

9074

Diag. Cht. No. 8553.

FORM C&GS-504

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. PF-5-1-69 Office No. H-9074

LOCALITY

State Alaska

General locality Cook Inlet

Locality Nikiski

19.69

CHIEF OF PARTY

E. A. Taylor

LIBRARY & ARCHIVES

DATE April 2, 1971

USCOMM-DC 97022-P66

Cht
85538
Sheet

9074

HYDROGRAPHIC TITLE SHEET

H-9074

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.

PF 5-1-69

State Alaska

General locality Cook Inlet

Locality Nikiski Bay (10 n.m. north of Kenai, Alaska)

Scale 1:5,000

Date of survey 8-16 July 1969

Instructions dated 30 April 1969

Project No. OPR-469

Vessel U.S.C. & G.S.S. PATHFINDER

Chief of party CAPT. Eugene A. Taylor

Surveyed by Personnel aboard Ship PATHFINDER

Soundings taken by echo sounder, ~~multibeam~~ echo sounder

Graphic record scaled by Personnel aboard PATHFINDER

Graphic record checked by Personnel aboard PATHFINDER

Protracted by _____ Automated plot by Pacific Marine Center
Positions and soundings verified.

V. L. Davis and M. G. Sanders

Soundings in fathoms ~~xxx~~ at ~~MLW~~ MLLW fathoms at MLLW

REMARKS:

*Applied to stg 4-26-71
MS.*

DESCRIPTIVE REPORT TO ACCOMPANY

BOAT SHEETS 5-1-69A & B

NIKISKI, ALASKA

OPR-469

USC & GSS PATHFINDER

CAPT. E.A. TAYLOR, CMDG.

A. PROJECT

The hydrography was done at a scale of 1:5,000 in accordance with project instructions dated 30 April 1969 for OPR-469, Upper Cook Inlet, Alaska.

B. AREA SURVEYED

The area surveyed is on the west side of Kenai Penninsula about 8 miles northwest of the town of Kenai and extends from 60°39'51"N, 151°22'30"W to 60°41'36"N, 151°24'30"W. Dates of the survey were from 8 July 1969 through 16 July 1969. No previous surveys were furnished for comparison.

C. SOUNDING VESSELS

Soundings for the survey were obtained using ML#1 and ML#4 with all data being recorded in sounding volumes for ML#4. Brown ink was used for writing the position numbers on the boat sheets for both launches.

D. SOUNDING EQUIPMENT

The following Raytheon DE-723 fathometers were used during the survey:

<u>VESSEL</u>	<u>FATH #</u>	<u>POSITIONS</u>
ML#1	552	560-589
ML#4	145	1-495
ML#4	551	496-559

E. SMOOTH SHEET

Smooth sheets will be done at the Pacific Marine Center. ✓

F. CONTROL

Visual control was used throughout the survey. Since no photogrammetric support was available, all control for locating the hydrographic signals on the beach was done by ground survey methods. The triangulation done on this project is described in a separate report, Geodetic Traverse at Nikiski OPR-469. ✓

G. SHORELINE

The high water line was determined by walking the beach and observing the pile-up of debris and shore material along the foreshore berm and measuring the distances to this debris from various hydrographic signals. Shoreline features drawn in blue on the boat sheets were transferred from the 1:5,000 inset on C&GS chart 8553 December 16/68 edition. ✓

The positions of the hydrographic signals on the boat sheet are in error due to erroneous starting data. After recomputation, with the correct starting data, the Hydrographic signal locations were corrected and are in agreement with the physical features transferred to the boat sheet from the above. ✓

H. CROSSLINES

Crosslines made up 14% of the total miles of sounding lines run and were in good agreement with the basic hydrography. ✓

I. JUNCTIONS

No previous surveys were furnished. ✓

J. COMPARISON WITH PRIOR SURVEYS

No previous surveys were furnished ✓

K. COMPARISON WITH CHART

Some updating needs to be done on insets 1:20,000 and 1:5,000 to chart 8553. The soundings on the boat sheet agree closely with those on the chart. ✓

4

A rocky shoal area was developed 150 to 250 yards southwest of City Dock. This resulted in the finding of some isolated rocks, the shallowest of which was ^{4.7}5.8 fm. The shoal area 200 yards south of the Standard Oil Pier shown on the inset for Nikiski from chart 8553, was not found. ✓

The items that should be deleted are shown on the two insets removed from chart 8553. Those items that should be included on the new insets are shown on an overlay sheet attached to this report. The location of the piers on this overlay sheet were determined by using the location of the signals at the tips of the catwalk arms of the Standard Oil Pier, Phillips 66 Pier, and Collier Pier and scaling off the dimensions of each pier from the blueprints of each structure. Nikiski City Dock is drawn in relation to the hydrographic signals that were put on it. At the present time, the Standard Pier is planned to be extended in a north-south direction by removing the present catwalk arms and replacing them with longer ones. A copy of the blueprint showing this change will be forwarded to the Pacific Marine Center. If all goes to plan, the construction will be completed by the end of this year. However, the overlay showing the location of the piers in this report does not have this planned change. ✓

L. ADEQUACY OF SURVEY

This survey is considered complete and adequate to supersede all prior surveys. ✓

M. AIDS TO NAVIGATION

At the tip of each catwalk arm of the piers at Nikiski Bay is a red light. The characteristics of each light will be forwarded as soon as the description is received from the private companies who maintain the lights. See form 567 in back of report. ✓

N. STATISTICS

<u>Vessel</u>	<u>Position Numbers</u>	<u>Number of Positions</u>	<u>N.M. Sounding Line</u>
ML#1	560-589	30	2.3
ML#4	1-559	559	42.4

Total n.m. sounding line: 44.7
Square n.m. covered by sounding lines: 0.70
Number of tide stations: 1
Number of oceanographic stations: 0

No current observations were made and no bottom samples were taken.

O. MISCELLANEOUS

Range markers were set up on the beach during the survey so that the launches could be kept on a straight course.

P. RECOMMENDATIONS

A tank is shown on the 1:5,000 Nikiski inset to chart 8553 just north of the road leading to the Standard Oil Pier. As there are at least six tanks in that vicinity, it is recommended that this single tank be removed from the new inset. There are so many oil storage tanks in the Nikiski area that they are of little value to navigation because of the difficulty distinguishing one from another.

It is also recommended that current observations be made. The currents are estimated to be 3 to 5 knots at maximum flood and ebb and have a considerable effect on safe ship operations.

Q. REFERENCE TO REPORTS

Fathometer Report 1969 Field Season USC & GSS PATHFINDER

Geodetic Traverse at Nikiski OPR-469

1969 Field Season Report USC & GSS PATHFINDER

Respectfully submitted,

Kenneth E. Lilly, Jr.

Kenneth E. Lilly, Jr.
ENS USESSA

TIDE NOTE

A single bubbler tide gauge was established at the Standard Oil Pier in Nikiski Bay for the duration of the survey. The location of the gauge was $60^{\circ}41.0'N$, $151^{\circ}23.8'W$. The hourly heights were determined by personnel on the PATHFINDER. A staff height correction of 6.7 feet above zero on the staff must be applied to these hourly heights to reduce them to mean lower low water. It should be noted that the predicted tides as based on Seldovia, Alaska did not agree with the actual tides. Therefore in plotting boat sheet soundings, the actual tides from the tide gauge at Nikiski were used. $135^{\circ}W$ was the time meridian used throughout the survey.

TIDE NOTE FOR HYDROGRAPHIC SHEET

January 26, 1971

~~Nautical Chart Division~~ Pacific Marine Center

Plane of reference approved

~~XXXXXX for XXXXX~~

Tide Tape Printout

HYDROGRAPHIC SHEET 9074

Locality: Cook Inlet, Alaska

~~XXXXXX~~: Year 1969

Plane of reference is mean lower low water

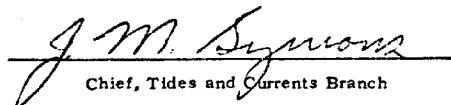
Tide Station Used (Form C&GS-681):

Nikiska

Height of Mean High Water above Plane of Reference is as follows:

20.0 feet

Remarks


Chief, Tides and Currents Branch

ML#4 TC/TI CORRECTIONS

PF 5-1-69

TIME	CORRECTIONS			VELOCITY	DAY
	DRAFT	INITIAL	TC/TI	TABLE	
104410	+0.3	0.0	0003	0001	189
114810	+0.3	-0.1	0002	0001	189
115045	+0.3	0.0	0003	0001	189
131350	+0.3	+0.1	0004	0001	189
135040	+0.3	0.0	0003	0001	189
142950	+0.3	+0.1	0002	0001	189
143640	+0.3	0.0	0003	0001	189
151710	+0.3	-0.1	0002	0001	189
155350	+0.3	0.0	0003	0001	189
084020	+0.3	0.0	0003	0001	191
090650	+0.3	-0.1	0002	0001	191
091210	+0.3	0.0	0003	0001	191
092840	+0.3	-0.1	0002	0001	191
093340	+0.3	0.0	0003	0001	191
095110	+0.3	-0.1	0002	0001	191
095910	+0.3	0.0	0003	0001	191
111350	+0.3	-0.1	0002	0001	191
124820	+0.3	0.0	0003	0001	191
125550	+0.3	-0.1	0002	0001	191
131010	+0.3	0.0	0003	0001	191
150750	+0.3	+0.1	0004	0001	191
151550	+0.3	0.0	0003	0001	191
093600	+0.3	0.0	0003	0001	192
114940	+0.3	-0.1	0002	0001	192
134820	+0.3	0.0	0003	0001	192
141400	+0.3	-0.1	0002	0001	192
142910	+0.3	0.0	0003	0001	192
105830	+0.3	0.0	0003	0001	193
152300	+0.3	+0.1	0004	0001	193
093650	+0.3	+0.1	0004	0001	194
095620	+0.3	0.0	0003	0001	194
103950	+0.3	-0.1	0002	0001	194
105710	+0.3	0.0	0003	0001	194
141940	+0.3	-0.2	0001	0001	194
142040	+0.3	-0.1	0002	0001	194
103930	+0.3	+0.1	0004	0001	196
110810	+0.3	0.0	0003	0001	196
112600	+0.3	+0.1	0004	0001	196
122630	+0.3	0.0	0003	0001	196
141620	+0.3	-0.1	0002	0001	196
144300	+0.3	0.0	0003	0001	196
091110	+0.3	0.0	0003	0001	197

9

LIST OF SIGNALS

SUMMARY OF GEOGRAPHIC POSITIONS OF HYDROGRAPHIC SIGNALS

SIGNAL	LATITUDE	LONGITUDE
HO 01	60-41-11.480	151-23-36.795
HO 03	60-41-01.577	151-23-28.713
HO 04	60-40-58.208	151-23-26.237
HO 05	60-40-54.739	151-23-24.289
HO 06	60-40-50.634	151-23-21.176
HO 07	60-40-46.412	151-23-17.601
HO 08	60-40-40.970	151-23-14.173
HO 09	60-40-35.868	151-23-08.650
HO 10	60-40-30.584	151-23-03.561
HO 11	60-40-25.499	151-22-59.049
HO 12	60-40-20.688	151-22-53.646
HO 13	60-40-15.622	151-22-48.087
HO 14	60-40-10.603	151-22-41.336
HO 15 <i>Blue O</i>	60-41-22.141	151-23-42.106
HO 16	60-41-27.003	151-23-47.195
HO 17	60-41-33.400	151-23-53.285
HO 18	60-41-39.884	151-24-00.415
HO 19	60-41-02.427	151-23-38.419
HO 20	60-41-05.639	151-23-51.786
HO 21	60-40-57.094	151-23-46.283
HO 22 Δ	60-40-46.374	151-23-42.783
HO 23	60-40-36.520	151-23-35.970
HO 24	60-40-22.189	151-23-24.703
HO 25	60-40-15.211	151-23-17.995

A-11

LIST OF SIGNALS

HYDRO SIGNAL G.P.'s (CONT.)

SIGNAL	LATITUDE	LONGITUDE
HO 26	60-41-18.596	151-23-49.164
HO 27	60-41-13.097	151-23-45.653
HO 28	60-41-03.816	151-23-29.987
HO 29	60-40-04.173	151-22-33.572

Portland.
at
Law
Chx
next.

(11)

APPROVAL SHEET

The field work and edit on this sheet have been examined and approved.

The survey is considered complete and adequate for charting purposes with no additional field work recommended.

E. A. Taylor

E. A. Taylor
CAPT USESSA
Commanding Officer
USC & GSS PATHFINDER

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

TO BE CHARTED ~~TO BE DELETED~~ } STRIKE OUT ONE
 DECEMBER 9 19 69

I recommend that the following objects which have (have not) been inspected from seaward to determine their value as landmarks be charted on (deleted from) the charts indicated.

The positions given have been checked after listing by R.D.D.

CAPT. E.A. TAYLOR
 Chief of Party

CHARTING NAME	STATE	ALASKA	DESCRIPTION	SIGNAL NAME	POSITION				METHOD OF LOCATION AND SURVEY NO.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED	
					LATITUDE*		LONGITUDE*								DATUM
					°	'	°	'							
					D. M. METERS		D. P. METERS								
Fixed, steady red light				Standard Pier-N	60 41	05.64	151 23	51.92	N. Am. 1927	June 1969	X	X	8553		
" " "				Standard Pier-S	60 40	57.09	151 23	46.41	" "	" "	X	"	"		
Fixed, equal interval red light				Phillips Pier-N	60 40	46.4	151 23	42.8	" "	" "	X	"	"		
" " "				Phillips Pier-S	60 40	36.5	151 23	36.0	" "	" "	X	"	"		
Fixed, steady red light				Collier Pier-N	60 40	22.19	151 23	24.70	" "	" "	X	"	"		
" " "				Collier Pier-S	60 40	15.21	151 23	17.99	" "	" "	X	"	"		

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and nonfloating aids to navigation, if redetermined, shall be reported on this form. The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

* TABULATE SECONDS AND METERS

M-2236-3

Standard Oil Pier

RECEIVED

NOV 24 1969

SHIP PATHFINDER

1. Color of light on NORTHERN tip of pier. Red

2. Description of what light does when it is turned on. (See attached sheet of Characteristic Light Phases)

The light gives off a steady beam.

3. Period and/or dates during which the light is operated.

Light is on every day during dark hours.

1. Color of light on SOUTHERN tip of pier. _____

2. Description of what light does when it is turned on. _____

Same as above

3. Period and/or dates during which the light is operated. _____

KENAI PIPE LINE CO.
P.O. Box 183
Kenai, Alaska

W.W. Warner

Phillips 66 Pier

1. Color of light on NORTHERN tip of pier. Red

2. Description of what light does when it is turned on. (See attached sheet of Characteristic Light Phases) E. Int.

3. Period and/or dates during which the light is operated. Dusk to Dawn nightly.

1. Color of light on SOUTHERN tip of pier. Red

2. Description of what light does when it is turned on. E. Int.

3. Period and/or dates during which the light is operated. Dusk to Dawn nightly.

DEC 15 1969

DATE: December 16, 1969

FROM: Phillips Petroleum Plant
Mr. H. N. Olson
Drawer 66
Kenai, Alaska 99611

TO : USC&GSS PATHFINDER OSS-30
1801 Fairview Avenue East
Seattle, Washington 98102

SUBJ: Navigational Lights

Heights of lights above water (^{Datum used.}~~Time and Date of Measurement~~):
48' above MLLT
8' above Dolphin walkway

Nature of the structure on which the lights are mounted:
Mooring Dolphin

Phalson



Carbon and Chemical Corporation

POST OFFICE BOX 575 • KENAI, ALASKA 99611

RECEIVED

NOV 6 1969

SHIP PATHFINDER

November 4, 1969
E-132-69

U.S.C. & G.S.S. Pathfinder
1801 Fairview Avenue East
Seattle, Washington 98102

ATTENTION: Captain E. A. Taylor

Gentlemen:

We have received your letter dated October 30, 1969, requesting information on our marine wharf navigational lights. To ensure that you have all of the available information, we are enclosing a copy of our United States Coast Guard permit governing these lights. If there should be any other information you require, please contact us anytime.

Very truly yours,

A handwritten signature in cursive script, appearing to read "D. D. Korver".

D. D. Korver
Engineering Superintendent

DDK:jeh

Enclosures: 2

CC: E. E. Johnson



DEPARTMENT OF TRANSPORTATION
UNITED STATES COAST GUARD

Address reply to:
COMMANDER(O)
Seventeenth Coast Guard District
P.O. Box 3-5000
Juneau, Alaska 99801

3260

Mr. Harry E. Kinsella
Collier Carbon and Chemical Corporation
P.O. Box 128
Brea, California 92621

Dear Mr. Kinsella:

Enclosed is the approved, amended permit for obstruction lights on your firm's Nikiski wharf.

Please advise when the lights are placed in operation to enable dissemination of the information to mariners.
Thank you.

Very truly yours,

A handwritten signature in cursive script, appearing to read "R. C. Walton".

R. C. WALTON

Lieutenant Commander, U. S. Coast Guard
Assistant Chief, Aids to Navigation Branch
By direction of the District Commander

Encl: (1) CG-2554

1. ACTION REQUESTED FOR PRIVATE AIDS TO NAVIGATION
 ESTABLISH AND MAINTAIN DISCONTINUE CHANGE CHANGE OWNERSHIP

2. DATE ACTION TO START
October 1967

3. F. D AIDS WILL BE OPERATED
 THROUGHOUT YEAR TEMPORARILY UNTIL ANNUALLY FROM TO

4. NECESSITY FOR AID (Continue in remarks)
Dock obstruction lights.

5. CORPS OF ENGINEERS AUTHORIZED THIS STRUCTURE OR BUOY
 BY PERMIT OR LETTER DATED **24 January 1967**

Cols. A and B for District Commander's use

Applicant will fill in applicable remaining columns

6. LIGHTS											
LIGHT LIST NUMBER OR PAGE A	NAME OF AID B	CHARACTERISTICS		COLOR E	POSITION F	HEIGHT G	CANDLE-POWER H	LENS I	ILLUMINANT		KE
		FLASH LENGTH C	ECLIPSE LENGTH D						VOLTS J	AMPERES K	
3418.60	Collier Pier South Light	Fixed		Red	1425 yds 155° from Kenai P.L.Co. S. Lt.	15'	200	155mm	110	0.5	A
3418.70	Collier Pier North Light	Fixed		Red	1160 yds 155° from Kenai P.L.Co.S. Lt.	15'	200	90mm Fresnel	110	0.5	B

7. BUOYS								
LIGHT LIST NUMBER OR PAGE A	NAME OF AID B	NUMBER OR LETTER C	POSITION D	DEPTH OF WATER E	TYPE F	COLOR G	REFLECTOR COLOR H	KE

8. FOG SIGNALS								
LIGHT LIST NUMBER OR PAGE A	NAME OF AID B	CHARACTERISTICS			POSITION F	TYPE G	RANGE H	KE
		NUMBER STROKES OR BLAST C	PERIOD D	BLAST LENGTH E				

9. STRUCTURES										
LIGHT LIST NUMBER OR PAGE A	NAME OF AID B	NUMBER OR LETTER C	POSITION D	WATER DEPTH IF MARINE SITE E	HEIGHT ABOVE MEAN HIGH WATER F	TYPE G	COLOR H	DAYMARK		KE
								SHAPE I	COLOR J	
3418.60	Collier Pier South Light		Same as above -	35'	15'	dolphin	- - -	- - -	- - -	A
3418.70	Collier Pier North Light		Same as above -	35'	15'	dolphin	- - -	- - -	- - -	B

10A. NAME AND ADDRESS OF PERSON IN DIRECT CHARGE OF AID
**Mr. John R. Kennedy
 Collier Carbon & Chemical Corp.
 P.O. Box 575
 Kenai, Alaska**

11A. NAME AND ADDRESS OF PERSON OR CORPORATION AT WHOSE EXPENSE AID IS MAINTAINED
**Collier Carbon & Chemical Corp.
 714 West Olympic Blvd.
 Los Angeles, California 90015**

11B. THE APPLICANT AGREES TO SAVE THE COAST GUARD HARMLESS WITH RESPECT TO ANY CLAIM OR CLAIMS THAT MAY RESULT ARISING FROM THE ALLEGED NEGLIGENCE OF THE MAINTENANCE OR OPERATIONS OF THE APPROVED AID(S).

10B. TELEPHONE NUMBER
None to date -

11C. DATE
X

11D. SIGNATURE AND TITLE OF OFFICIAL SIGNING
X

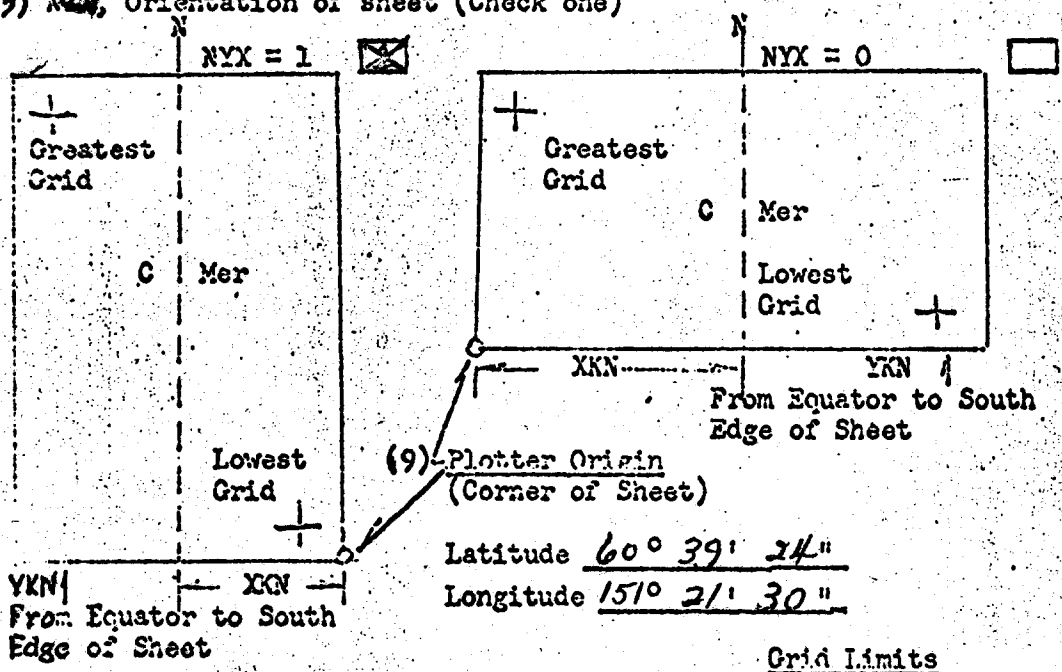
PARAMETERS FOR DIGITAL COMPUTING POLYNOMIC PROJECTION

Revised 10/1/67

5/16/69

- (1) Project No. OPR-469
- (2) H No. 30059
- (3) Field No. L
- (4) Requested by E. A. TAYLOR
- (5) Ship or Office PATHFINDER
- (6) Date Required ASAP
- (7) Visual Ft.(0) or Fathoms (1) (8) Electronic (fill out form #3)
- (10) XKN (SP 5) Distance from CMER to East Edge (NYX = 1) or West Edge (NYX = 0). 2506.6 Meters
- (11) YKN (SP 241) Distance from Equator to South Edge of Sheet. 6,727,032.067 Meters
- (12) Central Meridian 151° 24' 15"
- (13) Survey Scale 1:5,000
- (14) Size of Sheet (Check one) 36x60 42x60
- (15) Orientation of sheet (Check one)

(3 MYLAR EACH)



Grid Limits	
(16) Greatest Latitude	<u>60° 43' 30"</u> (Projection Line Interval Page 4 Hydro Manual)
(17) Lowest Latitude	<u>60° 39' 30"</u>
(18) Difference	<u>0 4' 00"</u>
(19)	<u>0 1' 15"</u>
(20)	<u>16 YSN</u>
(21) Greatest Longitude	<u>151° 26' 30"</u>
(22) Lowest Longitude	<u>151° 21' 45"</u>
(23) Difference	<u>0 4' 45"</u>
(24)	<u>0 1' 15"</u>
(25)	<u>19 XSN</u>

See back for

STATION.S

H
Field No. 30059
Date 5/16/69

PARAMETER CARD II AND III PARALLEL CARDS

PARAMETER CARD II

Semi major axis of the earth	6,378,206.4	FDA	1	2	3	4	5	6	7	8	9	10
X Constant - Distance from central meridian to origin of plotter SP 5		YFN	6	5	7	8	2	6	6	7	8	7
Y Constant - Distance from equator to origin of plotter SP 2/1		YFN	11	12	13	14	15	16	17	18	19	20
Central Meridian of Projection	151 24 15 meters	YFN	21	22	23	24	25	26	27	28	29	30
Plotter Scale/Survey Scale	1:100000	YFN	6	7	2	7	0	3	2	1	0	7
North/south axis of sheet - to correspond to (Y axis - 0)	10498.6876 meters	YFN	31	32	33	34	35	36	37	38	39	40
Feet/Fathom indicator	0 - feet 1 - fathom	YFN	41	42	43	44	45	46	47	48	49	50
H Identification No.		SCA	2	0	9	9	7	3	7	5	0	57
		NTX										52
		FOR										57
		JN						3	0	0	5	9
		YR									54	59

FOR - 1

PARAMETER CARD III

Lowest Lat. Intersection	60	39	30	1	2	3	4	5	6	7	8	9	10
Lowest Long. Intersection	15	21	45	1	12	13	14	15	16	17	18	19	20
Difference between Grid			15	5	4	4	0	5	0	0	0	0	6
Interval (Long)				21	22	23	24	25	26	27	28	29	30
Interval (Lat)				1	5	0	0	0	0	0	0	0	2

544905

Computed ms
Punched cl
Checked cl
Date 5/16/69

GEOGRAPHIC NAMES

Survey No. H-9074

Name on Survey	Source of Name										No.
	A	B	C	D	E	F	G	H	K		
City Dock											1
Collier Pier											2
Cook Inlet											3
Nikiski											4
Phillips 66 Pier											5
Standard Oil Pier											6
											7
											8
											9
											10
											11
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											23
											24
											25
											26
											27

PREPARED BY

Frank W. Roberts
CARTOGRAPHIC TECHNICIAN

APPROVED BY

A. Joseph Wright
CHIEF GEOGRAPHER

HYDROGRAPHIC SURVEY STATISTICS
HYDROGRAPHIC SURVEY NO. H-9074

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

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT
SMOOTH SHEET & PNO	1	BOAT SHEETS	2
DESCRIPTIVE REPORT	1	OVERLAYS	2 4

DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/SOURCE DOCUMENTS
ENVELOPES			1			
CAHIERS	1					
VOLUMES	3					
BOXES						

T-SHEET PRINTS (List)

SPECIAL REPORTS (List)

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


PROCESSING ACTIVITY	AMOUNTS			
	PRE-VERIFICATION	VERIFICATION	REVIEW	TOTALS
POSITIONS ON SHEET				563
POSITIONS CHECKED		50		
POSITIONS REVISED		17		
DEPTH SOUNDINGS REVISED		46		
DEPTH SOUNDINGS ERRONEOUSLY SPACED		26		
SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED		0		
	TIME (MANHOURS)			
TOPOGRAPHIC DETAILS		8	2	
JUNCTIONS		0	4	
VERIFICATION OF SOUNDINGS FROM GRAPHIC RECORDS		10	26	
SPECIAL ADJUSTMENTS		0	6	
ALL OTHER WORK		169	8	
TOTALS		187	56	

PRE-VERIFICATION BY	BEGINNING DATE	ENDING DATE
VERIFICATION BY <i>Matthew H. Sanders</i>	BEGINNING DATE <i>28 Sept. 1970</i>	ENDING DATE <i>30 March, 1971</i>
REVIEW BY <i>George K. Myers</i> <i>Inspected Captain</i>	BEGINNING DATE <i>April 13, 1971</i>	ENDING DATE <i>May 10, 1971</i> <i>April 19, 1971</i>

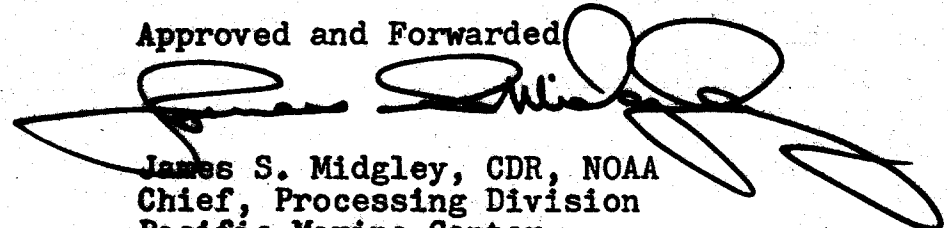
APPROVAL SHEET

The smooth sheet has been inspected, is complete, and meets the requirements of the General Instructions for automated surveys and the Hydrographic Manual. (Note: All exceptions are listed in the Verifier's Report.)

Examined and approved


William M. Martin
Supervisory Carto. Tech.

Approved and Forwarded


James S. Midgley, CDR, NOAA
Chief, Processing Division
Pacific Marine Center

OFFICE OF HYDROGRAPHY AND OCEANOGRAPHY

MARINE CHART DIVISION

HYDROGRAPHIC SURVEY REVIEW

REGISTRY NO. H-9074

FIELD NO. PF-5-1-69

Alaska -- Cook Inlet -- Nikiski

SURVEYED: July 8, 1969, through July 16, 1969

SCALE: 1:5,000

PROJECT NO.: OPR-469

SOUNDINGS: DE 723 Echo
Sounder

CONTROL: Visual fixes on
shore signals

Chief of Party..... E. A. Taylor
Surveyed by..... R. D. Olson
..... J. C. Bishop
..... R. M. Mathis
..... K. E. Lilly
..... N. W. Wright
..... G. B. Mills
Protracted by..... Gerber Digital Plotter (PMC)
Soundings Plotted by..... Gerber Digital Plotter (PMC)
Verified and Inked by..... V. L. Davis and
..... M. G. Sanders
Reviewed by..... G. K. Myers
..... Date: May 10, 1971
Inspected by..... Raymond H. Carstens ✓

1. Description of the Area

This is an inshore survey of the petroleum handling facility at Nikiski, located about 1 mile south of East Foreland in Cook Inlet. Development of the bottom extends from shore to the 10-fathom curve between latitudes 60°40.0' and 60°41.5'.

Only minor irregularities are found on the bottom. Portions of the bottom are hard or rocky.

2. Control and Shoreline

The source of the control is adequately described in the Descriptive Report. The Geodetic Traverse Report for

triangulation done at Nikiski, OPR-469, was not available at the time of review.

The shoreline determination by the hydrographer on the present survey is adequately described in the Descriptive Report. The high water line is in red on the smooth sheet.

3. Hydrography

- A. Depths at crossings are in good agreement.
- B. The usual depth curves are adequately delineated.
- C. The development of bottom configuration and the investigation of least depths is considered adequate.

4. Condition of the Survey

The plotting, sounding records, Descriptive Report and various printouts are adequate and conform to the requirements of the Hydrographic Manual and the Instruction Manual for Automated Hydrographic Surveys except as follows:

- A. No bottom characteristics were obtained in the field.
- B. A number of minor irregularities on the fathograms had been interpreted as rocks and added to the records and smooth sheet. These characteristics were not considered authoritative as they were not verified in the field and were rejected during review.
- C. Adequate clarifying notes in the sounding records or comments in the Descriptive Report were not made regarding numerous traces on the fathograms extending 1 to 2 fathoms above the bottom. These were reflected in the second echo and had the appearance of valid returns from boulders. However, coinciding breaks in the initial indicated that the traces resulted from a fathometer malfunction and the traces were disregarded. Clarifying comments regarding these traces are essential to avoid confusion and misunderstanding in any future scanning of these fathograms.

5. Junctions

The junction with H-8618 (1961) on the west is generally satisfactory. However, because of the more detailed

development and larger scale, the present survey supersedes H-8618 in the common area.

A rock awash in lat. 60°41.6', long. 151°24.0' from H-8618 has been adjusted by the earthquake subsidence value of 1½ feet and carried forward to the present survey. Field edit applied to H-9621(1974) indicates rock to be uncovering 1 foot at MLLW; 1972 photographs (at mid-tide) show no evidence of rock at this elevation. 10/78 RWD

6. Comparison with Prior Surveys

A. H-3196 (1910) 1:40,000

This smaller scale prior survey with only a few soundings falling in the common area of the present survey is of little value for comparative purposes between the prior and present depths. However, a few bottom characteristics have been brought forward in order to provide this information on the present survey.

With these additions the present survey is considered adequate to supersede the prior survey within the common area.

B. H-8617 WD (1961) 1:20,000

The wire drag survey covers a portion of the present survey. Effective drag depths do not conflict with depths on the present survey.

7. Comparison with Chart 8553 and Insets (latest print date 12/12/70)

A. Hydrography

Some of the charted hydrography originates with partial application of the boatsheet of the present survey (Bp 79072), 1960 plans and hydrographic surveys by Kenai Pipe Line Company (Bps 65056; 65122-25) and postearthquake information, Chart Letter 715 of 1964. Additional information is charted from survey H-8618 (1961). Specific mention is made of the following:

- (1) The numerous sunken rocks charted on the Nikiski Inset in about lat. 60°41.15', long. 151°23.93' originates with Bp 65056, a 1960 plan of the Nikiski Wharf area by the Kenai Pipe Line Company. The development of the bottom configuration on the present survey is adequate to supersede

this blueprint for charting this area. A rocky bottom characteristic should be retained, however, from Bp 65056.

(2) The four submerged obstructions charted in the immediate vicinity of lat. $60^{\circ}40.97'$, long. $151^{\circ}23.58'$ from Chart Letter 1940 of 1968, a 1967 plan of the area by the Collier Carbon and Chemical Corporation and 1969 air photographs were not investigated on the present survey and should be retained on the chart. Awois
52198
RWD 2/95

(3) The $7\frac{1}{4}$ -fathom sounding charted at lat. $60^{\circ}41.03'$, long. $151^{\circ}23.82'$ from postearthquake reconnaissance investigation, Chart Letter 715 of 1964, is considered only approximate in value and should be superseded by present depths.

(4) The 7 apparently charted from the unverified copy of H-8618 in lat. $60^{\circ}41.02'$, long. $151^{\circ}23.86'$ is discredited by the present survey and should be disregarded.

(5) The $5\text{-}3/4$ -fathom sounding charted at lat. $60^{\circ}41.07'$, long. $151^{\circ}23.87'$ was erroneously scanned on the boatsheet of the present survey and should be disregarded.

(6) The $2\frac{1}{2}$ and $2\text{-}3/4$ -fathom soundings charted at lat. $60^{\circ}40.92'$, long. $151^{\circ}23.74'$ and lat. $60^{\circ}40.94'$, long. $151^{\circ}23.7'$, respectively, from the boatsheet of the present survey are superseded by smooth sheet depths.

(7) The two dolphins charted in the vicinity of lat. $60^{\circ}40.8'$, long. $151^{\circ}23.6'$ are reported in the Descriptive Report to no longer exist. They were probably removed at the time the wharf previously charted between them was removed.

(8) The $1\text{-}3/4$, $2\frac{1}{2}$ and 4 charted in the vicinity of lat. $60^{\circ}40.78'$, long. $151^{\circ}24.74'$ from the unreviewed survey H-8618 (1961) is considered to be disproved by the present survey and should be disregarded. A sounding line crossed the position of this feature and revealed no shoal here. The feature is in conflict with general depths of the present survey in

this vicinity. On H-8618 the feature originates with a two-position line, 27 - 28a, and is not confirmed by other closely spaced lines in this area. The two-position line has been rejected on H-8618 and the soundings deleted.

B. Topography

(1) The pier charted at lat. $60^{\circ}41.01'$, long. $151^{\circ}23.82'$ from Corps of Engineers information, Chart Letter 256 of 1970, is subsequent to the present survey and should be retained on the chart.

(2) The tank charted at lat. $60^{\circ}41.17'$, long. $151^{\circ}23.36'$ from U.S. Navy information, Chart Letter 804, 1962; and Chart Letter 489, 1963, was mentioned by the hydrographer. It is recommended this landmark be deleted from the chart.

Except as noted above, the present survey is adequate to supersede the charted information within the common area.

C. Aids to Navigation

(1) The four fixed lights charted at the ends of Collier and Phillips 66 piers as reported in Notice to Mariners 4 and 15 of 1969, respectively, are in disagreement with subsequent information as noted in the Descriptive Report and are superseded by the present survey.

(2) The two fixed lights charted at the end of Standard pier as reported in Notice to Mariners 51 of 1960 were later adjusted on the 12th edition of Chart 8553 to conform with the revised pier extensions from Chart Letter 256 of 1970. As this information is subsequent to the date of the present survey the lights should be retained as charted.

8. Compliance with Project Instructions

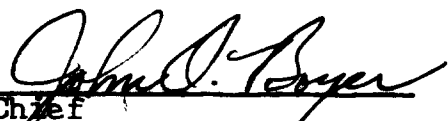
This survey adequately complies with the Project Instructions except as noted in item 4.

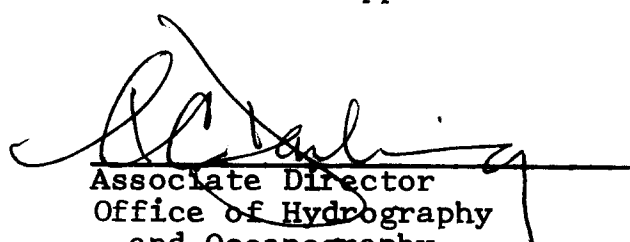
9. Additional Field Work

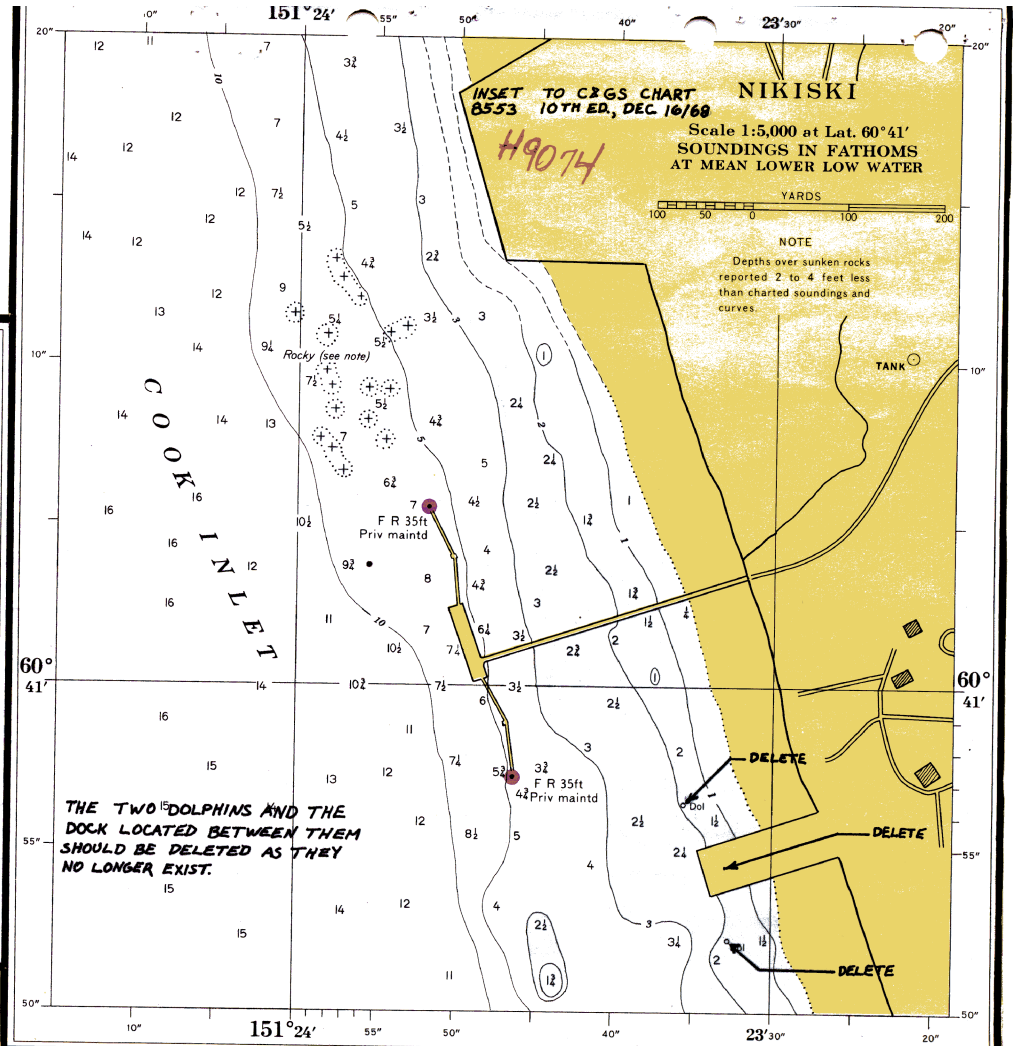
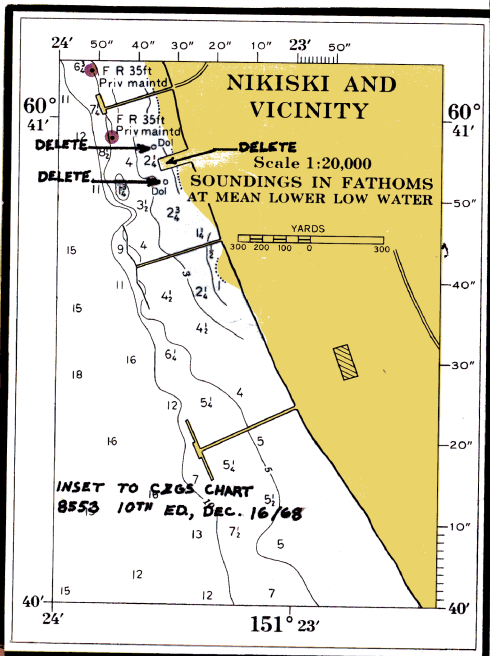
This survey is considered to be a very good basic survey. The submerged obstructions charted in the immediate vicinity of lat. 60°40.97', long. 151°23.58' are 8'x8'x8' concrete blocks to be used in anchoring mooring buoys. The positions and least depths of these blocks should be determined at an opportune time.

52198

Examined and Approved:


Chief
Marine Chart Division


Associate Director
Office of Hydrography
and Oceanography





PIER LAYOUT
FOR NIKISKI, ALASKA
SCALE 1:5,000
OPR-469
USC & GSS PATHFINDER
JULY 1969

#9074

NOTE:

ALL THE PIERS, EXCEPT THE CITY DOCK, HAVE
NAVIGATION LIGHTS.

○ 20 HYDROGRAPHIC SIGNAL LOCATION
○ NAV LST NAVIGATION LIGHT LOCATION

41'15" +

26
NIKISKI CITY DOCK

27

20 NAV LST

STANDARD OIL PIER

60°41'00" +

21 NAV LST

40'35" +

22 NAV LST

PHILLIPS 66 PIER

23 NAV LST

40'30" +

24 NAV LST

COLLIER PIER

25 NAV LST

60°40'15" +

151°24'00"

23'45"

23'30"

23'15"

151°23'00"

KELDR

PROJECT AREA
NIKISKI BAY, ALASKA
OPR - 469
USC & GSS PATHFINDER
JULY, 1969

60°50'

+

60°40'

+

EAST FORELAND

NIKISKI WHARF

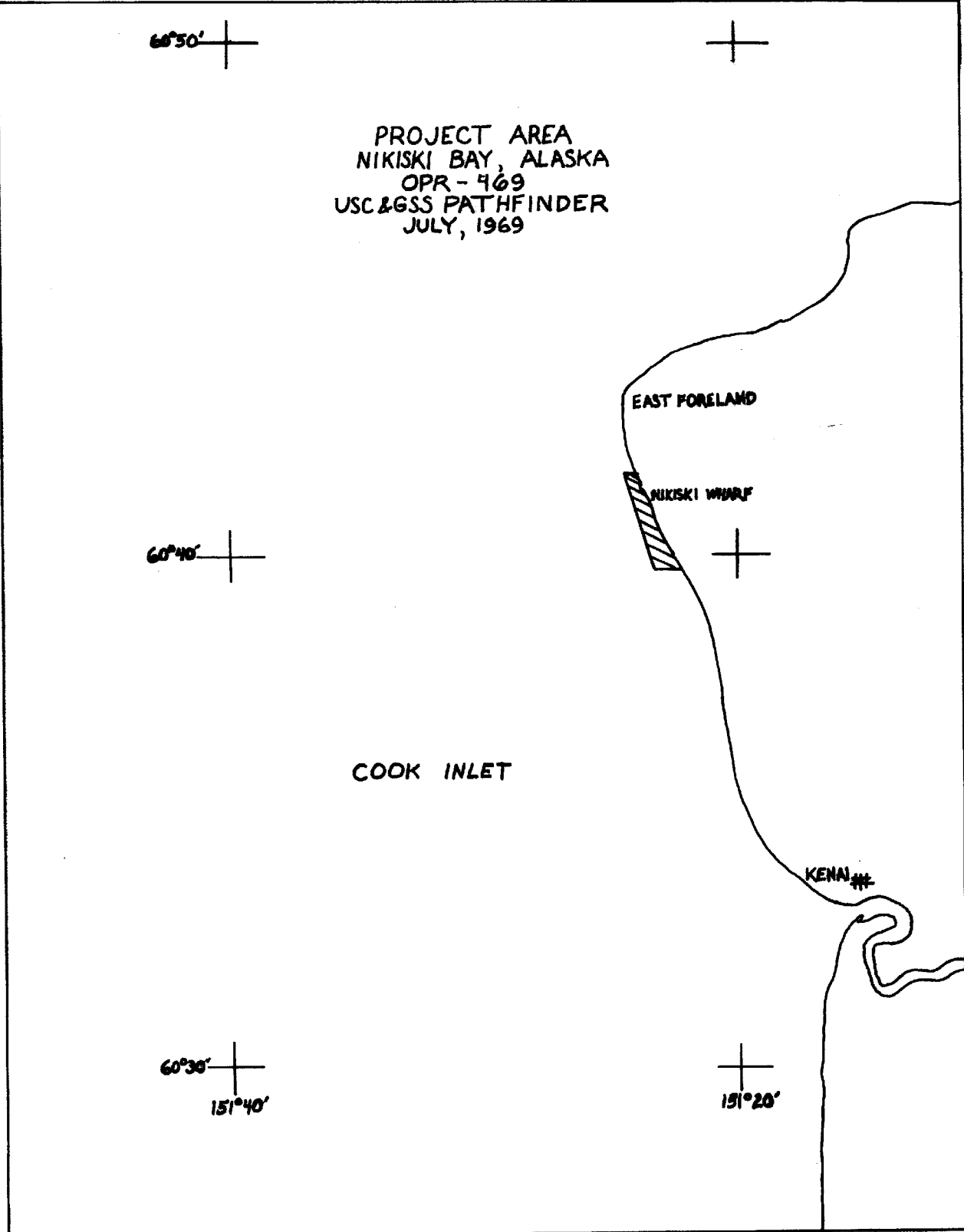
COOK INLET

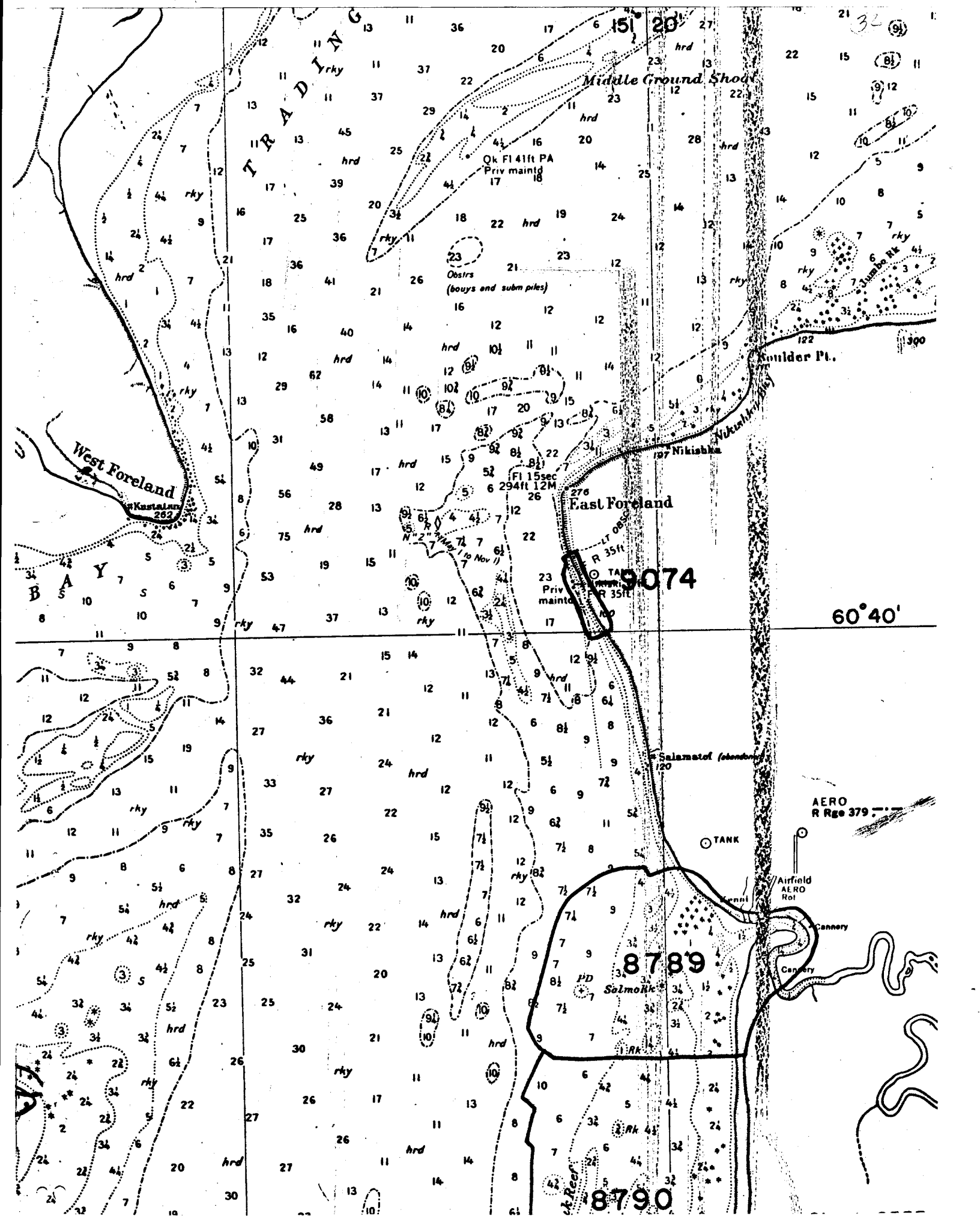
KENAI

60°30'
151°40'

+

151°20'





33

Reg. No. N-9074

The Computer and Excess Sounding Cards for this survey have not been corrected to reflect the changes made to the Computer Card and Excess Card Printouts at this time of the review.

When the cards have been updated to reflect the final results of the survey, the following shall be completed:

CARDS CORRECTED

DATE _____ TIME REQ'D _____ INITIALS _____

REMARKS:

A rock awash and bottom characteristics brought fwd. from N. 8618 and N- 5196, respectively, must be digitized at time of update to reflect the final results of N- 9074. Also digitize position of tide gage.

