

9957

9958

9959

T-10925

Diag. Cht. No. 8502-3.

FORM C&GS-504

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

DESCRIPTIVE REPORT

Type of Survey Planimetric
T-9957, T-9958
Field No. Ph-6005 Office No. & T-9959
T-10925

LOCALITY

State AlaskaGeneral locality Kayak IslandLocality Cape St. Elias to Lemesurier
Point19 60

CHIEF OF PARTY

M.E.Wennermark, Chief of Field Party
L.W.Swanson, Div. of Photo. Wash., D.C.

LIBRARY & ARCHIVES

DATE April 1968

USCOMM-DC 37022-P66

DESCRIPTIVE REPORT - DATA RECORD

T-9957, 9958, 9959 and T-10925

PROJECT NO. (II):

PH 6005

FIELD OFFICE (III):

C&GS Ship PATHFINDER

CHIEF OF PARTY

M. E. Wennermark

PHOTOGRAMMETRIC OFFICE (III):

Washington, D. C.

OFFICER-IN-CHARGE

L. W. Swanson

INSTRUCTIONS DATED (II) (III):

19 April 1960

Supp Inst 29 April 1960

Supp Inst 9 May 1960

Compilation 7 October 1960

METHOD OF COMPILATION (III):

Graphic (Preliminary Shoreline Surveys)

Kelsh Plotter

MANUSCRIPT SCALE (III):

1:20,000

STEREOSCOPIC PLOTTING INSTRUMENT SCALE (III):

1:5000

DATE RECEIVED IN WASHINGTON OFFICE (IV):

DATE REPORTED TO NAUTICAL CHART BRANCH (IV):

APPLIED TO CHART NO.

DATE:

DATE REGISTERED (IV):

GEOGRAPHIC DATUM (III):

NA 1927

VERTICAL DATUM (III):

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):

LAT.:

LONG.:

☐ ADJUSTED

☐ UNADJUSTED

PLANE COORDINATES (IV):

STATE

ZONE

Y =

X =

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 (III):		DATE:
F. X. Popper (Cape St. Elias only)		June 1960
MEAN HIGH WATER LOCATION (III) (STATE DATE AND METHOD OF LOCATION):		
Office interpretation from tide stage, at time of photography, computed from data observed at Yakutat		
PROJECTION AND GRIDS RULED BY (IV):		DATE
R. A. C.		October 1960
PROJECTION AND GRIDS CHECKED BY (IV):		DATE
J. D. C.		October 1960
CONTROL PLOTTED BY (III):		DATE
E. Ramey (Preliminary shoreline surveys) P. Dempsey		April 1960 November 1960
CONTROL CHECKED BY (III):		DATE
B. F. Lampton C. Misfeldt		April 1960 November 1960
RADIAL PLOT OR STEREOSCOPIC CONTROL EXTENSION BY (III):		DATE
B. F. Lampton W. A. Kuncis		May 1960 October 1960
STEREOSCOPIC INSTRUMENT COMPILATION (III): Kelsh Plotter	PLANIMETRY T-9958 P. Dempsey T-9957, 9959, 10925 C. Misfeldt	DATE November 1960 1960, 1962
	CONTOURS None	DATE
MANUSCRIPT DELINEATED BY (III):		DATE
T-9958 W. A. Kuncis T-9957, 9959, 10925 C. Misfeldt		December 1960 1960, 1962
SCRIBING BY (III):		DATE
PHOTOGRAMMETRIC OFFICE REVIEW BY (III):		DATE
L. Levin		1-15-66
REMARKS:		

DESCRIPTIVE REPORT - DATA RECORD

CAMERA (KIND OR SOURCE) (III):

Wild RC 5 Aviogon lens

PHOTOGRAPHS (III)

NUMBER	DATE	TIME	SCALE	STAGE OF TIDE
60 W 1649-1666 60 W 1671-1686	Aug 31 1960	11:36-11:57	1:25,000	2.7 ft above MLLW 6.4 ft below MHW
60 W(color) 1741-62 60 W(color) 1765-81	Aug 31 1960	13:00	1:20,000	1.7 above MLLW
*0286-0294	Aug 12 1952	Unknown	1:40,000	Unknown

TIDE (III)

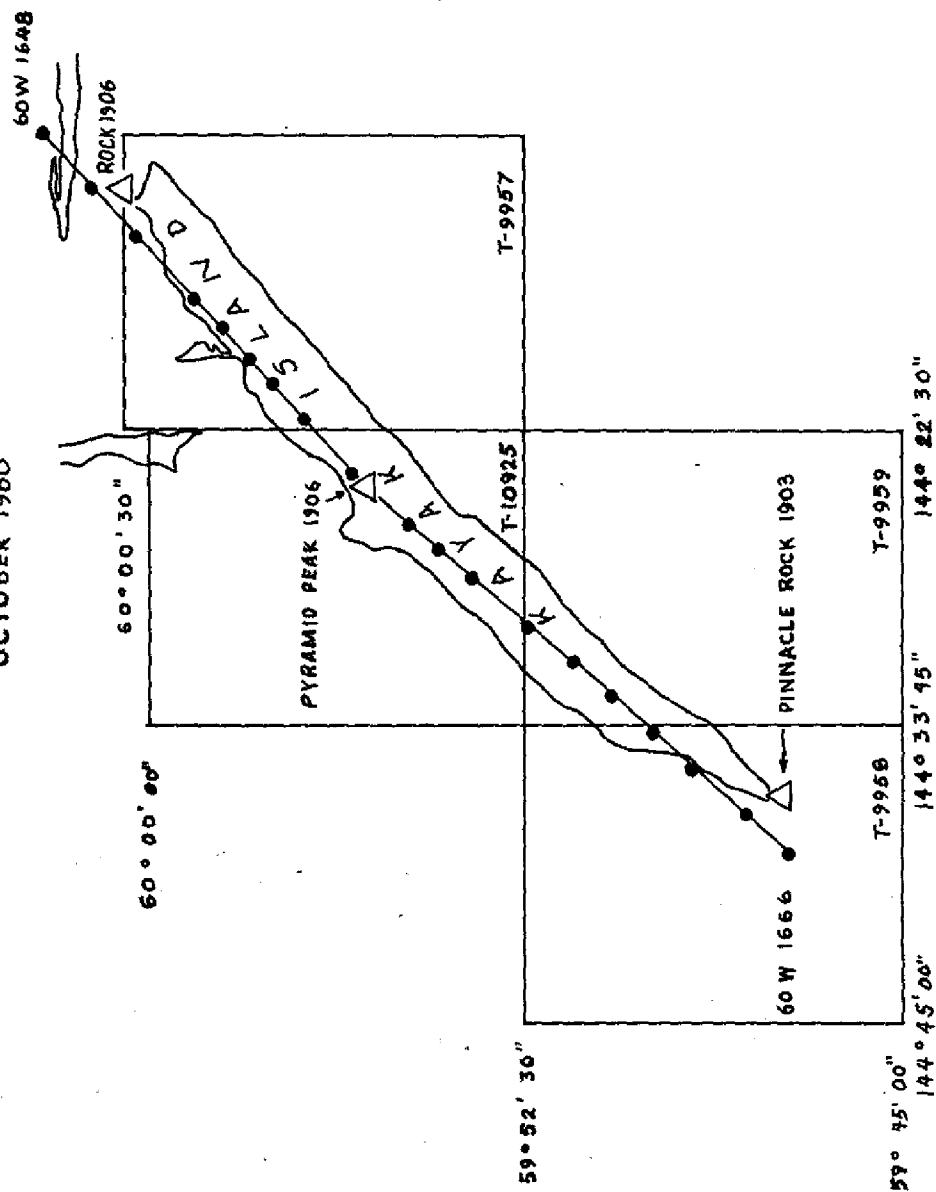
	RATIO OF RANGES	MEAN RANGE	SPRING RANGE
REFERENCE STATION:			
SUBORDINATE STATION:			
SUBORDINATE STATION:			
WASHINGTON OFFICE REVIEW BY (IV):	DATE:		
PROOF EDIT BY (IV):	DATE:		
NUMBER OF TRIANGULATION STATIONS SEARCHED FOR (II):	RECOVERED:	IDENTIFIED:	
NUMBER OF BM(S) SEARCHED FOR (II):	RECOVERED:	IDENTIFIED:	
NUMBER OF RECOVERABLE PHOTO STATIONS ESTABLISHED (III):			
NUMBER OF TEMPORARY PHOTO HYDRO STATIONS ESTABLISHED (III):			

REMARKS:

*Wild 6" Aviogon by USAF...used in preliminary compilation

ALASKA, SOUTH COAST KAYAK ISLAND PH-6005

OCTOBER 1960



MAP T..... PROJECT NO..6005..... SCALE OF MAP 1:20,000..... SCALE FACTOR

[illegible]

1 FT. = 3048006 METER

COMPUTED BY:

DATE.

CHECKED BY:

DATE _____

COMM-DC-57843

SUMMARY TO ACCOMPANY DESCRIPTIVE REPORT

FOR

T-9957, 9958, 9959 AND T-10925

Project PH-6005 was bridged and compiled in April-May 1960 as preliminary shoreline surveys. The surveys cover Kayak Island, Alaska in its entirety. The preliminary photogrammetric bridge was accomplished with 1:40,000 USAF photography flown in August 1952. This bridge was considered sub-standard in accuracy. (See Photogrammetric Plot Report, April 1960).

The 1:20,000 scale manuscripts provided a base for hydrographic surveys; thus only the shoreline and foreshore features were compiled at that time.

The area of these manuscripts was re-bridged on the C-8 Stereoplanigraph in October 1960 with 1:25,000 photography flown in the summer of 1960.

The surveys were re-compiled on the Kelsh Plotter and delineated as Advance Planimetric Manuscripts in November-December 1960.

The control for the final bridge was office identified. The stations used were unchecked positions. For this reason the surveys in this project may not meet the minimum Standards of Map Accuracy.

Field inspection was restricted to the location of hydrographic signals and a small area of shoreline inspection.

As field identification of control was not scheduled or contemplated for the area; the surveys, as compiled, will be registered in the Bureau Archives under their respective T-numbers.

Field Inspection Report

Maps T-9957, T-9958, T-9959, and T-10925

Cape St. Elias

Kayak Island

Project SP 4-60

1960

Signals EAT, FAR, ELI, and GUY in the vicinity of Cape St. Elias Light were located by plane table.

Plane table was set on range with azimuth mark (azimuth determined by solar observations) and stadia distance measured to azimuth mark and light and signals then located by standard methods.

Signals IVY and KIM were located by combination of shoran distances and sextant fixes.

Signals JAY was located by sextant fixes.

The only section of shoreline inspected was the north side of the pinnacle which has been revised on ozalid print.

Breaker areas were extensively revised by hydrography.

Signals ABE, BOY, CAT, and HER were located photogrammetrically.

Submitted herewith are a series of 14 positions and cuts to various mountain peaks that may aid in photo compilation.

Nine photographs taken by ship personnel previously forwarded 1 September may be of assistance in photo compilation.

F. X. Popper
F. X. Popper
CDR, C&GS

Approved and forwarded.

M. E. Wennermark
M. E. Wennermark
Captain, C&GS
Commanding, Ship PATHFINDER

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

SHIP PATHFINDER

705 FEDERAL OFFICE BUILDING

SEATTLE 4, WASHINGTON

MISCELLANEOUS SEXTANT CUTS TO VARIOUS MOUNTAIN PEAKS SP - 4 - 60 CAPE ST. ELIAS

1. (0732) Pyramid peak $23^{\circ} 26'$
Left twin
Pinnacle $88^{\circ} 03'$

sharp peak to left twin $05^{\circ} 04' \overset{10}{(A)}$
2. (0736) Pyramid peak $14^{\circ} 13'$
Left twin
Pinnacle $100^{\circ} 55'$

Pyramid peak to peak A $12^{\circ} 44' \overset{12}{}$
3. (0809) Left twin to Cape $86^{\circ} 08'$
Cat to Cape $70^{\circ} 23'$
Cape to peak A $84^{\circ} 51' \overset{26}{}$
4. (1439) S. E. Rock to Cape $26^{\circ} 56'$
Cape to Pyramid Pk. $69^{\circ} 27'$
Cape to Peak A $67^{\circ} 08'$
5. (1442) S. E. Rock to Cape $27^{\circ} 11'$
Cape to Pyramid Pk. $69^{\circ} 39'$
Cape to Peak B $64^{\circ} 48'$
6. (1445) S. E. Rock to Cape $27^{\circ} 23'$
Cape to Pyramid Pk. $69^{\circ} 44'$
Cape to scar on bluff $48^{\circ} 16'$
Cape to Peak D $58^{\circ} 10'$
7. Abe $27^{\circ} 44'$
Cat
{ Cape $64^{\circ} 11'$ } $74^{\circ} 31'$
{ Pk. A $89^{\circ} 06'$ } $88^{\circ} 50'$
8. Abe $27^{\circ} 44'$
Cat
{ Cape $64^{\circ} 11'$ } $73^{\circ} 19'$
{ Pk. B $87^{\circ} 46'$ } 30
9. Abe $27^{\circ} 43'$
Cat
{ Cape $64^{\circ} 27'$ } $61^{\circ} 10'$
{ Pk. C $82^{\circ} 40'$ } 37

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

SHIP PATHFINDER

705 FEDERAL OFFICE BUILDING

SEATTLE 4, WASHINGTON

10.	Abe	27° 41'	
	Cat		
	Cape	64° 32'	} 15 08
	Pk. D	79° 49'	
		40	
11.	Abe	72° 04'	
	Cat		
	Eli	24° 05'	
	Pk. A	71° 43'	
		36	
12.	Abe	72° 40'	
	Cat		
	Eli	23° 54'	
	Pk. B	68° 01'	
		67 57	
13.	Abe	73° 03'	
	Cat		
	Eli	23° 50'	
	Pk. C	56° 16'	
		13	
14.	Abe	73° 18'	
	Cat		
	Eli	23° 46'	
	Pk. D	48° 42'	
		39	

PHOTOGRAMMETRIC PLOT REPORT
Oct. 1960
T 9957 T 9958 T 9959 T 10925

21 Area covered:

All of Kayak Island at a scale of 1:20 000

22 Method:

One eighteen-model stereoscopic bridge was run on the C 8 Stereoplanigraph using three office-identified triangulation stations to control the adjustment. The adjustment was accomplished by the IBM electronic computer. Sufficient pass points were selected to control compilation by the Kelsh Plotter.

23 Adequacy of Control:

With the adjustment being referenced to only three control stations no evaluation of the control identification was possible. All three stations were unchecked positions and had no field identification. These stations were office-identified by noting their positions relative to planimetric detail as shown on prior planetable surveys.

An attempt was made to identify station Kyak, 1898, a peak; but the resulting position did not check well with the published position.

24 Supplemental Data:

Color photography covered the entire area and was used as an aid in the interpretation of details.

T 2794 T 2963 and T 2964 (1906-1909) were used to aid in the identification of control.

25 Photography

The quality and overlap of the diapositives was satisfactory.

The width of land, normal to the flight line was less than needed to give an optimum solution. This is believed to be the cause for a greater than usual bow error in the adjustment. Photography was 1:25 000 scale.

26 Sketch and control list: Appended

Approved by:
Everett H. Ramey
Chief, Aerotriangulation Section

Submitted by:
Willard A. Kuncis

COMPILATION REPORT

T 9957 T 9958 T 9959 T 10925

31 Delineation:

A Kelsh Plotter was used. When the stereo-models were scaled to bridge points along one shore, the bridge points along the opposite shore fell short. The manuscript was therefore shifted to fit each shore to compile the alongshore areas (see No. 23).

Photointerpretation was used to delineate shore areas; no field inspection was done.

The rocks about station Bowl (eastern offshore, T 9957) and the rocks east of Cape St Elias to, and including, Southeast Rock (T 9958) were beyond the photography used for the stereo-bridge. The area about station Bowl is covered by color photographs 60W c 1757, 1758, 1759 and the southern rocks are visible on 60W 1671, 1672, 1673, 1674, but extension of control by Kelsh Plotter would be weak.

32 Control:

See No. 31

33 Supplemental data:

The color photography was used stereoscopically for better identification of rocks, shoreline area, and vegetation.

C & GS Topographic Surveys T 2964 (1:10 000; 1906) and T 2963 T 2964 (1:10 000, 1909) were used as general reference.

34 Contours and drainage: No contours.

35 Shoreline and alongshore details:

See No. 31

36 Offshore details:

See No. 31

37 Landmarks and aids:

The 500 foot high pinnacle rock off the southern tip, and the short 1500 foot high ridge at the southern end of the island are of some value as landmarks.

Cape St Elias Light is the only fixed aid to navigation.

38 Control for future surveys: See field report.

39 Junctions

Each of these four manuscripts junction one other of the group

40 Horizontal and vertical accuracy

With only office identified control and insufficient land area to give good relative and absolute orientation of the stereo-models of the horizontal control extension, the probable error may exceed National Standards of Map Accuracy.

41 through 45: Nothing

46 Comparison with existing maps: See No. 33.

47 Comparison with nautical charts:

C & GS 8513 1:100 000 1904 (1913) (see No. 33)

48 Geographic name list:

Cape St Elias.	Kayak Entrance.
Controllor Bay	Pinnacle Rock.
Gulf of Alaska.	Pyramid Peak.
Lemesurier Pt.	Sea Ranger Reef.
Kayak .	Southeast Rock.
Kayak Island .	Wingham Island.

Submitted by:

Approved by:

Clarence Misfeldt

K. Maki
Chief, Compilation Section

- REVIEW REPORT
PH-6005
T-9957, 9958, 9959 and T-10925

61. General Statement

(See the summary in preface of this report).

This review report covers the Planimetric Manuscripts compiled in November-December 1960.

62. Comparison with Registered Topographic Surveys

A comparison was made with planetable surveys: T-2963-2964, dated June-July 1909, scale 1:40,000 and T-2794, dated 1906, scale 1:10,000. Except for horizontal datum (refer to Photogrammetric Plot Report) and the delineation of Southeast Rock along with several rocks awash just north of Southeast Rock, the new surveys supersede the prior surveys.

63. Comparison with Maps of Other Agencies

Comparison was made with U.S.G.S. quadrangle, Middleton Island, D-1 and D-2, scale 1:63,360, dated 1955.

64. Comparison with Contemporary Hydrographic Surveys

Comparison was made with hydrographic survey H-8534, scale 1:20,000, dated 1960. This, the only contemporary survey in the area, covers the southern tip of Kayak Island from Cape St. Elias to Southeast Rock. The positioning of the rocks and reefs in this area could not be provided by photogrammetric methods due to the lack of adequate control.

65. Comparison with Nautical Charts.

Comparison was made with Chart 8513, 7th Edition, December 2, 1963, scale 1:100,000.

66. Adequacy of Results and Future Surveys

The surveys of this project comply with the project instructions. As mentioned in the Photogrammetric Plot and

Year 1960

Sheet No. T9958

Datum NA 1927

State

Lat. 59 47 1744

Long. 144 35 776

feet

Photogrammetric Bridge

17TM - Cardiac output

v = 634 937

66-66312-50

1

11

0961 7237

use of the

ers from MHWL.

SHORE-LINE DATA AT ABOVE STATION

[illegible]

Distances not to be scaled from sheet; they be horizontal distances actually obtained in the field.

Above distance measured by:

REFERENCES: Topographic Manual, paragraphs 16, 20, 30, 57, and page 52; Hydrographic Manual, paragraph 167; Circular No. 30, 1933

