11535 & 11536

11535 & 11536

Form 504

U. S. DEPARTMENT OF COMMERCE

COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey Topographic

Field No. *Office No.* T-11535 & T-11536

LOCALITY

State Alaska (Aleutian Islands)

General locality Andreanof Islands

Locality Atka Island

19 53-54

CHIEF OF PARTY

W. H. Bainbridge, Chief of Party
L. W. Swanson, Washington Office

LIBRARY & ARCHIVES

DATE

USCOMM-DC 5087

DATA RECORD

T - 11535, T-11536

Project No. (II): PH-34 Quadrangle Name (IV):

Field Office (II): Ship PIONEER Chief of Party: W. H. Bainbridge

Photogrammetric Office (III): Washington, D. C. Officer-in-Charge: L. W. Swanson

Instructions dated (II) (III):
Project Instructions 16 Dec. 1954
Supplemental Instructions 10 Nov. 1955
Supplemental Instructions 1 Oct. 1956
Compilation Instructions 5 Nov. 1957

Copy filed in Division of Photogrammetry (IV)
Office files

Method of Compilation (III): Graphic

Contours: Reading Nine-Lens Plotter

Manuscript Scale (III): 1:20,000 Stereoscopic Plotting Instrument Scale (III): 1:20,000

Scale Factor (III): 1.0

Date received in Washington Office (IV): Date reported to Nautical Chart Branch (IV):

Applied to Chart No. Date: Date registered (IV):

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):

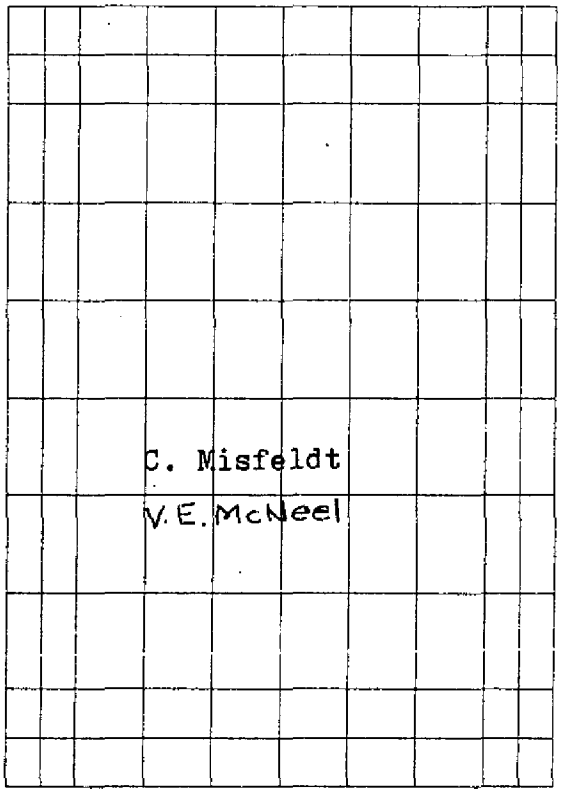
Lat.: Long.: Adjusted / Unadjusted

Plane Coordinates (IV): UTM State: Alaska Zone: 1 and 2

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): W. H. Bainbridge (control only) Some field inspection in head of Nazan Bay on Navy metrogon photography. Date: June 1953

Planetable contouring by (II): None Date:

Completion Surveys by (II): None Date:

Mean High Water Location (III) (State date and method of location):
Interpretation on 1953-54 photographs

Projection and Grids ruled by (IV): Joan Chaconas Date: 11-2-56

Projection and Grids checked by (IV): Howard Wolfe Date: 11-7-56

Control plotted by (III): G. Amburn Date: Jan. 1957

Control checked by (III): H. Lucas Date: Jan. 1957

Radial Plot or Stereoscopic Control extension by (III): J. Battley, Jr. Date: 2/21/67

Stereoscopic instrument compilation (III):
Planimetry Date:
Contours C. Misfeldt, V. E. McNeel Date: 1960-1969

Manuscript delineated by (III): H. Lucas - T-11535, G. Amburn - T-11536 Date: March 1957

Photogrammetric Office Review by (III): E. Ramey (shoreline) May 1958; L. Levin (contours) May 1960; K. N. Maki (contours) May 1971

Elevations on Manuscript checked by (II) (III): L. Levin (contours) 1960; K. N. Maki (contours) 1971

M-2618-12(4)

Camera (kind or source) (III): C&GS 9-lens

PHOTOGRAPHS (III)

	Number	Date	Time	Scale	Stage of Tide
T-11535	42006	9/21/53	1540	1:20,000	2.4' above MLLW
	42007	"	1540	"	2.4' above MLLW
	42008	"	1541	"	2.4' above MLLW
	45997	9/6/54	1529	"	2.5' above MLLW
	45998	"	1530	"	2.5' above MLLW
T-11536	45966	9/6/54	1246	"	1.5' above MLLW
	45970	"	1246	"	1.5' above MLLW
	45976	"	1255	"	1.6' above MLLW
	45999-46001	"	1331	"	1.8' above MLLW
	46003	"	1335	"	1.8' above MLLW

and U.S. Navy Photography dated July 21, 1951

Tide (III)

Ratio of Ranges	Mean Range	Spring Range
	3.7	
0.9	3.3	

Reference Station: Sweeper Cove, Adak Island
Subordinate Station: Nazan Bay
Subordinate Station:

Washington Office Review by (IV): K. N. Maki Date: Sept. 1971

Final Drafting by (IV): Date:

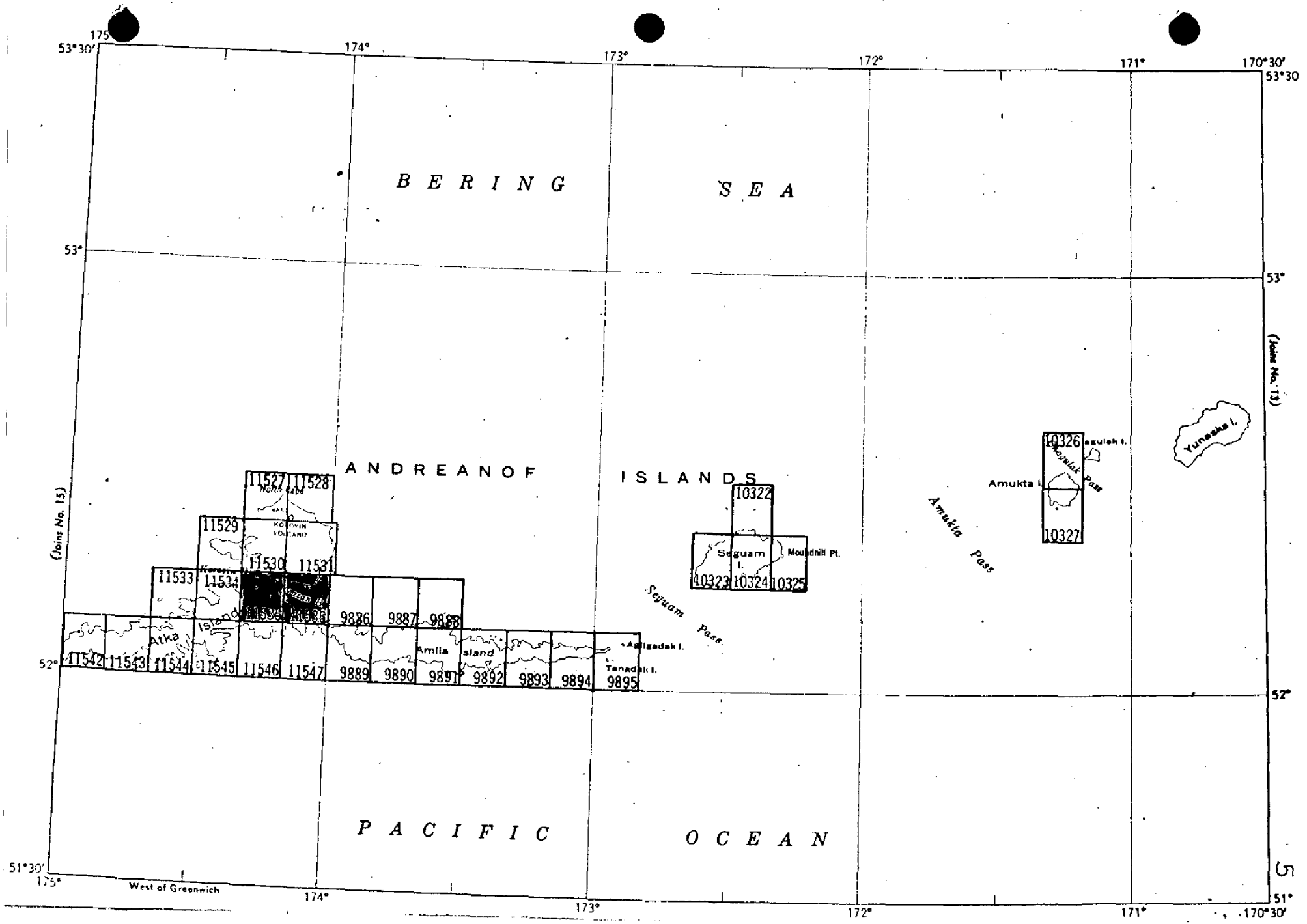
Drafting verified for reproduction by (IV): Date:

Proof Edit by (IV): Date:

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:
Number of BMs searched for (II): Recovered: Identified:
Number of Recoverable Photo Stations established (III):
Number of Temporary Photo Hydro Stations established (III):

Remarks:

M-2618-12(4)


Aleutian Islands ALASKA Part C
175°
174°
173°
172°
171°
170°30'
53°30'
53°
52°
51°30'
BERING SEA
PACIFIC OCEAN
ANDREANOF ISLANDS
(Joins No. 15)
(Joins No. 13)
11527
11528
11529
11530
11531
11533
11534
11542
11543
11544
11545
11546
11547
9886
9887
9888
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9890
9891
9892
9893
9894
9895
10322
10323
10324
10325
10326
10327
Seguam I.
Seguam Pass
Amukta I.
Amukta Pass
Yunaska I.
Amlia Island
Atka Island
Tanadak I.
West of Greenwich
51°

Summary to Accompany Descriptive Report
T-11535 and T-11536

Topographic maps T-11535 and T-11536 are two maps covering a part of PH-34, Part C, Andreanof Island group, Aleutian Islands, Alaska. These two maps cover the area of Atka Island from latitude 52° 07' 30"to latitude 52° 15' and from longitude 174° 00' to longitude 174° 20'. The westerly map, T-11535, includes Nazan Bay, Atka, Korovin Bay and the easterly map, T-11536, includes the NW end of Amlia Island, Nazan Bay and Cape Kudugnak on Atka Island.

The field operations preceding compilation were limited to the recovery of horizontal control and the determination of elevations to control the nine-lens stereoplotter project vertically. The few field inspection notes were restricted to general descriptions of foreshore and beach characteristics.

The nine-lens compilation of contours was preceded by a graphic compilation of shoreline, foreshore and offshore features for hydrographic survey needs based on the field recovery of horizontal control with little or no field inspection of shoreline and related features.

Contours were compiled, for the most part, on the Reading nine-lens stereoplotter. Several areas on T-11535 and T-11536 that were left uncontoured after the dismantling of the last or second Reading nine-lens stereoplotter were completed on the Wild A-7 Autograph. The contour interval is 50 feet with a first 25-foot contour where contour spacing permitted and better expression of near shore terrain configuration could be obtained.

The registered copies under T-11535 and T-11536 will consist of one cronaflex positive of each of the two maps and a single combined Descriptive Report.

PHOTOGRAMMETRIC PLOT REPORT

This report covers the plot for surveys T-11533 through T-11536 and T-11544 through T-11547. It is filed as part of the Descriptive Report for T-11533.

FORM 164
(4-23-54)

U.S. DEPARTMENT OF COMMERCE
DESCRIPTIVE REPORT

COAST AND GEODETIC SURVEY
CONTROL RECORD

MAP T- 11535 PROJECT NO. PH-34 SCALE OF MAP 1:20,000 SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD (BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)
Is, 1943	V 150	N.A. 1927	52-14-44.143 174-15-11.404			1364.4 490.1 216.4 922.0	
West, 1943	"	"	52-13-52.546 174-16-23.520			1624.1 230.4 446.4 692.4	
East, 1943	"	"	52-13-52.092 174-16-21.302			1610.1 244.4 404.3 734.5	
Martin, 1943	V 149	"	52-13-39.033 174-17-53.668			1206.5 648.0 1018.7 120.1	
Rad, 1943	V 145	"	52-12-49.839 174-14-00.938			1540.5 314.0 17.8 1221.4	
Silo, 1943	V 151	"	52-12-51.085 174-14-11.824			1579.0 275.5 224.5 914.7	
Graham, 1943	V 148	"	52-14-00.579 174-12-09.647			17.9 1836.6 183.1 955.6	
1934 Atka NE Base	V 142	"	52-14-07.322 174-11-05.154			226.3 1628.2 97.8 1040.9	
1934 Atka SW Base	"	"	52-13-02.043 174-12-11.725			63.1 1791.4 222.6 916.5	
Bob, 1925	"	"	52-12-10.389 174-11-38.341			321.1 1533.4 728.2 411.3	
1925 West Base	V 144	"	52-11-52.259 174-12-11.169			1615.3 239.2 212.1 927.6	

1 FT. = 3048006 METER

COMPUTED BY: G. Amburn DATE 23 January 1957 CHECKED BY: E. Ramey DATE 25 January 1957

COMM-DC-57843

FORM 164
(4-23-54)

U.S. DEPARTMENT OF COMMERCE
DESCRIPTIVE REPORT

COAST AND GEODETIC SURVEY
CONTROL RECORD

MAP T- T-11535 PROJECT NO. PH-34 SCALE OF MAP 1:20,000 SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR ϕ-COORDINATE LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS FORWARD (BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)
Cross (on Atka Church), 1934	V 144	N. A. 1927	52-11-59.167 174-11-48.341			1828.8 25.7 918.1 221.5	
Astro, 1925	V 142	"	52-11-54.381 174-11-51.250			1680.9 173.6 973.4 166.3	
Inner, 1934	"	"	52-11-47.403 174-11-16.670			1465.2 389.3 316.6 823.1	
Mag, 1925	V 143	"	52-11-54.799 174-11-51.650			1693.8 160.7 981.0 158.7	
Ster, 1925	V 144	"	52-11-48.488 174-11-49.751			1498.7 355.8 945.0 194.7	
Bald Eagle Peak, 1943	V 157	"	52-09-18.09 174-15-27.38			559.1 1295.4 520.5 620.2	
Front, 1943	V 140	"	52-14-22.972 174-15-46.250			710.0 1144.5 877.6 261.0	
Astro 2 1931	V 141	"	52-12-19.336 174-11-09.877			597.7 1256.8 187.6 951.9	
Outer, 1934	V 142	"	52-12-04.389 174-10-48.870			135.7 1718.8 928.1 211.5	
Chan, 1934	V 143	"	52-11-24.277 174-10-48.942			750.4 1104.1 929.8 210.0	

1 FT. = .3048006 METER

COMPUTED BY: G. Amburn DATE 23 January 1957 CHECKED BY: E. Ramey DATE 23 January 1957

COMM-DC-57843

Photogrammetry

MAP T- 11535 PROJECT NO. PH-34 SCALE OF MAP 1:20,000 SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD (BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)
	V	N.A.	52-11-47.828			1478.3 376.2	
Brown, 1943	145	1927	174-14-40.682			772.7 367.0	
1934	V	"	52-10-43.15			1333.7 520.8	
Peak 19	144A		174-11-41.12			781.4 358.9	
1934	"	"	52-09-36.95			1142.1 712.4	
Peak 20			174-10-43.82			833.0 307.5	
1934	"	"	52-10-42.65			1318.3 536.2	
Peak 22			174-12-38.04			722.8 417.5	
	V	"	52-11-03.659			113.1 1741.4	
West, 1934	143		174-10-20.618			391.7 748.3	
1943		"	52-13			1224.1 630.4	
Martin S.S.			174-17			1026.6 112.2	

1 FT. = .3048006 METER

COMPUTED BY: G. Amburn DATE 23 January 1957 CHECKED BY: E. Ramey DATE 25 January 1957

M-2388-12

FORM 164
(4-23-54)

U.S. DEPARTMENT OF COMMERCE
DESCRIPTIVE REPORT

COAST AND GEODETIC SURVEY
CONTROL RECORD

MAP T-11536 PROJECT NO. PH 34 SCALE OF MAP 1:20,000 SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS FORWARD (BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)
PALISADE 1934	V 141	NA 1927	52 13 28.162 174 09 15.334			870.5 984.0 291.1 848.7	
BEACH 1934	V 141	"	52 13 28.476 174 07 09.079			880.2 947.3 172.3 966.6	
KUDUGNAK 1934	V 76	"	52 13 34.511 174 03 54.263			1066.7 787.8 1030.0 108.9	
NAZAN 1934	V 143	"	52 13 29.836 174 03 54.176			922.2 932.3 1028.4 110.5	
ISLE 1925	V 141	"	52 12 19.513 174 09 02.632			603.1 1251.4 150.0 [illegible]	
BLACK 1934	V 144	"	52 11 36.963 174 08 10.612			[illegible] 712.0 201.6 938.2	
GRASSY 1934	V 141	"	52 11 29.482 174 09 00.878			911.3 943.2 16.7 1123.1	
BOL 1934	V 143	"	52-11 46.608 174 09 54.528			1440.6 413.9 1035.8 103.9	
MIDDLE 1934	V 143	"	52 11 16.593 174 09 59.587			512.9 1341.6 1132.0 7.9	
PROFILE 1934	V 143	"	52 10 44.709 174 09 04.590			1381.9 472.6 87.2 1052.9	
UTES 1934	V 141	"	52 10 19.217 174 08 04.104			594.0 1260.5 78.0 1062.1	

1 FT. = .3048006 METER

COMM-DC-57843

COMPUTED BY: G. Amburn DATE 23 Jan. 1957 CHECKED BY: E. Ramey DATE 25 Jan. 1957

FORM 164
(4-23-54)

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

MAP T- 11536 PROJECT NO. PH-34 SCALE OF MAP 1:20,000 SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD (BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)
		NA	52 10 18.424			569.5 1285.0	
SET 1934	V 144	1927	174 08 05.960			113.3 1027.0	
			52 08 55.253			1707.8 146.7	
FOG 1934	V 76	"	174 05 45.883			872.5 268.3	
			52 07 48.534			1500.1 354.4	
GEO 1943	V 149	"	174 04 41.362			786.8 354.6	
			52 07 30.400			939.6 914.9	
EASY (WW) 1943	V 156	"	174 02 55.177			1049.7 91.8	
			52 08 05.28			163.2 1691.2	
ACE (WW) 1943	V 157	"	174 02 49.14			934.6 206.7	
			52 10 53.241			1645.6 208.9	
DIRKS 1934	V 143	"	174 09 56.756			1078.4 61.6	
			52 13 29.999			927.2 927.3	
PALISADE 2 1943	V 149	"	174 09 19.561			371.3 767.6	
			52 13 33.12			1023.7 830.8	
UPPER 1943	V 151	"	174 09 13.37			253.8 885.1	
			52 07 47.302			1462.0 392.5	
DOG (WW) 1943	V 156	"	174 03 03.741			71.2 1070.2	
			52 07 58.877			1819.8 34.7	
BOY (WW) 1943	V 156	"	174 03 01.320			25.1 1116.2	
			52 07 51.773			1600.2 254.3	
NOSE 1943	V 149	"	174 02 57.435			1092.5 48.8	

1 FT. = .3048006 METER

COMPUTED BY: G. Amburn DATE 23 Jan. 1957 CHECKED BY: E. Ramey DATE 25 Jan. 1957

COMM-DC-57843

FORM 164
(4-23-54)

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

MAP T- 11536 PROJECT NO. PH-34 SCALE OF MAP 1:20,000 SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD (BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)
PASS 1934	V 141	NA 1927	52 09 32.880 174 07 15.468			1016.3 838.2 294.0 846.6	
REEF 1925	V 144	"	52 10 39.241 174 07 57.059			1212.9 641.6 1084.2 56.0	
CAT (WW) 1943	V 156	"	52 07 52.912 174 03 05.241			1635.4 219.1 99.7 1141.9	
SS PROFILE 1934		"	52 10 174 09			1400.3 454.2 69.8 1070.3	
SS KUDUGNAK 1934		"	52 13 174 03			1424.0 430.5 773.7 365.2	

1 FT. = .3048006 METER

COMPUTED BY: G. Amburn DATE 23 Jan. 1957 CHECKED BY: E. Ramey DATE 25 Jan 1957

COMM-DC-57843

FORM 164
(4-23-54)

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT
CONTROL RECORD

MAP T- 11536 PROJECT NO. PH-34 SCALE OF MAP 1:20,000 SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE / LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS FORWARD	(BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)
NOSE 1943		N.A.	52 07			1854.5	1602.6	251.9		
Sub. Sta		1927	174 02			1141.3	1076.2	65.1		

1 FT. = .3048006 METER

COMPUTED BY: F. Wisiecki DATE Nov. 1957 CHECKED BY: J. Battley DATE Nov. 1957

COMM-DC-57843

COMPILATION REPORT
T-11535 and T-11536

31. Delineation

Shoreline and alongshore areas were delineated by stereoscopic examination of nine-lens photographs taken in 1953 and 1954. Field inspection was not available for any portion of this survey. Prior surveys were used as a general guide in the interpretation of features. Single-lens photographs taken in 1951 were used to aid in shoreline interpretation.

32. Control

Control for this survey was furnished by a radial plot. The report for this plot is filed as part of the Descriptive Report for T-11533. Control is considered adequate.

33. Supplemental Data

T-4875	1:20,000	1934
T-6208	1:5,000	1934
T-6209	1:20,000	1934
T-6950	1:10,000	1934

These surveys were used only to aid in the interpretation of shoreline features.

34. Contours and Drainage

Sufficient field determined elevations combined with water level datum were available to control the vertical datum for compilation of contours.

35. Shoreline and Alongshore Features

Shoreline and alongshore details are office interpreted with the exception of the area of shoreline bordering Nazan Bay from the vicinity of Atka to the long pier west of Palisades Point. Some shoreline inspection was done in Korovin Bay across the island and northwest of Nazan Bay. Field inspection was done on Navy metrogon photography of 7/21/51.

36. Offshore Details

Offshore details are quite numerous on both surveys T-11535 and T-11536. These details include features such as rocks awash, reefs and numerous small islets.

39. Junctions

North	T-11530, T-11531
East	T-9886
South	T-11546, T-11547
West	T-11534

40. Horizontal and Vertical Accuracy

No deficiencies were indicated.

46. Comparison with Existing Maps

Plane table surveys T-6209 and T-6950 are in general agreement. Some features were in shadows or breakers and could not be seen clearly on the photographs.

47. Comparison with Nautical Charts

Chart No.	8862	1:300,000, 1st edition, corr. 10/15/51
	9010	1:20,000, 1st edition, corr. 9/3/51
	9136	1:10,000, 1st edition, corr. 1943.

Items to be Applied to Nautical Charts Immediately: None

Items to be Carried Forward: None

Approved by:

Everett H. Ramey

Everett H. Ramey

Submitted by:

Henri Lucas

Henri Lucas (T-11535)

G. S. Amburn

G. S. Amburn (T-11536)

T-11535

48. Geographic Name List

Atka
Atka Island
Bolshoi Island
Cone Island
Korovin Bay
Martin Harbor
Nazan Bay
Sarana Cove

PREPARED BY

Frank W. Puckett

CARTOGRAPHIC TECHNICIAN

APPROVED BY

A. Joseph Wright

CHIEF GEOGRAPHER

T-11536

48. Geographic Name List

Amlia Island
Amlia Pass
Atka Island
Bering Sea
Cape Kudugnak
Cape Utes
Eddy Point
Flat Point
Mid Reef
Nazan Bay
Palisades Point
Profile Point
Uyak Island

PREPARED BY

Frank W. Pickett

CARTOGRAPHIC TECHNICIAN

APPROVED BY

A. Joseph Wright

CHIEF GEOGRAPHER

REVIEW REPORT
T-11535 and T-11536
Topographic Maps
September 1971

61. General Statement

Graphic compilation of shoreline was completed in 1957 to fulfill hydrographic survey needs. This shoreline compilation was followed by a separate contouring operation done on the Reading nine-lens in 1960. Several small areas not completed on the nine-lens plotter were completed in 1969 on the Wild A-7 Autograph stereoplotter. This procedure was made necessary because the last of the two Reading nine-lens stereoplotters had been dismantled in 1965. Use of the A-7 stereoplotter was made possible by the photographic reduction of the nine-lens photographs to accommodate the 9 x 9 inch format of the A-7.

62 through 65. Comparison with Other Surveys

The two maps were compared with all prior registered topographic surveys, maps of other agencies, contemporary hydrographic surveys and nautical charts during compilation. Discrepancies and conflicts between the map manuscript and the prior surveys were resolved at the time comparisons were made.

66. Adequacy of Results and Future Surveys

Shoreline and related features, including contours, are considered to be delineated adequately, although field work was limited almost entirely to photoidentification of horizontal and vertical control.

Reviewed by:

K. N. Maki

Approved by:

Charles Theurer, Chief
Photogrammetric Branch

J. E. Guth, Chief
Coastal Mapping Division