

9361

Diag. Cht. No. 9400

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Planimetric

Field No. Ph-42 (49) Office No. T-9361

LOCALITY

State Alaska

General locality Chukchi Sea

Locality Kuk River

194 9

CHIEF OF PARTY

Hubert A. Paton, Chief of Field Party

Hubert A. Paton, Baltimore Photo. Office

LIBRARY & ARCHIVES

DATE May 7, 1956

9361

DATA RECORD

T - 9361

Project No. (II): Ph 42 (49) Quadrangle Name (IV):

Field Office (II): Barrow, Alaska

Chief of Party: Hubert A. Paton

Photogrammetric Office (III): Baltimore, Maryland

Officer-in-Charge: Hubert A. Paton

Instructions dated (II) (III): Field 4 February, 1948
15 February, 1949
Office 16 January, 1950
5 Jan 1950

Copy filed in Division of
Photogrammetry (IV)

Method of Compilation (III): Graphic

Manuscript Scale (III): 1:40,000

Stereoscopic Plotting Instrument Scale (III):

Scale Factor (III): 1.000

OCT 29 1952

Date received in Washington Office (IV):

Date reported to Nautical Chart Branch (IV):

NOV 3 1952

Applied to Chart No.

Date:

Date registered (IV):

3-13-56

Publication Scale (IV):

Publication date (IV):

Geographic Datum (III): Barrow, 1945

Correction figures to N.A. 1927 (Preliminary)
are available.

May, 1953. LTS

The difference between Point Barrow, 1945 Datum *
and preliminary N.A. 1927 Datum is Lat. plus/minus
40 m. and Long. ~~plus~~/minus 153 m.

Reference Station (III): WAINWRIGHT, 1947

Omitted in compliance with project instructions.
Lat.: Long.:

Vertical Datum (III): MHW (Approx)

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

Preliminary Adjusted ~~Corrected~~
Unadjusted

Plane Coordinates (IV):

State:

Zone:

Y=

X=

*The difference between Preliminary NA 27 Datum and the NA 27 Datum
(adjusted) positions are within plotting tolerance. Therefore,
the compilation can be used without applying any additional Datum
correction. *lch.*

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)

Planimetric

DATA RECORD

Field Inspection by (II):

Date: *Control, 1948*

Planetable contouring by (II):

Date:

Completion Surveys by (II):

Date:

Mean High Water Location (III) (State date and method of location): 7-23-49
Photogrammetric

Projection and Grids ruled by (IV): T. L. Janson

Date: 1-30-50

Projection and Grids checked by (IV): H. R. Cravat

Date: 1-30-50

Control plotted by (III): M. F. Kirk

Date: 2-2-50

Control checked by (III): L. A. Senasack

Date: 2-8-50

Radial Plot ~~or~~ Stereoscopic

Date: 2-14-50

Control extension by (III): F. J. Tarcza

8-24-51

Planimetry

Date:

Stereoscopic Instrument compilation (III):

Contours

Date:

Manuscript delineated by (III):
M. F. Kirk
E. L. Williams
J. Y. Council
C. M. Kable

3-1-50
Date: 2-9-51
3-12-51
8-15-52

Photogrammetric Office Review by (III): E. L. Williams

Date: 10-15-52

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

Date:

Camera (kind or source) (III): U. S. Navy, single lens, focal length 6"

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
KAS-2 - 011 thru 026	7-23-49	unknown	1:40,000	approx 0.6' below MLLW
2 - 048 " 055	"	"	"	"
4 - 010 " 019	7-26-49	"	"	approx 0.9' below MLLW
BAR - 170-035 thru 047	7-1-49	"	"	unknown
170-066 " 076	"	"	"	"
170-097 " 110	"	"	"	"
170-126 " 135	"	"	"	"
170-157 " 163	"	"	"	"
170-183 " 189	"	"	"	"
171-013 " 018	"	"	"	"
171-038 " 042	"	"	"	"
171-065 " 068	"	"	"	"
191-183 " 186	7-6-49	"	"	"

Tide (III)

From actual tide observations at

Reference Station: Point Lay Camp, Kasegaluk Lagoon

Subordinate Station:

Subordinate Station:

Ratio of Ranges	Mean Range	Spring Range
	0.5	

Washington Office Review by (IV):

Date: 22 May, 1953

Final Drafting by (IV): P. C. LACH

Date: JUNE 28, 1955

Drafting verified for reproduction by (IV):

Date:

Proof Edit by (IV):

Date:

Land Area (Sq. Statute Miles) (III): 230 sq. mi.

Shoreline (More than 200 meters to opposite shore) (III): 90 mi.

Shoreline (Less than 200 meters to opposite shore) (III): None

Control Leveling - Miles (II):

Number of Triangulation Stations searched for (II): None

Recovered:

Identified: 20*

Number of BMs searched for (II):

Recovered:

Identified:

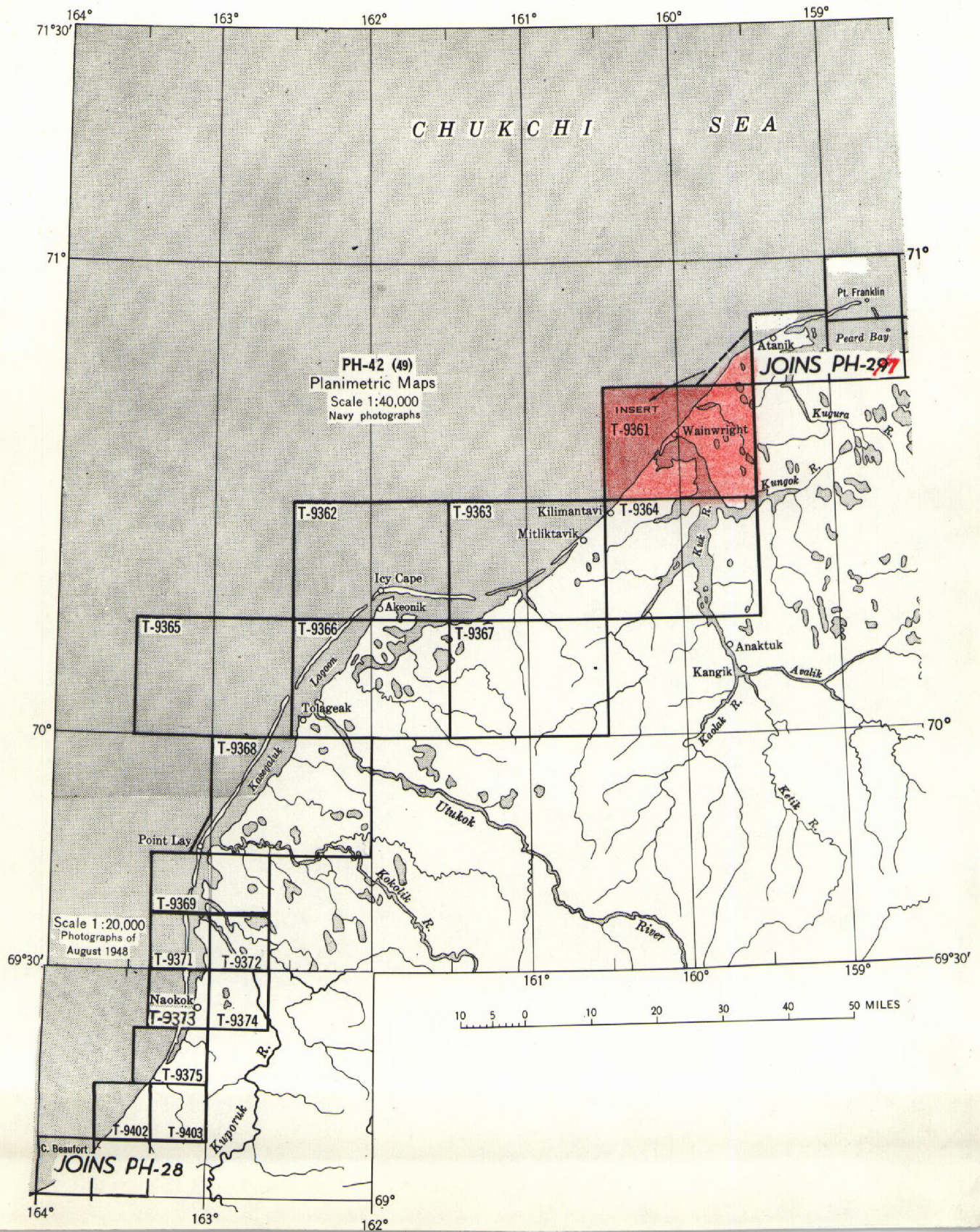
Number of Recoverable Photo Stations established (III): None

Number of Temporary Photo Hydro Stations established (III): None (see item 38)

Remarks: * of the 25 stations established in 1947 and 1948, 20 were identified.

PLANIMETRIC MAPPING PROJECT PH-42

ALASKA, Chukchi Sea, C. Beaufort to Atanik



Summary to Accompany
Planimetric Map T-9361

Ph-42(49) is that part of continuing project CS-320 (which includes the whole Arctic Coast, of Alaska) extending from $69^{\circ} 07\frac{1}{2}'$ to $70^{\circ} 49\frac{1}{2}'$, i.e., from the north limit of Ph-28(47) to the south limit of Ph-27(47).

Ph-42(49) has 17 maps, -T-9361-69; T-9371 to 75; and T-9402 and T-9403. T-9361 is the most northern map in the project.

Field work consisted solely of control station establishment in 1948. The area was photographed by the Navy in July 1949. Prior to laying the radial plot the 1948 control was pricked on the 1949 vertical photographs by the aid of oblique pictures of the control station. These obliques were flown by the Navy at 3,000 feet and at 1,000 feet in July and August 1949.

After all the maps in the project have been reviewed, reproduced, and registered, a Completion Report will be written and filed in the Bureau Library under the project number. This report will include a brief text describing the project; any important correspondence; copies of the various instructions and special reports; statistical data; and a list of data not bound with the Completion Report, but filed elsewhere.

22. METHOD (continued)

Transfer of photogrammetric points

The positions of pass points and photograph centers were transferred to the map projection sheets by pricking the intersections of radial lines down through all templates to the sheets on which radial plot was laid.

23. ADEQUACY OF CONTROL

The amount and distribution of control was adequate for a satisfactory radial plot.

One ~~one~~ station, SUB. PT. No. 2, ELMER, 1949, which was definitely identified, could not be held in the radial plot. The radially-plotted position falls 2.3 mm northeast of its geographic position. With the aid of a low oblique photograph the station was identified direct and the distance to the substitute point was found to be in error by about 90 meters. This appears to be an error of one chain length (300 feet) in field measurement. T-9369 (see p. 8)

One other station, NEVAT, 1948, could not be held as originally identified. It falls 2.5 mm northeast of the geographic position. Since only a pricking card was available, it is possibly misidentified, but no other area such as that sketched could be found near the correct geographic location. T-9367 (no control)

24. SUPPLEMENTAL DATA

No graphic control surveys were used in this radial plot.

25. PHOTOGRAPHY

Photographic coverage was adequate for a satisfactory radial plot for all necessary shoreline areas. There was no coverage of shoreline on west side of AVAK INLET in the northeast corner of Survey T-9366 but the shoreline of KASEGALUK LAGOON at the mouth of the inlet is completely covered.

The definition of the photographs is excellent. One flight KAS-2-025 to KAS-2-031 was not used in the radial plot because of excessive clouds. Due to urgency of the work, no check was made to determine if any photographs were tilted.

26. OBLIQUE PHOTOGRAPHY

A large number of low oblique photographs were taken of stations with signals visible on them. They were probably taken at an altitude of about 1000 feet. These were helpful in identifying the substitute points as shown in sketches on pricking cards when the immediate areas could be located on vertical aerial photographs. However, they usually covered so small an area that orientation on the verticals was difficult.

Navy: BAR-0V-7-79+
 0V-8-23+
 0V-10-728
] T-9361 to T-9364
 CGS H-20 214671] T-9362 to T-9375

22. METHOD (continued)

Templets

Acetate templets were made of all photographs used in this radial plot. No corrections were made for paper distortion.

Closure and Adjustment to Control

Since no base sheets were furnished, the plot was laid on the map projection sheets. A scale plot was laid on Survey T-9368 with photographs KAS-4-095 to KAS-4-102. It was found that the scale of the photographs 1:39,450 was sufficiently close to 1:40,000 so that no change in the projections was necessary. The immediate area northeast of Survey T-9361 has been compiled previously at 1:20,000. A reduction of Survey T-9007, Project Ph-27(47) was used to transfer pass points from the previous radial plot along the east side of Survey T-9361. These pass points were held in this radial plot, also, along with all control in the area.

Due to length of the radial plot, it was necessary to run it in two parts. The two flights between T-9362 and T-9369 were laid first and after this part was completed, the map projection sheets T-9368 and T-9369 were removed. Then T-9361, T-9363, and T-9364 were added on the east and the radial plot continued northeast, making the entire area actually one radial plot.

Except in Survey T-9369, there were no field photographs available. Low altitude oblique photographs of the immediate area near a number of stations were helpful in identifying the stations. Although pricking cards were available on most stations, they were of no value until the location of the station on the photographs was determined approximately (within one centimeter). Enough control stations were identified to establish a fair preliminary plot, then additional stations could be identified when their approximate location on photographs was known. With additional stations, a satisfactory radial plot was completed. There was difficulty in laying the plot in only two areas. On Survey T-9369 although a good fix was found to start the plot, it could not be extended northward satisfactorily. An additional station, BETH, 1949, was identified from an approximate position and it was found that SUB. PT. ELMER, 1949, could not be held. With the aid of a low oblique photograph, the station, ELMER, 1949, was pricked direct and could be held. It was found that there was an error in chained distance to substitute station of 90 meters (one 300-foot chain length possibly). Since this was one of the stations in the fix, the radial plot was relaid using the new identification and a good radial plot was obtained.

In the southern part of Survey T-9363 there was considerable adjustment necessary before a satisfactory plot was obtained. This was due to having four flights and there in an area with no control.

There were many water centers in the flights along the shoreline. On these flights, photographs which had control were laid first, then the inland flights were laid next using the pass points established by controlled photographs. Then the remainder of the photographs with water centers were laid last. A satisfactory radial plot was completed in all areas.

22. METHOD (continued)

Transfer of photogrammetric points

The positions of pass points and photograph centers were transferred to the map projection sheets by pricking the intersections of radial lines down through all templates to the sheets on which radial plot was laid.

23. ADEQUACY OF CONTROL

The amount and distribution of control was adequate for a satisfactory radial plot.

One ~~one~~ station, SUB. PT. No. 2, ELMER, 1949, which was definitely T-9369 identified, could not be held in the radial plot. The radially-plotted (see p. 8) position falls 2.3 mm northeast of its geographic position. With the aid of a low oblique photograph the station was identified direct and the distance to the substitute point was found to be in error by about 90 meters. This appears to be an error of one chain length (300 feet) in field measurement.

One other station, NEVAT, 1948, could not be held as originally T-9367 identified. It falls 2.5 mm northeast of the geographic position. Since only a pricking card was available, it is possibly misidentified, but (no control) no other area such as that sketched could be found near the correct geographic location.

24. SUPPLEMENTAL DATA

No graphic control surveys were used in this radial plot.

25. PHOTOGRAPHY

Photographic coverage was adequate for a satisfactory radial plot for all necessary shoreline areas. There was no coverage of shoreline on west side of AVAK INLET in the northeast corner of Survey T-9366 but the shoreline of KASEGALUK LAGOON at the mouth of the inlet is completely covered.

The definition of the photographs is excellent. One flight KAS-2-025 to KAS-2-031 was not used in the radial plot because of excessive clouds. Due to urgency of the work, no check was made to determine if any photographs were tilted.

26. OBLIQUE PHOTOGRAPHY

A large number of low oblique photographs were taken of stations with signals visible on them. They were probably taken at an altitude of about 1000 feet. These were helpful in identifying the substitute points as shown in sketches on pricking cards when the immediate areas could be located on vertical aerial photographs. However, they usually covered so small an area that orientation on the verticals was difficult.

Navy: BAR-0V-7-79+ } T-9361 to T-9364
 0V-B-23+ }
 0V-10-78B }
 C X GS H-20 214671 } T-9362 to T-9375

26. OBLIQUE PHOTOGRAPHY (continued)

Also furnished were oblique photographs, taken by U.S. Navy, of stations with signals visible. Two photographs were taken of each station, one at about 1000 feet altitude showing signal and limited surrounding area, and the second at an altitude of about 3000 feet, showing a larger area. The approximate location of the signal was circled on back. These photographs were excellent for station identification. The higher altitude obliques were used to establish the areas of the stations on vertical photographs, then the low altitude obliques were used in pricking the stations direct. By this method, 15 additional stations, for which there was no field information, were pricked direct. Seven others, for which pricking cards and sketches of substitute stations were made, were also pricked direct since they were as readily identified as the substitute stations. The additional computations and plotting, necessary for substitute stations, were eliminated.

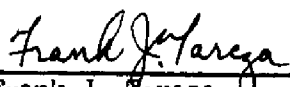
Using the small (USC&GS) oblique photographs, seven additional stations having no pricking cards were identified direct. At several stations it was found possible to see the 16 foot square white target around the station on 1:40,000 scale contact prints.

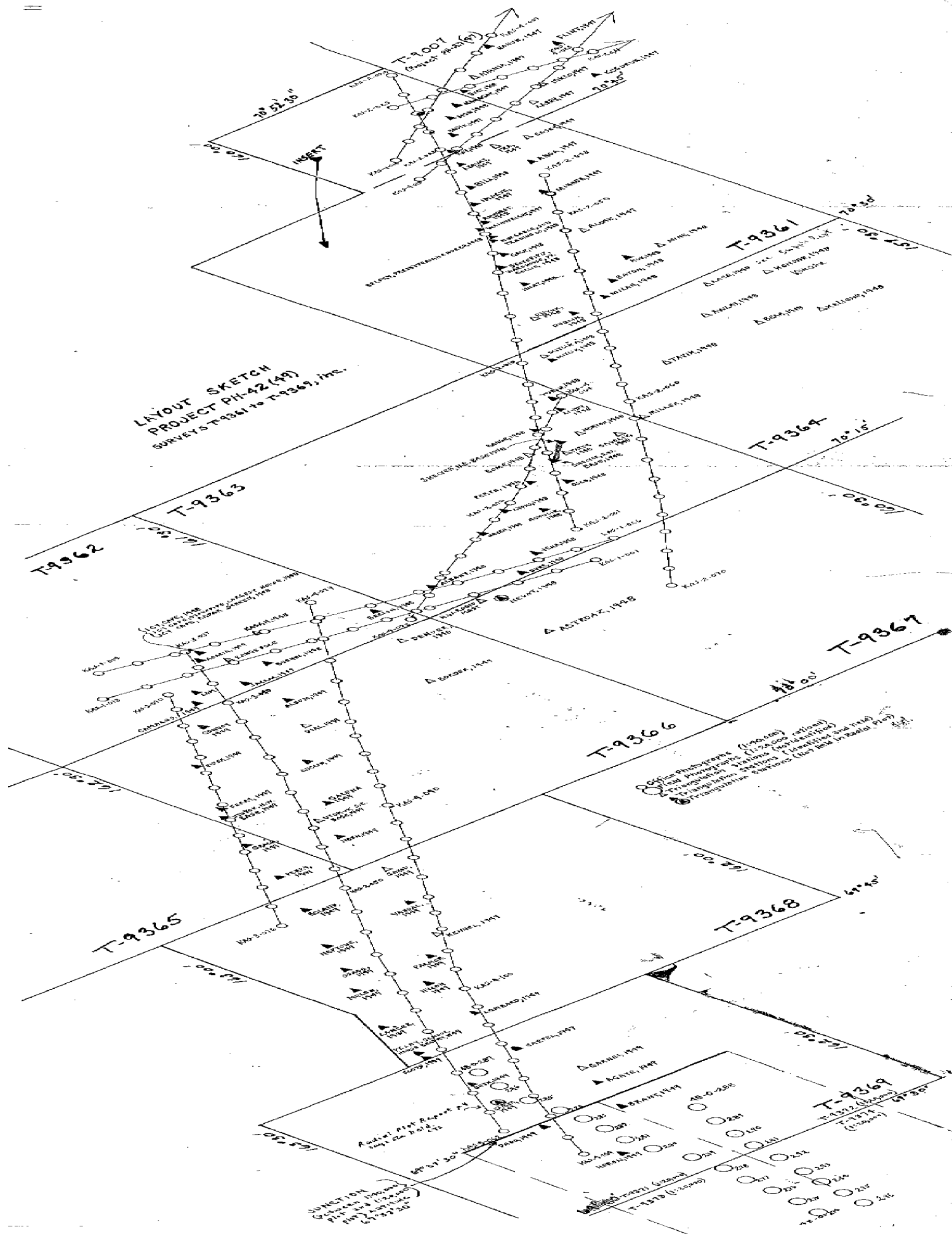
In areas of sand, which show white on photographs, the signals could not be identified except in two or three cases where a shadow was cast by the signal. A black square or triangle on the ground around the station would be preferable in such areas if the aerial photography is taken while the field surveys are in progress such as was the case on this project.

In terrain which has many identifiable features such as small ponds, wet spots, frost cracks, etc. it is possible to identify accurately, on the verticals, any signal which can be seen on the low altitude oblique photographs. With the aid of the higher altitude (3000 feet) obliques to locate the immediate area, accurate station identification is feasible without any additional field information. In areas of sand, open ground without the many identifiable features, etc. it is desirable to establish a substitute station since such sites are usually accessible.

It is suggested that the low altitude photographs be taken with side lighting on the signals so that shadows will be visible and not hidden behind the signal as they would be with the sun directly back of the camera. It is also suggested that both high and low altitude oblique photographs be taken. Low altitude obliques by themselves are difficult to locate on vertical photography without an accurate control layout sketch. Experience with identification on this project has shown that the use of both high and low altitude oblique photographs offers a practical method of control identification in areas where no other field information is available.

Respectfully submitted


Frank J. Tarcza
Cartographer (Photogrammetric)



SUPPLEMENTAL
PHOTOGRAMMETRIC PLOT REPORT
PROJECT PH-42(49)
SURVEY T-9361

26. SUPPLEMENTAL RADIAL PLOT

This supplemental radial plot is an extension eastward of the original radial plot covering Survey T-9361, scale 1:40,000. It was extended using additional photographs furnished for coverage of the interior area of this survey.

The photographs used in this supplemental plot are single lens 9"x9" contact prints, scale 1:20,000, taken by U. S. Navy with 6 inch focal length cameras, dated 7-1-49. Ninety-six (96) photographs were used in the plot and are numbered as follows:

- BAR 169-010 to -024 incl.
- BAR 170-035 to -047 incl.
- BAR 170-066 to -076 incl.
- BAR 170-097 to -110 incl.
- BAR 170-126 to -135 incl.
- BAR 170-157 to -163 incl.
- BAR 170-183 to -189 incl.
- BAR 171-013 to -018 incl.
- BAR 171-038 to -042 incl.
- BAR 171-065 to -068 incl.
- BAR 191-183 to -186 incl.

A sketch showing the distribution of these photographs and of control stations is attached to this report.

The control stations and pass points pricked on 1:40,000 scale photographs used in the original radial plot were transferred to these 1:20,000 scale photographs, and were used as control in this plot. There was no additional control in the interior of the survey. Because of this, conjugate centers were carefully transferred and used entirely for azimuth in extending the plot. One additional station, LACE, 1948, on Survey T-9364 just south of the junction with this survey, was identified in the office. It was off the original photographic coverage. A tripod signal erected over the station was pricked direct.

Acetate templates were made at a scale of 1:40,000 from the 1:20,000 scale photographs by drawing the radial lines inward at a point midway between the photograph centers and image points.

The radial plot was laid directly on the map manuscript. Control stations and the pass points established in the previous radial plot were held and the radial plot was extended eastward across the survey. There

was no difficulty encountered in the northern half of the survey. In the southern half of the survey south and east of MINE, 1948, which was not identified, the wide Kuk River prevented accurate extension of the plot. It was necessary to select pass points in the river on floating ice. Due to the short time interval between photographs in one flight, this was considered satisfactory. However, there is movement of the ice due to wind or tide. Each flight had to be extended individually across the river on azimuth lines and pass points and tied in to command land image points with other flights on the east side of the river. The radial plot showed definite movement of the floating ice upstream on each successive flight northward. All flights were extended to the east edge of the survey and the radial plot appeared satisfactory. Due to the break in continuity at the Kuk River, the radial plot must be considered weak at all points to the east of the river, south of station MINE, 1948.

The positions of pass points and photograph centers were transferred to the map manuscript by turning over the completed plot on a light table and pricking directly on the back of the map manuscript.

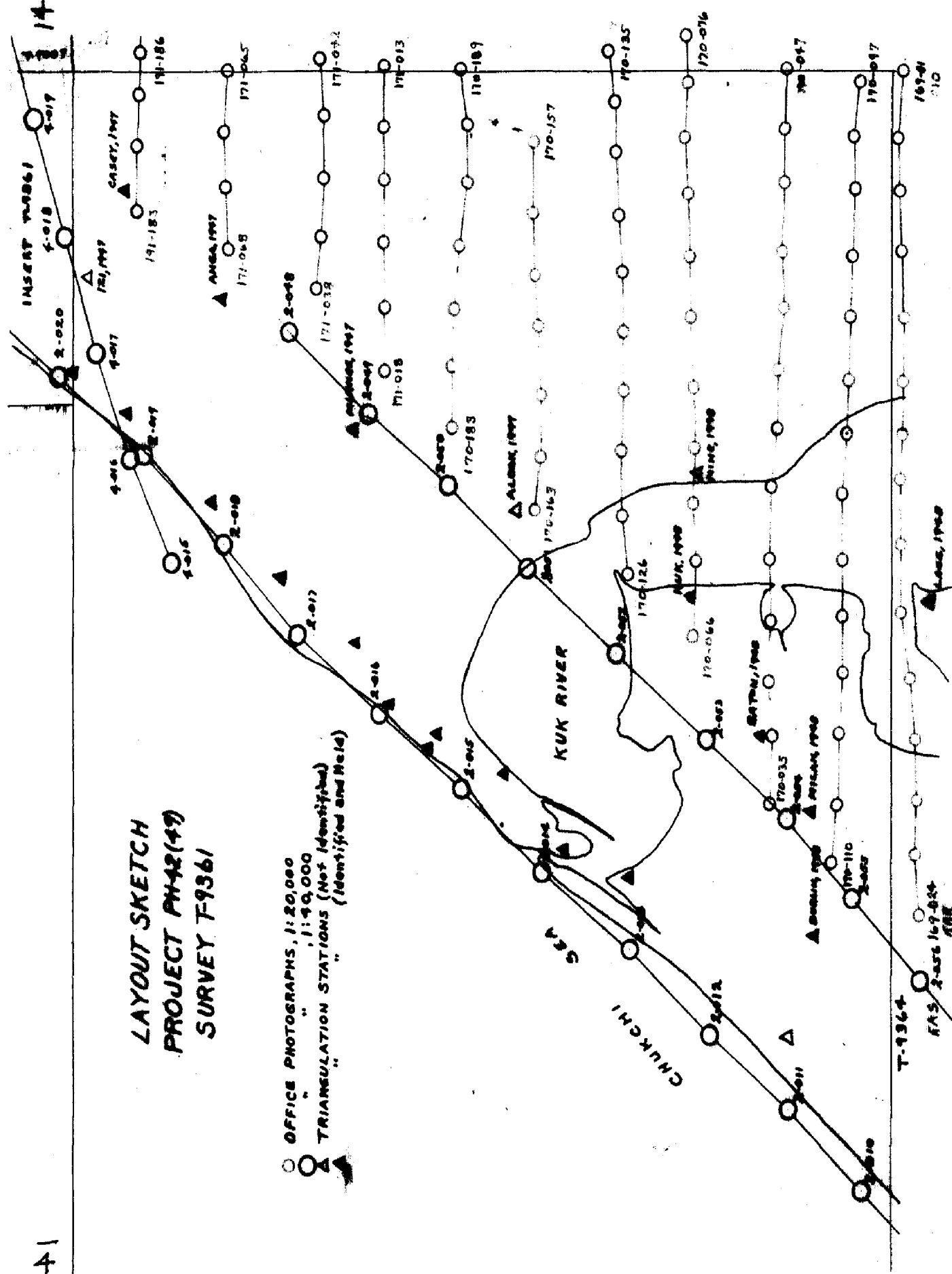
Photographic coverage is adequate for a satisfactory radial plot. The definition of the photographs is good. No investigation was made to determine if any photographs were tilted.

Respectfully submitted

Frank J. Tarcza

Frank J. Tarcza
Cartographic Engineer

OFFICE PHOTOGRAPHS, 1:20,000
" " 1:40,000
TRIANGULATION STATIONS (Not Ident.)



COMPILATION REPORT T-9361

FIELD REPORT

Refer to the "Report on Airphoto Notes, Arctic Coast of Alaska, Point Belcher to Icy Cape, 1948, submitted by Karl B. Jeffers.

No FI Notes
Δ only

31. DELINEATION

This manuscript was delineated by graphic methods. The larger scale photographs were used in the Vertical Projector for application to the manuscript. There was no field inspection except in the immediate vicinity of the control stations.

Keeping in mind that a distinction between higher tundra and lower tundra is peculiar to this project and will be a major feature on the map manuscript as finally drafted, the compiler feels a detailed explanation of his interpretation is necessary. The bottom of the more abrupt slopes of the relatively higher tundra areas was selected as the limit line of the higher tundra. Further generalization of higher tundra was not attempted in order to conform with paragraph 1(d) of the letter to Comdr. Clark dated 5 April, 1950. The lower tundra areas which will be smooth-drafted with an "inundated area" symbol include the old drained lake beds, swampy appearing tundra and some of the drier appearing but relatively lower tundra. "Cave in lakes" and ponds as shown on the manuscript are actual water areas. They do not include areas that are subject to inundation.

32. CONTROL

Refer to the photogrammetric plot reports.

33. SUPPLEMENTAL DATA

The following were available for general information and for geographic names:

- (1) U.S.G.S. Reconnaissance Map of Northwestern Alaska, scale 1:500,000 dated 1930, reprinted 1939.
- (2) U.S.C.&G.S. Chart No 9400, scale 1:1,587,870 published 1-16-50 and corrected to 2-13-50.
- (3) World Aeronautical Chart, Point Hope, Alaska (64), scale 1:1,000,000, third edition, 12-8-48.
- (4) U.S. Navy 9 by 9 oblique photos at large scale in the vicinity of control stations as follows:
BAR-OV- 4-57 to 65 dated 27 July 1949
67,68 " " " "
87 to 90 " " " "

BAR-OV - 7 - 79 to 87 dated 30 July 1949
BAR-OV - 9 - 22 to 25 dated 13 August 1949
 27,28 " " " "
BAR-OV -10 - 7,8 dated 27 August 1949

U.S. Navy photos were available at scale 1:20,000 along the ocean shoreline (extensions of the flight lines in the interior). These were used for interpretation purposes but not in the radial plot and are not shown on the manuscript.

34. CONTOURS AND DRAINAGE

Contours - not applicable.

Drainage - Only very prominent gullies and beaded or braided streams in which water is visible are shown. In places where streams cut through areas of higher tundra the narrow areas of lower tundra were not shown to avoid confusion and clutter along the stream lines.

35. SHORELINE AND ALONGSHORE DETAILS

No shoreline inspection was furnished. The delineation of the MHW and MLLW lines were based on office interpretation of the photographs.

36. OFFSHORE DETAILS

None.

37. LANDMARKS AND AIDS

No information was furnished the compilation office regarding landmarks and aids except that on hydrographic survey No. H-7660 (1948) the following control stations are labeled landmarks:

WAINWRIGHT MIDNIGHT SUN TRADING CO.,
N. W. GABLE, 1948

POINT COLLIE, WAREHOUSE STOVEPIPE, 1948

38. CONTROL FOR FUTURE SURVEYS

Refer to the hydrographic surveys for hydrographic signals established in connection with those surveys.

39. JUNCTIONS

Junction to the N.E. with survey No T-9007 (1948), project Ph 27(47) has been made and is generally in agreement. *

Junction with survey No. T-9364 to the south has been made and is in agreement.

40. HORIZONTAL AND VERTICAL ACCURACY

Refer to the photogrammetric plot report regarding the southeast part of this survey.

41. HYDROGRAPHIC SURVEYS

Copies of the following hydrographic surveys were available for general comparison:

H - 7660 (1948) scale 1:20,000
H - 7663 (1948) scale 1:40,000
H - 7664 (1948) scale 1:40,000

42-45

Inapplicable

46. COMPARISON WITH EXISTING MAPS

This manuscript was compared with the following maps:

U.S.G.S. Reconnaissance Map of Northwestern Alaska, Map 47, scale 1:500,000 dated 1930, reprint of 1939.

47. COMPARISON WITH CHARTS

This manuscript was compared with the following charts:

(1) U.S.C. & G.S. Chart No 9400 scale 1:1,587,870 published 1-16-50 corrected to 2-13-50.

(2) U.S.C. & G.S. World Aeronautical Chart, Point Hope (64) scale 1:1,000,000 published 12-8-48.

* Ph-27(47) does not use the inundation symbol to differentiate low tundra from higher tundra, therefore only drainage lines match.

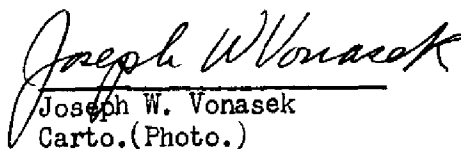
Items to be applied to nautical charts immediately:

None


Items to be carried forward:

None

Respectfully submitted


Joseph W. Vonasek
Carto. (Photo.)

Approved and forwarded


Hubert A. Paton
Comdr. U.S.C. & G.S.
Officer in Charge

48. GEOGRAPHIC NAMES

- Alatakrok River
- Chukchi Sea
- Karmuk Point
- Kuk River
- Point Belcher
- Point Marsh
- Sinaruruk River
- Wainwright
- Wainwright Inlet
- Wainwright Lagoon *

- Point Collie
- Kungok River

~~Aulakuruk R~~ *agw*
Sinaruruk River

* From Coast Pilot, Alaska supplement dated 1-1-51.

*Names approved 5-21-53
L. Heck*

49. NOTES TO HYDROGRAPHER

None

T-9361

NOTES TO REVIEWER

According to Comdr. Paton, the name Chukchi Sea is preferable to Arctic Ocean in this area.

He also states that the long sand bars contain no appreciable amounts of gravel.

These are two pond shorelines that do not join at the junction with survey No T-9007. It is believed that T-9007 should be corrected.

BGN decision.

50.

PHOTOGRAMMETRIC OFFICE REVIEW

T. 9361

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 None
9. Plotting of sextant fixes None 10. Photogrammetric plot report ☒ 11. Detail points ☒

ALONGSHORE AREAS

(Nautical Chart Data)

12. Shoreline ☒ 13. Low-water line ☒ 14. Rocks, shoals, etc. ☒ 15. Bridges None 16. Aids to navigation None 17. Landmarks ☒ 18. Other alongshore physical features ☒ 19. Other along-shore cultural features ☒

PHYSICAL FEATURES

20. Water features ☒ 21. Natural ground cover ☒ 22. Planetable contours None 23. Stereoscopic instrument contours None 24. Contours in general None 25. Spot elevations None 26. Other physical features ☒

CULTURAL FEATURES

27. Roads None 28. Buildings ☒ 29. Railroads None 30. Other cultural features ☒

BOUNDARIES

31. Boundary lines ☒ 32. Public land lines None

MISCELLANEOUS

33. Geographic names ☒ 34. Junctions ☒ 35. Legibility of the manuscript ☒ 36. Discrepancy overlay None 37. Descriptive Report ☒ 38. Field inspection photographs None 39. Forms ☒
40. E. L. Williams Frank J. Tarcza
Reviewer Supervisor, Review Section or Unit

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
Planimetric Map T-9361
22 May 1953

62. Comparison with Registered surveys:-There are no earlier surveys for this area.

63. Comparison with Maps of Other Agencies.-

USGS Wainwright, Alas. (reconnaissance) 1:250,000 ed. 1951

The scale of this map affords a basis for superficial comparison only. There is no conflict in the general form of the shoreline and interior character.

64. Comparison with Contemporary Hydrographic Surveys.-

H-7663 Atanik to Wainwright Inlet, 1:40,000, 1948

A detailed comparison was made between the alongshore depth curve and the shoreline delineated on T-9361. Elevs

The shoreline north of 70° 44' extends beyond the 6-foot depth curve as much as 200 feet in the Pt. Belcher area. This shoreline was drawn from photographs taken a year after the hydrographic survey was made. What may have been a former lagoon back of a sandbar is now large ponds shut off from the sea by a ridge of sand that is at least 10 feet high in places and is probably advancing seaward.

H-7664 Wainwright Inlet to Akoliakotot Pass, 1:40,000, 1948

The shoreline from T-9361 had already been applied to H-7664. Minor changes were made during review to the east side of the Pt. Marsh bar.

65. Comparison with Nautical Charts.-

9400 1:1,587,870 at 70°00' ed. May 1947, rev. June 1952

The small scale of this chart precludes more than a cursory comparison.

66. Accuracy - A strip along Chukchi Sea about 5 miles wide is well controlled and is accurately delineated. The remaining portion southeast of this strip is without control so that it is only a quality to meet the needs of an inshore area of nautical charts. ✓

Reviewed by

Lena T. Stevens
Lena T. Stevens

T-9361
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APPROVED

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HORIZONTAL DATUM ADJUSTMENT

CHUKCHI SEA, ALASKA

Corrections to Preliminary N.A. 1927 Datum from the various independent horizontal datums on the coast of the Arctic Ocean and Chukchi Sea in Alaska have been determined by the Division of Geodesy, being computed from field positions, allowing for closure in azimuth and length. This procedure was started at adjusted N.A. 1927 Datum stations at about the 63rd Parallel on the Canadian Boundary, following the 141st Meridian (IBC Datum) to the Arctic Ocean, thence westward through the Barter Island and Flaxman Island Datums, and southwestward through the Point Barrow 1945 Datum, to a connection with N.A. 1927 Field Datum in the area of Kotzebue Sound off Chukchi Sea. The position of the stations in this area is subject to further adjustment after more geodetic field work.

PLANIMETRIC MAPPING PROJECT

Ph-42(49)

Cape Beaufort to Atanik

T-9361 through T-9369
and

T-9371 through T-9375, T-9402 & T-9403

The correction from Point Barrow 1945 Datum to Preliminary N.A. 1927 Datum was computed for each map by multiplying the correction in seconds to the value of one second in latitude and longitude at the latitude of the reference station of each map. This correction was recorded with the following stamp:

The difference between Pt. Barrow 1945 Datum
and preliminary N.A. 1927 Datum is lat. plus/minus
40 m. and Long. plus/minus X m.

*The value of one second in meters
varies from 11.030 m. (T-9402) to
10.276 m. (T-9361).

in the Descriptive Report on the first page of the data record, and on each manuscript near the title block.

See the Special Report on Corrections from the Point Barrow 1945 Datum to Preliminary N.A. 1927 Datum, filed with the completion report for Ph-42(49) for a Project Index showing the correction for each map in this project.