9704 THRU 9710

9710

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Diag. Cht. No. 9302. Form 504 U. S. DEPARTMENT OF COMMERCE COAST AND GEODETIC SURVEY DESCRIPTIVE REPORT Type of Survey Topographic T-9704 thru Field No. Ph-56 Office No.T-9710 **LOCALITY** State Alaska General locality Etolin Strait (Bering Sea Locality Kangirlvar Bay (Tooksook Bay) To Kinak Bay 1950-52 CHIEF OF PARTY M.J. Tonkel, Chief of Field Party E.W. Kirsch, Balto. Photo. Office W.Swamson, Div. of Photo. Wash., D. LIBRARY & ARCHIVES December 1960

USCOMM-0C 5087

T-9704 T-9705 DATA RECORD T-9706 T-9708 T T-9709 T-9710

Project No. (II): PH-56

Quadrangle Name (IV):

Field Office (II): Alaska

Chief of Party: M. J. Tonkel

Baltimore, Md.

E. W. Kirsch

Photogrammetric Office (III):

Washington, D. C. Officer-in-Charge: L. W. Swanson

. Instructions dated (II) (III):

8 Sept. 1949

14 Dec. 1951

Copy filed in Division of

2 April 1951

21 Dec. 1951

Photogrammetry (IV)

21 May 1951

Method of Compilation (III): Reading nine-lens plotter and graphic

Manuscript Scale (III):

1:20,000

Stereoscopic Plotting Instrument Scale (III):

1:20,000

Scale Factor (III):

Date received in Washington Office (IV)

Date reported to Nautical Chart Branch (IV):

Applied to Chart No.

Date:

Date registered (IV): 19 May 1959

Publication Scale (IV):

Publication date (IV):

Geographic Datum (III):

N. A. 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:

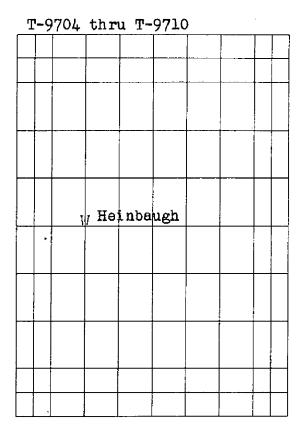
Zone:

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.



Areas contoured by various personnel (Show name within area)
(II) (III)

DATA RECORD

Field Inspection by (II): V E Serena

Date: May-Sept 1951

Planetable contouring by (II):

Date:

Completion Surveys by (II):

Date:

1951 Mean High Water Location (III) (State date and method of location): From field inspection on, nine lens photos

Projection and Grids ruled by (IV):

Jan 1955 Riley

Projection and Grids checked by (IV): A. Riley

Jan 1955 Date:

Control plotted by (III): D. Williams

June 1955 Date:

J. Steinberg Control checked by (III):

June 1955 Date:

Radial Plot or Stereoscopic

Control extension by (III): L. A. Senasack Date: October 1957

June 1958

Planimetry

: Stereoscopic Instrument compilation (III): W. Heinbaugh

Date:

Contours

Date:

Manuscript delineated by (III): W. Heinbaugh

June 1958 Date:

Photogrammetric Office Review by (III): L. Levin

Date: July 1958

Elevations on Manuscript

L. Levin

July 1958 Date:

checked by (II) (III):

Camera (kind or source) (III):

Nine lens

PHOT	n_{GE}	ΔPH	S (1	m

28534-537	8/13/50	*12:10	1:50°,000	4 Stage	aft Yide	MLLW
28558-559		*12:35	1:20,000	2.0	77	11
38118-120	8/13/50 7/19/52	10:15	1:20,000	6.7	17	11

*approximate time - clock stopped

Tide (III)

Kodiak Reference Station:

Subordinate Station: none - (general area of sheet)

Subordinate Station:

Washington Office Review by

Final Drafting by (IV):

T-9710 ÅP Berry
Drafting verified for reproduction by (IV):

Proof Edit by (IV):

ŧ;

Land Area (Sq. Statute Miles) (III):

Shoreline (More than 200 meters to opposite shore) (III):

Shoreline (Less than 200 meters to opposite shore) (III):

Control Leveling - Miles (II):

Number of Triangulation Stations searched for (II):

Number of BMs searched for (II):

Number of Recoverable Photo Stations established (III):

Number of Temporary Photo Hydro Stations established (III):

Remarks:

diurnal

Ratio of Ranges	Mean Range	Spylog Range
		8.5
1.2		10.2
	_	

Date:

Date:

Date:

Identified:

Recovered:

Recovered:

Identified:

Camera (kind or source) (iii): Nine lens

PHOTOGRAPHS (III)

Stage of Tide Number Date Time Scale 28720-721 *17:10

8/13/50 1;20,000 3.8 above MLLW 7/19/52 38180-183 15:00 1:20,000

* Approximate time - clock stopped

Tide (III)

diurnal

Reference Station: Kodiak

Subordinate Station: none - (general area of map)

Subordinate Station:

Final Drafting by (IV):

Drafting verified for reproduction by (IV):

Proof Edit by (IV);

Land Area (Sq. Statute Miles) (III):

Shoreline (More than 200 meters to opposite shore) (III): Shoreline (Less than 200 meters to opposite shore) (III):

Control Leveling - Miles (II):

Number of Triangulation Stations searched for (II):

Number of BMs searched for (II): Number of Recoverable Photo Stations established (III):

Number of Temporary Photo Hydro Stations established (III):

|Ratio of | Mean | Spring Ranges Range Range

Date:

Date:

Date:

Identified:

Identified:

Recovered:

Recovered:

Camera (kind or source) (III): Nine lens

PHOTOGRAPHS (III)

Number 28537-541 28719

Date 8/13/50 8/13/50

*12:10 *17:10

Time

Scale 1:20,000 1:20,000

Stage of Tide 4.9 above MLLW 3.8

approximate time - clock stopped

Tide (III)

diurnal

Ratio of Mean (Spring Ranges | Range Range

Date: 7/28/59

Date:

Date:

Drafting verified for reproduction by (IV):

Proof Edit by (IV):

Reference Station:

Subordinate Station:

Land Area (Sq. Statute Miles) (III):

Number of BMs searched for (II):

Washington Office Review by (IV):

Final Drafting by (IV):

Shoreline (More than 200 meters to opposite shore) (III):

Kodiak

Subordinate Station: none-(general grea of sheet)

Shoreline (Less than 200 meters to opposite shore) (III):

Control Leveling - Miles (II):

Number of Triangulation Stations searched for (II):

Recovered:

Identified:

Recovered:

Identified:

Number of Recoverable Photo Stations established (III):

Number of Temporary Photo Hydro Stations established (III):

T-9707

Camera (kind or source) (III): N

Nine lens

PHOTOGRAPHS (III)

Number Date 28716-717 8/13/50 38177-180 7/19/52 Time *17:00 14:55 Scale 1:20,000 1:20,000 Stage of Tide
3.7 above MLLW

*approximate time - clock stopped

Tide (III)

Reference Station:

Kodiak

Subordinate Station:

Subordinate Station:

none - (general area of sheet)

Washington Office Review by (IV):

Final Drafting by (IV):

Drafting verified for reproduction by (IV):

Land Area (Sq. Statute Miles) (III): 1

Proof Edit by (IV):

Shoreline (Less than 200 meters to opposite shore) (III): Control Leveling - Miles (II):

Number of Triangulation Stations searched for (II):

Number of BMs searched for (II):

Shoreline (More than 200 meters to opposite shore) (III):

Number of Recoverable Photo Stations established (III):

Number of Temporary Photo Hydro Stations established (III):

Remarks:

diurnal

Ratio of Ranges	Mean Range	Spring. Range
·		8.5
1 0	,	8 5

Date: March (4)

Date: August 11,1959

Date:

Date:

identified:

Recovered:

Recovered:

Camera (kind or source) (III): Nine lens

		PHOTOGRAPHS (III)			
Number	Date	Time	Scale	Stag	e of Tide	
28541-545	8/13/50	*12:15	1:20,000	4.0	above	MLLW
28714-716	8/13/50	*17:00	1:20,000	3.7	Ħ	tt
38176	7/19/52	14:55	1:20,000	3.2	11	17

* approximate time - clock stopped

diurnal Tide (III) Ratio of Mean pspring Ranges Range Range Kodiak Reference Station: Subordinate Station: Subordinate Station: none -Washington Office Review by (IV): Final Drafting by (IV): Date: Drafting verified for reproduction by (IV): Date: Proof Edit by (IV): Land Area (Sq. Statute Miles) (III): Shoreline (More than 200 meters to opposite shore) (III): Shoreline (Less than 200 meters to opposite shore) (III): Control Leveling - Miles (II): Number of Triangulation Stations searched for (II): Recovered: Identified: Recovered: Identified: Number of BMs searched for (II): Number of Recoverable Photo Stations established (III):

Number of Temporary Photo Hydro Stations established (III):

Camera (kind or source) (III):

Nine lens

		PHOTOGRAPHS (III)		
Number	Date	Time	Scale	Stage of Tide
28713-714 38173-176	8/13/50 7/19/52	*17:00 14:55	1:20,000 1:20,000	3.7 above MLLW 3.2 " "

*approximate time - clock stopped

Tide	(I	H)
------	----	----

Reference Station:

Kodiak

Subordinate Station:

Subordinate Station:

- (general area of sheet)

Drafting verified for reproduction by (IV):

Proof Edit by (IV):

Land Area (Sq. Statute Miles) (III):

Shoreline (More than 200 meters to opposite shore) (III):

Shoreline (Less than 200 meters to opposite shore) (III):

Control Leveling - Miles (II):

Number of Triangulation Stations searched for (II):

Number of BMs searched for (II):

Number of Recoverable Photo Stations established (III):

Number of Temporary Photo Hydro Stations established (III):

diurnal

Spring |Ratio of Mean Ranges Range Range

Date:

Date:

Identified: Identified:

Recovered:

Recovered:

Camera (kind or source) (III):

PHOTOGRAPHS (III)

Number

Date

Time

Scale

Stage of Tide

28545-547

8/13/50

12:20

1:20,000

4.0 above MLLW

diurnal

Spring

Range

Mean |

Range

Tide (III)

Reference Station:

Kodiak

Subordinate Station:

Subordinate Station:

none - (general area, of sheet)

Washington Office Review by (IV):

Final Drafting by (IV):

anna Berns

Drafting verified for reproduction by (IV):

Proof Edit by (IV):

Land Area (Sq. Statute Miles) (III):

Shoreline (More than 200 meters to opposite shore) (ΠI):

Shoreline (Less than 200 meters to opposite shore) (III):

Control Leveling - Miles (II):

Number of Triangulation Stations searched for (II):

Recovered:

Identified:

Date:

Date:

Ratio of

Ranges

Number of BMs searched for (II):

Recovered:

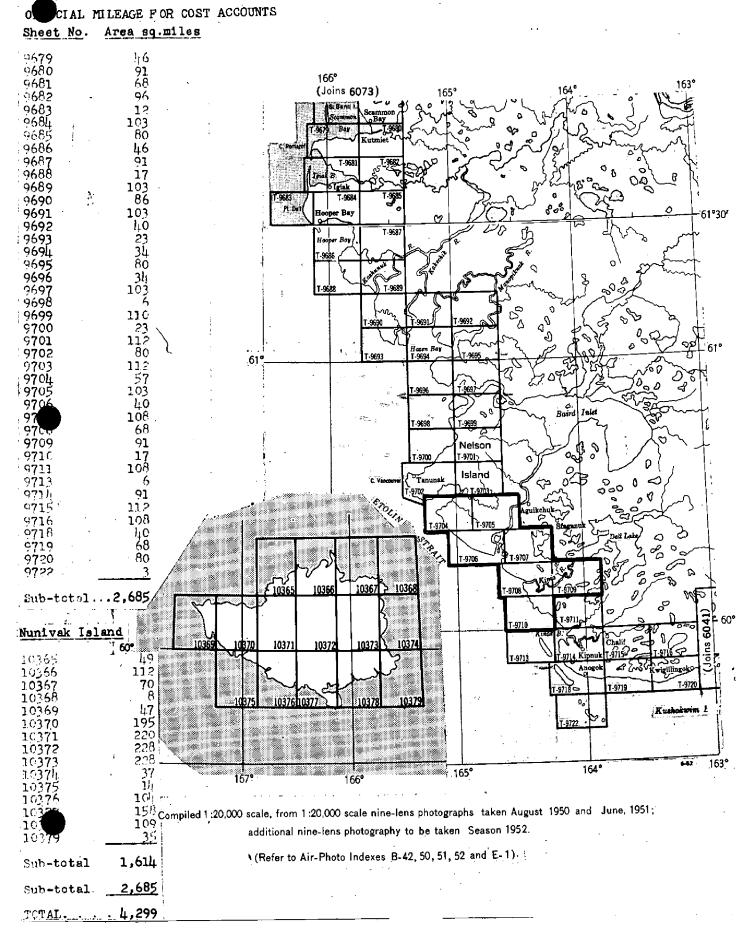
Identified:

Number of Recoverable Photo Stations established (III):

Number of Temporary Photo Hydro Stations established (III):

TOPOGRAPHIC MAPPING PROJECT PH-56

ALASKA-BERING SEA, Scammon Bay to Kuskokwim Bay and Nunivak Island



Summary to accompany topographic surveys T-9704 thru T-9710

These seven surveys are a part of Topographic Mapping Project PH-56 (24090). The project covers the coastal area from Scammon Bay southward to Kuskokwim Bay as well as Nunivak Island on the southwest coast of Alaska. Subject surveys extend from Kangirlvar Bay to Kinak Bay east of Etolin Strait.

The area covered is almost all marsh interlaced with streams and ponds. Areas above the elevation of 25 feet, that could be delineated by contours are the exceptions.

Project instructions originated in 1949. Nine-lens photography dates from August 1950 and July 1952, and field inspection was accomplished during the season of 1951. The radial plot was done in the Baltimore District Office in 1957 and the compilations in 1958 by stereoscopic instruments (Reading Plotter) at the Washington Office.

No previously registered topographic surveys nor contemporary hydrographic surveys are on record of subject area.

A cronar film positive at the compilation scale of 1:20000 and the Descriptive Report will be registered and filed in the Bureau Archives.

March 1959

The Field Inspection Report is filed with the Descriptive Report for T-9679.

PHOTOGRAMMETRIC PLOT REPORT Project Ph-56 Surveys T-9704 thru T-9710

21. AREA COVERED

This radial plot covers the area of Surveys T-9704 thru T-9710. These topographic surveys cover the area along the east side of Etolin Strait from the southern part of Nelson Island, Tooksook Bay, southward to Kinak Bay. The surveys will be compiled with the Reading Plotter.

22. METHOD-RADIAL PLOT

Map Manuscripts:

Vinylite sheets with polyconic projections in black and Universal Traverse Mercator grids in red, at a scale of 1:20,000, were furnished by the Washington office.

All control stations and substitute stations were plotted using the beam compass and meter bar.

A sketch showing the layout of these surveys and the distribution of photograph centers and control is attached to this report.

Photographs:

All photographs used were nine-lens metal mounted photographs at a scale of 1:20,000. Forty-one (41) photographs were used in the plot, numbered as follows:

28536 thru 28548, 28710 thru 28717, 38119 thru 38124, 38170 thru 38183.

Templets:

Vinylite templets were made from all photographs using a master templet to adjust for errors due to chamber displacement. Radial lines were scratched on the templets and scratches were filled in with china marking wax pencils. Red pencil was used for pass points along shoreline and in the marshy areas (rectification points). Black pencil was used for all other radial lines.

Closure and Adjustment to Control:

This radial plot was laid directly on the map manuscripts beginning with photograph 38119 and continuing to the end of the flight, photograph 38124. At this point another flight was continued starting with 28717 and laid southeastward to photograph 28710. Then the other two flights were laid starting with photographs 38183 thru 38170 and 28536 thru 28548, and tied into control stations MANY, 1949; SHORE, 1949; KINAK, 1951; CURLEW, 1949 and PLAIN, 1951. A rigid plot was obtained and no difficulty was encountered.

Transfer of Points:

The positions of all centers, pass points and control stations were pricked on the top templets and circled with a 3 mm circle. They were then established on the remaining templets and map manuscripts by drilling down through them with a small (.01 inch) jewelers drill. All points were circled on each remaining templet as it was removed and finally on the map manuscripts.

23. ADEQUACY OF CONTROL

The horizontal control was adequate for a satisfactory radial plot in the area covered by this report. All control stations were held except as follows:

TOOKSOOK, 1951 - This station falls outside of the area of 1950 photography available at the time of field inspection. The station was pricked in the office with the aid of the stereoscope and information available on the identification card made in the field in 1951. It is believed that sometime between the time the station was marked on the ground and the photographs taken in 1952, the markings disappeared. The radially plotted position falls 0.4 mm east of the plotted position. This point is not needed for rectification. An abundance of rectification points in this area are on the photographs. No attempt was made to reprick this station.

24. SUPPLEMENTAL CONTROL

None.

25. PHOTOGRAPHY

The definition of the photographs was good, and the coverage was adequate for the area of this report.

Though several tilted photographs were used in this plot, no tilt determination was necessary. All of the pass points are very low in elevation.

One of the fiducial marks was missing in chamber four and one in chamber eight on all 1952 photographs.

Some conjugate centers were pricked in the Washington Office before the photographs were received in this office. It was noted on photographs 28534 thru 28549 that many of the points had been pricked and repricked so many times the photographs were damaged in these areas.

26. VERTICAL CONTROL

The elevations for stations HV-001,002, 003, 004 and 006 were rejected because the computed elevations range from-12.2 meters to +9.1 meters. These stations are in marshy areas and with the "R" points around them they are not needed for rectification.

It was noted while doing the stereoscopic pricking of the control stations and recoverable topographic stations, that there appears to be some error in the published elevations of the triangulation stations along the shoreline. Refer to the list of "Discrepancy in Elevation of Triangulation Stations" which is attached to this report.

None of the "V" points that were identified in the field, with the exception of one, were located. This area in general is marshy and there are sufficient "R" points for rectification of the photographs.

V-0100, A and B - These points appear on the two photographs to be used with stereoscopic instruments for compiling the contours in this area. The two points identified were at the base of a bluff and were too difficult to transfer to other photographs. Also, only two cuts were needed to give the position as a common pass point was placed near this lake to control the radial plot. This V point is not needed for rectification of the photographs.

SLOUGH, 1951 - There is no published elevation for this station but since the Sub. Pts. were tips of march they were made "R" points for rectification of the photographs.

27. RECOVERABLE TO POGRAPHIC STATIONS

The positions of all recoverable topographic stations which were identified were established in the radial plot. Those identified by a substitute point were plotted with the use of a steel protractor and meter bar before the map manuscripts were disassembled.

Respectfully submitted 15 October 1957

Leroy A. Senasack Carto. Photo. Aid

Approved and forwarded

William F. Deane, CDR C&GS

Baltimore District Officer

Project Ph-56 Surveys T-9704 thru T-9710

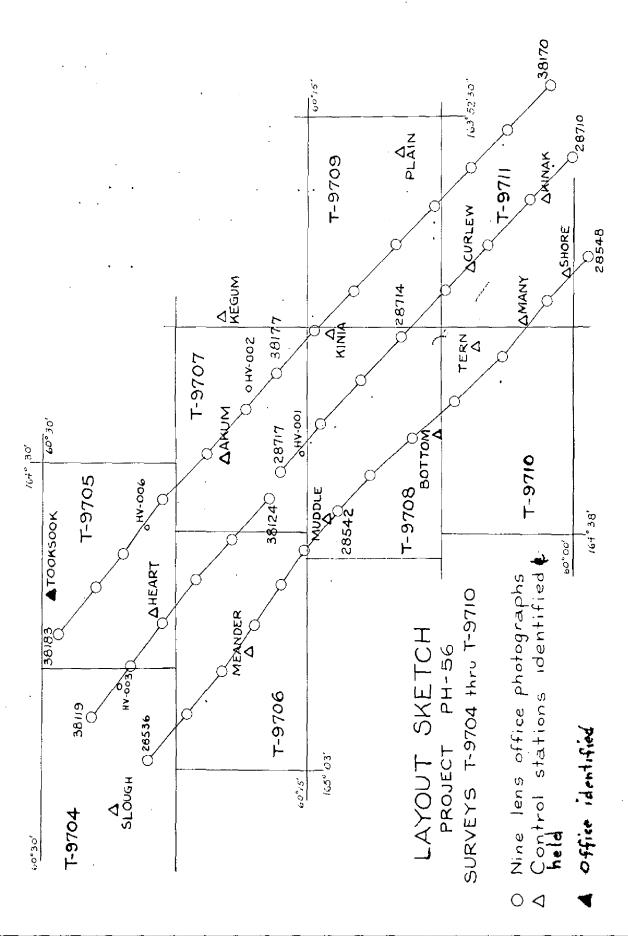
Discrepancy in Elevation of Triangulation Stations

It was noted while pricking these stations stereoscopically and evaluating data supplied by the field party, that there appeared to be errors in the published elevations (or Sea Level Datum) of the stations. This area in general is very low and marshy. The following estimated elevations are listed assuming the MHW to be three feet above MSL.

Name of Station	Field Notes	Published Elevation
SLOUGH, 1951	The Sub. Pts. are tips of marsh and same elevation as station. Field pencil notes state: "station 2.3' higher than river level at 15:42 hour, 7 June 1951." Estimated station elevation is 4 ft. (6ff)	None
MEANDER, 1951	This station is in the marsh and looks very similar to the areas around topographic stations DOZE, PEAS & ANDY which are 31 above MHW. Estimated elevation of station is 6 ft.	12 ft.
MUDDLE, 1951	The lake at Sub. Pt. B appears on the photographs as a tidal lake. The field man states on the identification card the "lake is 2" lower than station". Estimated elevation of station is 5 ft.	13 ft.
BOTTOM, 1951	The Sub. Pts. are tips of old drains in marsh and same elevation as the station. The lake beside the station appears to be a tidal lake. Estimated elevation of station is 6 ft.	16 ft.
MANY, 1949	This station is right beside and only slightly higher than a swamp or marshy area beside a tidal stream. The station appears to be very similar in elevation to triangulation station SHORE, 1949 which is 3' above MHW and topographic station BITE, 1949 which is 2 ft. above MHW. Estimated elevation of station is 6 ft.	17 ft.
SHORE, 1949	The field man states on the identification car "the station is 3 ft above MHW". This station appears on the photographs to be in an area ve similar to topographic stations BITE, 1949 and FATE, 1949 which have an elevation of 2 ft. above MHW. Estimated elevation of station is 6 ft.	rv

Elevations in "Purple" were read on the Reading Stene Plotter. See P40 of Compilation Report

Name of Station	Field Notes	Published Elevation	
KINAK, 1951	Sub. Pts. are tips of marsh on a lake in a large marshy area between a "Y" in a tidal stream. Identification card states the Sub. Pts. are 2.1 ft lower than station. Estimated elevation for station is 7 ft.	16 ft.	
KIPNUK N. E. BASE, 1949	The field man (C.A. Annis) in 1949 identified a tip of marsh on a tidal slough as a Sub. Pt., same elevation as station. Estimated elevation of station is 5 ft. (7 fd)	13 ft.	
KIPNUK S. W. BASE, 1949	In cahier Alaska No. 95, Description of Station, it states the mark projects 6 inches (above ground). In 1949 the identification card made out by C. A. Annis states under "Remarks" the station is about 15 ft. above Sea Level, yet in the sketch on the same card he shows the mud flats on the ocean side of the station and states "Low flat about 3 ft. lower than station ground". Upon stereoscopi examination of the photographs it is believed the sketch is correct. Estimated elevation of station is 5 ft.	13 ft.	



DESCRIPTIVE REPORT U.S. DEPARTMENT OF COMMERCE

PROJECT NO. Ph-56

MAP T. 9704

FÖRM **164** (4-23-54)

COAST AND GEODETIC SURVEY CONTROL RECORD ... SCALE OF MAP 1:20,000

SCALE FACTOR

COMM- DC- 57843 FROM GRID OR PROJECTION LINE FROM GRID OR PROJECTION LINE IN METERS (BACK) FORWARD 7 June 1955 606.1) (592,7) 603.8 (1253.2) 608.8) (836.8) 859.1) 878.7) (701-7) (BACK) N.A. 1927 - DATUM DATE 324.9 311.5 FORWARD 997.9 978.3 216el 1020.2 308 CHECKED BY: H. R. Rudolph DATUM OR PROJECTION LINE IN METERS DISTANCE FROM GRID IN FEET, (BACK) FORWARD LONGITUDE OR x-COORDINATE 20°194 25 19.508 32.243 LATITUDE OR y . COORDINATE 54 14.111 DATE 17 May 1955 56 ີຣ 28 5 8 0 165 3 165 8 165 3 3 गुरा DATUM N.A. 1927 # = ŧ SOURCE OF INFORMATION (INDEX) IV p• 387 COMPUTED BY. J. Steinberg 1 FT. = .3048006 METER STATION Sub. Pt. "A" SLOUGH, 1951 SLOUGH, 1951 Sub. Pt. "B" SLOUGH, 1951 HU-003

FORM **164** (4-23-54)

PROJECT NO. Ph-56

MAP T. 9705

COAST AND GEODETIC SURVEY DESCRIPTIVE REPORT U.S. DEPARTMENT OF COMMERCE

CONTROL RECORD

SCALE OF MAP 1:20,000

SCALE FACTOR

FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS COMM- DC- 57843 (BACK) FORWARD DISTANCE FROM GRID OR PROJECTION LINE IN METERS 67.4) 37.2) (876.1)(163.0) (772.7) (691.4)(1701.5)(382,3) 6.3 292.1) (724.5) (1846.7)890.4) (669.3) 803.0) 692.8) (BACK) N.A. 1927 - DATUM FORWARD 1084.3 227.6 155.5 981.0 256.2 249.7 624.1 1094.0 1132.5 536.4 777 10.4 1789.7 27.0 819-1 1819.9 DATUM OR PROJECTION LINE IN METERS DISTÂNCE FROM GRID IN FEET. (BACK) FORWARD LONGITUDE OR x - COORDINATE 31:695 40.870 35.346 05.023 35.032 w.336 768 LATITUDE OR # - COORDINATE 55.550 59. 97 3 53 23 4 23 94 24 35 ∄ 20 끔 2 45 27 8 8 164 164 3 3 164 8 191 164 8 8 797 164 8 197 DATUM N.A. **.** = 2 = Ħ = SOURCE OF INFORMATION p. 380 (INDEX) r *** = ÷ **_:** :. TOOKKSOOK, 1951 STATION ış. Sub. Pt. "A" Sub. Pt. "B" Sub. Pt. "B" HEART, 1951 HEART, 1951 HEART, 1951 Sub. Pt. 4V-006 400-VH 400-VH HV-UU4

COMPUTED BY. J. Steinberg 1 FT = 3048006 METER

DATE 17 May 1955

CHECKED BY H. H. Rudolph

8 June 1955 DATE

DESCRIPTIVE REPORT U.S. DEPARTMENT OF COMMERCE

FORM **164** (4.23.54)

COAST AND GEODETIC SURVEY CONTROL RECORD

FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS COMM. DC. 57843 (BACK) FORWARD 8 June 1955 SCALE FACTOR FROM GRID OR PROJECTION LINE IN METERS (663.9) 392.9) (678 th) (381.9) (64246) 1368-1 (BACK) N.A. 1927 - DATUM DATE DISTANCE FORWARD 1193.1 528.4 1178.6 1274.4 539.h 552.6 CHECKED BY. H. R. Rudolph DATUM SCALE OF MAP 1:20,000 OR PROJECTION LINE IN METERS DISTANCE FROM GRID IN FEET, (BACK) FORWARD 38.549 34.40 LONGITUDE OR x-COORDINATE LATITUDE OR J. COORDINATE Ph-56 DATE 17 May 1955 18 9 67 49 18 8 PROJECT NO. 9 101 8 164 164 8 DATUM N.A. 1927 = = SOURCE OF INFORMATION (INDEX) IV p. 379 COMPUTED BY J. Steinberg MAP T. 9706 1 FT = 3048006 METER Sub. Pt. "A" MEANDER, 1951 MEANDER, 1951 Sub. Pt. "B" MEANDER, 1951 STATION

DESCRIPTIVE REPORT U.S. DEPARTMENT OF COMMERCE

FORM 164 (4-23-54)

COAST AND GEODETIC SURVEY CONTROL RECORD

FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS COMM- DC- 57843 (BACK) FORWARD SCALE FACTOR FROM GRID OR PROJECTION LINE IN METERS (348.9) (373-4) (889.1) 391.5) (1503.9) (616.0) 291.8) (1736.2)(1888) (14841) 109.5) 391.9) 1689.3) 339.9) (620.6) 572.5) (1743.2) (1430.9)835.6) 435.3) 807.6) 741.1) (BACK) N.A. 1927 - DATUM DISTANCE FORWARD 30h e8 32.0 113.8 3006 1483.6 1565.2 348.3 32.0 581.4 120.8 372.9 531.4 513.4 426.1 531.0 486.0 1508.1 353.1 1115.9 1000.4 432.0 1021.4 DATUM SCALE OF MAP 1:20,000 DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS (BACK) FORWARD LONGITUDE OR x-COORDINATE 48.728 03.902 02.086 19,561 LATITUDE OR W.COORDINATE 31.65 33.00 12.05 34.55 PROJECT NO. Ph-56 39 윘 2 긺 19 9 16 19 19 15 ኪ R 27 27 삼 8 2 8 지 18 27 2 164 3 3 8 104 9 164 8 101 8 164 8 164 **†9**† 3 164 3 8 164 8 164 164 DATUM N.A. 1927 = = E = = Æ SOURCE OF IV p. 379 p. 379 (INDEX) ΔI MAP T. 9707 1 FT. = .3048006 METER Sub: Pt: "A" AKUM, 1951 Sub. Pt. "B" AKIM, 1951 STATION "A" Ē Sub. Pt. "B" HV-001 Sub. Pt. "A" HV-001 KEGUM, 1951 KEGUM, 1951 AKUM, 1951 Sub. Pt. HV-002 Sub. Pt. Sub. Pt. HV-002 HV-001 HV-002

COMPUTED BY. J. Steinberg

17 May 1955

DATE

CHECKED BY: H. R. Rudolph

8 June 1955 DATE

U.S. DEPARTMENT OF COMMERCE

COAST AND GEODETIC SURVEY CONTROL RECORD

FROM GR.D OR PROJECTION LINE FROM GRID OR PROJECTION LINE IN METERS (BACK) FORWARD SCALE FACTOR 53.7) 32.5) 959.1) (891.5)(6.806) 844.1) (0.686) (834.9) (1639.3)(9.29) (1641.0)853.9) (1699.1)851.6) 984.5) (1005.8)(144.5) 903.6) (BACK) N.A. 1927 - DATUM FORWARD 869.5 879.9 851.2 948.1 918.0 216.0 69.5 157.9 890.7 778.7 953.4 82.5 91.7 55.8 71.8 35.1 217.7 DATUM CORRECTION 1:20,000 OR PROJECTION LINE IN METERS DISTÂNCE FROM GRID IN FEET. (BACK) SCALE OF MAP... FORWARD DESCRIPTIVE REPORT 02,270 30,805 07.033 U3.62L CONGITUDE OR x-COORDINATE 28.19 LATITUDE OR y-COORDINATE 次 公 Ph-56 17 16 25 2 2 77 77 9 5 3 7 줐 큐 3 귀 굯 5 5 PROJECT NO... 9 3 164 164 164 8 164 જ 164 164 197 8 164 8 164 8 8 8 DATUM N.A. 1927 = = # = = SOURCE OF p. 385 ₽•. 388 IV P. 385 (INDEX) Þ MAP T 9708 Sub. Pt. "A" MUDDLE, 1951 Sub. Pt. "A" KINIA, 1951 STATION MUDDLE, 1951 Sub. Pt. "B" MUDDLE, 1951 Sub. Pt. "A" BOTTOM, 1951 BOTTOM, 1951 Sub. Pt. "B" Sub. Pt. "B" BOTTOM, 1951 KINIA, 1951 KINIA, 1951 FORM **164** (4-23-54)

COMM-DC-57843

CHECKED BY. H. R. Rudolph

18 May 1955

DATE

COMPUTED BY J. Steinberg

1 FT. = .3048006 METER

DATE

8 June 1955

DESCRIPTIVE REPORT (U.S. DEPARTMENT OF COMMERCE

FORM **164** (4-23-54)

COAST AND GEODETIC SURVEY CONTROL RECORD

FROM GRID OR PROJECTION LINE FROM GRID OR PROJECTION LINE IN METERS COMM- DC- 57843 (BACK) FORWARD SCALE FACTOR (9°†98) (836.8) (1482-1) (912.6) (1477.8)(1469.5) (1455.5) (4.706) (BACK) N.A. 1927 - DATUM 387.5 401.5 379.2 FORWARD 60.7 374.9 12.7 17.9 88.5 DATUM SCALE OF MAP 1120,000 OR PROJECTION LINE IN METERS DISTANCE FROM GRID IN FEET, (BACK) FORWARD 12,520 LONGITUDE OR x-COORDINATE 03.93 LATITUDE OR y-COORDINATE PROJECT NO. Ph-56 2 ដ 10 8 낆 윖 2 श्र 9 3 163 3 163 163 163 8 DATUM N.A. 1927 . = # = SOURCE OF 1V p• 379 (INDEX) MAP T-. 9709 1 FT.= 3048006 METER Sub. Pt. "B" PLAIN, 1951 Bub. Pt. "A" PLAIN, 1951 STATION Sub. Pt. "C" PLAIN, 1951 PLAIN, 1951

COMPUTED BY J . . Steinberg

18 May 1955

DATE.

CHECKED BY. H. R. Rudolph

8 June 1955 DATE

DESCRIPTIVE REPORT U.S. DEPARTMENT OF COMMERCE

COAST AND GEODETIC SURVEY CONTROL RECORD

DISTANCE FROM GRID OR PROJECTION LINE FROM GRID OR PROJECTION LINE (IN METERS) (BACK) FORWARD SCALE FACTOR (4.184) (337:8) (175.7) 334.6) 394:1) 337.7) (BACK) N.A. 1927 - DATUM 590.0 FORWARD 1375.4 593.2 1462.8 590•1 1381.2 DATUM SCALE OF MAP 1120,000 OR PROJECTION LINE IN METERS DISTANCE FROM GRID IN FEET. (BACK) FORWARD PROJECT NO. Ph-56 14-442 LONGITUDE OR x-COORDINATE 38.154 LATITUDE OR U-COORDINATE 79 76 ਤੋ 9 7 컹 ဝွ 791 8 164 8 164 DATUM N.A. 1927 2 E SOURCE OF INFORMATION (INDEX) MAP T. 9710 IV P. 378 Sub. Pt. "A" TERN, 1949 STATION Sub; Pt; "B" TEEN, 1949 TERN, 1949

8 June 1955 DATE. CHECKED BY. H. R. Rudolph 18 May 1955 DATE. COMPUTED BY J. Steinberg

1 FT. = .3048006 METER

COM- DC- 57843

FORM **164** (4-23-54)

COMPILATION REPORT

T-9704, T-9705, T-9706, T-9707, T-9708, T-9709 and T-9710

31. Delineation:

With the exception of shoreline and details above the plane of marshland which were drawn using stereoinstrument methods, all map manuscripts were delineated using graphic methods.

T-9705 Insufficient photographic coverage to completely delineate entire sheet.

T-9707 Insufficient photographic coverage to completely delineate entire sheet. Although the flat areas of the sheet were classified as "marsh" they are, in general, slightly higher than true marshland. They are cut into small tufts and masses by a myriad of lacyedged ponds which were not practical to draw. No appreciable mass of high ground exists with the exception of Ingariak Hills near the west central portion SE of Kegum Kegati Lake.

T-9709 Insufficient photographic coverage to completely delineate entire sheet.

32. Control:

See Radial Plot Report and paragraph 40 this report.

33. Supplemental Data:

No comment

34. Contours and Drainage:

No comment

35. Shoreline and Alongshore Details:

Shoreline inspection was adequate. Low water details were not delineated by office interpretation of the photographs because of tide stage at time of photography with the exception of the Kinak Bay Area on T-9710 in which an effort was made to draw low water details from photography taken 3 feet above MLLW.

36. Offshore details

No comment

37. Landmarks and aids

Field party indicates no landmarks or aids

38. Control for future surveys

The following photo topo stations were established:

DOLT,	1951	Т-9704
OOZE,	1951	T-9704
PEAS,	1951	T- 9706
TYPE,	1951	т-9706
ANDY,	1951	T-9708
LITE,	1951	T-9710

A list of topographic stations has been prepared and entered in paragraph 49 of this report.

39. JUNCTIONS

All sheet junctions were made on all adjoining sheets as indicated by the project layout diagram included in this report.

40. Horizontal and vertical accuracy

The divergencies, or differences, in elevations on certain triangulation stations as noted on the Radial Plot Report were further substantiated in the process of compilation. Tidal information furnished by the Tides and Currents Division, afforded an excellent datum from which elevations could be read on the plotter. The area is, in general, low and interlaced with tidal rivers, streams and ponds, leaving no point distant from the tidal reference plane. Inland measurements from water level to apparent high-water line verified the range of tide and stage of tide as furnished by Tides and Currents. Because of the strength of the tidal data all published elevations of these control points have been ignored and instrument elevations substituted in their place.

In addition to the stations noted in the special section of the Radial Plot Report the following differences were noted:

Station	Sheet	Pub. Elev.	Instr. Elev.
CURLEW		297	283
FERN		443	427
KINIA		259	246
KEGUM		217	204
AKUM		170	165
TOOKSOOK		839	830

There are no known areas of questionable horizontal or vertical accuracy.

46. Comparison with Existing Maps:

USGS map Nunivak Island, Alaska N-6000-W16500/ 60X180, 1:250,000, 1951 Edition.

USGS map, Baird Inlet, Alaska N6000-W16200/60X180, 1:250,000, 1951 Edition.

Town of Chefornak is shown on T-9709 southwest and closer to the sea than indicated on Baird Inlet map.

As noted in paragraph 35 because of stage of tide at time of photography, the limits of the extensive mud flats sketched on these maps and indicated on field inspection were not delineated.

Comparison with Nautical Charts: 47.

Compared with chart 9302.

48. Geographic Names List:

See Appended Lists.

Approved by

Submitted by

Louis Levin

Superv. Cartographer

Nine-lens Instrument Unit

Wallace Heinbaugh

Cartographer

T-9704 thru T-9710

Notes to the Hydrographer

No photo hydro stations were established.

The following topographic stations were established in the field and their positions determined by radial plot:

OOZE,	1951	T-9704
PEAS,	1951	T-9706
TYPE,	1951	T- 9706
ANDY,	1951	T-9708
LITE,	1951	T-9710

Review Report of Topographic Surveys T-9704 thru T-9710 March 1959

62. Comparison with Registered Topographic Surveys:

There are no registered topographic surveys of this area.

63. Comparison with Maps of Other Agencies:

BAIRD INLET, ALASKA, 1:250000, Ed. of 1951, US Geological Survey NUNIVAK ISLAND, ALASKA, "

These are topographic reconnaissance-type charts and scale difference precludes a detailed comparison.

64. Comparison with Contemporary Hydrographic Surveys:

None!

65. Comparison with Nautical Charts:

9302

1:1534076

Revised to 9/29/58

The small-scale chart is the only nautical chart coverage of subject area. Scale difference does not afford appropriate examination of agreement.

66. Adequacy of Results and Future Surveys:

Surveys T-9704 thru T-9710 have been compiled in accordance with project instructions and no deficiencies in accuracy or adequacy were noted.

Approved by:

Section

Photogrammetry Division

Charts Division

Photogrammetry Division

6 Dec. 1960

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NAUTICAL CHARTS BRANCH

SURVEY NO. <u>T-9704</u> thru T-9710

Record of Application to Charts

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M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.