9888

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 Hydrographic

Field No. DA-10-3-80

Office No. H-9888

LOCALITY

State Alaska

General Locality Shelikof Strait

Locality Offshore Cape Ilktugitak

19 80

CHIEF OF PARTY
CDR N.C. Austin

LIBRARY & ARCHIVES

DATE September 22, 1981

☆U.S. GOV. PRINTING OFFICE: 1980—668-537

9888

531
530

NOAA FORM 77-28 (11-72)

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

REGISTER NO.

H-9888

HYDROGRAPHIC TITLE SHEET

INSTRUCTIONS - The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

FIELD NO.

DA-10-3-80

State ALASKA

General locality SHELIKOF STRAIT

Locality OFFSHORE CAPE ILKTUGITAK

Scale 1:10,000 Date of survey 10 July - 26 August 1980

Instructions dated March 10, 1980, Change No. 1 April 8, 1980 Project No. OPR-P146-DA-80

Vessel NOAA SHIP DAVIDSON (3130), LAUNCH DA-2 (3132)

Chief of party CDR NED C. AUSTIN

Surveyed by LT CHERYL CAVIN, ENS STEVE KNORAD, AND SHIP'S PERSONNEL

Soundings taken by echo sounder, ~~hand lead, pole~~ ROSS FINELINE, MODEL 5000

Graphic record ~~scaled~~ by SHIP'S PERSONNEL

Graphic record checked by SHIP'S PERSONNEL

Protracted by N/A Automated plot by XYNETICS PLOTTER (PMC)

Verification by RICHARD A. SHIPLEY

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

REMARKS: SURVEY TIME ZONE: GMT

SURVEY IS COMPLETE

STANDARDS CK'D 2-8-83
C. Loy

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

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

DESCRIPTIVE REPORT
DA-10-3-80 H-9888

A. PROJECT

Basic survey H-9888, DA-10-3-80, was accomplished in accordance with Project Instructions OPR-P-146-DA-80, Shelikof Strait, Alaska, dated March 10, 1980 and Change Number 1, dated April 8, 1980. The DAVIDSON surveyed this area at a scale of 1:10,000 instead of the 1:20,000 scale specified in the project instructions. A sheet layout at 1:10,000 was submitted and approved before the survey was started.

B. AREA SURVEYED

The area surveyed includes that portion of Shelikof Strait along the Alaska Peninsula from Cape Ilktugitak on the east, longitude 154°34.5'W, to the eastern edge of Dakavak Bay on the west, longitude 154°41.5'W. The northern limit of hydrography is the junction with H-9887, DA-10-2-80, latitude 58°00.2'N. The southern limit of hydrography is approximately the 100 fathom curve, latitude 57°58.2'N, although soundings go as deep as 146 fathoms. Bottom samples on this sheet show the bottom to be characterized by mud and fine-grained sand. There is no shoreline on this survey. Inclusive dates of the survey are July 10, 1980 (JD 192) to August 26, 1980 (JD 239).

C. SOUNDING VESSELS

Sounding platforms employed were as follows:

Vessel	Vessel #	JD's	Position Numbers
DA-2	3132	192 - 199	4001 - 4796
Ship DAVIDSON	3130	209 & 239	0001 - 0004

Data recording and preliminary computer plots from DA-2 were inked in blue, and from the ship, DAVIDSON, in black.

All sounding work was done exclusively by DA-2 (3132), the Ship DAVIDSON being used for bottom samples only.

D. SOUNDING EQUIPMENT

The only fathometer used for this survey was a Ross Fineline Model 5000 (S/N 1080) aboard DA-2 (3132). It was used exclusively in the fathom mode with satisfactory results up to about the 100 fathom mark. In deeper water however, the system was pushed to its limits and missed - depths were more frequent. Slowing the launch down was helpful in this situation, and a satisfactory trace was maintained.

The fathogram initial was maintained at zero and phase checks were made once or twice daily. All fathograms were scanned and compared to digitized depths. Additions (peaks and deeps) and any corrections were either edited into the master tape or put on a separate corrector tape.

Soundings on the Final Field Sheets have been corrected for predicted tides and transducer depths. Bar checks were made once a day in the working area to determine TRA correctors. Settlement and squat tests were done on both launches in Lake Union, Seattle (fresh water). Settlement and squat correctors were edited into

the TC/TI tapes, though not used for the final field sheet plots (see Corrections to Echo Soundings Report).

Predicted tides were computed from daily predicted tides for Seldovia, Alaska, corrected to Katmai Bay, Alaska (Station 1823, 1980 Tide Tables). Heights of tides were computed at 0.2 fathom intervals, and applied to all soundings. Two bubbler-type tide gages were installed on Takli Island by the DAVIDSON, with one gage used as a backup. No tidal zoning was required for this survey. See the appended Field Tide Note for details.

E. HYDROGRAPHIC SHEETS

Field Sheets for the survey were prepared using the HYDROPLOT system aboard 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 two 1:10,000 scale computer sheets, the west sheet being DA-10-3A-80, and the east sheet being DA-10-3B-80. In addition, a 1:5,000 scale inset (inset #1) is provided to eliminate sounding congestion in the area of a 10 fathom shoal on the south end of DA-10-3A-80. The shoalest depth observed was uncorrected 10.1 fathoms at latitude 57/58/43 and longitude 155/35/40. The development on the north end of inset #1 was based on an erroneous peak on JD 192, between positions 4008 and 4009. A peak, erroneously picked off as 12 fathoms, was not found on the subsequent development, and upon further examination of the original fathogram, it was found that the peak was 17 fathoms rather than 12 fathoms. Since the development data had been collected and plotted, it was not rejected. Position numbers for inset #1 are not plotted on the final field sheet; however, the shoalest depth of the development was transferred to the final field sheet.

F. CONTROL STATIONS

Nine second or third order horizontal control stations were recovered in the working area during the survey, and six new third order (or better) stations were established for hydrographic support. Miniranger transponders were located at the following pairs of newly established stations:

FLEECE 1980 and ENSIGN 1980; URSUS 1980 and VARDEN 1980

These shore stations were chosen to maintain a 30° - 150° arc intersection and a clear line-of-sight. All position computations were based on the 1927 North American Datum. (See Horizontal Control Note.) 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 control of all soundings. The serial numbers of all electronic equipment employed are as follows:

Vessel	Vessel #	Console	R/T Unit	Transponder	S/N
DA-2	3132	716	709	Code 1	723
				Code 3	773
				Code 4	771

A systems check of each Miniranger set-up was performed twice daily whenever possible, by one of the two methods described below:

1) Dakavak Bay Ranges. Two sets of ranges were constructed in Dakavak Bay. The launch would run one range, and when it crossed the second, a Miniranger position was taken. The intersection of these ranges was positioned by simultaneous T-2 cuts to the launch from stations ENSIGN 1980 RMI and FLEECE 1980. The observed rates were compared to the calculated rates to obtain the daily corrector. (See Electronic Control Report).

2) Sextant Fixes. Sextant fixes with a check angle were compared to Miniranger fixes using RK-561. This would give the daily corrector directly.

The results of the daily systems checks were compared with the baseline calibration correctors to ensure compliance with standards for a 1:10,000 scale survey were met (± 5 meters). Only baseline calibration correctors were applied to the preliminary and final field sheets.

Baseline correctors for the Minirangers were determined from calibrations conducted on June 6 (JD 158), July 13 (JD 195), and August 26 (JD 239). The maximum drift between calibrations was 2 meters, which is within minimum standards for a 1:10,000 scale survey.(See Electronic Control Report). The following table summarizes the calibration results:

Vessel	Vessel #	Console	R/T Unit	Transponder	Baseline Corrector Jun 6	Jul 13	Aug 26
DA-2	3132	716	709	1	-2	-2	-1
				3	-1	-3	-3
				4	-2	-2	-3

For work done between JD 158 and JD 195, baseline correctors from the June 6 and July 13 calibration were meaned to yield the correctors used for plotting the final field sheet. For work done between JD 195 and JD 199, baseline correctors from the July 13 and August 26 calibration were meaned to yield the correctors used for plotting the final field sheet.

An apparent "null" zone was encountered on the east side of the DA-10-3B-80 sheet. Upon returning at a different stage of tide, the signals settled down significantly, allowing hydro to be run.

H. SHORELINE

There is no shoreline on this survey.

I. CROSSLINES

Crosslines comprise 25.2% of the total linear miles of hydrography run, and are in excellent agreement with the main scheme hydrography.

J. JUNCTIONS

This survey junctions with H-9518 (1975, 1:20,000) to the east. Representative soundings from H-9518 are shown in orange on the DA-10-3A-80 preliminary field sheet. Soundings are in good agreement, except for an apparent discrepancy at latitude 57°58'21"N and longitude 154°34'25"W. There appears to be a six fathom difference between the two soundings, but by examination of sounding positions and noting the general trend of the bottom, it is believed both soundings are correct. In this area, the bottom is sloping upward to the south and the 137 fathom sounding on H-9518 is slightly south of the 143 fathom sounding on H-9888.

This survey also junctions with H-9896 (1980, 1:10,000) to the ~~east~~ West. All soundings, both main scheme and crosslines, are in excellent agreement, and contours junction smoothly. And H-9887 (1980) on the North

K. COMPARISON WITH PRIOR SURVEYS

There are no prior surveys for this sheet.

L. COMPARISON WITH CHART

Only one sounding from chart 16580 (1:350,000, 7th Ed., March 11, 1978) falls in the area surveyed by DA-10-3-90, H-9888.

Depth from Chart	Latitude and Longitude	Closest Depth From H-9888	Difference
48 Fm	57°59'18"N 154°34'24"W	56 Fm	8 Fm

It is recommended that the sounding from survey H-9888 supercede the charted sounding.

A comparison of the 100 fathom curves of the chart and this survey showed good agreement; however, the current survey portrays bottom topography more accurately than the published chart.

M. ADEQUACY OF SURVEY

This survey is complete and adequate for charting purposes. Bottom samples were taken at the density specified for a 1:20,000 scale survey.

N. AIDS TO NAVIGATION

There are no aids to navigation in the survey area. None are recommended.

O. STATISTICS

Total Number of Positions	818
Nautical Miles of Sounding Line	78.15
Nautical Miles of Crosslines	26.40
Square Nautical Miles of Hydrography	7.39
Bottom Samples	4
Nansen Casts	2
Tide Gages	1

P. MISCELLANEOUS

Q. RECOMMENDATIONS

It is recommended that larger scale charts be made for the area. The existing chart scale inadequately depicts the shoreline and hydrography. These bays are used by small boats for fishing and shelter from the storms which frequent the area.

R. AUTOMATED DATA PROCESSING

The data comprising this survey were collected using Ross 5000 digitizing fathometers

and Hydroplot systems using RK-111.

Computer programs used are listed below.

		Version Date
RK-111	Range-Range Real Time Hydroplot	1/30/76
RK-201	Grid, Signal and Lattice Plot	4/18/75
RK-211	Range-Range Plot	1/15/76
RK-212	Visual Station Table Load and Plot	4/01/75
RK-300	Utility Computations	1/15/76
RK-330	Reformat and Data Check	3/12/75
RK-407	Geodetic Inverse - Direct Computation	10/23/75
RK 409	Geodetic Utility Package	9/05/73
AM 500	Predicted Tides Generator	11/10/72
RK-530	Layer Correction to Velocity	6/25/74
AM-602	ELINORE - Line Oriented Editor	5/21/75
RK-561	H/R Geodetic Calibration	2/19/75

S. REFERENCE TO REPORTS

Horizontal Control Note
Corrections to Echo Soundings Report
Electronic Control Report
Coast Pilot Report

Respectfully submitted:

for Steven J. Konrad
Ens., NOAA

Approved and forwarded:

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

SURVEY APPROVAL SHEET DA 10-3-80

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

Field work was supervised through Executive Officer and Field Operations Officer. The XO or FOO inspected records and sheets daily. The Commanding Officer inspected records periodically and inspected sheets daily.

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

Survey is complete and adequate. No additional field work is recommended.

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

Refer to references in Descriptive Report

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

Date: 10/31/80

Approved and forwarded by:

N. C. Austin
CDR, NOAA
Commanding Officer

OPR-P146-DA-80
DA-10-2-80(H-9887), DA-10-3-80(H-9888), DA-10-4-80(H-9896),
DA-10-5-80(H-9897), DA-10-6-80(H-9902), DA-10-7-80(H-9903).

MASTER SIGNAL TAPE PRINTOUT

001	1	58	03	35510	154	24	54143	139	0000	000000 ACTOR 1975
002	1	58	04	59819	154	18	53056	139	0012	000000 ATUSHAGVIK 2 1967
003	1	58	01	40129	154	31	34766	139	0015	000000 ILKTUGITAK 1908
004	2	58	01	14000	154	34	59170	250	0035	000000 VARDEN 1980
005	2	58	01	44295	154	35	53186	139	0146	000000 DAKAVAK 1967
006	2	58	01	56118	154	38	24764	250	0009	000000 ENSIGN 1980
007	2	58	03	44101	154	41	11441	250	0005	000000 DOLLY 1980
008	1	58	01	03755	154	43	33335	250	0011	000000 FLEECE 1980
009	1	58	00	47975	154	44	07642	250	0040	000000 URSUS 1980
010	1	58	00	16690	154	46	02149	139	0068	000000 PEDMAR 1967
011	1	58	00	10268	154	46	16807	139	0059	000000 PEDMAR AZ. MARK 1967
012	1	58	01	56409	154	38	24576	139	0009	000000 ENSIGN RM 1 1980
013	4	58	02	54908	154	38	52353	243	0000	000000 MOOSE 1980 (TEMP. PT)
014	3	58	02	14100	154	43	42378	243	0000	000000 WATERFALL 1980(TEMP. PT)
015	5	58	00	47840	154	44	08154	139	0040	000000 URSUS RM 1 1980
016	5	58	00	16517	154	46	02180	139	0068	000000 PEDMAR RM 2 1967
017	1	57	59	48250	155	00	31319	254	0020	000000 MALIBU 1980 (TEMP. PT)
018	5	57	59	47773	155	00	31367	254	0005	000000 MALIBU "A" 1980(TEMP PT)
019	3	57	58	08548	155	01	47779	139	0011	000000 ATMO 1976
020	1	57	53	53690	155	03	36304	139	0025	000000 EAGLE 1980
021	5	57	53	54949	155	03	36359	250	0016	000000 EAGLE RM 2 1980
022	2	57	52	27565	155	04	56160	250	0043	000000 KUBUGAKLI 1908
023	3	57	52	28651	155	04	58048	139	0043	000000 KUBUGAKLI 2 1967
024	7	57	53	54092	155	03	34026	139	0016	000000 EAGLE RM 1 1980

FORM CD-26
(12-11-46)

U.S. DEPARTMENT OF COMMERCE

BAR CHECK ABSTRACT
LAUNCH DA-2 . (3132)

WORKSHEET DA-10-3-80

J. D	1.0 FM	2.0 FM	3.0 FM	4.0 FM	5.0 FM	6.0 FM	7.0 FM	REMARKS
192	0.7	1.7	2.7	3.7	4.7	5.7	6.6	EXCELLENT
	0.7	1.7	2.7	3.7	4.7	5.7	—	
193	0.7	1.7	2.7	3.7	4.7	5.7	6.7	EXCELLENT
	0.7	1.7	2.7	3.7	4.7	5.7	—	
194	0.7	1.7	2.7	3.7	4.7	5.7	6.7	EXCELLENT
	0.7	1.7	2.7	3.7	4.7	5.7	—	
197	0.7	1.7	2.7	3.7	4.7	5.8	6.8	Good
198	0.7	1.7	2.7	3.7	4.7	5.8		
198	0.7	1.7	2.7	3.7	4.7	5.7	6.6	Good
	0.7	1.7	2.7	3.7	4.7	5.7		
MEAN	0.7	1.7	2.7	3.7	4.7	5.7	6.7	
TRA	0.3	0.3	0.3	0.3	0.3	0.3	0.3	
			MEAN	TRA =	0.3			

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

35TH" LAUNCHES FULLY FUELED, 3 PEOPLE ABOARD

SETTLEMENT/SQUAT TESTS LAKE UNION 12 & 13 FEB 1980

(draft measured in fresh water - Lake Union)
measured draft = 21" = 1.75'

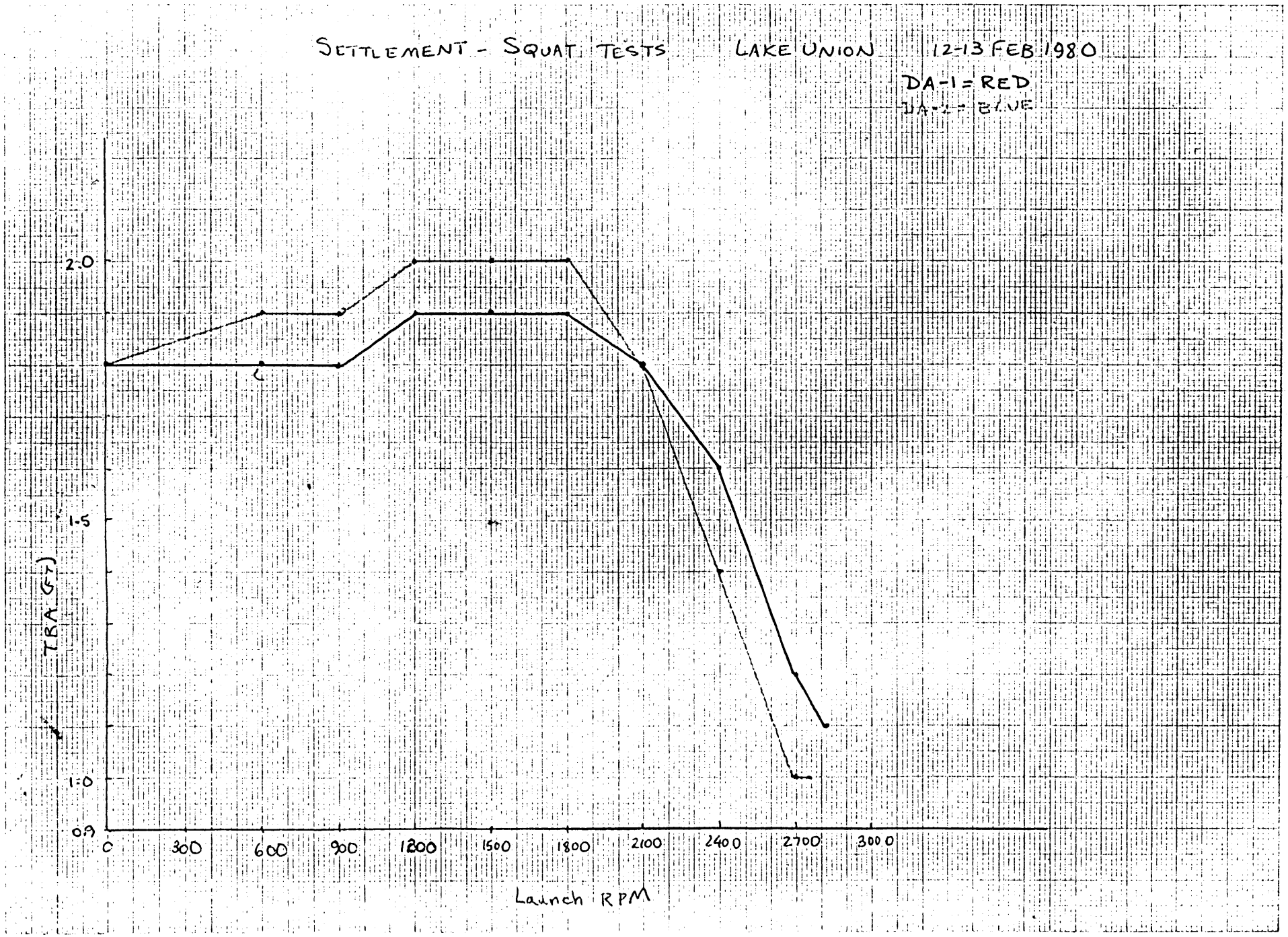
DA-1 (3131)

SPEED	LEVEL READING	ΔFT from DIW	TRA (w/21" draft)
0 RPM (DIW)	1.05 ft	0.0 ft	1.75 = 1.8
Idle (600)	1.05	0.00	1.75 = 1.8
900	1.09	+ 0.04	1.79 = 1.8
1200	1.20	+ 0.15	1.90 = 1.9
1500	1.24	+ 0.19	1.94 = 1.9
1800	1.26	+ 0.11	1.86 = 1.9
2100	1.08	+ 0.03	1.78 = 1.8
2400	0.85	- 0.20	1.55 = 1.6
2700	0.50	- 0.55	1.20 = 1.2
full (~~2750~~ 2825)	0.40	- 0.65	1.10 = 1.1

DA-2 (3132) Blue Launch

measured (fresh water) (Draft = 22" = 1.83')

0 RPM (DIW)	0.58	0.0	1.83 = 1.8
idle (~~650~~ 600)	0.61	+0.03	1.86 = 1.9
900	0.65	+0.07	1.90 = 1.9
1200	0.70	+0.12	1.95 = 2.0
1500	0.75	+0.17	2.00 = 2.0
1800	~~0.50~~ 0.75	+0.17	2.00 = 2.0
2100	0.50	~~+0.08~~ -0.08	~~1.85~~ 1.75 = 1.8
2400	0.15	-0.43	1.40 = 1.4
2700	-0.25 (2 runs at 2700 to confirm)	-0.83	1.00 = 1.0
full (2750)	-0.25	-0.83	1.00 = 1.0


SETTLEMENT - SQUAT TESTS LAKE UNION 12-13 FEB 1980
DA-1 = RED
DA-2 = BLUE
2.0
1.5
1.0
0.9
TRA (FT)
0
300
600
900
1200
1500
1800
2100
2400
2700
3000
Launch RPM

OPR-P146-DA-80
DA-10-3-80(H-9888)
PREDICTED TIDES CORRECTOR TAPE PRINTOUT

SELDOVIA, ALASKA
(1823) KATMAI BAY, SHELIKOF STRAIT
58 00 154 59 -0.13 -0.04 0.0 0.0 0.72 0.72
000
FM
0.2

CORRECTIONS TO ECHO SOUNDINGS REPORT
OPR-P146-DA-80
SHELIKOF STRAIT, ALASKA

INTRODUCTION

An offshore limit for hydrography was not stated in the project instructions, so it was decided that hydrography be run out to the 100 fathom curve. This was generally held to, though soundings went as deep as 146 fathoms on one of the sheets. All hydrography was done by the DAVIDSON's two launches; DA-1 (#3131) and DA-2 (#3132); the ship being used for bottom samples and Nansen casts only. Velocity correctors were obtained from two Nansen casts, though they were not applied to the final field sheet plots. TRA correctors were obtained from daily bar checks and were applied to all preliminary and final field sheet plots. Settlement and squat tests were done on both launches in Lake Union, Seattle (fresh water). Correctors from these tests are included in the TC/TI tapes, but were not used in any of the final field sheet plots. Nansen cast, bar check, and settlement and squat test results are all appended to this report.

EQUIPMENT

The following is a table of sounding equipment used for this survey:

Launch	Fathometer S/N	Digitizer S/N	Transceiver S/N
DA-1	1077	1081	1036
DA-2	1080	1077	1077

Fathometers were tuned to achieve the best possible trace in deep water. Phase calibration checks were done each morning for the fathometers. In most cases, the errors were minimized at shoal depths where accuracy is most important.

Both Ross sounding systems were checked by Pacific Marine Center personnel prior to commencing the project. This was done in anticipation of the sounding requirements in fairly deep water. The systems were tuned to the resonant frequency of their transducers, and then fined tuned while in the water for optimum bottom return. On JD 204, a weak trace on DA-1's fathometer suggested maintenance. A faulty transducer was suspected, but on retuning the transceiver, the problem was solved. On JD 199, a noisy return trace was evident on DA-2. This was artificially created, and found to be a faulty audio connector on the back of the recorder. In all cases, the analog records retained for subsequent charting are satisfactory.

VELOCITY CORRECTORS

Two Nansen casts were taken by the DAVIDSON S-331 (#3130) near the working area to determine sound velocity correctors for OPR-P146-DA-80 hydrography. The first Nansen cast was taken on 25 July 1980 (JD 207) in approximately 150 fathoms of water in the vicinity of latitude 57/58/12 N and longitude 154/26/12 W. The second Nansen cast was taken on 26 August 1980 (JD 239) in approximately 150 fathoms of water in the vicinity of latitude 57/52/25 N and longitude 154/46/45 W.

For each Nansen cast, each reversing thermometer was read twice; calibration correctors for the thermometers, supplied by Northwest Regional Calibration Center from their December 1979 calibration, were applied to the readings (copies of the calibration reports are appended). Correction factors were determined with the Cul Bertson slide rule. Salinities of each water sample were determined using a Bisset Berman Model 6230 Laboratory Salinonmeter (S/N 4989) and conversion tables in the instrument manual. For each Nansen cast,the resulting temperature and salinity values were used in RK 530, Velocity Correction Computations (Version 5/10/76) to determine correctors as a function of depth. These were plotted separately on NOAA Form 75-21 for each cast.

A comparison of the two Nansen casts shows excellent agreement. At shoaler depths, up to 50 fathoms, there is no difference in correctors. In deeper water, the maximum difference does not exceed 0.07% of the depth.

OTHER SOUNDING CORRECTORS

To determine the TRA of the survey launches, bar checks were performed daily in the working area, weather permitting. TRA values for 1, 2, 3, 4, 5, 6, 7, and 8 fathoms were individually meaned and plotted against the depth. The resultant TRA was taken as the displacement from the velocity curve. Vessel DA-1 (#3131) has a TRA of +0.25 fathom. Vessel DA-2 (#3132) has a TRA of +0.27 fathom. Settlement and squat tests were done on both survey launches in Lake Union, Seattle (fresh water) on February 12-13, 1980. Results are as follows:

Vessel	Speed (RPM)	Settlement and Squat Corrector
DA-1	2600	- 0.07 fm
DA-2	2600	- 0.12 fm

The values corresponding to a speed of 2600 rpm were chosen because that was a representative speed for all hydrography run. Settlement and squat correctors were not applied to any final field sheet plots. However, they were edited into the TC/TI tapes.

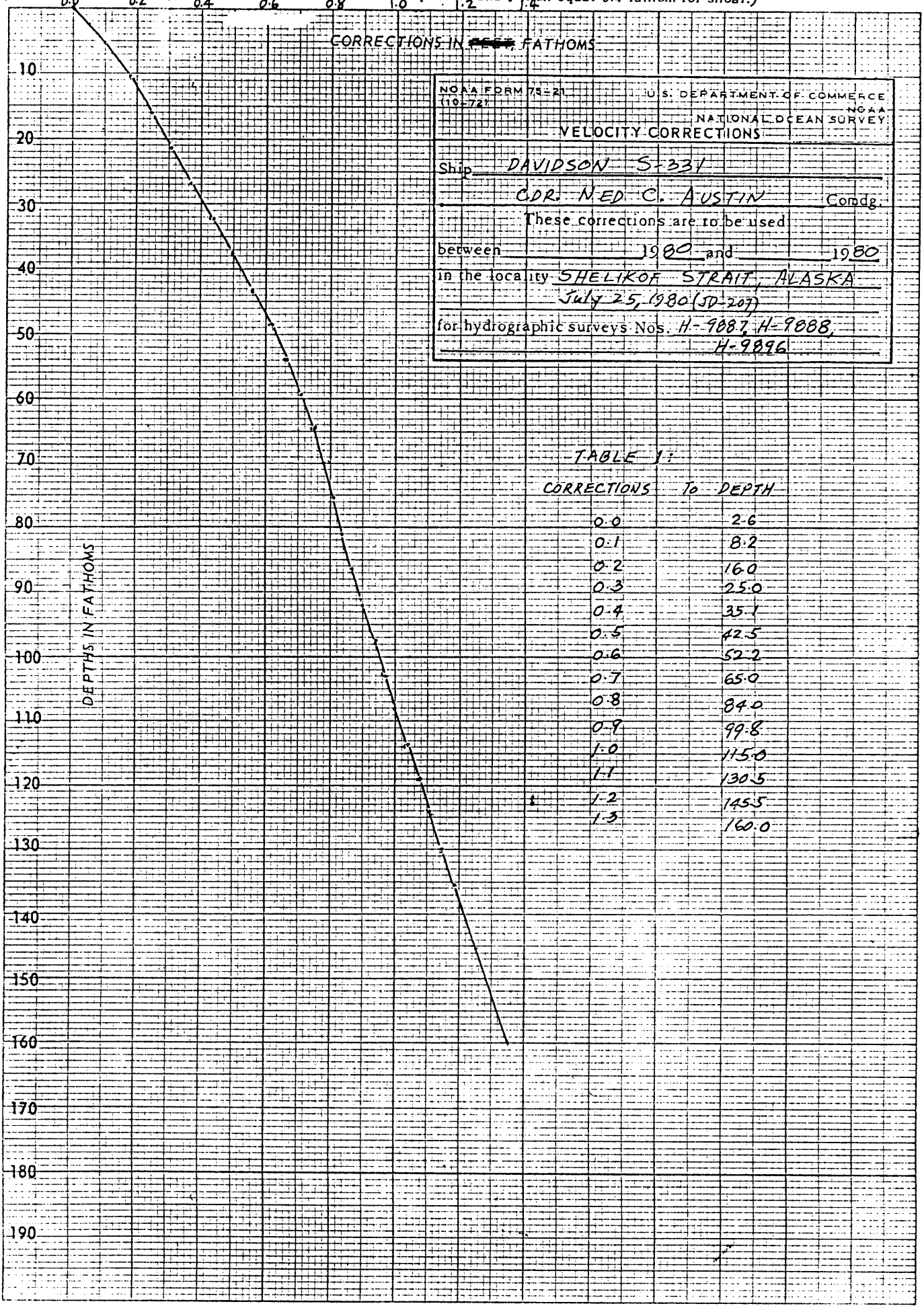
Respectfully submitted,

Steven Konrad
ENS, NOAA

Approved and forwarded,

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

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



NOAA FORM 76-21 (10-72) U.S. DEPARTMENT OF COMMERCE NOAA NATIONAL OCEAN SURVEY

VELOCITY CORRECTIONS

Ship DAVIDSON S-331

CDR. NED C. AUSTIN Comdg.

These corrections are to be used

between 1980 and 1980

in the locality SHELIKOF STRAIT, ALASKA
July 25, 1980 (JD-207)

for hydrographic surveys Nos. H-9887, H-9888, H-9896

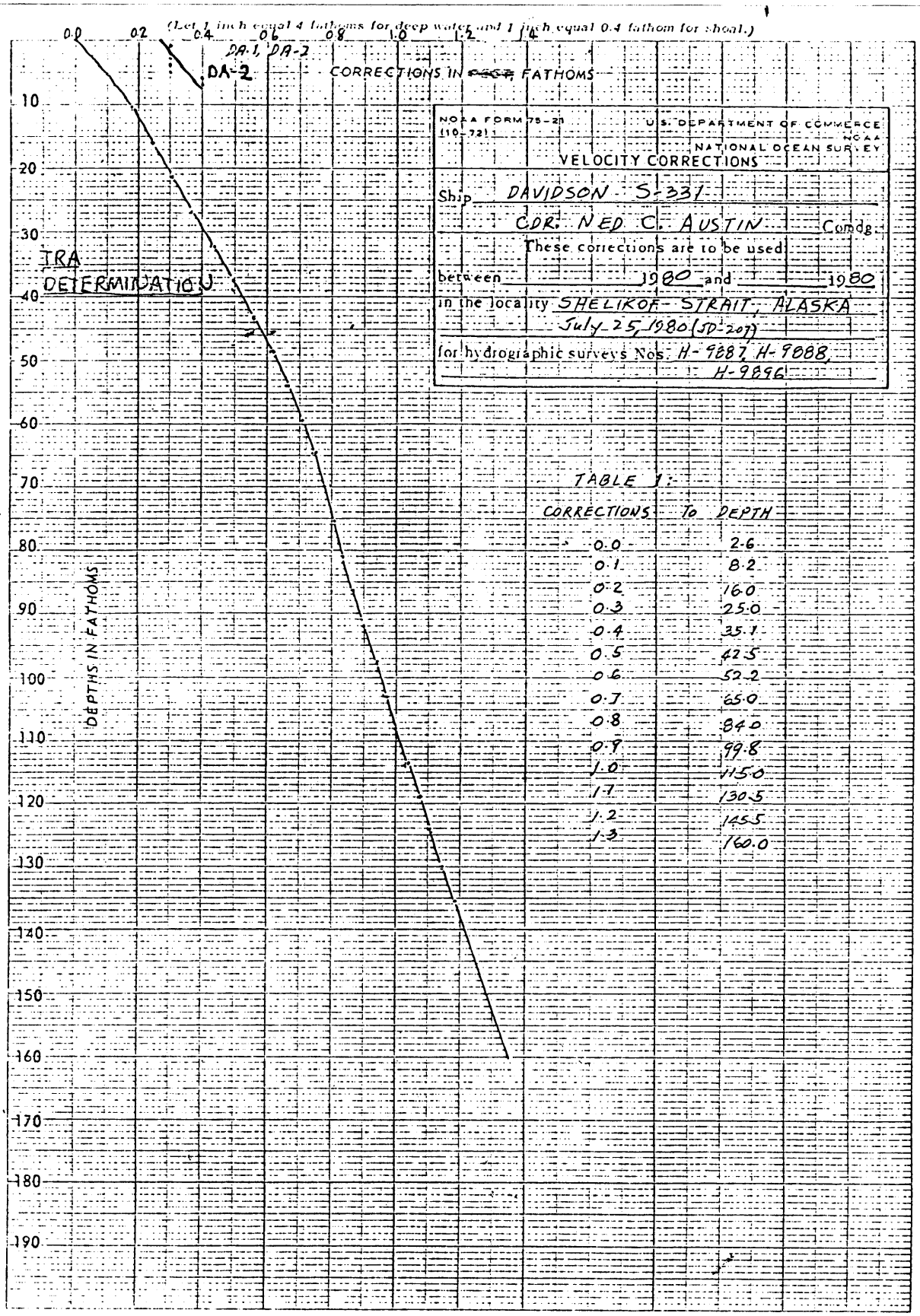
TABLE 1:

CORRECTIONS	TO DEPTH
0.0	2.6
0.1	8.2
0.2	16.0
0.3	25.0
0.4	35.1
0.5	42.5
0.6	52.2
0.7	65.0
0.8	84.0
0.9	99.8
1.0	115.0
1.1	130.5
1.2	145.5
1.3	160.0

46 1240

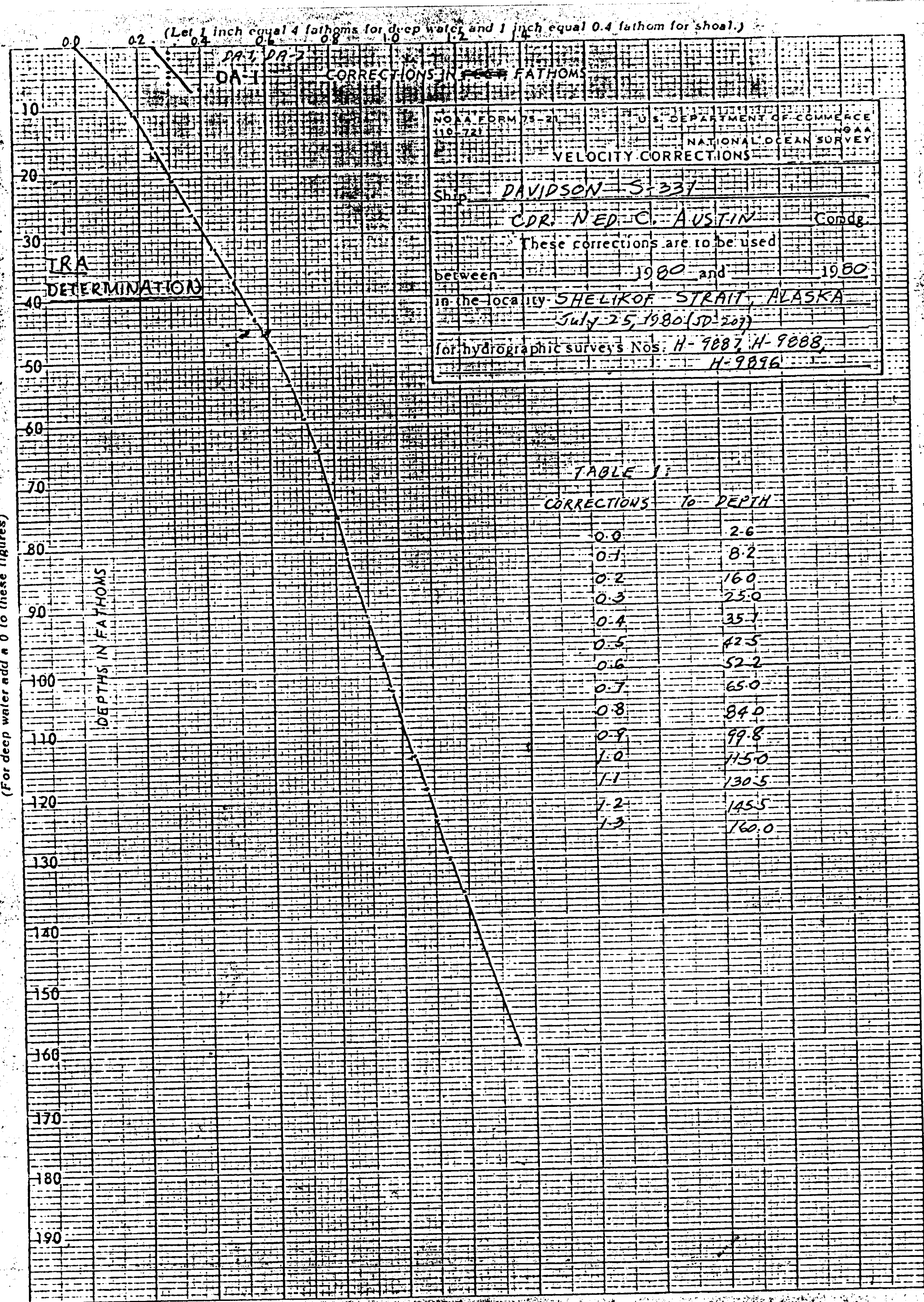
KEUFFEL & ESSER CO. MADE IN U.S.A.

☆ U.S. GOV. PRINTING OFFICE: 1975—668-160



40 1240

☆ U.S. GOV. PRINTING OFFICE: 1975—668-160



NOAA FORM 75-21 (10-72)

U.S. DEPARTMENT OF COMMERCE
NOAA
NATIONAL OCEAN SURVEY

VELOCITY CORRECTIONS

Ship DAVIDSON S-331

CDR. NED C. AUSTIN Comdg.

These corrections are to be used

between 1980 and 1980

in the locality SHELIKOF STRAIT, ALASKA
July 25, 1980 (JD 207)

for hydrographic surveys Nos. H-9887, H-9888, H-9896

TABLE 1:

CORRECTIONS	TO DEPTH
0.0	2.6
0.1	8.2
0.2	16.0
0.3	25.0
0.4	35.7
0.5	42.5
0.6	52.2
0.7	65.0
0.8	84.0
0.9	99.8
1.0	115.0
1.1	130.5
1.2	145.5
1.3	160.0

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

0.0 0.2 0.4 0.6 0.8 1.0 1.2 1.4

CORRECTIONS IN [redacted] FATHOMS

10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190

DEPTHS IN FATHOMS

(For deep water add a 0 to these figures)

NOAA FORM 75-21 (10-72) U.S. DEPARTMENT OF COMMERCE NOAA NATIONAL OCEAN SURVEY

VELOCITY CORRECTIONS

Ship DAVIDSON S-331

CDR N. C. AUSTIN Comdg

These corrections are to be used

between 1980 and 1980

in the locality SHELIKOF STRAIT, AK.

AUG 26, 1980 (JD 239)

for hydrographic surveys Nos. H-9897, H-9902, H-9903

TABLE II.

CORRECTIONS to DEPTH	
0.0	3.0
0.1	7.8
0.2	16.0
0.3	23.7
0.4	33.5
0.5	46.0
0.6	63.4
0.7	83.1
0.8	99.8
0.9	115.0
1.0	128.7
1.1	146.5

AUG. 26, 1980 (JD 239) HANSEN CAST

46 1240

K&E 20 X 20 TO THE INCH • 7 X 10 INCHES KEUFFEL & ESSER CO. MADE IN U.S.A.

☆ U.S. GOV. PRINTING OFFICE: 1975—668-160

OPR-P146-DA-80
DA-10-3-80(H-9888)
VELOCITY AND TC/TI TAPES PRINTOUT

VELOCITY:
000026 0 0000 0001 001 000000 009888
000082 0 0001
000160 0 0002
000250 0 0003
000351 0 0004
000425 0 0005
000522 0 0006
000650 0 0007
000840 0 0008
000998 0 0009
001150 0 0010
001305 0 0011
001455 0 0012
001600 0 0013

TC/TI: SHIP(3130) FOR B.S. (NO CORRECTION)
001800 0 0000 0001 208 313000 000000
131000 0 0000 0001 239 313000 000000
235900 0 0000

TC/TI: LAUNCH 3132
190440 0 0002 0001 192 313200 000000
184435 0 0002 0001 199 313200 000000
235900 0 0002

OPR P146-DA-80

SOUNDING CORRECTION ABSTRACT

VESSEL 3132

Fathometer No. 1080

FIELD NO. DA-10-3-80

REGISTRY NO. H-9888

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			1	+0.31fm	-0.04fm	-	-.12fm	+0.15fm	

ELECTRONIC CONTROL REPORT

TO ACCOMPANY

QPR-P146-DA-80

HYDROGRAPHIC SURVEY OF SHELIKOF STRAIT, ALASKA

NOAA SHIP DAVIDSON

CDR. N.C. AUSTIN

COMMANDING OFFICER

ELECTRONIC CONTROL REPORT
OPR-P146-DA-80
SHELIKOF STRAIT, ALASKA

TYPE OF CONTROL

Navigational control of hydrography on 1:10,000 Scale sheets H-9887, H-9888, H-9896, H-9897, H-9902 and H-9903 was accomplished using the Motorola Mini-Ranger III System used in the range-range and range-azimuth (with T-2 or TMIA) modes.

EQUIPMENT

The DAVIDSON's 28-foot launches were utilized for this survey. Console and R/T unit serial numbers were as follows:

Vessel	JD	Console and R/T Unit S/N
3131	180-202	710/721
	203-205	707/719
	206-245	710/721
	246-259	707/719
3132	180-205	716/709
	206-238	707/719
	239-259	716/709
3133 (17' Monark Skiff, used for Field edit only)	197	707/719
	224	716/709
	240-241	707/719

Shore Transponder serial numbers include:

Code	S/N
1	723
2	772
3	773
4	771

Although the DAVIDSON had the 16-code option (for the first time) during the 1980 field season, only codes 1 - 4 were used on this project and the code number of individual transponders was not changed.

SHORE STATIONS

Shore stations were selected to maintain line-of-sight and 30°-150°arc intersections for the range-range mode. All shore stations were on third-order Class I or better geodetic positions. Shore stations were located as follows:

Transponder Code S/N	Station	Elevation Above MSL (m)	JD on Site
1 (723)	FLEECE 1980	11	180-185, 190-194,218, 221 222, 257
	URSUS 1980	40	196-199,203-208,254
	EAGLE 1980 RM2*	25	240-241
	KUBUGAKLI 1908	43	242-247
2 (772)	DOLLY 1980	5	180-185, 190-194, 196-199, 203-205, 255, 257
	EAGLE 1980 RM2*	25	223-228, 240-247
3 (773)	ENSIGN 1980	9	182-185, 190-194, 196-199, 218, 221, 255, 257
	KUBUGAKLI 1908	43	224-228
	MALIBU 1980*	20	240-247, 254
4 (771)	VARDEN 1980	35	181-185, 190-191, 193-194, 196-199, 203-208, 254
	MALIBU 1980*	20	223-228, 240-247

* Mini-Rangers at EAGLE 1980 RM2 and MALIBU 1980 were set on Raydist tower sections to increase the off shore range to 18 km. EAGLE's tower was 30 feet, MALIBU's 50 feet. Elevations above mean sea level included the tower heights.

On JD 240 and 241, Codes 1 and 2 were placed on EAGLE 1980 RM2 and Codes 3 and 4 on MALIBU 1980 to assist in field edit by providing a check on range-range detached positions. At all other times, only one transponder was on any station at a time.

ELECTRONIC PROBLEMS

No major problems with "null" zones or multipath returns were encountered during the course of this project.

Interference problems between launches DA-1 (3131) and DA-2 (3132) were first experienced on JD 192. When the launches shared a shore station, rates became very erratic. The problem was at first believed to be with the mini-ranger system on Launch DA-1, so a substitution was made of the console and R/T unit in DA-1. When interference problems continued, Launch DA-2's console and R/T were changed. The problem continued, and was finally traced to the range averaging option. Both launches had been using the option in the "75" position. In this mode, the mobile unit will "monopolize" the shore station until it has received a sufficient number of consistent values to update the console display. A second party cannot interrogate the shore station until the first party has received enough values to update and "releases" the shore station. Using the range averaging option in the "40" position eliminated the interference problem.

On JD 193, the magnetron in R/T unit S/N 721 on DA-1 failed during hydrography. The magnetron was replaced and the system recalibrated.

BASELINE CALIBRATIONS

Baseline calibrations were performed in accordance with the PMC Oporder on June 6 (JD 158), July 13 (JD 195), August 26 (JD 239) and September 26 (JD 270). The results showed a maximum drift of 4 meters, which is within minimum standards for a 1:10,000 scale survey. Copies of all data relating to the baseline calibrations are appended to this report. The following table summarizes the results:

Baseline Calibration Corrector Abstract

Console/R-T Unit	Code	June 6	July 13	Aug 26	Sept 26
710/721	1	0	-3	+1	-2
	2	-1	-5	-3	-5
	3	+5	+2	+2	+2
	4	+1	-1	-1	-3
716/709	1	-2	-2	-1	-4
	2	+2	-2	-1	-2
	3	-1	-3	-3	-4
	4	-2	-2	-3	-4
707/719	1	-1	0	+2	-1
	2	0	-1	0	-1
	3	+2	+1	0	0
	4	+1	+1	0	-2

DAILY SYSTEMS CHECKS

A daily systems check of the mini-ranger system was accomplished at least twice daily, weather permitting, by 3-point sextant fix (with a check angle) or by intersecting ranges. For ease in calibration, and to eliminate the need to provide more control for sextant calibrations two sets of intersecting ranges were established, one set in Dakavak Bay and one in Katmai Bay. The ranges were set for maximum sensitivity. The launch would steer one range, then "freeze" the values in the console when it crossed the other range. The positions of the individual range signals themselves were not determined. The position where the two ranges crossed was determined by T-2 intersection, from ENSIGN 1980 RMI and FLEECE 1980 for the Dakavak Bay ranges, and from EAGLE 1980 and ATMO 1976 for the Katmai Bay ranges. The launch's R/T unit was wrapped with orange signal cloth and it was intersected as it crossed the two ranges. Computations for the two ranges are attached to this report. The mini-ranger values computed from the T-2 intersections for the ranges in Dakavak Bay were:

FLEECE 1980 - 4891.7 meters
DOLLY 1980 - 1320.0 meters
ENSIGN 1980 - 3012.5 meters

The values computed for the Katmai Bay ranges were:

MALIBU 1980 - 11308.5 meters
EAGLE 1980 RM2 - 18058.3 meters
KUBUGAKLI 1908 - 20788.7 meters

The results of the daily systems check were compared with the baseline correctors to ensure compliance with standards for a 1:10,000 scale were met. However, only baseline correctors were applied to the semi-smooth and final field sheets. Correctors applied to the final field plot are the mean of the calibrations bracketing the hydrography run between those Julian Dates. Two exceptions should be noted in this scheme. Console S/N 710 and R/T S/N 721 were inoperative at the time of the July 13 calibration until the magnetron was changed in the R/T unit. In effect, a new R/T unit was calibrated, so for hydrography run prior to July 13 using that console and R/T unit, the correctors applied are from the June 6 calibration only. Also, the last baseline calibration was done after work had begun on the final field plots, so the correctors for the August 26 calibration were used to plot hydrography run after that calibration. The corrector tape submitted to PMC has been changed to reflect the mean of the August 26 and September 26 calibrations for hydrography run after August 26, 1980. In any case, the maximum "drift" experienced between the two calibrations is three meters.

Daily systems checks in general agreed well with baseline correctors. A few differences in excess of 5 meters were noted. These differences can be attributed to a combination of any or all of the following: weather, poor technique on the part of the personnel involved and the limiting random error inherent in the mini-ranger control system. The good agreement shown between successive baseline calibrations indicates the mini-ranger system was stable throughout this project. Baseline correctors were used by the DAVIDSON during data processing, and it is recommended that the baseline correctors be applied in subsequent smooth plots.

Respectfully submitted,

Cheryl Cavin
LT, NOAA

Approved and forwarded,

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

May 5, 1981

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): 945-6992 Takli Island, Alaska

Period: June 29 - September 13, 1980

HYDROGRAPHIC SHEET: H-9887, H-9888, H-9897, H-9902, H-9903, H-9896

OPR: P-146

Locality: Shelikof Straits, Alaska

Plane of reference (mean lower low water): (See Remarks)

Height of Mean High Water above Plane of Reference is 12.57 ft.

REMARKS: Plane of Reference (MLLW):

142 157
5/21/80 @ 1900 hours to 6/5/80 @ 1800 hours = 4.68 ft.
157 190
6/5/80 @ 1900 hours to 7/8/80 @ 2300 hours = 5.38 ft.
191 228
7/9/80 @ 0000 hours to 8/15/80 @ 1800 hours = 4.68 ft.
228 258
8/15/80 @ 1900 hours to 9/14/80 @ 2100 hours = 4.58 ft.

Chief, Datums and Information Branch

March 18, 1981

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): 945-6992, Takli Island "A", Alaska

Period: July 10 - August 26, 1980

HYDROGRAPHIC SHEET: H-9888

OPR: P146

Locality: Shelikof Straits, Alaska

Plane of reference (mean lower low water): 2.67 ft.

Height of Mean High Water above Plane of Reference is 12.57 ft.

REMARKS: Zone Direct.

VOID
See 5-5-81 version

Is this version in records? If not call Steve for copy
GW 11/18/81

James E. Hubbard
Chief, Datums and Information Branch

FIELD TIDE NOTE
OPR-P146-DA-80
CAPE ILKTUGITAK TO KATMAI BAY, ALASKA

INTRODUCTION

Field Tide reduction of soundings was based on predicted tides for Seldovia, Alaska corrected to Katmai Bay in Shelkof Strait, Alaska. Predicted tides were converted to Greenwich Mean Time tide correctors by DAVIDSON's on board PDP8/e computer system using AM500, Predicted Tide Generator Program. The field data (crosslines and depth contours) illustrated good predicted tides with no zoning applied throughout the survey area.

Only one tide station was established, using two tide gages, in support of this survey. A second gage was used as a backup to insure that no tidal data would be lost due to any gage malfunctions.

Station Name and Number	Position	Type of Gage	Period of Operation
TAKLI ISLAND 945-6992 (Historic Site)	58° 03.8'N 154° 28.6'W	"A" 0-30 ft. Bristol Bubbler "B" 0-30 ft. Bristol Bubbler	116 Days 21 May - 14 Sept '80

TAKLI ISLAND GAGE SITE

Two 0-30 ft. Bristol Bubbler tide gages and a 25 ft. staff were installed at this historic site on 20 May 1980. The gages were designated as "A" (SN 73A231) and "B" (SN 67A16209). The orifice for gage "A" was secured to a concrete weight and anchored in water deep enough so as not to be exposed during any stage of the tide; the orifice for gage "B" was secured to the zero feet mark on the tide staff. The staff was bolted to a vertical rock face and braced by 2X4's and guy wires to nearby rocks (see sketch). Both gages were checked simultaneously during each observation.

During the periods 12 - 24 June and 15 - 26 August, no observations were made and the gages ran down due to the DAVIDSON's participation in OCSEAP project research cruises.

TIDE GAGE "A"

Since installation this gage has been consistently slow, so it was replaced on 5 June with 0-30 ft. Bristol Bubbler SN 64A11033.

On 11 July at 1812Z a possible orifice shift occurred which indicated the orifice raised 0.6 feet. Subsequent diver investigation revealed that the orifice had not appeared to move. The upward shift of the orifice indicates the possibility of a gage malfunction. No other changes in gage observation were noted.

TIDE GAGE "B"

On 4 June the orifice of gage "B" was removed from the foot of the tide staff, secured to a cement weight and anchored in water sufficiently deep to cover it at all stages of the tide. The tide gage was restarted on 5 June. No other changes or problems with this gage were observed.

On 14 September, both gages "A" and "B" were removed.

STAFF/GAGE RELATIONSHIPS

Tide Gage "A":

On the basis of 19 staff/gage relationship, gage SN 73A231 reads 2.1 feet higher than the staff. After swapping gages on 5 June, based on 36 staff/gage relationships, gage SN 64A11033 reads 2.8 feet higher than the staff, preceding the "orifice shift". Following the shift on 11 July, based on 28 staff/gage relationships, gage SN 64A11033 reads 2.2 feet higher than the staff. A slight downward trend in staff/gage differences was noted from the time the"orifice shift" occurred to gage removal.

Tide Gage "B":

On the basis of 17 staff/gage relationships gage SN 67A16209 reads 0.3 feet lower than the staff. After the orifice was moved to deeper water on 4 - 5 June, based on 68 staff/gage relationships, the gage reads 5.5 feet higher than the staff.

LEVELS

The tide staff at Takli Island was initially leveled to 5 historic bench marks on 21 May and upon removal on 14 September. No staff movement was noted.

The controlling gage at Seldovia, Alaska was leveled upon completion of the project on 13 September. An apparent downward movement of .004 meters from previous levels was noted. Prior to the DAVIDSON's arrival in Shelkof Strait, the RAINIER conducted 2nd Order levels on this gage (May 1980).

RECOMMENDATIONS

The orifice movement on gage "A" that occurred 11 July may possibly be a gage malfunction, indicated by the upward "shift" of the orifice. Smooth tidal data processing may resolve this problem which could not be adequately handled in the "field". Staff/gage comparisons were stable after this shift occurred, but, the most consistent data is that produced by gage "B", which is recommended for reducing field edit and sounding data collected during the project. No zoning was required for hydrography and none is recommended.

Respectfully submitted:

David I. Actor
ENS, NOAA

Approved and forwarded by:

N. C. Austin
CDR, NOAA
Commanding Officer

DIA:jaf

NOAA FORM 76-155
(11-72)

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

SURVEY NUMBER

H-9888

GEOGRAPHIC NAMES

Name on Survey	A ON CHART NO. 16580	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	K	
SHELIKOF STRAIT	X									1
CAPE ILKTUGITAK (TITLE)										2
										3
										4
										5
										6
										7
										8
										9
										10
										11
										12
										13
										14
										15
										16
					Approved:					17
					Chas E. Harrington					18
										19
					Chief Geographer - C3X5					20
					25 May 1982					21
										22
										23
										24
										25

NOAA FORM 76-155 SUPERSEDES C&GS 197

United States Department of the Interior

NATIONAL PARK SERVICE

Katmai National Monument
P.O. Box 7
King Salmon, Alaska 99613

IN REPLY REFER TO:

October 27, 1980

N.C. Austin, CDR, NOAA
Commanding Officer
NOAA Ship Davidson S331
FPO Seattle, Washington 98799

Dear Commander Austin:

There are no apparent discrepancies between the names shown on your nautical charts and those of local usage. At this time, we do not have any suggested names for nameless features.

Sincerely yours,

David K. Morris
Superintendent

Year of the Visitor

ADMINISTRATIVE APPROVAL
H-9888

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.

Charles K. Townsend
Director
Pacific Marine Center

7/29/81
Date

NOAA FORM 77-27 (5-77) | U. S. DEPARTMENT OF COMMERCE NOAA | HYDROGRAPHIC SURVEY NUMBER H-9888

HYDROGRAPHIC SURVEY STATISTICS

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

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT
SMOOTH SHEET	1	BOAT SHEETS & PRELIMINARY OVERLAYS 2 6	8
DESCRIPTIVE REPORT	1	SMOOTH OVERLAYS: POS. 2 ARC, 3 EXCESS 4	5

DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/ SOURCE DOCUMENTS
ENVELOPES	0					
CAHIERS	1-w/Raw	Printouts & misc. data				
VOLUMES	0					
BOXES			1- Smooth includes Cahier			

T-SHEET PRINTS (List) N/A

SPECIAL REPORTS (List) N/A

OFFICE PROCESSING ACTIVITIES

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

PROCESSING ACTIVITY	AMOUNTS PRE-VERIFICATION	AMOUNTS VERIFICATION	AMOUNTS TOTALS
POSITIONS ON SHEET			
POSITIONS CHECKED		783	
POSITIONS REVISED		21	
SOUNDINGS REVISED		56	
SOUNDINGS ERRONEOUSLY SPACED			
SIGNALS (CONTROL) ERRONEOUSLY PLOTTED			
	TIME – HOURS		
CRITIQUE OF FIELD DATA PACKAGE (PRE-VERIFICATION)	3		
VERIFICATION OF CONTROL		0	
VERIFICATION OF POSITIONS		24	
VERIFICATION OF SOUNDINGS		20	
COMPILATION OF SMOOTH SHEET		8	
APPLICATION OF TOPOGRAPHY		-	
APPLICATION OF PHOTOBATHYMETRY		-	
JUNCTIONS		2	
COMPARISON WITH PRIOR SURVEYS & CHARTS		2	
VERIFIER'S REPORT		9	
OTHER			
TOTALS	3	65	68

Pre-Verification by James S. Green	*Beginning Date* 12-2-80	*Ending Date* 12-2-80
Verification by Richard A. Shipley	*Beginning Date* 12-16-80	*Ending Date* 6-29-81
Verification Check by James S. Green and James L. Stringham	*Time (Hours)* 10	*Date* 6-30-81
Marine Center Inspection by HIT	*Time (Hours)* 8	*Date* 7-28-81
Quality Control Inspection by L. QUINLAN	*Time (Hours)* 20	*Date* 1-8-82
Requirements Evaluation by Dennis Hill	*Time (Hours)* 2	*Date* 8-31-82

K. Myers 2 hrs 5/28/82

REGISTRY NO. H-9888

The magnetic tape containing the data for this survey has not been corrected to reflect the changes made during evaluation and review.

When the magnetic tape has been updated to reflect the final results of the survey, the following shall be completed:

MAGNETIC TAPE CORRECTED

DATE_____ TIME REQUIRED_____ INITIALS_____

REMARKS:

PACIFIC MARINE CENTER
VERIFIER'S REPORT

REGISTRY NO: H-9888 FIELD NO: DA-10-3-80

Alasak, Shelikof Strait, Offshore Cape Ilktugitak

SURVEYED: 10 July to 26 August 1980

SCALE: 1:10,000 PROJECT NO: OPR-P146-DA-80

SOUNDINGS: Ross Fineline Fathometer CONTROL: Mini-Ranger, (Range-Range Mode)

Chief of Party.....CDR Ned C. Austin

Surveyed by.....LT Cheryl Cavin and ENS Steve Konrad

Automated Plot by.....PMC Xynetics Plotter

Verified by.....Richard A. Shipley

I. INTRODUCTION

H-9888 is a basic hydrographic survey conducted in accordance with the Project Instructions for OPR-P146-DA-80 Shelikof Strait, Alaska dated March 10, 1980 & Change No. 1, dated April 8, 1980.

Projection parameters used to prepare the smooth field sheet have been revised to center the hydrography on the smooth sheet. Parameters used by the Pacific Marine Center are appended in the smooth printout.

The master station list as submitted in the Descriptive Report was revised to reflect only those stations used for this survey. Done during O.C. from PMC Final Computer Listing.

Predicted tides from the Seldovia tide station corrected to Katmai Bay in Shelkof Straight were used to reduce soundings on the field sheet. Approved tides from Takli Island "A", Alaska are in good agreement with predicted tide reducers.

2. CONTROL AND SHORELINE

There is no shoreline on this survey.

3. HYDROGRAPHY

Crosslines within this survey are in excellent agreement with the main scheme soundings. The bottom configuration and least depths are adequately delineated. Standard depth curves could be adequately drawn.

4. CONDITION OF SURVEY

The smooth sheet, accompanying overlays, hydrographic records and reports are adequate and conform to the requirements of the manual except:

There was no discussion of the junction with H-9887 in the ship's report.

5. JUNCTIONS

H-9888 junctions to the north with H-9887 (1980, 1:10,000), a contemporary survey. Sounding agreement was good and depth curves could be drawn with no difficulty.

H-9888 junctions to the west with H-9896 (1980, 1:10,000). There is excellent agreement between soundings and depth curves and the junction note inked accordingly. Junction will be accomplished during QC of this survey

H-9888 junctions to the east with H-9518 and there is good agreement between the two. Recommend the depth curves on H-9518 be adjusted for agreement. Accomplished during quality control

There is no contemporary survey to the south of this survey.

6. COMPARISON WITH PRIOR SURVEYS

There are no prior surveys for H-9888.

7. COMPARISON WITH CHART 16580
(7th Ed., March 11, 1978, 1:350,000)

a. Hydrography

Only one sounding from the chart falls on the survey and it falls in the vicinity of similar soundings. The source of the charted sounding is unknown. There were no pre-survey review items.

b. Controlling Depths

There are no controlling depths governing any area within this survey.

c. Aids to Navigation

There are no aids to navigation on this survey.

H-9888 is adequate to supersede charted hydrography of common areas.

8. COMPLIANCE WITH INSTRUCTIONS

This survey adequately complies with Project Instruction OPR-P146-DA-80, dated March 10, 1980; Change No. 1, dated April 8, 1980.

9. ADDITIONAL FIELD WORK

This is a good basic survey, with no additional field work required.

Respectfully submitted,

R. A. Shipley
Cartographic Technician

Examined and Approved:

James S. Green
Chief, Verification Branch

APPROVAL SHEET

FOR

SURVEY H-9888

A. All revisions and additions made on the smooth sheet during verification have been entered in the magnetic tape records for this survey. A new final position print-out has been made. A new final sounding print-out has been made.

B. The verified smooth sheet has been inspected, is complete, and meets the requirements of the Hydrographic Manual. Exceptions are listed in the verifier's report.

Date: 6/29/81

Chief, Verification Branch

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

July 28, 1981 OA/CPM3/JWC

TO: OA/CPM - Charles K. Townsend

FROM: OA/CPM3 - John W. Carpenter JWC

SUBJECT: PMC Hydrographic Inspection Team Report for Survey H-9888

This survey is a basic hydrographic survey offshore Cape Ilktugitak, Shelikof Strait, Alaska. This survey was conducted by NOAA Ship DAVIDSON in 1980 in accordance with Project Instructions OPR-P146-DA-80 dated March 10, 1980 and Change No. 1, dated April 8, 1980.

The inspection team finds H-9888 to be a basic survey adequate to supersede common areas of prior surveys and charted hydrography. Administrative approval is recommended.

John W. Carpenter

James M. Wintermyre

James W. Steensland

Stanley H. Otsubo

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SURVEY
Rockville, Md. 20852

OA/C352:LQ

January 8, 1982

TO: Glen R. Schaefer
Chief, Hydrographic Surveys Division

THRU: Chief, Quality Control Branch

FROM: L. Quinlan
Quality Evaluator

SUBJECT: Quality Control Report for H-9888 (1980), Alaska, Shelikof Strait, Offshore Cape Ilktugitak

A quality control inspection of H-9888 was accomplished to monitor the survey for adequacy with respect to data acquisition, delineation of the bottom, determination of least depths, navigational hazards, junctions, sounding line crossings, smooth plotting, decisions made and actions taken by the verifier, and the cartographic presentation of data. Revisions and additions to the smooth sheet, plus helpful comments made to the verifier, are identified on a one-half scale copy of the survey to be furnished the verifier. In general, the survey was found to conform to the National Ocean Survey's standards and requirements except as stated in the Verifier's Report.

cc:
OA/C351

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SURVEY CHARTING AND GEODETIC SERVICES
Rockville, Md. 20852

JAN 19 1983

N/CG241:DJH

TO: N/MOP - Charles K. Townsend

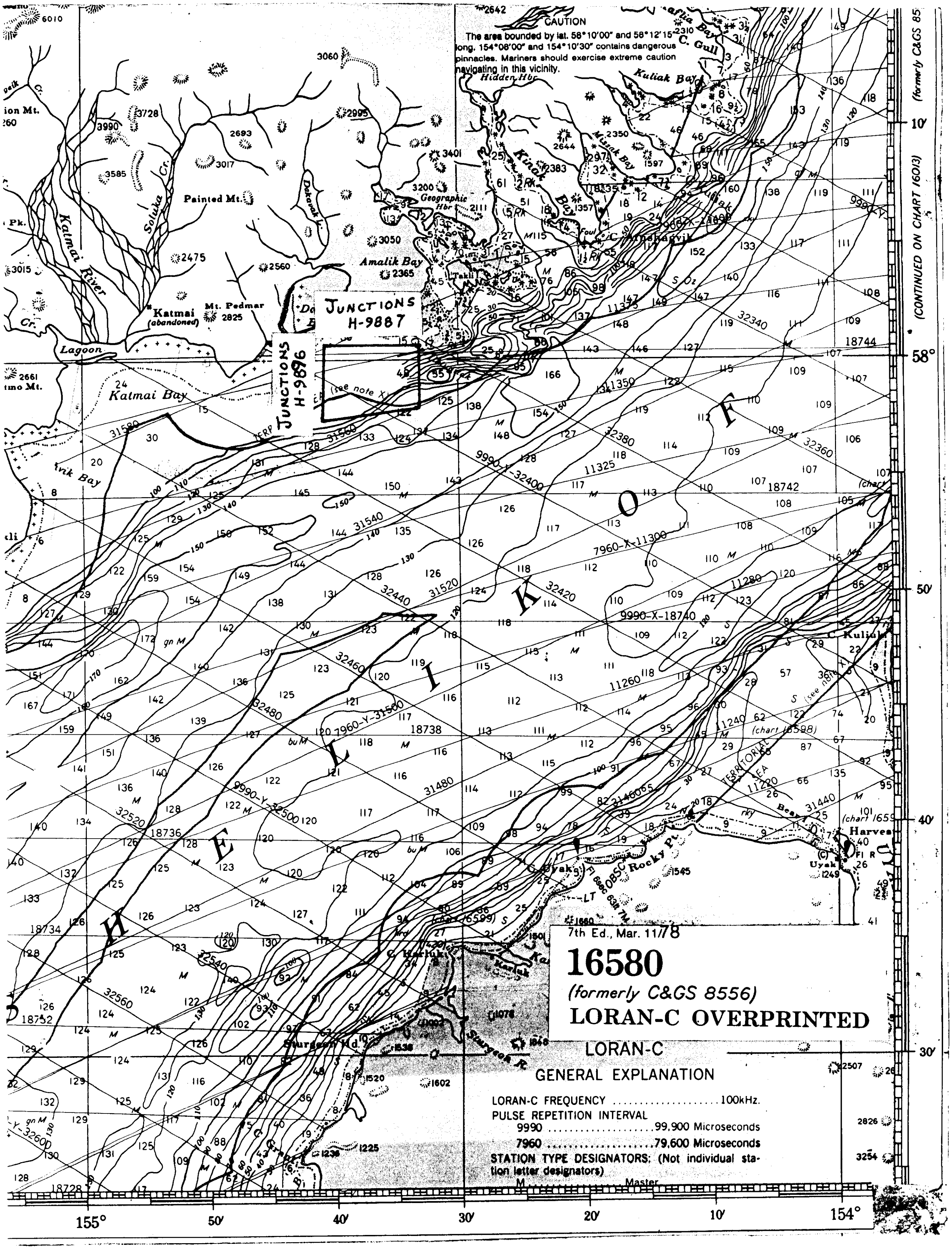
FROM: N/CG2 - C. William Hayes

SUBJECT: H-9888 (1980), OPR-P146, Alaska, Shelikof Strait, Offshore Cape Ilktugitak, Report of Compliance with Project Instructions

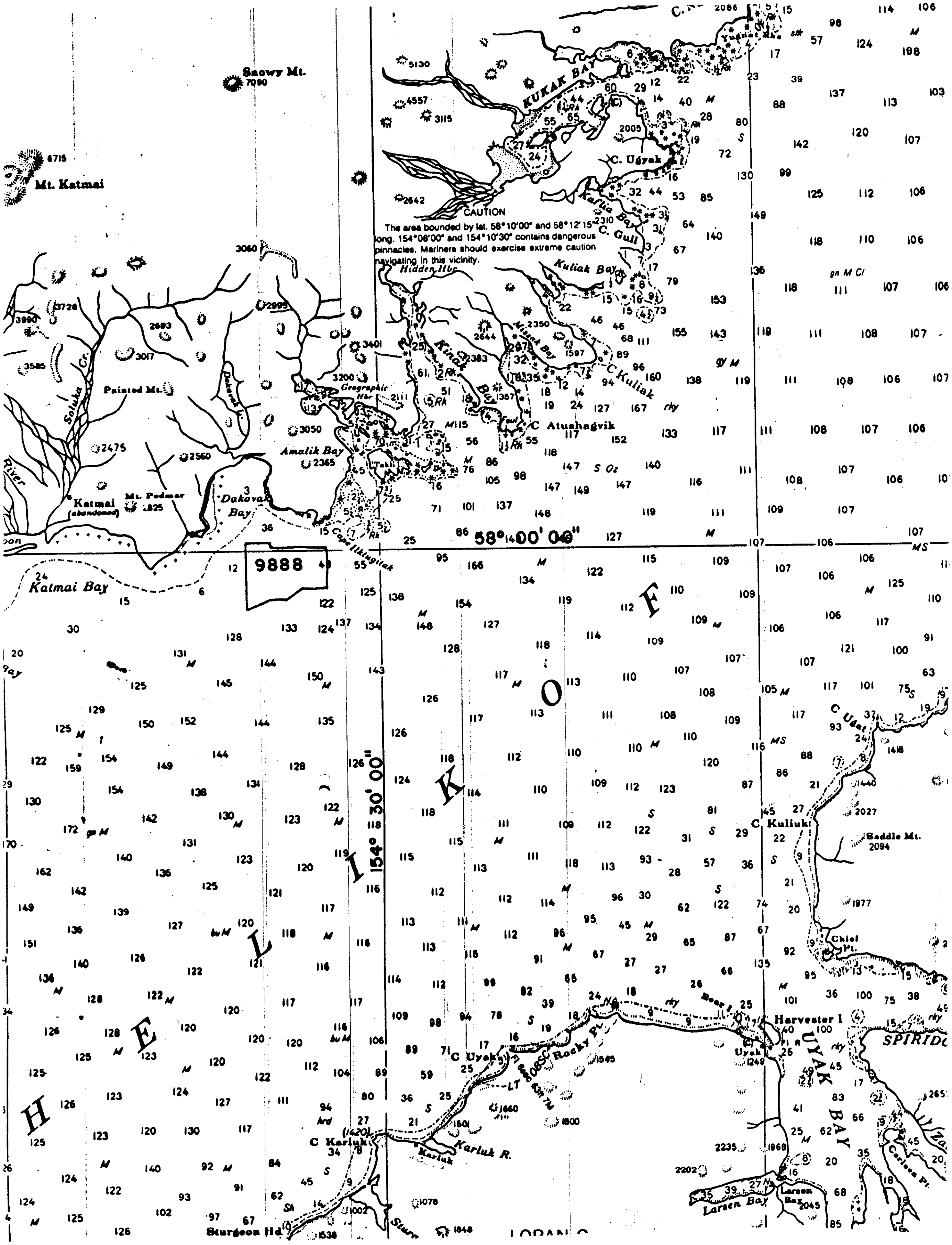
The smooth sheet and Descriptive Report for the subject survey have been examined. This survey, except as noted in the Quality Control Report, dated January 8, 1982 (copy attached), and the Hydrographic Survey Inspection Team Report, dated July 28, 1981, is complete and adequate for the purposes intended and is in compliance with Project Instructions OPR-P146-DA-80, dated March 10, 1980.

Attachment

cc:
N/CG242 w/o att.



CAUTION
The area bounded by lat. 58°10'00" and 58°12'15" long. 154°08'00" and 154°10'30" contains dangerous pinnacles. Mariners should exercise extreme caution navigating in this vicinity.
(formerly C&GS 85
(CONTINUED ON CHART 16013)
JUNCTIONS H-9887
JUNCTIONS H-9896
(see note X)
Hidden Hbr
C. Gull
Kuliak Bay
Kinak Bay
Missak Bay
Geographic Hbr
Amalik Bay
C. Atushagvik
Takli I.
Painted Mt.
Katmai River
Soluka Cr.
Dakavak L.
Katmai (abandoned)
Mt. Pedmar 2825
Lagoon
Katmai Bay
SHELIKOF
C. Kuliak
C. Uyak
Rocky Pt.
C. Karluk
Karluk
Sturgeon Hd.
Sturgeon R.
Uyak
Harvester
TERRITORIAL SEA
9990-X-18740
9990-Y-32400
9990-Y-32500
7960-X-11300
7960-Y-31500
155°
50'
40'
30'
20'
10'
154°
58°
7th Ed., Mar. 11/78
16580
(formerly C&GS 8556)
LORAN-C OVERPRINTED
LORAN-C
GENERAL EXPLANATION
LORAN-C FREQUENCY ....100kHz.
PULSE REPETITION INTERVAL
9990 ....99,900 Microseconds
7960 ....79,600 Microseconds
STATION TYPE DESIGNATORS; (Not individual station letter designators)
M .... Master



Snowy Mt. 7090
Mt. Katmai
KUKAK BAY
C. Ugyak
Kaflia Bay
C. Gull
Kuliak Bay
Hidden Hbr
CAUTION
The area bounded by lat. 58°10'00" and 58°12'15" long. 154°08'00" and 154°10'30" contains dangerous pinnacles. Mariners should exercise extreme caution navigating in this vicinity.
Geographic Hbr
Amalik Bay
Painted Mt.
Soluka Cr.
Katmai (abandoned)
Mt. Pedmar
Dakavak Bay
Katmai Bay
9888
58°00'00"
C Atushagvik
C Kuliak
Kinak Bay
Missak Bay
SHELIKOF
154°30'00"
C Ugat
C. Kuliuk
Saddle Mt. 2094
Chief Pt.
Bear I
Harvester I
UYAK BAY
Uyak
C Uyak
Rocky Pt.
C Karluk
Karluk R.
Karluk
Sturgeon Hd
Larsen Bay

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

NAUTICAL CHART DIVISION

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-9888

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
16580,	3/14/83	T. ALEXANDER	Full ~~Part Before~~ After Verification Review, Inspection Signed Via
			Drawing No. 20 FULLY APPLIED HYDRO TO CHART.
16013,	3/14/83	T. ALEXANDER	Full ~~Part Before~~ After Verification Review, Inspection Signed Via
			Drawing No. 27 FULLY APPLIED HYDRO THRU CHART 16580
531	3/14/83	T. ALEXANDER	Full ~~Part Before~~ After Verification Review, Inspection Signed Via
			Drawing No. 18 FULLY APPLIED HYDRO THRU CHART 16013
330,	3/14/83	T. ALEXANDER	Full ~~Part Before~~ After Verification Review, Inspection Signed Via
			Drawing No. 32 EXAMINED, NO CORR'S AT THIS SCALE. Exam thru 531 #18
500,	3/17/83	M. Sage	Full ~~Part Before~~ After Verification Review, Inspection Signed Via
			Drawing No. 5. Examined - no corrections
16576		J Graham	Full ~~Part Before~~ After Verification Review, Inspection Signed Via
			Drawing No. #1
16575		J Graham	Full ~~Part Before~~ After Verification Review, Inspection Signed Via
			Drawing No. 1
			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.

FORM C&GS-8352 SUPERSEDES ALL EDITIONS OF FORM C&GS-975.

USCOMM DC 8441-P41