ORIGINAL

9944

FORM C&GS-504

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

9944

Type of Survey PLANIMETRIC

Field No. Office No. T-9944

LOCALITY

State OREGON

General locality NETARTS BAY

Locality NETARTS

1955

CHIEF OF PARTY

Fred Natella, Chief of Party
Division of Photogrammetry, Washington, D. C.
Alfred C. Holmes, Director, A. M. C.

LIBRARY & ARCHIVES

DATE

DATA RECORD

T- 9944, T9946 ~~T9947~~ 9948

Project No. (II): Ph 157 Quadrangle Name (IV):

Field Office (II): Tillamook, Oregon Chief of Party: Fred Natella

Photogrammetric Office (III): Washington Officer-in-Charge: L. W. Swanson

Instructions dated (II) (III): 15 November 1955 Copy filed in Division of Photogrammetry (IV)

Method of Compilation (III): Stereotriangulation - C8 Stereoplanigraph. compiled on C8 Stereoplanigraph and Kelsh Plotter

Manuscript Scale (III): 1:5000 Stereoscopic Plotting Instrument Scale (III): 1:7500

Scale Factor (III): 1.0

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): N A 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): RED 1926

Lat.: 45° 22' 54.521" Long.: 123° 57' 14.140 Adjusted NA 1927
Unadjusted

Plane Coordinates (IV): State: Oregon Zone: North

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): J. C. Lajoye, C. H. Bishop, R. B. Melby, L. F. Van Scoy, E. W. Garrett — Date: December 1955 to May 1956

Planetable contouring by (II): — Date:

Completion Surveys by (II): — Date:

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

Field inspection and plane table — May 1956

Projection and Grids ruled by (IV):	Riley	Date: Dec 55
Projection and Grids checked by (IV):	Riley	Date: Dec 55
Control plotted by (III):	Cook Keller	Date: July 57
Control checked by (III):	Keller Cook	Date: July 57
~~Radial Plot~~ or Stereoscopic Control extension by (III):	Ball	Date: July 56
Stereoscopic Instrument compilation (III):	Planimetry Cook	Date: July 57
	~~Contours~~	Date:
Manuscript delineated by (III):	McDonald	Date: July 57
Photogrammetric Office Review by (III):	Keller	Date: July 57
Elevations on Manuscript checked by (II) (III):		Date:

Camera (kind or source) (III):

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide	Datum (MLLW)
55W 843 848	15 Oct 1955	1105	1:15000	+ 6.5	
853 859	"	1110	"	"	
869 875	"	1118	"	"	
881 887	"	1125	"	"	
899 905	"	1131	"	"	(Per)
910 914	"	1137	"	"	(Wilcox)
938 940	"	1147	"	"	
975 977	"	1202	"	"	
997 1000	"	1212	"	+ 6.9	

Tide (III)

Diurnal

Ratio of Ranges	Mean Range	~~Spring~~ Range
	4.5	6.4
	5.0	6.6

Reference Station: Humboldt Bay, Calif.
Subordinate Station: Netarts Bay, Oregon
Subordinate Station:

Atlantic Marine Center
~~Washington Office~~ Review by (IV): C. H. Bishop Date: May 1972

Final Drafting by (IV): Date:

Drafting verified for reproduction by (IV): Date:

Proof Edit by (IV): Date:

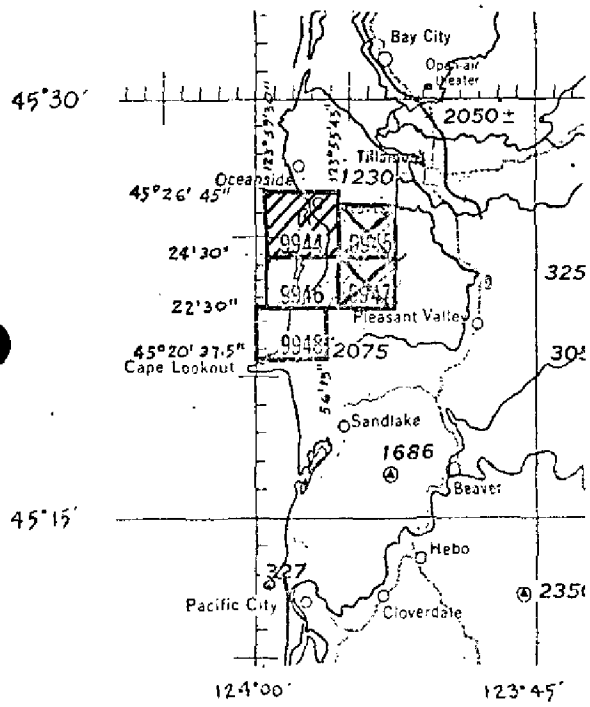
Land Area (Sq. Statute Miles) (III): 16
Shoreline (More than 200 meters to opposite shore) (III):
Shoreline (Less than 200 meters to opposite shore) (III):
Control Leveling - Miles (II):
Number of Triangulation Stations searched for (II): 26 Recovered: 12 Identified: 22
Number of BMs searched for (II): Recovered: Identified:
Number of Recoverable Photo Stations established (III): 2
Number of Temporary Photo Hydro Stations established (III): 9

Remarks: The greater part of horizontal control was re-established in the area of project.

T-9944

COMPILATION RECORD	COMPLETION DATE	REMARKS
Shoreline completed	July 1957	
Final Review	May 1972	

PLANIMETRIC PROJECT PH-157
NETARTS BAY, OREGON



OFFICIAL MILEAGE FOR COST ACCOUNTS

SHEET NO.	AREA SQ.MI.	LIN.MI SHORELINE
9944	1	2
~~9945~~	~~5~~	~~2~~
9946	2	3
~~9947~~	~~5~~	~~1~~
9948	3	4
	6	9
TOTALS	~~16~~	~~12~~

SUMMARY

DESCRIPTIVE REPORT T-9944

This 1:5,000 scale planimetric manuscript is the northernmost of three maps that comprise Project PH-157, Netarts Bay, Oregon. Originally, five maps were planned, but the two easterly maps, numbered T-9945 and T-9947, were cancelled. The east and west neatlines of T-9944 were moved one half minute to the east at the time of final review in order that the east side of Netarts Bay would not be in the east margin of the map.

Field inspection prior to compilation was done in December 1955 through May 1956.

Compilation in 1957 was based on control established by a stereoplanigraph bridge using 1:15,000 scale single-lens panchromatic photography taken in October 1955. Most of the compilation was done on the stereoplanigraph; only one model in the project was set on the Kelsh Plotter. Shoreline around the north end of the spit on the south side of Netarts Bay was located by planetable on Photo 55 W 853.

In 1960 another stereoplanigraph bridge was run, using 1:30,000 scale single-lens panchromatic photographs taken in 1958, to furnish pass points for compilation of additional planimetric detail by Kelsh Plotter. This additional compilation was never done; the map remains as it was compiled in 1957.

There was no field edit of this map.

Final review was done at the Atlantic Marine Center in May 1972. At the time of final review, the original manuscript was not available; a cronar copy of the ADVANCE manuscript was used. The shore ends of a submerged cable crossing the entrance to Netarts Bay were indicated on the original manuscript, but not connected. This connection was inked and labeled on the manuscript copy at the time of Final Review.

The compilation manuscript was a vinylite sheet 2 minutes 15 seconds in latitude by 3 minutes 45 seconds in longitude.

A cronaflex copy of the final reviewed manuscript and a negative have been forwarded for record and registry.

FIELD INSPECTION REPORT

Project 6157

2. Areal Description

The area covered by the project diagram (amended by sketch forwarded 14 December 1955) includes the town of Netarts, Netarts Bay, portions of Cape Lookout State Park, and the hilly wooded area which lies east of Netarts Bay and west of the Tillamook River.

Netarts Bay is a shallow body of water, about half of which is bare at low water. Its entrance is just west of the town of Netarts and is navigable only to very shallow draft boats. Surf breaks across the entrance much of the time. Some portions of the bay are devoted to oyster farming.

The west shore of the bay is a long sandy spit, extending from the south end of the bay to its mouth. High sand dunes covered with heavy grass or low stunted trees are in the south portion of the spit. Low dunes, sparsely covered with grass, comprise the north end.

On the north end of the bay, and continuing along the east side, the land is higher and more permanent in character. The area, except for the summer resort at Netarts, is covered with a heavy growth of trees. To the east in the foothills of Cape Lookout and to the north toward Cape Meares there is a heavy growth of timber, some of thich is presently being logged. This wooded area is interspersed with good logging roads.

The village of Netarts is primarily a summer resort and there is no permanent industry in the town.

Cape Lookout State Park is a state maintained area which includes all the sand spit on the west side of Netarts Bay, and portions of Cape Lookout. A foot trail leads from the park to the extreme west tip of the cape.

The area is served by paved roads from Tillamook.

3. Horizontal Control

Horizontal control within the detail area was sparse. Only two of the 1926 triangulation stations along the coast were recovered (stations RIDGE 1926 and RED 1926) and the control by the U.S.E. in 1939 along U.S. Highway 101 to the east of the project was found to be of less than the accuracy specified in Instructions.

In order to re-establish control in the area and to tie to the traverse stations of the Corps of Engineers, it was necessary to continue a 1954 scheme from the south end of Tillamook Bay south along the Tillamook River valley to the village of Pleasant Valley and to re-establish control along the outside coast in the vicinity of Netarts Bay.

Due to weather conditions at the beginning of work on the project, (in early December of 1955) it was necessary to keep the scheme at minimum elevations to avoid cloud concentrations in the hills. Many of the stations required were in valleys and along drainage and some lines required clearing while others grazed buildings or trees. Smoke from mills in the area also affected the visibility.

Signals used were 2x2 uprights with banners. Due to the unfavorable conditions noted above, some stations had to be occupied several times in order to secure the accuracy demanded by second order triangulation specifications. In the last days of the observing, lights were used as targets especially on the long lines in the connection made to the line EDWARDS 1941 - WILSON 1941.

All stations in the Netarts Bay area were observed without difficulty.

a. The following new stations were established. It is believed they are or approach 2nd order accuracy:

ALDER	ANDERSON	BURTON	BRIDGE
ESTHER	FAIRVIEW	KILLAM	MUNSON
PLEASANT	PRAIRIE	QUICK	SIMMONS
NETARTS	RAY 2	KRATT 2	K 48 (USE)

Station K 48 (USE) is a relocation of K 48 OSHD which was given a horizontal position by the U.S.E. in 1939.

Stations located by intersection are:

Tillamook, Shell Oil Co., Tank
Tillamook, KTIL Radio Station Tower
NORTH
LINE
Snag

These were located either because they were objects which were readily distinguishable, because they provided control within specified areas, or to provide the two mile spacing of control for use by the hydrographer.

The following stations which were located by the Corps of En-

gineers by traverse in 1939, were connected by traverse:

A (USE) P 48 (USE) VX 48 (USE) TX 48 (USE)

b. No datum adjustments were made by the field party.

c. Oregon State Highway Department Bench Marks, located by the Corps of Engineers, U.S. Army by traverse in 1939, along U. S. Highway 101 south of Tillamook were connected by traverse to Bureau control and the positions were recomputed.

d. In all areas where control was required by the project diagram stations were either recovered and identified or established and identified. At the extreme west tip of Cape Lookout, BILL 1926 was not recovered and a prominent dead tree (SNAG) was intersected to provide the required control.

e. All Coast & Geodetic Survey control within the project limits was searched for except the unmarked station CAPE LOOKOUT SUMMIT 1908. The summit of the mountain is overgrown and positive identification was impossible.

4. Vertical Control

Tidal bench marks in the vicinity of Tillamook (Hoquarton Slough) were recovered. Bench Mark J 48 of this group was identified.

In the search for BILL 1926 at the west tip of Cape Lookout, a brass nail and washer stamped USGS BM was found in the root of a dead stump. An area of equal elevation was circled in blue on the photograph. No description or elevation for this point was available.

5. Contours and Drainage

No contouring was required by the project instructions.

Drainage was inspected in the field and delineated under the stereoscope.

6. Woodland Areas

The largest portion of the project is heavily wooded. In most areas, the timber is large first growth conifer, either spruce or hemlock with a scattering of cedar. Some parts of the northerly portion of sheet 9945 have been logged over and a heavy growth of small alders (deciduous) now covers the area.

In the sand spit area west of Netarts Bay and in the coastal area in the northerly extension of Sheet 9944 there is a growth of

stunted pine. Scotch Broom (a shrub) has been planted in the dune area in an attempt to stabilize the shifting sand.

7. Shoreline and Alongshore Features

a. The mean high water line was inspected and delineated on the following photographs:

55 W 848	55 W 873	55 W 905
853	875	910
855	881	975
	882	

The mean high water line appears to be fairly stable both along the beach and within Netarts Bay. Along the beach measurements were made to the mean high water line from points that are identifiable on the photographs and noted thereon. Slight variations were noted in the area along the ocean beach southward from Station NORTH. The shoreline on the north side of the entrance to the bay appears to be rather unstable. The delineation on Photograph 55 W 848 is as of 17 May 1956. The mean high water line around the north end of the spit on the west side of Netarts Bay was located by planetable on photograph 55 W 853. The instrument setup was Station NORTH.

Approximately one mile of mean high water line beginning at Station RED 1926 and extending in a northeasterly direction was located by planetable on Planetable Sheet No. 1, scale 1:10,000. The point of origin was Station RED 1926. The traverse was run by compass and the last setup is indicated on the sheet as Point "B". A position check was made by resection using Stations RAY 2, NETARTS and LINE and the true position of the setup found to be at Point "A". The traverse should be adjusted to this point. Also the traverse was tied to two points identifiable on the photographs. These points on the sheet are relative to the traverse and not to Point "A".

The shoreline from the south end of the ocean beach to the south limit of the project is steep rocky bluffs, the rock being at the waters edge and extending upwards almost vertically until it meets the earth which generally is a steep slope. The bluff line is broken by numerous ravines. The mean high water line in this area is at the base of the bluff, which is in shadow. However, the surf breaking against the bluff can be seen through the shadows and it is believed that by use of the stereoscope the compiler can delineate the mean high water line with a reasonable degree of accuracy. This stretch of shoreline was not inspected at close range because of its inaccessibility. It was impossible to walk along it at any stage of tide and dangerous to take a skiff into the area. See note on Photograph 55 W 910.

Nineteen photographs of shoreline features along the ocean beach were taken with a 35 mm. camera and they are submitted for whatever value they may be to the compiler. The numbers in the center of the top margin on these photos correspond to the number on the negative. They have been indexed on the field photographs. Red ink notes on the 35 mm. photographs correspond to field inspection notes on the mapping photographs. See tabulation below for location and index photograph number.

35 mm. photo number	Camera station, approx. location	Indexed on Mapping Photo No.
2 3 4	Foreshore area west of Station NETARTS	55 W 854
5 6	2000 feet north of station NETARTS	55 W 854
7 8	1500 feet southwest of Station NORTH	55 W 847
9 10 11	0.5 mile south of Station RIDGE	55 W 847
12 13 14 15	At Station CRAB	55 W 911
16 17 18 19 20	About 300 feet west of Station CRAB	55 W 911

b. No attempt was made to locate the low water line. At low tide large areas of Netarts Bay are bare.

c. Foreshore on the ocean side is fine hard sand. Within the bay it is mostly mud. On the east side of the bay there is a narrow rocky fringe (about thirty feet wide) between the mean high water line and the mud flats at areas indicated on the photographs and Planetable Sheet No. 1.

d. Bluffs and cliffs have been noted on the photographs. Elevations of the bluffs from Topographic Station CRAB to the south limit of the project were determined by use of the alidade. See note on Photograph 55 W 910.

e. There are no docks, wharfs, piers or other shoreline structures within the project area.

f. There is a submarine communication cable across the entrance to Netarts Bay. The ends have been identified on Photograph 55 W 975.

g. There are no other shoreline structures in the area.

8. Offshore Features

There are no offshore features except for some scattered rocks or rock ledges along the rocky shore along the north side of Cape Lookout. These lie close to the precipitous cliffs and were not investigated as the shoreline is inaccessible from the beach and it was not deemed feasible to investigate from a small boat.

9. Landmarks and Aids

There are no prominent features within the area which could be classified as landmarks.

There are no aids to navigation within the area.

10. Boundaries, Monuments and Lines

The project instructions do not require the location of lines, monuments or boundaries below the county level.

The boundaries of Cape Lookout State Park are shown.

11. Other Control

One recoverable topographic station (CRAB 1956) was set to comply with the requirements for control every two miles.

In addition, nine objects which are believed to be of use as hydrographic signals have been pricked and labled on the field photographs.

12. Other Interior Features

Roads were classified in accordance with instructions in the TOPOGRAPHIC MANUAL. A paved road leads west and south out of Tillamook and forks to provide access to the north and south ends of the project. Other roads in the area east of Netarts Bay are main logging roads which carry heavy duty traffic and are graveled and maintained by Crown - Zellerbach Corp.

A layout of the road system within this wooded area was secured from the Area Forester for Crown Zellerbach, and the roads were in-

spected and classified. As these roads could not be identified on the photographs, the map secured from the Forester was followed and the existence of the roads shown was verified. It is believed that this road layout can be trasferred to the manuscript.

Location of the road system by planetable was not considered feasible due to the time element involved and the fact that these are not public roads.

There are no bridges or overhead cable crossings in the area.

There is an underground and underwater cable crossing at the mouth of Netarts Bay. This is a Coast Guard Telephone line and the ends are shown on Photograph 55 W 975.

13. Geographic Names

No discrepancies with existing map names were uncovered. No detailed investigation was made since the project instructions did not require one.

14. Special Reports and Supplemental Data

Records and computations for triangulation and traverse accomplished in the area have been forwarded to the Division of Geodesy, through the Division of Photogrammetry.

Coast Pilot Information Follows:

Page 332 - line 22 to 28 are correct except delete line 25 from "and bus con-" and line 26 "-nections" as no bus service exists.

Noted and Forwarded,

Fred Natella
Comdr., C&G Survey
Officer-in-Charge

Respectfully submitted,

for John C. Lajoye
Cartographer
Coast and Geodetic Survey

PHOTOGRAMMETRIC PLOT REPORT
Netarts Bay, Oregon
Project 8157
July 1956

21. AREA COVERED:

The N-S flight of photographs (55W-974 through 987) was bridged. The flight covers most of the shoreline on sheets T-9944, T-9946 and T-9948.

22. METHOD:

Stereotriangulation was performed on the C8 stereoplanigraph. Adjustment of the bridge was accomplished mathematically and graphically, using the Universal System of Stereotriangulation Adjustment.

23. ADEQUACY OF CONTROL:

Horizontal control was adequate. Substation KRATT 2, 1956 presented some difficulty during the stereotriangulation adjustment even though it finally fell within the tolerance permitted. The station lies on the side of a ridge and its exact position in the stereo model is debatable. It should be used with caution.

24. SUPPLEMENTAL DATA: None.

25. PHOTOGRAPHY:

Crab and extensive water areas made the setting up of the stereo models difficult. Some of these models cannot be set up on the Kelsh plotter and, therefore, other photographs covering the area will have to be used during compilation.

26. Bridging - G. Ball
Stereotriangulation Adjustment - C. DeMarr, H. Rau, M. Keller

Submitted by:

Morton Keller
M. Keller
Supervisory Cartographer

Approved by:

K. N. Maki
K. N. Maki
Supervisory Cartographer

PHOTOGRAMMETRIC PLOT REPORT NO. 2
NETARTS BAY, OREGON
PROJECT PH-6157
June 1960

21. AREA COVERED:

T-9944, ~~through~~ T9946 and T-9948.

22. METHOD:

This new stereoplanigraph bridge was done to furnish pass points to control the compilation of planimetric detail by Kelsh plotter. East-West flights which were available were not included for bridging because the flights lacked sufficient control to assure accuracy to the eastern limit of the project layout. Because of this and the paucity of planimetric detail in this area, the project layout will be revised to extend only to the limit of compilation from this single flight of photographs. Photographs used in this stereo-bridge were numbered 5859296A through 9304 and are at a scale of 1:30,000.

23. ADEQUACY OF CONTROL:

Horizontal control was adequate to provide a basis for satisfactory adjustment of the stereo-bridge. However, KRATT 2, 1956 SUB. STA. (see reference to this station in the Photogrammetric Plot Report of this project dated July 1956) and SAND LAKE N. BASE, 1927-SUB. STA. were both stations of poor image quality and questionable identity.

24. SUPPLEMENTAL DATA:

None.

25. PHOTOGRAPHY:

Photography was adequate in all matters pertaining to stereoplanigraph bridging.

Submitted by:

R. Fuechsel
R. Fuechsel

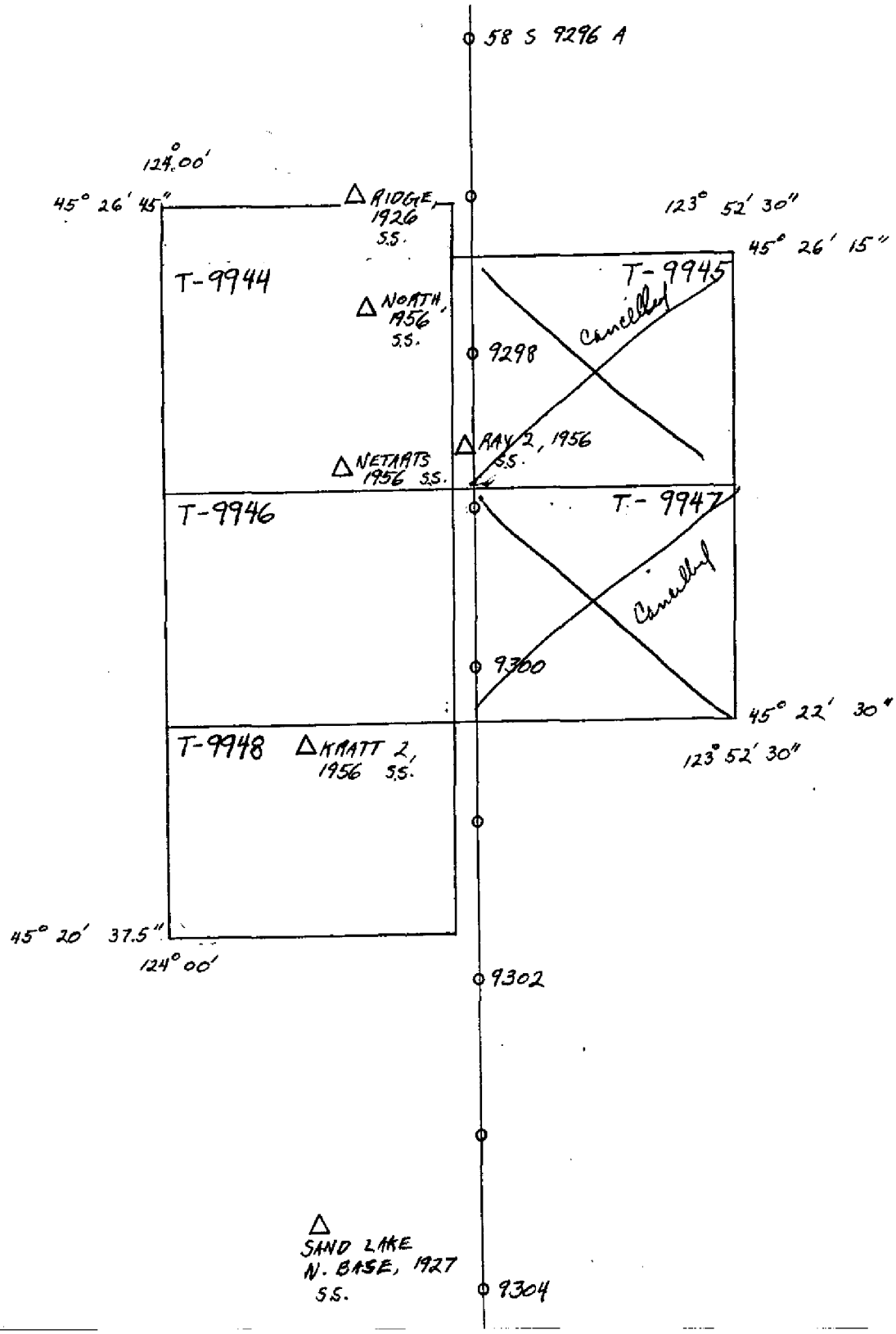
Approved by:

Everett H. Ramey
Everett H. Ramey
Chief, Stereo Mapping Unit

STEREOPLANIGRAPH BRIDGING SKETCH

NETARTS BAY, OREGON PROJECT PH-6157

JUNE 1960



Photogrammetry

MAP T-9944 PROJECT NO. 6157 SCALE OF MAP 1:5000 SCALE FACTOR 2.000

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD (BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)
NETARTS, 1956	field comp	1927	45-24-32.968	1017.8 834.5	1852.3	20.356 16.690	37.046 30.872
			123-57-37.524	816.00 488.8	1304.8	16.320 9.776	26.096 21.746
S.S. NETARTS, 1956			Y=654265	1735		530 3470	4000
			X=1,111,572	428		3144 856	4000
NORTH, 1956			45-25-53.142	1640.6 211.7	1852.3	32.812 4.234	37.046 30.872
			123-57-20.998	456.45 847.8	1304.2	9.129 16.956	26.085 21.738
S.S. NORTH, 1956			Y=662,384	1616		768 3232	4000
			X=1,113,061	939		2122 1878	4000
RAY 2, 1956	Field Comp	1927	45-24-45.123	1393.0 459.3	1852.3	27.860 9.186	37.046 30.87
			123-55-57.593	1252.4 52.3	1304.7	25.048 1.046	26.094 21.745
S.S. RAY 2, 1956			Y= 654,990	1010		1980 2020	4000
			X=1,118,776	1224		1552 2448	4000

1 FT. = 3048006 METER

COMPUTED BY: H. Rau, M. Keller DATE June 1956 CHECKED BY: H. Rau DATE 28 June 1956

M-2388-12

Compilation Report T 9944 T 9946 T 9948

Netarts Bay, Oregon, Ph 157

July 19, 1957

General Statement - This is a planimetric project but stereo bridging and compilation are not fully completed except in so far as to provide a complete "advance" shoreline survey. Upon completion of the planimetric maps of this project, a final compilation report will be written.

1. Photogrammetric Plot - See report submitted by M. Keller.

2. Compilation - Because of large water areas involved in this project only one model was set on the Kelsh plotter while the balance were set on the C8 Stereoplanigraph. Field inspection was available and was used for location of the high water line and some inshore detail. One section of shoreline on models 978-979 and 979-980 was compiled by planetable methods (planetable sheet no.1, Netarts Bay, Ore.) because of overhanging trees. This section was added to the manuscript by use of a projector.

   Some difficulty was experienced in holding bridge pass points in heavy tree areas. The points located in more open areas and along the shoreline were all held with the exception of 803 which appeared to be misidentified on the photo. Another point was established in this area and was held on several models.

3. Additional data - Office ratio photographs were prepared covering all shoreline areas. Shoreline pass points were identified on these photos with 6 mm circles in red or yellow ink depending on the tone of the area. The same points were indicated on the manuscripts with 6mm red circles.

C. E. Cook

C. E. Cook Cr.

Approved:

M. Keller

M. Keller

April 21, 1972

GEOGRAPHIC NAMES

FINAL NAME SHEET

PH-171 (Oregon)

T-9944

Netarts

Netarts Bay

O'Hara Creek

Pacific Ocean

Rice Creek

Silver Sands

Wilson Beach

Approved:

A. Joseph Wraight
Chief Geographer

Prepared by:

Frank W. Pickett
Cartographic Technician

REVIEW REPORT T-9944

PLANIMETRIC

May 1, 1972

61. GENERAL STATEMENT:

See Summary on page 6 of this Descriptive Report.

No comparison print was made for this map.

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS:

A visual comparison was made with Survey T-4336, scale 1:20,000, dated May 15-August 10, 1927. No significant differences were noted.

63. COMPARISON WITH MAPS OF OTHER AGENCIES:

A visual comparison was made with AMS SHEET 1274 IV, TILLAMOOK, OREGON, scale 1:50,000, dated 1947. No significant differences were noted.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS:

A comparison was made with Survey H-8372, scale 1:10,000, dated August - September 1957. No significant differences were noted. T-9944 was the base map for shoreline in the area of comparison.

65. COMPARISON WITH NAUTICAL CHARTS:

A visual comparison was made with Chart 5902 Insert, scale 1:30,000, 10th edition, dated June 19, 1971. No significant differences were noted.

66. ADEQUACY OF RESULTS AND FUTURE SURVEYS:

The primary purpose of this survey was to furnish shoreline and photo-hydro support for a hydrographic survey. This was accomplished. Since KRATT 2, 1956, the only station in the project area that gave trouble in the bridge, was held within the tolerance permitted, it is assumed that this map meets the National Standards for Map Accuracy. No accuracy tests were run in the field.

Reviewed by:

Charles H. Bishop

Charles H. Bishop
Cartographer
May 1, 1972

Approved for forwarding:

for / Melvin J. Umbach, CDR, NOAA
Chief, Photogrammetry Division, AMC

Approved:

Alfred C. Holmes, RADM, NOAA
Director, Atlantic Marine Center

Approved:

Chief, Photogrammetric Branch

Jack E. Guth
Chief, Coastal Mapping Division