

T-12407

T-12407  
PH-6302 Part I

<p>Form 504 U. S. DEPARTMENT OF COMMERCE COAST AND GEODETIC SURVEY</p> <p><b>DESCRIPTIVE REPORT</b> <i>PH-6302 Part I</i></p>	
<p>Type of Survey <u>SHORELINE (PHOTOGRAMMETRIC)</u></p>	
<p>Field No. _____</p>	<p>Office No. <u>T-12407</u></p>
<p><b>LOCALITY</b></p>	
<p>State <u>ALASKA</u></p>	
<p>General locality <u>COOK INLET</u></p>	
<p>Locality <u>CAPE KASILOR</u></p>	
<p><u>19 64</u></p>	
<p><b>CHIEF OF PARTY</b> <b>H. J. SEABORG</b> P. A. STARK, PHOTOGRAMMETRIC OFFICE</p>	
<p><b>LIBRARY &amp; ARCHIVES</b></p>	
<p>DATE _____</p>	

## DESCRIPTIVE REPORT - DATA RECORD

T - 12407

PROJECT NO. (II): 21063 (OPR-413)			
FIELD OFFICE (II): USC&GSS PATHFINDER		CHIEF OF PARTY H. J. SEABORG	
PHOTOGRAMMETRIC OFFICE (III): PORTLAND, OREGON		OFFICER-IN-CHARGE P. A. STARK	
INSTRUCTIONS DATED (II) (III): <del>MAY 1, 1964 II</del>  APRIL 2, 1964 III APRIL 17, 1964 AMENDMENT 1 III <i>April 17, 1965 Supplement I - Assignment is made for T-12640, T-12641 and T-12657 (see project diagram)</i>			
METHOD OF COMPILATION (III): KELSH INSTRUMENT			
MANUSCRIPT SCALE (III): 1:10,000		STEREOSCOPIC PLOTTING INSTRUMENT SCALE (III): 1:6000 PANTOGRAPH SCALE: 1:10,000	
DATE RECEIVED IN WASHINGTON OFFICE (IV): 1977		DATE REPORTED TO NAUTICAL CHART BRANCH (IV): 1970	
APPLIED TO CHART NO.		DATE:	DATE REGISTERED (IV): 23 MAR 78
GEOGRAPHIC DATUM (III): N.A. 1927		VERTICAL DATUM (III): MEAN SEA LEVEL EXCEPT AS FOLLOWS: <i>Elevations shown as (25) refer to mean high water Elevations shown as (5) refer to sounding datum i.e., mean low water or mean lower low water</i>	
REFERENCE STATION (III): PT 2, 1963			
LAT.: 60° 18' 03.613"	LONG.: 151° 27' 16.861"	<input type="checkbox"/> ADJUSTED <input checked="" type="checkbox"/> UNADJUSTED	
PLANE COORDINATES (IV): y = 2,328,122.92      x = 251,184.95		STATE ALASKA	ZONE 4
ROMAN NUMERALS INDICATE WHETHER THE ITEM IS TO BE ENTERED BY (II) FIELD PARTY, (III) PHOTOGRAMMETRIC OFFICE, OR (IV) WASHINGTON OFFICE. WHEN ENTERING NAMES OF PERSONNEL ON THIS RECORD GIVE THE SURNAME AND INITIALS, NOT INITIALS ONLY.			

## DESCRIPTIVE REPORT - DATA RECORD

FIELD INSPECTION BY (II): C. H. NIXON, W. L. NEWTON, K. V. MAROVICH, L. L. REINKE, P. M. SCHIDRICH		DATE: 5, 10 JUNE 1964
MEAN HIGH WATER LOCATION (III) (STATE DATE AND METHOD OF LOCATION):  KELSH INSTRUMENT		
PROJECTION AND GRIDS RULED BY (IV): A. E. ROUNDTREE		DATE 3-16-64
PROJECTION AND GRIDS CHECKED BY (IV): C. R. JOHNSON		DATE 3-16-64
CONTROL PLOTTED BY (III): C. H. BISHOP		DATE 4-28-64
CONTROL CHECKED BY (III): J. L. HARRIS		DATE 4-28-64
RADIAL PLOT OR STEREOSCOPIC CONTROL EXTENSION BY (III): J. P. PERROW, JR.		DATE NO DATE
STEREOSCOPIC INSTRUMENT COMPILATION (III):	PLANIMETRY R. H. MEYER	DATE 5-4-64
	CONTOURS NONE	DATE
MANUSCRIPT DELINEATED BY (III): DRAFTED FOR HYDRO SUPPORT: C. C. HARRIS		DATE 5-7-64
SCRIBING BY (III):		DATE
PHOTOGRAMMETRIC OFFICE REVIEW BY (III): D. N. WILLIAMS		DATE 5-7-64
REMARKS:		

DESCRIPTIVE REPORT - DATA RECORD

CAMERA (KIND OR SOURCE) (III):

C&GS SINGLE LENS "W"

PHOTOGRAPHS (III)

NUMBER	DATE	TIME	SCALE	STAGE OF TIDE
62 W 8023 THRU 8026	7-18-62	13:15	1:30,000	12.5' ABOVE M.L.L.W.
62 W 7459 THRU 7464	7-1-64	08:30	1:15,000	-2.0' BELOW M.L.L.W..
PREDICTED TIDE.				

TIDE (III)

		RATIO OF RANGES	MEAN RANGE	DIURNAL - SPRING - RANGE
REFERENCE STATION:	SELDOVIA		15.4	17.8
SUBORDINATE STATION:	KENAI RIVER ENTRANCE		17.7	20.7
SUBORDINATE STATION:				
WASHINGTON OFFICE REVIEW BY (IV):	<i>Source materials are lost - No Final Review, see report page 14</i>		DATE:	<i>J. B. Phillips October 1977</i>
PROOF EDIT BY (IV):			DATE:	
NUMBER OF TRIANGULATION STATIONS SEARCHED FOR (II):		RECOVERED: 1	IDENTIFIED: 1	
NUMBER OF BM(S) SEARCHED FOR (II):	NONE	RECOVERED:	IDENTIFIED	
NUMBER OF RECOVERABLE PHOTO STATIONS ESTABLISHED (III):	NONE			
NUMBER OF TEMPORARY PHOTO HYDRO STATIONS ESTABLISHED (III):	7			

REMARKS:

6302

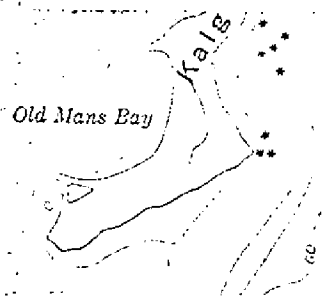
PROJECT 21063 Ph-6302

North West  
Cable + Co

PART ONE

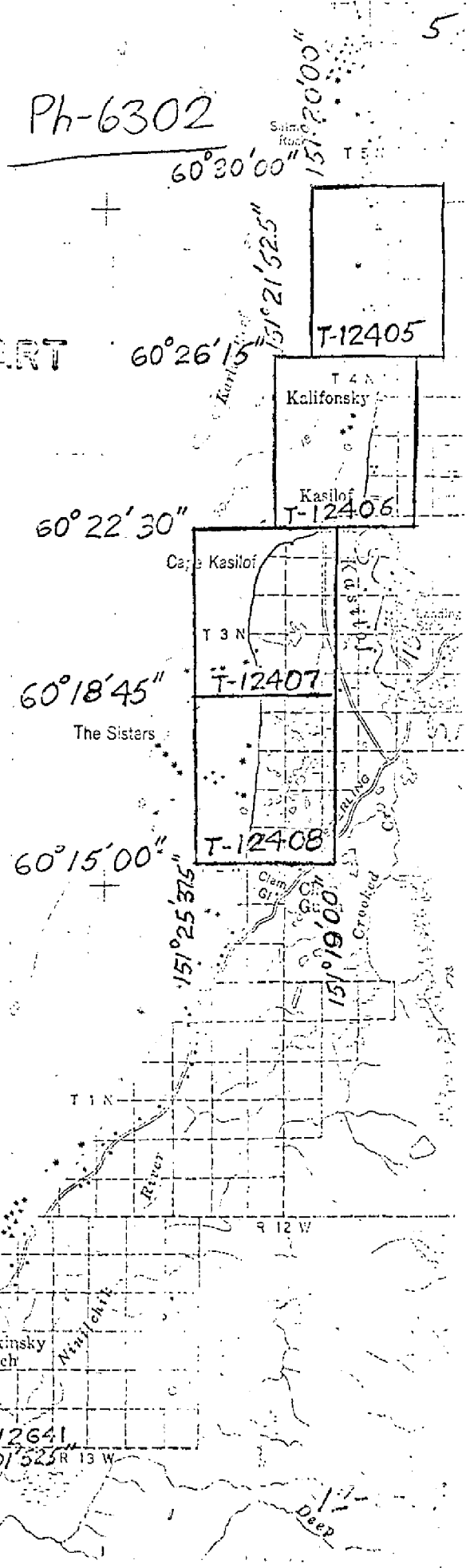
Shoreline Mapping

COOK INLET, SOUTHERN PART  
ALASKA



OFFICIAL MILEAGE FOR COST ACCOUNT

Sheet No.	Acres Sq. Ft.	Lin. Ft. Shoreline
T-12405	2	4
T-12406	2	4
T-12407	2	4
T-12408	2	4
T-12654	1	2
T-12640	1	2
T-12641	1	2
<b>Total:</b>	<b>11</b>	<b>23</b>



Cook Inlet, Alaska  
21063  
Photogrammetric Plot Report

21. Area Covered

The area covered in this project is a portion of the east shore of Cook Inlet, near Kenai, Alaska. It includes T-Sheets 12405, 12406, 12407, 12408.

22. Method

Eighteen models of 1:30,000 scale photography, (62-W-8014 thru 8032), were bridged on the C-5 Stereoplanigraph. Adjustment was by IBM-650 methods, based on four control stations with two stations as checks. Ties were made with a previous bridge (PH-6013). This previous bridge spanned the area from Kenai, northward to Boulder Point.

During bridging operations, passpoints were located on 1:15,000 scale photography to provide points for obtaining correctly scaled photographs for the hydrographic party. Passpoints were drilled on the plates with the exceptions of plates 62-W-8014, 8015 and 8016. Passpoints for these models will be found, pricked and described, on the contact prints.

Difficulty in adjusting this bridge was due solely to poor control identification. (discussed under Adequacy of Control). Sub-stations one and two of Pt. #2 (1963) Ecc., were eliminated from the bridge partly due to control identification and partly due to "twisting", caused by Pt. #3 (1963) and Pt. #4 (1963) being poorly identified. Station Pt. #4 (1963), the southern terminal of the bridge, could not be positively identified in the stereoplanigraph model.

Indications given by the adjustment curve and residuals point to a probable error of 25 to 30 feet in Pt. #4 (1963).

The results of this bridge are adequate for hydrography at 1:10,000 scale mapping in that, the shoreline sheets compiled from this bridge will show no jumps, but a shift of datum may be present.

23. Adequacy of Control

Control was adequate in quantity but very poor in quality. Stations Audry (1961), Pt. #3 (1963) and Pt. #4 (1963) were not identified by the sub-stations method, but were pricked direct. Pt. #3 (1963) and Pt. #4 (1963) could not be positively identified from the field pricking nor the sketch.

Pt. #1 (1963) and Pt. #2, ECC. (1963), were identified by the sub-station method, but the points picked were very doubtful. All control sketches on this project were completely inadequate because they showed only a general cover-all area and not an enlargement of the immediate area of the sub-station.

24. Supplemental Data

Station Kenai Church Steeple, 1909 was office identified to help control the bridge.

25. Photography


Photography was adequate in coverage, overlap and definition.

26. Recommendations

Although the bridge is adequate for hydrography, it is recommended that T-Sheets 12405 thru 12408 be treated as preliminary because of indications of poor fit shown by the adjustment curve and the residuals. If these indications of poor fit are true it means a possible datum shift, especially in sheets 12407 and 12408 and would cause great difficulty in junctioning with future surveys which are planned.

In view of the above it is further recommended that all control in this project be reidentified and new bridging performed.

Submitted by:

  
John D. Perrow, Jr.

Approved by:

  
Charles Theurer

## SHORELINE INSPECTION

2. Areal Field Inspection

The area covered by the six topographic maps is between Salamotof and the vicinity of Cape Kasilof on the east shore of Cook Inlet about 60 miles SW of Anchorage, Alaska. From seaward the shoreline is observed to be comprised of high, tree-covered bluffs. The foreshore area is dangerous for navigation because of the large number of rocks which are covered at high tides. The quality of photography is good and easily interpreted.

3. Horizontal Control

C&GS triangulation stations shown on T-sheets and triangulation diagrams of area were searched for and were recovered with the exception of KENAI TANK, 1959 (T-12407) which has been destroyed. No additional control was established.

4. Vertical Control

No vertical control stations were recovered. No new stations were established. Two bench marks on T-12508 will be searched for by the hydro shore party.

5. Contours and Drainage

The drainage pattern is easily identified on the photos and is delineated correctly on the manuscripts.

6. Woodland Cover

The woodland cover is easily identified on the photos.

7. Shoreline and Alongshore Features

The mean high-water line, as observed in the field, agrees with the mean high-water line as delineated on the manuscripts.

The mean low-water line will be determined by the hydro party.

The foreshore is generally comprised of fine sand and pebbles with a clay subsurface except in the areas near the entrance to Kenai and Kasilof rivers where the marshy shore and beach is comprised of mud and fine sand



with a clay subsurface.

The area covered by the six topographic maps is primarily made up of bluffs ranging from 30 to 70 feet in height. The bluffs along T-12403 reach heights of 200 feet with numerous ravines and gullies. The high-water line reaches up to the base of the bluff line during extreme high tides. The water table is exposed on the side of the bluff line and reaches heights up to 25 feet. The flow from this high water table keeps the beach wet at low water and this is what causes the dark areas along the shoreline. The amount of erosion along the bluffs appears to be normal.

There are three canneries along the Kenai River and the buildings have been correctly shown on the manuscripts. There is a Federal pier on the Kenai River. See notes on photos 30Aug60W1399 and 1Jul627443.

There were no submarine cables or pipe lines.

Shoreline structures are noted on field photos.

#### 8. Offshore Features

Offshore features beyond the low water line will be located or verified when visited by the hydro party. The shoreline between low and high water was visited as noted on the field photos.

#### 9. Landmarks and Aids

Two range markers were verified for T-12406 and are shown on photo 1Jul62W7454.

No other aids were found.

#### 10. Boundaries, Monuments, and Lines.

Inapplicable.

#### 11. Other Control

Inapplicable.

#### 12. Other Interior Features

The road north of Kenai passing parallel with the shoreline on T-12507 is a two lane asphalt road. The road south of Kenai passing parallel with the shoreline of T-12405 is a two lane gravel road. The side roads in the area are a loose gravel type.

13. Geographic Names

Inapplicable.

14. Special Reports and Supplemental Data

One mosaic photograph has been forwarded. The photo shows planned construction to be done by the Corps of Engineers at a future date. See letter dated 18 June 1964, "SUPPLEMENTAL INSTRUCTIONS: Project OPR-413, Vicinity of Kenai, Cook Inlet, Alaska."

Respectfully submitted,

*Charles H. Nixon*  
Charles H. Nixon  
Lt., C&GS

Approved and forwarded,

*H.J. Seaborg*  
H.J. Seaborg, Captain, C&GS  
Comdg., Ship PATHFINDER

COMPILATION REPORT  
MAP MANUSCRIPT T-12407  
PROJECT 21063

ITEMS 31 THRU 37:

REFER TO THE COMPILATION REPORT FOR T-12405

38. CONTROL FOR FUTURE SURVEYS:

FIVE PHOTO-HYDRO STATIONS WERE LOCATED DURING KELSH INSTRUMENT COMPILATION. THEIR NUMBERS AND DESCRIPTIONS ARE LISTED IN PARAGRAPH 49, NOTES FOR THE HYDROGRAPHER.

39. JUNCTIONS:

SATISFACTORY JUNCTIONS WERE MADE WITH T-12406 TO THE NORTH AND WITH T-12408 TO THE SOUTH. COOK INLET IS ON THE WEST. THERE IS NO CONTEMPORARY SURVEY ON THE EAST.

40. HORIZONTAL AND VERTICAL ACCURACY:

46. COMPARISON WITH EXISTING MAPS:

COMPARISON WAS MADE WITH THE U.S.G.S. KENAI B-4 ALASKA QUADRANGLE, SCALE 1:63,360, EDITION 1953.

47. COMPARISON WITH NAUTICAL CHARTS:

COMPARISON WAS MADE WITH NAUTICAL CHART 8553, SCALE 1:194,154 AT LAT. 61° 00', 5TH EDITION, APRIL 30, 1963.

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY:

NONE.

ITEMS TO BE CARRIED FORWARD:

NONE.

APPROVED:

*P a Stark*  
P. A. STARK, CDR, C&GS  
PORTLAND DISTRICT OFFICER

SUBMITTED:

*James L. Harris*  
JAMES L. HARRIS  
CARTOGRAPHER

48. GEOGRAPHIC NAME LIST:

THE GEOGRAPHIC NAMES ON THIS MAP ARE LISTED BELOW AND WERE FURNISHED BY THE WASHINGTON OFFICE ON A FINAL NAME SHEET, A COPY OF THE U.S.G.S. KENAI B-4 ALASKA QUADRANGLE, SCALE 1:63,360, EDITION 1953.

CAPE KASILOF  
COOK INLET

49. NOTES FOR THE HYDROGRAPHER:

FIVE PHOTO-HYDRO STATIONS ARE SHOWN ON THIS MANUSCRIPT AND LISTED BELOW. THESE STATIONS WERE SELECTED BY THE KELSH OPERATOR AND LOCATED DURING COMPILATION.

<u>No.</u>	<u>DESCRIPTION</u>
0701	ROCK AT MHW
0702	NW CORNER OF BUILDING
0703	POINT OF BLUFF
0704	TALLEST TREE
0705	TREE

ALL ROCKS SHOULD BE INVESTIGATED DURING THE COURSE OF HYDROGRAPHY IN THIS AREA.

## Final Review Report

PH-6302 Part I (formerly 21063)  
October 1977

There are seven maps in this project. T-12405 thru T-12408 at 1;10,000 scale, and T-12640, T-12641, and T-12654 at 1;5,000 scale.

With the exception of four control station identification cards, all the photography and source materials for this project are lost. These records were probably misplaced during office relocation. All the maps are Advanced Manuscripts and are registered without a Final Review.

A new project, CM-7412 supersedes this entire project. Maps TP-00793 thru TP-00795 covers the area of T-12405 thru T-12408. TP-00796 and TP-00797 covers the same area as T-12640, T-12641 and T-12654.

Submitted by,




J. B. Phillips  
Cartographer

Approved and forwarded:



Chief, Photogrammetric Branch



Chief, Coastal Mapping Division

