

T- 12320

T-12320

NOAA FORM 76-35

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

DESCRIPTIVE REPORT

Type of Survey .. Shoreline (Photogrammetric)

Job No. PH-6301

Map No. T-12320

Classification No. *FINAL*

Edition No. *1*

(Field edited map)

LOCALITY

State Alaska

General Locality Kamishak Bay, Cook Inlet

Locality Cottonwood Bay, North Shore

19 62 TO 19 72

REGISTRY IN ARCHIVES

DATE

DESCRIPTIVE REPORT - DATA RECORD

T-12320

PROJECT NO. (II): PH-6301		
FIELD OFFICE (III): None		CHIEF OF PARTY
PHOTOGRAMMETRIC OFFICE (III): Atlantic Marine Center, Norfolk, VA		OFFICER-IN-CHARGE J. Bull, Director
INSTRUCTIONS DATED (II) (III): March 18, 1965 - Office Part I Feb. 10, 1966 - Office, Supplement I May 5, 1967 - Office, Supplement II Dec. 27, 1967 - Office, Supplement III		
METHOD OF COMPILATION (III): Wild B-8 plotter		
MANUSCRIPT SCALE (III): 1:10,000		STEREOSCOPIC PLOTTING INSTRUMENT SCALE (III): 1:5,000 pantographed to 1:10,000
DATE RECEIVED IN WASHINGTON OFFICE (IV):		DATE REPORTED TO NAUTICAL CHART BRANCH (IV):
APPLIED TO CHART NO.	DATE: MAR 29 1976 MAR 29 1976	DATE REGISTERED (IV): <i>n. Francis</i>
GEOGRAPHIC DATUM (III): N.A. 1927		VERTICAL DATUM (III): MHW MEAN SEA LEVEL EXCEPT AS FOLLOWS: Elevations shown as (25) refer to mean high water Elevations shown as (5) refer to sounding datum low mean low water or mean lower low water
REFERENCE STATION (III): AID, 1907		
LAT.: 59° 37' 48.468" 1499.9M	LONG.: 153° 38' 00.237" 3.7M	<input checked="" type="checkbox"/> ADJUSTED <input type="checkbox"/> UNADJUSTED
PLANE COORDINATES (IV): y = 2,056,929.49ft. x = 567,857.13 ft.		STATE Alaska
		ZONE 5
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.		

FORM C&GS-181b
(3-66)

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

DESCRIPTIVE REPORT - DATA RECORD

T-12320

FIELD INSPECTION BY (II): None		DATE:
MEAN HIGH WATER LOCATION (III) (STATE DATE AND METHOD OF LOCATION): Air photo compilation Date of photography: June 18, 1962		
PROJECTION AND GRIDS RULED BY (IV): A. Bethea		DATE Nov. 15, 1967
PROJECTION AND GRIDS CHECKED BY (IV): L.F. VanScoy		DATE Nov. 15, 1967
CONTROL PLOTTED BY (III): J. Steinberg		DATE Feb. 21, 1968
CONTROL CHECKED BY (III): F. Wilson		DATE Feb. 21, 1968
RADIAL PLOT OR STEREOSCOPIC CONTROL EXTENSION BY (III): P.J. Dempsey		DATE Jan. 22, 1968
STEREOSCOPIC INSTRUMENT COMPILATION (III): Wild B-8 plotter	PLANIMETRY A. Shands Reviewed by: L.O. Neterer, Jr.	DATE July 24, 1968 Aug. 1968
	CONTOURS Inapplicable	DATE
MANUSCRIPT DELINEATED BY (III): A. Shands L.O. Neterer		DATE July 30, 1968
SCRIBING BY (III):		DATE
PHOTOGRAMMETRIC OFFICE REVIEW BY (III): Compilation - L.L. Graves Field Edit - C. Parker		DATE Aug. 1968 March 1974
REMARKS: Field Edit by Emerson G. Wood August 1972		

DESCRIPTIVE REPORT - DATA RECORD

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CAMERA (KIND OR SOURCE) (III):

USC&GS Type "W"

PHOTOGRAPHS (III)

NUMBER	DATE	TIME	SCALE	STAGE OF TIDE
62W 6292	June 18, 1962	1212	1:15,000	2.6' above MLLW
62W6293	"	"	"	"
62W6294	"	"	"	"
62W 7321-7324	6/29/62	1539	1:30,000	6.0' above MLLW
62W 6298-6301	6/18/62	1217	1:15,000	3.5' above MLLW

Predicted

TIDE (III)

Diurnal

	RATIO OF RANGES	MEAN RANGE	SPRING RANGE
REFERENCE STATION: Seldovia, Kachemak Bay, Alaska		15.4	17.8
SUBORDINATE STATION: Iliamna Bay, Alaska		12.3	14.5
SUBORDINATE STATION:			

WASHINGTON OFFICE REVIEW BY (IV):

J.B. Phillips

DATE:

January 1976

PROOF EDIT BY (IV):

DATE:

NUMBER OF TRIANGULATION STATIONS SEARCHED FOR (III):

None

RECOVERED:

None

IDENTIFIED:

None

NUMBER OF BM(S) SEARCHED FOR (II):

None

RECOVERED:

None

IDENTIFIED:

None

NUMBER OF RECOVERABLE PHOTO STATIONS ESTABLISHED (III):

None

NUMBER OF TEMPORARY PHOTO HYDRO STATIONS ESTABLISHED (III):

None

REMARKS:

5A

SUMMARY

T-12320 is one of 40 shoreline maps comprising Job PH-6301 (Part I) compiled for use in contemporary hydrographic survey and nautical charting operations.

Field work, prior to compilation, consisted of the recovery and identification of horizontal control.

Compilation was by Wild B-8 stereoplotter, using 1:30,000 scale color photography. Cronaflex positives and ozalids of the manuscript were forwarded for the use of the field editor and the preparation of the hydrographer's boat sheets. Accompanying these were specially prepared ratio photographs to aid in the location of hydrographic signals.

Final edit was accomplished during Aug. 1972

Final review was accomplished at the Rockville Office in JAN. 1976

A cronaflex positive copy of the map and a Descriptive Report will be registered in the NOS Archives.

5B

T-12320

COMPILATION RECORD

COMPLETION DATE

REMARKS

Compilation complete pending field edit		
Alongshore detail for hydro	August 1968	Superseded
Field edit applied	March 25, 1974	

FIELD INSPECTION

~~REF~~ F 12320

There was no field inspection prior to compilation. Field work accomplished was limited to the recovery and identification of the horizontal control necessary for the aerotriangulation of the project.

(7)

PHOTOGRAMMETRIC PLOT REPORT
Job PH-6301
Kamishak Bay, Alaska

January 22, 1968

21. Area Covered

This report covers the northern part of Kamishak Bay, Alaska, consisting of thirteen (13) 1:20,000 scale map manuscripts -- T-12315 thru T-12319; T-12326 thru T-12331, T-12334 and T-12335, and six (6) 1:10,000 scale map manuscripts -- T-12320 thru T-12325.

22. Method

Analytic aerotriangulation methods were used to bridge strips 1, 2 and 3 at 1:60,000 scale using premarked and field identified control. Numerous tie points were located to control strips 41, 42 and 43, which were bridged by stereoplanigraph.

The attached sketch of strips bridged shows the placement of triangulation used in the final strip adjustments. Closures to control are shown on the IBM readouts along with all the bridge points.

23. Adequacy of Control

Horizontal control was adequate for bridging strips 1, 2 and 3. Strips 41, 42 and 43 were bridged using tie points and are adequate. The premarked paneling at Station OIL, 1913 was removed prior to photography and could not be identified. Station TENDER, 1967 fell off of model and was not used. SKIN, 1967, Subpoint A and Subpoint B, were too poor to read and were not used in the adjustment.

24. Supplemental Data

Vertical control needed for the adjustment was taken from USGS quadrangles.

25. Photography

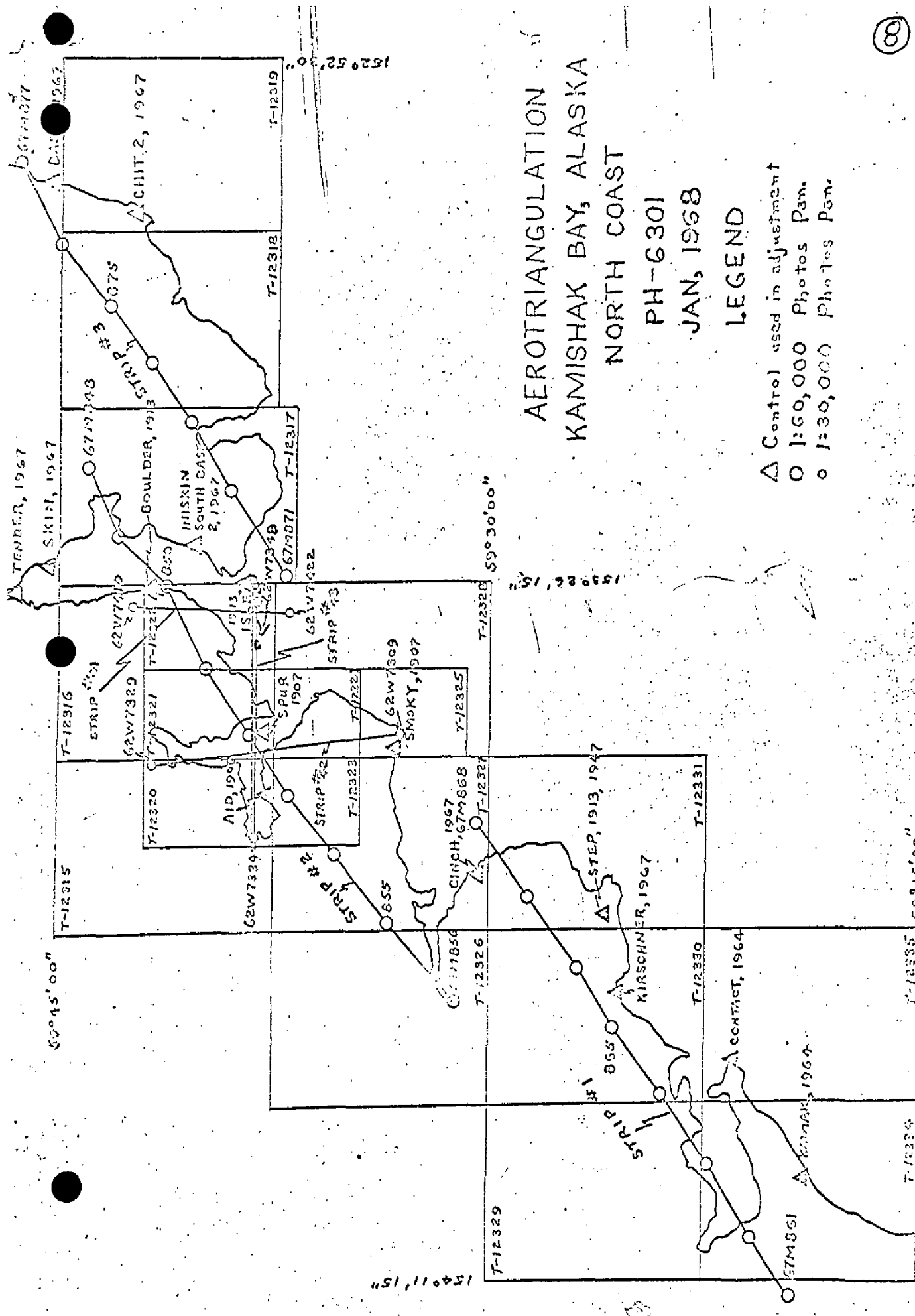
The definition and quality of the RC-9 and RC-8 photography were good. Ratio prints have been ordered to compilation scale.

Submitted by:

P. J. Dempsey
P. J. Dempsey

Approved and forwarded:

H. P. Eichert
H. P. Eichert, Chief
Aerotriangulation Section



Compilation Report - PH-6301
T-12320

31. Delineation

All stereo instrument work was done using the Wild B-8 to compile the foreshore area. The offshore detail was compiled from the offshore photos at 1:15,000 scale. The offshore photos computed at a higher tide than the compilation photos but they showed more offshore detail.

32 CONTROL 32

Refer to Photogrammetric Plot Report, dated January 22, 1968.

Difficulty in holding control established by stereoplanigraph bridging of strips 41, 42, and 43 was encountered, initially. They were returned to the Bridging Section and their subsequent re-adjustment resulted in "Revisions" for strips 41 and 43.

Strip 42 had been compiled with little or no difficulty concerning the control. Although strip 41 also was compiled utilizing the original Bridge Strip, the comparison between the original and "Revised" strip #41 indicated a maximum change of approximately 0.3mm which proved to be of an insignificant effect. The compilations of these two strips were summarily considered to be of sufficient accuracy. Both of these strips were oriented in a general north-south direction.

The results of the "Revision" of strip 43 proved to be of a major change, and inasmuch as this strip was oriented in an east-west direction, intersecting both strips 41 and 42, an attempt to tie these together at their common models resulted in an error of tie-in between drilled pass points of strip 43 and shoreline pass points common to all strips.

When model 62W-7343 and 7346, of strip #43 was set, it was found that six of the seven drilled pass points would hold within tolerance, but none of the adjoining shoreline pass points from strips 41 and 42 would hold. When this model was re-scaled to all common shoreline points, the drilled points would not hold.

This same condition existed when model 62W-7334 and 7337 was set. Drilled pass points held within tolerance, but no common shoreline pass points between strip 42 and this model would hold.

It was evident at this time that no model work could be compiled from strip 43.

To further substantiate our decision, all five manuscripts were joined and a modified radial plot consisting of several processed ratio photos of each of strips 41, 42, and 43 was laid.

It was noted during this plot, that the tie points (from the stereoplanigraph bridges), and the field identified triangulation control, would hold well with the common shoreline pass points, but the drilled points would not. (A few of the drilled points at or near sea level were noticeably closer than those at the higher elevations.)

It was concluded therefore that strips 41 and 42 were tied together well and were geographically correct, and that a graphic solution and compilation of the two models in question on strip 43 could be made using the common shoreline pass points.

33. Supplemental Data - None

34. Contours and Drainage

Contours are inapplicable. Drainage was delineated by office interpretation of the photographs.

35. Shoreline and Alongshore Details

The shoreline and alongshore details were delineated by office interpretation of the photographs.

36. Offshore Detail

All offshore detail was delineated from the offshore photos by office interpretation.

37. Landmarks and Aids - None

38. Control for Future Surveys - None

39. Junctions

Junctions are in agreement with T-12315, 1:20,000 scale to the west and north, and the south T-12316, 1:20,000 scale and T-12321, 1:10,000 scale to the east and T-12323, 1:10,000 scale in the south.

40. Horizontal and Vertical Accuracy - Refer to item 32.

41. thru 45. Inapplicable

46. Comparison with Existing Maps

A comparison has been made with USGS quadrangle Iliamna (C-2), Alaska, scale 1:63,360, dated 1958.

47. Comparison with Nautical Charts

A comparison has been made with USC&GS Charts #8554, 9th ed., (Cook Inlet, Southern Part), scale 1:200,000, dated May 10, 1965 and #8665, Iliamna Bay, Alaska, 4th Ed., dated January 13, 1964, scale 1:20,000.

Items to be Applied to Nautical Charts Immediately - None

Items to be Carried Forward - None

Submitted by,

L.O. Neterer, Jr.
Carto Tech
March 1969

ADDENDUM TO THE COMPILATION REPORT

T-12320

FIELD EDIT

There was no field inspection prior to compilation. Field edit was applied on March 25, 1974, and the field edit was adequate. There was no low water photography, therefore, no mean lower-low water line was shown. The top of bluff shown at Diamond Point was cut in photogrammetrically. Also, the field editor refers to Hydro Records (boat sheet) FA-10-6-72 and F.E. Notebook, pg. 21-26.

FIELD EDIT REPORTS

Lower Cook Inlet, Alaska

OPR-429 FA-72

June-August 1972

MAPS

T-12320	T-12325
T-12321	T-12326
T-12323	T-12327
T-12324	T-12331

FIELD EDIT REPORTS

Lower Cook Inlet, Alaska

ORR-429

June-August 1972

INTRODUCTION

Field edit reports are attached for the following maps:

T-12320	T-12325
T-12321	T-12326
T-12323	T-12327
T-12324	T-12331

Field photographs and copies of the field edit ozalids were taken into the field. The mean high water line was verified by visual inspection of the shoreline and ozalids in the field. Sextant fixes were plotted on boat sheets FA-10-6-72 and FA-20-2-72. The hydrographic location was then compared with the photogrammetric position. Height data for all rocks and ledges is either written directly on the ozalid or entered in the field edit notebook along with position data, in which case the notebook and page number are referenced on the ozalid.

Notes have been made in violet on the field photographs and have been cross-referenced on the field edit ozalids by photograph number. All times are based on 135° W. meridian.

Compilation of the maps is good. Several discrepancies in the MLLW line were noted in Iliamna Bay, apparently as a result of uplifting from the 1964 earthquake. It is recommended that the maps be revised in accordance with notes on the photographs and in the field edit notebook before acceptance as advance manuscripts. Field inspection of these maps is complete.

Approved and Forwarded:



R. H. Houlder
Captain, NOAA

FIELD EDIT REPORT

Map T-12320

Iliamna Bay, Alaska

August 1972

Field edit of map T-12320 was done by LT (jg) Emerson G. Wood during August 1972. Inspection was done from a small boat and on foot when fixes on land were required.

METHOD

Field photographs and a copy of the field edit ozalid were examined in the field. The mean high water line was verified by visual comparison of the beach area and the ozalid in the field. Isolated rocks and ledges were located by sextant fixes and plotted on boat sheet FA-10-6-72. Heights of rocks, reefs, and high points of ledges are noted on the photographs, in the field edit notebook, or directly on the ozalid.

No photographs have been referenced on Map T-12320.

All times are based on 135° W. meridian.

ADEQUACY OF COMPILATION

Compilation of this map is good, with the exception of the MLLW line. * Hydrographic location of features compares well to photogrammetric location. Note is made of the following items:

The rocks shown along the shoreline at approximately Lat. 59°38'25"N., Long. 153°40'00"W. are all located well inside of the MLLW line.

A rock exists at Lat. 59°38'20"N., Long. 153°38'25"W. that is not shown on the ozalid, and a reef extends toward signal #037 (reference is made to field edit notebook, page 26).

The MLLW line along the west shore of Iliamna Bay is inaccurate and reference is made to hydrographic records from boat sheet FA-10-6-72.

RECOMMENDATIONS

It is recommended that the map be revised in accordance with the notes on the ozalid and in the field edit notebook, and that the map be accepted as an advance manuscript.

* MLLW line removed
from map

Respectfully submitted,

DE Wood
for Emerson G. Wood
LT (jg), NOAA

PHOTOGRAMMETRIC OFFICE REVIEW

T-12320

X-10369

1. PROJECTION AND GRIDS LLG	2. TITLE LLG	3. MANUSCRIPT NUMBERS LLG	4. MANUSCRIPT SIZE
CONTROL STATIONS			
5. HORIZONTAL CONTROL STATIONS OF THIRD-ORDER OR HIGHER ACCURACY XX	6. RECOVERABLE HORIZONTAL STATIONS OF LESS THAN THIRD-ORDER ACCURACY (Topographic stations) XX		7. PHOTO HYDRO STATIONS XX
8. BENCH MARKS XX	9. PLOTTING OF SEXTANT FIXES XX	10. PHOTOGRAMMETRIC PLOT REPORT LLG	11. DETAIL POINTS LLG
ALONGSHORE AREAS (Nautical Chart Data)			
12. SHORELINE LLG	13. LOW-WATER LINE LLG	14. ROCKS, SHOALS, ETC. LLG	15. BRIDGES XX
16. AIDS TO NAVIGATION XX	17. LANDMARKS XX	18. OTHER ALONGSHORE PHYSICAL FEATURES LLG	19. OTHER ALONGSHORE CULTURAL FEATURES LLG
PHYSICAL FEATURES			
20. WATER FEATURES LLG	21. NATURAL GROUND COVER XX		22. PLANETABLE CONTOURS XX
23. STEREOSCOPIC INSTRUMENT CONTOURS XX	24. CONTOURS IN GENERAL XX	25. SPOT ELEVATIONS XX	26. OTHER PHYSICAL FEATURES
CULTURAL FEATURES			
27. ROADS LLG	28. BUILDINGS LLG	29. RAILROADS XX	30. OTHER CULTURAL FEATURES
BOUNDARIES			
31. BOUNDARY LINES XX		32. PUBLIC LAND LINES XX	
MISCELLANEOUS			
33. GEOGRAPHIC NAMES LLG	34. JUNCTIONS T-12321 LLG T-12323 LLG		35. LEGIBILITY OF THE MANUSCRIPT LLG
36. DISCREPANCY OVERLAY LLG	37. DESCRIPTIVE REPORT LLG	38. FIELD INSPECTION PHOTOGRAPHS XX	39. FORMS LLG
40. REVIEWER LL Graves Aug. 15, 1968		SUPERVISOR, REVIEW SECTION OR UNIT A.C. Rauck, Jr.	
41. REMARKS (See attached sheet)			
FIELD COMPLETION ADDITIONS AND CORRECTIONS TO THE MANUSCRIPT			
42. Additions and corrections furnished by the field completion survey have been applied to the manuscript. The manuscript is now complete except as noted under item 43.			
COMPILER Charles Parker 3/25/74 Gary R. Vanderhaven 3/26/74		SUPERVISOR	
43. REMARKS			

Review Report
T-12320
Shoreline Survey
January 1976

61. General

The photogrammetric manuscript was compared with the final reviewed (and inspected) contemporary hydrographic smooth sheet (refer to heading 64 of this report). Applicable information concerning the results of the final review of the manuscript will be reported to the hydrographic review branch after job completion. (None - see item 64 below)

Photogrammetric survey field records were examined by the hydrographic survey reviewer and found to contain fixes that had not been plotted on either of the contemporary surveys. Statements in the field edit reports indicated that the fixes were plotted on the boat sheet, resulting in the objects being left off the photogrammetric manuscript.

62. Comparison with Registered Topographic Surveys

T-2822 1:20,000 1907

This survey is superseded by the new map.

63. Comparison with Maps of Other Agencies

Refer to the Compilation Report, item 46.

64. Comparison with Contemporary Hydrographic Surveys

H-9329 1:10,000 1972

Fixes for offshore rocks recorded in field edit sketchbooks (Form 274) which were left off the Class I manuscript were plotted during final review. This rock information is in agreement with the rocks plotted on the hydrographic survey by the reviewer (refer to hydrographic survey review report, heading 4) from the same photogrammetric survey records.

There are differences between the surveys in rock heights. Predicted tide data was used in computing rock heights on the photogrammetric survey.

65. Comparison with Nautical Charts

Chart #8665 1:20,000 5th edition, February 1972

66. Adequacy of Results and Future Surveys

This map meets the National Standards of map accuracy and complies with Bureau requirements.

Submitted by,

J. B. Phillips
J. B. Phillips

Approved: *S. G. Blankenship*

for A. K. Heywood
Chief, Photogrammetric Branch *pb*

John Cotton
Chief, Coastal Mapping Division

GEOGRAPHIC NAMES

FINAL NAME SHEET

PH-6301 (Cook Inlet, Alaska)

T-12320

Chigmit Mountains
Diamond Point
Dutton
Cottonwood Bay
Iliamna Bay
Williams Creek
Williamsport

Approved By:

A. Joseph Wraight
A. Joseph Wraight
Chief, Geographer

Prepared By:

Frank W. Pickett
Frank W. Pickett
Cartographic Technician