

T- 12324

T- 12324

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-12324

Classification No. *Final* Edition No. *!*

(Field Edited Map)

LOCALITY

State Alaska

General Locality Kamishak Bay, Cook Inlet

Locality South Head

1962 TO 1972

REGISTRY IN ARCHIVES

DATE

DESCRIPTIVE REPORT - DATA RECORD

T -12324

PROJECT NO. (II): PH-6301		
FIELD OFFICE (II): None		CHIEF OF PARTY
PHOTOGRAMMETRIC OFFICE (III): Atlantic Marine Center, Norfolk, Virginia		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 December 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): MHW MEAN SEA LEVEL 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 mean lower low water
REFERENCE STATION (III): SPUR, 1907		
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=2,057,579.86 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-12324

FIELD INSPECTION BY (III):

None

DATE:

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

Office interpretation of photography dated 1962

PROJECTION AND GRIDS RULED BY (IV):

A. Bethea

DATE

11/13/67

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):

Wild B-8 Plotter

PLANIMETRY

A.L. Shands
reviewed by L.L. Neterer, Jr.

DATE

7/5/68

CONTOURS

Inapplicable

DATE

MANUSCRIPT DELINEATED BY (III):

A.L. Shands

DATE

7/19/68

SCRIBING BY (III):

Inapplicable

DATE

PHOTOGRAMMETRIC OFFICE REVIEW BY (III):

Compilation: L.L. Graves

DATE

8/22/68

REMARKS:

Field edit by: M.C. Grunthal and T.R. Crane, June - August 1972

DESCRIPTIVE REPORT - DATA RECORD

T-12324

CAMERA (KIND OR SOURCE) (III):

U.S. C&GS Type "W"

PHOTOGRAPHS (III)

NUMBER	DATE	TIME	SCALE	STAGE OF TIDE
62W6285 - 6289	6/18/62	1212	1:15,000	2.6' above MLLW
62W6306 - 6308	6/18/62	1225	1:15,000	3.5' above MLLW
62W7315, 7318	6/29/62	1537	1:30,000	6.0' above MLLW
62W6302-6303	6/18/62	1217	1:15,000	3.5' above MLLW
62W7340-7343	6/29/62	1549	1:30,000	5.5' 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 (II):

1

RECOVERED:

1

IDENTIFIED:

1

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:

SUMMARY

T- (2324) 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 Dec. 1975

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

5

T-12324

COMPILATION RECORD	COMPLETION DATE	REMARKS
Compilation complete pending field edit		
Alongshore area for Hydro	June 1968	Superseded
Field edit applied, compilation complete	March 1974	

FIELD INSPECTION

■-T-12324

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

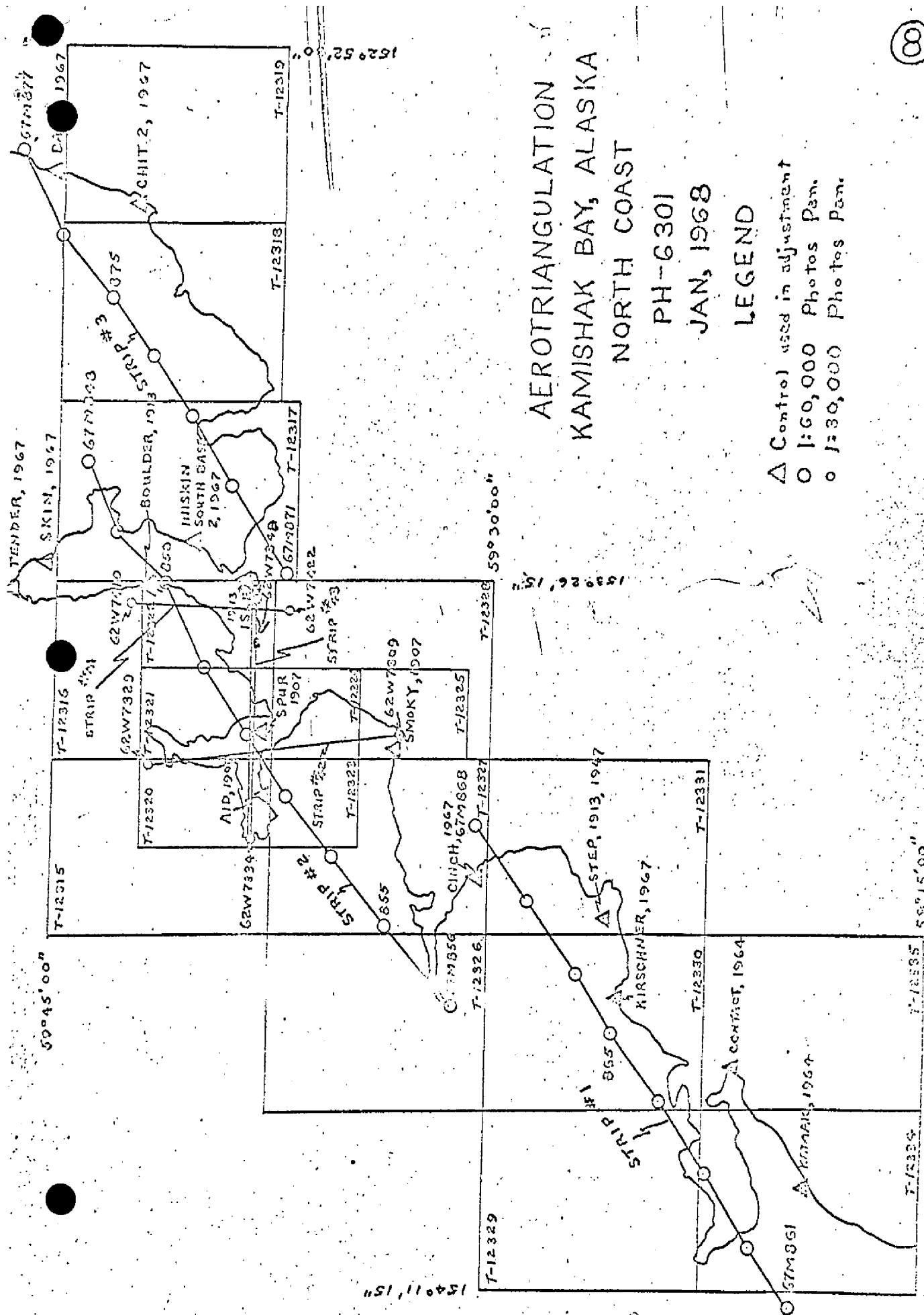
The definition and quality of the RC-9 and RC-8 photography were good. Ratio prints have been ordered to compilation scale.

Submitted by:

P. J. Dempsey
P. J. Dempsey

Approved and forwarded:

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



T-12324
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 ratio prints of 1:15,000 photography.

3 CONTROL 381

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, reefs, ledges, fould, and sand and boulder limits were delineated from office interpretation of the photographs.

36. Offshore Details

All rocks, reefs, 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 are in agreement with T-12328 (1:20,000) to the east; T-12323 (1:10,000) and T-12327 (1:20,000) to the west; T-12321 (1:10,000) and T-12316 (1:20,000) to the north and T-12325 (1:10,000) to the south.

40. Horizontal and Vertical Accuracy

41. thru 45. Inapplicable *Refer to photogrammetric plot report*

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

Comparison has been made with USC&GS charts 8554 (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.

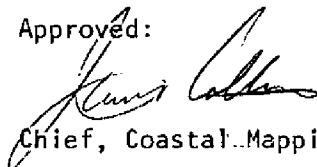
Items to be Applied to Nautical Charts Immediately - None

Items to be Carried Forward - None

Submitted by,

Arnold L. Shands
Carto Tech
March 1969

Approved:



Chief, Coastal Mapping Section

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:

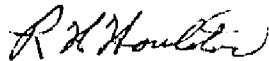
T-12320	T-12325
T-12321	T-12326
T-12323	T-12327
T-12324	T-12331

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-12324

Iliamna Bay, Alaska

August 1972

Field edit of Map T-12324 was done by LT M. C. Grunthal and LT (jg) T. R. Crane during July and 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. Where control was available, isolated rocks and reefs were located by sextant fixes and plotted on boat sheet FA-10-6-72 and then compared with the photogrammetric position. Ledge and foul area limits were compared to those on the ozalid and extended where necessary, as indicated on the ozalid. Notes have been made on the field edit ozalid of the heights of rocks, reefs, and ledges.

Notes have been made in violet on the field edit ozalid. All times noted are based on the 135° W. meridian.

ADEQUACY OF COMPILATION

Compilation of this map is good. Hydrographic location of features compares well to the photogrammetric location. Incorrectly compiled features and those discovered during field edit, that should be included on the map, are noted on the field edit ozalid. Field inspection of this map is complete.

RECOMMENDATIONS

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

Respectfully submitted,

for *D E Natrup*
T. R. Crane
LT (jg), NOAA

PHOTOGRAMMETRIC OFFICE REVIEW

T-12324 手-10363

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 LLG	6. RECOVERABLE HORIZONTAL STATIONS OF LESS THAN THIRD-ORDER ACCURACY (Topographic stations) X		7. PHOTO HYDRO STATIONS X
8. BENCH MARKS X	9. PLOTTING OF SEXTANT FIXES X	10. PHOTOGRAMMETRIC PLOT REPORT	11. DETAIL POINTS X
ALONGSHORE AREAS (Nautical Chart Data)			
12. SHORELINE LLG	13. LOW-WATER LINE X X	14. ROCKS, SHOALS, ETC. LLG	15. BRIDGES XX
16. AIDS TO NAVIGATION X	17. LANDMARKS X	18. OTHER ALONGSHORE PHYSICAL FEATURES LLG	19. OTHER ALONGSHORE CULTURAL FEATURES
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
CULTURAL FEATURES			
27. ROADS XX	28. BUILDINGS XX	29. RAILROADS XX	30. OTHER CULTURAL FEATURES XX
BOUNDARIES			
31. BOUNDARY LINES XX		32. PUBLIC LAND LINES XX	
MISCELLANEOUS			
33. GEOGRAPHIC NAMES LLG	34. JUNCTIONS T-12323 LLG T-12325 LLG T-12321 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 L.L.Graves 8/26/68		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 C. Blood		Date: March 1974	SUPERVISOR
Review by A. Rauck			
43. REMARKS Field edit applied from: field edit ozalid and the offshore photographs which had no notes. Tide curve.			

Review Report T-12324
Shoreline Survey
December 1975

61. General Statement

In areas of ledge and reef, compilation of the mean lower low water line was found to be inadequate on the Class I manuscript. Numerous foreshore areas were compiled as foul. This apparently resulted, in part, from an erroneous computation of the stage of tide at the time of photography. This discrepancy was not corrected by the field editor or the hydrographer. Changes made in the Class I manuscript details, and the procedures for reporting all discrepancies to the Hydrographic Review Section, are outlined under heading 64 of this report.

The Data Record (181c) has been corrected to reflect the correct stage of tide at the time of photography.

62. Comparison with Registered Topographic Surveys

T-2822 1:20,000 1907

T-3420 Part II 1:40,000 March 1910

Each of these surveys 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-9327 1:20,000 June-August 1972

H-9328 1:10,000 October 5, 1972

H-9329 1:10,000 August 1972 and July 1973

General: Comparison was made with the final reviewed hydrographic sheets. All additions and corrections made to the photogrammetric survey during final review are accounted for below, and/or on Cartographic Comparison Prints which are a part of this Descriptive Report. The Chief, Hydrographic Survey Branch has been notified by memorandum. Refer to page 19 A

In addition to the deficiencies in ledge information described under heading 61, differences exist between the surveys in rock elevations, resulting primarily from the use of actual observed tides on the hydrographic survey. Greater differences, which are not attributable to the two different sets of tide data, were checked during final review.

The 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.

During final photogrammetric review, the fixes in the field editor's sketchbook (form 274) for this sheet were plotted. The plotted positions are in agreement with the positions on the hydrographic smooth sheet. Fixes 213 and 214 are in error. These fixes plot on the opposite side of a sizeable island from where they are indicated by the editor on the field edit sheet, located in water 30' to 40' deep. They have been omitted for this reason. Rocks have been plotted on the hydro in the general vicinity of the rocks indicated on the field edit sheet - source unknown.

H-9327: See Cartographic Comparison Print A. ^{Page 19B} Comparison has been made and is in agreement except for the small area of shoreline that juts out as shown.

H-9328: See Cartographic Comparison Print B. ^{Page 20} The elevations were labeled in reverse on the Class I manuscript.

See Cartographic Comparison Print B2. ^{Page 21} This is to show where ledge and the low water line has been added during review, to more adequately depict the foreshore areas.

H-9329: See Cartographic Comparison Print C. ^{Page 22} On the hydrographic sheet there is a note "covered 1 ft. MLLW" in the vicinity of the rocks indicated. It is not clear which objects this note refers to.

65. Comparison with Nautical Charts

Chart 8665, 5th Edition, Feb. 19, 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: *D.G. Blankenhorn*
Dr. A.K. Heywood
Chief, Photogrammetric Branch *DB*
James Cotton
Chief, Coastal Mapping Division

19A

Memorandum to the Chief, Hydrographic Survey Branch, concerning
Photogrammetric Review of PH-6301, Part 1, Kamishak Bay, Alaska
T-12324

From C3421

H-9327 1:20,000 June - August 1972

H-9328 1:10,000 October 1972

H-9329 1:10,000 August 1972 and July 1973

Comparison has been made between the photogrammetric manuscript and the three final reviewed hydrographic survey sheets. Please refer to the Review Report and the Cartographic Comparison Prints submitted with the Descriptive Report for a few changes and additions to this manuscript.

A

South Head

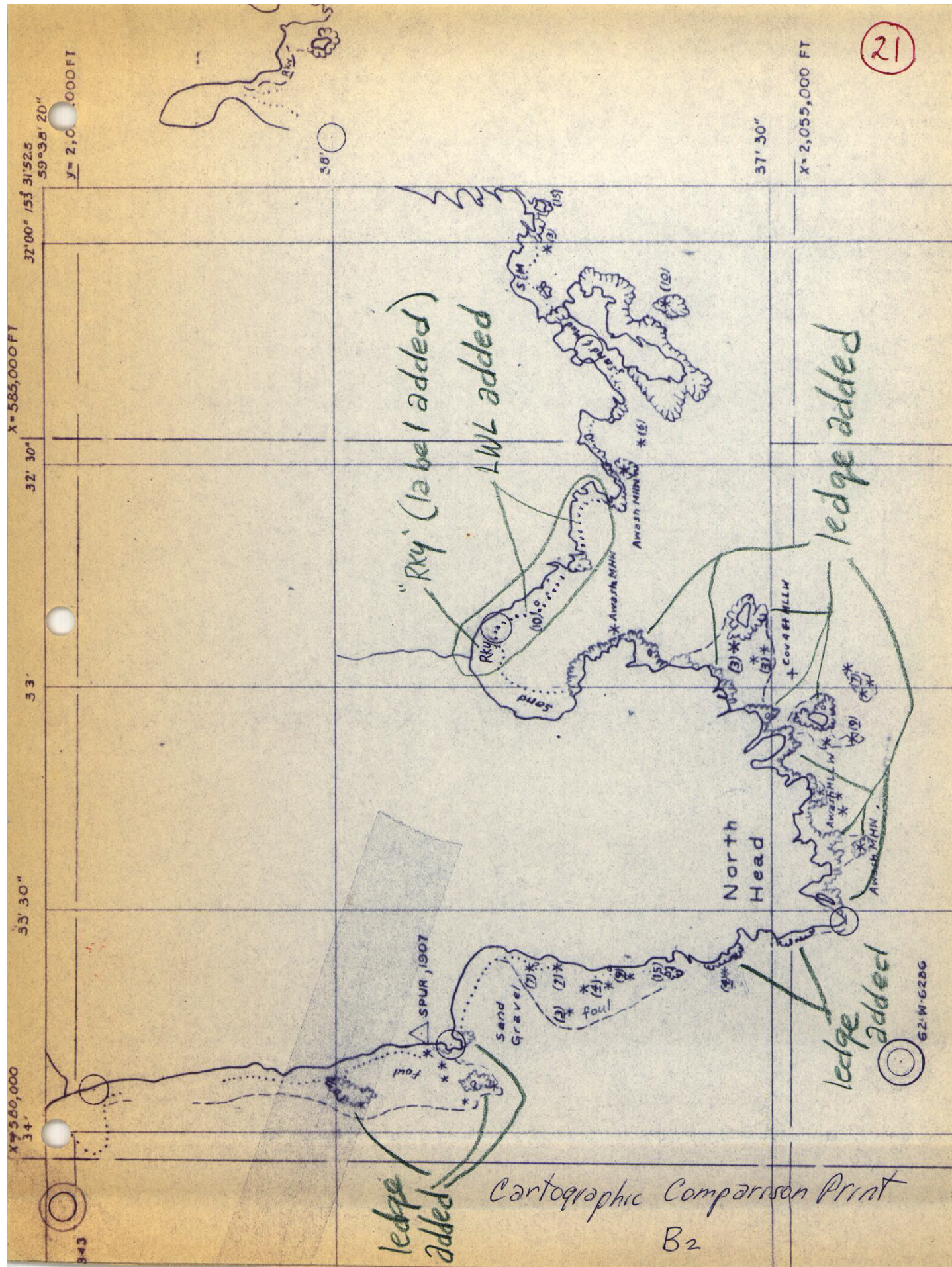
59° 36'

62-W-6306

These rocks were
incorrectly labeled
on the Class I manuscript.

Cartographic Comparison Print

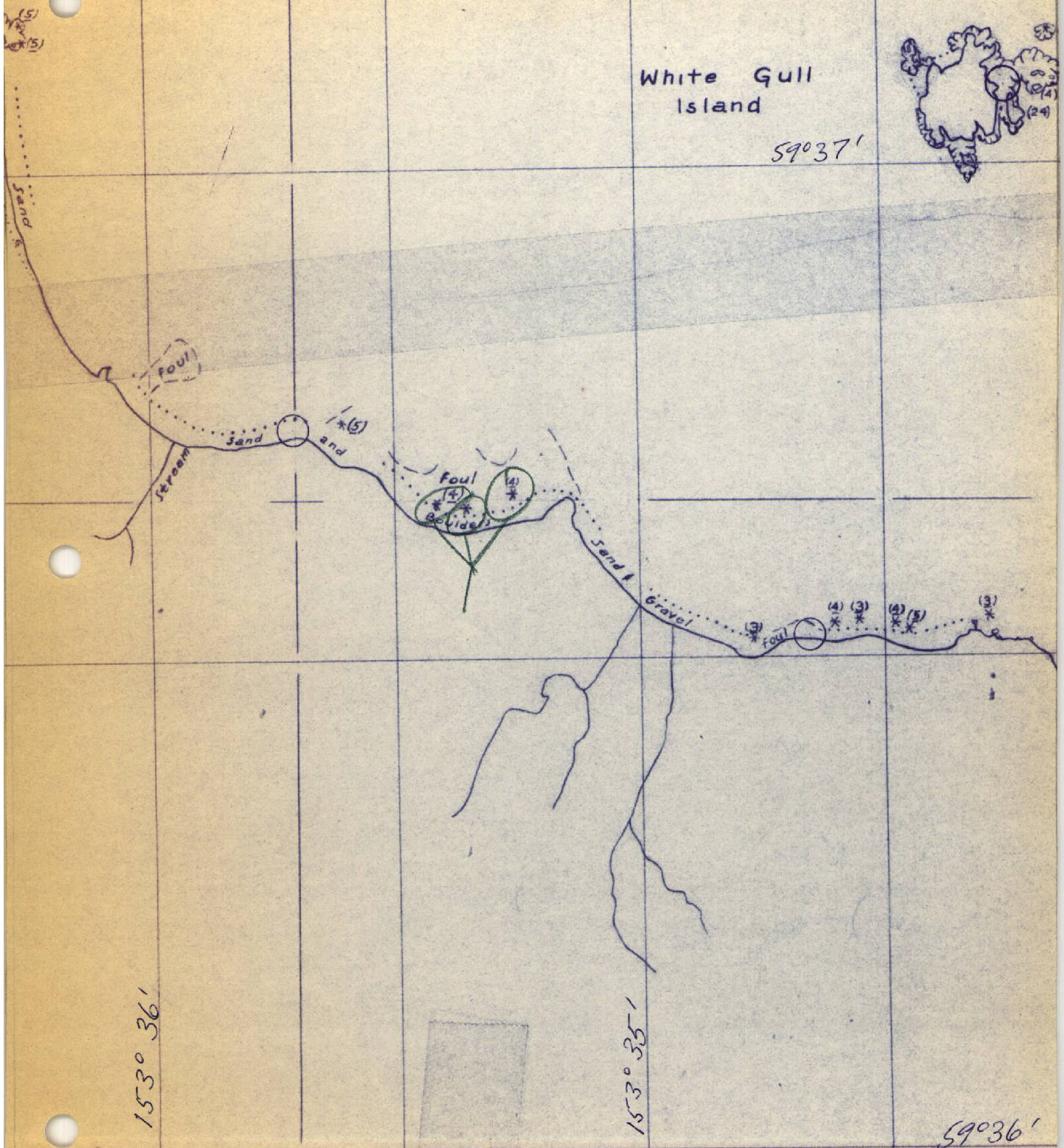
В



22

White Gull
Island

59°37'



Cartographic Comparison Print

B3 C

GEOGRAPHIC NAMES

FINAL NAME SHEET

PH-6301 (Cook Inlet, Alaska)

T-12324

Cook Inlet

Iliamna Bay

North Head

South Head

Turtle Reef

White Gull Island

Approved by:

A. Joseph Wraight
A. Joseph Wraight
Chief Geographer

Prepared by:

Frank W. Pickett
Frank W. Pickett
Cartographic Technician