9902

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-10-6-80

Office No. H-9902

LOCALITY

State Alaska

General Locality Sheljikof Strait

Locality Western Katmai Bay

1980

CHIEF OF PARTY
CDR N.C. Austin

LIBRARY & ARCHIVES

DATE February 8, 1982

☆U.S. GOV. PRINTING OFFICE: 1980--658-537

NOAA FORM 77-28 (11-72) | U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION | REGISTER NO.

HYDROGRAPHIC TITLE SHEET

H-9902

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-10-6-80

State Alaska

General locality Shelikof Strait

Locality Western Katmai Bay

Scale 1:10,000 Date of survey August 12-September 11, 1980

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

Vessel DAVIDSON Launch DA-1(3131), Launch DA-2(3132)

Chief of party CDR Ned C. Austin, Comdg.

Surveyed by CDR N.C. Austin, LCDR D. Seidel, LT C. Cavin, LT S. Iwamoto, LTJG D. Actor, ENS S. Konrad, ENSN. Bogue

Soundings taken by echo sounder, ~~hand lead, pole~~ Ross Fineline, Model 5000 SN 1077 and 1036

Graphic record scaled by Ship's personnel

Graphic record checked by Ship's personnel

~~Protracted~~ Positions and soundings verified by PMC Verification Branch Automated plot by PMC Xynetics

~~Verification~~ Evaluation by Bruce A. Olmstead

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

REMARKS: Survey Time Zone: GMT

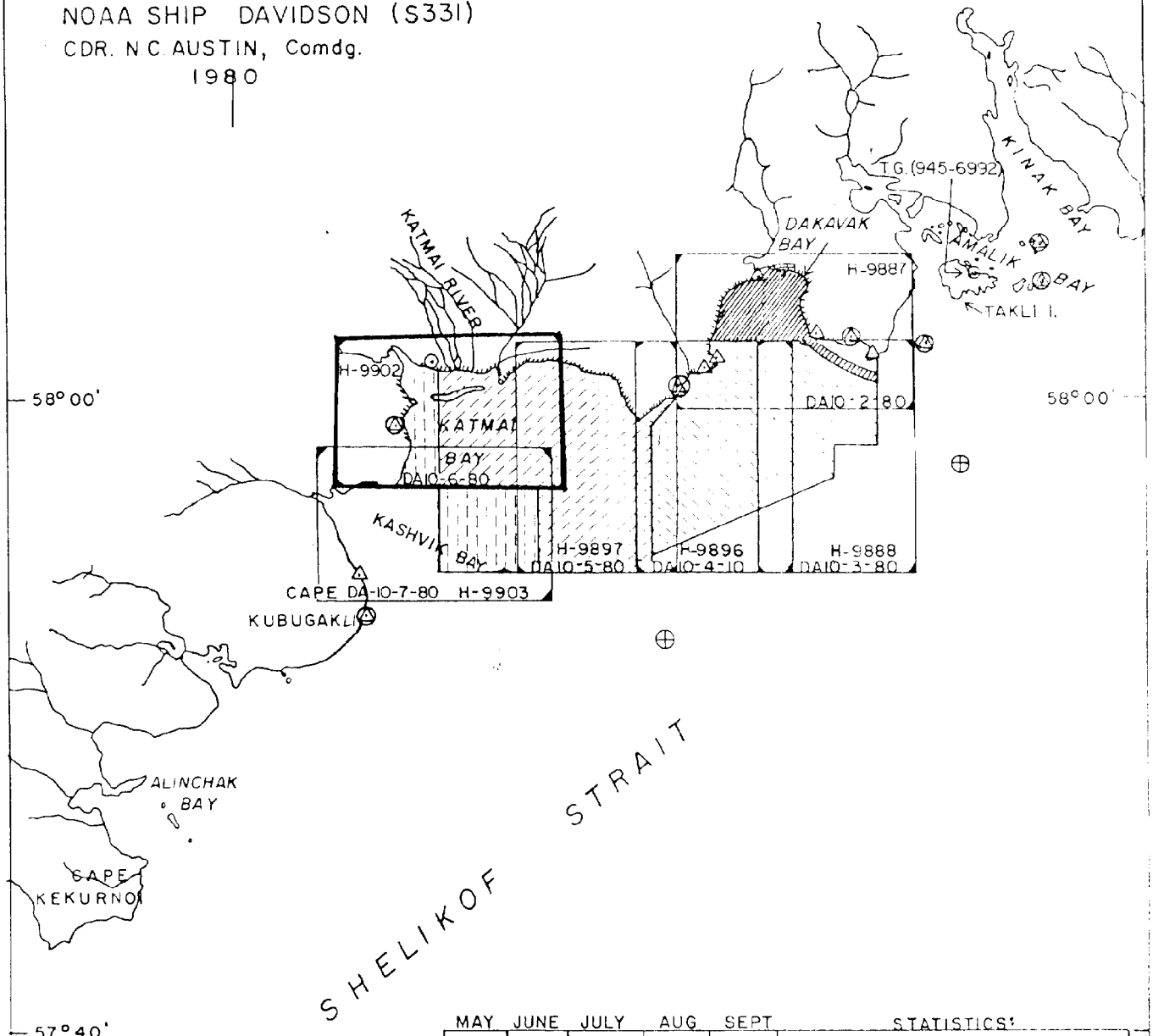
Survey is complete

Misc. data culled from the D.R. are filed with the survey records

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

☆ U.S. GOVERNMENT PRINTING OFFICE: 1976-665-661, 1022 REGION NO. 6

PROGRESS SKETCH
OPR-P146-DA-80
SHELIKOF STRAIT, ALASKA
CHART 16580
SCALE 1:350,000
NOAA SHIP DAVIDSON (S331)
CDR. N.C. AUSTIN, Comdg.
1980



MAY	JUNE	JULY	AUG	SEPT	STATISTICS:
0	110.4	492.6	743.1	191.7	L.N.M. SOUNDING LINE
0	5.3	14.5	40.4	12.5	SQ.N.M. SOUNDING
5	2	2	0	0	TRIANGULATION STA. RECOVERED
5	0	0	2	0	TRIANGULATION STA. ESTABLISHED
1	0	0	0	0	TIDE GAGE
0	0	30	75	0	BOTTOM SAMPLES
%	%	%	1	0	MARTEK/SALINITY CAST
%	0	0	0	0	BENCH MARKS RECOVERED/ESTAB.
0	7.8	3.5	76	0	SHORELINE OF FIELD EDIT

DESCRIPTIVE REPORT
To Accompany Hydrographic Survey
H-9902 (Field No. DA-10-6-80)
1980 1:10,000

NOAA Ship DAVIDSON S331 N. C. Austin, CDR, NOAA, Commanding

A. PROJECT

This survey was conducted in accordance with Project Instructions OPR-P146-DA-80, dated March 10, 1980, as amended by Change No. 1, dated April 8, 1980.

At the recommendation of the Commanding Officer, the scale of the survey was changed from 1:20,000 to 1:10,000 to more accurately depict all bottom features.

B. AREAS SURVEYED

The area surveyed is on the western side of Shelikof Strait, in the northwestern portion of Katmai Bay. It is bounded on the north and west by the shoreline of Katmai National Monument, on the east by longitude 154°54'30"W, and on the south by latitude 57°57'30"N. The survey was accomplished in an area of sandy, gently sloping bottom with occasional rocks and shoal areas. Survey operations began August 12, 1980 (JD 225), and were completed September 11, 1980 (JD 255).

C. SOUNDING VESSEL

All soundings on this survey were obtained by DAVIDSON launches as listed below:

Vessel	EDP No.	Julian Days	Position Numbers
DA-1	3131	243 - 246	2002 - 2276
DA-2	3132	225 - 227	4010 - 4690
		242 - 248	4691 - 5145
		254 - 255	5147 - 5204

Data recording and preliminary plotting was color coded by vessel. All work by DA-1 was done in red and all work by DA-2 was done in blue.

Standard NOS sounding vessel configurations were used.

D. SOUNDING EQUIPMENT AND CORRECTIONS TO ECHO SOUNDINGS

Both survey launches used Ross Fineline Fathometers, Model 5000, to obtain soundings. The serial numbers of the echo-sounding equipment used by each launch are listed below.

Vessel	Recorder S/N	Transceiver S/N	Digitizer S/N
DA-1	1077	1036	1081
DA-2	1080	1077	1077

The Ross fathometers were operated satisfactorily in the fathom mode in depths from 1 fathom to 40 fathoms. Phase calibrations were made at 10 fathom intervals from 0 to 150 fathoms, at the beginning of each day's hydrography. The fathogram initial was maintained at zero as required during operations. Fathograms were scanned and depths compared to digitized depths. Missed depths, peaks and deeps were added to the final field sheets by editing the master tapes and creating corrector tapes. ✓

No velocity corrections have been applied to the soundings on the final field sheets. The DAVIDSON (EDP No. 3130) conducted two Nansen casts during the project, on July 25, 1980 (JD 207), in the vicinity of latitude 57°58'12"N and longitude 154°26'12"W, and on August 26, 1980 (JD 239), in the vicinity of latituce 57°52'25"N and longitude 154°46'45"W. Details are given in the Corrections to Echo Soundings Report. ✓

Soundings on the final field sheets have been corrected for transducer draft. Bar checks were made daily, conditions permitting, and a TRA correction of +0.3 fathoms was determined. This correction was used throughout the survey. ✓

Soundings on the final field sheets have also been corrected for predicted tides. Predicted tides were computed from daily predicted tides for Seldovia, Alaska, corrected to Katmai Bay, Alaska, station 1823 in the 1980 Tide Tables. All times were converted to Greenwich Mean Time and the predicted tides were computed at 0.2 fathom intervals. ✓

Two bubbler tide gages were installed by the DAVIDSON at Takli Island. These gages remained in operation for the duration of the project. Tidal zoning was not required for this survey. Details are found in the Field Tide Note. ✓

Corrections for settlement and squat were not applied to the soundings on the final field sheets. However, corrections for settlement and squat have been included on the TC/TI tapes submitted to PMC. Details are given in the Correction to Echo Soundings Report. ✓

E. HYDROGRAPHIC SHEETS

Field sheets were prepared with the HYDROPLOT system on the DAVIDSON, using a PDP8/e computer (S/N 10756) and a Houston Instrument model DP-3-5 plotter (S/N 6166-2). ✓

The survey consists of two 1:10,000 scale computer sheets, the southern half DA-10-6A-80, and the northern half, DA-10-6B-80. No insets or overlays were required for this survey. Listings of projection and electronic control parameters are appended to this report. All field records will be sent to the Pacific Marine Center for verification and smooth plotting. ✓

F. CONTROL STATIONS

Two triangulation stations were recovered and three triangulation stations were established, two of them temporarily, to control positioning during this survey. All stations meet at least third order, Class I standards and are referred to the North America 1927 datum. The stations, their signal number, and usage are given in the table below. Stations that appear on the final field sheets are marked with an asterisk. ✓

(See next page)

Station	Signal No.	Use
MALIBU 1980 (temp) *	017	Mini Ranger Site
MALIBU A PT 1980 (temp) *	018	
ATMO 1976 *	019	
EAGLE 1980	020	
EAGLE 1980 RM 2	021	Mini Ranger Site
KUBUGAKLI 1908	022	Mini Ranger Site

For further information, consult the appended signal list, Electronic Control Report and Horizontal Control Report.

G. HYDROGRAPHIC POSITION CONTROL

Sounding line position control was obtained using the Motorola Mini Ranger III System in the range-range and range-azimuth modes, at ranges from 1 to 18 kilometers. The serial numbers of Mini Ranger III equipment used in the launches during this survey are given in the table below.

Vessel	Console S/N	R/T S/N	Julian Days
3131	710	721	243 - 245
3131	707	719	246
3132	707	719	225 - 238
3132	716	709	239 - 255

Mini Ranger III shore stations were chosen to maintain line-of-sight with the launches and, while in the range-range mode, to achieve arc intersection greater than 30°. The transponder codes, serial numbers, and days of operation of shore stations are listed below.

Station	Code (S/N)	Days Used
KUBUGAKLI 1908	3 (773)	225 - 227
MALIBU 1980	4 (771	225 - 227
		242 - 248
EAGLE 1980 RM 2	2 (772)	242 - 243
KUBUGAKLI 1908	1 (723)	243 - 246
MALIBU 1980	3 (773)	254 - 255

A systems check for each Mini Ranger III unit was conducted twice daily, before and after hydrography, if visibility and sea conditions permitted. This was accomplished by placing the launch at the intersection of two fixed ranges. The launch coxswain would steer in on one range while the launch OIC noted the Mini-Ranger III readings as the launch crossed the other range. The launch had been previously located at the crossing of the ranges by T2 intersection from EAGLE 1980 at ATMO 1976, providing a G.P. for the intersection point. Distances to the Mini Ranger sites from the computed G.P. were compared with the observed values. Observations were rejected if the daily correctors obtained differed by more than 5 meters from the baseline correctors, the standard for a 1:10,000 scale survey. Three acceptable observations were required for a successful system check.

Baseline correctors were determined from observations over a known range conducted on July 13, 1980 (JD 195), August 25, 1980 (JD 238), and September 26, 1980 (JD 270). Correctors applied to the final field sheets for hydrography run prior

to JD 238 are the means of the baseline correctors obtained on JD 195 and JD 238. Hydrography run after JD 238 was plotted using correctors obtained from the baseline calibration on JD 138. Final correctors will be the means of the baseline correctors which bracket the time of hydrography most closely. These correctors will be on the tapes submitted to PMC. ✓

The Mini Ranger III units on EAGLE 1980 RM 2 and MALIBU 1980 were mounted on 30' and 50' Raydist towers, respectively, from JD 225 to JD 248 to increase their offshore coverage. The hights of the towers are included in the signal tape station elevations. The Mini Ranger III unit used on MALIBU 1980 during JD 254 - 255 was mounted on a survey tripod, however, at the ranges used, the slope correction is negligible. The Raydist towers and KUBUGAKLI 1908's elevated location maintained signal strengths above the minimum acceptable levels. ✓

For details on Mini Ranger III operation and calibration procedures, consult the Electronic Control Report. ✓

Both a Wild T2 and a Leitz TM-1A were used satisfactorily on MALIBU A PT 1980 in conjunction with the Mini Ranger III unit on MALIBU 1980 to control the range-azimuth hydrography on the western side of the survey area. Strong winds in the area occasionally raised large clouds of sand and pumice which interrupted hydrography. Operations were conducted only in periods of clear visibility, however, so data quality was not affected. ✓

H. SHORELINE

The shoreline details shown on the final field sheets were obtained from the 1:20,000 scale class III topographic sheets TP-00621 (1976-80) and TP-00624 (1976), enlarged to 1:10,000 scale. All areas of shoreline shown on the final field sheet north of latitude 57°58'00"N (the southern boundary of TP-00621) were field edited. For details consult the Field Edit Report for Manuscript TP-00621. No field edit was accomplished south of latitude 57°58'00"N (TP-00624), consequently the shoreline in that area is indicated in blue. ✓ See Sec Item a Condition of Survey

The shoreline which forms the northern border of this survey is a sand and pumice beach, subject to frequent change. A note to that effect is included on the final field sheet. ✓

A submerged ledge in the vicinity of latitude 57°58'00"N, longitude 155°01'35"W prevented hydrography close to the shoreline. The submerged ledge is indicated in blue, since no field edit was accomplished south of latitude 57°58'00"N. ✓
Ledge is shown uncovering at MLLW on TP-00624 & was transferred to the smooth sheet.

I. CROSSLINES

Crosslines totaled 11.0% of the principal sounding lines. Agreement with the main scheme sounding lines was excellent. Three hundred fifty-six comparisons were made; 93.5% differed by less than one fathom, 5.9% differed by one fathom, and 0.6% differed by two fathoms. No discrepancies of greater than two fathoms were found. The two-fathom discrepancies occurred in areas of steeply sloping bottom. ✓

J. JUNCTIONS

This survey junctions on the east with contemporary survey DA-10-5-80 (H-9897) and on the south with contemporary survey DA-10-7-80 (H-9903). ✓ (H-9903 not in Rockville office 10/15/82)

On the east, agreement with adjacent sounding lines on DA-10-5-80 is excellent. Where sounding lines overlapped 46 comparisons were made, 36 soundings (78%) agreed exactly and the remaining 10 soundings (22%) differed by one fathom. Junctions of contour lines are smooth and neither soundings nor contour lines require adjustment. ✓

On the south, agreement with adjacent sounding lines on DA-10-7-80 is also excellent. The only sounding line overlap occurred on crosslines. There, eight comparisons were made; 6 soundings (75%) agreed exactly and the remaining 2 soundings (25%) differed by one fathom. Junctions of contour lines are smooth and neither soundings nor contour lines require adjustment. ✓ See Sec. 5 Junctions item b

K. COMPARISON WITH PRIOR SURVEYS

There are no prior surveys of the survey area ~~available~~ for comparison. ✓

L. COMPARISON WITH THE CHART

The latest edition of the largest scale chart of the survey area is chart No. 16580 (Kodiak Island), 7th Ed., March 11, 1978, at 1:350,000 scale. One sounding on the chart lies within the area of this survey, as tabulated below:

Charted Position	Charted Depth	Survey Depth
Lat. 57°59'06"N Lon. 154°57'00"W	24 fm	16 fm

Evaluator concurs

The charted sounding is of doubtful origin and should be superseded by the current survey. The discrepancy can be attributed to the current survey's more accurate position control and echo-sounding equipment. concur

Two rocks compiled on manuscript TP-00621 at latitude 57°58'17"N, longitude 155°00'30"W and latitude 57°58'13"N, longitude 155°00'29"W were found to be part of a submerged ridge posing a hazard to navigation whose seaward extension was defined by a uncorrected 1.5 fathom sounding at latitude 57°58'09"N, longitude 155°00'24"W. The least depths on this ridge were obtained by the field editor. For details consult the Field Edit Report for TP-00621. The two rocks were transferred to the S.S. from TP-00621 (1976-80) No elevations were furnished. ✓

The charted shoreline is not an accurate representation of the northern boundary of the survey area at the time of the survey. As noted in Section H of this report, the shoreline in that area is a sand and pumice beach subject to frequent change. In addition, submerged rocks shown near the charted shoreline in the vicinity of latitude 58°00'45"N between longitude 154°54'30"W and longitude 154°55'36"W were not found. The shoreline in the survey area should be charted as shown on the final field sheets, however, a note concerning the changing nature of the shoreline should be included on the chart. See Sec. 4 Condition of Survey item C

M. ADEQUACY OF SURVEY

The survey is sufficiently complete and adequate to warrant its use for charting. The number of bottom samples does not meet the requirements set forth in the Hydrographic Manual, however, the character of the bottom is adequately described. Time limitations prevented completion of the bottom sampling. ✓

N. AIDS TO NAVIGATION

There are no fixed or floating aids to navigation in the survey area. ✓

O. STATISTICS

A summary of statistics is given below.

Vessel (#)	No. of Positions	N. Miles of Sounding Lines	Sq. Miles of Hydrography	No. of Bottom Samples
DA-1 (3131)	261	16.4	1.45	5
DA-2 (3132)	1194	59.2	9.1	-

P. MISCELLANEOUS

None applicable.

Q. RECOMMENDATIONS

The scale of the existing chart (1:350,000) is inadequate for this section of the Alaska coastline. Larger scale charts are needed by users. A higher priority for producing larger scale charts of the area is recommended.

R. AUTOMATED DATA PROCESSING

Programs used during field data acquisition and field processing of this survey are as follows:

Program	Description	Version Date
RK111	Range-Range Real Time Hydroplot	1/30/76
RK201	Grid, Signal, and Lattice Plot	4/18/75
RK211	Range-Range Non-Real Time Plot	1/15/76
RK212	Visual Station Table Load	4/01/74
RK216	Range-Azimuth Non-Real Time Plot	2/05/76
RK300	Utility Computations	2/10/76
RK330	Reformat and Data Check	5/04/76
RK500	Predicted Tide Generator	11/10/72
AM602	Elinore	5/20/75

S. REFERENCE TO REPORTS

Horizontal Control Report
Field Edit Report for Manuscript TP-00621
Electronic Control Report
Corrections to Echo Soundings Report
Field Tide Note
Coast Pilot Report

Respectfully submitted,

Neil M. Bogue

Neil M. Bogue, ENS, NOAA

Approved and forwarded

N. C. Austin

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

NMB:jaf

SURVEY APPROVAL SHEET DA 10-6-80

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

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

H.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

OPR-P146-DA-80

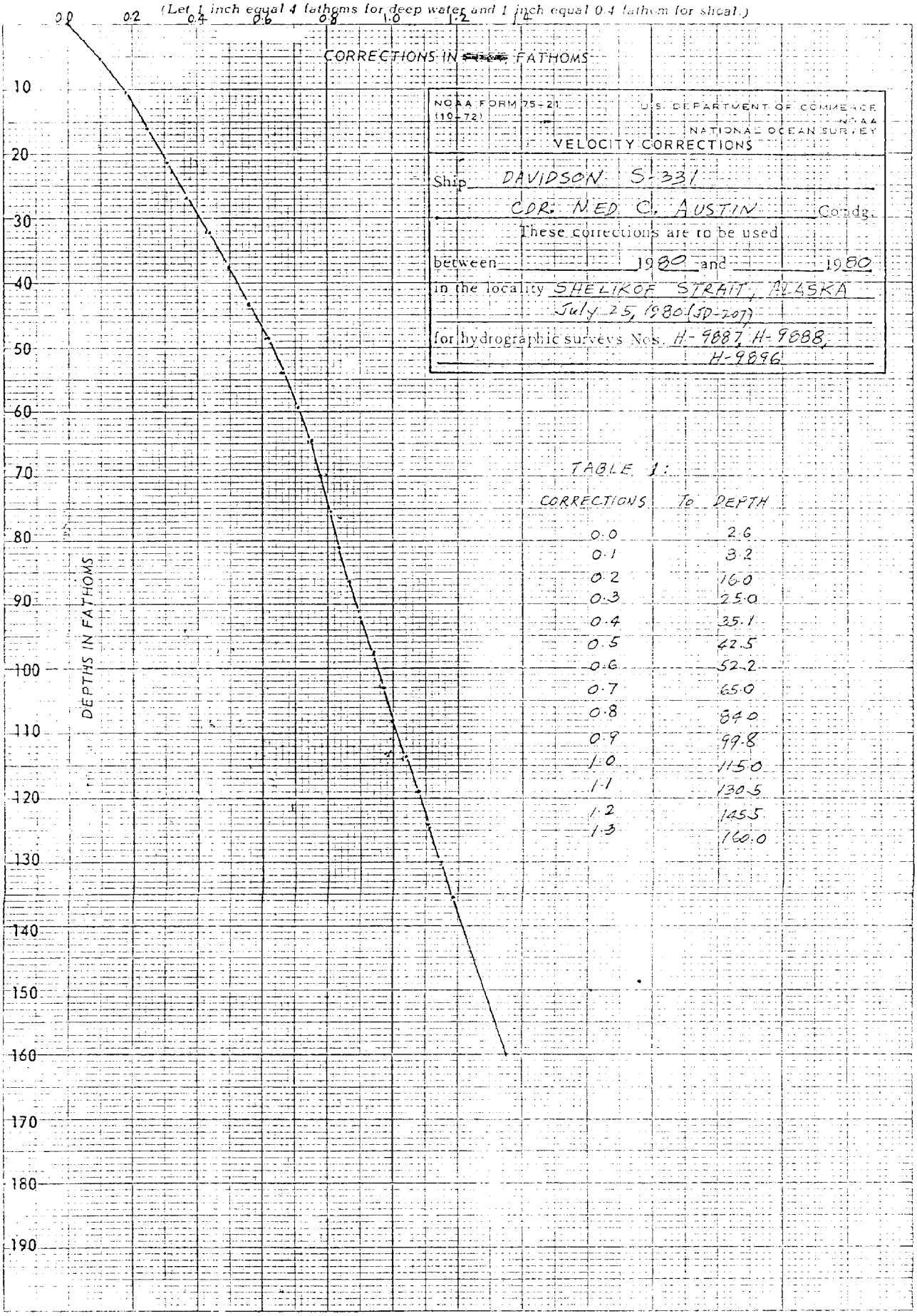
DA-10-6-80(H-9902)
VELOCITY AND TC/TI TAPES PRINTOUT

VELOCITY :
000030 0 0000 0002 001 000000 009902
000078 0 0001
000160 0 0002
000237 0 0003
000335 0 0004
000460 0 0005
000634 0 0006
000831 0 0007
000998 0 0008
001150 0 0009
001287 0 0010
001465 0 0011

TC/TI: LAUNCH 3131
223509 0 0002 0002 243 313100 000000
190736 0 0002 0002 246 313100 000000
235900 0 0002

TC/TI: LAUNCH 3132
182703 0 0002 0002 225 313200 000000
000400 0 0002 0002 255 313200 000000
235900 0 0002

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



(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. NED C. AUSTIN Comdg.

These corrections are to be used between 1980 and 1980

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

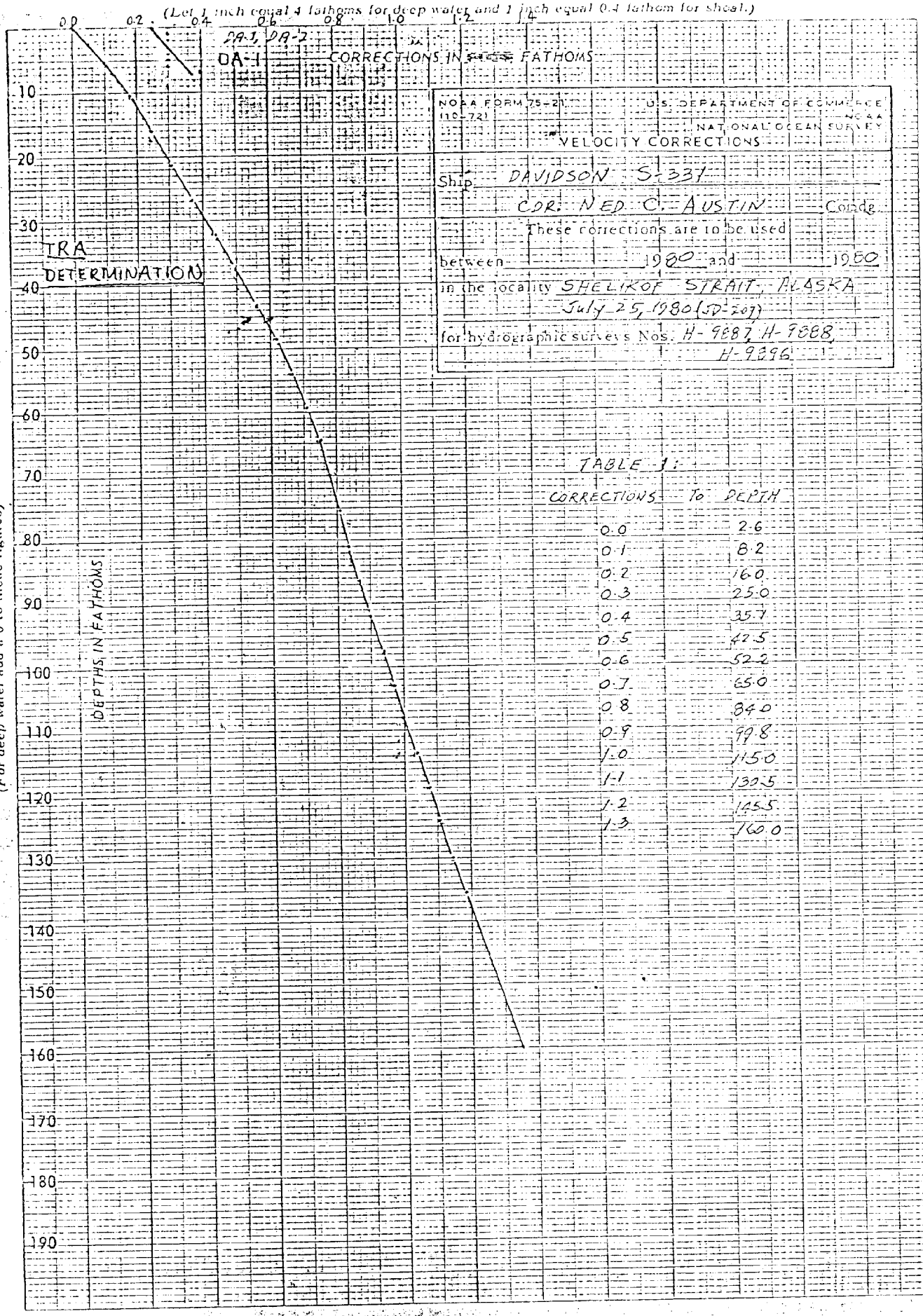
for hydrographic surveys Nos. H-9887, H-9888, H-9896

TABLE 1:

CORRECTIONS	TO DEPTH
0.0	2.6
0.1	3.2
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

☆ U.S. GOV. PRINTING OFFICE: 1975—408-160

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



(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-337

COR. NED C. AUSTIN — Corrs.

These corrections are to be used

between 1980 and 1980

in the locality SHELIKOF STRAIT, ALASKA

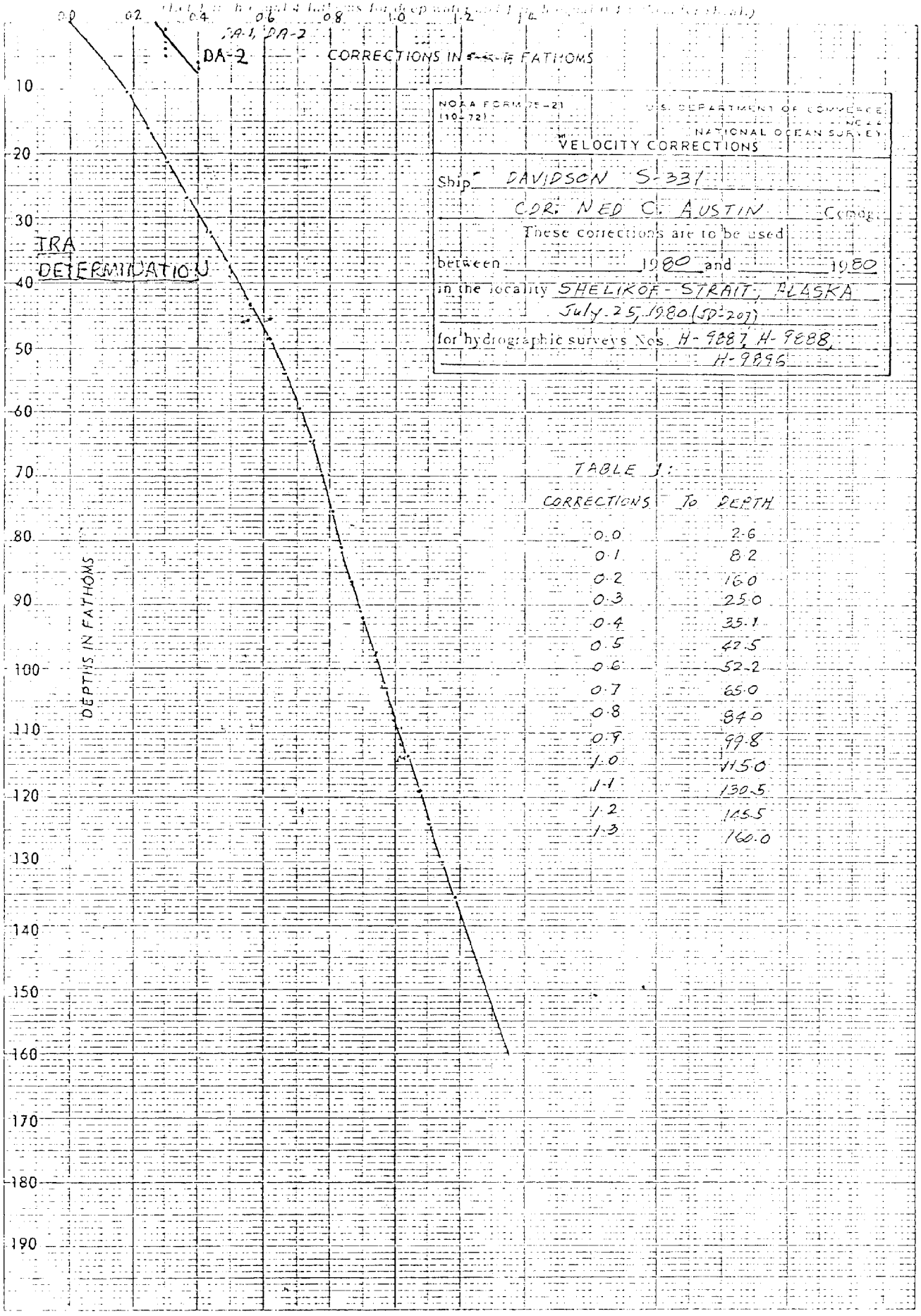
July 25, 1980 (JD-207)

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	47.5
0.6	52.2
0.7	65.0
0.8	84.0
0.9	99.8
1.0	115.0
1.1	132.5
1.2	145.5
1.3	160.0

☆ U.S. GOV. PRINTING OFFICE: 1975—655-1



(For deep water add n 0 to these figures)

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

VELOCITY CORRECTIONS

Ship DAVIDSON S-331

COR: NED C. AUSTIN Comdg.

These corrections are to be used

between _____ 1980 and _____ 1980

in the locality SHELIKOF STRAIT, ALASKA

July 25, 1980 (SD-207)

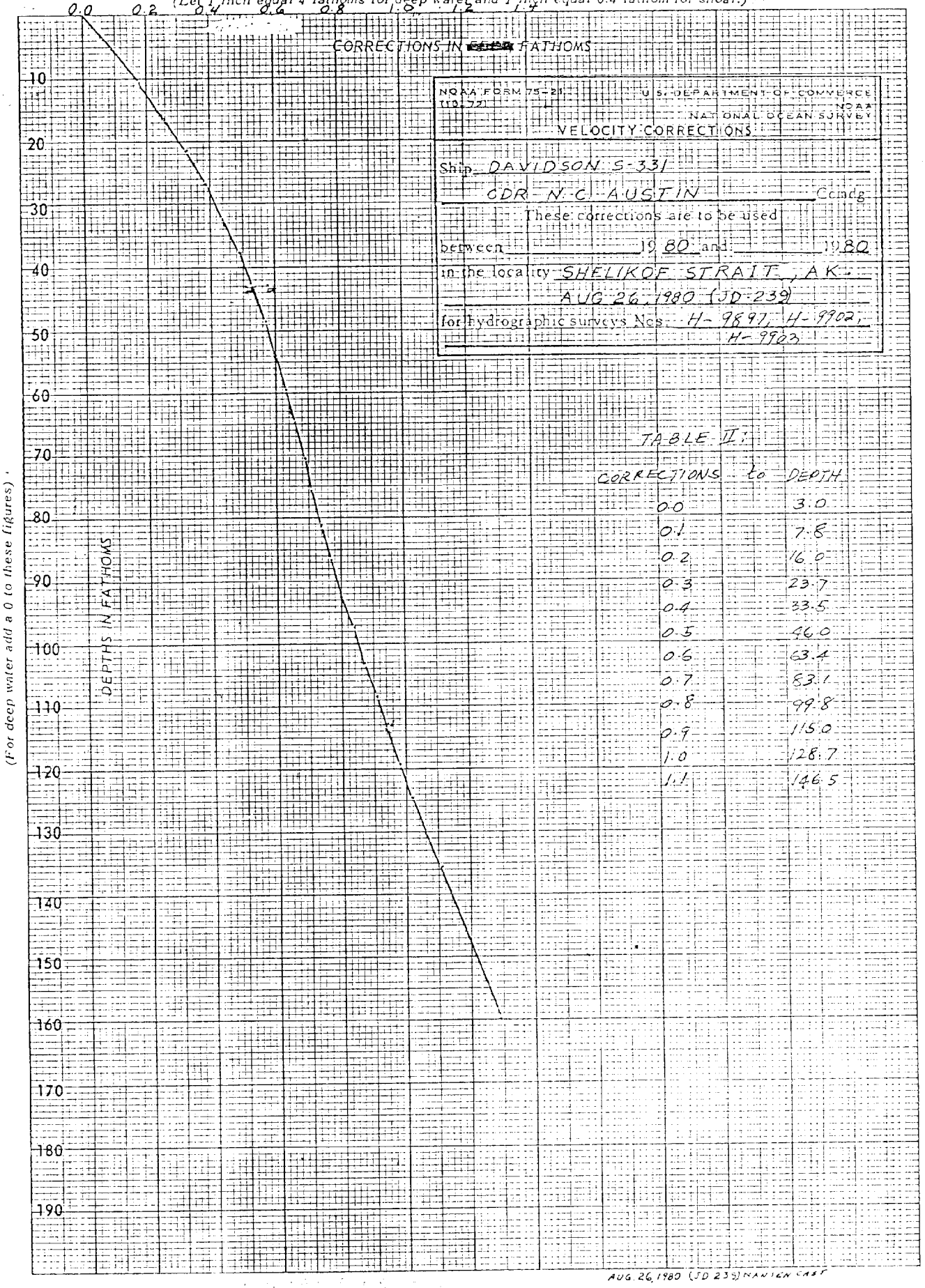
for hydrographic surveys Nos. H-9887, H-9888, H-9896

TABLE I:

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

☆ U.S. GOV. PRINTING OFFICE: 1975 — 656-160

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



(For deep water add a 0 to these figures)

NOAA FORM 75-28 (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) NANTEN 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. GOVT. PRINTING OFFICE: 1975 606-11

OPR P146-DA-80

SOUNDING CORRECTION ABSTRACT

Fathometer No. 1077

FIELD NO. DA-10-6-80

VESSEL 3131

REGISTRY NO. H- 9902

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	+0.29fm	-0.04fm	-	-.07fm	+0.18fm	

OPR P146-DA-80

SOUNDING CORRECTION ABSTRACT

Fathometer No. 1080

FIELD NO. DA-10-6-80

VESSEL 3132

REGISTRY NO. H-9902

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

FORM CD-26
(12-11-46)

U.S. DEPARTMENT OF COMMERCE

BAR CHECK ABSTRACT
LAUNCH DA-2 (3132)

WORKSHEET DA- 10 - 6 - 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
225	0.7	1.7	2.7	3.7	4.7			Good
	0.7	1.7	2.7	3.7	—			
226	0.7	1.7	2.7	3.7	4.7	5.7	6.6	Good
227	0.7	1.7	2.7	3.8	4.7	5.7	—	
227	NO	BAR CHECK —		rough				
MEAN	0.7	1.7	2.7	3.7	4.7	5.7	6.6	
TRA	0.3	0.3	0.3	0.3	0.3	0.3	0.4	
		MEAN	TRA =	0.3				

* U.S. GOVERNMENT PRINTING OFFICE 1973-762-3

FORM CD-26
(12-11-46)

U.S. DEPARTMENT OF COMMERCE

BAR CHECK ABSTRACT
LAUNCH 1 (3131)

WORKSHEET

DA-10-6-80

J.D.	1.0 FM	2.0 FM	3.0 FM	4.0 FM	5.0 FM	6.0 FM	7.0 FM	8.0 FM	REMARKS
243	0.7	1.7	2.7	3.7	4.7				Good
244	0.7	1.7	2.7	3.7	—				
245	0.7	1.6	2.7	3.7	4.7	5.7			FAIR
	0.7	1.7	2.7	3.7	4.7	—			
		\							
245	0.7	1.7	2.7	3.6	4.7	5.6			POOR - ECHO CURVE
246	0.7	1.7	2.7	—	—	—			
246	0.7	1.7	2.7	3.7	4.7	5.7	6.7	7.7	9000 - SEE DA-10-5-20
	0.7	1.7	2.7	3.7	4.7	5.7	6.7	—	
MEAN	0.7	1.7	2.7	3.7	4.7	5.7	6.7	7.7	
TRA	0.3	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-

30TH 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	Δ FT 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

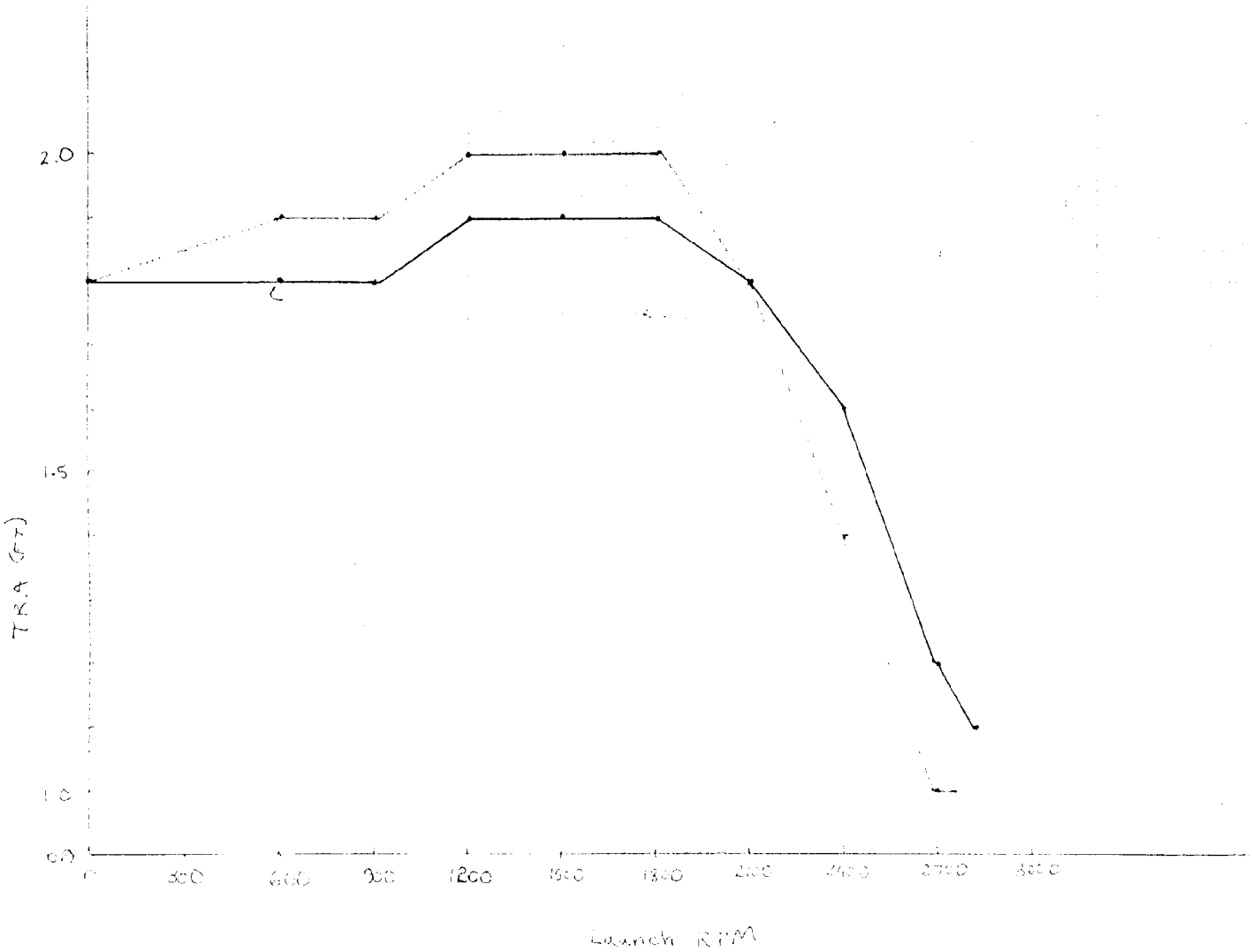
DA-2 (3132) Blue Launch

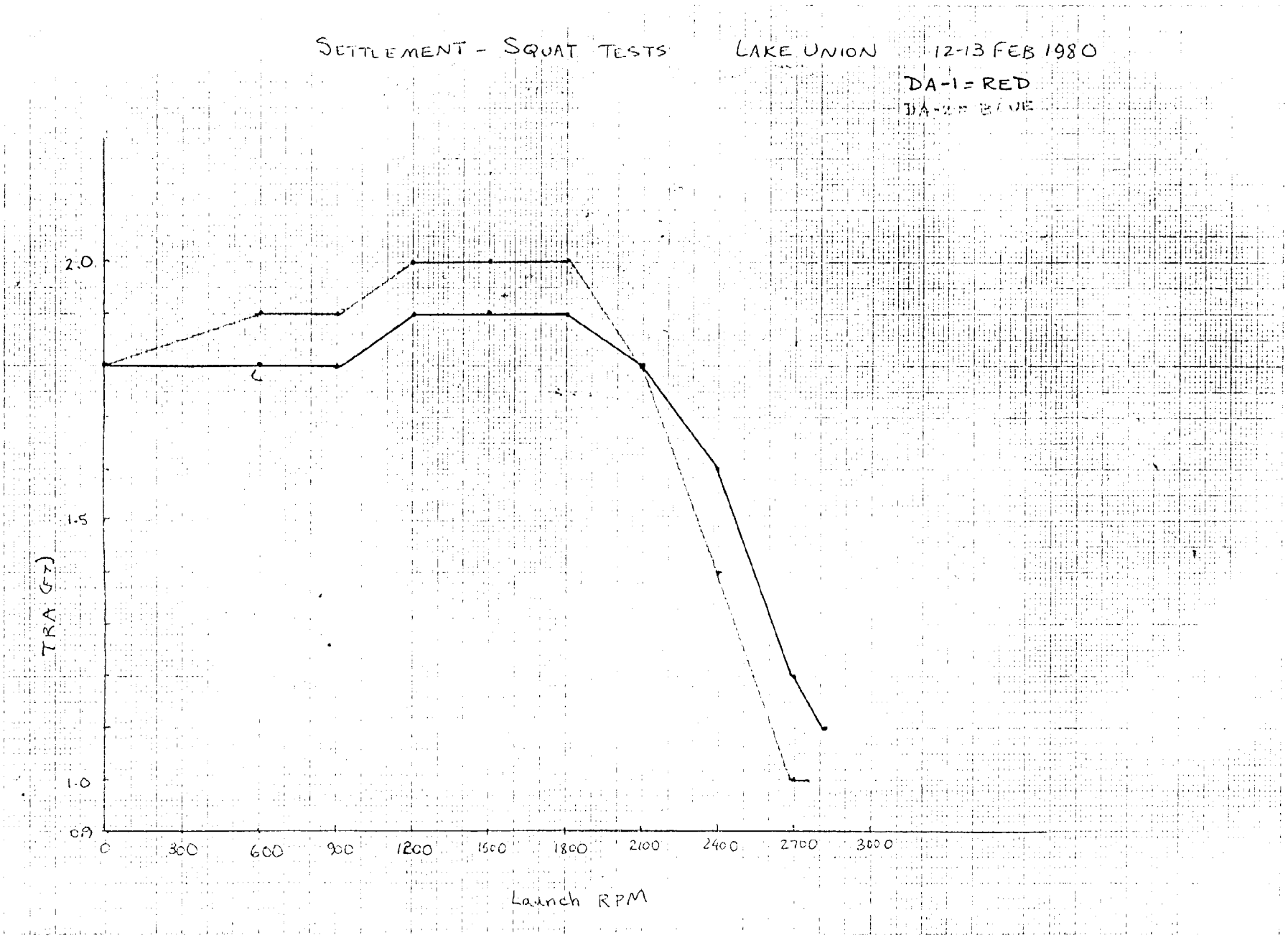
measured (fresh water) (Draft = 22" = 1.83')

0 RPM (DIW)	0.58	0.0	1.83 = 1.8
idle (650)	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	0.75 ~~0.50~~	+0.17	2.00 = 2.0
2100	0.50	-0.08 ~~+0.08~~	1.75 ~~1.85~~ = 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




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-10-2-80(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	54292	155	03	34026	139	0016	000000	EAGLE RM 1 1980

NOAA FORM 76-40
(8-74)

Replaces C&GS Form 567.

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

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

ORIGINATING ACTIVITY
- [X] HYDROGRAPHIC PARTY
- [ ] GEODETIC PARTY
- [ ] PHOTO FIELD PARTY
- [ ] COMPILATION ACTIVITY
- [ ] FINAL REVIEWER
- [ ] QUALITY CONTROL & REVIEW GRP.
- [ ] COAST PILOT BRANCH

(See reverse for responsible personnel)

- [X] TO BE CHARTED
- [ ] TO BE REVISED
- [ ] TO BE DELETED

REPORTING UNIT (Field Party, Ship or Office)	STATE	LOCALITY	DATE
NOAA Ship DAVIDSON	ALASKA	SHELIKOF STRAIT	10/25/80

The following objects HAVE [ ] HAVE NOT [ ] been inspected from seaward to determine their value as landmarks.

OPR PROJECT NO.	JOB NUMBER	SURVEY NUMBER	DATUM
OP146-DA-80		H-9902 DA-10-6-80	MLLW

CHARTING NAME	DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses)	POSITION LATITUDE ° ′	POSITION LATITUDE ″ D.M. Meters	POSITION LONGITUDE ° ′	POSITION LONGITUDE ″ D.P. Meters	METHOD AND DATE OF LOCATION (See instructions on reverse side) OFFICE	METHOD AND DATE OF LOCATION FIELD	CHARTS AFFECTED
NONE	NONE							

RESPONSIBLE PERSONNEL

TYPE OF ACTION	NAME	ORIGINATOR
OBJECTS INSPECTED FROM SEAWARD		☐ PHOTO FIELD PARTY ☐ HYDROGRAPHIC PARTY ☐ GEODETIC PARTY ☐ OTHER *(Specify)*
POSITIONS DETERMINED AND/OR VERIFIED		FIELD ACTIVITY REPRESENTATIVE
		OFFICE ACTIVITY REPRESENTATIVE
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES		☐ REVIEWER ☐ QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE

INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION'

(Consult Photogrammetric Instructions No. 64)

OFFICE

I. OFFICE IDENTIFIED AND LOCATED OBJECTS

Enter the number and date (including month, day, and year) of the photograph used to identify and locate the object.

EXAMPLE: 75E(C)6042
8-12-75

FIELD

I. NEW POSITION DETERMINED OR VERIFIED

Enter the applicable data by symbols as follows:

F - Field	P - Photogrammetric
L - Located	Vis - Visually
V - Verified	
1 - Triangulation	5 - Field identified
2 - Traverse	6 - Theodolite
3 - Intersection	7 - Planetable
4 - Resection	8 - Sextant

A. Field positions* require entry of method of location and date of field work.

EXAMPLE: F-2-6-L
8-12-75

*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.

FIELD (Cont'd)

B. Photogrammetric field positions** require entry of method of location or verification, date of field work and number of the photograph used to locate or identify the object.

EXAMPLE: P-8-V
8-12-75
74L(C)2982

II. TRIANGULATION STATION RECOVERED

When a landmark or aid which is also a triangulation station is recovered, enter 'Triang. Rec.' with date of recovery.

EXAMPLE: Triang. Rec.
8-12-75

III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH

Enter 'V-Vis.' and date.

EXAMPLE: V-Vis.
8-12-75

**PHOTOGRAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established by photogrammetric methods.

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	58° 03.8'N	"A" 0-30 ft. Bristol Bubbler	116 Days
945-6992	154° 28.6'W	"B" 0-30 ft. Bristol Bubbler	21 May - 14 Sept '80
(Historic Site)			

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

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):

5/21/80 @ 1900 hours to 6/5/80 @ 1800 hours = 4.68 ft.

6/5/80 @ 1900 hours to 7/8/80 @ 2300 hours = 5.38 ft.

7/9/80 @ 0000 hours to 8/15/80 @ 1800 hours = 4.68 ft.

8/15/80 @ 1900 hours to 9/14/80 @ 2100 hours = 4.58 ft.

Chief, Datums and Information Branch

NOAA FORM 76-155
(11-72)

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

SURVEY NUMBER

H-9902

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 T-sheet	
Katmai Bay	X								TP-00621	1
Katmai River										2
										3
										4
										5
										6
										7
										8
										9
										10
										11
										12
										13
										14
										15
										16
										17
										18
										19
					Approved:					20
										21
					Chas. E. Harrington					22
					Chief Cartographer - C3x5					23
					23 April 1982					24
										25

NOAA FORM 76-155 SUPERSEDES C&GS 197

APPROVAL SHEET

FOR

SURVEY H-9902

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: October 15,1981

James S. Green

Chief, Verification Branch

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

HYDROGRAPHIC SURVEY STATISTICS

H-9902

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

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT
SMOOTH SHEET	1	BOAT SHEETS & PRELIMINARY OVERLAYS	7
DESCRIPTIVE REPORT	1	SMOOTH OVERLAYS: POS/ARC, EXCESS	6 3

DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/ SOURCE DOCUMENTS
ENVELOPES						
CAHIERS						
VOLUMES						
BOXES			1 - Fath. Raw. Sm. P/O			

T-SHEET PRINTS (List) TP-00621 2 x Enlargement Class I TP-00624 2 x Enlargement Class III

SPECIAL REPORTS (List) None

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			1430
POSITIONS CHECKED		1430	
POSITIONS REVISED		118	
SOUNDINGS REVISED		129	
SOUNDINGS ERRONEOUSLY SPACED		0	
SIGNALS (CONTROL) ERRONEOUSLY PLOTTED		0	

	TIME – HOURS		TOTALS
CRITIQUE OF FIELD DATA PACKAGE (PRE-VERIFICATION)	4	*(VER)/(EVAL)	
VERIFICATION OF CONTROL		2/0	2
VERIFICATION OF POSITIONS		15/0	15
VERIFICATION OF SOUNDINGS		18/0	18
COMPILATION OF SMOOTH SHEET		3/0	3
APPLICATION OF TOPOGRAPHY		2/2	4
APPLICATION OF PHOTOBATHYMETRY		0/0	0
JUNCTIONS		1/01	2
COMPARISON WITH PRIOR SURVEYS & CHARTS		0/01	1
VERIFIER'S REPORT		3/10	13
OTHER		0/16	16
TOTALS		44/30	74

Pre-Verification by: James S. Green	Beginning Date: 12/16/80	Ending Date: 12/16/80
Verification by: Karol M. Scott Evaluation by: Bruce Alan Olmstead	Beginning Date: 2/18/81	Ending Date: 9/24/81
Verification Check by: James S. Green	Time (Hours): 13	Date: 10/7/81
Marine Center Inspection by: H. I. T.	Time (Hours): 4	Date: 1/20/82
Quality Control Inspection by: F.P. Saulsbury	Time (Hours): 11	Date: 4-23-82
Requirements Evaluation by: R.W. Derkazarian	Time (Hours): 2	Date: July 18, 1983

P. Smyers 5/27/82 1 Ltr.

* Time in this column is for verification (VER) and evaluation (EVAL)

REGISTRY NO. H-9902-

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-9902 FIELD NO. DA-10-6-80

Alaska, Shelikof Strait, Western Katmai Bay

SURVEYED: August 12 - September 11, 1980

SCALE: 1:5,000 PROJECT NO: OPR-P146-DA-80

SOUNDINGS: Ross Fathometer Model 5000 SN 1077, 1036 CONTROL: Miniranger - Range Range

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

Surveyed by . . . . . .LCDR D. Siedel
LT C. Cavin
LT S. Iwamoto
LTJG D. Actor
ENS S. Konrad
ENS N. Bogue

Automated Plot by: . . . . . .PMC Xynetics Plotter

Verified by: . . . . . .Karol M. Scott

Evaluated by: . . . . . .Bruce A. Olmstead
September 24, 1981

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.

H-9902 (DA-10-6-80) was conducted under the current National Ocean Survey methods of planning, executing and processing a hydrographic survey as defined in the Hydrographic Manual, 4th Edition. Project Instructions OPR-P146-DA-80, Shelikof Strait, Alaska dated March 10, 1980 were generated to supplement the Hydrographic Manual. This, to compensate for the nature, locality and the unique requirements of

the project area. Change No. 1 dated April 8, 1980 is a supplement to instructions. Hydrography was conducted from August 12-September 11, 1980. Field edit on shoreline manuscript TP-00621 was accomplished August 1980. Shoreline manuscript TP-00624 was not field edited during this survey.

The initiation of this project stems from the request of several Federal Agencies and Alaskan interest groups to provide contemporary hydrographic information in Shelikof Strait. These surveys situated on the western side of Shelikof Strait are intended to provide an extensive amount of hydrographic data in areas previously unsurveyed or containing sparse hydrographic information. The largest scale nautical chart (16580, 1:350,000) of Shelikof Strait (related surveying area) reveals little information for the mariner between Dakavak Bay and Cape Kekurnoi inside the 100 fathom depth curve. Prior survey information that is available, dates from surveys of 1919-1947. Thus a combined operations has been tasked to the NOAA Ship DAVIDSON and will include several basic surveys. The new data will be used to update existing nautical chart coverage in an area frequently used by shipping, fishing boats and the tourist industry.

A basic survey, H-9902 (DA-10-6-80) is situated in the northwestern portion of Katmai Bay. Specifically, from Latitude 57°57'30"N to Latitude 58°01'20"N, Longitude 154°54'30"W to Longitude 155°02'00"W and encompassing approximately seven miles of shoreline. Depths of water range from the Mean Lower Low Water Line to 41 fathoms.

Field tide reduction of soundings was based on predicted tides for Seldovia corrected to Katmai Bay. Takli Island "A" Gage was used to control the sounding reduction on the smooth sheet. Sounding differences of .2 to .3 of a fathom between the final field sheet and the smooth sheet are attributed to the application of velocity correctors and approved tidal zoning during processing at the Marine Center.

The Projection Parameters, Signal List and Electronic Corrector Abstract were amended during the verification process. All corrected data is listed in the smooth printouts to accompany the final PMC plot.

2. CONTROL AND SHORELINE

Stations located to Third Order Class I standards were used to control the entire hydrographic survey. The Motorola Miniranger III System used in the range-range and range-azimuth modes was employed for interrogation in determining positional data during launch operations. There was no work involving ship hydrography. Specific information and documented methods of procedure are adequately described in Parts F and G of the ship's descriptive report and the Horizontal Control Report. The Mean High Water Line was applied from Class I unreviewed manuscript TP-00621 and Class III manuscript TP-00624.

Dates of Photography		Dates of Field Edit
TP-00621	June 1976	August 1980
TP-00624	June 1976	None

The field editor noted several changes from the Class III shoreline mauscript, TP-00621, concerning the Mean High Water Line. Shoreline revisions were made by sketches on the photographs and by Range-Range detached positions. However, only the photographic ✓ detailed revisions were applied to the manuscript. Further information can be found in the addendum to the compilation report for TP-00621. Data from the Class I is shown on the smooth sheet.

3. HYDROGRAPHY

Soundings at crossings are in good agreement. ✓

The bottom configuration, determination of least depths and development of all standard depth curves are adequate. ✓

The dotted Mean Lower Low Water Line from the Class I manuscript was transferred to the smooth sheet in areas of no supporting hydrographic data. Two shoreline manuscript features were revised ✓ to reflect the hydrographic data.

a. Ledge - Latitude 57°58'00"N to Latitude 57°58'30"N, ✓ Longitude 155°01'20"W to Longitude 155°01'45"W.

b. Island - Latitude 58°00'10"N, Longitude 154°56'30"W. ✓

4. CONDITION OF SURVEY

The smooth sheet and accompanying overlays, hydrographic records and reports are adequate and conform to the requirements as stated in the Hydrographic Manual with the exception of;

a. The smooth field sheet displays the Class III shoreline information in black. This indicates tht the data was accepted by the field as reflecting an accurate portrayal of the photography. However, the field editor specifically states that changes to the Mean High Water Line have occurred and that revisions were made to ✓ the photographs. Additionally, detached positions were taken to substantiate these changes. Revisions to the MHWL should have been shown on the field sheet in red. See 4.5.8, Verification of Alongshore and Offshore Detail.

b. Extensive bottom sampling was not conducted during this survey. Sampling should have occurred at the prescribed intervals for previously unsurveyed areas. See 1.6.3, Bottom Characteristics. ✓

c. The ship's descriptive report in Section L, Comparison with the Chart, states that the shoreline in the survey area should be charted as shown on the Final Field sheets. The Final Field sheet reflects Class III manuscript information. The hydrographer should

have stated that the shoreline has been revised and the chart compiler must use the Class I data for accurate delineation of topography. concur

5. JUNCTIONS

H-9902 (DA-10-6-80) is bordered on the east and south by two contemporary surveys.

a. H-9897 (DA-10-5-80) - This sheet junctions the entire eastern limit of the present survey. Specifically, Latitude 57°57'30"N to Latitude 58°01'20"N, Longitude 154°54'30"W. Soundings and depth curves are in good agreement and the junctional note is inked accordingly. ✓

b. H-9903 (DA-10-7-80) - This contemporary survey junctions the southern extremeties of hydrography; Latitude 57°57'30"N, Longitude 154°54'30"W to Longitude 155°02'00"W. Soundings and depth curves are in good agreement from Longitude 154°54'30"W to Longitude 154°59'00"W. Depth curves have been inked within these common areas. Not in Rockville office 10/14/82

Additional work on H-9903 from Longitude 154°59'0"W to Longitude 155°02'00"W has not been processed and the junction was not completed. (Field edit has not been applied to TP-00624 as of 10/14/82)

6. COMPARISON WITH PRIOR SURVEYS

There are no prior surveys covering the limits of H-9902. ✓

7. COMPARISON WITH THE CHART

A chart comparison was made with Chart 16580, 7th Edition, March 11, 1978. The charted information originates from an unknown source(s). ✓

a. The following charted items are accepted as discussed in Section L of the ship's report.

(1) The 24 fathom sounding at Latitude 57°59'06"N, Longitude 154°57'00"W is superseded by the present survey. concur

(2) The topographic revisions to the Mean High Water Line will supersede the current charted shoreline. Reference Section 4, Condition of Survey, item C for disposition. concur

(3) The two submerged rocks, (1) Latitude 58°00'30"N, Longitude 154°55'45"W, (2) Latitude 58°00'45"N, Longitude 154°54'55"W were not found. The evaluator recommends that the chart compiler research the source of these features. If the two submerged rock symbols were depicted to represent the nature of the bottom, then the present survey should supersede. Otherwise, retain for charting. concur with the exception of the two rocks addressed above.

The present survey is adequate to supersede the charted hydrography. concur now on land

8. COMPLIANCE WITH INSTRUCTIONS

H-9902 (DA-10-6-80) adequately complies with the project instructions except as noted in Section 4, Condition of Survey. ✓

9. ADDITIONAL FIELD WORK

H-9902 (DA-10-6-80) is a good basic survey. Additional field work is not required. ✓

Respectfully submitted,

Bruce Alan Olmstead

Bruce Alan Olmstead
Evaluator

Examined and Approved

James S. Green
Chief, Verification Branch

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

January 20, 1982 OA/CPM3/JWC

TO: OA/CPM - Charles K. Townsend

FROM: OA/CPM3 - John W. Carpenter

SUBJECT: PMC Hydrographic Inspection Team Report for Survey H-9902

This survey is a basic hydrographic survey of Katmai Bay, 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.

This survey was processed using the evaluation system wherein the verification and evaluation are divided into two distinct phases.

The inspection team finds H-9902 to be a basic survey adequate to supersede common areas of prior surveys and charted hydrography. Administrative approval is recommended. with the exception of two rocks addressed in Item 7.9.(3) in the V.R.

John W. Carpenter

James W. Wintermyre

James W. Steensland

James S. Green

ADMINISTRATIVE APPROVAL
H-9902
Katmai Bay, Shelikof Strait, Alaska

The smooth sheet and reports of this survey, conducted by the NOAA Ship DAVIDSON in 1980, 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

1/21/82
Date

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

C352:FPS

April 23, 1982

TO: Glen R. Schaefer
Chief, Hydrographic Surveys Division

THRU: Chief, Quality Control Branch

FROM: F. P. Saulsbury
Quality Evaluator

SUBJECT: Quality Control Report for H-9902 (1980), Alaska, Shelikof Strait, Western Katmai Bay

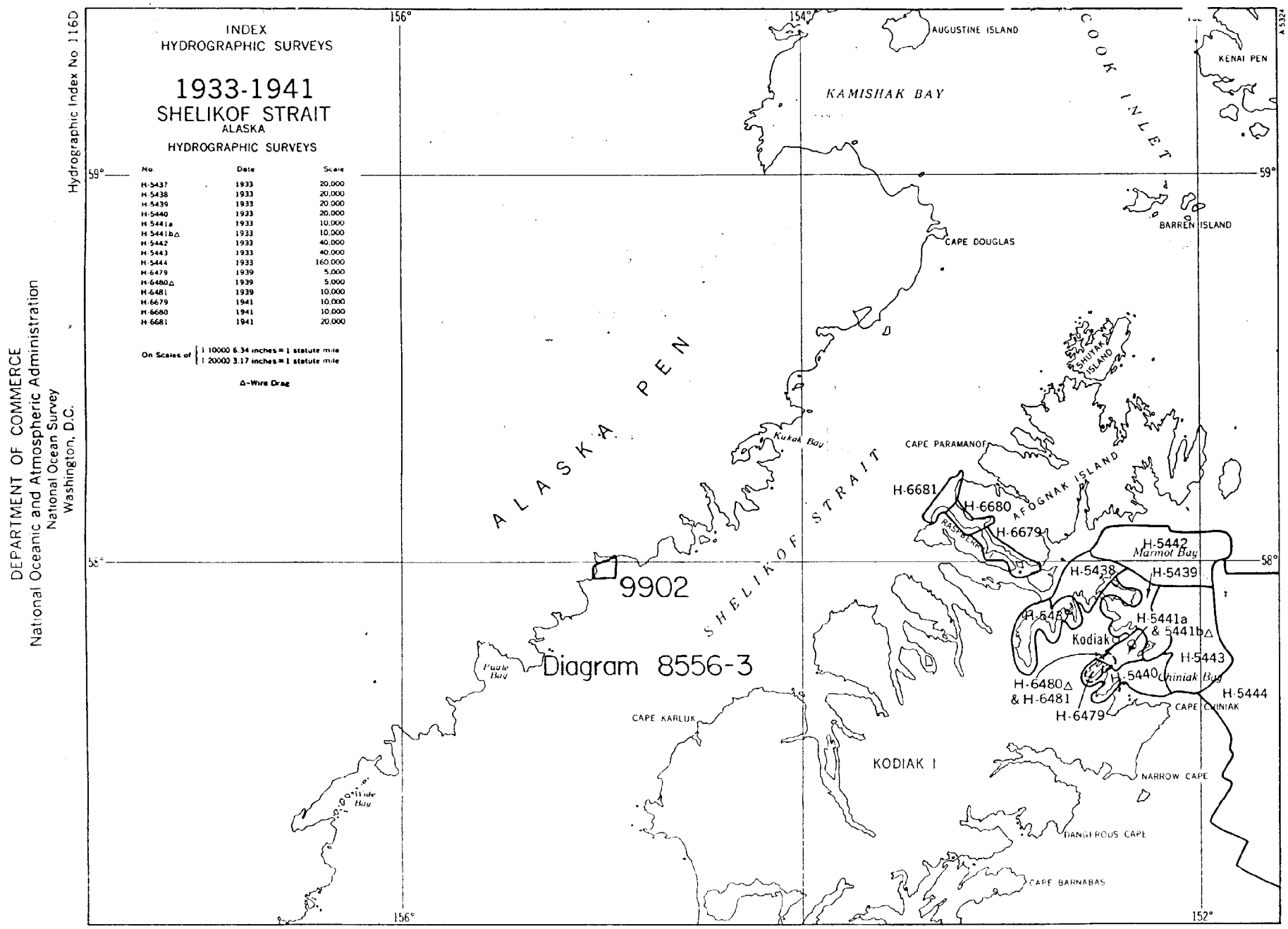
A quality control inspection of H-9902 was accomplished to monitor the survey for adequacy with respect to data acquisition, delineation of the bottom, determination of least depths, navigational hazards, junctions, sounding line crossings, smooth plotting, shoreline transfer, decisions made and actions 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, the HIT Report, and as follows:

1. Three rocks awash previously shown in pencil on the smooth sheet in latitude 57°57.90'N, longitude 155°01.63'W, latitude 57°57.87'N, longitude 155°01.67'W, and latitude 57°57.82'N, longitude 155°01.84'W could not be found in the survey records nor are they shown on shoreline map TP-00624 (1976). Therefore, they were deleted from the smooth sheet during quality control inspection.

2. The area in the vicinity of latitude 57°57.75'N, longitude 155°01.70'W delimited and noted as foul with kelp and submerged ledge was transferred to the smooth sheet from TP-00624 (1976) during quality control inspection. The hydrographer apparently overlooked this information because it is not mentioned in the survey records.

3. Junctional survey H-9903 (1980-81) may provide information concerning the aforementioned three rocks awash and the foul area. The records of this survey should be examined when available.

cc:
C351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UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
CHARTING AND GEODETIC SERVICES
Rockville, Md. 20852

N/CG241:RWD

SEP 1 1983

TO: N/MOP - Charles K. Townsend

FROM: for N/CG2 - C. William Hayes Signed R. Peters

SUBJECT: H-9902 (1980), Alaska, Shelikof Strait, Western Katmai Bay, 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 April 23, 1982 (copy attached), and the Hydrographic Survey Inspection Team Report, dated January 20, 1982, 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.

FORM C&GS-8352
(3-28-63)

NAUTICAL CHART DIVISION

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-9902

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
531	12/20/83	M. Sager	~~Full~~ Part Before ~~After~~ Verification Review Inspection Signed Via QC
			Drawing No. 18 Examined for critical corrections only
530	4/24/84	J. Bailey	~~Full~~ Part ~~Before~~ After ~~Verification Review~~ Inspection Signed Via
			Drawing No. 32 Exam. for critical corrs. No corr.
16013	6/11/84	J. Bailey	~~Full~~ Part ~~Before~~ After ~~Verification Review~~ Inspection Signed Via
			Drawing No. 27 Exam. for critical corrs. Added sndg. "44", deleted sndg. "24".
16580	11/9/81	W.H.	Full ~~Part Before~~ After Verification Review Inspection Signed Via
			Drawing No. 20
16575	11/86	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
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			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 8558-P63