

T-12713

ORIGINAL

T-12713

NOAA FORM 76-35

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

DESCRIPTIVE REPORT

Type of Survey Shoreline

Job No. PH-6410 Map No. T-12713

Classification No. ^{*}Incomplete Edition No. 1

LOCALITY

State Alaska

General Locality Montague Island

Locality Channel Island

1964 TO 19

REGISTRY IN ARCHIVES

DATE

☆ U.S. GOVERNMENT PRINTING OFFICE: 1974-762-901

* CLASS III MANUSCRIPT

DESCRIPTIVE REPORT - DATA RECORD

T - 12713

PROJECT NO. (II):		
PH-6410		
FIELD OFFICE (III):	CHIEF OF PARTY	
None		
PHOTOGRAMMETRIC OFFICE (III):	OFFICER-IN-CHARGE	
Atlantic Marine Center, Norfolk, Virginia	J. Bull, RADM, Director	
INSTRUCTIONS DATED (II) (III):		
Field	Aug. 21, 1964	
Office	Feb. 8, 1965	
Field	Feb. 18, 1965	
Office, Amendment I	Feb. 19, 1965	
Office, Amendment I to Feb. 19, 1965 Instructions	Feb. 26, 1965	
Field	Apr. 2, 1965	
Office	Dec. 6, 1965	
Office Amendment I	Jan. 1966	
Field	Mar. 15, 1966	
Office Amendment I	Apr. 26, 1966	
METHOD OF COMPILATION (III):		
Graphic		
MANUSCRIPT SCALE (III):	STEREOSCOPIC PLOTTING INSTRUMENT SCALE (III):	
1:10,000		
DATE RECEIVED IN WASHINGTON OFFICE (IV):	DATE REPORTED TO NAUTICAL CHART BRANCH (IV):	
APPLIED TO CHART NO.	DATE:	DATE REGISTERED (IV):
		Aug 1978
GEOGRAPHIC DATUM (III):	VERTICAL DATUM (III): MHW	
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 MEAN LOWER LOW WATER	
REFERENCE STATION (III):		
TREY, 1933		
LAT.:	LONG.:	<input checked="" type="checkbox"/> ADJUSTED <input type="checkbox"/> UNADJUSTED
60° 13' 46.141" (1428.1M)	147° 28' 15.056" (231.8m)	
PLANE COORDINATES (IV):		STATE
Y = 2,278,780.28 ft. X = 232,629.18 ft.		ZONE
		Alaska 3
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):		DATE:
None		
MEAN HIGH WATER LOCATION (III) (STATE DATE AND METHOD OF LOCATION):		
Air photo compilation - Aug. 15, 1964 <i>NO MEAN LOWER LOW-WATER LINE IS DELINEATED ON THIS MAP.</i>		
PROJECTION AND GRIDS RULED BY (IV):		DATE
A. E. Roundtree		17 Nov. 1965
PROJECTION AND GRIDS CHECKED BY (IV):		DATE
R. S. Kornspan		17 Nov. 1965
CONTROL PLOTTED BY (III):		DATE
None		
CONTROL CHECKED BY (III):		DATE
RADIAL PLOT OR STEREOSCOPIC CONTROL EXTENSION BY (III):		DATE
None		
STEREOSCOPIC INSTRUMENT COMPILATION (III):	PLANIMETRY	DATE
	Inapplicable	
Inapplicable	CONTOURS	DATE
	Inapplicable	
MANUSCRIPT DELINEATED BY (III):		DATE
B. Wilson		10 July 1968
SCRIBING BY (III):		DATE
PHOTOGRAMMETRIC OFFICE REVIEW BY (III):		DATE
Compilation: L. L. Graves		August 1968
Field Edit		
Scribing and Stickup		
REMARKS:		
Field Edit by FIELD EDIT CANCELLED Date 8/06/75		

DESCRIPTIVE REPORT - DATA RECORD

CAMERA (KIND OR SOURCE) (III):

USC&GS Type "W"

PHOTOGRAPHS (III)

NUMBER	DATE	TIME	SCALE	STAGE OF TIDE
64W-1849 and 1850	15 Aug. 1964	10:50	1:30,000	4.3 ft. above MLLW

TIDE (III)

PREDICTED

DIURNAL

	RATIO OF RANGES	MEAN RANGE	MEAN RANGE
REFERENCE STATION: CORDOVA		10.0	12.4
SUBORDINATE STATION: PORT CHALMERS, ALASKA		9.3	11.7
SUBORDINATE STATION:			

WASHINGTON OFFICE REVIEW BY (IV):

DATE:

PROOF EDIT BY (IV):

DATE:

NUMBER OF TRIANGULATION STATIONS SEARCHED FOR (II):

0

RECOVERED:

0

IDENTIFIED:

0

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

0

RECOVERED:

0

IDENTIFIED:

0

NUMBER OF RECOVERABLE PHOTO STATIONS ESTABLISHED (III):

0

NUMBER OF TEMPORARY PHOTO HYDRO STATIONS ESTABLISHED (III):

0

REMARKS:

T-12713

COMPILATION RECORD	COMPLETION DATE	REMARKS
Compilation complete pending field edit.	8/68	Incomplete manuscript
Field edit cancelled.	8/06/75	Incomplete manuscript
Final Review	8/77	Class III manuscript
A FEW CORRECTIONS WERE MADE PRIOR TO REGISTRATION.	TO MARINE CHARTS 6/8/78	"

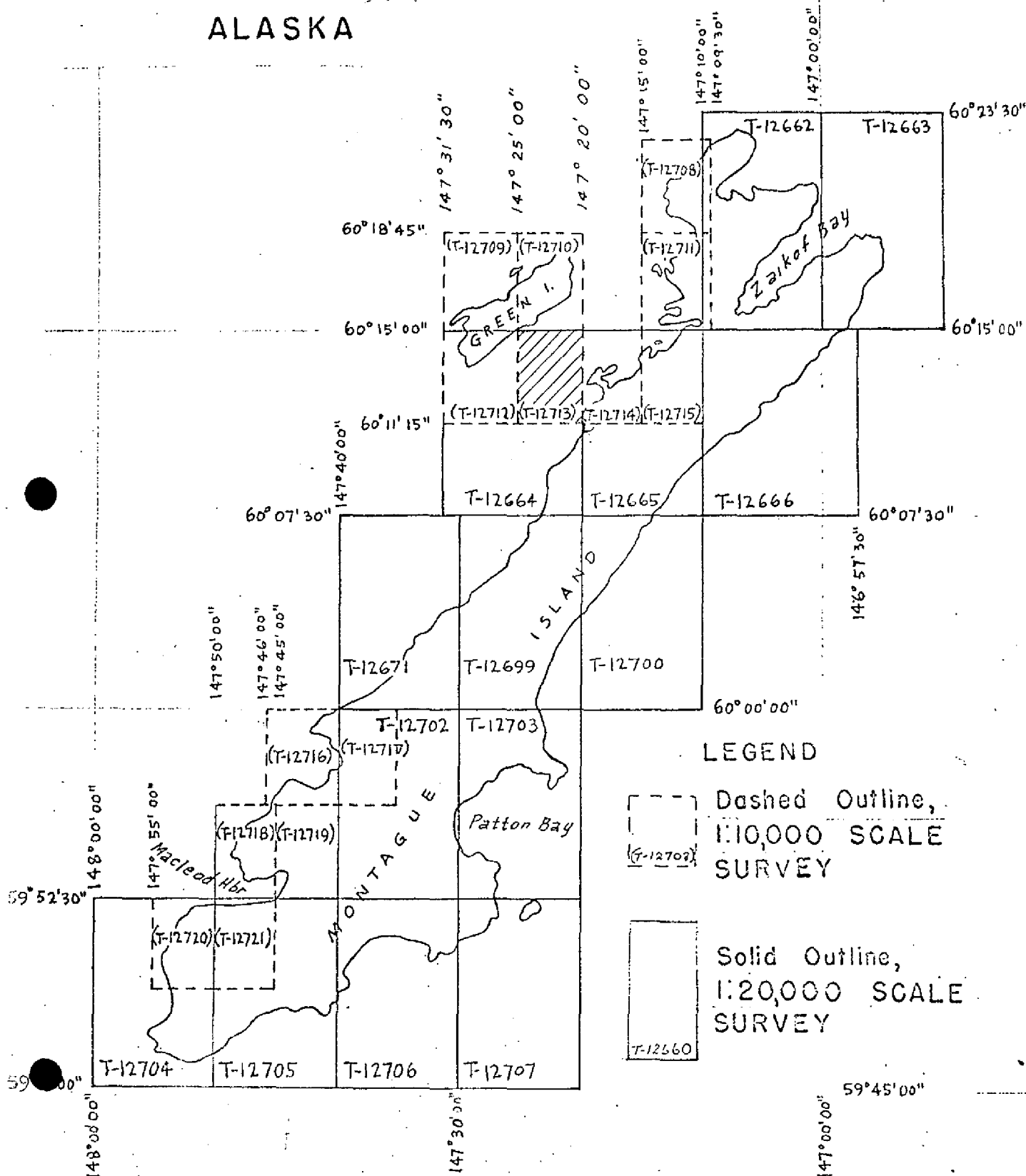
JOB PH-6410

SHORELINE MAPPING

SCALE, 1:10,000 - 1:20,000

MONTAGUE ISLAND

ALASKA



SUMMARY TO ACCOMPANY
DESCRIPTIVE REPORTS

T-12662 through T-12666, T-12671, T-12699,
T-12700 and T-12702 through T-12721

Project PH-6410 was originally designated 21423 (3). It consists of fourteen maps at 1:10,000 scale and fourteen maps at 1:20,000 scale. Its purpose was to provide up-to-date shoreline for hydrography and for nautical chart construction. Map T-12701, 1:20,000 scale, originally a part of the project, was cancelled.

This project covers Montague Island, Green Island and Little Green Island bordered by Prince William Sound and the Gulf of Alaska. The area was significantly affected by the earthquake of March 27, 1964. Uplifts of as much as 32 ft. have been recorded. This action created new shoreline and alongshore features. The new features, in many instances, appear to be composed of loosely consolidated materials. The configuration of some features as recorded on the August, 1964 photographs could have changed significantly since photography as a result of natural weathering and settling forces.

Photograph coverage was not sufficient to allow the delineation of two previously charted offshore islands at lat. $60^{\circ} 06.7'$, long. $147^{\circ} 36.1'$ (THE NEEDLE) and lat. $60^{\circ} 11.9'$, long. $147^{\circ} 27.1'$ and a rock at lat. $60^{\circ} 17.3'$, long. $147^{\circ} 28.0'$. All three of which lie within the project limits.

Field work prior to compilation was limited to the recovery establishment and identification of horizontal control necessary for bridging.

The original project, designated 21423(3), was bridged at the Washington Science Center by analytic methods in February, 1965. This bridge did not yield a sufficiently satisfactory solution and resulted in a Preliminary Classification for all compilation derived from it. This compilation took place at the Portland Photogrammetric Office during March and April, 1965. All preliminary data including the base maps and ratio photography was later destroyed.

Incomplete maps were produced at the Atlantic Marine Center from a new bridge run in November, 1965. Compilation was by Kelsh instrument and graphic methods.

Details were delineated on the north margins of T-12716 and T-12718. This was necessary because of a lack of map coverage in these areas.

Map T-12701, a 1:20,000 scale map, was cancelled.

A partial field edit was done on maps T-12671 and T-12699 in May 1975. A complete edit was done for the details shown on T-12664 at the same time. Field edit was cancelled for all the remaining maps in the project. However, the field editor did give the height of three rocks and the identification of a small gravel beach area on T-12714, which was applied.

Final review was performed at the Atlantic Marine Center. The original base manuscripts were forwarded to the Rockville office in September, 1977 for final registration.

FIELD INSPECTION REPORT
Project PH-6410
T-12713

There was no field inspection prior to compilation.

Photogrammetric Plot Report No. 2
Montague Island, Alaska
PH-6410
November 1965

This report supersedes the plot report on Montague Island dated February 1965.

21. Area Covered

This report pertains to Montague and Green Islands, Alaska (Zone 3). The sheets covered are T-12660 through T-12666, T-12671 and T-12699 through T-12721.

22. Method

Four strips were bridged by analytic aerotriangulation. Three of the strips had been bridged in January 1965, but the control furnished at that time was inadequate. New control has since been furnished and it was necessary to remeasure only the models in which the new control appeared.

Strips #1, #3, and a strip covering Green Island were adjusted to ground in the normal manner. Strip #2 was adjusted to ground with common points transferred from Strip #1. Common points were also transferred from Strip #1 to the 1:30,000 scale photography that is to be used by compilation. The common points are 180 micron drill holes and there are four per model.

23. Adequacy of Control:

The new control was adequate, however, it was not possible to identify the sub-points of RIVER 2, 1955, or VIC, 1933, on the bridging photography. The use of these stations was not necessary for a satisfactory adjustment.

Sub-point "A" of JUAN, 1965, would not hold with its companion station, sub-point "B". Each sub-point was used in a preliminary straight line adjustment of the strip and sub-point "B" was found to fit well with the other control stations in the strip, while sub-point "A" was so far out of line that we strongly suspect a misidentification.

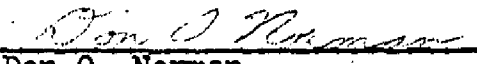
24. Supplemental Data

Approximate elevations were taken from U.S.G.S. topographic quadrangles to satisfy the requirements of the horizontal-vertical strip adjustment program.


25. Photography

The photography was adequate.

Respectfully submitted:


Don O. Norman

Approved and forwarded:


Henry P. Eichert
Acting Chief, Aerotriangulation Section

Fit to Control (feet)

STRIP #1

▲ used in adjustment

△ used as check

JUAN, 1965		
△ sub station "A"	-45.1	+23.9
▲ sub station "B"	- 1.0	- 0.1
CLOUD, 1933		
△ sub station "A"	+ 8.8	+ 5.5
▲ sub station "B"	+ 1.1	+ 1.3
CUB, 1933		
△ sub station "A"	- 7.0	+ 1.9
▲ sub station "B"	+ 1.5	- 3.7
PERCH, 1933 RM #3		
△ sub station "A"	- 1.9	+ 0.1
△ sub station "B"	-00.2	- 1.1
LAGOON, 1933		
▲ sub station "A"	- 0.2	+ 3.0
△ sub station "B"	+ 3.6	+11.9
WHITE, 1902		
△ sub station "A"	+14.0	+ 5.2
▲ sub station "B"	+ 0.5	- 0.9

STRIP #2 (adjusted on tie points from Strip #1)

▲ 14401	+0.4	-0.3
▲ 14402	-0.8	+0.8
▲ 14403	+0.9	-1.2
▲ 14404	-0.4	+0.4

STRIP #3

ROCKY, 1933		
△ sub station "A"	- 2.0	- 2.0
▲ sub station "B"	0.0	0.0
GRAVE, 1933		
▲ sub station "A"	0.0	0.0
△ sub station "B"	- 1.8	- 1.0
STORK, 1933		
△ direct	+ 2.1	- 1.6
▲ sub station	+ 0.1	0.0

GREEN ISLAND

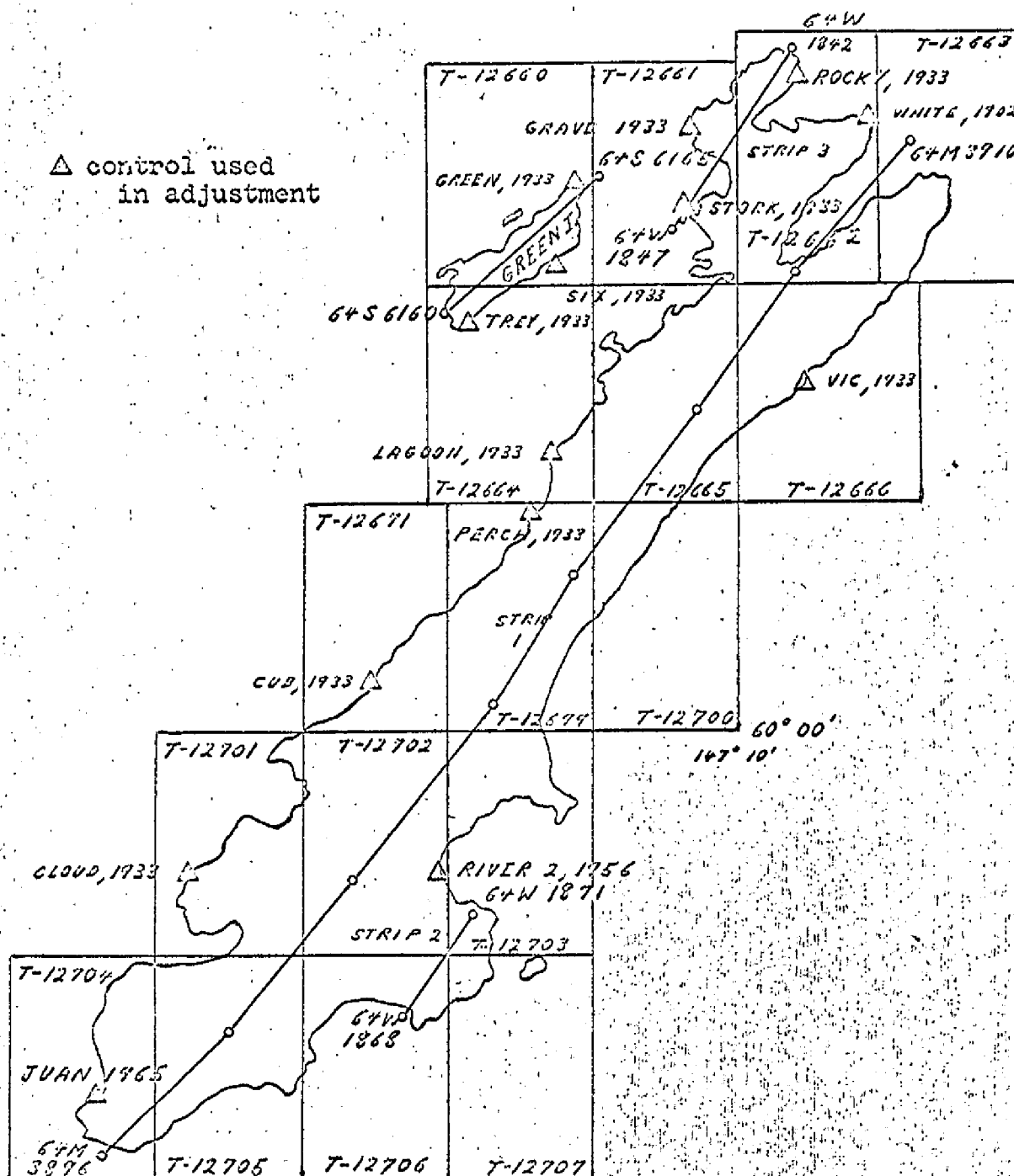
TREY, 1933		
▲ sub station "A"	0.0	0.0
△ sub station "B"	- 0.3	+ 1.6

SIX, 1933 RM #2

△ sub station "A"	- 1.9	+ 0.6
▲ sub station "B"	0.0	0.0
GREEN, 1933		
▲ sub station "A"	0.0	0.0
△ sub station "B"	- 0.4	+ 2.4

AEROTRIANGULATION SKETCH
MONTAGUE ISLAND
PH-6410
November, 1965

Δ control used
in adjustment



COMPILATION REPORT
T-12713

31. DELINEATION:

The graphic method was used for delineation, orienting the two photographs to Kelsh-compiled T-12714.

There was no field inspection prior to compilation.

The photography was good; the entire water area was not covered.

32. CONTROL:

See Photogrammetric Plot Report attached.

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:

Shoreline and all details were delineated from office interpretation of the photographs. It appears the entire area was raised by the earthquake, making one or two larger islands where there were five or six islets; also much ledge is now awash.

36. OFFSHORE DETAILS:

See Item 35.

37. LANDMARKS AND AIDS:

None

38. CONTROL FOR FUTURE SURVEYS:

None.

39. JUNCTIONS:

Satisfactory junction was made with T-12714 to the east. The other junctions are all through water areas: T-12710 to the north, T-12712 to the west, and T-12664 (1:20,000 scale) to the south.

40. HORIZONTAL AND VERTICAL ACCURACY:

No statement.

46. COMPARISON WITH EXISTING MAPS:

Comparison with USGS 1:63,360 scale Quadrangles SEWARD (A-1), ALASKA, dated 1953 and SEWARD (A-2), ALASKA, dated 1951 with minor revisions 1963, shows that there has been a rising of the land in this area.

47. COMPARISON WITH NAUTICAL CHARTS:

Comparison with Chart 8515, scale 1:81,436 (at Lat. 60° 00'), published November 1935 (7th Edition), revised February 14, 1949, shows the same differences as with the quadrangle.

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY:

None.

ITEMS TO BE CARRIED FORWARD:

None.

Submitted by:

Albert C. Rauck, Jr. For
B. Wilson
Cartographic Technician

Approved:

Albert C. Rauck, Jr.
Albert C. Rauck, Jr.
Chief, Coastal Mapping Section

July 12, 1977

GEOGRAPHIC NAMES

FINAL NAME SHEET

PH-6410 (Montague Island, Alaska)

T-12713

✓ Channel Island

✓ Montague Strait

Approved by:



Charles E. Harrington
Staff Geographer - C51x2

FORM C&GS-1002 (9-66)		U.S. DEPARTMENT OF COMMERCE ESSA COAST AND GEODETIC SURVEY	
PHOTOGRAMMETRIC OFFICE REVIEW			
T- 12713			
1. PROJECTION AND GRIDS LLG	2. TITLE LLG	3. MANUSCRIPT NUMBERS LLG	4. MANUSCRIPT SIZE LLG
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) NA		7. PHOTO HYDRO STATIONS NA
8. BENCH MARKS NA	9. PLOTTING OF SEXTANT FIXES NA	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 LLG
16. AIDS TO NAVIGATION LLG	17. LANDMARKS LLG	18. OTHER ALONGSHORE PHYSICAL FEATURES LLG	19. OTHER ALONGSHORE CULTURAL FEATURES LLG
PHYSICAL FEATURES			
20. WATER FEATURES LLG	21. NATURAL GROUND COVER NA		22. PLANETABLE CONTOURS NA
23. STEREOSCOPIC INSTRUMENT CONTOURS NA	24. CONTOURS IN GENERAL NA	25. SPOT ELEVATIONS NA	26. OTHER PHYSICAL FEATURES LLG
CULTURAL FEATURES			
27. ROADS LLG	28. BUILDINGS LLG	29. RAILROADS LLG	30. OTHER CULTURAL FEATURES LLG
BOUNDARIES			
31. BOUNDARY LINES NA		32. PUBLIC LAND LINES NA	
MISCELLANEOUS			
33. GEOGRAPHIC NAMES LLG	34. JUNCTIONS LLG		35. LEGIBILITY OF THE MANUSCRIPT LLG
36. DISCREPANCY OVERLAY LLG	37. DESCRIPTIVE REPORT LLG	38. FIELD INSPECTION PHOTOGRAPHS NA	39. FORMS LLG
40. REVIEWER <i>Albert C. Rauck, Jr.</i> L. L. Graves		SUPERVISOR, REVIEW SECTION OR UNIT <i>Albert C. Rauck, Jr.</i> 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		SUPERVISOR	
43. REMARKS FIELD EDIT CANCELLED 8/ 06/75			

REVIEW REPORT
T-12713

SHORELINE

August 15, 1977

61. GENERAL STATEMENT:

See Summary ~~which is~~^{on} Pages 6a and 6b of this Descriptive Report.

This map covers Channel Island which since the earthquake, has increased in size by a significant amount. The entire island is visible on a flight of photographs flown south of the island but lies very close to the edge. A flight to the north touches on the northern edge of the island's foreshore but this area of the photographs contain glare. Some hazards may not be identifiable along the north side of the island because of the glare.

T-12713 occupies the northeast section of 1:20,000 scale map, T-12664. Details in this area are depicted on T-12713 only.

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS:

Comparison was made with T-4837, 1:20,000 scale, dated June-September, 1933, compiled on the Valdez Datum. See Paragraph 61 for differences in shoreline.

63. COMPARISON WITH MAPS OF OTHER AGENCIES:

Comparison was made with USGS Quadrangles Seward (A-1), Alaska dated 1953 and Seward (A-2) Alaska dated 1951, revised 1963, each 1:63,360 scale.

The existence and position of a submerged rocks mapped at lat. $60^{\circ} 12'$, long. $147^{\circ} 21'$ cannot be verified photogrammetrically. The one photograph covering that area (64W-1850) is obscured by glare. See Paragraph 61 for shoreline differences.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS:

No contemporary hydrographic survey was conducted in the area.

65. COMPARISON WITH NAUTICAL CHARTS:

Comparison was made with Chart 16701, 1:80,000 scale, 11th edition dated March 10, 1973. A foul area charted at lat. $60^{\circ}12'$, long. $147^{\circ}21'$ ($1\frac{1}{4}$ fathoms) is not discernible on the photographs. The one photograph covering the area (64W-1850) is obscured by glare.

66. ADEQUACY OF RESULTS AND FUTURE SURVEYS:

This map complies with the project instructions and meets the requirements for Bureau Standards and the National Standards of Map Accuracy.

Submitted by:

A. L. Shands

A. L. Shands
Final Reviewer

Approved for forwarding:

Joseph W. Vonasek

Joseph W. Vonasek
Chief, Photogrammetric Branch, AMC

Approved: ^{bu}

John D. Perrow Jr.

Chief, Photogrammetric Branch

James C. ...

Chief, Coastal Mapping Div.