9095
thru
9099

Diag. Cht. No. 8865-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey TOPOGRAPHIC

Field No. *Office No.* T-9095 thru T-9099 (5 Quads)

LOCALITY

State ALEUTIAN ISLANDS, ALASKA

General locality NEAR ISLAND GROUP

Locality AGATTU ISLAND

1946-48

CHIEF OF PARTY
A.P.Ratti, Chief of Field Party
Division of Photo., Wash., D.C.

LIBRARY & ARCHIVES

DATE Dec 28 - 1950

8-1870-1 (1)

9095 thru 9099

DATA RECORD

T- 9095,6,7,8,9

Project No. (II): Ph-34(48) (CS-218) Quadrangle Name (IV): Agattu I,II,III,IV,V.

Field Office (II): USS Surveyor Chief of Party: A.P.Ratti

Photogrammetric Office (III): Washington, D.C. Officer-in-Charge: Louis J. Reed, Chief, Stereoscopic Mapping Section

Instructions dated (II) (III): Copy filed in Division of Photogrammetry (IV) Office Files

(II) 25 March 44 (CS-218), 10 March 44 (Ph-34)

(III) 8 April 48

Method of Compilation (III): Reading Plotter No1.

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

Scale Factor (III): 1:1

Date received in Washington Office (IV): 1-18-50 Date reported to Nautical Chart Branch (IV): 1-20-50

Applied to Chart No. Date: Date registered (IV): 6-6-50

Publication Scale (IV): 1:25,000 Publication date (IV):

Geographic Datum (III): NA 1927 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:

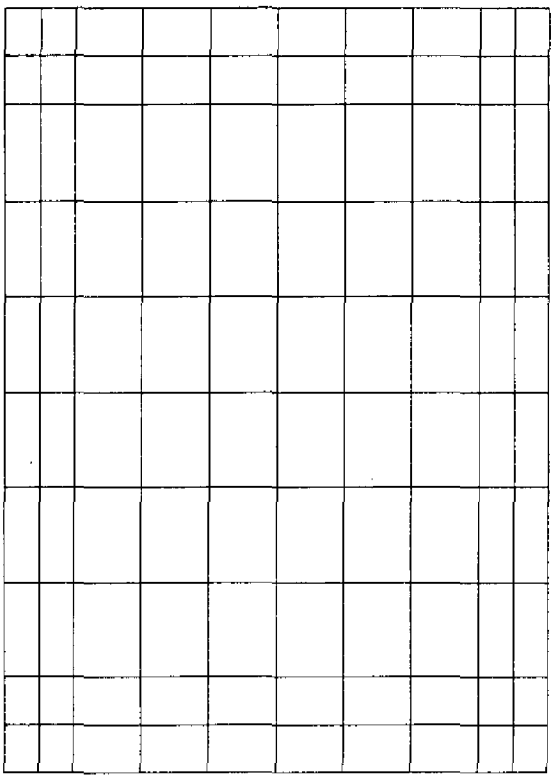
Y= X=

Universal Transverse Mercator Grid, military grid zone No.59 and 60 covers the area of these manuscripts but is not drawn thereon since the grid was too skewed from the normal to be applied with the Reading Ruling Machine. See p.4 "Remarks"

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)

90% delineated by Clarence E. Misfeldt
10% " " Orvis N. Dalbey

on

Reading Plotter No.1

M-2618-12(4)

DATA RECORD

Field Inspection by (II): A.P.Ratti Date: 1946

Planetable contouring by (II): none Date:

Completion Surveys by (II): none Date:

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

Shoreline established by 1946 field inspection

Projection ~~and Grids~~ ruled by (IV): Reading Ruling Machine Date: 21 Jul 49

Projection ~~and Grids~~ checked by (IV): Theodore L. Jancen Date: 21 Jul 49

Control plotted by (III): Frank J. Tarcza Date: 10 May 49

Control checked by (III): Robert L. Sugden Date: 26 Jul 49

Radial Plot ~~and Stereoscopic Instrument compilation~~ by (III): Frank J. Tarcza of the B'more Photogrammetric Office Date: 10 May 49

Stereoscopic Instrument compilation (III): (Reading Plotter No.1) Planimetry Misfeldt and Dalbey Date: 25 Aug 49 Contours Date:

Manuscript delineated by (III): (compilation) Robert L. Sugden Date: 15 Dec 49

Photogrammetric Office Review by (III): Louis J. Reed Date: 20 Dec 49

Elevations on Manuscript checked by ~~(II)~~ (III): Louis J. Reed Date: 20 Dec 49

M-2618-12(4)

Camera (kind or source) (III): USC & GS 9-lens, 8¼" focal length

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
23936-44 23947-55 23958-66 23971-75	13 Oct 48	(165°W) 12:30	1:20,000	2.4' above MLLW

Additional photography:

U.S.N.	1946	1:10,000 (field inspection)
48-0-6777o728	10 Oct, 1948	1:28,000
U.S.N	Sept-Oct, 1943	1:26,000
"	Aug 1944	1:15,000

Tide (III)

Diurnal

Ratio of Ranges	Mean Range	Range
1		3.4

Reference Station:

Subordinate Station: Otkriti Bay

Subordinate Station:

Washington Office Review by (IV): K. N. Maki Date: 9 May 1950

Final Drafting by (IV): 9095 9096 9097 9098 9099 M. Day, J. Bottley Date:

Drafting verified for reproduction by (IV): 9095 9096 9097 9098 9099 C. Kupiec Date: 11-13-50

Proof Edit by (IV): Date: 11-14-50

Land Area (Sq. Statute Miles) (III):

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): none

Number of Triangulation Stations searched for (II): Recovered: Identified: 47

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

Number of Recoverable Photo Stations established (III): none

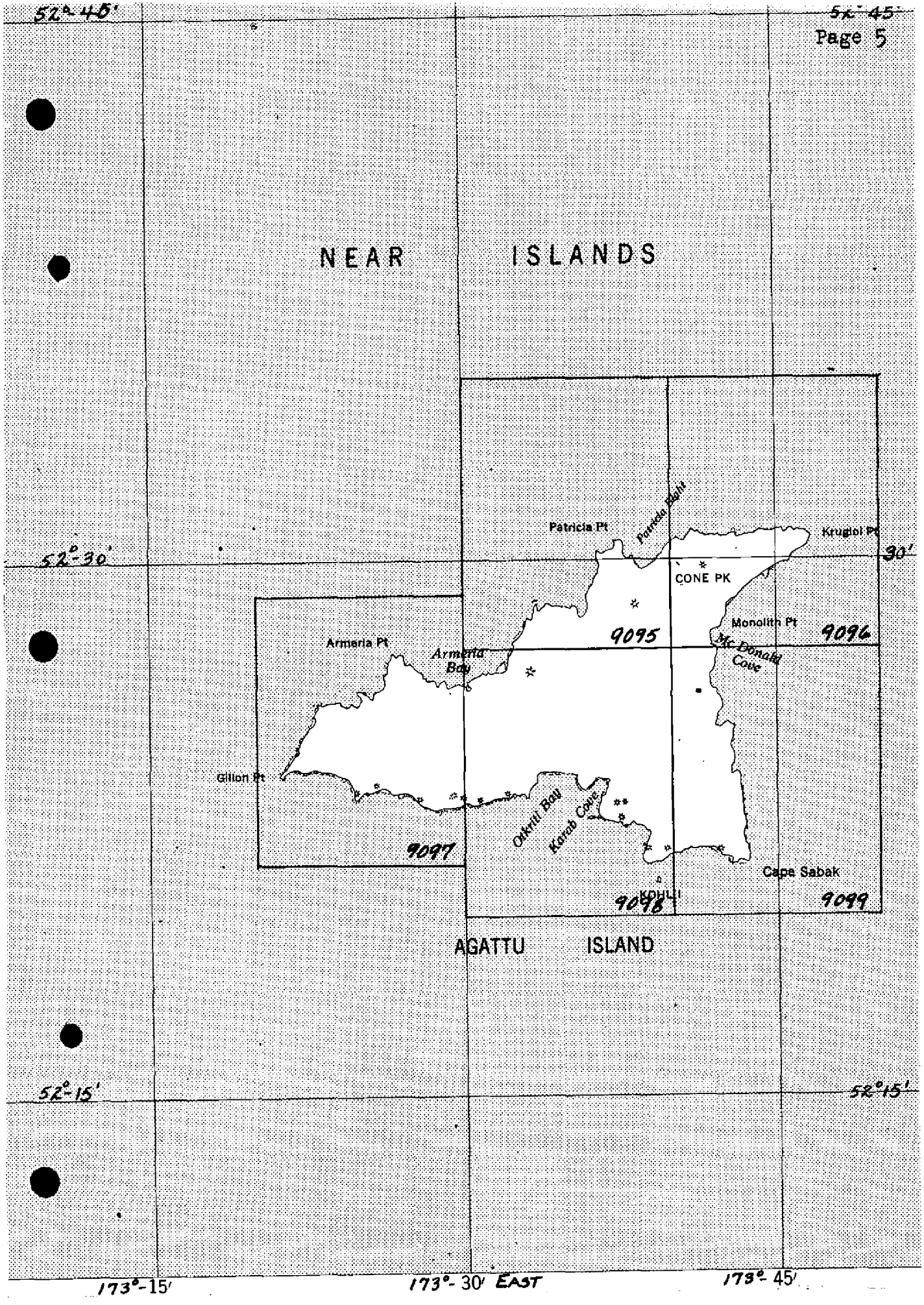
Number of Temporary Photo Hydro Stations established (III): none

Remarks: Land areas by quads:

I	T-9095 = 11	square miles	Shoreline = 13 miles (approx.)
II	T-9096 = 10	"	" 13 "
III	T-9097 = 17		22 "
IV	T-9098 = 34		23 "
V	T-9099 = 13		14 "

Military Grid-Universal Transverse Mercator:

					Checked by:
T-9095	Zone 59 and 60	Plotted by K N Maki	3/8/50	L.M.Gazik	3/22/50
T-9096	" 59 60	" "	3/10/50	"	"
T-9097	" 59 —	" "	4/7/50	R.J.French	5/1/50
T-9098	59 60	" "	4/25/50	"	5/1/50
T-9099	59 60	" "	5/9/50	C.E.Hancock	5/11/50


52°-45'
52°-45'
NEAR ISLANDS
Patricia Pt
Patricia Bight
Krugiol Pt
52°-30'
30'
CONE PK
Monolith Pt
9095
9096
Armeria Pt
Armeria Bay
Mc Donald Cove
Gilion Pt
Otkriti Bay
Karab Cove
9097
Cape Sabak
KOHLI
9098
9099
AGATTU ISLAND
52°-15'
52°15'
173°-15'
173°-30' EAST
173°-45'

Summary to Accompany T-9095 to T-9099

Topographic maps T-9095 to T-9099 inclusive are a group of five of ~~10~~ similar maps in Project Ph-34(48). They cover the entire area of Agattu Island and Kohl Island. The latter is a very small rocky island southwest of Cape Sabak. Field inspection was done on 1946 Navy single lens photographs and consisted of the identification of control points and inspection of shoreline and offshore rocks.

The radial plot was run in the Baltimore Photogrammetric Office using templets of 1948 nine-lens photographs on a vinylite base. It was ruled with a polyconic projection at 1:20,000 scale on the North American 1927 Datum.

Compilation was performed in the Washington Office from rectified nine-lens photographs on the Reading Plotter using a contour interval of 50 feet supplemented by a contour interval of 25 feet. The manuscripts were compiled on acetate ruled with a polyconic projection at 1:20,000 scale on the North American 1927 Datum. A military grid, one thousand meter universal transverse mercator was ruled on each manuscript and, where required, an overlapping military grid was also added.

Depth curves and critical soundings were applied to the manuscripts by the Division of Charts. These features do not appear on the preliminary registration print.

A single descriptive report was prepared for this series of five topographic maps. A cloth-backed lithographic print of each map, at compilation scale, will be registered with the combined descriptive report in the Bureau Archives. After publication a cloth-backed color print of each map will also be registered.

FIELD INSPECTION REPORT

2-20 Field inspection of Agattu Island was made prior to this compilation by parties from USC & GS Ships SURVEYOR and EXPLORER as part of the hydrographic work in the Near Island area. The report on the portion of the inspection accomplished by the EXPLORER is contained in a short paragraph in the Seasons Report by the commander of that Ship; The portion by the SURVEYOR was covered in a separate report, a photographic copy of which follows this page

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Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Field Inspection of Air Photographs - CS-218

Field No. no # *Office No.*

1946 SCALE

LOCALITY

State ALASKA

General locality ALEUTIAN ISLANDS

Locality ATTU & AGATTU IS.

1946

CHIEF OF PARTY

A. P. Ratti

SURVEYOR

LIBRARY & ARCHIVES

DATE

B-1870-1 (1)

U.S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES

SEASON REPORT 19 46 NO. 132

TITLE Field Inspection of Air Photographs. Attu and Agattu Islands, Alaska.

BY A. P. RATTI (Ship SURVEYOR)

DATES 1946 Season PROJECT NO. CS-218

Please read, initial and forward promptly, making any comments or recommendations considered appropriate.

ROUTING:

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ABSTRACT

1. Limits of Inspection.
2. Methods.
3. Control.
4. Remarks.
5. Statistics.

Recommendations for Distribution of information

M-2307-1(1)

Department of Commerce

U. S. Coast and Geodetic Survey

L. O. Colbert - Director

Report on Field Inspection of Air Photographs

Attu Island Agattu Island

Near Islands Group, Aleutian Is., Alaska

Season - 1946

Project No. CS-218

Ship SURVEYOR

A.P. Ratti, Comdg.

Report on Field Inspection of Air Photographs

Attu Island Agattu Island

Near Islands Group, Aleutian Is., Alaska

Date of this report ---------- 14 December 1946

Instructions:

The field inspection was authorized by instructions, Project #CS-218, dated March 25, 1944, and supplemented by instructions through the Liaison Officer of the Alaska district, dated March 21, 1946, and assigned sub-projects Nos. 29 and 30.

Limits of Inspection:

The area inspected in accordance with instructions was from Long. 173° 34' E (west side of Otkriti Bay) westward to and around Gillon Point up the ~~south~~west shoreline of Agattu Island to Long. 173° 38' E on Patricia Point. NW

On Attu Island the shoreline was inspected along the north shore from Long. 172° 54' E, at Red Head, westward to Long. 172° 38' E, at Kresta Point.

A junction was made on Attu Island on photo number 2V14-12 (scale 1:26,000) 1943, of the EXPLORER's field inspection of 1944 at Red Head and with photo number 24-14-31 (scale 1:10,000) 1946, of the EXPLORER's field inspection of 1946 at Kresta Point.

On Agattu Island, junction was made on photo number 7-10-4 (scale 1:10,000) 1946, of the EXPLORER's field inspedtion of 1946 at Otkriti Bay, and on photo number 22-14-4 (scale 1:10,000) 1946, of the EXPLORER's field inspection of 1946 at Patricia Point. No separate field inspection report was made for the Explorer's work; a short paragraph covered the subject in the Explorer's Season Report. [illegible]

Methods:

See page 34 to 39 for report by Explorer on vertical control

All of the definite mean high water line was field inspected, except as noted below. The shoreline being traversed either by foot, or inspected close by from either a launch or dinghy.

Due to adverse weather conditions and lack of time, that part of the shoreline from Long. 173° 35' E to Patricia Point on the north shore of Agattu Island was not field inspected. However, since the photographs were flown after the white-washes were established, an attempt was made to locate them on the photographs with the aid of a field stereoscope.

111

All hydrographic and topographic signals as well as all primary and existing horizontal control were located on the photographs.

Shoreline inspection was done in accordance with supplemental instructions dated March 10, 1944, in the form of a circular letter mailed to all photogrammetric parties.

In cases not noted rocky, it may be assumed that the area is rocky; otherwise, the notation will be noted as either gravel, sand, boulders, etc.

Heights as shown are estimated mean high-water line, and are the vertical heights from mean high-water line to the top of banks, cliffs, islands, or rocks.

Control:

The horizontal control was obtained from the following sources:

1. U.S.C. & G.S. triangulation stations.

2. Graphic control from topographic surveys.

The following flights of photographs were used for field inspection on Attu Island:

2-1 to 2-22	scale 1:10,000	Flown by Naval Air Station, Attu,	1945
3-124 to 3-156	ditto	ditto	"
24-14-32 to 24-14-37	ditto	ditto	-1946
2V14-1 to 2V14-20	scale 1:26,000	Flown by 11 AF (29th Engr.)	-1943

The following flights of photographs were used on field inspection on Agattu Island:

1-8-1 to 1-8-6	scale 1:10,000	Flown by Naval Air Station, Attu, 1946
2-7-1 to 2-7-14	ditto	ditto
2-8-1 to 2-8-8	ditto	ditto
3-7-1 to 3-7-9	ditto	ditto
4-7-1 to 4-7-11	ditto	ditto
6-8-1 to 6-8-9	ditto	ditto
6-10-1 to 6-10-2	ditto	ditto
7-8-1 to 7-8-8	ditto	ditto
8-8-1 to 8-8-4	ditto	ditto
9-8-1 to 9-8-4	ditto	ditto
10-8-1 to 10-8-12	ditto	ditto
13-14-1 to 13-14-9	ditto	ditto
14-14-1 to 14-14-17	ditto	ditto
15-14-1 to 15-14-7	ditto	ditto
16-14-1 to 16-14-13	ditto	ditto

Pricking cards (Form M-2226-12) were used for all primary control.

Pricking notes for hydrographic stations were noted on sketch book paper and are being mailed under separate cover.

The datum for all control was that of U.S.N. 1934 (GANNET).

Remarks:

The outer rocks in Earle Cove and the east side of the same cove, on the north side of Attu Island, were not covered by the 1:10,000 flight. However, this area was inspected on photograph 2V14-6 (scale 1:26,000) 1943.

The photographs flown in the late spring of 1946 by the Naval Air Station of Attu while some of the snow was still on the beaches are not clear in all detail, but they can be used for compilation purposes. This is particularly true of the southwest corner of Agattu Island.

Statistics:

Statute miles of shoreline field inspected	40.
Number of triangulation stations located on photographs	29.
Number of hydrographic stations located on photographs	165.
Number of Recoverable topographic stations located on photos	1.

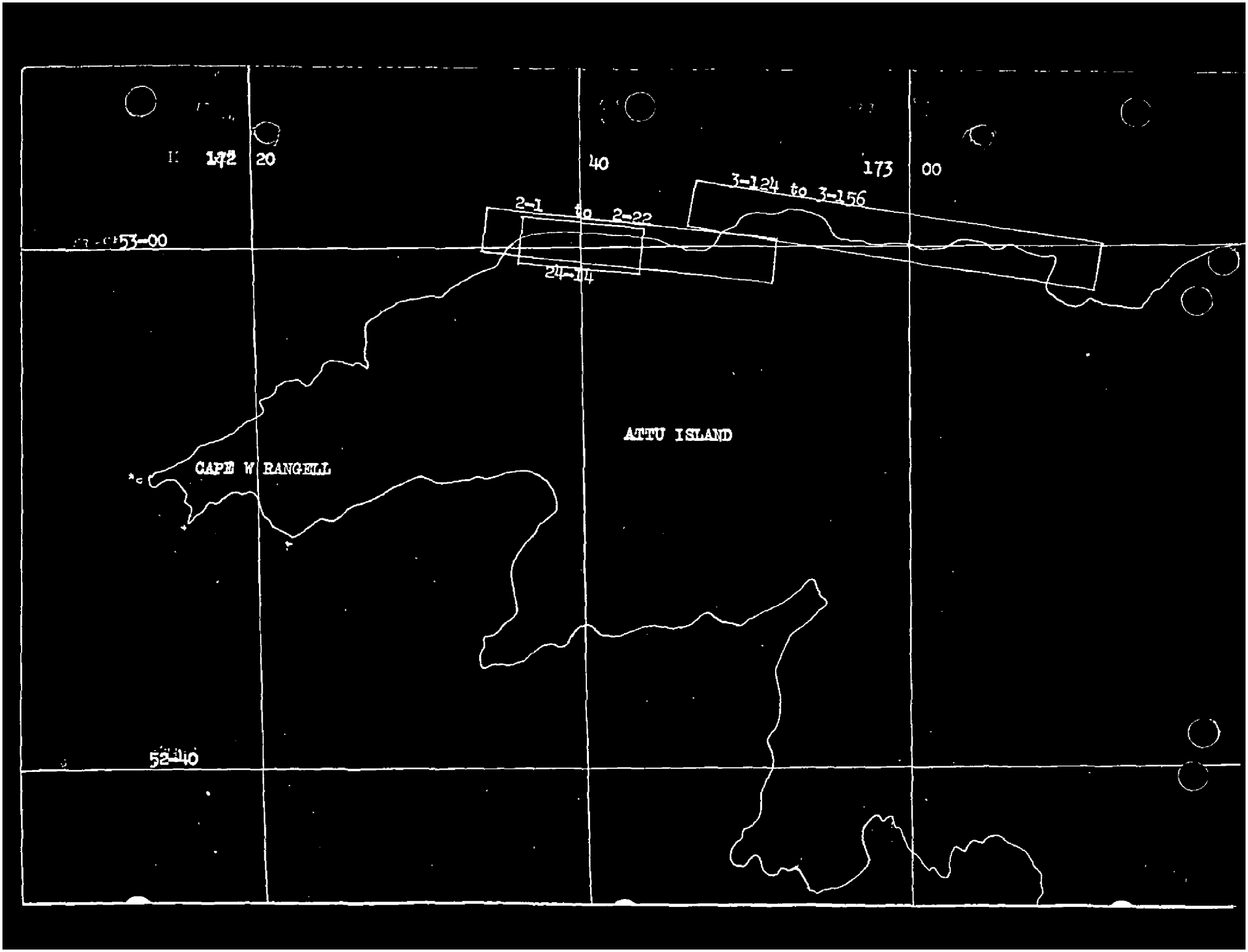
Respectfully submitted,

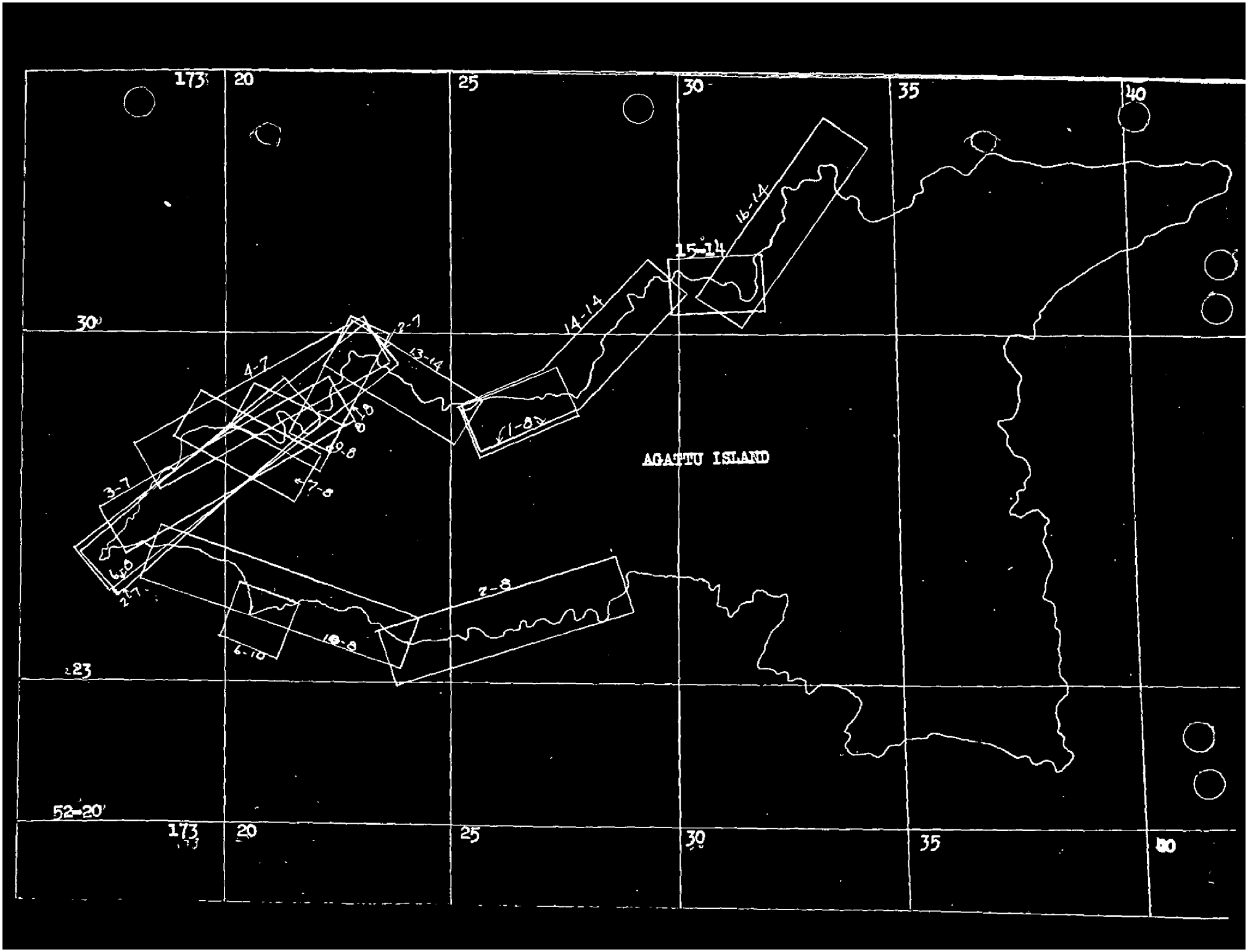
Henry O. Fortin
Henry O. Fortin, Lt. Comdr.
U.S.C. & G.S. Ship SURVEYOR

Approved and Forwarded,

Thos. B. Reed,
Commanding Officer,
U.S.C. & G.S. Ship SURVEYOR.

See also pages 34 & 31 of Field Party Report on Vertical Control


172 20
40
173 00
3-124 to 3-156
2-1 to 2-22
24-14
53-00
ATTU ISLAND
CAPE WRANGELL
52-40



173
20
25
30
35
40
30
23
52-20
AGATTU ISLAND
16-14
15-14
14-14
13-14
2-7
4-7
1-8
3-7
7-8
9-8
2-8
10-8
6-10

RADIAL PLOT REPORT

21-30 The radial plot for all five quadrangles covering Agattu Island was laid as a single plot in the Baltimore Photogrammetric Office by Mr Frank J. Tarcza. A separate report was written for this phase of the compilation procedure, and it is included in this report immediatly following this page.

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey: Radial Plot Report

Field No. PH-34(48) Office No. Agattu Island

LOCALITY

State: Near Islands

General locality: Agattu Island

Locality: Bering Sea

1948

CHIEF OF PARTY

A. P. Ratti, Chief of Field Party
Thos. B. Reed, Baltimore Photo. Office

LIBRARY & ARCHIVES

DATE

8 (870) (1)

RADIAL PLOT REPORT

PROJECT NO. PH-34(48)

AGATTU ISLAND

GENERAL DESCRIPTION:

This radial plot is for a topographic survey of Agattu Island, Project No. PH-34(48), one of the Near Islands in the North Pacific Ocean southwest of Alaska.

PHOTOGRAPHS:

The photographs used in this radial plot are metal-mounted nine-lens photographs, scale 1:20,000, taken with the U. S. C. G. S. nine-lens camera, focal length 8¼ inches. Thirty-seven (37) photographs were used, numbered as follows:

23936 to 23944 inclusive.
23947 to 23952 "
23954 to 23975 "

The symbols for control, pass points and photograph centers used on these photographs are in accordance with photogrammetry Instructions No. 12, dated 17 March 1947.

CONTROL:

There are ninety-four (94) horizontal control stations within the area of this radial plot. Of these, thirty-nine (39) were identified by the field inspection party on field photographs, five by the use of substitute stations and the remainder being identified direct. Pricking cards for eight additional stations were submitted by the field party, mostly for peaks, but these were not identified on the field photographs. The field inspection party in 1947 identified additional peaks on panoramic sketches from two occupied stations. Thirteen of these were identified in the office from these sketches. In addition, four other stations which could be identified in the office from published descriptions were used in the radial plot.

The identification by the field inspection party was on single-lens photographs scale approximately 1:10,000 taken by U. S. Navy in 1946.

A sketch showing distribution of control and photographs in the area of this radial plot, and a list of control stations are attached to this report.

PROJECTIONS:

Vinylite base sheets, at a scale of 1:20,000, with polyconic projections, were furnished the compilation office for these surveys. Control stations established previous to 1947 were plotted on the base sheets in the Washington office. Additional intersection stations, established in 1947 were plotted on the base sheets for use in this radial plot. Five substitute points were computed and plotted on the base sheets using meter bar and beam compass.

TEMPLETS:

Vinylite templets were made of all photographs used in this radial plot, using a master templet furnished by the Washington office for correcting distortion and displacements in chambers of the nine-lens photographs. After radial lines were drawn on a templet, a small red dot was placed near each line at the location of the image point on the photographs. These served to determine which photographs were tilted when they were oriented on the base sheets.

RADIAL PLOT:

There was such an abundance of control that most of the templets could be oriented individually. Since they could be oriented in any desired order, each was oriented approximately and the amount of tilting, if any, was noted by observing the small red dots at the image points of known elevation. The templets were placed in groups of similar degrees of tilting. Those most nearly vertical were oriented and taped down first, then those with slight tilt next, etc. Although most photographs were tilted, and many badly tilted, no particular difficulty was met in completing the plot. This order oforientation assisted in pricking pass points more accurately, especially on peaks and other elevated points, since radial lines of badly tilted photographs on top could be disregarded where intersections were not well defined. Also the centers of tilted photographs were established more accurately by disregarding elevated points during orientation.

Since no map manuscripts were available, the positions of pass points and photograph centers on the base sheets were established by pricking down through all templets. As each templet was removed, the positions of the pass points and control stations were circled on the templets with a 2½ mm. black circle for use later during rectification of the photographs.

REMARKS:

Although the attached sketch shows quite a number of stations not held in the radial plot, only one, PEAK R, 1947 can be definitely attributed to an error in geographic position. This station has a

REMARKS: (cont'd)

"no-check" position. Pricking of all stations not held in the radial plot was re-examined with a stereoscope. In many cases it was possible to reprick the station at its correct geographic position, marking the new pricking with a small red (2 mm.) circle.

The following stations were identified on the field photographs and could not be held in the radial plot as originally pricked on the office photographs:

1. SUB. STA. BOBOE, 1946 - position falls 0.5 mm. east of its geographic position. The sub. station was the head of a deep cut in bluff. Since the head of the cut was rounded, and the cut was at an angle with bluff line, it was not definite on office photographs where the exact image point should be. It was repricked on photographs at the true geographic position.

2. SUB. STA. END, 1946 - position falls 0.5 mm. south of its geographic position. Re-examination with a stereoscope revealed another rocky point of about equal elevation at the geographic position. Station was repricked on this point.

3. SABAK, 1946 - position falls 2.6 mm. south of its geographic position. Original three distances to image points gave a good intersection at a point on photographs but not at the highest point of hill, as called for in the description. Although error was suspected, this point was used in fixing the radially plotted position. The station was repricked at the geographic position which fell on the top of hill. The new position revealed errors in field identification of two image points. Point "c" checked with both positions. Image point "b" was identified on wrong point of bluff. At image point "a", either the distance is in error or a point on bluff instead of point of inlet was used in the measurement.

4. ZANE, 1946 - position falls about 300 meters southwest of its geographic position. Field identification was obviously on wrong hill. It was repricked on another hill approximately at the geographic position, using the same distances to image points. Distance to a pond (image point "c") did not check, being about 88 meters instead of 28. Since it is identical with distance to point "a", distance to point "c" apparently was noted on pricking card by mistake.

The following stations, all peaks not identified in the field due to lack of photograph coverage, could not be held in the radial plot.

5. PEAK R, 1947 - position fail 2.1 mm. south of its geographic position. This is a sharp, well-defined peak. The geographic position (a no-check position) appears to be in error since there is no peak at that position.

6. ARM, 1943 - position falls 3.3 mm. southwest of its geographic position. This peak was repricked at another high point at the geographic position.

7. PEAK NO. 4, 1943 - position falls 2.4 mm. northwest of its geographic position. There is another high point, which was repricked as the station, at that distance from original pricking. However, it appears lower and not quite in the same direction as the geographic position, but is probably the point used by the field party as the station.

8. PEAK K, 1947 - position falls 2.9 mm. northwest of its geographic position. This station was repricked on another high point which appears between the two positions but nearer the geographic position, which may be in error.

9. PEAK G, 1947 - position falls 2.3 mm. northwest of its geographic position. Re-examination did not reveal any definite peak at the geographic position. This is a long, rather flat-topped ridge and does not have any definite high point. Image pricked is probably not station but elevation given can be used for vertical control and radially plotted position for horizontal control. It was not repricked.

The following four peaks have radially plotted positions as indicated but discrepancies are small. ~~They~~ Errors are probably due to differences in points observed by field party and those believed to be highest points as seen under a stereoscope on the same peak. They were not repricked,

1. PEAK D, 1947 - position falls 0.5 mm. north of its geographic position.

2. PEAK I, 1947 - position falls 0.5 mm. north of its geographic position.

3. PEAK S, 1947 - position falls 0.6 mm. south of its geographic position (a "no-check" position).

4. PEAK U, 1947 - position falls 0.4 mm. north of its geographic position (a "no-check" position).

For all stations not repricked, the radially plotted position should be used for control.

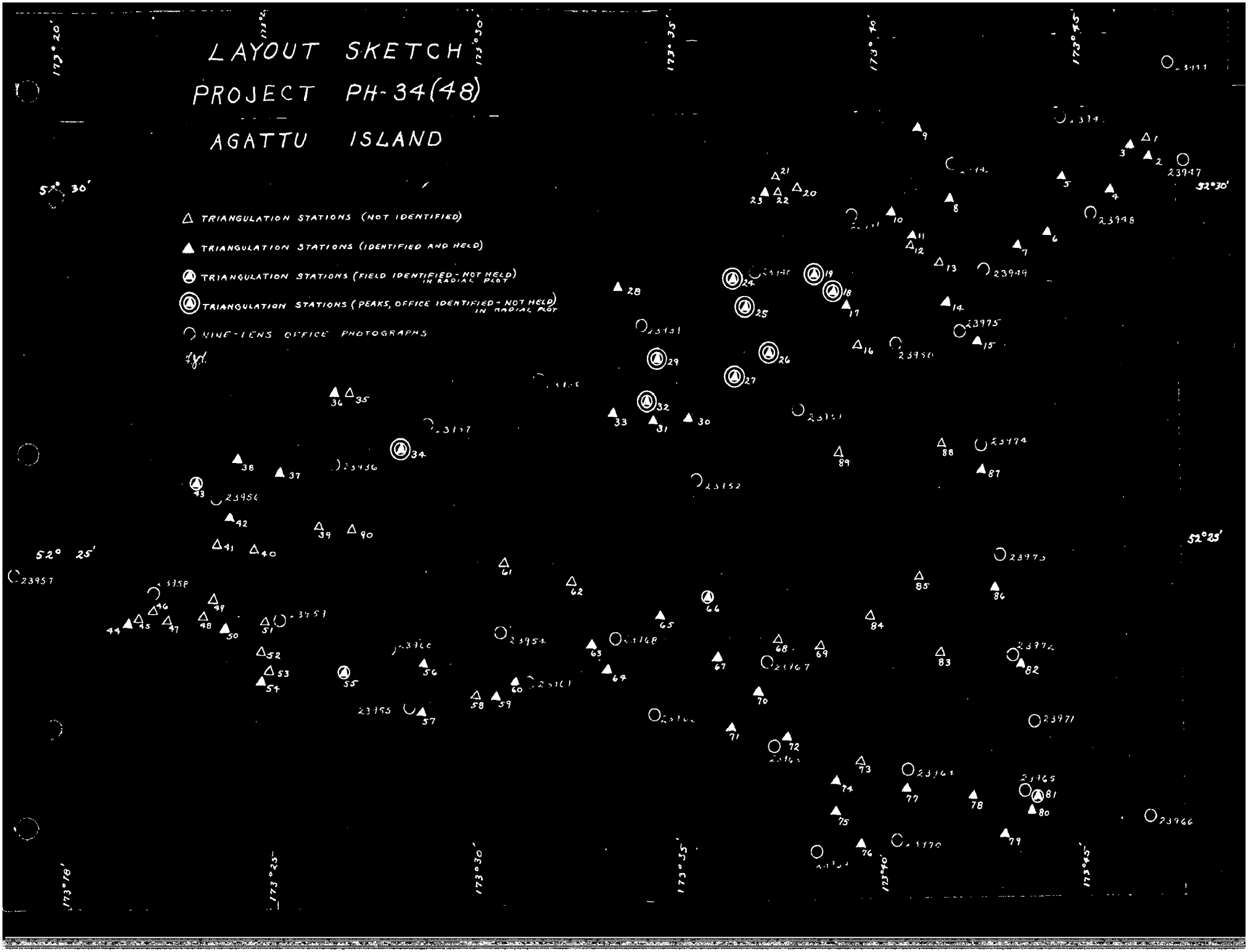
Although there were many tilted photographs used in this radial plot, there were many more control stations than ordinarily necessary so that a fairly accurate plot could be made. The number of photographs were also larger than needed but are probably required for contouring. The positions of all pass points and photograph centers (except possibly two water centers) are within 0.5 mm. of their true geographic positions.

Approved and forwarded
11 10 May 1949
Thos. B. Reed,
Officer in Charge,
Baltimore Photogrammetric Office

Respectfully submitted
Frank J. Tarcza,
Cartographic Engineer

No.	Station	Field Identification	Pricking
1.	LEFT, 1944	None	
1.	PEAK No. 1, 1943	Not available	- Not used
2.	YAK, 1946	Good	Direct
3.	KRUG, 1943	Not available	Pricked Direct in Office
4.	WALD, 1946	Good	Direct
5.	AGAT, 1945	None	Pricked Direct in Office
6.	VILE, 1946	Good	Direct
7.	UNIT, 1946	Good	Direct
8.	PAR, 1943	Not available	Pricked Direct in Office
9.	GLO, 1945	Good	Direct
10.	PEAK Q, 1947	None	Pricked Direct in Office
11.	PEAK M, 1947	None	Pricked Direct in Office
12.	PEAK N, 1947	None	Pricked Direct in Office
13.	YOKE, 1946	None	
14.	BOMB TARGET A, 1946	Not pricked as control	Pricked Direct in Office
14.	X-RAY, 1946	Positive	Not used
15.	DONA, 1946	Positive	Direct
16.	TILT, 1946	None	
17.	PEAK L, 1947	None	Pricked Direct in Office
18.	PEAK K, 1947	None	Pricked Direct in Office
19.	PEAK NO. 4, 1943	Not available	Pricked Direct in Office
20.	HOT, 1945	None	
21.	Y, 1945	None	
22.	X, 1945	None	
23.	PAT, 1944	Poor	Direct (Office Pricking Good)
24.	PEAK R, 1947	None	Pricked Direct in Office
25.	PEAK S, 1947	None	Pricked Direct in Office
26.	PEAK I, 1947	None	Pricked Direct in Office
27.	PEAK G, 1947	None	Pricked Direct in Office
28.	MERIA, 1945	Good	Direct
29.	PEAK D, 1947	None	Pricked Direct in Office
30.	PEAK E, 1947	None	Pricked Direct in Office
31.	PEAK C, 1947	None	Pricked Direct in Office
32.	PEAK U, 1947	None	Pricked Direct in Office
33.	GAT, 1943	Not available	Pricked Direct in Office
34.	ARM, 1943	In clouds	Pricked Direct in Office
35.	OBIE, 1945	None	
36.	ERA, 1944	Positive	Direct
37.	MASS, 1946	Positive	By Sub. Pt.
38.	FLAG, 1946	Fair	Direct
39.	ACROSS, 1945	None	
40.	CENTER, 1945	None	
41.	SHORAN, 1946	None	As Pass Point in Office
42.	INTER, 1945	No field pricking	Pricked Direct in Office
43.	END, 1946	Positive	By Sub. Pt.
44.	LION, 1946	Positive	By Sub. Pt.
45.	BAG, 1946	None	
46.	RIGHT TAN, 1944	None	
47.	DAY, 1946	None	
48.	FIX, 1946	None	
49.	PLAT, 1946	None	

No.	Station	Field Identification	Pricking
50.	MINT, 1946	Positive	By Sub. Pt.
51.	BLACK, 1945	None	
52.	IVY, 1946	None	
53.	KID, 1946	None	
54.	NILE, 1946	Poor	Direct
55.	BOBOE, 1946	Good	By Sub. Pt.
56.	PETE, 1946	No field pricking	Pricked Direct in Office
57.	ABLE, 1946	Positive	Direct
58.	PINNACLE, 1946	None	
59.	BELL, 1946	Positive	Direct
60.	QUID, 1946	Direct	
61.	POLE, 1946	None	
61.	TARE, 1946	None	
62.	VAST, 1946	None	
63.	REST, 1946	None	Pricked Direct in Office
64.	DOWN, 1946	Positive	Direct
65.	SADE, 1946	Positive	Direct
66.	ZANE, 1946	Doubtful	Direct
67.	WILD, 1946	Positive	Direct
68.	YARD, 1946	Doubtful	Not used
69.	EBER, 1946	None	
70.	Hill, 1946	Positive	Direct
71.	CORA, 1946	Positive	Direct
72.	IBEX, 1946	Positive	Direct
73.	RADIO MAST, 1946	None	
74.	FARE, 1946	None	
74.	RADAR TOWER, 1946	Doubtful	Direct
75.	JEWEL, 1946	Positive	Direct
76.	KOHL, 1946	Fair	Direct
77.	KITE, 1946	Positive	Direct
78.	LOUD, 1946	Positive	Direct
79.	SURF, 1946	Fair	Direct
80.	CAPE SABAK, 1946 (HIGH, 1946)	Positive	Direct
81.	SABAK, 1946	Good	Direct
82.	NEWT, 1946	Good	Direct
83.	MOAN, 1946	None	
84.	GOOD, 1946	None	
85.	OLAF, 1946	None	
86.	PROM, 1946	Good	Direct
87.	QUIT, 1946	Fair	Direct
88.	ROOF, 1946	None	
89.	SHED, 1946	None	
90.	BLUE, 1946	None	


LAYOUT SKETCH
PROJECT PH-34(48)
AGATTU ISLAND
TRIANGULATION STATIONS (NOT IDENTIFIED)
TRIANGULATION STATIONS (IDENTIFIED AND HELD)
TRIANGULATION STATIONS (FIELD IDENTIFIED - NOT HELD IN RADIAL PLOT)
TRIANGULATION STATIONS (PEAKS, OFFICE IDENTIFIED - NOT HELD IN RADIAL PLOT)
NINE-LENS OFFICE PHOTOGRAPHS
52° 30'
52° 25'
173° 20'
173° 25'
173° 30'
173° 35'
173° 40'
173° 45'
173° 18'

REPORT ON VERTICAL CONTROL

Project 218

Ship Explorer, F. B. T. Siems Comdg.

1947

AGATTU ISLAND

REPORT OF TRIANGULATION

FOR LOCATION OF PEAKS

AGATTU ISLAND, ALASKA

Ship EXPLORER, F.B.T. Siems, Comdg.

1947

- - - -

The purpose of this triangulation was to determine the geographic positions and elevations of all major peaks on Agattu Island. The data are intended principally for control of offshore surveys and for elevation control for air-photo compilation, and the latter in turn for constructing radar charts. In this connection 9-lens air-photo coverage of interior areas of Agattu Island and Attu Island is probably required.

Observations were made as time and weather permitted. Inasmuch as the peaks were covered by clouds most of the summer when the ship was in the locality, the work was not carried to completion.

All computations covered by this report were made from directions and vertical angles observed from stations on Agattu Island. Additional observations from stations on Shemya, Alaid and Attu Islands were not used in these computations. Only two stations, namely CORA and EBER, were occupied in 1947, and directions and vertical angles were observed to all visible peaks. Cuts from these two stations were used with cuts observed on the EXPLORER triangulation of 1946 and at station PAT in 1944. With positions determined previously there are positions available on all major peaks on the island except two. Peaks R and S have only one cut from station EBER, as shown on the sketch.

There are previously computed positions of ARM (USN), 1943, Peak B (GAT (USN), 1943), Peak J (Peak 4 (USN), 1943), PAR (USN) 1943, and AGAT, 1945-1946. Peak O-P was previously computed from 1946 triangulation and was not recomputed. This peak is the second one listed as Peak, 1946, on page V 342 of the list of geographic positions on NA 1927 datum. The first peak listed as Peak, 1946, on the same page does not exist. The three cuts used in the computation from XRAY, CORA and VAST are cuts on Peaks E, I and L, respectively. By a coincidence these three cuts intersected in a point. This Peak, 1946, should be deleted from the list of geographic positions.

Vertical angles were observed on all the peaks, and elevations were computed on all peaks except Peak O-P. The only vertical angles available for these computations were those observed in 1947 at CORA and EBER. Any

vertical angles observed in previous years may give additional checks on some of the elevations and possibly indirect checks on positions.

Peaks M and N are the same peak. The points are at each end of a nearly level ridge. Peaks O and P are the same peak. This peak is similar to M-N except that the points are not so pronounced. The two points of Peak O-P could not be separated in the computations.

The records and computations are thought to be clear and do not require further explanation.

Sketches of peaks observed from stations CORA and EBER and several pictures of the peaks taken from the ship at various points are attached to this report for possible use in identification of peaks and in air-photo compilation.

Sextant cuts to some of the peaks were observed from the ship at positions south of the island. However, there is some question as to objects (outlying islets and rocks near Cape Sabak) used for sextant fixes. The observations are forwarded with this report, and may serve in verifying or supplementing the triangulation data.

Respectfully submitted

Charles W. Clark

Charles W. Clark
Lieut. USC&GS

Approved and forwarded:

F.B.T. Siems

F.B.T. Siems
Captain USC&GS
Commanding USC&GSS EXPLORER

Sextant cuts mentioned above were not used to control the radial plot since sufficient D's were supplied for that purpose.

LR

SEXTANT FIXES AND CUTS

to accompany

REPORT ON TRIANGULATION

FOR LOCATION OF PEAKS

AGATTU ISLAND, ALASKA

		Hor. Angle	*Vert. Angle
1.	△ QUID, 1946	81-49	01-29 (QUID)
	△ CORA, 1946		
	HIGH *	62-40	
	Peak P - HIGH	60-33	01-27 (Peak P)
	Peak O - HIGH	60-40	01-30 (Peak O)
	Peak N - HIGH	65-21	01-42 (Peak N)
	Peak M - HIGH	65-25	01-42 (Peak M)

* referred to shore line

* HIGH - △Cape Sabak, high pinnacle rock, 1946

2.	QUID	70-03	01-20
	CORA		
	HIGH	67-45	
	Peak P - HIGH	58-30	01-22
	Peak O - HIGH	58-41	01-21
	Peak N - HIGH	63-24	01-42
	Peak M - HIGH	63-33	01-42
3.	QUID	68-47½	01-20
	CORA		
	HIGH	71-29	
	Peak L - HIGH	69-56	02-17
	Peak K - HIGH	72-16	02-27
	Peak J - HIGH	74-01	02-28
	Peak I - HIGH	77-45	02-18½
4.	QUID	53-26½	01-08
	CORA		
	HIGH	64-14	
	Peak L - HIGH	60-33	01-59
	Peak K - HIGH	62-37	02-07
	Peak J - HIGH	63-09	02-12
	Peak I - HIGH	67-27	02-00
	Peak F - HIGH	71-46	02-22
5.	QUID	54-10	01-07
	CORA		
	HIGH	65-30	
	Peak L - HIGH	61-28	02-00
	Peak K - HIGH	63-32	02-08
	Peak J - HIGH	65-06	02-16
	Peak I - HIGH	68-30	02-01
	Peak H - HIGH	68-35	

6.	QUID	56-12	01-10
	CORA		
	HIGH	65-16	
	Peak P - HIGH	52-15	01-15
	Peak O - HIGH	52-28	01-15
	Peak N - HIGH	57-03	01-35
	Peak M - HIGH	57-12	01-35
	Peak D - HIGH	82-06	02-42
7.	QUID	72-18	00-54 (QUID)
	WOT *		02-02 (WOT)
	HIGH	48-54	
	Peak L - HIGH	63-09	02-02
	Peak K - HIGH	64-58	02-07
	Peak I - HIGH	71-05	02-00
	Peak D - HIGH	83-15	02-34

* WOT - △ Radar Tower, 1946

8.	QUID	71-30	02-04
	WOT		02-01
	HIGH	49-10	
	Peak P - HIGH	50-33	01-19
	Peak O - HIGH	50-48	01-20
	Peak M-N - "	56-38	01-33
	Peak D? - HIGH	87-57	02-29
9.	QUID	72-21	02-00
	WOT		
	HIGH	48-58	
	Peak P - HIGH	50-56	01-19
	PAR - HIGH	55-04	01-02
	Peak M-N - HIGH	57-03	01-33
10.	QUID	73-37	
	WOT		
	HIGH	48-34	02-05
	Peak L - HIGH	63-48	02-02
	Peak K - HIGH	65-39	02-09
	Peak J - HIGH	67-04	
	Peak I - HIGH	71-47	02-01

11. Angles not taken simultaneously on this fix.

	△ PROM, 1946	97-45
	△ ROOF, 1946	
	△ AGAT, 1945-46	76-05
	ROOF to PAR	51-30

Peak S to AGAT	68-45
Peak R to AGAT	66-15
Peak I to AGAT	73-45
Peak M to AGAT	34-21
Peak N to AGAT	35-03

The following list of directions was computed from sextant angles taken from the ship at anchor. Angles were not taken simultaneously.

	Direction	Elev. angle *
SABAK, 1946	0-00	0-58
Peak 1 (Peak E)	82-22	3-24
Peak 2 (Peak C)	82-56	3-09
Peak 3 (Peak B?)	84-27	3-17
Peak 4 (Peak U?)	85-11	3-12
Peak 5 } (Peaks	87-28	3-55
Peak 6 } F & G)	89-57	3-50
Peak 7 } (Peak I)	92-26	3-52
Peak 8 }	94-01	3-51
Peak 9 (Peak L)	105-43	5-32
Peak 10 (Peak K)	107-52	5-20
Peak 11 (Peak J)	109-20	5-32
Whitewash (⊙ KOF)	115-59	0-00
Peak 12 (Peak N)	132-27	6-01
Peak 13 (Peak M)	134-01	6-00
PAR (USN) 1943	150-36	4-00
AGAT, 1945-1946	189-10	3-25
KRUG (USE) 1943	204-35	0-58

* referred to shore line

Compilation Report

31. Delineation:

Agattu Island was delineated on Reading Plotter No.1 using the same metal-mounted 9-lens photographs used in laying the radial plot in the Baltimore Office. Photo coverage was satisfactory. Field inspection was complete but difficult to interpret and transfer to the work sheets and manuscripts due to; (1) the inspection was accomplished on single lens photos at a scale other than that of the compilation photos, (2) the inspection was made in 1946 when instructions for such work were not complete, and, (3) the shoreline is very rugged and irregular making both field inspection and office interpretation difficult even with all other conditions ideal. Nonethe-less, a thorough study of the field inspection photos was made under a hand stereoscope simultaneously with the instrument delineation and a good map was produced. This map manuscript is in general agreement with the graphic control surveys.

32. Control: See radial plot report, page 18 of this report.

33. Supplemental Data:

a. Graphic Control Surveys, all of 1946

(1) T-7031b, 1:10,000, Otkriti Bay
(2) T-7032a, L:20,000, Cape Sabak to Patricia Point
(3) T-7032b, 1:20,000, Northeast end of Agattu
(4) T-7033a, 1:20,000, West end of Agattu

b. Hydrographic Surveys, allof 1946

(1) H-7138, 1:10,000, Otkriti Bay
(2) H-7139, 1:20,000, Patricia Point to Karab Cove
(3) H-7144, 1:20,000, Northwest coast of Agattu
(4) H-7145, 1:20,000, Southwest coast of Agattu

c. Comments: The above surveys were used in conjunction with field inspection to acquire completeness of details in this compilation. A good agreement has been obtained.

34. Contours and Drainage: No comment. Sufficient control, both hor. & vert., were available to control this survey and no particular difficulty was encountered in the compilation of the map manuscripts.

35. Shoreline and alongshore details:

Shoreline inspection was adequate considering the ruggedness of the area and instructions in force for inspection at that time. No low-water line was located on the field inspection photos. However, shoal lines were indicated and used as a guide during compilation

36. Offshore Details:

A discrepency was discovered between manuscript T-9097 and graphic control survey T-7033a in the vicinity of Nile Point. An offshore reef was apparently located by sextant and shown on the graphic survey in black. It agreed in position with the plotting instrument location of the same reef but several other rocks in the vicinity did not agree, in fact, one rock in particular did not even exist on the field inspection or compilation photographs. The primary error constitutes a shift of the group of rocks and is attributed to a bust in the radial plot used to establish the preliminary shoreline which is shown in green on the graphic control surveys. The group is properly located on the manuscript and shall take supersedence. Verified during review K.H.M.

During shoreline inspection elevations were estimated for several high rocks and pinnacle rocks along the shoreline. Plotting instrument elevations read on the same rocks were found to be much higher in many cases. The instruemnt readings are shown on the manuscript in all cases where the variance was greater than five feet.

37. Landmarks and Aids: Not applicable.

38. Control and Future Surveys:

Pricking notes for hydro stations were made on sketchbook paper in the field. These notes were studied in this office and stations that were separate rocks were located during instrument delineation. Hydro stations are not labled on the manuscript since hydrography of the area has been completed. Two 524 forms were completed and submitted in 1946 for stations KING and BOBOE. Both are shown by proper symbol on the manuscript, BOBOE as a triangulation station since GPs are now available for it, and KING as a topo station. In connection with KING, it was necessary to shift it about 1mm from its planetable position in order to make its location on the manuscript agree with the description furnished on the 524 form. Since both stations are planetable locations, it is recommended that there final locations be weighted accordingly. See item 67, Review Report, in reference to Sta. King. Boboe is ok. Form 526, Recovery Note - Triangulation Stations, submitted to Div. Geodesy and Form 524 removed from card file. K.H.M.

39. Junctions: All agree.

40. Horizontal and Vertical Accuracy: Standard.

46. Comparison with Existing Maps:

Comparison has been made with U.S.Army Engineer topographic quadrangles (set of 5) produced in 1943 at 1:20,000 scale with 20 ft contour interval. These Engineer sheets are not complete in the interior of the island; they show only the shoreline with topography extending inland 2 to 3 inches. Therefore comparison was possible along the shoreline only. Details varied somewhat but the maps are in general agreement.

47. Comparison with Nautical Charts:

a. Agattu Roadstead, No.9126, 2nd Edition, 1:30,000, 13 Dec 48.
b. Near Islands, Ingenstrem Rocks to Attu Island, No.9198, 4th Edition, 16 June 47, 1:160,000

Items to be applied to nautical charts immediatly: none

Items to be carried forward: none

48. Geographic Name List:

See separate page, page 43.

49. Notes to the Hydrographer:

Not applicable.

50. Compilation Office Review:

See T-2 form, separate page, page 44.

Louis J. Reed, Chief
Stereoscopic Mapping Section

Form T-2

PHOTOGRAMMETRIC OFFICE REVIEW

T-9095, 6, 7, 8, 9.

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 — 10. Photogrammetric plot report ✓ 11. Detail points —

ALONGSHORE AREAS

(Nautical Chart Data)

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

PHYSICAL FEATURES

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

CULTURAL FEATURES

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

BOUNDARIES

31. Boundary lines — 32. Public land lines —

MISCELLANEOUS

33. Geographic names ✓ 34. Junctions ✓ 35. Legibility of the manuscript ✓ 36. Discrepancy overlay — 37. Descriptive Report ✓ 38. Field inspection photographs ✓ 39. Forms ✓

40. _____
Reviewer

Louis J. Reed
Supervisor, Review Section or Unit
Chief, Stereoscopic Mapping Section

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-2661-12

GEOGRAPHIC NAME LIST

T 9095-9

- Ameria Bay ✓
- Ameria Point* ✓
- ~~Boring Sea~~ Agattu Strait* ✓
- Binnacle Bay
- Cape Sabak* ✓
- Gillon Point* ✓
- Karah Cove*
- Kohl Island*
- Krugloi Point*
- McDonald Cove*
- McDonald Point* ✓
- Monolith Point
- Nile Point ✓
- Otkriti Bay*
- Pacific Ocean* ✓
- Patricia Bight*
- Patricia Point*
- West Cove ✓
- Aleutian Islands ✓
- Near Islands ✓
- Agattu Island* ✓
- Alaska* ✓
- Aga Cove ✓

* = Decis BGN

o = Approved name

3-2-50

a.j.W.

11-14-50

a.j.W.

Review Report T-9095 to T-9099
Topographic Maps
9 May 1950

62. Comparison with Registered Topographic Surveys:

T-7031b	1:10,000, 1946	(T-9098)
7032a	1:20,000, 1946	(T-9098-99)
7032b	1:20,000, 1946	(T-9095-96-99)
7033a	1:20,000, 1946	(T-9095-97-98)

These surveys are superseded for nautical charting purposes by T-9095 to T-9099 inclusive.

63. Comparison with Maps of other Agencies:

Agattu Island (U.S.E.) 1:20,000, 1943 (set of five topographic quadrangles).

Refer to Item 46, p. 41 of the Compilation Report.

64. Comparison with Contemporary Hydrographic Surveys:

H-7138	1:10,000, 1946	(T-9098)
7139	1:20,000, 1946	(T-9095-96-98-99)
7144	1:20,000, 1946	(T-9095-97)
7145	1:20,000, 1946	(T-9097-98)

These surveys were compared with T-9095 to T-9099 inclusive and they are in agreement.

65. Comparison with Nautical Charts:

9126	1:30,000, 1946	corr. 12/9/46
9198	1:60,000, 1947	corr. 6/16/47

66. Adequacy of Results and Future Surveys.-Each map of the series T-9095 to T-9099 inclusive is a complete topographic map and has been compared and reconciled with all hydrographic and topographic surveys of record in this Bureau and becomes, therefore, the most authoritatively complete and accurate topographic map of record for the area covered as of the date of this report.

There is no security classification designated for the area covered by these maps.

Adequate photo coverage, well distributed horizontal and vertical control and appropriate instrument compilation methods make these maps meet the National Map Accuracy Standards.

No vertical accuracy tests have been made. All contours meet the national map accuracy standards for a contour interval of 50 feet and, where it is shown, for a contour interval of 25 feet.

67. Recoverable Topographic Stations.-Topographic station King, 1946 (T-9098) was relocated during review on the basis of the 1946 field inspection pricking data on field photo number 14-14-4. This new position is about 35 meters north-east of the plane table position. Form 524 for station King is filed in the Division of Photogrammetry General Files.

68. Military Grids.-The universal transverse mercator grid, military zones 59 and 60, was applied to the manuscripts during review. The primary zone grid is fully drawn at one thousand meter intervals and the overlapping secondary grid zone is represented by 1/2 centimeter ticks at one thousand meter intervals outside but touching the neat lines.

T-9097, the most westerly of the five maps, has only one military grid, zone 59.

Reviewed by:

K. N. Maki

K. N. Maki

Approved by:

S. V. Griffith
Chief, Review Section
Division of Photogrammetry

H. R. Edmonston
Chief, Nautical Chart Branch
Division of Charts

O. S. Reading
Chief, Div. of Photogrammetry

W. M. Scaife
Chief, Div. Coastal Surveys

NAUTICAL CHARTS BRANCH

SURVEY NO. 9095 – 9099

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
6-25-52	9147	Earl M Gregory	~~Before~~ After Verification and Review
			Examined only a few elev. & a small Shoreline change
5-20-63	8865	Earl Gregory	~~Before~~ After Verification and Review Revised part chkd
9-			consider fully appl'd full reconstruction
9-16-69	9147	C.D. Kuromitsu	~~Before~~ After Verification and Review
			Consider fully appl'd
9-10-92	16423	Ed Martin	~~Before~~ After Verification and Review New Chart
			thru 16434
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review

M-2158-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.