9479 9480
9481 9482

9480
9482

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-9479, 9480, 9481 & 9482.

LOCALITY

State Alaska

General locality Kotzebue Sound

Locality Lower Baldwin Sound

1948-51

CHIEF OF PARTY

A.N.Stewart, Chief of Field Party.
H.A.Paton, Baltimore Photo. Office
~~E.J.Reed, Wash.,D.C. Photo. Office.~~

LIBRARY & ARCHIVES

DATE June 19, 1957

B-1870-1 (1)

9479
9481

DATA RECORD

T-9479,80,81,82

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

Quadrangle Name (IV): T-9479 = ARCTIC LANDING STRIP
T-9480 = CALLAHAN SHELTER CABIN
T-9481 = LOWER ATTIUNIK POINT
T-9482 = SELAWIK STATION

Field Office (II): Portland, Oregon

Chief of Party: A.Newton Stewart

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

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

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): APR 13 1953

Date reported to Nautical Chart Branch (IV): APR 28 1953

Applied to Chart No.

Date:

Date registered (IV): 30 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
~~XXXXXXX~~

Plane Coordinates (IV):

State:

Zone:

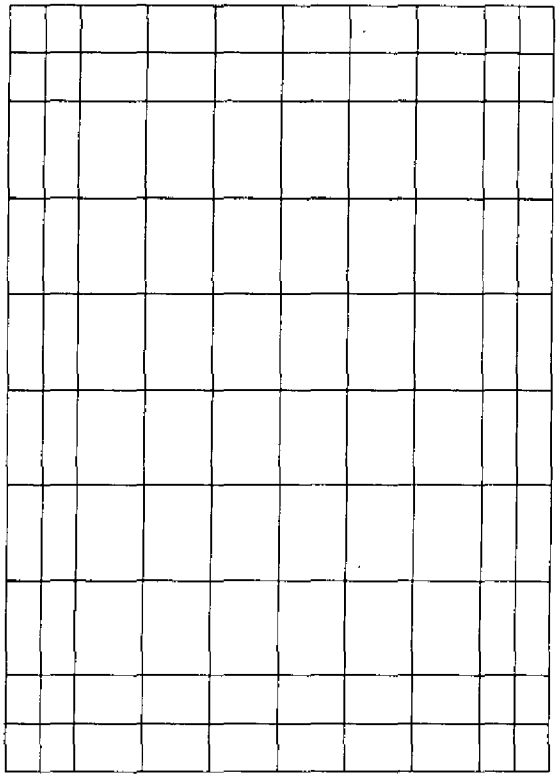
Y=

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)
(Ⅱ) (III)

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

Louis Levin and
Orvis N. Dalbey

M-2618-12 (4)

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, because the instrument photography was dated 1951, the shoreline could be dated 1951 for all practical purposes.

Projection and Grids ruled by (IV): Jack Allen on the Reading Ruling Machine Date: 30 May 1952

Projection and Grids checked by (IV): Howard D. Wolfe Date: 2 June 1952

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

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

Radial Plot or Stereoscopic Control extension by (III): Ruth E.Hartley, and verified by Frank J. Tarcza Date: 13 Aug 52

Stereoscopic Instrument delineation (III): Planimetry and Contours Louis Levin and Orvis N. Dalbey Date: 20 Mar 53

Manuscript delineated by (III): Arthur B.Zimmerli and Robert L. Sugden Date: 15 Apr 53

Photogrammetric Office Review by (III): Louis J. Reed Date: 17 Apr 53

Elevations on Manuscript checked by (III): Louis J. Reed Date: 17 Apr 53

Camera (kind or source) (III): USC&GS 9-lens, model "B", f = 8½"

Number	Instrument PHOTOGRAPHS (III) Date	Time	Scale	Stage of Tide: Eschscholtz Bay		Kotzebue Sound
33818-19	27 Jun 51	1228-29	20,000	-1ft,	~~No Tide~~	-1ft.
33839-42	"	1255-58	"	"	"	"
33860-64	"	1326-31	"	"	"	"
33880-82	"	1356-58	"	"	"	"
33932-33	"	1457-58	"	-1 ft	"	"
33950-52	"	1529-32	"	-1½ ft	"	"
33993-95	"	1634-36	"	-2ft	"	"

Tide (III)

Ratio of Ranges	Mean Range	~~Spring~~ diurnal Range
		~~.6~~
		2.7

Reference Station: ~~Icy Cape~~ Kiwalik

Subordinate Station:

Subordinate Station:

Washington Office Review by (IV): B. J. COLNER Date: 11/25/53

Final Drafting by (IV): P. Lach T-9479, J. Johnson T-9480, P. Lach T-9481, J. Johnson T-9482 Date: 12-29-55, 12-29-55, 1-11-56, 12-30-56

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): "

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

Control Leveling - Miles (II): None

Number of Triangulation Stations searched for (II): Recovered: Identified: 28

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

Number of Recoverable Photo Stations established (III): 9

Number of Temporary Photo Hydro Stations established (III): 4

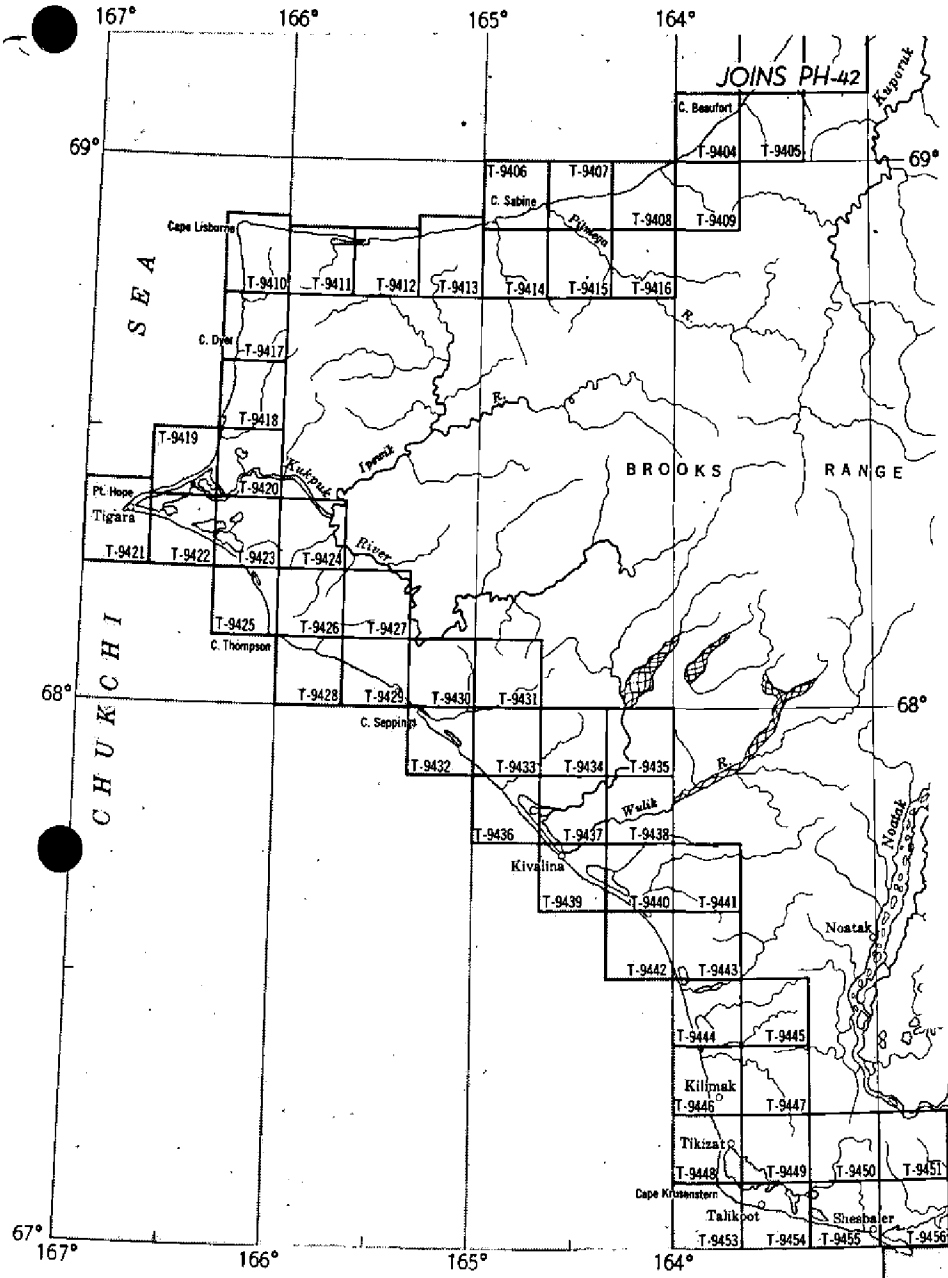
Remarks:

	LAND AREA	200m+ SHORELINE	200m- SHORELINE
T-9479 =	44 sq mi	16 miles	32 miles
T-9480 =	42 sq mi	20 miles	0 miles
T-9481 =	67 sq mi	9 miles	0 miles
T-9482 =	14 sq mi	8 miles	0 miles

M-2618-12 (4)

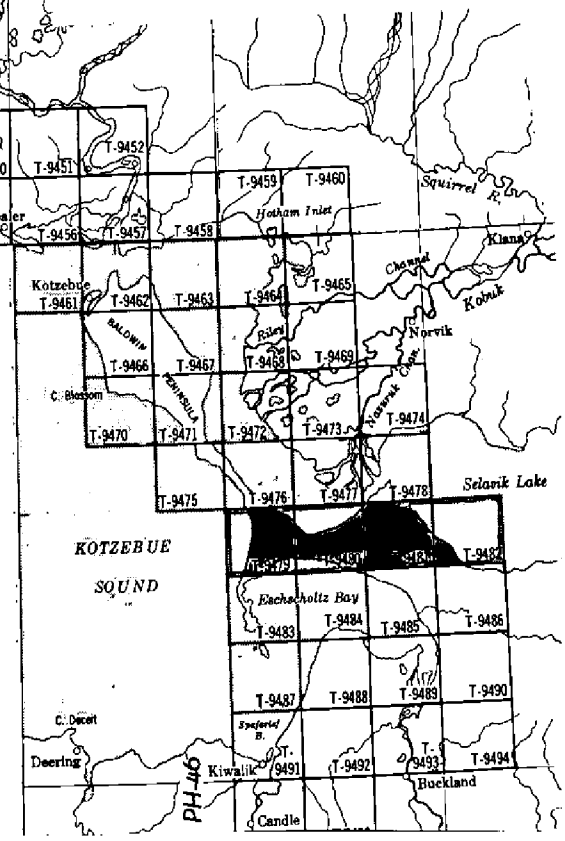
TOPOGRAPHIC MAPPING PROJECT PH-28

ALASKA, Chukchi Sea, Kiwalik to C. Beaufort



OFFICIAL MILEAGE FOR COST ACCOUI

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-9435	1	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-9479 through T-9482

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-7479 through T-9482 are surveys of the area containing the southern portion of the Baldwin Peninsula with Kotzebue Sound to the west, Hotham Inlet and Selawik Lake on the north and east, respectively.

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~~ clear 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

PHOTOGRAMMETRIC PLOT REPORT

Project Ph-28(47)

SURVEYS T-9475 to T-9483, inclusive

21. AREA COVERED

This radial plot covers the area of Surveys T-9475 to T-9483, inclusive, They are topographic surveys situated at the peninsula between Hotham Inlet and Eschscholtz Bay, Alaska. Also included is Choris Peninsula, Alaska.

22. METHOD - RADIAL PLOT

Map Manuscripts

Vinylite sheets with polyconic projections in black and Universal Transverse Mercator grids in red, at a scale of 1:20,000, were furnished by the Washington Office. No base sheets were required as the radial plot was constructed directly on the map projections.

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

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

Photographs

All photographs used are nine lens metal mounted photographs at a scale of 1:20,000. Fifty-three (53) photographs were used in this radial plot numbering as follows:

33815 thru 33821
33839 thru 33845
33859 thru 33864
33879 thru 33885
33903 thru 33905
33930 thru 33933
33950 thru 33952
33972 thru 33977
33990 thru 33997
33999 and 34000

The symbols used on the photographs were given in special instructions for all radial plots using nine-lens photographs which will be used later with a Reading Plotter.

Templets

Vinylite templets were made from all photographs using a master templet furnished by the Washington Office to adjust for error due to chamber displacements. Radial lines were scratched on the templets with a sharp needle point and the scratches were filled in with china marking pencils. Red pencil was used for all shoreline (rectification) pass points and black pencil was used for all other radial lines.

Closure and adjustment to control

The radial plot was constructed directly on the map manuscripts. A preliminary plot was constructed to determine whether there were any badly tilted photographs. The amount of tilt can be estimated by observing the displacement of the image points indicated by red dots on the templets, of shoreline points and points of known elevations. Several of the photographs were found to be slightly tilted but not enough to seriously affect the plot.

The final plot was started at the northern edge of these surveys where the positions of pass points and photograph centers had been established in the previous radial plot. The plot was extended southward holding all control points except Sub. Pt. PERHAPS, 1949. It was impossible to hold this station and tie-in to a fix on photograph 33820. Considerable adjustment was required in the area of BALDWIN, 1949 due to the large water areas and several tilted photographs. The remainder of the plot offered no problems.

Transfer of Points

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

23, ADEQUACY OF CONTROL

There was adequate control for a satisfactory plot.

Sub. Pt. PERHAPS, 1949 could not be held in the plot. The radially plotted position falls 1.5 mm northeast of the computed position. It is believed that the distance measured by the field party is in error. The distance is about 30 meter(100 feet) too short. This appears to be a possible error of one chain length in recording the distance. When the field measurement was applied to the photograph it fell short of the approximate positions of the station which is described as being the highest point of the hill.

24. SUPPLEMENTARY CONTROL

No graphic control surveys were used in this radial plot.

25. PHOTOGRAPHY

Photographic coverage, definition, and overlap between flights were adequate.

No tilt determination was made but several photographs showed evidence of some tilt. However, they had no serious effect on the plot.

26. VERTICAL CONTROL

There were three discrepancies noted during the computations of elevations following the establishment of their positions in the radial plot. The horizontal angles observed for identification purposes in the field were set with a protractor on the manuscripts to verify the identification. The following discrepancies were noted:

V1101 and V1101A - two points on the same lake, their elevations did not agree by 2.5 meters. The horizontal angle to V1101 did not agree by four degrees. A new point was pricked on the lake and the elevations now agree. V1101 was misidentified in the field.

V1131 and V1131A--two points on the same lake, their elevations did not agree by 1.7 meters. No horizontal angles from SCHOLTZ, 1949 are available, so could not be checked. These points will have another check on the elevation from V160, the position for which will be determined in the next plot.

V1135 and V1135A--two points on the same lake, their elevations did not agree by 3.7 meters. Since there are no horizontal angles available from SCHOLTZ, 1949 they could not be checked. There are several other lakes of similar shape in the area and these points may have been identified on the wrong lake. This elevation was rejected as it is not needed.

27. TOPOGRAPHIC STATIONS

All topographic stations have been plotted and shown with 2.5 mm black circles.

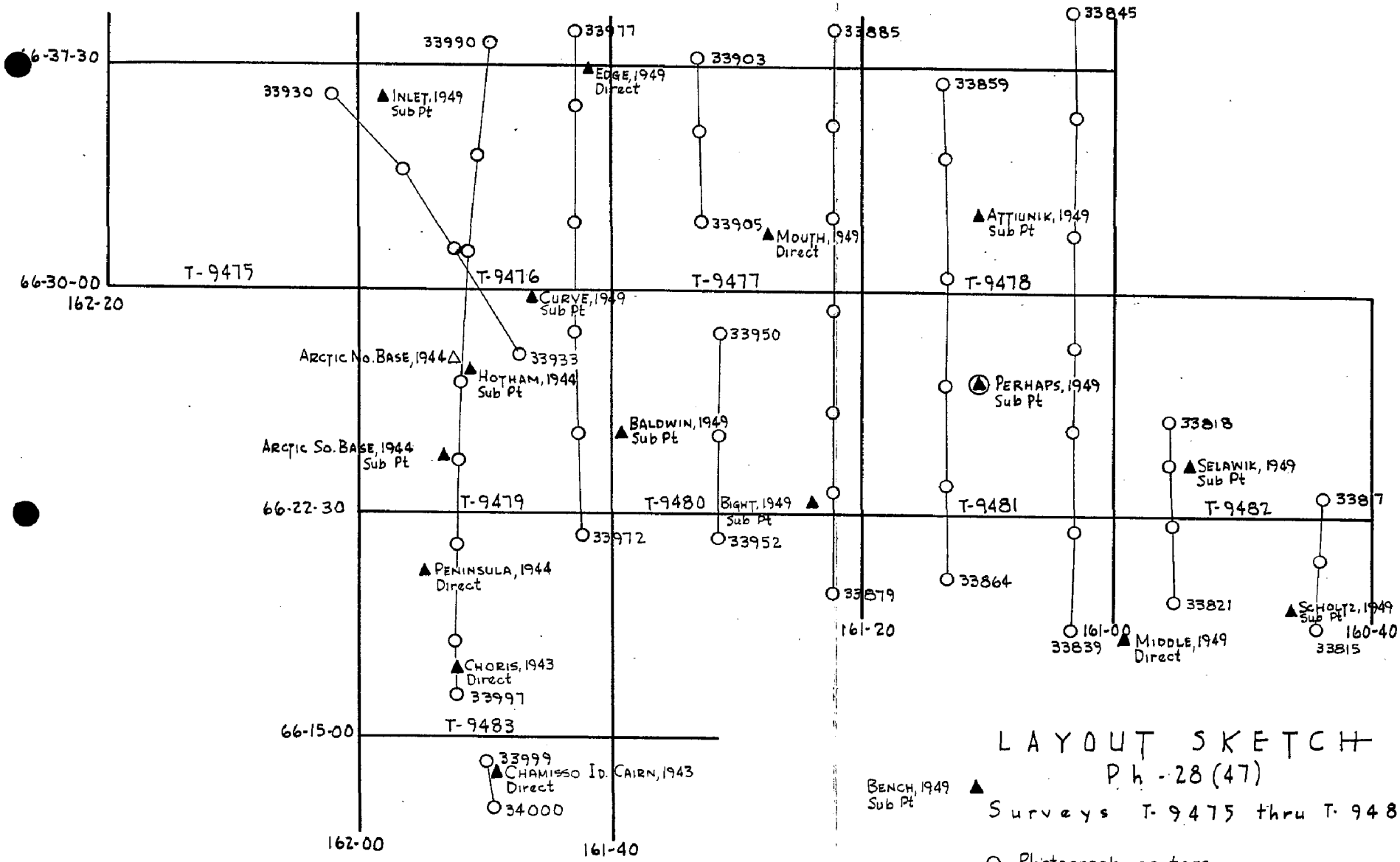
Station PRIM, 1948 was plotted using PEAK 34, 1943 as the azimuth station. However, PEAK 34 is due south instead of east and this locates PRIM incorrectly according to the sketch.

Respectfully submitted
22 July 1952

Ruth R. Hartley
Ruth R. Hartley
Carto. Photo. Aid

Approved and forwarded
24 July 1952.

Hubert A. Paton
Hubert A. Paton
Comdr., C&GS
Officer in Charge



LAYOUT SKETCH

Ph-28(47)

Surveys T-9475 thru T-9483

Bench, 1949 Sub Pt ▲

○ Photograph centers

▲ Control station (identified)

(▲) Control station (not held in plot)

△ Control station (identified in field, not used in plot)

COMPILATION REPORT

31. Delineation:

Cultural features and contours were delineated simultaneously on the Reading Plotter, model "B". The entire area of all four quads of this report was mapped.

32. Control:

Horizontal Control was adequate for a satisfactory radial plot -- refer to side-heading 23, page 9. Vertical Control was adequate for contour delineation; it consisted of many sea-level indications at the shoreline, plus field-established elevations on 8 Δs, 1 peak, and 1 V-station, plus 14 water-surface elevations established by field observations which were computed after the radial plot had fixed their horizontal distances. All elevations were held during instrument delineation.

33. Supplemental Data:

a. Elevation Computations:

"COMPUTATIONS OF ELEVATIONS AND TABULATION OF VERTICAL CONTROL STATIONS FOR SURVEYS T-9479 thru T-9483."

b. Field Inspection Photos:

20670-20673; 20681-20683; 20694-20697; 20888-20891.

34. Contours and Drainage:

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

35. Shoreline and Alongshore Details:

The shoreline inspection was adequate as an indication of the shoreline. Only one short section of shoal line has been delineated - on T-9480.

36. Offshore Details: None.

37. Landmarks and Aids: None.

38. Control for Future Surveys:

9 Topo Stations and 4 Hydro Stations were selected and photo-identified in the field. They have been positioned by the Radial Plot and appear on the manuscripts in correct symbol and name.

39. Junctions:

Junctions exist as shown on page 5; all are in agreement.

40. Horizontal and Vertical Accuracy:

These four manuscripts meet the requirements established by National Map Accuracy Standards for horizontal accuracy (1:20,000 scale), and for vertical accuracy for a 50ft contour interval. However, 25ft supplemental contours have been delineated for nearly the entire area because it is extremely low and level, and these 25ft contours are considered to meet the standard accuracy required of 25ft interval contouring.

46. Comparison with Existing Maps:

No maps of comparable scale exist but this one does cover the same area:

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

47. Comparison with Nautical Charts:

No chart of comparable scale exists but the following chart does cover the same area:

"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 page (14).

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

50. Compilation Office Review: See page 15 following.

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

GEOGRAPHIC NAMES

Survey No.

T-9479, 80, 81, 82

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-9479										1
BALDWIN PENINSULA										2
ESCHSCHOLTZ BAY										3
HOTHAM INLET										4
KOTZEBUE SOUND										5
Arctic Circle Landing Strip (on WAC 76, onshore just SW of VABM 36)										6
T-9480 (this is name used on WAC 76)										7
BALDWIN PENINSULA										8
ESCHSCHOLTZ BAY										9
HOTHAM INLET										10
Callahan Shelter Cabin										11
T-9481										12
BALDWIN PENINSULA										13
HOTHAM INLET										14
SELAWIK LAKE										15
Attiunik Point (title only)										16
T-9482										17
BALDWIN PENINSULA										18
SELAWIK LAKE										19
				Names approved 11-25-83 L. Heck						20
										21
										22
										23
										24
										25
										26
										27

49. Notes for the Hydrographer:

T-9479

a. Topo Stations:

BALL, 1948 identified on photo 20563 also see 524 card
ALEE, 1948 " 20671 "
GALE, 1948 " 20672 "

b. Hydro Stations:

No 770 Identified on photo 20890 and described thereon as: "S gable of unpainted cabin in poor repair"
No 771 Identified on photo 20888 and described thereon as: "NW tip of bluff on S side of gully."

T-9480

a. Topo Stations:

FARM, 1948 identified on photo 20672 also see 524 card
NEST, 1948 " 20860 "
SLAB, 1948 " 20672 "

b. Hydro Stations:

No 852 Identified on photo 20672 and described thereon as: "W tip of sharp bluff on S side of gully."
No ~~No.~~ 852A Identified on photo 20671 and described on the face of the photo in pencil: "Low point or tip of vegetatio on point of bluff."

T-9481

a. Topo Stations:

POST, 1948 identified on photo 20694 also see 524 card

b. Hydro Stations: None

T-9482

a. Topo Stations:

LONE, 1948 identified on photo 20696 also see 524 card
WICK, 1948 " 20696 "

b. Hydro Stations: None

Form T-2

PHOTOGRAMMETRIC OFFICE REVIEW

T- 9479, 80, 81, 82

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-efficient

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 N 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

Chief, Stereoscopic Mapping Branch

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-9479 through T-9482
Topographic Maps
November 25, 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 Surveys.- 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:

R. J. Colner

R. J. Colner

APPROVED:

L C Lande

Chief, Review Branch
Div. of Photogrammetry

Max G Ricketts

Chief, Nautical Chart Branch
Division of Charts

L W Swansey

Chief, Div. of Photogrammetry

18 June '57

Chief, Div. of Coastal Surveys