9927,9928,9929
9930-9931

9927 9928 9929 9930 9931

Diag. Cht. No. 8863-2.

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Topographic

Field No. Ph-34(48) *Office No.* T-9927 thru T-9931

LOCALITY

State Alaska

General locality Aleutian Islands

Locality Tanaga Island

19 53

CHIEF OF PARTY

S. B. Grenell, Chief of Field Party
L. J. Reed, Div. of Photogrammetry, Washington, D.C.

LIBRARY & ARCHIVES

DATE January 15, 1958

8-1870-1 (1)

DATA RECORD

T-9927 thru 9931

T-9927 = CAPE SAJAKA, SOUTH HALF
T-9928 = CAPE AGAMSIK
T-9929 = GUSTY BAY
T-9930 = HOT SPRINGS BAY
T-9931 = CAPE SUDAK

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

Field Office (II): C&GSS EXPLORER Chief of Party: S.B.Grenell

Photogrammetric Office (III): Washington, D.C. Officer-in-Charge: Radial Plot = Lester C. Lande
Compilation = Louis J. Reed

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

FIELD = 8 Apr 48, 19 Mar 52, 20 Feb 53, and ltr No 22/MEK, S-2-EX, 8 Mar 52, "Modifications of Insts"

OFFICE = 14 Oct 53

Method of Compilation (III): All contouring was accomplished on the Reading Plotter It also did the shoreline on T-9929, 30, and 31; 27 and 28 were done graphically.

Manuscript Scale (III): 1:20,000

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

Scale Factor (III): 1:1

Date received in Washington Office: MAY 20 1954 Date reported to Nautical Chart Branch (IV): JUL 23 1954

Applied to Chart No. Date: Date registered (IV): 15 April 1957

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

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

Mean sea level except as follows:
Elevations shown as (25) refer to mean high water
Elevations shown as (5) refer to sounding datum
i.e., mean low water or mean lower low water

Reference Station (III):

Lat.: Long.: Adjusted

Plane Coordinates (IV): State: Zone:

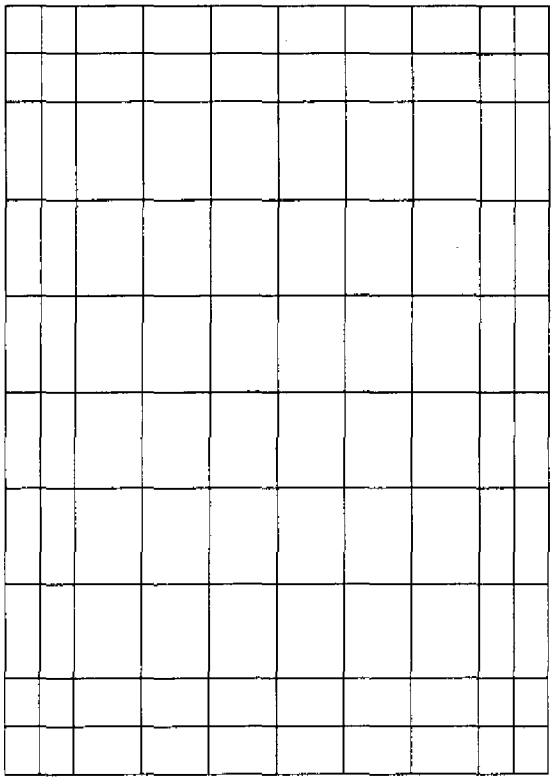
Y= X=

Universal Transverse Mercator Grid, Zone 1, with 1,000m interval.

Roman numerals indicate whether the item is to be entered by (II) Field Party, (III) Photogrammetric Office, or (IV) Washington Office.

When entering names of personnel on this record give the surname and initials, not initials only.

M-2618-12(4)



Areas contoured by various personnel
(Show name within area)
(X) (III)

T-9927 and T-9928: Compiled by Clarence E. Misfeldt on the Reading Plotter, model "A".

T-9929, T-9930 and T-9931: Compiled by Louis Levin on the Reading Plotter, model "B".

DATA RECORD

Field Inspection by (II): S.B.Grenell - EXPLORER Date: 1953

Planetable contouring by (II): None Date:

Completion Surveys by (II): None Date:

Mean High Water Location (III) (State date and method of location): The shoreline on this project was compiled following indications of the shoreline on photographs as produced during 1953 field inspection. Therefore the MHHWL is dated "1953".

Projection and Grids ruled by (IV): Austin Riley on the Reading Ruling machine Date: 15 Oct 53

Projection and Grids checked by (IV): Howard D. Wolfe Date: 19 Oct 53

Control plotted by (III): Neil S. Shultz Date: 8 Nov 53

Control checked by (III): Jeter P. Battley Date: 13 Nov 53

Radial Plot ~~or Stereoscopic~~ Control extension by (III): Samuel G. Blankenbaker and Howard J. Murray Date: 18 Dec 53

Stereoscopic Instrument ~~compilation~~ delineation (III): Planimetry Louis Levin and Contours Clarence E. Misfeldt Date: 26 Feb 54

Manuscript ~~scribed~~ compiled by (III): John B. McDonald (T-9929-30-31) and Robert L. Sugden (all contours and shoreline on T-9929, T-9930, and T-9931) Date: 14 May 54

Compilation of shoreline(only) on T-9927 and T-9928 by the Graphic Compilation Branch. 20 Dec 53

Photogrammetric Office Review by (III): Louis J. Reed Date: 20 May 54

Shoreline compilation review by: Roscoe J. French and Charles Theurer 20 Dec 53

Elevations on Manuscript checked by (II) (III): Louis J. Reed Date: 20 May 54

M-2618-12(4)

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

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide

See Photo & Control Sketch and Photograph List, pages 11 and 12 respectively, of the Radial Plot Report found in the Descriptive Report to accompany T-9921 thru T-9923.

Tide (III)

diurnal

Ratio of Ranges	Mean Range	Spring Range
----	----	3.7
1.1	----	4.0
1.1	----	4.2
0.8	----	3.1

Reference Station: Sweeper Cove, Adak Island
Subordinate Station: Tanaga Bay, Lash Bay
Subordinate Station: Hot Springs Bay

Washington Office Review by (IV): K.N. Moki Date: 11-10-54

Final Drafting by (IV): M. Charity T-9927 M. Day T-9928 M. Day T-9929 M. Day T-9930 M. Day T-9931 Date: 3-26-56 1-27-56 2-7-56 2-14-56 2-23-56

Drafting verified for reproduction by (IV): Wm O. Hallin Date: 3-56

Proof Edit by (IV): Date:

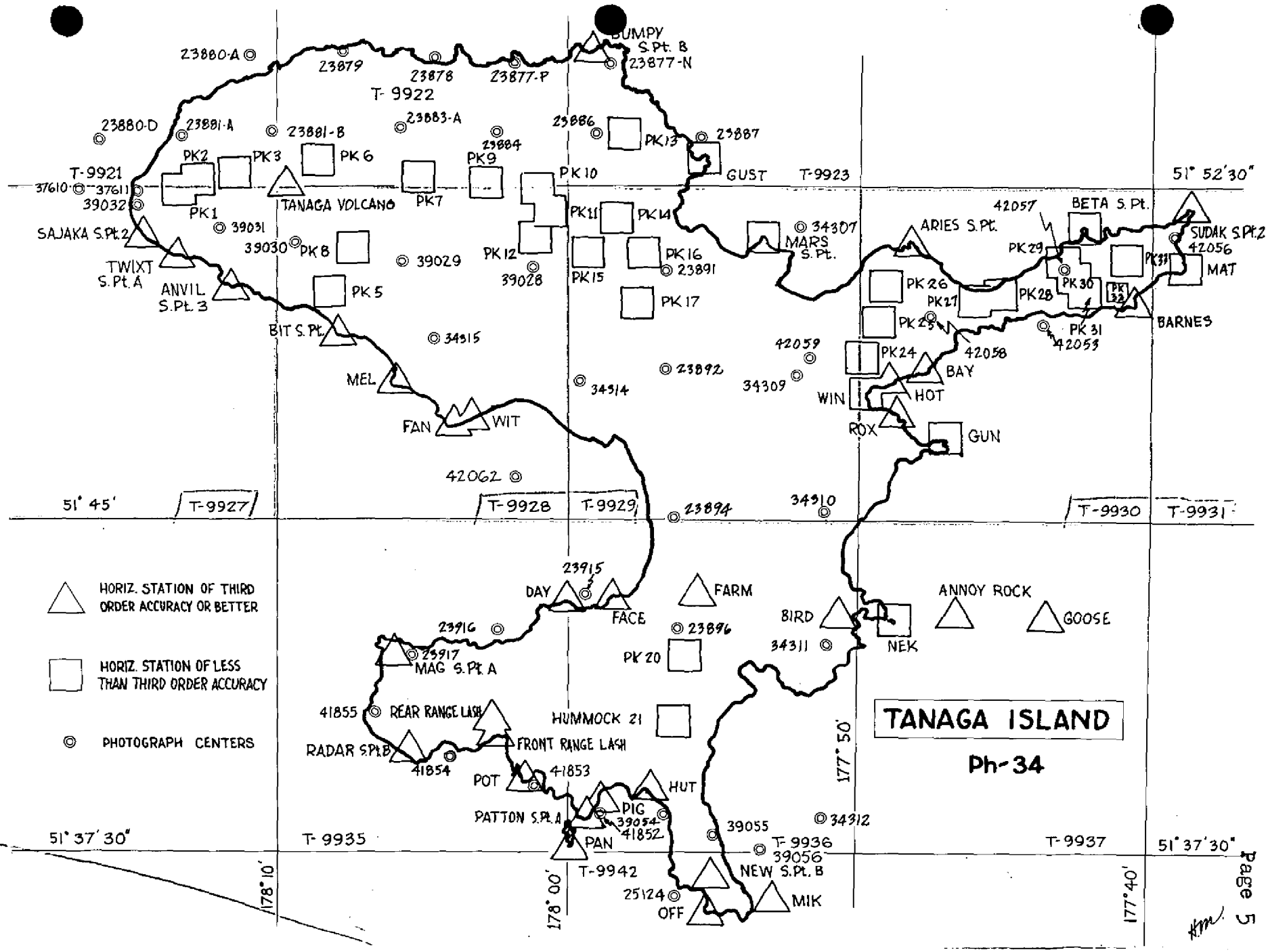
Land Area (Sq. Statute Miles) (III): See remarks (1) below
Shoreline (More than 200 meters to opposite shore) (III): See remarks (1) below
Shoreline (Less than 200 meters to opposite shore) (III): None
Control Leveling - Miles (II): None
Number of Triangulation Stations searched for (II): Recovered: Identified: NINETEEN
Number of BMs searched for (II): None Recovered: Identified:
Number of Recoverable Photo Stations established (III): SIXTEEN
Number of Temporary Photo Hydro Stations established (III): See remarks (2) below

Remarks:

(1)

	T-9927	T-9928	T-9929	T-9930	T-9931
Land Area =	4 sq mi	47 sq mi	60 sq mi	20 sq mi	3 sq mi
Shoreline =	5 miles	13 miles	10 miles	27 miles	8 miles

(2) Numerous hydro stations were located with a theodolite and positions were computed by the field party. No 524 cards were submitted but the stations are dated 1953 and are shown on the manuscripts with a 2.5mm black ciercle. All dated stations without 524 cards are in this category. Dates removed during review for all non-permanently marked stations not having 524 card descriptions. K.N.M. 11/10/54


TANAGA ISLAND
Ph-34
HORIZ. STATION OF THIRD ORDER ACCURACY OR BETTER
HORIZ. STATION OF LESS THAN THIRD ORDER ACCURACY
PHOTOGRAPH CENTERS
T-9922
T-9921
T-9923
T-9927
T-9928
T-9929
T-9930
T-9931
T-9935
T-9936
T-9937
T-9942
51° 52'30"
51° 45'
51° 37'30"
178° 10'
178° 00'
177° 50'
177° 40'
BUMPY S.Pt. B
23877-N
23880-A
23879
23878
23877-P
23880-D
23881-A
23881-B
23883-A
23884
23886
23887
PK1
PK2
PK3
PK5
PK6
PK7
PK8
PK9
PK10
PK11
PK12
PK13
PK14
PK15
PK16
PK17
PK20
PK24
PK25
PK26
PK27
PK28
PK29
PK30
PK31
PK32
PK33
GUST
TANAGA VOLCANO
SAJAKA S.Pt.2
TWIXT S.Pt. A
ANVIL S.Pt. 3
BIT S.Pt.
MEL
FAN
WIT
MARS S.Pt.
ARIES S.Pt.
BETA S.Pt.
SUDAK S.Pt.2
MAT
BARNES
BAY
HOT
WIN
ROX
GUN
DAY
FACE
FARM
BIRD
NEK
ANNOY ROCK
GOOSE
MAG S.Pt. A
REAR RANGE LASH
FRONT RANGE LASH
RADAR S.Pt.B
POT
HUMMOCK 21
HUT
PIG
PATTON S.Pt. A
PAN
NEW S.Pt. B
OFF
MIK
37610
37611
39032
39031
39030
39029
39028
34315
34314
23892
34307
34309
42059
42058
42057
42056
42053
42062
23894
34310
23915
23916
23917
23896
34311
41855
41854
41853
39054
41852
39055
34312
39056
25124

Summary to Accompany Descriptive Report T-9927 thru T-9931

T-9927 thru T-9931, inclusive, are five topographic surveys covering the central area of Tanaga Island from Cape Sajaka to Cape Sudak. These maps are a combination of graphic compilation and 9-lens Reading Plotter compilation. Field operations preceding compilation included field inspection, recovery and establishment of horizontal control and the determination of elevations required to control a stereo-instrument project vertically. The compilation was at a scale of 1:20,000. Contours were drawn at a 50-foot interval with 25 foot interval supplemental contours. The maps were not field edited.

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

FIELD INSPECTION REPORT

2-20 See separate report entitled: *Filed in general files, Div. of Photogrammetry.*

FIELD INSPECTION REPORT

FOR MAPS

T-9921 thru T-9923
T-9927 thru T-9931
T-9935 thru T-9937
and T-9942

Project CS-218, Ph-34
Tanaga Island, Alaska

Ship EXPLORER
S.B.Grenell, Comdg

RADIAL PLOT REPORT

21-31

Please refer to the radial plot report beginning on page 8 of the descriptive report to accompany T-9921 thru T-9923. The area of this report is also covered by that radial plot report.

COMPILATION REPORT

31. Delineation:

The shorelines on T-9927 and T-9928 were delineated and compiled on the manuscripts by graphic methods. Shoreline and rock data were compiled from metal-mounted office photos with the aid of a stereoscope and field inspection photos. The method involved a preliminary investigation of the photos and the radial plot to determine those areas of common scale in order to aid the compiler when inking the manuscripts. Detail and pass-points of sea-level elevation were inked on the work sheets to hold to as control during the compilation. The proper density of detail points is dependent on scale and position of shoreline and islands. Offshore islands of any consequence have a minimum of two detail points to control their position. Where scale was not sufficiently close, the work sheets were transferred with the reflecting projector. The work sheets were detailed under the stereoscope and are therefore a stereoscopic interpretation of the MHHWL and foreshore aided by the field inspection information.

All contours were delineated on the Reading Plotter. The shoreline on T-9929, 30, and 31 was also delineated on the instrument. Shoreline indications and other field inspection data on the field inspection photos were used as a guide during this delineation. The entire land area of all five quads has been delineated during this operation.

32. Control:

Both horizontal and vertical control were adequate for instrument compilation purposes; see side-heading 23, page 9 of the Radial Plot Report.

33. Supplemental Data:

Refer to side-heading 14, page 17 of the Field Inspection Report. In addition a graphic control survey, No. 6974b covers the east shore of Tanaga Bay at 1:10,000 scale and dated May 1944, and No. 6933b covers Hot Springs Bay at 1:5,000, 1944. The shoreline in these areas has now been delineated on the plotting instruments and should supersede the field shoreline; a comparison shows only minor differences.

34. Contours and Drainage:

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

35. Shoreline and Alongshore Details:

Field inspection as provided on field inspection photos and on RS-426 were quite adequate and have been incorporated into these compilations. Please refer to side-heading 7, page 14 of the Field Inspection Report, and to side-heading 31 above.

36. Offshore Features:

Included as part of side-heading 35 above.

37. Landmarks and Aids:

Landmarks are to be recommended as a part of a future phase of the field work - see side-heading 9, page 16 of the Field Inspection Report, which also says that no aids exist.

38. Control for Future Surveys:

Refer to side-heading 11, page 16 of the field Inspection Report. Certain hydro and topo stations were located by field methods. Other stations identified in the field were located by graphic plotting.

Hydro Stations: No descriptions were furnished the compilation office, and all were transferred from field photos to office photos by direct pricking, the transfer being verified by a second compiler. Manuscript location was then accomplished by graphic methods.

Topo Stations: Those for which descriptions were written by the field party have 524 forms whether located by field or office methods. They include:

T-9927 = Fin 1953 (office) Form 524 on file in Div. of Photogrammetry general files.
T-9928 = None
T-9929 = Mars, 1953 (field)
T-9930 = Beta, 1953 (field) - This is triangulation (adjusted position) reported by Div. Geodesy 8/26/54. K.H.M.
T-9931 = None
T-9930 · Barabara, 1953 - this is a marked station; the description was not available during review.

39. Junctions:

All existing junctions are shown on the diagram on page 5 of this report, and all junctions are in agreement since all sheets on Tanaga Island were compiled as one project.

40. Horizontal and Vertical Accuracy:

The five manuscripts of this report are considered as meeting the requirements for accuracy established by the National Map Accuracy Standards for sheets at 1:20,000 scale using 50ft contours to depict relief. An occasional 25ft supplemental contour has been used in relatively flat areas.

46. Comparison with Existing Maps:

Prior to this project no accurate maps of Tanaga Island had ever been compiled.

47. Comparison with Nautical Charts:

Three charts exist of the area:

a. Preliminary Chart, Alaska-Aleutian Islands, KANAGA PASS AND APPROACHES, No. 9145, 1:40,000, 1st edition, April 1945, last correction date of 13 August 1951.

b. Preliminary Chart, Alaska-Aleutian Islands, TANAGA BAY AND APPROACHES, No. 9146, 1:40,000, 1st edition, march 1945, last correction date of 27 August 1951.

c. Alaska-Aleutian Islands, Harbors and Approaches, Andreanof Islands, HOT SPRINGS BAY; TANAGA, ISLAND, No. 9121, 1:10,000, 2nd edition, last corrected 25 Aug 52.

48. Geographic Name List:

See page 12, this report.

49. Notes for the Hydrographer:

Not applicable.

50. Compilation Office Review:

See page 13 of this report.

Submitted by:

Orvis N. Dalbey

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

Approved by:

Louis J. Reed

Louis J. Reed, Chief
Stereoscopic Mapping Branch
Photogrammetric Engineer

GEOGRAPHIC NAMES

Survey No.

T-9927 thru 31

Name on Survey	A On Chart No.	B On previous survey No.	C On U. S. quadrangle Maps	D From local information	E On local Maps	F P. O. Guide or Map	G Rand McNally Atlas	H U. S. Light List	K	
T-9927										1
CAPE SAJAKA										2
FAN POINT										
TANAGA ISLAND										3
TANAGA PASS										
										4
T-9928										5
BLACKFACE POINT										6
CABLE BAY										
CAPE AGAMSIK										7
TANAGA BAY										
TANAGA ISLAND										8
T-9929										9
BERING SEA										10
FORTRESS POINT										
GUSTY BAY										11
PILLBOX ROCK										
ROUGH BAY										12
TANAGA BAY										
TANAGA ISLAND										13
T-9930										14
BARABARA ISLAND										15
BERING SEA										
EIDER REEF										16
HOT SPRINGS BAY										
KANAGA ~~XXXXXX~~ PASS										17
POINT ~~ARENA~~ ARIES										
PORTAGE BIGHT										18
ROUGH BAY										
TANAGA ISLAND										19
THE DITCH										
TRUNK POINT										20
VILLAGE REEF										
										21
T-9931										22
BARNES POINT										23
BERING SEA										
CAPE SUDAK										24
KANAGA SOUND										
PENDANT POINT										25
TANAGA ISLAND										
										26
										27

Names approved
10-8-54
A.J.Ed.

Form T-2

PHOTOGRAMMETRIC OFFICE REVIEW

T-9927-31

1. Projection and grids ✓ 2. Title ✓ 3. Manuscript numbers ✓ 4. Manuscript size ✓

CONTROL STATIONS

5. Horizontal control stations of third-order or higher accuracy ✓ 6. Recoverable horizontal stations of less than third-order accuracy (topographic stations) ✓ 7. Photo hydro stations ✓ 8. Bench marks N
9. Plotting of sextant fixes N 10. Photogrammetric plot report ✓ 11. Detail points ✓

ALONGSHORE AREAS

(Nautical Chart Data)

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

PHYSICAL FEATURES

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

CULTURAL FEATURES

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

BOUNDARIES

31. Boundary lines N 32. Public land lines N

MISCELLANEOUS

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

Reviewer

Louis T. Reed

Supervisor, Review Section or Unit

Louis T. Reed, Chief
Stereoscopic Mapping Branch
Photogrammetric Engineer

41. Remarks (see attached sheet)

FIELD COMPLETION ADDITIONS AND CORRECTIONS TO THE MANUSCRIPT

42. Additions and corrections furnished by the field completion survey have been applied to the manuscript. The manuscript is now complete except as noted under item 43.

_____ Compiler

_____ Supervisor

43. Remarks:

M-2623-12

62. Comparison with Registered Topographic Surveys

T-6933, 1:5,000, 1943 (Planetable)
T-6974b, 1:10,000, 1944 " "
RS 426, Sheets 1, 2 and 3 of 6, 1:20,000 scale.
RS 426 is a revision survey compiled without field inspection as a preliminary shoreline survey for boat sheet use on hydrographic survey operations.

T-9927 thru T-9931 supersede all of the above listed prior surveys.

63. Comparison with Maps of Other Agencies

The area covered by these maps is previously unsurveyed and no maps are available for comparative purposes other than reconnaissance maps of Gareloi Island and Adak, Alaska. These latter maps are incomplete and are published by the U. S. Geological Survey at scale 1:250,000, dated 1951.

64. Comparison with Contemporary Hydrographic Surveys

H-6778	1:20,000	1943
6879	1:5,000	1943
6908	1:20,000	1933
6931	1:20,000	1943
7005	1:10,000	1944
8052	1:20,000	1953
8053	1:20,000	1953
8054	1:20,000	1953

63 RHC

Surveys T-9927 thru T-9931 are in agreement with the latest hydrographic surveys. The topographic surveys provided shoreline and foreshore features for the 1953 dated hydrographic surveys. Some adjustments were made to rock elevations above the sounding datum on the basis of field inspection data. Changes were generally limited to one or two feet and were noted in red on the map manuscript.

65. Comparison with Nautical Charts

8863 1:300,000, corrected to 1/14/52
9121 1:10,000 (inset) corrected to 8/25/52
9145 1:40,000, corrected to 8/13/51
9146 1:40,000, corrected to 8/27/51

65. Comparison with Nautical Charts (continued)

The maps and the charts are in general agreement only, the shoreline configuration being more detailed on the maps than on the charts. Form lines on the charts generally indicate higher elevations than are shown for the corresponding areas on the topographic maps.

66. Adequacy of Results and Future Surveys

These maps are complete and adequate for use in hydrographic surveys and the construction and maintenance of nautical charts. These maps comply with the National Standards of Map Accuracy.

67. Control

The geographic position of the marked horizontal control station Beta, 1953, formerly a topographic station, was adjusted by Geodesy and it is now a 3rd order triangulation position.

Reviewed by:

K. N. Maki 11/22/54

APPROVED BY:

L. C. Lande

Chief, Cartographic Branch
Division of Photogrammetry

Chief, Division of
Photogrammetry
26 Dec 1957

Chief, Nautical Chart Branch
Division of Charts

Chief, Division of Coastal
Surveys

NAUTICAL CHARTS BRANCH

SURVEY NO. _____

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
9/27/54	9145	S.G. McGann	Before ~~After~~ Verification and Review Verified after Review
		Applied in full.	T 9929, T9930, T9931. HFR (before signatures)
			Before After Verification and Review
11/18/58	8863	J.T. Walker	~~Before~~ After Verification and Review
			T9927-28-29-30-31
12/30/92	16467	Joseph Robinson	~~Before~~ After Verification and Review
			T 9928, T9929, T9930, T9931
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review

M-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.