5593 - 5600 INCL.

[redacted]

Diag. Cht. No. 8864-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey TOPOGRAPHIC

Field No. PH-3[illegible](48) *Office No.* T-5593 to T-5600 incl.

LOCALITY

State ALASKA

General locality ALEUTIAN ISLANDS

Locality AMCHITKA ISLAND

194 50

CHIEF OF PARTY

H. A. Karo, Chief of Field Party.
T. B. Reed Chiefs
H. A. Paton Baltimore Photo. Office

LIBRARY & ARCHIVES

DATE September 17, 1951

B-1870-1 (1)

93
94
95

5593 - 5600 INCL.

[redacted]

Ltr, ALEXANDER, Navy No. 127, (Box 14), c/o FM, Seattle, Wash, Subj: "Classification Clearance; USC&GS request for", 13 Sep 1955

ALINT-9 333.5 1st Ind. / OCT 1955

HEADQUARTERS ALASKAN COMMAND, APO 942, Seattle, Washington

THRU: Chief, Bureau of Aeronautics, Department of Navy, Washington 25, D. C.

TO: Chief of Naval Operations, Department of Navy, Washington 25, D. C.

1. The Commander-in-Chief, Alaska interposes no objection to the downgrading of subject manuscripts, T-5598 (Amchitka Island), T-5599 (Amchitka Island), T-8636 (Kiska Island), and T-9935 (Tanaga Island) to unclassified.

2. As there is no present or foreseeable requirement for the land and facilities shown on subject manuscripts, and as all physical improvements on the Islands of Amchitka, Kiska, and Tanaga are now the property of the Aleutian Chain clean-up contractor, no detail or installations need be deleted from subject manuscripts prior to declassification.

3. The U. S. Coast & Geodetic Survey should be advised that many of the existing structures shown on the enclosed drawings will probably be removed by the Aleutian Chain clean-up contractor.

FOR THE COMMANDER-IN-CHIEF:

T. R. Stoughton

T. R. STOUGHTON
Brigadier General, USA
Chief of Staff

5 Encls
n/c

If Inclosure No. 1-5 is withdrawn (or not attached) the classification of this correspondence will be downgraded to Unclassified

MAIL LOGGED BY AER-12-S
OCT 18 1955

5101803

[redacted]

357

DATA RECORD

T- 5593 thru 5600

Project No. (II): Ph-34(48) Quadrangle Name (IV):

Field Office (II): Ship EXPLORER Chief of Party: H. Arnold Karo

Photogrammetric Office (III): Washington Office Officer-in-Charge: Lou Reed, Chief, Stereoscopic Mapping Section

Instructions dated (II) (III): Supplemental Instructions 8 April 1949

Copy filed in Division of Photogrammetry (IV) Office Files.

Method of Compilation (III): 9-Lens Plotters

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

Scale Factor (III): 1:1

Date received in Washington Office (IV): 4-7-50 Date reported to Nautical Chart Branch (IV): 5593-5597 4-11-50 5598-5600 3-14-50

Applied to Chart No. 8863 Date: 6-25-51 Date registered (IV): 7-23-51

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

Geographic Datum (III): NA-1927 Vertical Datum (III):

Mean sea level except as follows: or [75]
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 X

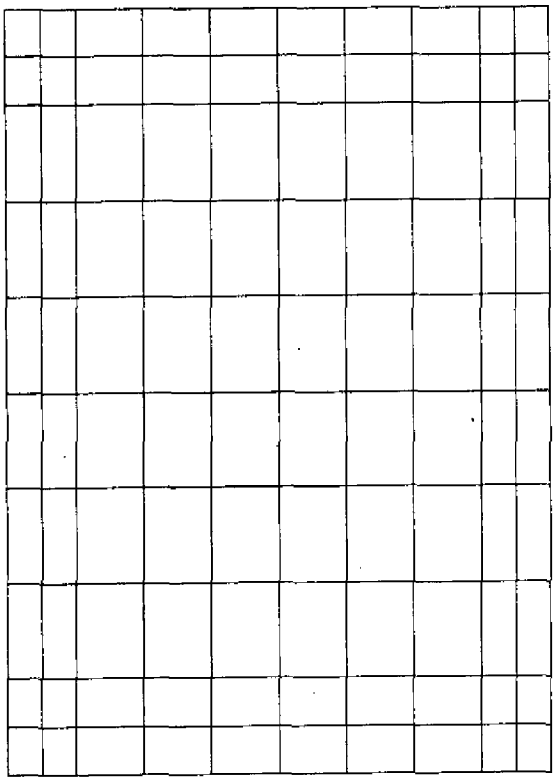
Plane Coordinates (IV): State: Zone:

Y= X=

See Note of Route Page 4

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)

Orvis N. Dalbey
Louis Levin
Clarence E. Misfeldt

DATA RECORD

Field Inspection by (II): E. L. Jones — Date: 13 May 1949 to September 1949

Planetable contouring by (II): None — Date: ———

Completion Surveys by (II): E. L. Jones (No edit accomplished for T-5596 + T-5597. See p. 2 of Field Edit Report — Date: 2 May to 16 June 1950

Mean High Water Location (III) (State date and method of location):
MHWL delineated on plotting instrument using 1948 photography, guided by MHWL indications on the same photography used for 1949 field inspection of the northwest portion of the island.

Projection and Grids ruled by (IV): Ruling Machine — Date: 24 Oct. 49

Projection and Grids checked by (IV): Theodore L. Janson — Date: 24 Oct. 49

Control plotted by (III): W. L. Lineweaver — Date: 27 Oct. 49

Control checked by (III): H. R. Rudolph — Date: 30 Oct. 49

Radial Plot or ~~Stereoscopic~~ Control extension by (III): Frank J. Tarcza — Date: 6 Dec. 49

Stereoscopic Instrument ~~compilation~~ delineation (III):
Shoreline ~~Planimetry~~: Michael G. Misulia, Orvis N. Dalby, Louis Levin, Clarence E. Misfeldt — Date: 23 Dec. 49
Contours and Planimetry: Louis Levin, Clarence E. Misfeldt — Date: 28 Feb. 50

~~Manuscript delineated~~ compiled by (III): Robert L. Sugden, Orvis N. Dalbey — Date: 30 Apr. 50

Photogrammetric Office Review by (III): Orvis N. Dalbey — Date: 7 Apr 50

Elevations on Manuscript checked by ~~(H)~~ (III): Louis J. Reed — Date: 7 Apr 50

Mil Grid - Universal Transverse Mercator - Zone 60

T-5593	Plotted by	K N. Maki	5/31/50	Checked by	R.C. French	6/19/50
5594	"	"	5/15/50	"	"	6/16/50
5595	"	"	7/10/50	"	"	7/11/50
5596	"	"	7/14/50	"	"	7/18/50
5597	"	"	8/17/50	"	C. Theurer	9/7 50
5598	"	"	9/8/50	"	"	9/7/50
5599	"	"	9/21/50	"	R.C. French	9/24/50
5600	"	"	9/25/50	"	"	9/26/50

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

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
23819,20		10:57		MSL
23825,27		11:13		"
23829,30		11:15		"
23833-40	19	11:27		"
23842	Sept.	11:39	20,000	"
23866-70	1948	12:29		0.1' above MSL
23871A		12:30		0.1' " "
23871D		12:38		0.2 " "
23872A,B,C		12:48		0.2' " "
23873A		12:50		0.2' " "
23874B-L		12:58		0.2' " "

Refer to Compilation Report, item 33 C for single lens or 5-lens photographs (field inspection)

Tide (III):

Ratio of Ranges	Mean Range	Spring Range	Diurnal Range
			2.8'

Reference Station: Kiska Harbor, Alaska
Subordinate Station: Constantine Harbor, Amchitka
Subordinate Station:

Washington Office Review by (IV): K. N. Maki Date: 9-28-50

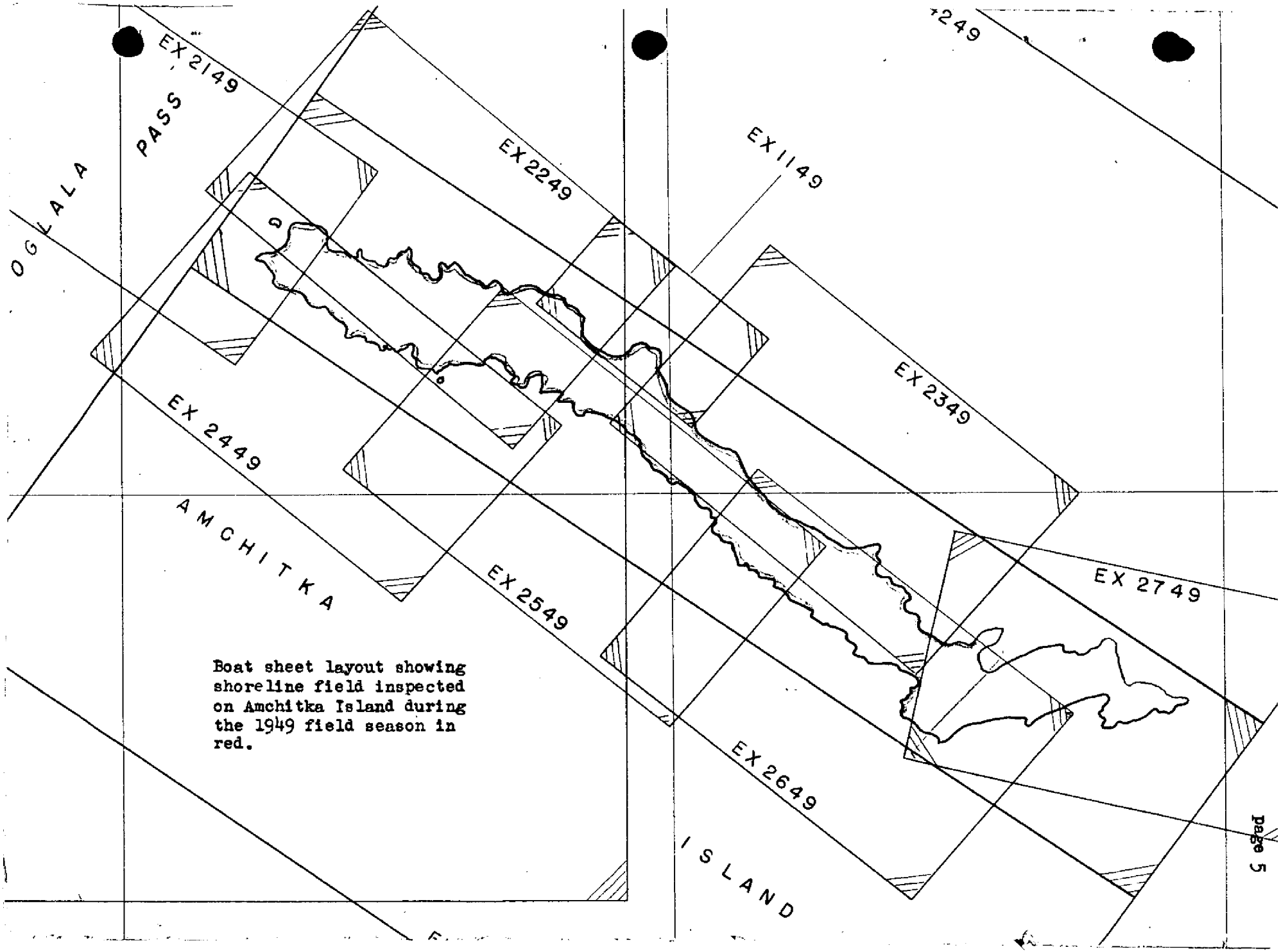
Final Drafting by (IV): Date:

Drafting verified for reproduction by (IV): Date:

Proof Edit by (IV): Date:

Land Area (Sq. Statute Miles) (III): See Remarks
Shoreline (More than 200 meters to opposite shore) (III): See Remarks
Shoreline (Less than 200 meters to opposite shore) (III): None
Control Leveling - Miles (II):
Number of Triangulation Stations searched for (II): Recovered: Identified:
Number of BMs searched for (II): Recovered: Identified:
Number of Recoverable Photo Stations established (III):
Number of Temporary Photo Hydro Stations established (III): One, CAT on T-5599 / ninety-four + 39 = 133

Remarks:	Land Area		Shoreline	
5593	11.5	sq.mi.	21	miles
94	23	" "	32	"
95	14	" "	16	"
96	11	" "	12	"
97	8	" "	9	"
98	19	" "	22	"
5599	22	" "	28	"
5600	3.5	" "	10	"
Approx. total	112	sq.mi.	150	miles



Boat sheet layout showing shoreline field inspected on Amchitka Island during the 1949 field season in red.

Summary to Accompany T-5593 to 5600

Topographic maps T-5593 to T-5600 inclusive are eight of a group of similar maps in project Ph-34(48). These eight maps cover the entire area of Amchitka Island. Field inspection was indicated on 1945 five lens and single lens photographs and 1949 single lens ratio photographs. Field inspection for the eastern end of Amchitka Island was to some extent incomplete and more generalized than the 1949 field inspection for the western portion of the island. Field edit accomplished in 1950 by E. L. Jones provided complete field inspection coverage for shoreline and near shore features for the eastern area of Amchitka.

The radial plot was run in the Baltimore Photogrammetric Office using templets of 1948 nine-lens photographs on a vinylite base. The base sheets were ruled with polyconic projections at 1:20,000 scale on the North American 1927 Datum. A WAC grid in red was also ruled on the base sheets. *

These maps were compiled in the Washington Office on the Reading plotter from rectified nine lens photographs 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.

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

A single descriptive report was prepared for this series of eight 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. **

* Universal Transverse mercator grid later added - See note opposite page 4 BGJ

** These maps smooth drafted by Coast and Geodetic Survey for publication of Military quadrangles by Army Map Service BGJ.

2. Field inspection. Amchitka Island, like most of the Aleutian Island chain, is of volcanic origin. ~~Grass-covered peaks are prevalent on the western half of the island.~~ There are numerous grass-covered peaks 800 to 1000 feet high on the western half of the island. Low rolling hills characterize the eastern part of the island.

Most prominent from off shore are the dark shoreline rocks and rock bluffs which from a distance appear nearly black. This rock, known as tuff, is consolidated volcanic sands of granite-like hardness formed under water by sedimentation. The rock bluffs along the shoreline are interspersed with steep grass slopes. Only at the head of the small coves and bights does the land slope gently away from the shoreline. The few sand beaches on Amchitka Island are of black volcanic sands - they are short and narrow.

The grass-covered slopes and ridges of the island are dotted with conical mounds. These mounds are often 15 to 20 feet across at the base, several feet in height, and always very symmetrical. Moss growing on these mounds causes them to photograph as dark dots. The mounds were found to be very useful as sub-stations for the identification of triangulation stations.

The field inspection was confined to the shoreline. No interior inspection, except that in connection with the identification of triangulation stations and the classification of a few roads was made. The shoreline was inspected during signal-building and whitewash operations at no loss of field time to these operations. A detailed shoreline inspection was made in the vicinity of station sites. Between station sites off-lying rocks of importance for charting purposes were inspected from the launch. The shoreline, except in a few places, was too difficult to traverse on foot. The combined field-inspection whitewashing unit operating from launch and skiff consisted of five men and one officer.

The photographs used during field inspection were of excellent quality. They were of the single-lens type ratioed very close to 1:20,000 scale and were 12½ by 12½ inches square, a very convenient size for field use. A magnifying prismatic stereoscope was used freely in the field aboard the launch and was a great aid in selecting natural objects for white washing. For additional information concerning the field inspection during the 1949 field season see Special Report on Photogrammetric Control for Inshore Hydrographic Surveys in Alaska, dated 1 October 1949.

Since the field inspection was not completed in the southeastern part of Amchitka Island this season, there is on page 5 a hydrographic sheet index showing the remaining shoreline work.

Few abbreviations were used on the field inspection notes, two abbreviations used, which are not standard useage, are:

(1) "w.w." or "wh.W." for white wash.
(2) "pin. rk." for pinnacle-type rock.

3. Horizontal Control. The triangulation established during the 1949 field season will be made the subject of a separate report. The descriptions of these stations and their geographic positions, as well as the recovery notes for all previously existing triangulation recovered will be submitted with the triangulation report.

As previously stated, the field work in the southeastern part of Amchitka was not completed this season. A few of the triangulation stations in this area were identified on the photographs and may provide sufficient control to complete the office radial plot for the whole of Amchitka Island.

Pricking cards are submitted with this report for all triangulation stations established this season except for station CAPE, 1949. This station is in the vicinity of station NOR, 1944 and its identification was not considered essential. The following triangulation stations established this season are identified on the photographs indicated:

Triangulation Station	Identification Photo	Method
ANNEX, 1949	0-512	sub. pts.
BANJO, 1949	0-513	sub. pts.
BIRD 2, 1949	0-529	distances
CAN 2, 1949	0-564	sub. pt.
COL 2, 1949	0-558	prick direct
DECK, 1949	0-524	sub. pt.
EAGLE, 1949	0-559	prick direct
ENTRY, 1949	0-519	sub. pt.
HAVOC, 1949	0-514	distances
HEART, 1949	0-519	sub. pts.
JUNE 2, 1949	0-525	distances
JUXTA, 1949	0-570	sub. pts.
MIR 2, 1949	0-551	sub pts.
MEX 2, 1949	0-568	prick direct
MOTEL, 1949	0-517	sub. pts.
OTT 2, 1949	0-558	sub. pt.
PILOT, 1949	0-545	distances
QUAIL, 1949	0-517	sub. pts.
RIM 2, 1949	0-556	prick direct
SCAN, 1949	0-526	sub. pt.
SCRUB, 1949	0-567	sub. pt.

TRIAD, 1949	0-564	sub. pts.
TRIPOD, 1949	0-570	sub. pts.
ULTRA, 1949	0-570	sub. pts.
VAULT, 1949	0-565	sub. pt.
VISTA, 1949	0-543	sub. pts.
VITAL, 1949	0-515	sub. pt.
WATCH, 1949	0-545	sub. pt.
WEDGE, 1949	0-563	sub. pts.
WINDY, 1949	0-553	sub. pts.
WORRY, 1949	0-521	sub. pt.
YOKEL, 1949	0-569	sub. pt.

Previously existing triangulation stations identified on the photographs and for which pricking cards are submitted with this report are as follows:

Triangulation Station	Identification Photo	Method
211- BAKER CONTROL TOWER, 1944	0-575	prick direct
216- BAT (USN) 1943	0-510	sub. pts.
767- BIRD SHORAN, 1948	0-528	prick direct
201- CLARK (USED) 1943	0-512	sub. pt.
263- CHITKA, 1944	0-519	sub. pt.
202- DIG ASTRO (USN) 1944	0-495	prick direct
216- EYE (USN) 1935	* 0-499	sub. pt.
211- HIM 2 (USE) 1943	0-495	prick direct
263- NOR, 1944	0-527	prick direct
214- RADAR TANK, 1945	0-499	prick direct
214- SILO, 1945	0-509	prick direct
215- TONY, 1943 (USE)	0-575	sub. pts.
263- WEB 2, 1944	0-521	prick direct

* Station originally marked by tripod. Station for triangulation purposes now lost. Recovered within 2 feet for photo-control purposes.

4. Vertical Control. Vertical control as required for contouring by stereoscope plotting instruments was established by theodolite cuts and vertical angles from triangulation stations. A few horizontal photographs taken with the K-20 camera may be of value for identification or experimental purposes. On clear days suitable for this type of photography all ship's personnel was engaged on other more important phases of work of the project.

All vertical control data, including the K-20 photography, will be submitted as a special report.

5. Contours and drainage. Inapplicable.

6. Woodland cover. Inapplicable.

7. Shoreline and alongshore features. Little difficulty should be experienced by the compiler in delineating the mean high water line which, in general, is the offshore edge of a lighter grey tone on the photographs. Much of this lighter tone at mean high water line is due to the higher light-reflecting quality of the smaller stones which have been polished by wave action and to which moss does not adhere. All shoreline delineated on the field inspection photographs is mean high water. There was no apparent mean high water line occuring in the area inspected.

The shoreline rocks and ledges are very dark and are difficult to delineate even in the field. Generally, the tops of bare rocks and rock piles extending 10 to 15 feet above mean high water photographed with a slightly lighter grey tone, which is believed due to the bleaching effect of bird excretions. Occasionally these rocks are thatched with grass which invariably photographs lighter in tone.

Pinnacle shaped rocks with heights of from four to five times the diameter at their base are very common along the shoreline and foreshore. It was difficult to get stereopsis in the field on these rocks since they photographed at about the same tone as shadows and the rock ledge. According to geologists on the island, these are a core of harder volcanic rock which has resisted erosion. These rocks are sometimes referred to as priest rocks since in silhouette they resemble a portly clergyman in a cloak or gown.

To aid the compiler, numerous photographs were taken during field inspection. A folder, entitled "Shoreline Photographs and Notes For The Compiler of Topographic Maps", of these photographs has been prepared and is submitted with this report. Because of the limited photographic facilities aboard the Ship EXPLORER this folder has been prepared in single copy only.

8. Offshore features. Rocks and rock ledges offshore from the high water line were inspected from a launch which paralleled the shoreline as closely as safety permitted. At control stations where a signal or whitewash was required the offshore rocks and ledges were inspected from the shoreline. An estimate of the amount which the rock or ledge uncovered was noted on the field-inspection photographs, together with the time and date. Where elevations were estimated they were viewed from distances of not over 500 to 600 feet. Rocks not visible photographically were not located in position on the field photographs. A close liaison was maintained with the inshore hydrographic units which were generally sounding in the same area.

The hydrographic units located rocks of navigational importance which did not show on the photographs. Most of these rocks were covered by heavy surf at the time of photography.

9. Landmarks and aids. There are no landmarks for nautical charts, ~~interior landmarks~~, aeronautical aids, fixed aids to navigation, or floating aids to navigation in the area field inspected. For interior aid see paragraph concerning outpost building under heading 12 of this report.

The aids to navigation and landmarks at Constentine Harbor should be investigated when field work is next resumed on this island.

10. Boundaries, monuments, and lines. Inapplicable since Amchitka Island is a military reservation. At present it is on a caretaker status.

11. Other Control. Preliminary radial plots were run aboard ship to furnish control for inshore hydrography. These plots were run between triangulation stations whose geographic positions were available. Poor weather hampered the triangulation observing, so that it was not until 5 August that many of the geographic positions could be computed to control the plot. At that time most of the hydrography off the western part of Amchitka Island was completed. After the hydrography in an area was completed no attempt was made to rerun the radial plot to improve the boat-sheet positions of the photo-hydro stations.

The radial plots, seven in number, were run on acetate sheeting without a projection. The scale was set by holding to shoreline points on the first two photographs. The plot was extended by holding to photo-center azimuths and pass points in the overlap. All triangulation and photo-hydro stations were radial-plotted. Each plot was started in the vicinity of a triangulation station of known geographic position and extended to a similar station of known position.

The radial plot was then laid over the boat sheet and by comparing the plot position of the two triangulation stations with the boat sheet positions the scale of the plot was determined. The scale of the plot was then changed graphically and the positions of the uncomputed triangulation stations and the photo-hydro stations were pricked through the acetate onto the boat sheet.

The radial plots were often run at night to extend control for the next day's inshore hydrography. It was not possible for these plots to be of high accuracy because of the field conditions and the time limitation imposed. However, the plots did provide immediate control and in so doing contributed to the efficient employment of the ship's hydrographic units.

It was found that long plots, of which some as long as nine miles were necessary during the early part of the season, were apt to bow in the center by as much as 40 meters (1:20,000 scale) where the photograph centers fell near the shoreline and few pass points could be selected on the offshore side of the photographs.

Additional information concerning these preliminary radial plots is contained in Special Report "Photogrammetric Control for Inshore Hydrographic Surveys in Alaska".

Since the triangulation stations were established at a closer interval on Amchitka Island than called for in the instructions, no recoverable topographic stations were established. A recovery was made of the 1945-marked hydrographic station CAT and card form 524 is submitted. Div. Photogr. General Files.

The following photo-hydro stations were identified on the photographs indicated and the positions of these stations will be needed for smooth plotting of the 1:20,000 scale hydrographic sheets:

Photo-hydro Sta.	Identified on photo.	Photo-hydro Sta.	Identified of photo.
Abe	0-509	Boo	0-511
Ace	0-518	Bop	0-512
Act	0-522		
Ado	0-568	Cab	0-548
Aft	0-567 *	Cud	0-571
Aha	0-518		
Alp	0-524	Dab	0-549
Alt	0-523	Dem	0-512 *
Amp	0-527	Diz	0-513
Amy	0-518	Doe	0-571
Ann	0-559	Dog	0-527
Any	0-547	Dop	0-547
Are	0-528	Doy	0-510
Ate	0-569	Dud	0-524
Auk	0-570	Dun	0-564
Awl	0-512	Dup	0-516
Axe	0-525		
Azo	0-548	Ear	0-566
		Ebo	0-563
Bab	0-565	Egg	0-512
Bah	0-563	Elm	0-569
Bar	0-522	Emo	0-518
Bin	0-551	Emo	0-550
Bok	0-572	End	0-550
Bon	0-528	Eon	0-511

Erp	0-527
Eta	0-523
Eva	0-513
Fal	0-513
Fem	0-524
Fen	0-522
Fib	0-528
Fie	0-510
Fig	0-511
Fir	0-563
Fis	0-566
Fit	0-548
Fix	0-563
Fop	0-512
Fox	0-525
Fro	0-565
Fro	0-509
Fun	0-564
Fuz	0-552
Gad	0-547
Gad	0-525
Gal	0-548
Gam	0-523
Gin	0-571
Giz	0-570
Hag	0-527
Hat	0-569
How	0-517
Hut	0-571
Ida	0-556
Ide	0-568
Ivy	0-555
Jag	0-569
Jam	0-528
Jew	0-575
Jug	0-515
Kit	0-556
Law	0-528
Lem	0-575
Lop	0-525
Lux	0-511
Max	0-555
Max	0-517
Mid	0-525
Mor	0-510
Nab	0-554
Nag	0-571
Ned	0-526
Nig	0-528
Nog	0-563
Not	0-511
Odd	0-515
Ohm	0-511
Ora	0-512
Own	0-528
Pab	0-512
Pak	0-558
Pan	0-516
Pap	0-524
Par	0-569
Pat	0-527
Pay	0-571
Pep	0-555
Per	0-528
Pet	0-553
Pig	0-510
Pix	0-569
Poy	0-513
Puf	0-511
Pug	0-554
Pup	0-527
Put	0-516
Rab	0-524
Ram	0-527
Rep	0-509
Roy	0-570
Rug	0-509
Sat	0-515
Sax	0-510
Sic	0-521
Sin	0-527
Sic	0-521
Sid	0-570
Sol	0-569

Sop	0-513	Wax	0-516
Soy	0-528	Wes	0-524
Sum	0-511	Wic	0-557
		Wid	0-512
Tan	0-521	Woe	0-496
Tid	0-510		
Til	0-522	Yea	0-511
Tot	0-513	Yea	0-513
Tut	0-569	Yon	0-563
Vet	0-522	Zag	0-555
Vic	0-512	Zed	0-575
Vix	0-511	Zet	0-511
		Zig	0-517
Wac	0-518	Zip	0-527
Wag	0-514	Zoo	0-526
Wan	0-570 *		

* Pricking card submitted.

The following photo-hydro stations identified on the photographs indicated were used on a 1:20,000 scale hydrographic sheet and also on the 1:10,000 scale sheet (field No. EX-1149) and the positions of these stations will be needed on the larger scale for smooth plotting:

Photo-hydro Station.	Identified on Photo.
Fad	0-518 *
Gar	0-522
Nut	0-518 *
Rex	0-521
Yap	0-521

completed 23 Dec 49

The following hydrographic stations, although they are identified on the photographs as indicated, were located by sextant and theodolite cuts and no photogrammetric positions are needed for smooth plotting the 1:10,000 scale hydrographic sheet (field No. EX-1149):

Hydro. Station	Identified on Photo.
Abe	0-519 *
Fal	0-544
Flo	0-545
Gag	0-545
Hal	0-520
Jim	0-545
Lar	0-520

located thru normal course of producing the sheetline requested.

Lot	0-545
Low	0-545 *
Wow	0-519

*Pricking card submitted.

12. Other interior features. There is one road which extends the entire length of the island. This road is a class 7 (unimproved dirt) road except in the general vicinity of Constantine Harbor. There are various branches to this road all of which lead to small outposts generally established near the shoreline. These branches, except for the one to triangulation station COL 2, 1949, can hardly be classified as trails since they were made by tracked vehicles. No opportunity presented itself to field-inspect the road on the photographs. However, the road information shown on the photographs was obtained from various personnel of this vessel who had been camped at one of the two shoran stations on the western part of the island.

Except in the Constantine Harbor area all buildings, shacks and quonset huts have been abandoned. Most of the outpost buildings and huts were designed for temporary occupancy during the last war, and they are now rapidly becoming dilapidated. In general, they were placed where they would not be conspicuous from seaward and hence have little or no value as navigational landmarks. They can however be classified as interior landmarks for topographic maps.

13. Geographic names. No field investigation of geographic names was made since the area field-inspected is uninhabited. No opportunity presented itself to contact any of the army personnel at Constantine Harbor concerning geographic names and it is doubtful if this source would prove helpful, since the personnel there are rotated at 18-month intervals. It is recommended then that the geographic names as shown on U.S.C. & G.S. chart 8864 be retained.

One new geographic name is recommended: Chitka Cove for the cove adjacent to Chitka Point on the northwest. This cove was extensively used by the Ship EXPLORER as an anchorage during this season.

14. Special reports and supplemental data. The triangulation report and the vertical control report for this project will be submitted at a later date.

A copy of the transmittal letter showing the photogrammetric records transmitted with this report is attached. In Div. of Photogrammetry Office Files.

1 October 1949.

Edmund L. Jones
Lt. Comdr., USC&GS

Approved and forwarded 1 October 1949.

H. Arnold Karo, Comdr., USC&GS
Comdg. Ship EXPLORER

PHOTOGRAMMETRIC PLOT REPORT

PROJECT NO. PH-34(48)

SURVEYS T-5593 to T-5600, INCL.

21. AREA COVERED:

This radial plot covers the areas of Surveys T-5593 to T-5600, inclusive. These are topographic surveys which completely cover Amchitka Island near the western end of the Aleutian Islands.

22. METHOD - RADIAL PLOT:

MAP MANUSCRIPTS - Vinylite base sheets were furnished the compilation office with polyconic projections in black and WAC grids in red ruled on them at a scale of 1:20,000. No map manuscripts were furnished.

All control stations and substitute stations which were identified were plotted on the base sheets using beam compass and meter bar.

A sketch showing layout of surveys, distribution of control and photograph centers, and a list of identified horizontal control stations are attached to this report.

PHOTOGRAPHS - The photographs used in this radial plot are all nine-lens metal-mounted photographs, taken with the U.S.C. & G. S. nine-lens camera, focal length 8¼ inches. Thirty-six photographs were used, numbered as follows:

19 Sept 48

23819 and 23820	10:57, 58
23825	11:13
23827	11:19
23829 and 23830	11:14, 15
23833 to 23840, incl.	11:24 — 29
23842	11:39
23866 to 23870	12:28 — 30
23871A	12:10
23871D	12:38
23872A to 23872C, incl.	12:48 — 49
23873A	12:50
23874B to 23874L, incl.	12:56 — 13:01

The symbols for pass points, control stations and conjugate centers were given in special instructions from the Washington office and do not follow instructions for other projects.

Field inspection and control identification was done on single-lens photographs taken with Type 0 camera, 6 inch focal length, and ratioed to scale of 1:20,000 which is the same scale as the nine-lens photographs.

TEMPLETS - Vinylite templets were made of all photographs, using the master templet furnished by the Washington office to correct for chamber displacement and paper distortion.

CLOSURE AND ADJUSTMENT TO CONTROL - A preliminary plot was laid first, without attempting to be accurate, in order to determine which photographs were tilted and their relative degree of tilt. Since many photo-hydro points were on shoreline or points of less than 30 feet in elevation, these were used in determining tilt. A small red dot was placed near the radial line on the templet, directly opposite the image point on the photograph. Then templets were laid in groups of three or four. By observing the displacement of red dots from the point of intersection of radials on a shoreline point, the relative degree of tilt was estimated. Templets were placed in four groups, those having no appreciable tilt, those only slightly tilted, a third group of considerably tilted, and a fourth with badly tilted photographs.

Since there was sufficient control so that each templet could be laid independently, they could be laid in any desirable order. Those having no tilt were laid first holding control stations, then templets with slight tilt were laid next. These then formed good intersections on shoreline points. When adjusting tilted templets later, preference was given to control stations and shoreline pass points along the axis of tilt (where there is little displacement) and along the principal line (where radial lines from both isocenters and principal point are in coincidence). The interior peaks and elevated points were disregarded when adjusting tilted templets. Badly tilted photographs were laid last, and on top. In this way, the radial lines from these could be disregarded when pricking the intersection of radial lines.

Tilt determinations were made on two of the badly tilted photographs, 23872B and 23819. There were several considerably tilted photographs in the area of station WINDY, 1949 and no vertical photographs. The tilt of photograph 23872B was determined and a new templet made, using the isocenter for the radial center of shoreline points and a point half way between the isocenter and nadir point for the radial center of elevated points. This new templet was laid with the slightly tilted second group of photographs. The second tilt determination was made on photograph 23819 which is the first photograph used in the flight at the southeast end Amchitka Island. This photograph was needed to establish positions of pass points at the extreme point of the island. All other badly tilted photographs were laid on top solely to get the true positions on templets for later rectification of those photographs.

No. unusual difficulty was encountered in laying the plot. In the southeast part of the island, there was no field identification of control for the end of the island. Eight old stations were identified in the office from descriptions and from positions on old U.S. Navy five-lens photographs. Six of these were held and two were later repricked on photographs after the radial plot was completed and radially plotted positions were established.

TRANSFER OF POINTS - After the radial plot was completed, the positions of all points, including control, were pricked on the top templet over a light table, and each was circled with 3 mm. blue circle. These positions were then established on all templets and base sheets by drilling a small hole through to base sheets with a very small jeweler's drill (about .01 inch diameter). All points were circled on each templet before it was removed and on the base sheets.

23. ADEQUACY OF CONTROL:

The amount and distribution of control was adequate for a good radial plot. At the southeastern end of Amchitka Island there was no field identification but eight additional stations were identified in the office from descriptions and from old U. S. Navy five-lens photographs on which they were pricked. Two of these could not be held in the radial plot and radially plotted positions were established. The photographs were re-examined under a stereoscope and the stations were repricked in their correct positions.

BOB, 1945 - 0.5 mm. southeast of its geographic position. This was repricked on another high point at the correct location. Pricking on U.S. Navy photograph was indefinite.

ARMS, 1945 - 0.7 mm. southwest of its geographic position. It was originally pricked same as on U.S. Navy photograph. It was repricked on another hummock at the true position.

There were forty-five (45) stations identified on field photographs and on pricking cards. Twenty-one were pricked direct and twenty-four identified by use of substitute points. Seven of these stations were not held in the radial plot as originally pricked in office, but five stations could be repricked after a radially plotted position was established. They are as follows:

SUB. PT. EYE (USN) 1935 - 0.5 mm. north of its geographic position. The substitute point was head of a double pointed gully in bluff line. The wrong point was identified in the field. This station was repricked in its true position.

MEX 2, 1949 - 0.4 mm. east of its geographic position. The sketch on pricking card and pricking on field photograph did not agree. The pricking on photograph was used in office identification. Station was repricked to correspond to sketch which is correct position.

SUB. PT. ENTRY, 1949 - 0.5 mm. north of its geographic position. This was the north end of an islet. The sketch was indefinite as to whether the point identified was on shoreline or end of top of rock. The shoreline point was used in original office identification. Station was repricked on end of top of rock which falls at the true location.

SUB. PT. CAN2, 1949 - 1.3 mm. northwest of its geographic position. This substitute point is a point of light colored ridge of rock on island. A similiar point of light colored rock appears on photographs to the northwest and was misidentified by the field party as the substitute point. The correct image point was repricked on photographs.

WINDY, 1949 - 1.0 mm. north of its geographic position. The field party reported no good substitute points available and those sketched could not be identified definitely in office. An attempt was made to identify station direct on highest point of island. After a radially plotted position was established the station was repricked at the correct location.

SUB. PT. BANJO, 1949 - 0.5 mm. north of its correct position. This substitute point is the point of a low flat shelf of rock and possibly was uncovered more at time of photography than during field identification. It was studied under stereoscope but could not be repricked definitely on photographs.

SUB. PT. VITAL, 1949 - 0.5 mm. northwest of its geographic position. No definite reason for this discrepancy could be found. Identification and field work appears correct. All photographs in the vicinity of this station are considerably tilted. The nearest station HAVOC, 1949 was not an accurately identified station and on the flight to the south it was not possible to prick it due to a high bluff at whose base the station is located. It is possible that the radial plot may be weak in this area due to weak stations and tilted photographs.

24. SUPPLEMENTAL DATA:

No graphic control surveys were used.

25. PHOTOGRAPHY:

Photographic coverage is adequate for this radial plot. A number of the available photographs were not sent to this office and were not needed for the radial plot.

The definition of photographs is good. It was noted during adjustment for chamber displacement that there was considerable adjustment in Chamber No. 5 of most photographs. While laying the plot it was noted that radials in this chamber did not hold control points well. This suggest a slight error in the master templet used for adjustments.

There were several badly tilted photographs used in the radial plot. However, they did not affect the positions of passpoints since they were laid last and radials were disregarded when pricking pass point positions. The amount of tilt was determined on two photographs and new templets made. Photograph No. 23872 B was in a group of four badly tilted photographs. Its tilt,(3° 20') was determined to establish

better positions in that area. Also the tilt (4° 47') of photo 23819 was determined because it was the first of a flight at the southeast end of Amchitka Island. Without this photograph, the plot would have been weak there. When making a new templet of these two photographs, the isocenter was used as the radial center of shoreline points. A point half-way between the nadir point and isocenter was used for elevated interior points.

26. The identification of control in general was better than on previous projects of this type. This was particularly true in the matter of use of more substitute points instead of pricking direct. In several cases more than one substitute point was established. This permitted selecting the one that could be most accurately pricked on all photographs in the office.

Respectfully submitted:

Frank J. Tarcza

Frank J. Tarcza,
Cartographer (Photo)

Approved and forwarded
12 December 1949

Hubert A. Paton

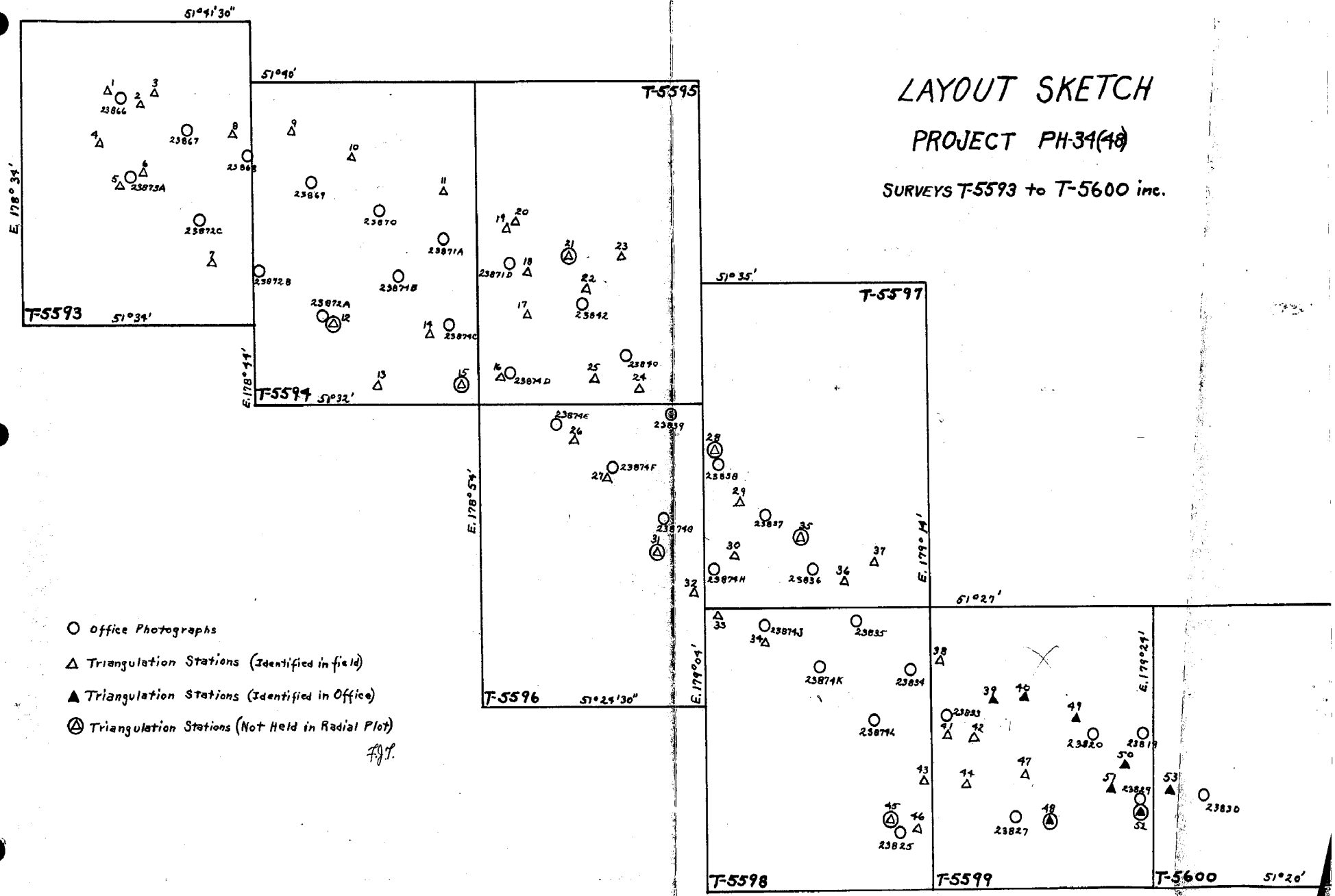
Hubert A. Paton,
Officer in Charge,
Baltimore Photogrammetric Office

No.	Station	Method of Identification
1.	BIRD 2, 1949	Direct
2.	BIRD (SHORAN MAST), 1948	Direct
3.	NOR, 1944	Direct
4.	EAGLE, 1949	Direct
5.	OTT 2, 1949	Sub. Pt.
6.	COL 2, 1949	Direct
7.	RIM 2, 1949	Direct
8.	SCAN, 1949	Sub. Pt.
9.	JUNE 2, 1949	Direct
10.	DECK, 1949	Sub. Pt.
11.	WEB 2, 1944	Direct
12.	WINDY, 1949	Direct
13.	MIR 2, 1949	Sub. Pt.
14.	WEDGE, 1949	Sub. Pt.
15.	CAN 2, 1949	Sub. Pt.
16.	TRIAD, 1949	Sub. Pt.
17.	HEART, 1949	Sub. Pt.
18.	PILOT, 1949	Direct
19.	WORRY, 1949	Sub. Pt.
20.	WATCH, 1949	Direct
21.	ENTRY, 1949	Sub. Pt.
22.	CHITKA, 1944	Direct
23.	VISTA, 1949	Direct
24.	QUAIL, 1949	Sub. Pt.
25.	MOTEL, 1949	Sub. Pt.
26.	VAULT, 1949	Sub. Pt.
27.	SCRUB, 1949	Sub. Pt.
28.	VITAL, 1949	Sub. Pt.
29.	HAVOC, 1949	Direct
30.	YOKEL, 1949	Sub. Pt.
31.	MEX 2, 1949	Sub. Pt.
32.	JUXTA, 1949	Sub. Pt.
33.	TRIPOD, 1949	Sub. Pt.
34.	ULTRA, 1949	Sub. Pt.
35.	BANJO, 1949	Sub. Pt.
36.	CLARK (USE) 1943	Direct
37.	ANNEX, 1949	Direct
38.	BAT (USN) 1943	Sub. Pt.
39.	BAY (USE) 1945	Direct (in office)
40.	ISLE, 1944	Direct (in office)
41.	SILO, 1945	Direct
42.	DIG ASTRO (USN) 1944	Direct
43.	TONY (USE) 1943	Sub Pt.
44.	BAKER CONTROL TOWER, 1944	Direct
45.	EYE (USE) 1935	Sub. Pt.
46.	RADAR TANK, 1945	Direct
47.	HIM 2 (USE) 1943	Direct
48.	BOB, 1945	Direct, (in office)
49.	REEF (USE) 1943	Direct, (in office)
50.	JEEP, 1945	Direct (in office)
51.	FLAG No. 2, 1945	Direct (in office)
52.	ARMS, 1945	Direct (in office)
53.	MIST, 1945	Direct (in office)

LAYOUT SKETCH

PROJECT PH-34(48)

SURVEYS T-5593 to T-5600 inc.



○ Office Photographs

△ Triangulation Stations (Identified in field)

▲ Triangulation Stations (Identified in Office)

Ⓐ Triangulation Stations (Not Held in Radial Plot)

FJT.

Compilation Report

31. Delineation:

The shoreline was delineated separately from the planimetry and contours since the shoreline compilation was needed urgently for application to hydrographic smooth sheets covering the major portion of the island. The entire delineation was accomplished on stereoscopic plotting instruments, both Reading Plotters being used simultaneously on the shoreline and Reading Plotter No. 1 exclusively used for the topographic surveys. A short length of shoreline on the north coast was delineated on the stereoplanigraph for a special 10,000 scale smooth sheet of that area, T-5595A. It was reduced to 20,000 scale and added to the T-5595 manuscript to assist the 9-lens plotters with their rush work.

32. Control:

Refer to side-headings 3 and 23 for horizontal control data, and to special report, "Vertical Control for Topographic Maps, Amchitka Island, Alaska", for vertical control data. Filed in Div. Photogrammetry General Files.

33. Supplemental Data:

(a) Hydrographic Surveys:

H-7007, 5,000, 1945, Constantine Hbr.
H-7040, 10,000, 1945, South Bight and Approaches
H-7042, 10,000, 1945, Approaches to Constantine Harbor

(b) Graphic Control Surveys:

T-6967 A and B, 5,000, 1944, Constantine Hbr.
~~T-6988 A and B, 10,000, 1945, South Bight~~
~~T-6990, 10,000, 1945, West Approach to South Bight~~

unregistered sheets destroyed 7/31/51

(c) Field Inspection Photographs:

1949 Inspection: 48-0-495,499, 509 thru 529, 543 thru 545, 547 thru 559, 562 thru 572, 575

1945 Inspection: Five lens 1029 thru 1034, 1046, 1048
6" single lens 1-V2-6 and 7, 1-V3-11 and 12, 1-V5-22, 1-V6-24 and 25, 1-5V1-1 and 3 and 4, 1-5V3-24, 1-5V4-25 and 26, 1-5V5-30, 1-5V9-48.

34. Contours and Drainage:

Quality of photographs was satisfactory for instrument contouring.

35. Shoreline and Alongshore Details:

Field inspection was not complete. 1949 inspection covered only the west portion of the island (as pictured on page 5, this report), and 1945 inspection covered Constantine Harbor and South Bight in an incomplete fashion. Therefore the shoreline on the east portion of the island is primarily the instrument operators interpretation. See Supplement to Review Report During the 1949 field inspection operation no attempt was made to red-line the entire shoreline; only indications were made on the field inspection photos. This was done in accordance with instructions, but errors were discovered in the shoreline indications. It was very apparent the field inspector did not locate the shoreline under a stereoscope since in many cases he indicated the shoreline as running up and over rocky bluffs; variance of color tones in the photographs fooled him. Therefore, the field inspected shoreline was used with caution and it can be stated that the shoreline as shown on the eight manuscripts is almost entirely the instrument operators delineation.

Alongshore rocks, reefs, etc., were delineated on the instruments guided by the 1949 field inspection. Where the inspection did not indicate details, the operator filled in with his own interpretation. No low-water line was shown by either field or office but considerable ledge and foul area limits were used by both to portray the extremely rugged and broken coastline.

The resulting shoreline and alongshore features as shown on the manuscripts, a combination of office interpretation and all available field data, is considered to be precise and shall supersede all previous compilations.

36. Offshore Details: Not applicable.

37. Landmarks and Aids: See sub-heading 9.

38. Control and Future Surveys: Reference sub-heading 11.

39. Junctions: In agreement.

40. Horizontal and Vertical Accuracy: Standard

41. Supplemental Shoreline Quadrangle T-5595A:

The Ship EXPLORER requested a special 10,000 scale compilation of a section of the shoreline falling within the limits of T-5595. This was completed on the stereoplanigraph and labled T-5595A. Filed in Div. Photogrammetry General Files

After completion it was discovered that the projection on T-5595A was in error; the parallels of latitude were not constructed normal to the central meridian. However,

the error was not corrected since it is not considered consequential. In transferring details from this sheet to another map, care should be exercised to transfer the detail by ½-minute blocks, each block separately.

Copies of correspondence between this office and the Ship EXPLORER are enclosed in this report.

46. Comparison with existing maps:

(a) Amchitka Island No. 1 thru No. 8, 1:25,000, 1943, War Dept.

These are army produced maps made for general ~~use~~ use only. There fore a general comparison was made and the agreement is satisfactory.

(b) Amchitka Army Air Base, set of 24 sheets, scale 1"= 200', 14 June 1945, U.S. Engineer. Contours and planimetric details are in general agreement.

(c) Post Fuel System, QM Diesel and Av. Gas., Amchitka, Alaska, sheets Nos. 1,5, and 6, 1:5,000, 1 Oct. 48, U. S. Engineer, Alaska Dept. General agreement.

(d) Post Primary Power System, Amchitka, Alaska, sheets No. 1 thru No. 5, 1:5,000, U. S. Engineer, Alaska Dept. General Agreement.

(e) Roads and Areas, Amchitka, Alaska, one sheet, 1:≠ 25,000, 1 Oct 48, U. S. Engineer, Alaska Dept. General Agreement

47. Comparison with Nautical Charts:

(a) Semisopochnoi I. to Buldir I., 8864, 1:300,000 March 1948 (4th Edition). General agreement

(b) Anchorages and Harbors, Southwestern Alaska, (Cyril Cove, Amchitka Island), 8851, 1:30,000 (approx), June 1945. Agreement.

(c) Constantine Harbor, 9123, 1:10,000, Jan. 1945, Correction 20 April 1945. General agreement, except for neck of land stretching out from the north cape into the harbor. The photos show this neck to be severed, probably washed away by normal wave action, leaving an island.

Louis J. Reed
Chief, Stereoscopic Mapping Section

Form T-2

PHOTOGRAMMETRIC OFFICE REVIEW

T-5593-94-95

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) none 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 none 14. Rocks, shoals, etc. ✓✓✓ 15. Bridges none 16. Aids to navigation none 17. Landmarks none 18. Other alongshore physical features ✓✓✓ 19. Other alongshore cultural features ✓✓✓

PHYSICAL FEATURES

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

CULTURAL FEATURES

27. Roads ✓✓✓ 28. Buildings ✓✓✓ 29. Railroads none 30. Other cultural features ✓✓✓

BOUNDARIES

31. Boundary lines none 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 ✓✓✓ 39. Forms ✓✓✓

40. Doris M. Dalbey — Reviewer

Louis H. Reed — Supervisor, Review Section or Unit

Chief, Photographic 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

Form T-2

PHOTOGRAMMETRIC OFFICE REVIEW

T-5595, 5596, 5597

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. _____ Louis J. Reed
Reviewer — Supervisor, Review Section or Unit
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

Form T-2

PHOTOGRAMMETRIC OFFICE REVIEW

T-5598, 5599, 5600

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~~ Stereomapping 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

duplicate

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Field Edit

Field No. ..... *Office No.* .....

LOCALITY

State Alaska

General locality Aleutian Islands

Locality Amchitka Island

1945

CHIEF OF PARTY

H. Arnold Karo

LIBRARY & ARCHIVES

DATE

B-1870-1 (1)

DATA RECORD

T

Project No. (II): CS-218 Quadrangle Name (IV):

Field Office (II): Ship EXPLORER Chief of Party: H. Arnold Karo

Photogrammetric Office (III): Officer-In-Charge:

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

Supplemental Instructions, 8 April 1949
Letter, subject - Field Work, 19 April 1949
Letter, subject - Photogrammetric Manuscripts, 16 March 1950

Method of Compilation (III):

Manuscript Scale (III): Stereoscopic Plotting Instrument Scale (III):

Scale Factor (III):

Date received in Washington Office (IV): Date reported to Nautical Chart Branch (IV):

Applied to Chart No. Date: Date registered (IV):

Publication Scale (IV): Publication date (IV):

Geographic Datum (III): 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=

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)

DATA RECORD

Field Inspection by (II): Date:

Planetable contouring by (II): Date:

Completion Surveys by (II): E. L. Jones Date: 2 May - 16 June 1950

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

Projection and Grids ruled by (IV): Date:

Projection and Grids checked by (IV): Date:

Control plotted by (III): Date:

Control checked by (III): Date:

Radial Plot or Stereoscopic Control extension by (III): Date:

Stereoscopic instrument compilation (III): Planimetry Date:

Contours Date:

Manuscript delineated by (III): Date:

Photogrammetric Office Review by (III): Date:

Elevations on Manuscript checked by (II) (III): E. L. Jones Date: 5 June 1950

Camera (kind or source) (III):

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide

Tide (III)

	Ratio of Ranges	Mean Range	Spring Range
Reference Station:			
Subordinate Station:			
Subordinate Station:			

Washington Office Review by (IV): Date:

Final Drafting by (IV): Date:

Drafting verified for reproduction by (IV): Date:

Proof Edit by (IV): Date:

Land Area (Sq. Statute Miles) (III):
Shoreline (More than 200 meters to opposite shore) (III):
Shoreline (Less than 200 meters to opposite shore) (III):
Control Leveling - Miles (II):
Number of Triangulation Stations searched for (II): 13 Recovered: 13 Identified: 0
Number of BMs searched for (II): 0 Recovered: 0 Identified: 0
Number of Recoverable Photo Stations established (III):
Number of Temporary Photo Hydro Stations established (III):

Remarks:

FIELD EDIT AND COMPLETION SURVEYS

Amchitka Island, Alaska
Project CS-218

Ship EXPLORER ..... H. Arnold Karo, Comdg.

1950

Instructions.-- The authority and instructions for this work were not included in the 8 April 1949 Supplemental Instructions, but in two letters, (a) 19 April 1949, subject: Field Work, which pertains to Rat Island, states, "It will be desirable, However, to field edit the compilation in the course of accomplishing other phases of your work in the area to ascertain if any important discrepancies exist." (b) 16 March 1950, subject: Photogrammetric Manuscripts, states that the former instructions regarding corrections to the map detail are not changed. It is believed that the field edit accomplished by this party on Amchitka Island, while not extensive, complies fully with the instructions.

Scope of field surveys.-- The photogrammetric field work was confined to the southeastern part of Amchitka Island in the vicinity of the 1950 inshore hydrographic surveys. This work consisted principally of (a) establishing photo-hydro stations, (b) field editing shoreline on map manuscripts compiled without prior field inspection, (c) recovery of horizontal control stations, (d) investigation of geographic names, and (e) vertical-accuracy tests.

Photogrammetric field work was done in conjunction with signal building or whitewash operations on nine different days between 2 May and 16 June and amounted to the equivalent of 6 3/4 days. On a combined-operations project such as CS-218 it was not possible or feasible to allot more field time to photogrammetric work without delaying other phases of the survey.

51. Methods.— The field edit was confined mainly to the shoreline area and consisted principally of a visual examination of the alongshore rocks. This work was done in conjunction with establishing photo-hydro stations for the control of inshore hydrography.

The manuscripts were examined for accuracy of detail while paralleling the shoreline as close as safety permitted with one of the ship's 30-foot launches. Landings were made by skiff at the photo-hydro station, which afforded an opportunity to view the shoreline detail at close range. It was not possible to examine each rock shown on the manuscript. An attempt, however, was made to examine the outermost rocks, those bordering entrances to small coves likely to be used by small boats, and the larger more conspicuous inshore rocks.

Rocks awash and bare rocks were edited in accordance with page 735 of the Hydrographic Manual. The elevation of these rocks was estimated. Since the accuracy of field estimations is often dependent upon the distance from which the objects were viewed, the route taken by the field party has been shown in yellow on the edit sheets. Rock elevations were referred to either mean high water or mean lower low water, which was determined from tide-level indications on the rocks and from a predicted tide curve prepared daily.

All rock information obtained by the hydrographers has been transferred from the boat sheets and has been indicated in brown on the field edit sheets.

Additional map information obtained by the field edit party which is not in conflict with the manuscript has been shown on the manuscript edit sheets in red. Discrepancies with the manuscript have been shown in green. A legend for the colors used on the manuscript appears on field edit manuscript T-5600. All information shown on the submitted edit sheets has been carefully transcribed from sheets used in the field, which were badly weather-stained. The following eight map manuscripts covering all of Amchitka Island are submitted as field edit sheets:

T-5593	geographic names only
T-5594	geographic names only
T-5595	geographic names only
T-5596	not edited; no geographic names
T-5597	not edited; no geographic names
T-5598	field edit and geographic names
T-5599	field edit and geographic names
T-5600	field edit and geographic names

No instrument locations were obtained for detail not shown on the compiled manuscript. Additional detail has been indicated on the photographs for compiling on the manuscript. In all cases a reference note to this effect has been shown on the edit sheet. Field notes appear only on the following photographs:

0-492	0-496	0-503	0-506
0-493	0-501	0-504	0-508
0-495	0-502	0-505	0-510

Supplementing this report is a folder containing forty-two $2\frac{1}{2}$ x $3\frac{1}{2}$-inch photographs of the shoreline and the field edit operations. It is hoped that this folder will be of interest and help to the reviewers of the topographic maps in this area. Because of the poor photographic processing facilities aboard ship this folder has been prepared in single copy only.

52. Adequacy of compilation.-- With the addition of the information obtained during 1950 the edited manuscripts are believed to be complete and adequate.

53. Map accuracy.-- Because of field conditions and priority assigned to other types of work on this project it was not possible to make accuracy tests in the manner usually employed within the continental United States.

In general, the map represnetation of the shoreline and contours was excellent. Practically all of the discrepancies found during field edit concerned the symbolization of rock outside of mean high water. Many rocks shown as awash fell within the bare rock catagory and vice-verse. This type of discrepancy is to be expected where compilation is done without prior field inspection and where the rocks photograph at about the same tone as the rock ledge and water areas, making stereopsis difficult. The compiler should not consider the mention of the discrepancy in symbolization as a reflection on his work and become over-cautious about showing rocks outside the mean high water line. The danger is that the manuscript, particularly in Alaska, might not be field edited, as has sometimes been the case.

The vertical accuracy of the contours was tested by theodolite at four points in the Constantine Harbor area. Seven-inch theodolite No. H-286 was set up within one-half meter of the southeast corner of Kirilof Wharf, which is a well-defined point on map manuscript T-5599. One set of horizontal angles (one D/R) and double zenith distances (circle R/L) was taken. Horizontal distances to the objects were scaled from the vinylite copy of the manuscript. The vertical angles to three of the objects were taken to the top of structures. The distance from the ground to the top of structure

was obtained at the time of identification on the photographs and is included as additional information on the pricking card.

The points selected for testing were on or very close to a contour, which eliminated leveling at the test points. The points selected and the results are as follows:

	Map elevation	Computed elevation	Map error
Point B (highest point on low hill, IVAKIN PT.)	100'	88.6'	+11.4'
Charlie Control Tower, 1944 (base)	300'	303.4'	- 3.4'
Constantine Hbr. R. Range, 1945 (base, new rear range)	125'	131.4'	- 6.4'
N.W. corner Baker Strip hangar, base, level to edge of hard surface and 200 ft. contour.	200'	197.6'	+ 2.4'

The abstract of horizontal angles and zenith distances, and the computations for the elevations of the test points, are attached to the back of this report. The locations of these test points have been indicated by blue circles on the field edit copy of map T-5599.

Not included in the above vertical accuracy test was the determination by sextant methods of the elevation of H. and T. station NIP, 1945, since the 75 foot elevation shown on the map evidently was taken from the 1945 description card and not determined by stereoscopic plotting instruments. The elevation of this station, which is a pinnacle rock on manuscript T-5599 (lat. 51° 21' N., long. 179° 20' E.), was determined to be 44 feet. Additional information, including the observations and computations, are attached to the back of this report.

54. Recommendations.— From the hydrographer's view-point the photogrammetric assistance on the project around Amchitka Island during the 1950 field season was ideal and should be repeated for other projects where conditions warrant. This assistence consisted of supplying the ship with a vinylite copy and several paper copies of the map manuscripts and two copies of each photograph involved. One of the sets of photographs was used for field notes while the other set was used for radial plot purposes. As previously stated in this report, preliminary plot positions of photo-hydro stations were easily and quickly obtained for inshore

hydrographic surveys. The manuscripts were radial plotted and compiled from 9-lens photographs while the field photographs were 13-inch square single-lens ratioed prints. The Washington Office plot would have the advantage of more rigid control with the 9-lens photographs while the field party was working with photographs of a convenient size for stereoscopic examination on the field inspection launch and for radial plot purposes aboard ship.

As a result of the photogrammetric field work on Amchitka Island during the past two years it has been amply demonstrated that photo-hydro stations need not and should not be established by a separate party when working in advance of the hydrography. They can be located by preliminary plot at the time of signal building or whitewashing with practically no loss of time to the hydrography. Best results can be achieved when the hydrographer and the photogrammetrist are in close contact, as they are aboard ship, so that differences can be quickly resolved.

The compiler should furnish the field editor a copy of the manuscript with notes regarding features which should receive special field investigation during edit. This is especially true when manuscripts are compiled prior to field inspection as they were on the southeastern part of Amchitka Island.

55. Examination of proof copy.-- Proof copies should be sent to:

Mr. Robert D. Jones
Refuge Manager
U.S. Fish and Wild Life Service
Cold Bay, Alaska

Mr. Jones, whose special assignment is the protection and study of the sea otter, spends several months a year on Amchitka Island. He makes frequent trips by small boat or trail about the island and is undoubtedly the best-informed living person on general knowledge of the island. During World War II he was with the Army, arriving there one month after the island was garrisoned in February 1943.

The few military people now stationed on the island are rotated on short periods and appear to have little or no general knowledge of the island except in the vicinity of Constantine Harbor, where their activities are now centered.

All geographic names shown by the Washington Office on the map manuscripts of Amchitka Island were verified by Mr. Jones, who states that he uses these names in his official reports to the Fish and Wild Service, except for

LAKE ELIZABETH (manuscript T-5599, lat. 51° 24', long. 179° 16' E.)

This name was assigned by the Army during the early days of the occupation and can probably be found on blueprints and sketch maps of the CONSTANTINE HARBOR area. The name according to Mr. Jones, has no significance, since all lakes and even ponds in this area were assigned girls' names in much the same manner as if they were numbered. Since there were no women stationed on this island during the past war and since none have been identified with the island's past history, such a name, he believes, is out of place. The name LAKE ELIZABETH is therefore not recommended. See JONES LAKE under new names.

MAKARIUS BAY (manuscript T-5598, lat 51° 23', long. 179° 12'E)

Mr. Jones believes this to be a cartographic error since it is adjacent to the charted ST. MAKARIUS POINT. This name is not recommended for charting. See ST. MAKARIUS POINT under new name.

MARGUERITE LAKE (manuscript T-5599, lat 51° 22'.9,long. 179° 14'.9)

This name is in the same category as LAKE ELIZABETH and was assigned by the Army during the early days of the occupation. The name, according to Mr. Jones, has no significance since all lakes and even ponds in this area were assigned girls' names, as previously stated. The name MARGUERITE LAKE is therefore not recommended. See CLEVENGER LAKE under new names.

The new geographic names have been shown on the field edit manuscripts in red. Several of the names are in the western part of the island and outside of the area field edited this season. These names were furnished by Mr. Jones and are all recommended for charting:

BURR HOUSE COVE (manuscript T-5594, lat. 51° 38', long. 178° 44' E)

When the island was garrisoned in 1943, outpost were established along the coastline about one day's hike apart. The outpost on this cove was established and occupied by a soldier named Burr. The soldiers generally used the word "house" in connection with these outposts since they were places of shelter after a winter day of patrolling the coastline. Most of these outpost huts or houses were on sheltered coves so that they could be supplied by water. The huts are now in a poor state of repair and will become ruins in a few years.

The soldiers seldom used the word cove when referring to this place, since they were in general only interested in the shelter of the hut or house. It is believed that a few war-time names should be charted to identify that period with the island's history. It is recommended that the names BURR HOUSE COVE be charted.

CHAPEL COVE (manuscript T-5594, lat. 51° 37', long. 178° 51' E.)

This cove was so named by soldiers on outpost duty here. When the outpost was established in 1943, there was an Aleut trapper's shack and a grave at the head of the cove. The grave, in addition to be marked by rocks, had a wooden Russian cross, which was later fastened to the roof of a quonset hut, thus giving the hut the appearance of a chapel. Recommended for charting.

CLEVENGER LAKE (manuscript T-5599, lat. 51° 22.9' long. 179° 15' E)

This name was well known among Army personnel during the early days of the occupation. Later, in order to have all the names of lakes and ponds similar, it was assigned the girl's name MARGUERITE LAKE in about the same manner as it would be assigned a number. According to Mr. Jones the lake has always been CLEVENGER LAKE to him and he uses this name in his official reports to the Fish & Wild Life Service. No information is available as to why this name was assigned to the lake originally. It is recommended that the name CLEVENGER LAKE be charted.

JONES LAKE (manuscript T-5598, lat. 51° 23', long. 179° 12' E.)

This lake was so named by Army personnel, soon after the island was occupied in 1943, in honor of General Jones, the first island commander, who had quarters overlooking this lake. The name LAKE ELIZABETH was later applied and may be shown on some of the construction blueprints and sketch maps. According to Mr. Jones, who was on the island at that time, the name JONES LAKE was well established in local usage. Since the name JONES LAKE is connected with the island's history, it is recommended for charting.

LOW BLUFF (manuscript T-5595, lat. 51° 35' long. 179° 00' E.)

This name is descriptive of the bluff point about one mile south east of CHITKA POINT. Recommended for charting.

SEA OTTER ROCK (manuscript T-5600, lat. 51° 22', long. 179° 29'E). This name has not been established in past local usage. It is assigned by this party to a rock which extends about eight feet above mean hight water one mile off the eastern extremity of AMCHITKA ISLAND. The hydrographic party found the sea otter very friendly in the vicinity of this rock; the pod was no larger than at many other places about the island. Mr. Robert D. Jones, who is in field-charge of the protection and study of the sea otter in the ALEUTIAN ISLAND chain, states that the largest concentration of the once nearly extinct otter is on AMCHITKA ISLAND and that this rock should be so named to perpetuate the name on this island. Therefore it is recommended that the name SEA OTTER ROCK be charted.

SQUARE BLUFF - (manuscript T-5593, lat. 51° 39', long. 178° 41'E). This name appears on the 1943 Corps of Engineers quadrangle map and applies to the northeast face of a steep 800-foot flat-topped hill. The hill is very conspicuous and the name can be easily connected with the feature, especially when approached from the east. It is recommended for charting.

ST. MAKARIUS BAY - (manuscript T-5598, lat 51° 23', long. 179° 12'E). Recommended for charting in place of MAKARIUS BAY, which is shown on map manuscript and which is believed to be a cartographic error since it is adjacent to the charted name ST MAKARIUS POINT.

TOP SIDE - (manuscript T-5594, lat. 51°36', long. 179°51'E). This name was assigned by soldiers on outpost duty in this part of the island. It applies to a pronounced saddle, 750 feet high, on the mountain ridge of the island, visible from offshore on both sides of the island. Recommended for charting.

WHITE HOUSE COVE - (manuscript T-5594, lat. 51° 34', long. 178° 53'E). This name was assigned by the soldiers of the 53rd Infantry while on outpost duty here during World War II. The name was derived from a trapper's small white shack at the head of the cove when the outpost was established in 1943. Recommended for charting.

56. Horizontal control. (refer to side heading No. 3, 1949 Field Inspection Report, Ship EXPLORER, Amchitka Island).-- No horizontal control was established during the 1950 field season.

Not all of the existing horizontal control stations on the southeast part of Amchitka was searched for. Only the stations visited during the normal course of field work were recovered and identified on the photographs. Recovery notes and indentification cards are submitted for these stations, except as noted:

ANNEX, 1949 ..... see 1949 ID card
ARMS, 1945 ..... photo 0-495
ASTRO (USE) 1945 ..... photo 0-504

BAY (USE) 1944 ..... photo 0-495
CHARLIE CONTROL TOWER, 1944 ..... photo 0-495
EYE, 1949 ..... see 1949 ID card
* FRONT RG (Constantine Hbr.) 1945..... photo 0-495
JUKTA, 1949 ..... see 1949 ID card
MALL, 1945 ..... photo 0-503
* NEW REAR RG. (Constantine Hbr.) 1945 ..... photo 0-495
* REAR RG. (Constantine Hbr.) 1945 ..... photo 0-495
TALLEST RADAR TOWER, 1945 ..... Not identified
WEATHER VANE, Admin. Hanger, 1945 ..... photo 0-496

* These names are as shown on the published list of geographic positions and descriptions and do not agree with those shown on map manuscript.

The photo-hydro stations were radial plotted as they were established, generally after the close of the field day. This was often necessary in order to supply control for inshore hydrographic surveys the next day. After the photo-hydro stations were located on the manuscript, it was laid over the boat sheets and the positions of the stations were pricked through to the boat sheet. As has been previously pointed out, the field identification of photo-hydro stations on the photographs was accomplished during whitewashing and signal-building operations at no loss of time to these operations. Also, no field time was lost in determining the radial plot positions of these stations.

The accuracy of stations determined as described was fair and considered satisfactory for boat sheet purposes. The positions of these stations should be redetermined under office conditions for the smooth hydrographic sheets.

The following photo-hydro stations were established and are identified on the photographs indicated:

Alp (0-492)
Ant (0-505)
Awl (0-493)
Axe (0-501)

Bis (0-492)
Boo (0-501)
* Bow (0-506)
Bus (0-504)

Cus (0-493)
** Cupola on tk. (0-510)

Den (0-5050)
Dod (0-502)
Dot (0-502)
Dud (0-492)
Dut (0-493)

Kid (0-502)

Lux (0-501)

Mox (0-492)

Nab (0-504)
Nig (0-505)
Nit (0-492)

Pan (0-502)
Pat (0-504)
Pap (0-505)
*Peg (0-506)
Pep (0-492)

Sap (0-492)
*Sit (0-501) - incorrect position deleted from T-5599. 5-20-53. L.M.G.

Eat (0-501)
Emo (0-505)
Era (0-502)

Flo (0-492)

Gag (0-492)
Guy (0-505)

Jam (0-505)

Sty (0-506)

Tot (0-505)
Tuf (0-502)

Wic (0-492)

* Identification card submitted.
** Landmark description card #524 submitted.

57. Photo-hydro stations (Refer to side heading No. 11, 1949 Field Inspection Report, Ship EXPLORER, Amchitka Island).-- Altho most of the inshore hydrography was controlled by shoran it was necessary to establish photo-hydro stations to insure the completion of these surveys. The photo-hydro stations were for the most part whitewashes on prominent rocks.

The same field procedure as in 1949 was used to select and identify these stations. Briefly it consisted of (a) paralleling the shoreline with a launch as close to the mean high water line as safety permits, (b) selecting natural objects suitable for hydrographic signals, (c) examining the single-lens photographs under a magnifying prismatic stereoscope to determine whether station could be easily identified, (d) landing with skiff to mark with whitewash or signal cloth the photo-hydro station, and (e) pricking the station on the photographs. In 1949 the field inspection of shoreline was accomplished during operations (a) and (d). During the 1950 season map manuscripts compiled without prior field inspection were field edited during these two operations.

One set of map manuscripts of the 1950 inshore hydrography area printed on vinylite was furnished for locating the position of photo-hydro stations so that they could be transferred to the boat sheet. Before arriving on the working grounds a second set of the single-lens photos was prepared for radial plotting on the vinylite copy of the map manuscript. These photographs were oriented by selecting several common detail points and the centers circled on the manuscript.

58. Landmarks and aids.(Refer to side heading No. 37, 1949 Field Inspection Report, Ship EXPLORER, Amchitka Island). To be submitted as a special report after the close of the 1950 Field Season.

Edmund L. Jones
LCDR, C&GS

Approved and forwarded:

H. Arnold Karo, CDR, C&GS
Comdg., Ship EXPLORER

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
Form 24A
Rev. Oct., 1932

LIST OF DIRECTIONS

Station S.E. Corner of Kirilof Wharg State tka Id. Alaska

Chief of party Date ne 1950 Computed by FXP

Observer F Instrument No. H-286 Checked by MAH

OBSERVED STATION	Observed direction	Eccentric reduction	Sea level reduction*	Corrected direction with zero initial	Adjusted direction*
	° ′ ″	′ ″	″	° ′ ″	′ ″
Point "B"	0 00 00.00			0 00 00.00	
1945 Central Radio Tower	34 30 35				
Charlie Control Tower 1944	74 13 40				
Constantine Hbr. Rear Range(New Rear Range 1945	120 04 35				
NW Corner of Hanger Roof	131 01 00				

copy ✓ 820

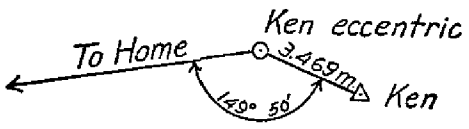
* These columns are for office use and should be left blank in the field.

Station: Ken | *State:* Maryland

Chief of party: C. V. H. | *Date:* 1917 | *Computed by:* O. P. S.

Observer: C. V. H. | *Instrument:* No. 168 | *Checked by:* W. F. R.

OBSERVED STATION	Observed direction	Eccentric reduction	Sea level reduction	Corrected direction with zero initial	Adjusted direction
	° ′ ″	′ ″	″	° ′ ″	′ ″
Chevy	0 00 00.00	− 7.31		0 00 00.00	
Tank west of △ Dulce	29 03 37.0	−1 09.8		29 02 34.5	
Ken (center), 3.469 meters	176 42				
Forest Glen standpipe	313 24 53.0	+3 01.2		313 28 01.5	
Home	326 31 30.21	+ 31.93		326 32 09.45	
Bureau of Standards, wireless pole	352 17 20.8	+ 5.7		352 17 33.8	
Reno	357 28 48.63	− 1.16		357 28 54.78	
Reference mark, 16.32 m	358 31 20				



This form, with the first three and fifth columns properly filled out and checked, must be furnished by field parties. *To be acceptable it must contain every direction observed at the station.*

It should be used for observations with both repeating and direction theodolites.

The directions at only one station should be placed on a page.

If a repeating theodolite is used, do not abstract the angles in tertiary triangulation. The local adjustment corrections (to close horizon only) are to be written in the Horizontal Angle Record, and the List of Directions is to be made from that record directly.

Choose as an initial for Form 24A some station involved in the local adjustment, and preferably one which has been used as an initial for a round of directions on objects not in the main scheme. Use but one initial at a station. Call the direction of the initial 0° 00′ 00.″ 00, and by applying the corrected angles to this, fill in opposite each station its direction reckoned *clockwise* around the whole circumference regardless of the direction of graduation of the instrument. The clockwise reckoning is necessary for uniformity and to make the directions comparable with azimuths.

If a station has been occupied eccentrically, reduce to the center and enter in this form, in ink, the resulting corrections to the observed directions in the column provided for them. If an eccentric reduction is necessary, but not made in the field, leave the column blank. If the station was occupied centrally, and no eccentric reduction is required, put dashes in the column to show that no corrections are necessary.

Directions in the main scheme should be entered to hundredths of seconds in first-order triangulation; otherwise to tenths only. Points observed upon but once, direct and reverse, should be carried to tenths in first-order and second-order triangulation, and to even seconds only in third-order triangulation. In general, but two uncertain figures should be given.

It is recommended that the following simple plan of observing be used with a repeating instrument: Measure each single angle in the scheme at each station and the outside angle necessary to close the horizon. *Measure no sum angles.* Follow each measurement of every angle immediately by a measurement of its explement. Six repetitions are to constitute a measurement. The local adjustment will consist simply of the distribution of the error of closure of the horizon.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
Form 29
Ed. April 1930

ABSTRACT OF ZENITH DISTANCES

Station Kiraloff Wharf (S.E.Corner) State Alaska

Observer F. X. Popper Instrument H - 286

Date	Hour	Object Observed	Object Above Station +o	Elev of Telescope *	Diff. of Heights t−o	Reduction to Line Joining Stations	Observed Zenith Distance	Corrected Zenith Distance
			Meters	Meters	Meters	"	° ' "	° ' "
6-5-50	165th m 0915	Point B	0.0	5.7			89 51 03.8	
		Central Radio Tower 1945 (Top)	0.0	5.7			88 39 15.0	
		Charlie Control Tower (Top)	0.0	5.7			88 23 35.6	
		Constanstine Harbor New Rear Range (Top of slats)	0.0	5.7			88 57 48.8	
6-5-50	1015	N.W. Corner Hangar Roof	0.0	5.7			89 01 54.4	

* Tel. above M.H.W.

Comp. by M.A.H.
✓ FXP
copy ✓ ELJ

DO NOT WRITE IN THIS MARGIN.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
Form 29 B

14.94689

COMPUTATION OF ELEVATIONS FROM NONRECIPROCAL OBSERVATIONS.

Station 1, occ.	Kirolof Wharf	Kirolof Wharf	Kirolof Wharf	Kirolof Wharf	Kirolof Wharf	
Station 2, obs.	Point B	Control Radio Tower	Charlie Control Tower	Constantine Hrb. New Rear-Range.	NW Corner Hanger Roof	
Object sighted	Top	Top	Top	Top	Top	
S =	6938 m.	3972 m.	3302 m.	2562 m.	3863 m.	
ζ_1	89 51 04	88 39 15	88 23 36	88 57 49	89 01 54	
α and mean ϕ	88° - 51°	58° - 51°	18° - 51°	27° - 51°	38° - 51°	
log (0.5 − m)	9. 632 46	9.632 46	9.632 46	9.632 46	9.632 46	
log s	3. 841 23	3.599 01	3.518 78	3.408 58	3.586 92	
colog ρ	3. 194 41	3.194 74	3.195 47	3.195 34	3.195 14	
colog sin 1″=5.31443	5. 314 43	5.314 43	5.314 43	5.314 43	5.314 43	5.314 43
log (k in secs.)	1. 985 23	1.740 64	1.661 14	1.550 81	1.728 95	
k in secs.	96.7	55	46	36	54	
(90° − ζ_1 + k) in secs.	10' - 33"	1° 21' - 40"	1° 37' - 10"	1° 02' 47"	59' - 00"	
Log tan	7.4870	8.3759	8.4514	8.2616	8.2346	
log s	3.8412	3.5990	3.5188	3.4086	3.5869	
log [s tan (90° − ζ_1 + k)]	1.3282	1.9749	1.9702	1.6702	1.8215	
log A	0	0	0	0	0	
log B	0	0	0	0	0	
log C	0	0	0	0	0	
log ($h_2 - h_1$)	1.3282	1.9749	1.9702	1.6702	1.8215	
$h_2 - h_1$	21.3	94.4	93.4	46.8	66.3	
h_1	5.7	5.7	5.7	5.7	5.7	
t − o						
Corrected elevation	27.0	100.1	99.1	52.5	72.0	
log p = 9 − 2 log s						
p						
Weighted mean elevation of sta. obs.	88.6	3284	325.1	172.2	236.2	
-dist. obj. above grd.	0		217	40.8	38.6	
Elev. of ground (MHW)	88.6		303.4	131.4	197.6	
Map elev. of ground	100'		300	125	200	

Comp. MAH
✓ FXP
copy ✓ ELJ

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
Form 29 B

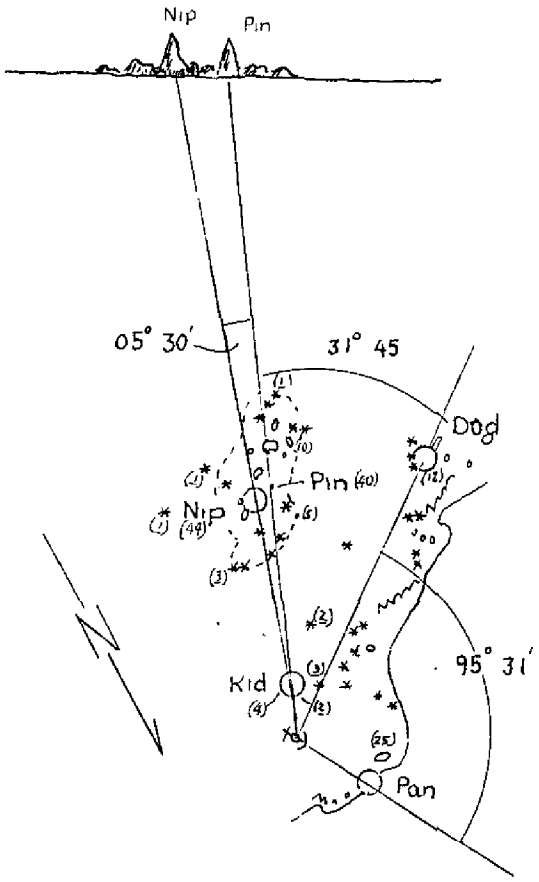
COMPUTATION OF ELEVATIONS FROM NONRECIPROCAL OBSERVATIONS.

Station 1, occ.						
Station 2, obs.						
Object sighted						
ζ_1						
α and mean ϕ						
log $(0.5-m)$						
log s						
colog ρ						
colog sin $1''=5.31443$						
log (k in secs.)						
k in secs.						
$(90°-\zeta_1+k)$ in secs.						
log ditto						
T						
log s						
log [s tan $(90°-\zeta_1+k)$]						
log A						
log B						
log C						
log (h_2-h_1)						
h_2-h_1						
h_1						
$t-o$						
Corrected elevation						
log $p=9-2$ log s						
p						
Weighted mean elevation of sta. obs.						

11—5045

ELEVATION OF RECOVERABLE H. and T. STATION NIP, 1945

Manuscript T-5599
Lat. 51° 21' N.
Long. 179° 20' E.
14:45, 28 May 1950



Sextant angles taken from anchored launch. Three point fix with check angle plotted on vinylite copy of map manuscript. Distance from launch position to NIP scaled. Vertical angle to top of pinnacle (NIP) read on and off the sextant circle.

Mean vertical angle 01° 13'.7
Horizontal distance 640 m.

From Table 6, Special Pub. 144

height 45.1 ft.
tide corr. 1 ft. (predicted)
Elev. NIP 44 ft

Copy of 1:20,000 scale manuscript

Station PIN, 1945 was an unmarked hydrographic signal and is shown on manuscript T-5599 as a rock (elevation 65 feet) about 100 meters west of NIP, 1945. No vertical sextant angles were taken to this rock but it was estimated during field edit to have an elevation of 40 feet.

Form 567
April 1945

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

NONFLOATING AIDS ~~OR LANDMARKS~~ FOR CHARTS

~~XXXXXXXXXXXX~~
TO BE DELETED } STRIKE OUT ONE

Washington, D. C. Nov. 14, 1950

I recommend that the following objects which have ~~(XXXXXX~~ been inspected from seaward to determine their value as landmarks be ~~XXXXXXX~~ *(deleted from)* the charts indicated.

The positions given have been checked after listing by K. N. Maki

S. V Griffith *Chief of Party.*

STATE / CHARTING NAME	DESCRIPTION	SIGNAL NAME	POSITION LATITUDE ° ′	LATITUDE D. M. METERS	LONGITUDE ° ′	LONGITUDE D. P. METERS	DATUM	METHOD OF LOCATION AND SURVEY No.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
	Constantine Harbor, Rear Range (new Rear Range)		51 23	560.0	179 16	727.6	NA 1927	T-5599 Triang.	1945	x			9123

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and *nonfloating aids* to navigation, if redetermined, shall be reported on this form. The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

Form 567
April 1945

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

NONFLOATING AIDS ~~OR LANDMARKS~~ FOR CHARTS

TO BE CHARTED } STRIKE OUT ONE
~~XXXXXXXXXXXXXX~~

Washington, D. C. Nov. 14, 1950

I recommend that the following objects which have ~~XXXXXXX~~ been inspected from seaward to determine their value as landmarks be charted on ~~(xxxxxxxxx)~~ the charts indicated.

The positions given have been checked after listing by K. N. Maki

S. V Griffith *Chief of Party.*

STATE			POSITION											
			LATITUDE			LONGITUDE								
CHARTING NAME	DESCRIPTION	SIGNAL NAME	°	'	D. M. METERS	°	'	D. P. METERS	DATUM	METHOD OF LOCATION AND SURVEY No.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
	Constantine Harbor Rear Range		51	23	682.9	179	16	887.8	NA 1927	T-5599 Triang.	1945	x			9123

Formerly the middle range of three. K.N.M.

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and *nonfloating aids* to navigation, if redetermined, shall be reported on this form. The data should be considered for the charts of the area and not individual field survey sheets. Information under each column heading should be given.

16—51696-1 U. S. GOVERNMENT PRINTING

Form 567
April 1945

attach to Descr Rpt

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

~~NONFLOATING AIDS OR~~ LANDMARKS FOR CHARTS

TO BE CHARTED / ~~REVISED~~ — STRIKE OUT ONE

Washington, D. C. Nov. 9, 1950

I recommend that the following objects which have (~~been~~) been inspected from seaward to determine their value as landmarks be charted on ~~(deleted from)~~ the charts indicated.

The positions given have been checked after listing by R. J. French K.N.M.

S. V Griffith *Chief of Party.*

STATE / CHARTING NAME	DESCRIPTION	SIGNAL NAME	POSITION LATITUDE ° ′	LATITUDE D.M. METERS	LONGITUDE ° ′	LONGITUDE D.P. METERS	DATUM	METHOD OF LOCATION AND SURVEY No.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
Cupola	Cupola on tanks		51 24	(1139.0) 715.0	179 13	(98.0) 1060.0	NA 1927	Photo Plot T-5598	11-9-50			X	8864

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and *nonfloating aids* to navigation, if redetermined, shall be reported on this form. The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

52

APR 17 1950

70 OSR

71 K

~~72~~

~~77~~

78

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
USC&GSS EXPLORER
c/o 705 Federal Office Bldg
Seattle 4, Washington

POST-OFFICE ADDRESS:

TELEGRAPH ADDRESS:

EXPRESS ADDRESS:

10 April 1950

To: The Director,
U.S. Coast & Geodetic Survey,
Washington 25, D.C.

Subject: Photogrammetric Manuscripts - Amchitka Island.

The 1949 season inshore hydrographic sheets for Amchitka Island have now been smooth plotted except for one sheet H-7737 (Field No. EX-2549) which is being plotted by the Seattle Processing Office. The photogrammetric shoreline detail on these sheets was excellent and very few topographic discrepancies were found during the smooth plotting.

The inshore hydrographic sheets smooth plotted by this ship covers the western part of Amchitka Island to longitude 178°47.3'E on the south shore and longitude 179°15.5'E on the north shore. Except for a few minor topographic discrepancies found on hydrographic sheet H-7731 (field No. EX-1149) no other discrepancies were found within the above limits.

In accordance with your letter of 13 January 1950, reference 711-rs, the discrepancies have been indicated on a* paper copy of the shoreline manuscript T-5595A and is forwarded herewith so that corrections can be made on the original manuscript.

The Seattle Processing Office will report any topographic discrepancies found during the smooth plotting of sheet H-7737.

The promptness with which this ship was supplied photogrammetric shoreline detail and smooth sheets after the field inspection information was furnished the Washington Office last October greatly expedited the smooth plotting during this past winter.

*Filed in Div. Phty General Files (T5595 Jacket)

H. Arnold Karo
Comdg. Ship EXPLORER

cc: Seattle Processing Office.

Reed - Please make the corrections in red and ~~make~~ insert this letter in the descriptive report
Corrections made - 20 Apr 50

COPY

77-rs

16 March 1950

To: The Commanding Officer
U. S. C. & G. S. Ship EXPLORER
705 Federal Office Building
Seattle 4, Washington

Through: Supervisor, Northwestern District

Subject: Photogrammetric Manuscripts - Amchitka Island

Reference: Bureau letter dated 13 January 1950, 711-rs, on the same subject

Exact copies on vinylite of three Amchitka quadrangles are being forwarded today under separate cover. The quadrangles are numbered T-5600, T-5599, and T-5598, and cover the southeast portion of the island where launch hydrography was not completed last season. In addition, two paper copies of each map are included in the shipment. The balance of five quadrangles completing the topographic coverage of the island are not finished at this time but paper copies will be forwarded as soon as the work is completed.

The former instructions are not changed regarding corrections to the map detail you may discover this summer.

s/ K. T. Adams,
Acting Director

711-rs

13 January 1950

To: The Commanding Officer
U.S.C.& G.S. Ship EXPLORER
705 Federal Office Building
Seattle 4, Washington

Through: Supervisor, Northwestern District

Subject: Photogrammetric manuscripts - Amchitka Island

Radial plots and shoreline compilation have been completed for all of Amchitka Island and contours are now being compiled on the Reading Plotter. This letter is to discuss additional material which will be sent to you and information which will be required for completion of the photogrammetric manuscripts.

Paper prints of all of the manuscripts will be furnished to you in the near future. As the smooth hydrographic sheets are plotted some adjustment may be necessary between the alongshore details on the photogrammetric sheets and the hydrography. Where changes are necessary in either the limits or elevations of alongshore rocks and ledges, please indicate these on the paper prints of the photogrammetric manuscripts and forward them to this office so that the required corrections can be made on the original manuscripts.

Where the inshore hydrography has not yet been completed, duplicates of the photogrammetric manuscripts on grain cellulose acetate or vinylite will be forwarded to you. These should be useful in locating additional signals during the 1950 field work. Upon completion of the 1950 field work the copies of the manuscripts should be returned to this office with notes regarding any changes or corrections to be made as a result of your 1950 field work.

Acting Director

P. 1 of 2 pages

55

GEOGRAPHIC NAMES

Survey No.

T 5593 - 5600 (incl.)

Name on Survey	A On Chart No.	B On previous survey No.	C On U. S. quadrangle Maps	D From local information	E On local Maps	F P. O. Guide or Map	G Rand McNally Atlas	H U. S. Light List	K	
Pacific Ocean*										1
Alaska*										2
Aleutian Islands										3
Amchitka Island*										4
Bering Sea*										5
Oglala Pass*	(5593)									6
Aleut Point*	(5593)									7
Bird Cape*	(5593)									8
Chitka Point	(5595)									9
Chitka Cove	(5595)									10
Infantry Road	(5597-98)									11
Clevenger Road	(5598)									12
Cyril Cove	(5598)									13
St Makarius Bay	(5598)									14
St. Makarius Point*	(5598)-99)									15
Kirilof Bay*	(5599)-98)									16
Kirilof Point*	(5599)									17
Kirilof Wharf	(5599)									18
Constantine Harbor*	(5599)									19
Constantine Point	(5599)									20
Lake Elizabeth	(5599)		Jones Lake							21
Lake Marguerite	(5599)		Clevenger Lake							22
Ivakin Point*	(5599)									23
Fox Runway	(5599)									24
Baker Runway	(5599)									25
Charlie Runway	(5599)									26
Engineer Road	(5599)									27

← applied to Chart 9123

off Chart limits 9123

M 234

P. 2 of 2 pages

GEOGRAPHIC NAMES

Survey No.

T5593-5600 (incl.)

Name on Survey	A On Chart No.	B On previous survey No.	C On U. S. quadrangle Maps	D From local information	E On local Maps	F P. O. Guide or Map	G Rand McNally Atlas	H U. S. Light List	K	
South Bight	(5599)									1
Omega Point	(5599)									2
East Cape*	(5600)									3
Low Bluff*	(5595)									4
White House Cove	(5594)									5
Chapel Cove	(5594)									6
Burr House Cove	(5594)									7
Top Side	(5594)									8
Square Bluff*	(5593)									9
Bird Rock*	(5593)									10
Sea otter Rock (8ft, 51°21'/179°29'E)	(5600)									11
										12
										13
										14
										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27

* = Decis. B G N

· = Approved name

6-5-50

A. J. W.

Names finally checked 10-31-50 on basis of field edit report.

Approved names underlined in red. L. Herf.

M 234

Review Report T-5593 to T-5600
Topographic Maps
28 September 1950

62. Comparison with Registered Topographic Surveys.-

T-6943	1:26,500	1935	(USN)
T-6944	1:28,200	1935	(USN)
T-6945	1:60,000	1935	(USN)
T-6967 a & b	1:5,000	1944	
~~T-6988 a & b~~	1:10,000	1945	
~~T-6990~~	1:10,000	1945	
T-5777	1:10,000	1945	
T-8016	1:10,000	1946	

Not registered Destroyed Ltr. GFJ.

These surveys are superseded for nautical charting purposes by T-5593 to T-5600 inclusive.

63. Comparison with Maps of other Agencies.- Amchitka Island, Corps of Engineers, No. 1 through 8, 1:25,000, 1943.

Additional supplemental material is listed under item 46, page 26 of the descriptive report.

64. Comparison with Contemporary Hydrographic Surveys.-

H-7731	1:10,000	1949
H-7733	1:20,000	"
H-7734	"	"
H-7735	"	"
H-7736	"	"
H-7007	1:5,000	1944 and 1945
H-7040	1:10,000	1945
H-7042	"	"
H-6906	1:150,000	1935 (USN)
H-6907	1:7,500	" "

These surveys were compared with T-5593 to T-5600 and they are in agreement.

65. Comparison with Nautical Charts.-

8851	1:15,000 (approx.)	1947	Corr. 2-21-49
8864	1:300,000,	1948	corr. 3-8-48
9102	1:1,126,000,	1948	corr. 3-8-48
9123	1:10,000,	1945	corr. 4-20-46

The smaller scale charts show no significant differences when compared with the manuscripts.

Chart 9123 does not show the irregular shoreline conformation to the same extent as is shown on T-5599 and a considerable difference between the chart and the manuscript is evident in the shape of Constantine Point and the neck of land reaching out into Constantine Harbor from north of Kirilof Wharf.

Chart 8851 (Cyril Cove) shows only a general agreement between the larger islands.

66. Adequacy of Results and Future Surveys.-Each map of the series T-5593 to T-5600 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 map of record for the area covered as of the date of this report.

All ~~portion~~ of Amchitka Island is classified as "Restricted". The maps falling in this classified area include ~~T-5597, T-5598, and T-5599.~~ the entire series T-5593 to T-5600 inclusive.

Adequate photo coverage, well distributed horizontal and vertical control and instrument compilation guarantee the conformance of these maps to 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 shown, for a contour interval of 25 feet. See 1950 Field Edit report for discussion of vertical accuracy test - report is attached.

67. Military Grids.-The universal transverse mercator grid, military zone 60, was applied to the manuscripts during review. It is represented by 1/2 centimeter ticks at one thousand meter intervals outside but touching the neat lines.

68. Geographic Names.-A list of geographic names was prepared by the Geographic Names Section, Division of Charts and attached to the Descriptive report.

Reviewed by:

K. N. Maki

K. N. Maki

APPROVED

L. V. Griffith
Chief, Review Section K.N.M.
Div. of Photogrammetry

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

O. S. Reading
Chief, Div. of Photogrammetry

Wm. Scaife
Chief, Div. of Coastal Surveys
BH.

Supplement to Review Report
for T-5593 to T-5600

Field completion surveys were performed on Amchitka Island during the 1950 field season by personnel of the Ship EXPLORER, H. Arnold Karo, Commanding. This work is covered in special reports, "Field Edit and Completion Surveys, Amchitka Island, Project CS-218" and "Shoreline Photographs and Notes for the Reviewer, Topographic Maps of Amchitka Island, Aleutian Islands, Alaska, Project CS-218". These special reports are dated 1950 and are on file in the General Files of the Division of Photogrammetry. *The first mentioned report is attached to this desc. report.*

Field edit was applied in the Washington Office. Two of the eight maps, T-5596 and T-5597, were not field edited and maps T-5593 through T-5595 had only geographic name recommendations. The three easterly maps T-5598 through T-5600 received a fairly intensive field edit of the shoreline in addition to a vertical accuracy test.

The results of the vertical accuracy test were satisfactory. Four points were tested. The abstract of horizontal angles and zenith distances and the computations for the elevations of the test points are attached to the back of the Special Field Edit Report.

A summary of recommended additional names and changes of old names are included in the special field edit report. These have been applied after approval by the Geographic Names Section, Division of Charts.

A landmark, cupola on tanks, recommended by field edit was located by photo plot and a position submitted on Form 567.

Form 567 was submitted for two of the Constantine Harbor ranges. Constantine Harbor Range Rear (1950 Light List name) which is triangulation station New Rear Range (Constantine Harbor) 1945 is no longer in existence as a range structure. The structure was reported as destroyed although the triangulation station mark it was centered over is intact. It has been recommended for deletion on Form 567. Triangulation station Rear Range (Constantine Harbor) 1945 is intact and the range structure over it is in good condition. The previous reported height of 20 feet was corrected to 40.8 feet. This range is not listed in the 1950 Light List, Pacific Coast. A Form 567 has been submitted for this range structure.

The Constantine Harbor Range Front is listed in the 1950 Light List, Pacific Coast, and is also a triangulation station. Its position was previously submitted on Form 567 to the Nautical Chart Branch, Div. of Charts.

K. N. Maki

K. N. Maki
20 November 1950

HISTORY OF HYDROGRAPHIC INFORMATION

T-5593

Amchitka Island Quadrangle, Aleutian Islands

Hydrography was applied to the manuscript of this quadrangle in accordance with Division of Photogrammetry request of 26 January 1951, and general specifications of 18 May 1949, and with Army Map Service TM-35-XVII.

The depths are in fathoms at mean lower low water and originate with the following surveys:

USC&GS Hydrographic Surveys

H-7733	(1949)	1:20,000
H-7734	(1949)	1:20,000
H-7736	(1949)	1:20,000
H-7738	(1949)	1:40,000

The reliability of the hydrographic coverage is considered to be good; however, the compilation was prepared from unreviewed surveys subject to minor revisions.

Bottom contours are shown at 3, 5, and 10 fathoms.

The hydrography was compiled by R. E. Elkins and checked by G. F. Jordan.

R. E. Elkins

R. E. Elkins, 6 February 1951
Nautical Chart Branch

Hydrography referred to on this and subsequent pages was added to the topographic manuscripts also that it could be included on the topographic maps to be published by the Army Map Service
BGG

HISTORY OF HYDROGRAPHIC INFORMATION

T-5594

Amchitka Island Quadrangle, Aleutian Islands

Hydrography was applied to the manuscript of this quadrangle in accordance with Division of Photogrammetry request of 20 February 1951, with general specifications of 18 May 1949, and with Army Map Service TM-35-XVII.

The depths are in fathoms at mean lower low water and originate with the following surveys:

USC&GS Hydrographic Surveys

H-7734 (1949)	1:20,000
H-7736 (1949)	1:20,000
H-7737 (1949-50)	1:20,000
H-7738 (1949)	1:40,000
H-7739 (1949)	1:40,000

The reliability of the hydrography is considered to be good; however, the compilation was prepared from unreviewed surveys which are subject to minor revisions.

Bottom contours are shown at 3, 5, and 10 fathom depths.

The hydrography was compiled by R. E. Elkins and checked by G. F. Jordan.

R. E. Elkins

R. E. Elkins - 13 March 1951
Nautical Chart Branch

HISTORY OF HYDROGRAPHIC INFORMATION

T-5595

Amchitka Island Quadrangle, Aleutian Islands

Hydrography was applied to the manuscript of this quadrangle in accordance with Division of Photogrammetry request 12 February 1951, and general specifications of 18 May 1949, and with Army Map Service TM-35-XVII.

The depths are in fathoms at mean lower low water and originate with the following surveys:

USC&GS Hydrographic Surveys

H-7731	(1949)	1:10,000
H-7734	(1949)	1:20,000
H-7735	(1949)	1:20,000
H-7737	(1949-50)	1:20,000
H-7739	(1949)	1:40,000

The reliability of the hydrography is considered to be good; however, the compilation was prepared from unreviewed surveys which are subject to minor revisions.

Bottom contours are shown at 3, 5, and 10 fathom depths.

The hydrography was compiled by R. E. Elkins and checked by G. F. Jordan.

R. E. Elkins

R. E. Elkins - 13 March 1951
Nautical Chart Branch

History of Hydrographic Information
T-5596, Amchitka Island

Hydrography was applied to the map manuscript in accordance with the general specifications of 18 May 1949 and Army Map Service TM 45-14, Chapter 14.

The depths are in fathoms at mean lower low water and originate with the following surveys:

USC&GS Hydrographic Surveys

H 7737	(1949-50)	1:20,000
H 7888	(1950)	1:20,000
H 7735	(1949)	1:20,000
H 7740	(1949)	1:40,000
H 7738	(1949)	1:40,000

The reliability of the hydrographic coverage is considered to be good; however, the compilation was prepared from unverified surveys subject to revisions in the Washington Office. Depth curves are shown at 3, 5, and 10 fathoms. Hydrography was compiled by C. Theurer and checked by R.K. DeLawder.

Charles Theurer
C. Theurer
6-8-51

HISTORY OF HYDROGRAPHIC INFORMATION

T-5597

Amchitka Island Quadrangle, Aleutian Islands

Hydrography was applied to the manuscript of this quadrangle in accordance with Division of Photogrammetry request of 12 February 1951, and general specifications of 18 May 1949, and with Army Map Service TM-35-XVII.

The depths are in fathoms at mean lower low water and originate with the following surveys:

USC&GS Hydrographic Surveys

H-7735 (1949) 1:20,000

H-7739 (1949) 1:40,000

The reliability of the hydrography is considered to be good; however, the compilation was prepared from unreviewed surveys which are subject to minor revisions.

Bottom contours are shown at 3, 5, and 10 fathom depths.

The hydrography was compiled by R. E. Elkins and checked by G. F. Jordan.

R. E. Elkins

R. E. Elkins - 13 March 1951
Nautical Chart Branch

History of Hydrographic Information
T-5598 - Amchitka Island

Hydrography was applied to the map manuscript in accordance with the general specifications of 18 May 1949 and Army Map Service TM 45-14, Chapter 14.

The depths are in fathoms at mean lower low water and originate with the following surveys:

USC&GS Hydrographic Surveys	
H 7888 (1950)	1:20,000
H 7735 (1949)	1:20,000
H 7740 (1949)	1:40,000

The reliability of the hydrographic coverage is considered to be good; however, the compilation was prepared from unverified surveys subject to revisions in the Washington Office.

Depth curves are shown at 1, 3, 5, and 10 fathoms. Hydrography was compiled by C. Theurer and checked by R. K. DeLawder.

Charles Theurer
C. Theurer
6-12-51

History of Hydrographic Information
T-5599
Amchitka Island Quadrangle, Aleutian Islands

Hydrography was applied to the manuscript of this quadrangle in accordance with Division of Photogrammetry request of 20 February 1951 with general specifications of 18 May 1949 and Army Map Service TM 45-14, Chapter 14.

The depths are in fathoms at mean lower-low water and originate with the following surveys:

USC&GS Hydrographic Surveys		
H-7007	(1944-5)	1:5,000
H-7040	(1945)	1:10,000
H-7042	(1945)	1:10,000
H-7735	(1949)	1:20,000
H-7739	(1949)	1:40,000
H-7888	(1950)	1:20,000
H-7889	(1950)	1:20,000

The hydrography compiled from these surveys was compared with C&GS Nautical Chart 8864, 1:300,000, CP Dwg. #8 dated March 31, 1952. Nautical Chart 9123, 1:10,000 was compiled in 1945 from reconnaissance and advance hydrographic information, and was not used.

The reliability of the hydrographic coverage is considered good; however, the compilation was prepared, in part, from unverified surveys subject to revisions in the Washington Office.

Depth curves are shown at 1, 3, 5, and 10 fathoms. Hydrography compiled by K. N. Maki and checked by C. B. Samuel, 7-31-52.

K. N. Maki

K. N. Maki
Div. of Photogrammetry
7-18-52

History of Hydrographic Information
T-5600
Amchitka Island Quadrangle, Aleutian Islands

Hydrography was applied to the manuscript of this quadrangle in accordance with Division of Photogrammetry request of 20 February 1951, with general specifications of 18 May 1949 and Army Map Service TM 45-14, Chapter 14.

The depths are in fathoms at mean lower low water and originate with the following surveys:

USC&GS Hydrographic Surveys

H-7040	(1945)	1:10,000
H-7739	(1949)	1:40,000
H-7889	(1950)	1:20,000
H-7890	(1950)	1:40,000

The hydrography compiled from these surveys was compared with Nautical Chart 8864, 1:300,000 CD Dwg. No. 8 dated March 31, 1952.

The reliability of the hydrographic coverage is considered good; however, the compilation was prepared, in part, from unverified surveys subject to revisions in the Washington Office.

Depth curves are shown at 5 and 10 fathoms. Hydrography compiled by K. N. Maki and checked by C. B. Samuel, 8-1-52.

K. N. Maki
Div. of Photogrammetry
7-11-52

NAUTICAL CHARTS BRANCH

SURVEY NO. T 5593 to 5600 (incl.)

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
6/25/51	8863	Piccyani	~~Before~~ After Verification and Review T5599 T5600
9/8/52	9123	F.H. Evans III	~~Before~~ After Verification and Review T5599 - partially applied (shoreline + offshore details only)
9/2/53	9123	B. L. Coy	~~Before~~ After Verification and Review – Applied. Contours + Drainage
10/17/61	8864	F.H. Evans 3d	~~Before~~ After Verification and Review partial
1993	16450	DON CORDTS	~~Before~~ After Verification and Review Fully appl'd New metric Chart
			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-2168-1

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.

Applied to ch. 9102 Recontr. 9/15/50 GE