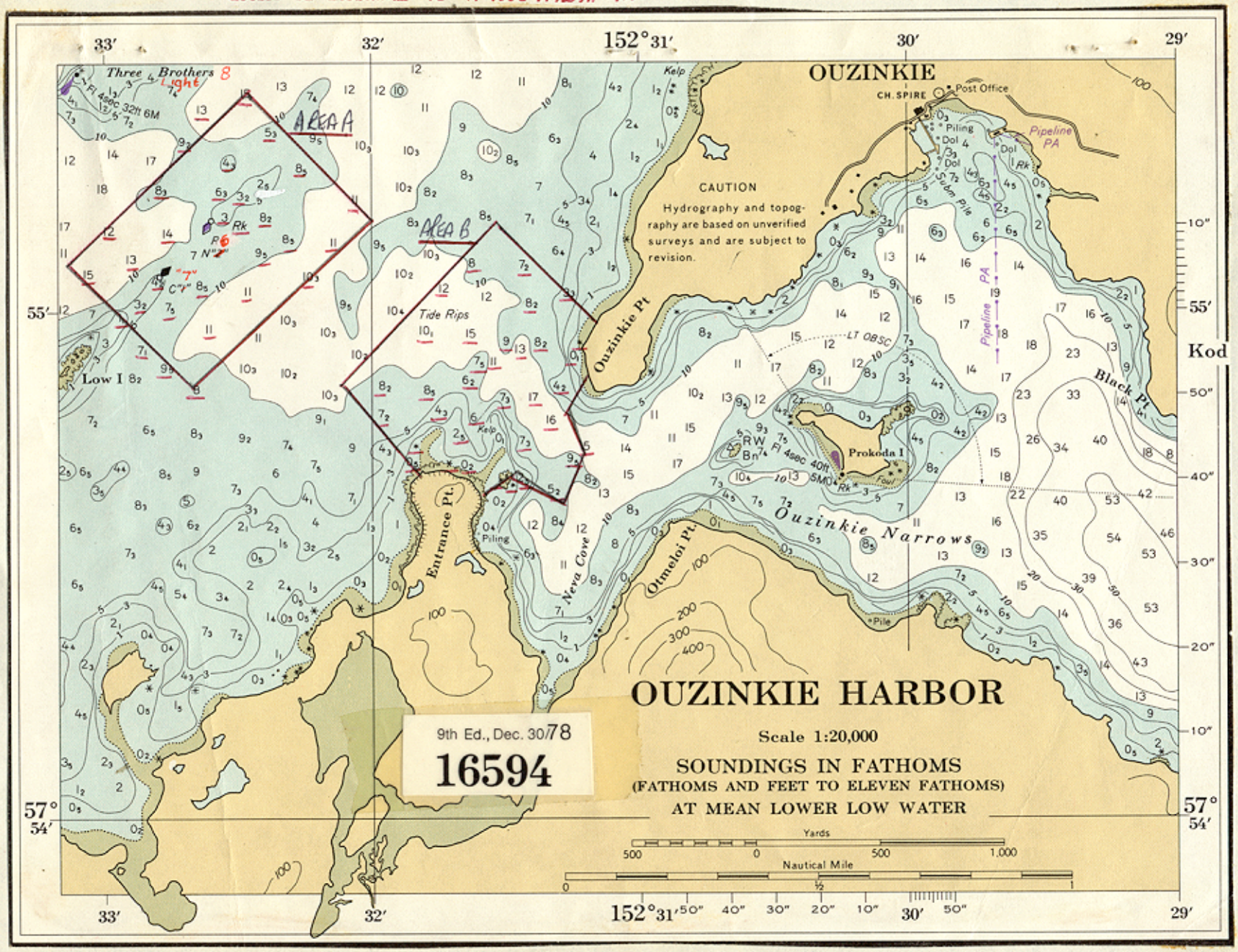
SCALE 1 : 10,000

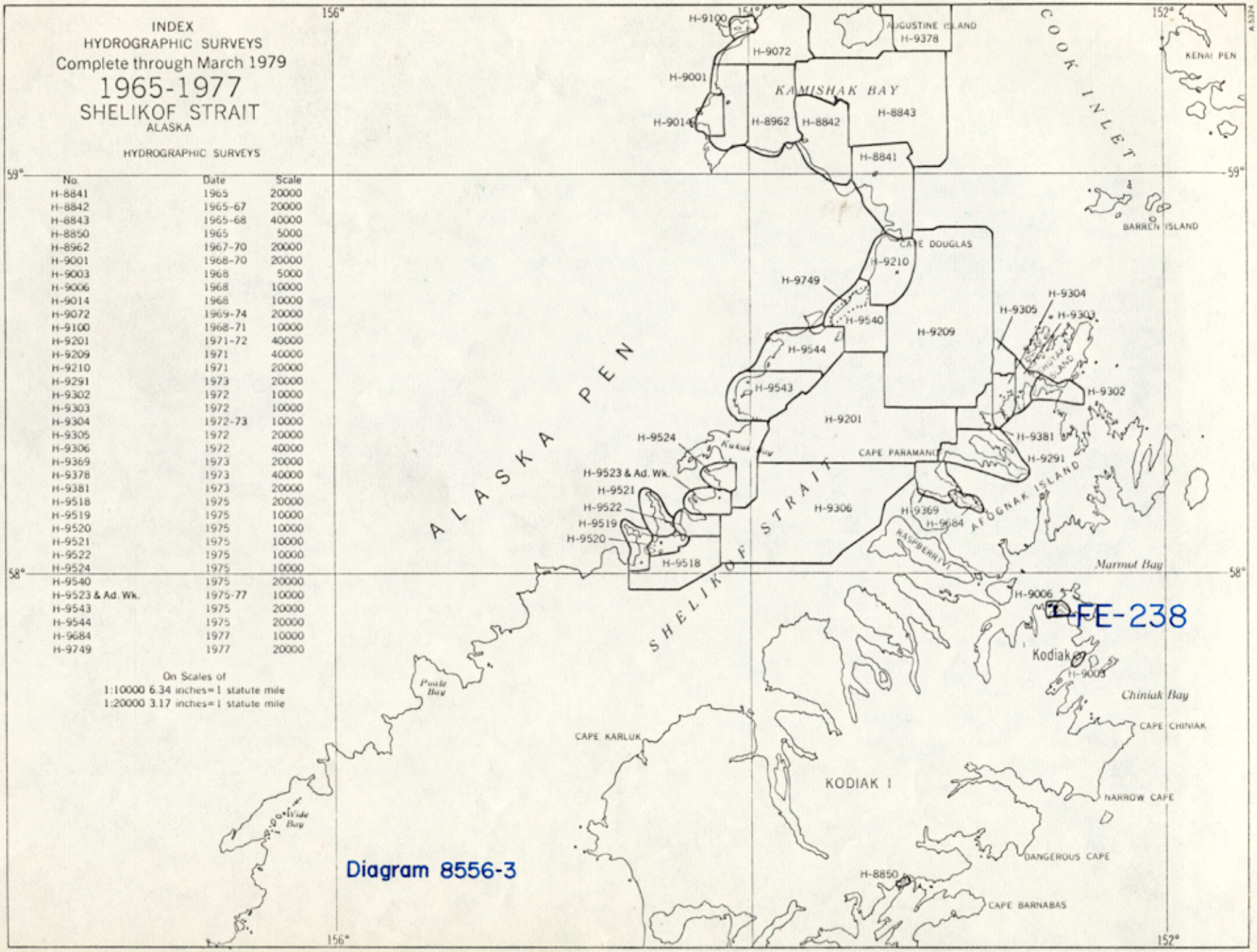
SHEET 3 OF 3

57° 54' 30"

152° 33' 00" 152° 32' 30" 152° 32' 00" 152° 31' 30" 152° 31' 00"

Source of Soundings is H-9004 (1968) 1:10,000




INDEX
HYDROGRAPHIC SURVEYS
Complete through March 1979
1965-1977
SHELIKOF STRAIT
ALASKA
HYDROGRAPHIC SURVEYS
Hydrographic Index No. 116F
DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Ocean Survey,
Washington, D.C.
No. Date Scale
H-8841 1965 20000
H-8842 1965-67 20000
H-8843 1965-68 40000
H-8850 1965 5000
H-8962 1967-70 20000
H-9001 1968-70 20000
H-9003 1968 5000
H-9006 1968 10000
H-9014 1968 10000
H-9072 1969-74 20000
H-9100 1968-71 10000
H-9201 1971-72 40000
H-9209 1971 40000
H-9210 1971 20000
H-9291 1973 20000
H-9302 1972 10000
H-9303 1972 10000
H-9304 1972-73 10000
H-9305 1972 20000
H-9306 1972 40000
H-9369 1973 20000
H-9378 1973 40000
H-9381 1973 20000
H-9518 1975 20000
H-9519 1975 10000
H-9520 1975 10000
H-9521 1975 10000
H-9522 1975 10000
H-9524 1975 10000
H-9540 1975 20000
H-9523 & Ad. Wk. 1975-77 10000
H-9543 1975 20000
H-9544 1975 20000
H-9684 1977 10000
H-9749 1977 20000
On Scales of
1:10000 6.34 inches = 1 statute mile
1:20000 3.17 inches = 1 statute mile
156°
154°
152°
59°
58°
H-9100
H-9072
H-9001
H-9014
AUGUSTINE ISLAND
H-9378
KAMISHAK BAY
H-8962
H-8842
H-8843
H-8841
COOK INLET
KENAI PEN
BARREN ISLAND
CAPE DOUGLAS
H-9210
H-9749
H-9540
H-9209
H-9304
H-9305
H-9303
H-9544
H-9543
H-9302
H-9201
H-9524
Kukak Bay
CAPE PARAMANOF
H-9381
H-9291
H-9523 & Ad. Wk.
H-9521
H-9522
H-9519
H-9520
H-9518
H-9306
H-9369
H-9684
AFOGNAK ISLAND
RASPBERRY
Marmot Bay
H-9006
H-9003
Kodiak
Chiniak Bay
CAPE CHINIAK
ALASKA PEN
SHELIKOF STRAIT
Puale Bay
CAPE KARLUK
KODIAK I
NARROW CAPE
Wide Bay
DANGEROUS CAPE
H-8850
CAPE BARNABAS
Diagram 8556-3
FE-238

FORM C&GS-8352
(3-25-63)

NAUTICAL CHART DIVISION

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. FE-238

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
16594	3/14/84	R. S. House	Full ~~Part~~ ~~Before~~ After Verification Review Inspection Signed Via
			Drawing No. 15
16580	3/14/84	R. S. House	Full ~~Part~~ ~~Before~~ After Verification Review Inspection Signed Via
			Drawing No. 20 Exam'd, no corr.
			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.
			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.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.