

T- 12321

T- 12321

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-12321.....

Classification No. *FINAL* Edition No. ....1.....

(Field edited map)

### LOCALITY

State ..... Alaska .....

General Locality ..... Kamishak Bay, Cook Inlet .....

Locality ..... Iliamna Bay .....

19 62 TO 19 72

### REGISTRY IN ARCHIVES

DATE .....

DESCRIPTIVE REPORT - DATA RECORD  
T-12321

PROJECT NO. (II): PH-6301		
FIELD OFFICE (II): None		CHIEF OF PARTY
PHOTOGRAMMETRIC OFFICE (III): Atlantic Marine Center Norfolk, Virginia		OFFICER-IN-CHARGE V. 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	DATE REGISTERED (IV): <i>N. Francis</i>
GEOGRAPHIC DATUM (III): N.A. 1927		VERTICAL DATUM (III): <del>MEAN SEA LEVEL</del> EXCEPT AS FOLLOWS: MHW 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): SPUR, 1907 (South of T-12321)		
LAT.: 59° 37' 54.097" 1674.1M	LONG.: 153° 33' 46.550" 729.6M	<input checked="" type="checkbox"/> ADJUSTED <input type="checkbox"/> UNADJUSTED
PLANE COORDINATES (IV): Y = 2,057,570.86 ft.      X = 580,896.87 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-12321

FIELD INSPECTION BY (III):

None

DATE:

MEAN HIGH WATER LOCATION (III) (STATE DATE AND METHOD OF LOCATION):

June, 1962  
Air Photo Compilation

PROJECTION AND GRIDS RULED BY (IV):

L.F. VanScoy

DATE

11/10/67

PROJECTION AND GRIDS CHECKED BY (IV):

J.C.

DATE

11/14/67

CONTROL PLOTTED BY (III):

J. Steinberg

DATE

2/21/68

CONTROL CHECKED BY (III):

F. Wilson

DATE

2/21/68

RADIAL PLOT OR STEREOSCOPIC CONTROL EXTENSION BY (III):

P.J. Dempsey

DATE

1/22/68

STEREOSCOPIC INSTRUMENT COMPILATION (III):

PLANIMETRY A. Shands  
Reviewed by: L.O.Neterer

DATE 6/68

6/68

CONTOURS

Inapplicable

DATE

MANUSCRIPT DELINEATED BY (III):

A. Shands

DATE

7/3/68

SCRIBING BY (III):

DATE

PHOTOGRAMMETRIC OFFICE REVIEW BY (III):

Compilation -  
Field Edit -

C.H. Bishop

DATE

7/12/68

REMARKS:

Field Edit: *Emerson G. Wood, 1972*

## DESCRIPTIVE REPORT - DATA RECORD

T-12321

CAMERA (KIND OR SOURCE) (III):  
USC&GS Type "W"

## PHOTOGRAPHS (III)

NUMBER	DATE	TIME	SCALE	STAGE OF TIDE
62W6296 - 6301	6/18/62	1217	1:15,000	3.5' above MLLW
62W7321, 7324, 7327, & 7219 2	6/29/62	1539	1:30,000	6.0' 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:

Jan. 1976

PROOF EDIT BY (IV):

DATE:

NUMBER OF TRIANGULATION STATIONS SEARCHED FOR (II):

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-1231 is one of 40 shoreline maps comprising Job PH-6301 (Part 1) 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 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-12321

COMPILATION RECORD	COMPLETION DATE	REMARKS
Compilation complete pending field edit		
Alongshore area for hydro	7/68	Superseded
Field edit applied	4/74	

FIELD INSPECTION

68-12321

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

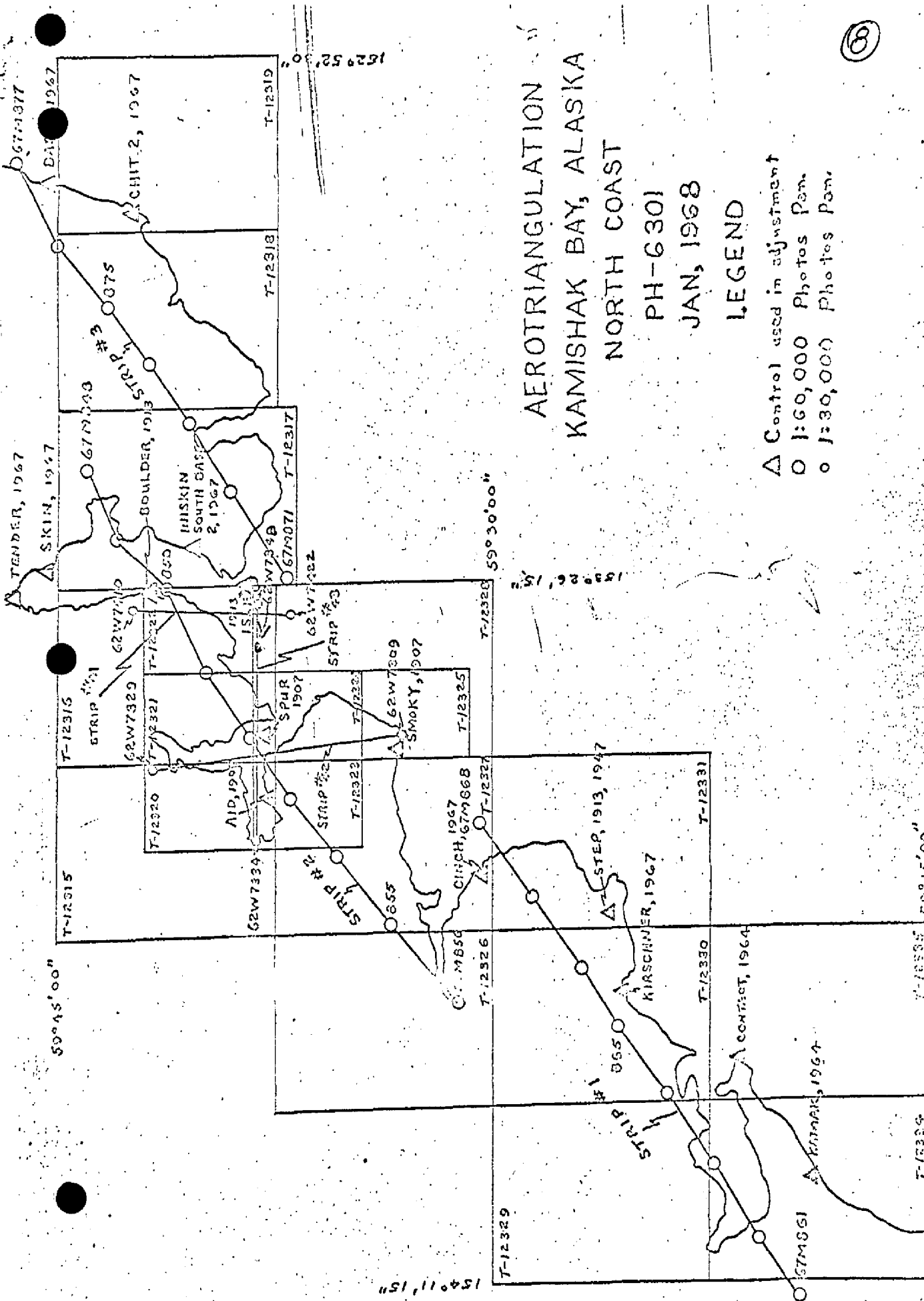
The definition and quality of the RC-9 and RC-8 photography were good. Ratio prints have been ordered to compilation scale.

Submitted by:

*P. J. Dempsey*  
P. J. Dempsey

Approved and forwarded:

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



Δ Control used in adjustment  
 ○ 1:60,000 Photos Pan.  
 ○ 1:30,000 Photos Pan.

T-12321  
Compilation Report  
PH-6301

31. Delineation

The Wild B-8 stereoplotter was used. Some of the offshore and foreshore area detail was compiled graphically from offshore photographs of 1:15,000 contact scale.

32. Control

*See next page*

## 3. CONTROL

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 from office interpretation of the photographs.

35. Shoreline and Alongshore Details

The shoreline and all rocks, ledges, sand, and boulder limits were delineated from office interpretation of the photographs.

36. Offshore Details

All rocks and foul areas were delineated from office interpretation of the photographs.

37. Landmarks and Aids - None

38. Control for Future Surveys - None

39. Junctions

Junctions have been made with T-12322 (1:10,000) and T-12316 (1:20,000) to the east, T-12320 (1:10,000) and T-12315 (1:20,000) to the west, T-12324 (1:10,000) and T-12328 (1:20,000) to the south and T-12316 (1:20,000) to the north.

40. Horizontal and Vertical Accuracy - No statement

41. thru 45. Inapplicable

46. Comparison with Existing Maps

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 Chart #8554, 9th edition (Cook Inlet, Southern Part) scale 1:200,000, dated May 10, 1965; and with USC&GS Chart #8665 Iliamna Bay, Alaska, 4th edition, 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,

Arnold L. Shands  
Carto Tech  
March 1969

Approved:

J. Bull  
Director, Atlantic Marine  
Center

## 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

OPR-429

June-August 1972

INTRODUCTION

Field edit reports are attached for the following maps:

T-12320	T-12325
<u>T-12321</u>	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*  
R. H. Houlder  
Captain, NOAA

FIELD EDIT REPORT

Map T-12321

Iliamna Bay, Alaska

August 1972

Field edit of Map T-12321 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 in the field notebook or directly on the ozalid.

No photographs are referenced for Map T-12321. All times are based on 135° W. meridian.

ADEQUACY OF COMPILATION

Compilation of this map is good, with the exception of the MLLW line. A \* possible explanation for this discrepancy is uplifting due to the 1964 earthquake. Otherwise, hydrographic location of features compares well to photogrammetric location. Note is made of the following items:

The MLLW line is inaccurate in the north arm of Iliamna Bay. Reference is made to hydrographic records for boat sheet FA-10-6-72.

The following two rocks were not visible at low tide:

Lat.	Long.
59°39'27"N	153°37'05"W
59°39'24"N	153°36'00"W

One rock was located that was not shown on the ozalid, at Lat. 59°39'16"N., Long. 153°37'01"W.

Field inspection of this map is complete.

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,

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

## PHOTOGRAMMETRIC OFFICE REVIEW

T-12321

1. PROJECTION AND GRIDS CHB 7/11		2. TITLE CHB 7/11		3. MANUSCRIPT NUMBERS CHB 7/11		4. MANUSCRIPT SIZE	
CONTROL STATIONS							
5. HORIZONTAL CONTROL STATIONS OF THIRD-ORDER OR HIGHER ACCURACY None 7/11				6. RECOVERABLE HORIZONTAL STATIONS OF LESS THAN THIRD-ORDER ACCURACY (Topographic stations) None 7/11		7. PHOTO HYDRO STATIONS None 7/11	
8. BENCH MARKS None 7/11		9. PLOTTING OF SEXTANT FIXES None 7/11		10. PHOTOGRAMMETRIC PLOT REPORT Bridge - W.O.		11. DETAIL POINTS Wild B-8	
ALONGSHORE AREAS (Nautical Chart Data)							
12. SHORELINE C.H.B. 7/11		13. LOW-WATER LINE C.H.B. 7/11		14. ROCKS, SHOALS, ETC. C.H.B. 7/11		15. BRIDGES XX	
16. AIDS TO NAVIGATION None		17. LANDMARKS None		18. OTHER ALONGSHORE PHYSICAL FEATURES None		19. OTHER ALONGSHORE CULTURAL FEATURES None	
PHYSICAL FEATURES							
20. WATER FEATURES				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 None	
CULTURAL FEATURES							
27. ROADS None		28. BUILDINGS CHB 7/11		29. RAILROADS XX		30. OTHER CULTURAL FEATURES None	
BOUNDARIES							
31. BOUNDARY LINES XX				32. PUBLIC LAND LINES XX			
MISCELLANEOUS							
33. GEOGRAPHIC NAMES CHB 7/11				34. JUNCTIONS T-12320 OK CHB 7/12 T-12324 OK CHB 7/12		35. LEGIBILITY OF THE MANUSCRIPT CHB 7/11	
36. DISCREPANCY OVERLAY		37. DESCRIPTIVE REPORT		38. FIELD INSPECTION PHOTOGRAPHS XX		39. FORMS	
40. REVIEWER C.H. Bishop 7-12-68				SUPERVISOR, REVIEW SECTION OR UNIT A. Ravck			
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 C.E. Blood 4/8/74				SUPERVISOR A. Ravck			
Reviewer C.H. Bishop 7/12/68							
43. REMARKS Field edit applied from: field edit ozalid & field edit report tide tables							

Review Report T-12321  
Shoreline Survey  
January 1976

61. General Statement

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. Notes submitted by the photogrammetric compiler concerning application of field edit data are included in this Descriptive Report. (page 19)

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 1 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.H. Blankenship*

for *A.K. Heywood*

Chief, Photogrammetric Branch *JB*

*James Collier*

Chief, Coastal Mapping Division

Notes submitted by the photogrammetric Compiler concerning the application of field edit on T-12321

NOTE: Only one RK was plotted on this sheet from field edit report. It's position is given: Lat.  $59^{\circ}39'16''$ N Long.  $153^{\circ}37'01''$ W, it is noted as position approximate (PA). No other rock fixes indicated on ozalid by fix were plotted. Report indicates them to be plotted on boat sheet FA-10-6-72.

C. Blood  
April 8, 1974

GEOGRAPHIC NAMES

FINAL NAME SHEET

PH-6301 (Cook Inlet, Alaska)

T-12321

AC Point  
Chignik Mountains  
Iliamna Bay  
North Head

Approved By:

*A. Joseph Wraight*  
A. Joseph Wraight  
Chief, Geographer

Prepared By:

*Frank W. Pickett*  
Frank W. Pickett  
Cartographic Technician