9488 9489 9490

9488 9489 9490

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-9488 thru T-9490

LOCALITY

State Alaska

General locality Kotzebue Sound

Locality Eschscholtz Bay

1948-51

CHIEF OF PARTY

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

LIBRARY & ARCHIVES

DATE June 24, 1958

8-1870-1 (1)

DATA RECORD

T-9488 thru 90

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

Quadrangle Name (IV): T-9488 = CHURCH ROCK
T-9489 = BUCKLAND RIVER MOUTH
T-9490 = BUCKLAND RIVER MOUTH EAST

Field Office (II): Portland, Oregon

Chief of Party:

Photogrammetric Office (III): Baltimore, Md
Washington, D.C.

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

Instructions dated (II) (III):

Copy filed in Division of Photogrammetry (IV)

(II) = 21 Apr 48
(III) = 23 Oct 50

Method of Compilation (III): Reading Plotter

Manuscript Scale (III): 1:20,000

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

Scale Factor (III):

Date received in Washington Office (IV): JUN 12 1953

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=

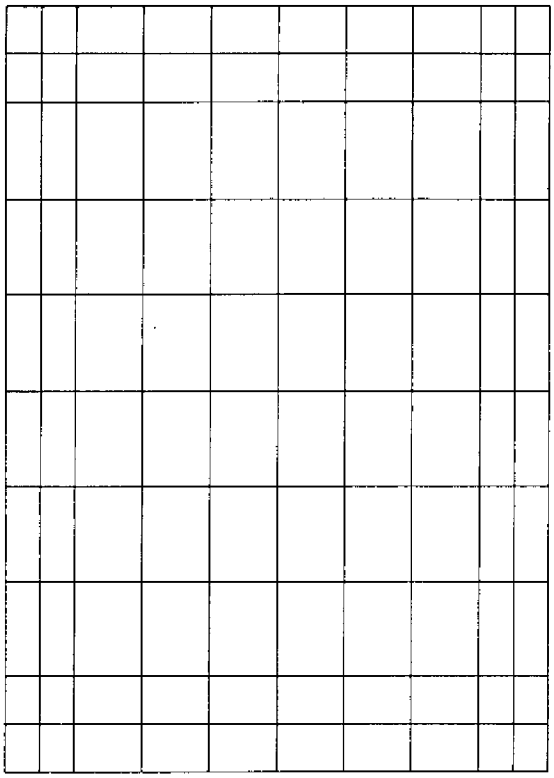
X=

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.

M-2618-12(4)



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

95
~~100%~~ compiled on the Reading Plotter, model "B", by the team of:

Louis Levin and
Orvis N. Dalbey

5% on the Stereoplanigraph by Morton Keller

DATA RECORD

Field Inspection by (II): A. Newton Stewart Date: 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 was guided by 1948 field inspection of the MHWL on 1947 photographs, and therefore the shoreline is dated 1948. However, for all practical purposes, it could be dated 1951 because the instrument photography was dated 1951

Projection and Grids ruled by (IV): Jack Allen on the Reading Ruling Machine Date: 3 Jun 52

Projection and Grids checked by (IV): Howard D. Wolfe Date: 4 Jun 52

Control plotted by (III): Albert Queen Date: 3 Jul 52

Control checked by (III): Ruth Hartley Date: 7 Jul 52

Radial Plot or Stereoscopic Control extension by (III): Ruth Hartley Verified by Frank J. Taroza Date: 12 Aug 52, 13 Aug 52

Stereoscopic Instrument ~~delineation~~ Planimetry and Contours (III): Louis Levin and Orvis N. Dalbey and Morton Keller Date: 8 Apr 53, 1 Jun 53

Manuscript ~~drawn~~ compiled by (III): Henri Lucas Date: 28 May 53
" " 3 Jun 53

Photogrammetric Office Review by (III): Louis J. Reed Date: 5 Jun 53

Elevations on Manuscript checked by (III): Louis J. Reed Date: 5 Jun 53

M-2618-12(4)

Camera (kind or source) (III): USC&GS 9-lens, model "B", f = 8¼ inches.

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
33811-14	27 Jun 51	1220 - 1223	1:20,000	None - 1 ft.
33822-25	"	1232 - 1236	"	" "
33835-39	"	1251 - 1255	"	" "
33865-68	"	1332 - 1335	"	" "
33876-78	"	1352 - 1354	"	" "
33954-56	"	1534 - 1537	"	" "

Tide (III)

Ratio of Ranges	Mean Range	diurnal ~~Semi-diurnal~~ Range
		.6
		2.7

Reference Station: ~~Icy cape~~ KiwaliK
Subordinate Station:
Subordinate Station:

Washington Office Review by (IV): B.J. Colner Date: 12/10/53

Final Drafting by (IV): Frank Johnson T-9489 Date: 1-16-56
Pat Lach T-9489 1-28-56
John Frazier T-9490 1-19-56

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): " " "
Control Leveling - Miles (II): None
Number of Triangulation Stations searched for (II): Recovered: Identified: 3
Number of BMs searched for (II): None Recovered: Identified:
Number of Recoverable Photo Stations established (III): 4
Number of Temporary Photo Hydro Stations established (III): 11

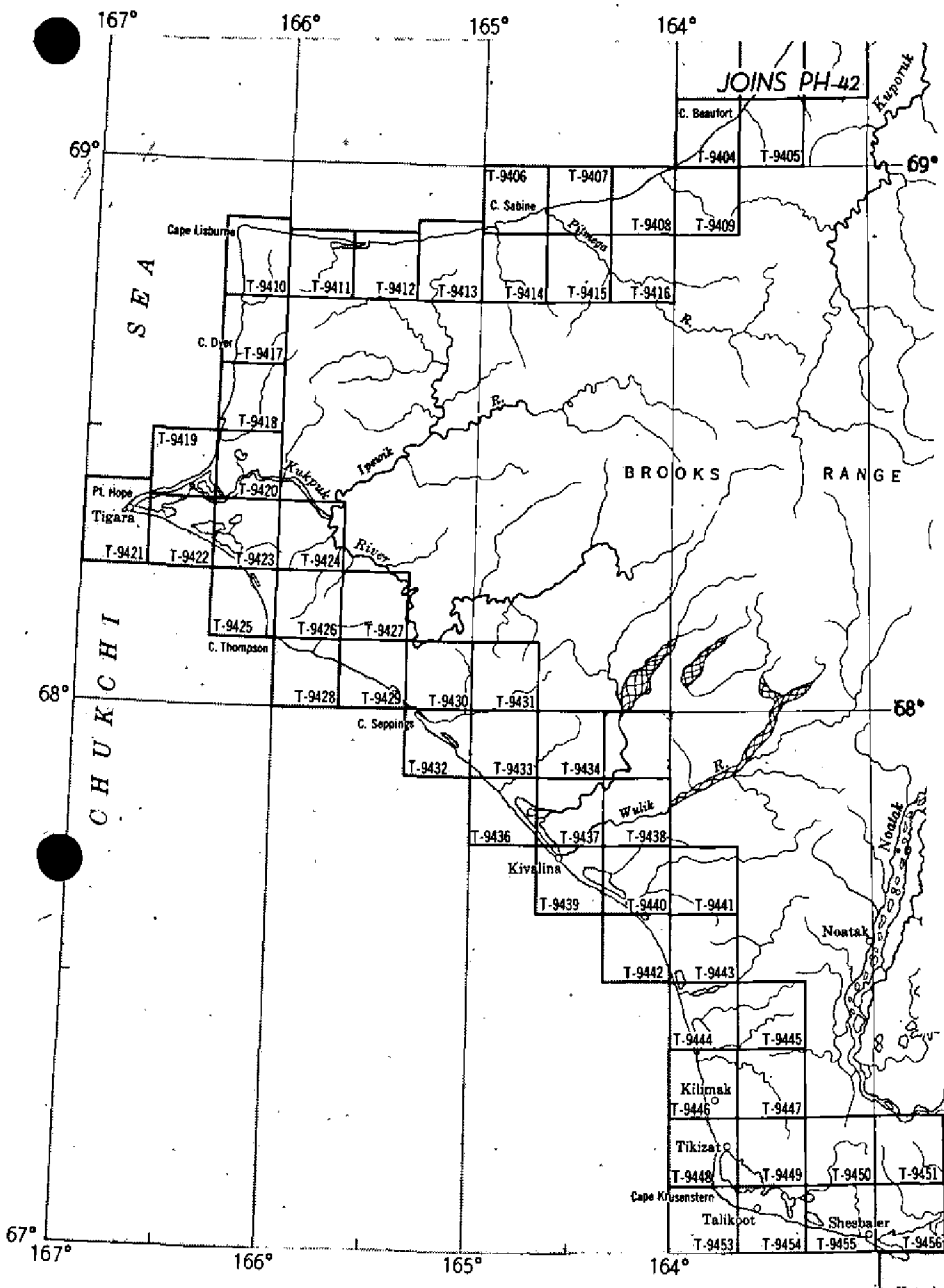
Remarks:

	LAND AREA	200m+ SHORELINE	200m- SHORELINE
T-9488 =	60 sq mi	41 miles	28 miles
T-9489 =	62 sq mi	8 miles	11 miles
T-9490 =	81 sq mi	3 miles	16 miles

M-2618-12(4)

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	TOTAL

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-9488 through T-9490

Ph-28(47) covers the eastern 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-7488 through T-9490 are surveys of the area containing the southern portion of Elephant Point, Eschscholtz Bay, Spafarief Bay, Buckland River, and Dick Slough.

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 three quads of this report was included in the same radial plot with several other quads. The single report for that radial plot is included in the Descriptive Report for quads T-9484-6 combined.

COMPILATION REPORT

31: Delineation:

Cultural features and contours for the major portion of the area of this report were delineated simultaneously on the Reading Plotter, model "B". One small area on the south end of the junction between T-9488 and T-9489 was cloud-covered on the 9-lens instrument photos, and the area was filled in by single lens compilation on the Stereoplanigraph, AMS single lens coverage of good quality being available. No particular difficulty was encountered in the single lens work, the drainage network being used for horizontal position, and the contours and scattered spot elevations serving to establish the datum plane for contouring. The entire area of all three quads has been delineated.

32. Control:

Refer to the radial plot report included in descriptive report for quads T-9484, 85, and 86 (combined), the areas of which were included in the same plot with the areas of the quads of this report. The layout sketch, page 13, shows no control in T-9490, one in T-9488, and two in T-9489 with only one being held in the plot. This presents a weak control picture which is stated in detail in sub-heading 23, and for this reason the accuracy of the horizontal position of the features established by this radial plot are doubtful. The vertical accuracy has been maintained except in the east third of T-9490 where vertical control was inadequate. The balance of the area contained sufficient elevations to establish a vertical datum for contouring, these elevations consisting of 6 V-stations, 6 peaks including the three triangulation stations, and considerable tide water. The error in computed elevations for Peaks 501 and 503, as reported in the radial plot report, was discovered and the elevations recomputed and used; observations from BUCKLAND were in error because the original elevation for it was in error.

33. Supplemental Data:

a. Elevation Computations: Separate bound volume entitled:

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

b. Field Inspection Photos:

20675, 20676, 20677, 20678, 20679, 20881, 20882, 20876, 20877

34. Contours and Drainage:

The photographs were of good quality for contouring except for the small cloud area mentioned in side-heading 31, above. The single lens photos covering the cloud area on the 9-lens pictures were also of good quality. No areas of questionable contours remain except where datum may be questionable by virtue of lack of vertical control as stated in sub-heading 32.

35. Shoreline and Alongshore Details:

Shoreline inspection appeared to be adequate. On T-9489 considerable mud flats have been shown as indicated by the field inspector in the mouth of Buckland River, and notes have been used to point out an extensive area of offshore mud areas bare at low tide (but not outlined) as indicated by the field inspector along the south shore of Eschscholtz Bay. No such mud flats appear on T-9488 and T-9490.

36. Offshore Details: None.

37. Landmarks and Aids: None exist - No new ones recommended.

38. Control for Future Surveys:

Four topo and eleven hydro stations were selected and Photo-identified in the field. They have been positioned by the radial plot and are shown on the manuscripts. They are:

T-9488 = RANT 1948, ROCK 1948, 750, 751, 752, 789, and 790.
T-9489 = ROPE 1948, SCAR 1948, 793, 794, 795, 796, 797, 798.
T-9490 = None.

39. Junctions: All are in agreement.

40. Horizontal and Vertical Accuracy:

Because of the facts stated in side-heading 32, the accuracy of these three quads must be labeled doubtful in both respects. However, because of the comparative ease with which the 9-lens instrument photos were rectified, the radial plot and computed elevations would appear to be very good, and for this reason it is felt that the accuracy standards have been met or very nearly so; contours within 25ft and positions within ½mm. It can be stated that the contouring is standard in T-9488, T-9489, and the west 2/3 of T-9490.

46. Comparison with Existing Maps:

"SEAWIK, 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 page 11.

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

50. Compilation Office Review: See page 12.

Submitted by:

William D. Harris

William D. Harris, Chief,
9-lens Plotting Section

Approved by:

Louis J. Reed

Louis J. Reed, Chief
Stereoscopic Mapping Branch
Photogrammetric Engineer

GEOGRAPHIC NAMES

Survey No.

T-9488, 89, 90

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-9488										1
CHURCH ROCK										2
DICK SLOUGH										3
ELEPHANT POINT		(Point of land)								4
ESCHSCHOLTZ BAY										5
SPAFARIEF BAY										6
										7
										8
T-9489										9
BUCKLAND RIVER										10
DICK SLOUGH										11
ELEPHANT POINT										12
IGLOO POINT										13
ESCHSCHOLTZ BAY										14
										15
										16
T-9490										17
BUCKLAND RIVER										18
KAUK RIVER				Names approved 12-14-53 L. Hoch						19
										20
For titles:										21
Alaska										22
Second Judicial Division										23
Kotzebue Sound										24
										25
										26
										27

49. Notes for the Hydrographer:

a. Hydro Stations:

T-9488

750 identified on photo 20876 and described as,"Highest part of offshore rock, 6ft, between MHWL and LWL, on a rounding point. Rock is dark colored and is the only offshore rock on the point."
751 on photo 20876 as "Highest part of an oblong white boulder 6ft high at the base of the bluff."
752 on 20877; "15' Pin rock about 650m NE of RANT, 1948, and 140m SW another pin rock, and 300m E sand beach."
789 on 20876;"SW corner of most S'ly of several small ponds between the beach and the bluff."
790 On 20876;"Highest part of tundra-topped ledge with saddle between it and bluff."

T-9489

793 on 20880;"N tip of marsh SE side of mouth of stream"
794 on 20882;"SE tip of marsh on N side small creek."
795 on 20882;"E gable N'most building in group of four."
796 on 20882;"W tip grass projecting into E end small pond"
797 on 20882;"N tip of marsh."
798 on 20882;"NW tip of marsh."

T-9490 None.

b. Topo Stations:

T-9488

RANT, 1948 on 20877 and 524 card
ROCK, 1948 on 20876 and 524 card

T-9489

ROPE, 1948 on 20881 and 524 card
SCAR, 1948 on 20882 and 524 card

T-9490

None

Form T-2

PHOTOGRAMMETRIC OFFICE REVIEW

T-9488, 89, 90

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-existent

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 N 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. _____
Reviewer

_____
Supervisor, Review Section or Unit

Louis J. Reed, Chief
Stereoscopic Mapping Branch
Photogrammetric Engineer

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:

M-2623-12

Review Report T-9488 through T-9490
Topographic Maps
December 10, 1953

62. Comparison with Registered Topographic Surveys.- None

63. Comparison with Maps of Other Agencies.-

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

Comparison not feasible due to great difference in scale.

64. Comparison with Contemporary Hydrographic Survey.- None

65. Comparison with Nautical Charts.-

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

Scale difference precludes a satisfactory comparison.

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:

B. J. Colner

APPROVED:

Chief, Review Branch
Div. of Photogrammetry

Chief, Nautical Chart Branch
Division of Charts

Chief, Div. of Photogrammetry

Chief, Div. of Coastal Surveys