T-12405

T-12405

Form 504

U. S. DEPARTMENT OF COMMERCE

COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

PH-6302 Part I

Type of Survey SHORELINE (PHOTOGRAMMETRIC)

Field No. ..... Office No. T-12405

LOCALITY

State ALASKA

General locality COOK INLET

Locality KALIFONSKY BEACH

19 64

CHIEF OF PARTY

H. J. SEABORG

P. A. STARK, PHOTOGRAMMETRIC OFFICE

LIBRARY & ARCHIVES

DATE .....

USCOMM-DC 5087

FORM C&GS-181a
(12-61)

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT - DATA RECORD

T - 12405

PROJECT NO. (II):

21063 ~~(OPR-413)~~ Ph-6302

FIELD OFFICE (II):	CHIEF OF PARTY
USC&GSS PATHFINDER	H.J. SEABORG
PHOTOGRAMMETRIC OFFICE (III):	**OFFICER-IN-CHARGE**
PORTLAND, OREGON	P. A. STARK

INSTRUCTIONS DATED (II) (III): ~~MAY 1, 1964 II~~

APRIL 2, 1964 III
APRIL 17, 1964, AMENDMENT 1 III

April 19, 1965 Supplement I - Assignment is made for T-12690, T-12691 and T-12654 (see project diagram)

METHOD OF COMPILATION (III):

KELSH INSTRUMENT

MANUSCRIPT SCALE (III):	STEREOSCOPIC PLOTTING INSTRUMENT SCALE (III): 1:6000
1:10,000	PANTOGRAPH SCALE: 1:10,000
DATE RECEIVED IN WASHINGTON OFFICE (IV):	**DATE REPORTED TO NAUTICAL CHART BRANCH (IV):**
1977	1970

APPLIED TO CHART NO.	DATE:	DATE REGISTERED (IV):
		23 MAR 78

GEOGRAPHIC DATUM (III):	VERTICAL DATUM (III):
N.A. 1927	MEAN SEA LEVEL EXCEPT AS FOLLOWS: *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*

REFERENCE STATION (III):

PT-1, 1963

LAT.:	LONG.:	
60° 28' 16.629"	151° 16' 48.409"	☐ ADJUSTED ☒ UNADJUSTED

PLANE COORDINATES (IV):		STATE	ZONE
Y = 2,366,428.93	X = 269,014.06	ALASKA	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.

USCOMM-DC 16276A-P61

FORM C&GS-181b
(12-61)

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

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 3-13-64
PROJECTION AND GRIDS CHECKED BY (IV): C. R. JOHNSON	DATE 3-13-64
CONTROL PLOTTED BY (III): J. L. HARRIS	DATE 4-28-64
CONTROL CHECKED BY (III): L. F. BEUGNET	DATE 4-28-64
RADIAL PLOT OR STEREOSCOPIC CONTROL EXTENSION BY (III): J. D. PERROW, JR.	DATE NO DATE
STEREOSCOPIC INSTRUMENT COMPILATION (III): PLANIMETRY D. N. WILLIAMS	DATE 4-30-64
CONTOURS NONE	DATE
MANUSCRIPT DELINEATED BY (III): DRAFTED FOR HYDRO SUPPORT: C. C. HARRIS	DATE 5-5-64
SCRIBING BY (III):	DATE
PHOTOGRAMMETRIC OFFICE REVIEW BY (III): J. L. HARRIS	DATE 5-5-64
REMARKS:	

FORM C&GS-181c
(12-61)

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

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 8017 THRU 8020	7-18-62	13:15	1:30,000	12.5' ABOVE M.L.L.W.
62 W 7446 THRU 7451	7-1-62	08:30	1:15,000	-2.0' BELOW "
				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): Source materials are lost - no final review see report page 15 — DATE: J. B. Phillips October 1977

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): 8

REMARKS:

6302

PROJECT 21063. Ph-6302

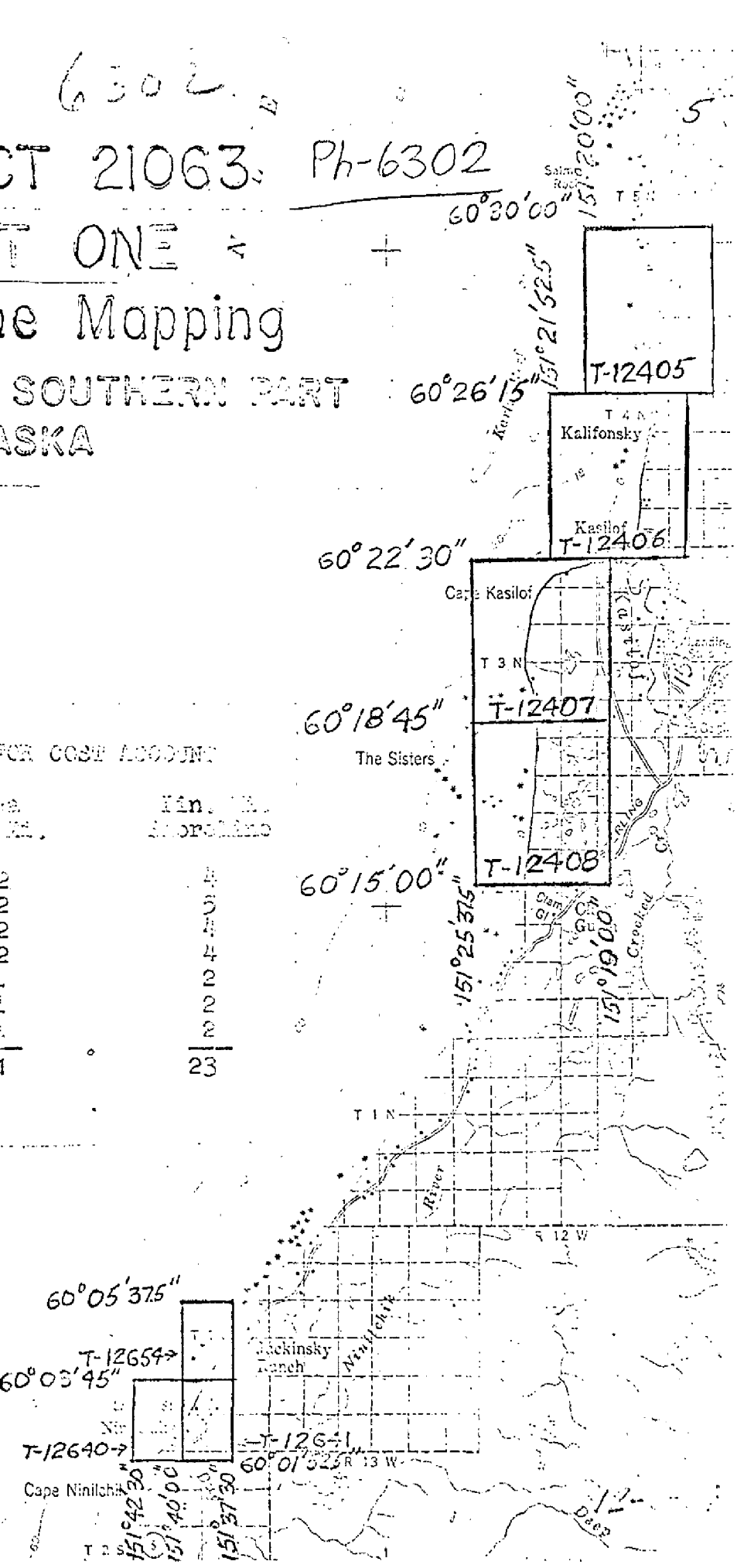
PART ONE

Shoreline Mapping

COOK INLET, SOUTHERN PART
ALASKA

OFFICIAL MILEAGE FOR COAST ACCOUNT

Sheet No.	Area Sq. Mi.	Lin. Mi. 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
Total:	11	23



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 over-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-12408 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-12405

PROJECT 21063

31. DELINEATION:

PLANIMETRY WAS COMPILED BY THE KELSH INSTRUMENT AND DRAFTED IN ACCORDANCE WITH METHOD 2.

32. CONTROL:

ADEQUATE SUPPLEMENTARY CONTROL WAS ESTABLISHED BY BRIDGING WITH THE STEREOPLANIGRAPH BASED ON IDENTIFIED HORIZONTAL CONTROL.

33. SUPPLEMENTAL DATA:

NONE.

34. CONTOURS AND DRAINAGE:

CONTOURS ARE NOT APPLICABLE.

DRAINAGE SHOWN WAS COMPILED FROM STEREOSCOPIC EXAMINATION OF THE PHOTOGRAPHY.

35. SHORELINE AND ALONGSHORE DETAILS:

THE MEAN HIGH WATER LINE WAS DELINEATED BY EXTENDING STEREOSCOPICALLY THE SPARSE SPOT IDENTIFICATION FURNISHED BY THE FIELD UNIT. THE STEREOSCOPE WAS ALSO USED TO DETERMINE AN APPROXIMATE LOW WATER LINE AS APPARENT ON THE LOW WATER RATIO PRINTS.

36. OFFSHORE DETAILS:

NUMEROUS ROCKS LOCATED WITHIN THE AREA OF THIS MANUSCRIPT WERE IEDNTIFIED BY THE FIELD UNIT. WHERE NO BARING DATA WAS FURNISHED, THE ROCKS HAVE BEEN SHOWN WITH THE "ROCK AWASH" SYMBOL.

37. LANDMARKS AND AIDS:

38. CONTROL FOR FUTURE SURVEYS:

EIGHT 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-12508 TO THE NORTH AND WITH T-12406 TO THE SOUTH. THERE IS NO CONTEMPORARY SURVEY TO THE EAST. COOK INLET IS TO THE WEST.

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 1962.

47. COMPARISON WITH NAUTICAL CHARTS:

COMPARISON WAS MADE WITH NAUTICAL CHART 8553, SCALE 1:194,154, AT LAT. 61° 00', 5TH EDITION, APRIL 30, 1962.

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 1952.

Cook Inlet
Kalifonsky Beach

49. NOTES FOR THE HYDROGRAPHER:

EIGHT PHOTO-HYDRO STATIONS ARE SHOWN ON THIS MANUSCRIPT AND LISTED BELOW. NO FIELD IDENTIFICATION OF HYDRO STATIONS WAS FURNISHED. THE STATIONS SHOWN WERE SELECTED BY THE KELSH OPERATOR AND LOCATED DURING COMPILATION.

No.	DESCRIPTION
0501	LONE TREE
0502	CENTER OF BUILDING
0503	CENTER OF SMALL BUILDING
0504	LONE TREE
0505	LONE TREE
0506	LONE TREE
0507	LONE TREE
0508	LONE 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-21641 and T-12654.

Submitted by,

J. B. Phillips
Cartographer

Approved and forwarded:

Chief, Photogrammetric Branch

Chief, Coastal Mapping Division

FORM C&GS-1
(3-64)
USCOMM-DC
6659-P64

U.S. DEPARTMENT OF COMMERCE
COAST AND GEOD[redacted] SURVEY

DESCRIPTIVE REPORT CONTROL RECORD

MAP T- 12405 PROJECT NO. 21063 SCALE OF MAP 1:10,000 SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR Y COORDINATE LONGITUDE OR X COORDINATE	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS *(1 Ft. = 3048006 meter)* FORWARD (BACK)
PT-1, 1963	FIELD COMP.	N.A. 1927	2,366,428.93 269,014.06	

COMPUTED BY R.H.M. DATE 4-27-64 CHECKED BY DATE