

9417

9418

11335

Diag. Cht. No. 9400.

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey TopographicField No. Ph-28(47) Office No. T-9417,
T-9418, and
T-11335.

LOCALITY

State AlaskaGeneral locality Point HopeLocality Cape Dyer1948-51

CHIEF OF PARTY

P. Taylor, Chief of Field Party.J. C. Sammons, Chief B'more Photo. OfficeL. J. Reed, Div. of Photo., Wash., D.C.

LIBRARY & ARCHIVES

DATE March 10, 1958

B-1870-1 (1)

DATA RECORD

T - 9417, 9418, and T-11335

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

Quadrangle Name (IV): T-9417 = CAPE LEWIS
 T-9418 = AKALOOKICK CREEK
 T-11335 = LISBURNE HILLS

Field Office (II): Portland, Oregon

Chief of Party: Paul Taylor

Photogrammetric Office (III):

Officer-in-Charge:

Instructions dated (II) (III): Supplement 3 dated 4/12/51

Copy filed in Division of
 Photogrammetry (IV)

Method of Compilation (III): Reading Nine-Lens Plotter

Manuscript Scale (III): 1:20,000

Stereoscopic Plotting Instrument Scale, (III):

Scale Factor (III): 1:1

Date received in Washington Office (IV): JUL 30 1954

Date reported to Nautical Chart Branch (IV):

Applied to Chart No.

Date:

Date registered (IV): 7 June 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

Unadjusted

Plane Coordinates (IV):

State:

Zone:

Y=

X=

Universal Transverse Mercator Grid, Zone 3, interval of 2500m.

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)

(X) (III)

Alternate models of the compilation
area were delineated as follows:

On Reading Plotter, model "A" by:

Clarence E. Misfeldt

On Reading Plotter, model "B" by:

Louis Levin

DATA RECORD

Field Inspection by (II): G. B. Torbert

Date: July 1951

Planetable contouring by (II): None

Date:

Completion Surveys by (II): None

Date:

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

The Mhwl is dated 1951 since it was delineated on the plotting instruments guided by 1951 field identification of the shoreline on nine-lens field photographs.

Projection and Grids ruled by (IV): Austin Riley on the Reading Ruling Machine

Date: 12 Oct 53

Projection and Grids checked by (IV): Charles Hanovich

Date: 12 Nov 53

Control plotted by (III): Wayne L. Lineweaver

Date: 3 Jun 53

Control checked by (III): Albert Queen

Date: 9 Jun 53

Radial Plot ~~not stereoscopic~~

Elmer L. Williams

Date: 28 Jun 53

Control extension by (III):

verified by

Frank J. Tarozza

Date: 4 Jul 53

Stereoscopic Instrument ~~Control~~ ^{delineation by:} ^{Planimetry} Clarence E. Misfeldt

Date:

21 Jan 54

Contours Louis Levin

Date:

compiled by:
Manuscript ~~checked~~ by (III):

John B. McDonald

Date: 26 Jul 54

Photogrammetric Office Review by (III): Louis J. Reed

Date: 29 Jul 54

Elevations on Manuscript
checked by (II) (III):

Louis J. Reed

Date: 29 Jul 54

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

Number	Date	Time	Scale	Stage of Tide
37908 thru 37915	17 Jul 52	0750	1:20,000	None
37930 thru 37933	17 Jul 52	0820	"	"
22725 thru 22727	23 Aug 48	1235	"	"
37949 thru 37953	17 Jul 52	0845 Tide (III)	"	"

Reference Station: Icy Cape
Subordinate Station:
Subordinate Station:

Ratio of Ranges	Mean Range	Spring Range
		.6'

Washington Office Review by (IV): *K. N. Maki*

Date: 25 Jan 1955

Final Drafting by (IV): *F. Johnson T-9417*
F. Johnson T-9418
J. Frazer T-11335

Date: 6-21-56
7-10-56
7-16-56

Drafting verified for reproduction by (IV): *Wm O. Hallum*

Date: 8-6-56

Proof Edit by (IV):

Date:

Land Area (Sq. Statute Miles) (III): T-9417= 45 sq mi; T-9418= 56 sq mi; T-11335= 54 mm
Shoreline (More than 200 meters to opposite shore) (III): 9417 & 18 = 9 mi each; 11335= none
Shoreline (Less than 200 meters to opposite shore) (III): none at all
Control Leveling - Miles (II): none

Number of Triangulation Stations searched for (II):

Recovered:

Identified: **ix six**

Number of BMs searched for (II): none

Recovered:

Identified:

Number of Recoverable Photo Stations established (III): one (on T-9418)

Number of Temporary Photo Hydro Stations established (III): two each on T-9417 & 18 (only)

~~Number of Vertical Control Points established: none in 1951.~~

Remarks:

TOPOGRAPHIC MAPPING PROJECT PH-28

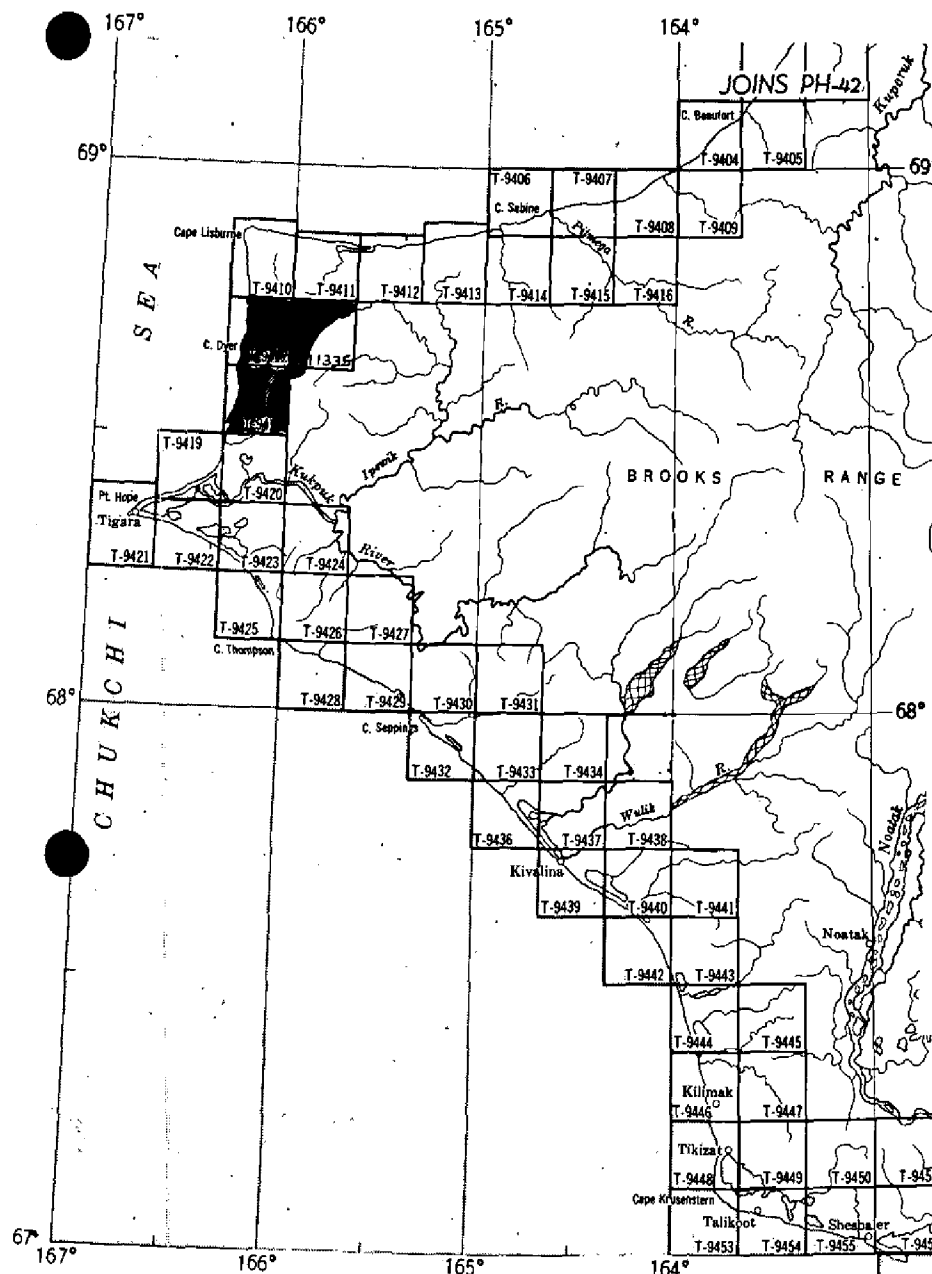
ALASKA, Chukchi Sea, Kiwalik to C. Beaufort

Page 5

OFFICIAL MILEAGE FOR COST ACCOUNT

Sheet No's.	Sq. St. Miles	Sheet No's.	Sq. St. Miles	Sheet No's.	Sq. St. Miles
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	T-11335	...

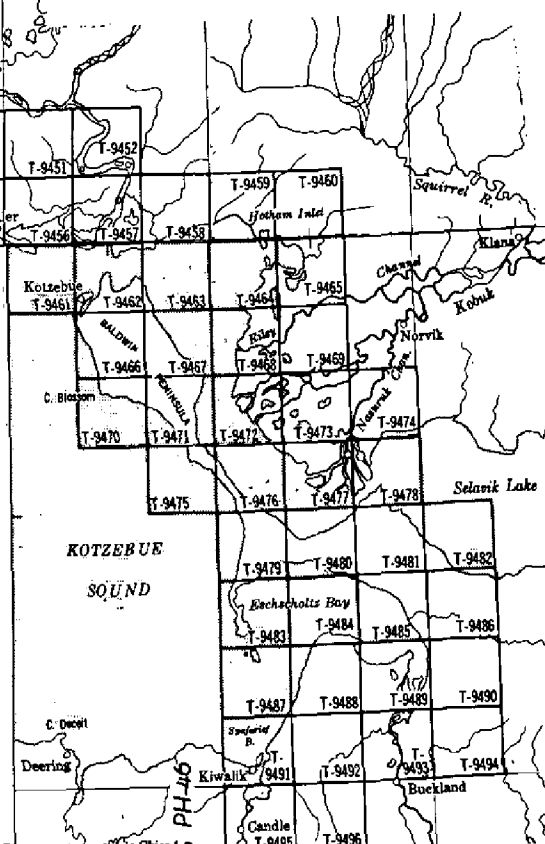
TOTAL



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 Descriptive Report
T-9417, T-9418 and T-11335

Topographic maps T-9417, T-9418 and T-11335 in project Ph-28 cover the coastal area of the Chukchi Sea from the vicinity of Kiliulik Point at latitude $68^{\circ} 30'$, north to latitude $68^{\circ} 45'$ in the vicinity of Oakinik Creek and Cape Lewis and partial coverage eastward to longitude $165^{\circ} 40'$. These maps were compiled on the 9-lens Reading Plotter. Field operations preceding compilation included field inspection, establishment of horizontal control and the determination of elevations required to control a stereo-instrument project vertically. Compilation was at a scale of 1:20,000. Contours were drawn at a 50-foot interval with 25-foot interval supplemental contours. The maps were not field edited.

A cloth-backed lithographic print of each map at manuscript scale, and the combined descriptive report, will be registered and permanently filed in the Bureau Archives.

FIELD INSPECTION REPORT

2-20 See separate report with title exactly as follows:

SEASON'S REPORT

and

FIELD INSPECTION REPORT

Marryatt Inlet to Cape Beaufort, Alaska

Project Ph-28(47)

Season 1951

Paul Taylor

Chief of Party

PHOTOGRAMMETRIC PLOT REPORT

PROJECT FH-28(47)

SURVEYS T-9410 and T-9411, T-9417 to T-9420, incl.

21. AREA COVERED

This radial plot covers the areas of Surveys T-9410, T-9411, and T-9417 to T-9420, inclusive. These are topographic surveys situated along the shore of the Arctic Ocean from Point Hope north to Cape Lisburne.

22. METHOD - RADIAL PLOT

Map Manuscripts:

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

Map manuscripts for Surveys T-9422 and T-9423 which had been compiled previously were used in this plot to insure a good junction between the plots.

All control stations and substitute stations were plotted using 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 are nine-lens metal mounted photographs at a scale of 1:20,000. Fifty (50) photographs were used in this radial plot, numbered as follows:

22723 thru 22727 incl.
27638 thru 27640 "
27651 and 27685 "
27727 and 27728
37908 thru 37917 incl.
37925 thru 37927 incl.
37930 thru 37933 incl.
37936 thru 37944 incl.
37949 thru 37954 incl.
37956 thru 37959 incl.
38047 and 38048

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 the Reading Plotter.

22. METHOD * RADIAL PLOT (CONT'D)

Templets:

Vynylite templets from the radial plot already completed to the south were returned by the Washington office for use in this plot. Vynylite templets were made from all the more recent photographs using a master templet furnished by the Washington office to adjust for errors due to chamber displacements. Radial lines were scratched on the templets with a sharp needle point and the scratches filled in with china marking pencil. Red pencil was used for all shoreline (rectification) pass points and black pencil for all other radial lines.

Closure and Adjustment to Control:

The radial plot was constructed directly on the map manuscripts. A preliminary plot was laid to determine whether there were any badly tilted photographs. Photograph 27651, which had been reported as a tilted photograph in a previous plot for Surveys T-9421 to T-9427 incl., was found to be considerably tilted and was adjusted to the manuscript after the plot was completed. Photograph 37954 was found to be tilted and was laid on top of the other templets. Photographs 37936 thru 37939 of a flight beginning at Cape Lisburne were all tilted. A tilt determination was made for photograph 37938 by the scale-point method and a new templet corrected for tilt was made. This made the plot much more rigid in this area and permitted the by-passing of photograph 37939 which was adjusted last. Three other photographs appeared to have some tilt but not enough to affect the radial plot adversely.

The final plot was laid beginning at the southern end where all points along the junction had been established in the previous plot. It was extended from there northerly to Cape Lisburne and then easterly.

All control was held in this plot except sub pt. EESOOK, 1951. The Station, EESOOK, 1951, was identified and held in the plot.

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 positions were 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 templet as it was removed, and on the manuscript.

23. ADEQUACY OF CONTROL

There was adequate control throughout this radial plot. All the stations were held except as noted in paragraph 22 under Closure and Adjustment of Control.

WEVUK, 1951, which has considerable elevation would not hold on the badly tilted photograph 37939. It was held in the plot with all other photographs.

24. SUPPLEMENTAL CONTROL

None.

25. PHOTOGRAPHY

Photographic coverage was adequate for all areas of the surveys in this plot.

The definition of all photography is good. As already recommended in a previous radial plot report photograph 27651 should not be used. Photograph 37954 is considerably tilted. No tilt determination was made because it was not necessary for the plot. Rectification will probably make it alright for compilation because it is an important photograph. As mentioned in paragraph 22, a tilt determination was made for photograph 37938, by the scale-point method. A new templet was made using a point midway between the nadir point and the isocenter for a radial center.

26. VERTICAL CONTROL

The following discrepancies were noted during computations of elevations following the establishment of their positions in the radial plot:

PEAK 815 (Survey T-9418): The elevation obtained from two stations did not check by 3.4 meters. It is possible that two different points were observed because this peak has a long flat top. In addition, the horizontal angles do not agree with the position established in the plot. The elevation for PEAK 815, should be considered weak.

PEAK 818 (Survey T-9418) and PEAK 826 (Survey T-9417): The elevation obtained for PEAK 818 from SLAB ROCK 1951, does not agree with that obtained from CONTROL 1951, by +63.8 meters.

The elevation obtained for PEAK 826, from CAPE DYER 1951, does not agree with that obtained from CONTROL 1951, by +22.3 meters

For both of these peaks the observations from CONTROL 1951, were rejected arbitrarily because of repeated instances of the observations from CONTROL 1951, to the various vertical control points unaccountably giving difficulty in the computations. PEAK 816, and PEAK 822, are the instances in which the observations from CONTROL 1951, had to be rejected. In the case of PEAK 816, the elevation obtained from two other stations failed to agree with that from CONTROL 1951, by + 12.9 meters. In the case of PEAK 822, the elevation obtained from two other stations failed to agree with that from CONTROL 1951, by + 7.9 meters. In all such cases the identification of the points and the horizontal angles were checked.

PEAK 823 (Survey T-9418): The elevation for this peak has been completely rejected.

The elevation obtained from BIG EAR, 1951, to this peak is higher by 53.7 meters than the elevation of PEAK 815. This is an evident error because PEAK 815, appears relatively higher than PEAK 823, on the

26. VERTICAL CONTROL (CONT'D)

photographs.

Therefore, the observation from BIG EAR, 1951, to PEAK 823, was not acceptable.

The elevation of PEAK 823, obtained from CONTROL 1951, was lower by 2.1 meters than the elevation of PEAK 815, and may be the current elevation of PEAK 823. However, because of the difficulties experienced with other observations from CONTROL 1951, the elevation obtained for PEAK 823, is of doubtful value.

Respectfully submitted
17 August 1953

Elmer L. Williams
Elmer L. Williams
Carto. Photo. Aid

Approved and Forwarded
August 1953

Jack C. Sammons
Jack C. Sammons,
Capt. U.S.C. & G. S.
Officer in Charge

MAP T-9418

PROJECT NO. Ph- 28

SCALE OF MAP.....1:20,000.....

SCALE FACTOR.

[illegible]

1 FT. = 3048006 METER

COMPUTED BY: **W.L. Lineweaver**

DATE 15 May 1953

CHECKED BY: E.L. Williams

DATE 25 May 1953

M-2388-12

COMPILATION REPORT31. Delineation:

Contours and cultural features were delineated simultaneously on the Reading Plotters as show on page 2, this report. All the land area has been delineated on T-9417 and T-9418, but only the NW half of T-11335 has been mapped since photo coverage and control for the balance of the quad was lacking.

32. Control: Adequate; see side-heading 23, page 9, this report.

33. Supplemental Data:

- a. Plotting Instrument Photos (metal-mounts): see page 4.
- b. Field Inspection Photos: 22726, 27, 27, 28, 29, 30, 31.
- c. Vertical Control Brochure: "TABULATION OF ELEVATIONS AND COMPUTATIONS OF ELEVATIONS BY MAP MANUSCRIPTS FOR VERTICAL CONTROL STATIONS IN THE AREA OF MAP MANUSCRIPTS T-9410, T-9411, T-9417, and T-9418 Incl." Project Ph-28(47).
- d. Official Name Sheet: Map prepared and signed by Mr Heck.

34. Contours and Drainage:

Photograph quality was good for contouring purposes and no areas of questionable contours, remain.

35. Shoreline and Alongshore Details:

Shoreline inspection was adequate, and it was used as a guide during the instrument delineation of the MHWL. No low water or shoal lines were located, field or office.

36. Offshore Details: Not applicable; none exist.

37. Landmarks and Aids:

No navigation aids exist in the area but the field inspector recommended the charting of one landmark on T-9418: Twin Mtns, EEVEAGEEK MTNS, 68°37'00" by 166°13'25", ~~coordinates~~ taken from the completed manuscript.
geographic position

38. Control for Future Surveys: See side-heading 49 below.

39. Junctions:

All junctions are in agreement since all quads of this report have been compiled simultaneously with each other and with adjoining quads to the north and south.

40. Horizontal and Vertical Accuracy:

These quads meet the requirements established by National Map Accuracy Standards for maps of a scale of 1:20,000 showing relief by means of contours at a 50ft interval. The supplemental 25ft contour used occasionally in relatively flat areas is even more accurate because of its nearness to datum.

46. Comparison with Existing Maps:

"ALASKA RECONNAISSANCE TOPOGRAPHIC SERIES, SECOND JUDICIAL DIVISION, POINT HOPE, ALASKA, 1:250,000, USGS, 1952.

47. Comparison with Nautical Charts:

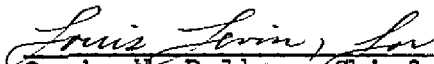
- a. ARCTIC COAST, Alaska, No.9400, 1:1,587,870, May 1946, 6th edition, last correction date of 27 Nov 50.
- b. Provisional Chart, CAPE PRINCE OF WALES TO POINT BARROW, CHUKCHI SEA, Alaska-Arctic Coast, No.9402, 1:750,000, May 1950, 1st edition.

48. Geographic Name List: See page 17, this report.

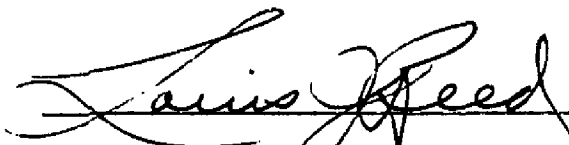
49. Notes for the Hydrographer: See page following, unnumbered.

50. Compilation Office Review: See separate page 18 following.

SUBMITTED BY:


Orvis M. Dalbey, Chief,
Nine-Lens Plotting Instrument Section

APPROVED AND FORWARDED BY:


Louis J. Reed, Chief
Stereoscopic Mapping Branch
Photogrammetric Engineer

Page, 17

[illegible]

PHOTOGRAMMETRIC OFFICE REVIEW

T- 9417, 9418, 11335

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 ✓
9. Plotting of sextant fixes 21 10. Photogrammetric plot report ✓ 11. Detail points 21

ALONGSHORE AREAS

(Nautical Chart Data)

12. Shoreline ✓ 13. Low-water line 21 14. Rocks, shoals, etc. ✓ 15. Bridges 21 16. Aids to navigation 21 17. Landmarks ✓ 18. Other alongshore physical features ✓ 19. Other along-shore cultural features 21

PHYSICAL FEATURES

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

CULTURAL FEATURES

27. Roads 21 28. Buildings 21 29. Railroads 21 30. Other cultural features 21

BOUNDARIES

31. Boundary lines 21 32. Public land lines 21

MISCELLANEOUS

33. Geographic names ✓ 34. Junctions ✓ 35. Legibility of the manuscript ✓ 36. Discrepancy overlay 21 37. Description report ✓ 38. Field inspection photographs ✓ 39. Forms ✓
40. 21

41. Remarks (see attached sheet)

Louis J. Reed
 Supervisor, Review Section or Unit
 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-9417, T-9418 and T-11335
Topographic Maps
25 January 1955

62. Comparison with Registered Topographic Surveys:

T-2337 rec. 1:1,000,000 1898

The area of these surveys is covered by T-2337 which is a reconnaissance sketch credited to the work of a native attached to the survey party.

63. Comparison with Maps of Other Agencies:

Point Hope, Alaska (Reconnaissance) U.S.G.S., 1:250,000, 1952

No effective comparison can be made between these surveys and the U.S.G.S. survey because of the small scale and generalized detail of the latter.

64. Comparison with Contemporary Hydrographic Surveys:

No hydrographic surveys have been accomplished by the Bureau in the area of these maps.

65. Comparison with Nautical Charts:

9400 1:1,587,870, corrected to 6/30/52

The small scale of the chart precludes any comparison between the chart and these surveys.

66. Adequacy of Results and Future Surveys:

These maps are adequate for use in hydrographic surveys and the construction of nautical charts. These maps meet the National Standard of Map Accuracy.

Reviewed by:

K. N. Maki
K. N. Maki

APPROVED:

L. C. Lande
Chief, Review Section
Photogrammetry Division

Max Skelton
Chief, Nautical Chart Branch
Charts Division

John L. Bull
Chief, Photogrammetry Division

W. L. Lene
Chief, Coastal Surveys Division