9491 9492 9493
9494

9493 9492 9494 9491

Diag. Cht. No. 9400.

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Topographic

Field No. Ph-28(47) Office No. T-9491 thru T-9494

LOCALITY

State Alaska

General locality Kotzebue Sound

Locality Spafarief Bay

1948-51

CHIEF OF PARTY

A. N. Stewart, Chief of Field Party
H. A. Paton, Chief B'more Photo.Off.
~~L. J. Reed, Div. of Photo.,Wash.,D.C.~~

LIBRARY & ARCHIVES

DATE August 20, 1957

B-1870-1 (1)

DATA RECORD

T-9491, 92, 93, 94

Project No. (II): Ph-28(47)

Quadrangle Name (IV):
T-9491 = KIWALIK VILLAGE
T-9492 = DUCK CREEK
T-9493 = BUCKLAND RIVER
T-9494 = BUCKLAND STATION

Field Office (II): Portland, Oregon

Chief of Party: A.Newton Stewart

Photogrammetric Office (III): Baltimore, Md

Officer-in-Charge:
Radial Plot = Hubert A.Paton, Chief
Washington, D.C. Compilation = Louis J. Reed, Chief, Stereoscopic Mapping Branch

Instructions dated (II) (III):
(II) = 21 Apr 48
(III) = 23 Oct 50

Copy filed in Division of Photogrammetry (IV)

Method of Compilation (III): Reading Plotter

Manuscript Scale (III): 1:20,000

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

Scale Factor (III): 1:1

Date received in Washington Office (IV): JUN 25 1959

Date reported to Nautical Chart Branch (IV):

Applied to Chart No.

Date:

Date registered (IV): 29 April 1957

Publication Scale (IV):

Publication date (IV):

Geographic Datum (III): NA 1927 (Unadjusted)

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
~~XXXXXXXXX~~

Plane Coordinates (IV):

State:

Zone:

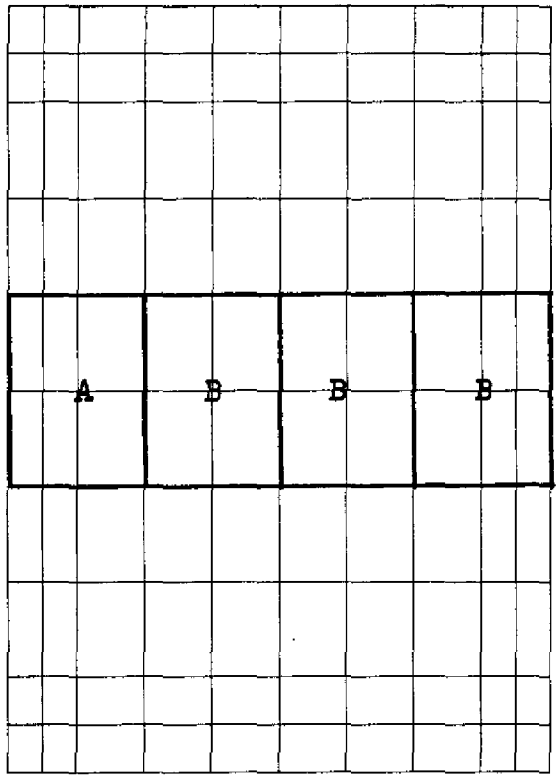
Y=

X=

Universal Transverse Mercator Grid, Zone 4, 2500m interval

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)
(III)

A = Compiled on the Reading Plotter, model "A", by Clarence E. Misfeldt.

B = Compiled on the Reading Plotter, model "B", by Louis Levin and Orvis N.Dalbey.

M-2618-12 (4)

DATA RECORD

Field Inspection by (II): A.Newton Stewart 1948 1948

Planetable contouring by (II): None Date:

Completion Surveys by (II): None Date:

Mean High Water Location (III) (State date and method of location):

This compilation is dated 1948 since it was guided by 1948 field inspection of the MHWL on 1947 photographs. However, for all practical purposes, it could be dated 1951 because the instrument photography was taken in 1951.

Projection and Grids ruled by (IV): Date: 3 Jun 52

Jack Allen on the Reading Ruling Machine

Projection and Grids checked by (IV): Date: 4 Jun 52

Howard D.Wolfe

Control plotted by (III): Date:

Albert Queen 24 Jul 52

Control checked by (III): Date:

Joe Steinberg 25 Jul 52

Radial Plot ~~or Stereoscopic~~ Ruth E. Hartley Date: 12 Aug 52

Control extension by (III): verified by Frank J. Tarcza 13 Aug 52

Stereoscopic Instrument ~~compilation~~ delineation (III): Planimetry and Contours Clarence E.Misfeldt Orvis N. Dalbey Louis Levin Date: 28 May 53 Date:

Manuscript delineated by (III): Robert L. Sugden and Henri Lucas Date: 11 Jun 53

Photogrammetric Office Review by (III): Louis J. Reed Date: 22 JUNE 53

Elevations on Manuscript checked by (III): Louis J. Reed Date: 22 JUNE 53

M-2618-12(4)

Camera (kind or source) (III): USC&GS 9-lens, model "B", f = 8.25inches

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
34001-03		1642-44		-2 ft.
33967-70		1556-1600		-2 ft.
33956-59		1537-41		-2 ft.
33874-85	27 Jun 51	1347-1401	1:20,000	~~No Tide~~ -1 ft.
33868-69		1335-36		-1 ft.
33833-36		1248-52		-1 ft
33824-26		1235-37		"
33810-11		1218-20		"

Tide (III)

Reference Station: ~~Icy Cape~~ Kiwalik

Subordinate Station:

Subordinate Station:

Ratio of Ranges	Mean Range	diurnal ~~Spring~~ Range
		~~.61~~
		2.7

Washington Office Review by (IV): Bernard J. Colner Date: 2/2/54 1-18-56 -1-23-56

Final Drafting by (IV): Frank Johnson T-9491 - T-9492 John H. Frazier T-9494 John H. Frazier T-9493 Date: 2/3/56 2/13/56

Drafting verified for reproduction by (IV): Date:

Proof Edit by (IV): Date:

Land Area (Sq. Statute Miles) (III): See remarks below

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

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

Control Leveling - Miles (II): None

Number of Triangulation Stations searched for (II): Recovered: Identified: 5

Number of BMs searched for (II): None Recovered: Identified:

Number of Recoverable Photo Stations established (III): 6

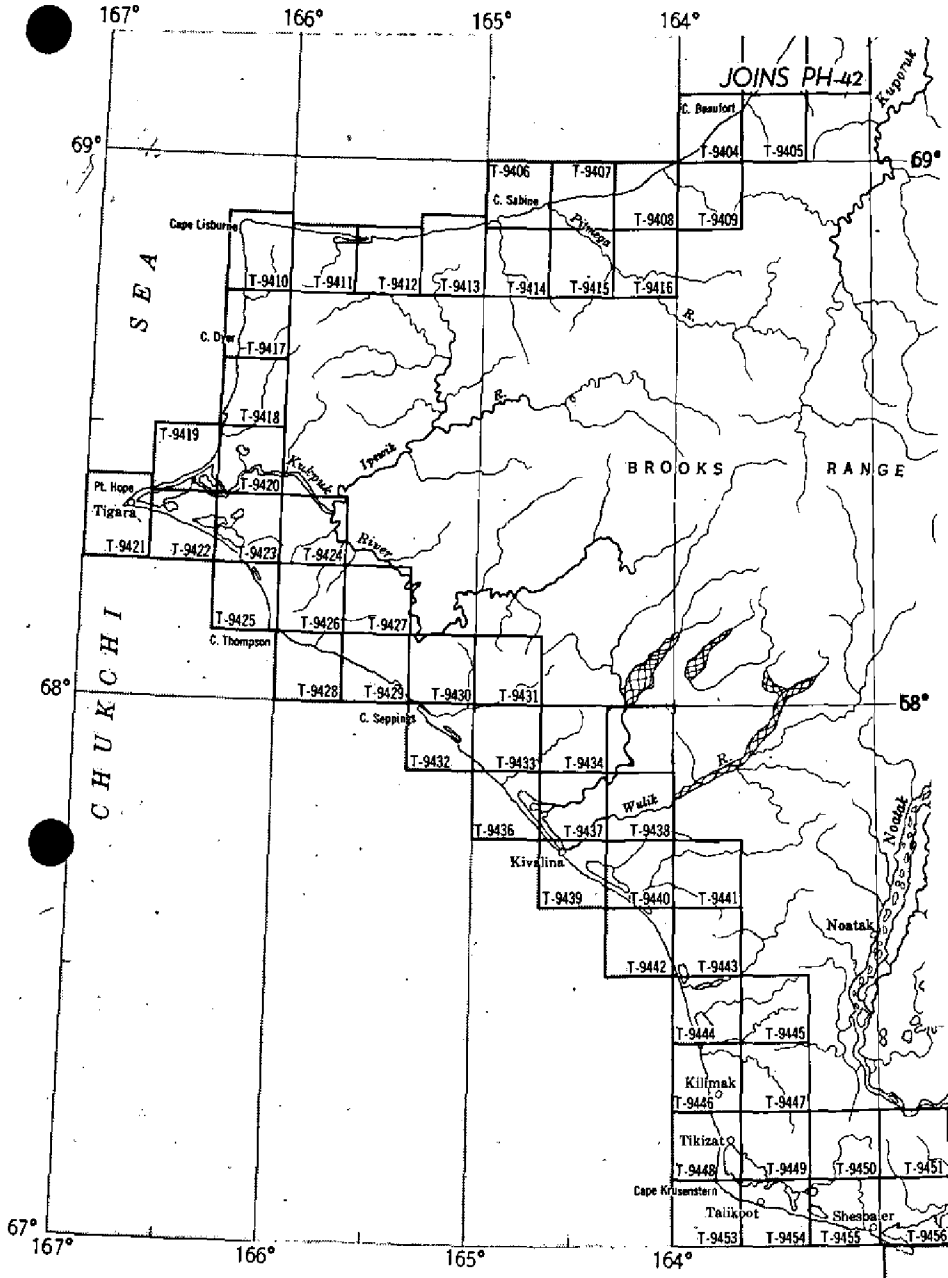
Number of Temporary Photo Hydro Stations established (III): 3

Remarks:

	LAND AREA	200m+ SHORELINE	200m- SHORELINE
T-9491 =	30 sq mi	35 miles	190 miles
T-9492 =	81 sq mi	0 miles	0 miles
T-9493 =	81 sq mi	35 miles	80 miles
T-9494 =	44 sq mi	0 miles	0 miles

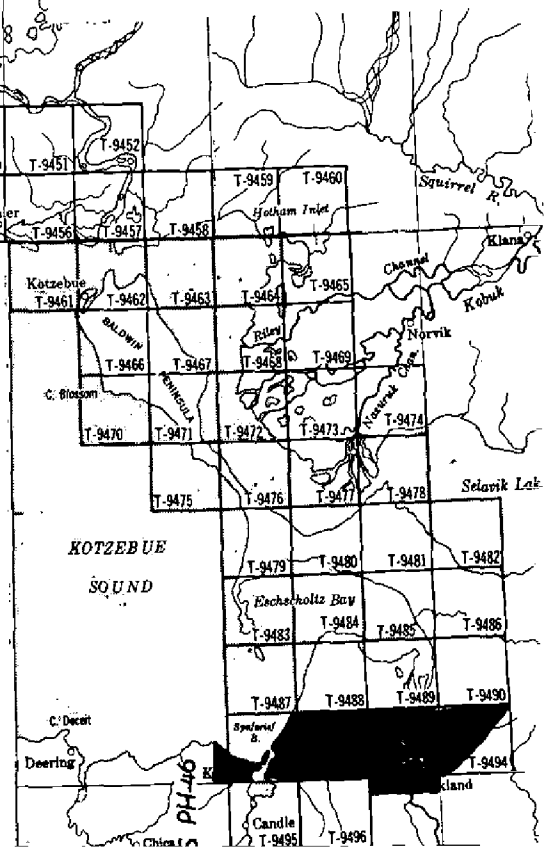
TOPOGRAPHIC MAPPING PROJECT PH-28

ALASKA, Chukchi Sea, Kiwalik to C. Beaufort



OFFICIAL MILEAGE FOR COST ACCOU

Sheet No's.	Sq. St. Miles	Sheet No's.	Sq. St. Miles	Sheet No's.
T-9404	28	T-9434	21	T-9466
T-9405	66			T-9467
T-9406	14	T-9436	23	T-9468
T-9407	33	T-9437	74	T-9469
T-9408	53	T-9438	50	T-9470
T-9409	68	T-9439	36	T-9471
T-9410	52	T-9440	68	T-9472
T-9411	66	T-9441	41	T-9473
T-9412	63	T-9442	11	T-9474
T-9413	72	T-9443	73	T-9475
T-9414	75	T-9444	46	T-9476
T-9415	68	T-9445	40	T-9477
T-9416	55	T-9446	30	T-9478
T-9417	53	T-9447	75	T-9479
T-9418	64	T-9448	11	T-9480
T-9419	8	T-9449	66	T-9481
T-9420	70	T-9450	78	T-9482
T-9421	3	T-9451	75	T-9483
T-9422	21	T-9452	60	T-9484
T-9423	56	T-9453	2	T-9485
T-9424	61	T-9454	25	T-9486
T-9425	15	T-9455	50	T-9487
T-9426	74	T-9456	54	T-9488
T-9427	67	T-9457	77	T-9489
T-9428	11	T-9458	59	T-9490
T-9429	40	T-9459	66	T-9491
T-9430	74	T-9460	69	T-9492
T-9431	26	T-9461	1	T-9493
T-9432	28	T-9462	31	T-9494
T-9433	60	T-9463	1	T-9495
		T-9464	15	T-9496
		T-9465	60	TOTA



Compiled at 1:20,000 scale, from 1:20,000 scale nine-lens photographs taken July, 1950 and June, 1951. For additional nine-lens photography refer to: Air-photo Index A-38 (1:20,000 scale, taken September 1947) Air-photo Index B-3 (1:28,000 scale taken Sept. 1947) Air-photo Index B-13 (1:20,000 scale, taken September 1947 and August 1948)

For single-lens photography on which some field work was done refer to: Air-photo Index A-11 (1:27,500 scale, taken August 1948) Air-photo Index A-23 (1:27,500 scale, taken August, 1948, and 1:40,000 scale, August, 1950) Air-photo Index A-24 (1:27,500 scale, August, 1948) Air-photo Index A-36 (1:40,000 scale, August, 1950)

For photography of other agencies on which some field work was done refer to: Alaskan WAC 64 Index (1949 Naval Petroleum Reserve photography, scale 1:20,000 and 1946 Air-Force TRI-MET photography, scale 1:24,000)

Summary to Accompany T-9491 through T-9494

Ph-28(47) covers the east shore of the Chukchi Sea in Alaska and runs from Candle on the Kiwalik River on the south to Cape Beaufort to the north.

This project consists of ninety-four topographic quadrangles (T-9402 to T-9434 and T-9436 to T-9496).

T-9491 through T-9494 are surveys of the area containing the southern portion of Spafarief Bay, the upper portions of Kiwalik Lagoon and Buckland River and Duck Creek.

Each map manuscript consists of one sheet, 7½-minutes in latitude and 20 minutes in longitude, at a scale of 1:20,000, with a contour interval of 50 feet. A ~~cloth backed lithographic~~ print of each map at the compilation scale will be registered with the descriptive report in the Bureau Archives.

FIELD INSPECTION REPORT

2-20:

See separate report entitled:

PROJECT REPORT

AERIAL PHOTOGRAPH CONTROL AND INSPECTION

KOTZEBUE SOUND, ALASKA

Project Ph-28(47) July to Sept 1948

A. Newton Stewart, Chief of Party

RADIAL PLOT REPORT

21-30:

See separate Descriptive Report. The area of the four quads of this report was included in the same radial plot with several other quads, and the single report for that plot is included in the Descriptive Report (combined) for quads T-9484 thru T-9486.

COMPILATION REPORT

31. Delineation:

Contours and cultural features were delineated simultaneously on the Reading Plotters by areas as shown on page 2 of this report. The entire land area has been mapped except for the SE half of T-9494 where photo coverage was lacking and control was not established.

32. Control:

According to the Radial Plot Reoprt horizontal control points were not adequate for a properly controlled plot, especially in the eastern part (in T-9493 and T-9494). This was true but perhaps the plot was stronger than suspected as born out by junctioning with AMS compilation in the area to the south of T-9493; During the AMS compilation procedure they had bridged over the border on their stereoplanigraphs into our area, and a comparison of a few common positions with our plot checked very favorably. It is felt that our horizontal position is very good even though horizontal control did not meet specifications.

Vertical control was also inadequate in the heart of T-9492 and in most of the compiled area in T-9494, and a small amount of instrument bridging was necessary to carry datum thru these areas of scarce vertical points. The overall instrument datum was set thru peak elevations, V-stations, and tide waters.

33. Supplemental Data:

a. Elevation Computations: Separate volume entitled:

"COMPUTATIONS OF ELEVATIONS AND TABULATION OF VERTICAL CONTROL POINTS FOR SURVEYS T-9482, T-9484 thru T-9496."

b. Field Inspection Photos:

20652,20653,20660,20661,20868,20869,20872,20873,20874,20875.

c. AMS Junction Sheets:

CANDLE D5 and KOTZEBUE A1

34. Contours and Drainage:

The photographs were of good quality and no areas of questionable contouring remain.

35. Shoreline and Alongshore Details:

Of the four quads of this report, shoreline appears on T-9491 only. The inspection was adequate. Shallow water lines and grass-in-water lines have been delineated.

36. Offshore Details: None.

37. Landmarks and Aids:

One landmark was recommended in this area on T-9491. It is a tall tank, the tallest of four, in the village of Kiwalik. It is listed on form 567 as a separate page in this report, and carbons have been prepared for Nautical and Aeronautical Branches.

38. Control for Future Surveys:

Six topo and three hydro stations were field selected and identified on T-9491 as follows: BLUE 1948, GRIP 1948, HALO 1948, MULE 1948, SMUG 1948, YOKE 1948, and 785, 787, and 788. All these points have been positioned by the radial plot and are shown on the manuscript in name and symbol.

39. Junctions:

All junctions are in agreement including two margins that joins with recent AMS compilation as shown on the layout sketch, page 5.

40. Horizontal and Vertical Accuracy:

It is felt that these four compilations meet the standards for 1:20,000 scale maps with a 50ft contour interval. However, because of inadequate control, both horizontal and vertical, as explained in side-headings 23 and 32, the accuracy of all four maps must be labeled doubtful.

46. Comparison with Existing Maps:

"SELAWIK, Alaska Reconnaissance Topographic Series, Second Judicial Division, U.S.G.S., 1:250,000, 1951 edition."

47. Comparison with Nautical Charts:

"ARCTIC COAST, Alaska, No 9400, 1:1,587,870, May 1946, 6th edition, last correction date of 27 Nov 50."

48. Geographic Name List: See separate numbered page.

49. Notes for the Hydrographer: See separate unnumbered page.

50. Compilation Office Review: See separate numbered page.

Submitted by:

William D. Harris

William D. Harris, Chief,
Nine-Lens Plotting Instrument Section

Approved by:

Louis J. Reed

Louis J. Reed, Chief
Stereoscopic Mapping Branch
Photogrammetric Engineer

GEOGRAPHIC NAMES
Survey No.
T-9491,92,93,94

Name on Survey	A On Chart No.	B On previous survey No.	C On U. S. quadrangle Maps	D From local information	E On local Maps	F P. O. Guide or Map	G Rand McNally Atlas	H U. S. Light List	K	
T-9491										1
KIRK CREEK										2
KIWALIK										3
KIWALIK LAGOON										4
SPAFARIEF BAY										5
Minnehaha Creek										6
T-9492										7
DUCK CREEK										8
										9
T-9493										10
BUCKLAND RIVER										11
DUCK CREEK										12
										13
T-9494										14
No nmaes										15
										16
For titles										17
Alaska										18
Second Judicial Division										19
Kotzebue Sound										20
					Names approved					21
					2-2-54.					22
										23
										24
										25
										26
										27

LHeck

Form 567
April 1945

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

~~NONFLOATING AIDS OR~~ LANDMARKS FOR CHARTS

TO BE CHARTED } STRIKE OUT ONE
~~TO BE DELETED~~

Stereoscopic Mapping Branch, Wash., D.C., 19 June 53

I recommend that the following objects which have *(have not)* been inspected from seaward to determine their value as landmarks be charted on *(deleted from)* the charts indicated.

The positions given have been checked after listing by _____

Louis J. Reed
Chief of Party.

STATE T-9491, Kotzebue Sound, Alaska

CHARTING NAME	DESCRIPTION	SIGNAL NAME	POSITION LATITUDE ° '	LATITUDE D.M. METERS	LONGITUDE ° '	LONGITUDE D.P. METERS	DATUM	METHOD OF LOCATION AND SURVEY No.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
	Tank, tallest of four, at Kiwalik on Spafarief Bay		66°01'	758m	161°50'	244m	NA 1927	Radial Plot	Aug'52				

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks, and nonfloating

49. Notes for the Hydrographer:

The following topo and hydro stations were field selected and identified, and have been positioned by the radial plot on the manuscripts. All stations fall on T-9491; none exist on the other three quads of this report.

	Identification Photo	Other
BLUE 1948	20872	524 card
GRIP 1948	20873	"
HALO 1948	20872	"
MULE 1948	20872	"
SMUG 1948	20872	"
YOKE 1948	20874	"

No 785	20872	"N tip of a small point of marsh on the S shore of a small lake. Point is about 40m E of MHWL on the sand beach."
No 787	20874	"Apex of "V" in sand at end of small lake."
No 788	20874	"NE tip of pond."

Form T-2

PHOTOGRAMMETRIC OFFICE REVIEW

T-9491, 2, 3, 4

1. Projection and grids ✓ 2. Title ✓ 3. Manuscript numbers ✓ 4. Manuscript size ✓

CONTROL STATIONS

5. Horizontal control stations of third-order or higher accuracy ✓ 6. Recoverable horizontal stations of less than third-order accuracy (topographic stations) ✓ 7. Photo hydro stations ✓ 8. Bench marks N
9. Plotting of sextant fixes N 10. Photogrammetric plot report ✓ 11. Detail points N

✓ = checked
N = non-existant

ALONGSHORE AREAS

(Nautical Chart Data)

12. Shoreline ✓ 13. Low-water line N 14. Rocks, shoals, etc. ✓ 15. Bridges N 16. Aids to navigation N 17. Landmarks ✓ 18. Other alongshore physical features ✓ 19. Other alongshore cultural features N

PHYSICAL FEATURES

20. Water features ✓ 21. Natural ground cover N 22. Planetable contours N 23. Stereoscopic instrument contours ✓ 24. Contours in general ✓ 25. Spot elevations ✓ 26. Other physical features N

CULTURAL FEATURES

27. Roads N 28. Buildings ✓ 29. Railroads N 30. Other cultural features N

BOUNDARIES

31. Boundary lines N 32. Public land lines N

MISCELLANEOUS

33. Geographic names ✓ 34. Junctions ✓ 35. Legibility of the manuscript ✓ 36. Discrepancy overlay N 37. Descriptive Report ✓ 38. Field inspection photographs ✓ 39. Forms ✓
40. [signature] Reviewer — [signature] Supervisor, Review Section or Unit

41. Remarks (see attached sheet)

Louis J. Reed, Chief
Stereoscopic Mapping Branch
Photogrammetric Engineer

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:

M-2623-12

Review Report T-9491 through T-9494
Topographic Maps
February 1, 1954

62. Comparison with Registered Topographic Surveys.- None

63. Comparison with Maps of Other Agencies.-

USGS Alaska Map, Selawik 1:250,000 1951 edition

Only visual comparison possible because of great scale difference.

64. Comparison with Contemporary Hydrographic Surveys.- None

65. Comparison with Nautical Charts.-

9400	1:1,587,870	June 1952
9402	1:750,000	May 1950

Comparison not possible with these charts because of great scale difference.

66. Adequacy of Results and Future Surveys.-These maps comply with project instructions and are adequate as bases for hydrographic surveys and the construction of nautical charts.

Reviewed by:

H. J. Colner

H. J. Colner

APPROVED

L. C. Lande
Chief, Review Branch
Div. of Photogrammetry

for Wallace A. Bruder
Chief, Nautical Chart Branch
Division of Charts

Chief, Div. of Photogrammetry

Chief, Div. of Coastal Surveys

Aug 14 '57