

9633

Diag. Cht. No. 6002-2.

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Topographic

Field No. Ph-62 Office No. T-9633

LOCALITY

State Washington

General locality Willapa Bay

Locality North River

19451-56

CHIEF OF PARTY

F. Natella, Chief of Field Party

E.H.Kirsch, Balto. Photo. Office

LIBRARY & ARCHIVES

DATE July 11, 1958

B-1870-1 (1)

9633

DATA RECORD

T- 9633

Project No. (II): Ph-62(49)

Quadrangle Name (IV):

NORTA RIVER

Field Office (II): Raymond, Washington

Chief of Party: Fred Natella

Photogrammetric Office (III): Baltimore, Md.

Officer-in-Charge: E. H. Kirsch

Instructions dated (II) (III):
20 March 1951
3 Aug. 1951
15 Feb. 1952
13 May 1952

Copy filed in Division of
Photogrammetry (IV)

Method of Compilation (III): Air Photographic (Multiplex)

Manuscript Scale (III): 1:17,000

Stereoscopic Plotting Instrument Scale (III): 1:17,000

Scale Factor (III): 1.000

Date received in Washington Office (IV):

JUN - 1 1955

Date reported to Nautical Chart Branch (IV):

Applied to Chart No.

Date:

Date registered (IV):

6/10/58 JUN 9 1955

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 (26) refer to sounding datum
i.e., mean low water or mean lower low water

Reference Station (III): HAWKS 2, 1939

Lat.: 46° 43' 37.037"

Long.: 123° 54' 49.606"

Adjusted
~~Unadjusted~~

Plane Coordinates (IV):

State:

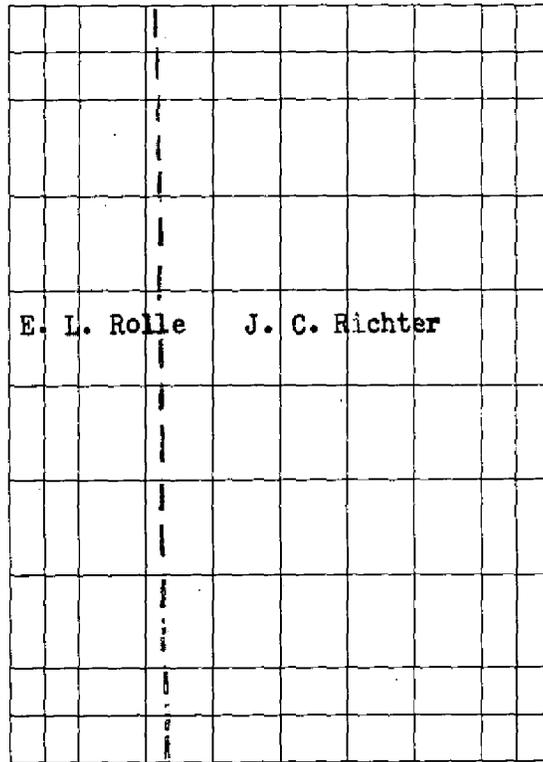
Zone:

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.



46° 52' 30"

46° 45' 00"

124° 00' 00"

123° 52' 30"

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

DATA RECORD

Field Inspection by (II): Interior: John H. Winniford
Robert F. Wells
Shoreline: John H. Winniford
Charles H. Bishop

Date: Sept. 1952
Aug.-Sept. 1953
Aug. 1953

Planetable contouring by (II):

Date:

Completion Surveys by (II):

CHARLES H BISHOP

Date:

Nov 1953

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

17 June 1951 (Photogrammetric)

Projection and Grids ruled by (IV): Jack Allan

Date: 7 Sept. 1953

Projection and Grids checked by (IV): H. D. Wolfe

Date: 8 Sept. 1953

Control plotted by (III): D. M. Brant

Date: 22 Jan. 1954

Control checked by (III): A. K. Heywood

Date: 25 Jan. 1954

Radial Plot or Stereoscopic D. M. Brant
Control extension by (III): E. L. Rolle

Date: 31 Oct. 1953
25 March 1954

Stereoscopic Instrument compilation (III):
Planimetry) E. L. Rolle
and
Contours) J. C. Richter

Date: 12 Nov. 1954

Date: 1 Nov. 1954

Manuscript delineated by (III): C. A. Lipscomb

Date: 8 Feb. 1955

Photogrammetric Office Review by (III): A. K. Heywood

Date: 7 March 1955

Elevations on Manuscript
checked by (II) (III): A. K. Heywood

Date: 7 March 1955

Camera (kind or source) (III): USC&GS Type "0" 6" focal length

Number	Date	PHOTOGRAPHS (III)		Scale	Stage of Tide
			Time		
7200 - 7203 incl.	6/16/51		15:35 PDST	1:40,000	No tidal water
7262 - 7263 incl.	6/17/51		13:50 PDST	"	" " "
7245 - 7246 incl.	"		13:36 PDST	"	" " "
7247 - 7249 incl.	"		13:35 PDST	"	0.7 below MHW
7167 - 7170 incl.	6/16/51		14:38 PDST	"	No tidal water

Tide (III)
From predicted tables

Diurnal

Reference Station: ABERDEEN
Subordinate Station: TOKE POINT
Subordinate Station:

Ratio of Ranges	Mean Range	Spring Range
	7.8	9.9
0.9	6.8	8.9

Washington Office Review by (IV):

A.K. Heywood

Date:

MAY 1958

Final Drafting by (IV):

Date:

Drafting verified for reproduction by (IV):

Date:

Proof Edit by (IV):

Date:

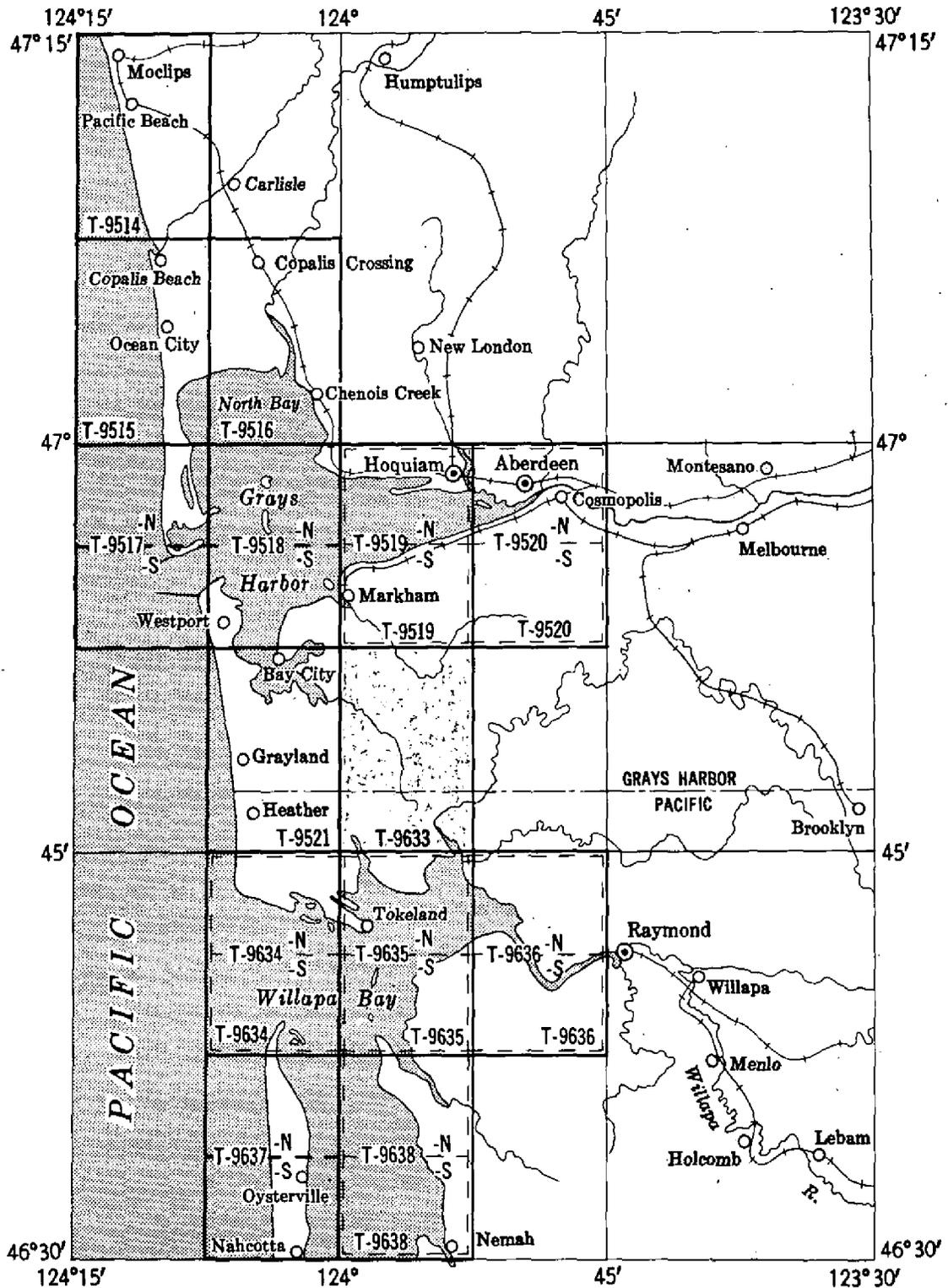
Land Area (Sq. Statute Miles) (III): *48*
Shoreline (More than 200 meters to opposite shore) (III): 0
Shoreline (Less than 200 meters to opposite shore) (III): *6*
Control Leveling - Miles (II): *27*
Number of Triangulation Stations searched for (II): *4* Recovered: 2 Identified: 2
Number of BMs searched for (II): *4* Recovered: 2 Identified: 2
Number of Recoverable Photo Stations established (III): ---
Number of Temporary Photo Hydro Stations established (III): ---

Remarks:

TOPOGRAPHIC AND SHORELINE MAPPING PROJECT PH-62 (49)

WASHINGTON, Grays Harbor - Willapa Bay

Compilation scales 1:10,000 and 1:20,000



TOPOGRAPHIC MAPS: T-9514, T-9515, T-9516 T-9519, T-9520, T-9521, T-9633 to T-9636 and T-9638, (scale 1:20,000),
 T-9517-N, T-9517-S, T-9518-N, T-9518-S, T-9637-N, T-9637-S, (scale 1:10,000),
 SHORELINE SURVEYS: T-9519-N, T-9519-S, T-9520-N, T-9634-N, T-9634-S,
 T-9635-N, T-9635-S, T-9636-N, T-9636-S, T-9638-N, T-9638-S, scale 1:10,000,

SUMMARY

TO ACCOMPANY DESCRIPTIVE REPORT T-9633

Topographic map T-9633 is one of 14 similar maps in Project PH-62. It covers East of Bay City and south of Markham.

This is a multiplex project in advance of hydrographic surveys to be made in the area.

The field operations preceding compilation included complete field inspection. The establishment of some additional horizontal control and the determination of elevations necessary to control a multiplex project vertically.

The multiplex compilation was at a scale of 1:17,000. The manuscript consists of one vinylite sheet $7\frac{1}{2}$ in Latitude and $7\frac{1}{2}$ in Longitude.

The entire map was field edited. It does not meet the National Standards of ^{Vertical} ~~Map~~ Accuracy. It is to be published by the Geological Survey as a standard topographic quadrangle at a scale of 1:62,500 without an accuracy statement.

The registered copies under T-9633 will include a cronar film positive.

*Horizontal accuracy meets the
National Standard of Accuracy*
W. H. [Signature]

FIELD INSPECTION REPORT
for
Quadrangles T-9633, T-9635, T-9636, and T-9638
Project Ph-62 (49)

2. Areal Field Inspection

This report covers those parts of quadrangles T-9635, T-9636, and T-9638 south of Willapa Bay and in addition, the northeast corner of T-9635 and the southeast corner of T-9633 along the North River. These quads. take in portions of Willapa Bay and its tributary rivers and the land areas adjacent to the Bay. The largest river is the Willapa River that cuts T-9636 approximately in half. This is a large river navigable by ocean going vessels as far as the city of Raymond, just east of T-9636. Other streams of consequence flowing thru the area to Willapa Bay are: North River, Niawiakum River, Palix River, and Nemah River.

The interior areas are for the most part rugged and hilly and covered with first and second growth coniferous and deciduous trees. Some of the area has been logged off and logging operations were continuing at the time of field inspection. With the exception of a few county roads the main access to the interior is by privately maintained logging roads. U.S. highway 101 cuts thru Quads. T-9635, T-9636, and T-9638 in a generally westerly and southerly direction.

There are some farming operations, mostly beef cattle and dairy herds, on the flats along the Willapa River and in some of the interior areas. The main industry in the area is logging and its related industries. A large oyster growing area exists in the mud flats north and east of Bay Center and off the mouth of the Nemah River. These oysters are processed in Bay Center and South Bend. Commercial fishermen operate out of South Bend to a limited extent.

South Bend is the largest city within the area. The main industry is lumbering with some oyster and fish processing. It is the county seat of Pacific County. Bay Center is a small oyster center near the south end of T-9635.

Field inspection was done in accordance with the project instructions and the topographic manual. None of the field

inspection is considered substandard except that referred to in paragraph 7 of this report under "Shoreline and Alongshore Features". No unusual methods were used.

There is complete photographic coverage on two different scales of photography; 1:24,000 and 1:40,000. Interior field inspection was done on 1:20,000 scale prints of the 1:40,000 contact scale photography. Shoreline inspection is on 1:10,000 scale prints of the 1:24,000 contact scale photography except for a portion from Needle Point southward which is on 1:24,000 contact scale photograph No. 1725 and a portion around Ramsey Point that is on 1:20,000 scale print of 1:40,000 contact scale photograph No. 7307. The vertical control was identified on the 1:40,000 contact scale photographs.

The field edit party will have to put on the corporate limits of Raymond and South Bend after the land lines are applied to the manuscript as the limits follow the land lines in places.

Photographic coverage was complete and adequate. Photographic tones on the 1:24,000 contact scale photography and the 1:40,000 contact scale photography are about the same. A white tone indicates sand; mud flats and grass are a light grey tone; marsh is a darker grey, and channels and sloughs are also a dark grey. Coniferous trees are indicated by a dark mottled tone while deciduous trees are lighter. Newly logged areas have a light mottled tone with white streaks (log runs) thru them.

3. Horizontal Control

(a) The following stations were established by second-order triangulation:

- ✓ T-9633 None
- T-9635 TOKELAND, CAMEO, KINDRED
- T-9636 PONY 2
- ✓ T-9638 COUGAR 3, CURVE

The following stations were established by third-order triangulation:

- ✓ T-9633 None
- T-9635 Bay Center Channel Directional Light
- Bay Center Channel Light
- Willapa River Light 8
- Willapa River Light 13
- Cedar River Flats Light
- Willapa River Range Front Light 4
- Willapa River Range Rear Light 4

T-9635 cont.

Traverse was run along the South Bend-Palix River Road to locate traverse stations BENCH MARK G62, DEER, PALE, and LICK. These four stations are permanently marked. All other intermediate stations are marked with steel angle irons stamped with the station designation. Descriptions are furnished for all these intermediate stations. They should each be plotted and the position of the road relative to the station checked with the description. The position of station RANK was also located by traverse along the highway south from the Palix River. The tie to triangulation was made to the line MISSION - MISSION AZ furnished by 1953 triangulation.

+ T-9638
 * T-9635

- T-9636 Willapa River Range Front Light 27
- Willapa River Range Rear Light 27
- T-9638 ✓ Sandy Point Light
- ✓ Riddle Spit Light
- ✓ Long Island Shoal Light
- ✓ Stanley Channel Light 4

The following listed stations were established by fourth-order observations:

- ✓ T-9633 Wood
- T-9635 Pine Island Channel Daybeacon 2
- Pine Island Channel Daybeacon 4
- Pine Island Channel Daybeacon 6
- Pine Island Channel Daybeacon 8
- Pine Island Channel Daybeacon 10
- Pine Island Channel Daybeacon 12
- T-9636 Willapa River Daybeacon 28
- Willapa River Daybeacon 30
- T-9638 ✓ Will, *Lear * FALLS OUTSIDE PROJECT

(b) No datum adjustments were made.

(c) All control recovered was established by the Coast and Geodetic Survey except TS 7 (U.S.E.) in T-9633 and BENCH MARK Y 61 (U.S.E.) northeast of T-9636. Triangulation station KELLOGG 1953, MINNIE 1953, MISSION 1953, and MISSION AZ 1953 were established by a triangulation party of this bureau during the current season.

(d) Control was established according to the original instructions and the project layout with the single exception of the substitution of stations Wood and T.S. 7 (U.S.E.) in quad. T-9633 for two non-recoverable points.

(e) All known Coast and Geodetic Survey stations were searched for except those for which there was no chance of recovery such as several stations in the water and several undescribed 1911

stations. The following stations were not recovered:

T-9633 T.S. 6 (U.S.E.)
T.S. 8 (U.S.E.)

T-9635 Bay Center Channel Light (LIX) 1939
ELLEN 1911
ELLEN 2 1922
FISHER 1911
FISHER 2 1922
Goose Point Range, Front Light (OFF) 1939
North River Beacons 2 - 14 inclusive 1939
North River Light (Rit) 1939
Palix River Junction Light (Jun) 1922
QUE 1939
STUMP 1922
Tokeland, Nelson Bros, Crab and Oyster Cannery,
tank (TANK) 1939
Willapa Bay 2 Light (Rus) 1939
Willapa River Dolphins 0 - 3 inclusive 1939
WILSON 1939
Willapa River West Range, Front, (Front) 1939
Willapa River West Range, Rear, (Rear) 1939
Toke Point Light (Toke) 1922
Bay Center Cutoff Channel Beacons 1, 3, 4,
5, 6, 7, 8, 10, 11, 12, 13, and 14. 1922
Beacon (Black No. 1) 1911
Beacon (R No. 2) 1911
Dolphin 1922
ELDER 1911
EVANS 1922
HOTEL RUSTIC 1911
Oyster House, Goose Point 1911
Palix River Bay Beacons 4 and 6 1922
Pile (BEacon) 1911
Pole 1911
Russell Channel Light (Lit) 1922
Sand Cliff 1911
SHELL 1911
TIDE GAGE 1911
Toke 1911
TOKELAND BEACH EAST BASE 1911
TOKELAND BEACH WEST BASE 1911
Pile 1922 and Wharf house (center) 1911

T-9636 COE 1939
CUTTOFF "D" (U.S.E.) 1939
HOW (U.S.E.) 1939
MUDDY 1939
PONY 1939
RAY 1939
RAYMOND 1939
SNAG 1939

T-9636 cont,

STEWART (U.S.E.) 1939
ZINE 1939
Raymond, Andall Shingle Mill, Stack 1939
Raymond, Barn, North Gable 1939
Raymond, Hart Mill Stack, (Tallest of 3) 1939
Raymond, Mill "R" Burner 1939
Raymond, Mill "R" Stack 1939
Raymond, North House Near COE, North Gable 1939
Raymond, Old Burner 1939
Poles, black and white target 1939
Topo Flag 1939
South Bend, American Shingle Company,
black stack 1939
South Bend, Baptist Church, Cupola, Finial 1939
South Bend, Broadway School, Cupola Finial 1939
South Bend, Methodist Church, Steeple,
Finial 1939
South Bend, Raymond Lumber Mill, Black
Stack 1939
South Bend, Standard Oil Company, large tank 1939
South Bend, Standard Oil Company, Small Tank 1939
Willapa Bay Beacon 8 1939
Willapa Bay Beacon 10 1939
Willapa River Dolphins 4 and 6 1939
Willapa River Pile (Rot) 1939
Willapa River Range Front Light 1939
Willapa River Range Rear Light 1939
SB 3 (U.S.E.) 1937
SB 4 (U.S.E.) 1937

T-9638

APRON 2 1939
Bay Center, Cannery $\frac{1}{2}$ mile south of,
north ventilator 1939
BENCH MARK K 62 1939
BLUFF 1939
COUGAR 2 1939
Ilwaco Oyster Company, house, west gable 1939
Long Island Shoal Light 1939
Nemah River Beacons 1939
Nemah River, shack on piles, southeast gable 1939
Palix River Bridge, power pole, center insulator
1939
RHODES 1939
RIVER 1939
Riddle Spit Light 1939
Sandy Point Light 1939
SANDY 2 1939
J 62 (U.S.E.) 1937

Triangulation stations RHODES and STORE were identified for use in the plot. The station mark at RHODES is gone but one reference mark is still in place. At station STORE the mark is in poor condition but the position is satisfactory for photo control purposes.

The identification of several stations proved quite costly because the stations were situated in very heavy woods and no readily identifiable detail was nearby. Two six-man party days were required to clear the line and measure a traverse from station NEEDLE 2 to a sub-station. Three six-man party days were required to traverse from station LOGGER to a sub-station. Five five-man party days were required to traverse from station MINNIE to a sub-station.

4. Vertical Control

(a) The following bench marks were recovered:

- T-9633 ~~None~~
- T-9635 Tidal 4 USC&GS
- Tidal 5 USC&GS
- Tidal 9 USC&GS
- Tidal 10 USC&GS
- Bay Center, Palix River, Willapa Bay, Tidal B.M.'s
- Tidal 8 USC&GS
- SB 1 (29th. Engrs. U.S.A.)
- SB 2 (29th. ENGRS. U.S.A.)
- T-9636 X-61 USC&GS
- Y 61 USC&GS
- Z 61 USC&GS
- A 62 USC&GS
- B 62 USC&GS
- RAYMOND USC&GS
- TIDAL 3 USC&GS
- D 62 USC&GS
- E 62 USC&GS
- F 62 USC&GS
- TOKAY USC&GS
- Z 64 USC&GS
- Raymond, Willapa River, Tidal B.M.'s
- Tidal 1 USC&GS
- Tidal 2 USC&GS
- Tidal 4 USC&GS
- Tidal 5 USC&GS
- Tidal 5 (U.S.E.) USC&GS
- Tidal 6 (U.S.E.) USC&GS
- WI-1 29th. Engrs., U.S.A.
- T-9638 G 62 USC&GS
- H 62 USC&GS
- L 62 USC&GS

Elevations of all Coast and Geodetic Survey Bench Marks are on the Pacific Northwest Supplementary Adjustment of 1947 datum. The datum of the elevations established by the 29th. Engrs., U.S.A. is not stated.

All known bench marks in the area covered by this report were searched for.

One bench mark, H 62 RESET 1953 was established by this party.

(b) Supplemental elevations were established by trigonometric leveling from bench marks or T.B.M.'s established by this party. All points are on closed loops or on double-run spurs. There is an unadjusted closure of about 2 feet on a line along the north shore of the Willapa River. This line follows roads. The closure is not excessive for vertical control purposes alone, but may be a little large for use as published spot elevations in a very flat area.

Most of the trigonometric leveling was done with a theodolite using a table of vertical angles equivalent to Beaman steps. This method has been explained earlier in a special report submitted by this party. The levels along U.S. highway 101 from South Bend to the south end of the project and the spur lines from the southerly portion of this trunk line were done using a plane table with alidade graduated in Beaman steps. This was done to familiarize the unit chief with the mechanics of plane table leveling and very satisfactory results were obtained.

During the current season 41.5 miles of trig. leveling were run in quad. T-9636, 7.9 miles in quad. T-9635, 5.3 miles in quad. T-9633 and 19.8 miles in quad. T-9638.

(c) The first and last designated level points for each map are:

T-9633	3302 to 3341 inclusive.
T-9634	3401 to 3430 inclusive. Points 3402, 3403 and 3405 to 3413 inclusive were not established. Points 3414 and 3420 are on MHWL and are not identified.
T-9635	3501 to 3530 inclusive. Points 3507, 3508, 3509, 3520, and 3524 to 3529 inclusive were not established.
T-9636	3601 to 36019 inclusive. Points 3646, 3649 to 3653 inclusive, 3659, 3660, 3693 to 3698 inclusive, 36000 and 36015 were not established.
T-9638	3801 to 3820 inclusive.

5. Contours and Drainage

Contouring is inapplicable.

Drainage is well-defined and should give the compiler little difficulty. Where drainage was field inspected it is noted on the photographs. No attempt was made to trace out all drainage.

6. Woodland Cover

There is very little detailed inspection of woodland cover given. The limits of most of the woodland are fairly apparent from the photograph. Most of the standing timber is first growth timber. Many of the more valuable stands of first growth timber have been cut, and most of the balance in this area is being operated as tree farms. The principal landholders in the area are the Rayonier Corp., Weyerhaeuser Timber Co., and the Olympic Hardwood Co. The darker-toned and rougher textured tress are mostly Douglas Fir with a heavy undergrowth of small firs, hemlock, and alder. There are small stands of cedar, and close to the water there are occasional small stands of spruce.

The cut-over areas grow up in alder first. The cut-over areas show up quite light in the photographs. Other cut-over areas which have already grown up to alder give a more even-textured lighter grey appearance.

The average height of first-growth Douglas Fir cover in this area runs from 120 to 140 feet. 116 foot steel towers at Goose 4 and Mission did not clear all local obstructions, and a 136 foot tower on a ridge crest south of the project still did not clear several trees which had to be cut. The original occupation at station LOGGER was from a 100 foot scaffold in the trees above the station. Experience in clearing lines indicates the average figure shown above. The cover is likely to grow somewhat higher in the drains where the soil is more moist. The average height of the older second growth alder is around 30 to 50 feet. After this point the second growth fir begins to take over. There is little second growth fir in the Willapa Harbor area, although there is some in the Grays Harbor area. First growth stands in this area are not comparable with those farther north where the height of first-growth Douglas Fir approaches 200 feet.

7. Shoreline and Alongshore Features

(a) The mean high water line was inspected by walking the shoreline and from a small boat kept close to the shore. The inspection of mean high water is fairly complete in quads. T-9633, T-9635, and T-9636, but there are deficiencies in the shoreline inspection in quad. T-9638. These deficiencies

were due mostly to use of inexperienced personnel and a lack of opportunity to reinspect the area. There are many marshy areas along the shore and much of the mean high water line is presented as apparent shoreline. The shoreline in the Willapa River seems fairly well defined and even along marshy areas there seems to be a fairly well-defined berm. Along the north shore of the Willapa River from the vicinity of triangulation station COOP northwest around the mouth of the North River there is considerable apparent shoreline withough a very well-defined berm. The position of mean high water or apparent shoreline is difficult at best to determine in this area; it has been shown mostly as apparent shoreline and even this position of the apparent shoreline is very often subject to considerable displacement according to the judgment of different individuals.

There is some confusion by field inspectors between the symbolization of apparent shoreline and the low water line, and the short dash in the apparent shoreline symbol has dwindled to a dot in many cases. However, no low water line was delineated on this project and all such symbolization is apparent shoreline. There has been difficulty in some cases in getting inspectors to delineate the inshore limits of marshes along apparent shoreline, but in many cases this inshore limit has a very good natural limit along the sharp break in grade inshore where the hills rise quite sharply. In other cases the marsh is limited inshore by a dike.

The mean high water around the Ellen Sands and the islands in the mouth of the harbor was rodded in on a plane table sheet of the north end of Willapa Bay.

There has been considerable erosion of the bluffs in the southeast portion of Willapa Bay. Several houses have been lost at Rhodesia Beach, several triangulation stations lost on the right bank of the mouth of the Palix River, and considerable stretches of the bank have sloughed off at Goose Point and farther south along the bayshore. The erosion of the bluff and the tree overhang on many photographs has made the shoreline inspection very difficult.

(b) The low water line was not defined. Except in the rivers the low water line is well offshore with large areas of sand and mud flats bare at low water.

(c) The foreshore is mixed mud and sand flats and is very flat.

(d) Bluffs extend along the shoreline from the vicinity of triangulation station HERON to the southend of the project except in the vicinity of the river mouths where there is considerable marsh land.

(e) There are wharves, floats, and landings at South Bend. There are also public facilities, accomodating a number of boats at Bay Center and smaller private landings on the Bone River, Niawiakum River, Palix River , and Nemah River.

(f) A submarine cable ends on Toke Point but shoreline inspectors did not locate the other ends, charted in the vicinity of triangulation stations BRUCE 2 and HERON.

(g) Other shoreline structures are lengths of bulkhead which have been noted on the photographs.

8. Offshore Features

The only known rocks in the area are the rocks in the vicinity of station CAMEO and station STONY POINT. Comdr. C.W. Clark has discussed the rocks at CAMEO in his preliminary report on this area. At station STONY POINT there are many small rocks extending about 200 meters offshore.

In the vicinity of Goose Point and Ramsey Point are several "stacks" - columns of very densely consolidated sand with some clay binder, or loosely consolidated sand stone. These seem fairly stable. The sides are almost vertical and they ususally have several trees on them.

There are many piles in Willapa Bay. Sextant fixes on many of these piles were observed and noted on the reverse of photographs 1709, 1736, 1739, and 1727. It is probably difficult for the compiler to imagine the situation. If the fixes could be plotted in the field as on a boat sheet, fewer fixes would be needed and more piling could be sketched. Most of the piling has been placed in connection with the oystering operations in the Bay and are barge moorings and old oyster house foundations. In the Willapa River there are many piling for low moorings. At all triangulation stations occupied single directions were observed to all piling and dolphins visible. The theodolite cuts and sextant fixes duplicate each other in many cases.

9. Landmarks and Aids

(a) Landmarks in Willapa Bay from Hawks Point east and in the south bay recommended for charting and deletion have been reported on Form 567.

(b) There are no specific interior landmarks.

(c) There are no aeronautical aids.

(d) Most of the aids to navigation were located by theodolite cuts. All lighted aids were located with third-order accuracy. The Pine Island Channel Daybeacons, two of the Nemah River Daybeacons, and the Willapa River daybeacons were located with ~~fourth order~~ ^{less than third order} accuracy. * The North River Channel daybeacons and the Nemah River Channel daybeacons were located by sextant fixes except for a few beacons at the upstream end of each channel where fix objects are not properly disposed.

(e) Location of floating aids was not required and none were located.

* SEE COMPILATION REPORT
T-9638, ITEM 37 & FIELD REPORT
REPORT T-9638 ITEM 51

AKK
5

10. Boundaries, Monuments, and Land lines.

Boundaries to be mapped are the Grays Harbor-Pacific County line across T-9633, the South Bend and Raymond municipal corporation limits and the Bush Pacific Pioneer State Park Boundary.

Six section corners, three quarter corners, and four points on the section line were located as follows:

- T-9635: 1 Section corner.
1 Point on line.
- T-9636: 5 Section corners.
2 Quarter corners.
- T-9638 1 Quarter corner.
4 Points on line.

Copies of the descriptions of the city limits of South Bend and Raymond, together with descriptions of additions and exclusions from the corporation are included as a part of this report. There was no opportunity for a thorough study of the corporate limits on the ground. They are all referred to the public land line net, and can be more readily located by the field editor after the application of the land net to the manuscript.

A copy of the description of the boundary of the Bush Pacific Pioneer State Park is also furnished. A portion of the park boundary is shown on photograph 1712 of the 1:10,000 scale photography. The rest of the boundary will have to be plotted. No marks were found on the ground. The detailed portion of the boundary along the shore around the point should be plotted as nearly as possible as described, since the tidelands offshore are privately-owned lyster beds. A plot furnished by the state is very generalized, and the street layout in Bay Center is in error.

11. Other Control

The following listed topographic stations were located. New stations are marked with an asterisk; other s are old recovered and reidentified topographic stations to be relocated in the new plot.

- T-9633 *Wood
- T-9635 *Sec. Cor. 33,34,4,3, T 13, 14 N, R 10 W W.M.
 *Park
 Ho
 *Ter
 Sow
 Hug
- T-9636 Ban
 Elu
 Dike
 Drum
 Put
 Us
 We
 Work
- T-9638 Barn
 Bros
 East
 *Lear
 Nog
 *Rank
 Rose
 West
 *Will
 Yel

Photo-hydro stations were not required and none were located.

12. Other Interior Features

Roads were classified in accordance with the Topographic Manual with the exception that an effort was made to combine the Road 5 and Road 6 classification calling them all Road 6.

Buildings were classified in accordance with Photo-grammetry instructions No. 29 and the Topographic Manual.

There were no critical overhead cables over navigable waters at the time of the field inspection although one was under construction across the Willapa River in the vicinity of Ecklund Park when the party left the field.

There are several bridges over navigable waters, the U.S. highway 101 bridge across the North and South Forks of the Willapa River, the Northern Pacific Railroad Bridge across the South Fork of the Willapa River and the U.S. highway 101 bridges across the Bone River, The Niawiakum River, the Palix River, and the North Nemah River.

There is an airport operated by the Port of Willapa Harbor, officially named "Willapa Harbor Airport".

13. Geographic Names.

See "Special Report on Investigation of Geographic Names-Project Ph-62(49) - Part 3". Only a very limited time could be given to the investigation of geographic names, and while the combined efforts of Mr. Bishop, Mr. Winniford, and Mr. Van Scoy (the previous year) present a substantial list of authorities, the field editor should check the application of names during his inspection and be alert for new names.

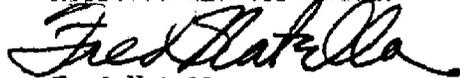
14. Special Reports and Supplemental Data.

Special Report on Investigation of Geographic Names-Project Ph-62(49)-Part 3.

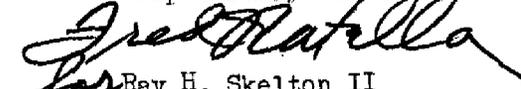
Data on land lines and boundaries is included as a portion of this report.

Single copies only of descriptions and recovery notes for Bench Marks and Triangulation Stations were prepared. These are forwarded with the field records for this project.

Approved and forwarded:


Fred Natella
Comdr., USC&GS
Chief of Party

Respectfully submitted:


for Ray H. Skelton II
Cartographer

DESCRIPTIONS OF TRAVERSE "N" INTERMEDIATE HUBS

TN 1

5.8 miles along the Palix River - South Bend road from the city hall in South Bend, Washington, 2.7 miles from Palix River bridge on the outside of a curve, 5.0 meters west of the centerline and opposite a 10 foot cut, about 2 feet above the road. A 1" x 1" x 1/8" angle iron 3 feet long, projecting 3 inches and stamped "TN 1".

R.M. #1 is the bottom nail of a zinc strip tacked to a transmission power line pole.

R.M. #2 is the bottom nail of a zinc strip on a 4 foot stump.

OBJECT	DISTANCE		AZIMUTH
	<u>meters</u>	<u>feet</u>	
R.M. #1	4.302	14.11	92-56-37.6
R.M. #2	10.777	35.35	162-31-39.0

TN 2

5.85 miles along the Palix River-South Bend road from the city hall in South Bend and 2.65 miles northeast of the Palix River bridge, on the outside of a curve 2.5 meters from the centerline of the road, 12.4 meters south of the east end of a concrete tile culvert, 8.5 meters north of a dirt slide, and even with the road. A 1" x 1" x 1/8" angle iron 3 feet long projecting 3 inches.

R.M. #1 is the bottom nail of a zinc strip tacked on a 3 ft. leaning stump.

R.M. #2 is the bottom nail of a zinc strip on a 6 inch stump.

OBJECT	DISTANCE		AZIMUTH
	<u>meters</u>	<u>feet</u>	
R.M. #1	19.035	62.43	119-09-44.5
R.M. #2	4.825	15.83	165-39-38.2

TN 3

5.9 miles along the Palix River-South Bend road from the city hall in South Bend and 2.5 mile from the Palix River bridge, on the outside of a curve 2.7 meters east of the centerline of the road, 14.2 meters north of the east end of an obscure concrete tile culvert and even with the road. A 1" x 1" x 1/8" angle iron 3 feet long projecting 3 inches.

R.M. #1 is the bottom nail of a zinc strip tacked on transmission power line pole #12-24.

R.M. #2 is the bottom nail of a zinc strip tacked on a 4 foot stump.

OBJECT	DISTANCE		AZIMUTH
	<u>METERS</u>	<u>FEET</u>	
R.M. #1	17.068	55.99	143-20-44.4
R.M. #2	26.824	88.00	156-36-21.1

TN 4

6.05 miles along the Palix River-South Bend road from the city hall in South Bend and 2.45 miles northeast of the Palix River Bridge, on the outside of a gradual curve, 3.0 meters west of the centerline of the road, 13.0 meters south of the centerline of the intersections of the Palix River-South Bend road and an abandoned road leading east, even with the road surface. A 1" x 1" x 1/8" angle iron 3 feet long projecting 3 inches.

R.M. #1 is the bottom nail of a zinc strip tacked on transmission power line pole " 12-29.

R.M. #2 is the bottom nail of a zinc strip tacked to a 2 foot stump.

OBJECT	DISTANCE		AZIMUTH
	<u>meters</u>	<u>feet</u>	
R.M. #1	10.786	35.39	170-00-10.9
R.M. #2	9.610	31.53	264-34-01.9

TN 5

6.2 miles along the Palix River-South Bend road from the city hall in South Bend and 2.3 miles from the Palix River Bridge, 3.3 meters west of the centerline of the road, 27.8 meters northwest of a 10 foot stump on east side of the road and even with the road surface. A 1" x 1" x 1/8" angle iron 3 feet long projecting 3 inches.

R.M. #1 is the bottom nail of a zinc strip tacked on transmission power line pole # 13-3.

R.M. #2 is the bottom nail of a zinc strip tacked to a 8 inch fir tree.

OBJECT	DISTANCE		AZIMUTH
	<u>meters</u>	<u>feet</u>	
R.M. #1	2.248	7.37	70-36-54.5
R.M. #2	10.230	33.56	255-06-42.5

TN 6

6.25 miles along the Palix River-South Bend road from the city hall in South Bend and 2.25 miles northeast of the Palix River bridge on the outside of a gradual curve, 3.3 meters east of the centerline of the road, 36.0 meters north of the centerline of the intersection of the Palix River-South Bend road and an abandoned road leading south-east. A 1" x 1" x 1/8" angle iron 3 feet long projection 3 inches.

R.M. #1 is the bottom nail of a zinc strip tacked to a 10 inch cedar tree.

R.M. #2 is the bottom nail of a zinc strip tacked to transmission power line pole #13-6.

OBJECT	DISTANCE		AZIMUTH
	<u>meters</u>	<u>feet</u>	
R.M. #1	6.774	22.22	280-41-12.7
R.M. #2	24.217	79.45	18-03-26.9

TN 7

6.3 miles along the Palix River-South Bend road from the city hall in South Bend and 2.2 miles from the Palix River bridge on the outside of a curve, 3.0 meters west of the centerline of the road and 39.0 meters south of the west end of the southern of two concrete tile culverts and even with the road surface. A 1" x 1" x 1/8" angle iron 3 feet long projecting 3 inches.

R.M. #1 is the bottom nail of a zinc strip tacked to transmission power line pole #13-8.

R.M. #2 is the bottom nail of a zinc strip tacked to a 5 foot fire blackened stump.

OBJECT	DISTANCE		AZIMUTH
	<u>meters</u>	<u>feet</u>	
R.M. #1	15.836	51.96	171-06-44.8
R.M. #2	10.943	35.90	309-17-16.6

TN 8

6.35 miles along the Palix River-South Bend road from the city hall in South Bend and 2.15 miles northeast of the Palix River bridge, on the outside of a curve, 3.6 meters east of the centerline of the road, opposite a 10 foot cut, 11.8 meters east of a conspicuous 6 inch cedar on bank of cut and even with road. A 1" x 1" x 1/8" angle iron 3 feet long projecting 4 inches. (NOTE: station has been bent by power mower).

R.M. #1 is the bottom nail of a zinc strip tacked to a 28" cedar at the edge of the road.

R.M. #2 is the bottom nail of a zinc strip tacked to an abandoned telephone pole at a distance of 67.45 feet.

OBJECT	DISTANCE		AZIMUTH
	<u>meters</u>	<u>feet</u>	
R.M. #1	5.137	16.85	262-38-23.3
R.M. #2	20.559	67.45	17-13-51.9

TN 9

6.45 miles along the Palix River-South Bend road from the city hall in South Bend and 2.05 miles from the Palix River bridge, 6.1 meters east of the centerline of the road and 8.2 meters north of the north end of a guard railing, about 2.4 meters west of the west bank of stream, opposite a 40 foot rock cut and even with road surface. A 1" x 1" x 1/8" angle iron 3 feet long projecting 3 inches and stamped "TN 9".

R.M. #1 is the bottom nail of a zinc strip tacked to a 4 foot fir tree.

R.M. #2 is the bottom nail of a zinc strip tacked to an old guard railing about 2 feet south of the north end.

OBJECT	DISTANCE		AZIMUTH
	<u>meters</u>	<u>feet</u>	
R.M. #1	7.138	23.42	41-36-54.2
R.M. #2	8.711	28.58	56-57-17.6

TN 10

6.5 miles along the Palix River-South Bend road from the city hall in South Bend and 2.0 miles northeast of the Palix River Bridge, on the outside of a curve, 4.8 meters west of the centerline of the road, 1.0 meter east of the west bank of a 10 foot fill and even with the road surface. A 1" x 1" x 1/8" angle iron 3 feet long projecting 2 inches and stamped "TN 10".

No reference marks were set.

TN 11

6.55 miles along the Palix River-South Bend road from the city hall in South Bend and 1.95 miles from the Palix River bridge, 4.8 meters east of the centerline of the road and 17.0 meters east of a 15 foot rock bluff at east end of rock quarry, 1.5 meters west of the west bank of a stream and even with the road surface. A 1" x 1" x 1/8" angle iron 3 feet long projecting 3 inches and stamped "TN 11".

R.M. #1 is the bottom nail of a zinc strip tacked to the south end of an old guard railing at the edge of the road.

R.M. #2 was not set.

OBJECT	DISTANCE		AZIMUTH
	<u>meters</u>	<u>feet</u>	
R.M. #1	27.648	90.70	212-18-58.7

TN 12

6.6 miles along the Palix River-South Bend road from the city hall in South Bend and 1.9 miles from the Palix River bridge on the outside of a curve, 3.8 meters south of the centerline of the road, 3.4 meters north of the south bank of a 20 foot fill, about 16 meters north of a 7 inch forked alder the base of which is 20 feet lower than the road, 18.0 meters south of base of bluff of a quarry, and even with the road surface. A 1" x 1" x 1/8" angle iron 3 feet long projecting 2 inches and stamped "TN 12".

No reference marks were set.

TN 13

6.7 miles along the Palix River-South Bend road from the city hall in South Bend and 1.8 miles northeast of the Palix River bridge on the outside of a curve, 3.9 meters north of the center line of the road, 5.6 meters west of path leading to spring and even with surface of road. A 1" x 1" x 1/8" angle iron 3 feet long projecting 2 inches and stamped "TN 13".

R.M. #1 is the bottom nail of a zinc strip tacked to a 3 inch alder.

R.M. #2 was not set.

OBJECT	DISTANCE		AZIMUTH
	<u>meters</u>	<u>feet</u>	
R.M. #1	3.478	11.41	210-07-44.2

TN 14

6.75 miles along the Palix River-South Bend road from the city hall in South Bend and 1.75 miles northeast of the Palix River bridge, 3.4 meters north of the centerline of the road at the east end of a 20 foot cut and even with the road surface. A 1" x 1" x 1/8" angle iron 3 feet long projecting 3 inches and stamped "TN 14".

R.M. #1 is the bottom nail of a zinc strip tacked to a 5 foot stump.

R.M. #2 was not set.

OBJECT	DISTANCE		AZIMUTH
	<u>meters</u>	<u>feet</u>	
R.M. #1	9.505	31.18	32-56-37.4

TN 15

6.75 miles along the Palix River-South Bend road from the city hall in South Bend and 1.75 miles northeast of the Palix River bridge, 3.1 meters south of the centerline of the road, 18.3 meters southwest of the south leg of a double transmission power line pole #13-15 and at the west end and on opposite side of road from a 20 foot cut, even with surface of the road. A 1" x 1" x 1/8" angle iron 3 feet long projecting 3 inches. Stamped "TN 15".

TN 16

6.9 miles along the Palix River-South Bend road from the city hall in South Bend and 1.6 miles northeast of the Palix River bridge at the outside of a curve, 4.0 meters south of the centerline of the road and about 28 meters south of a 30 foot snag on bank of 15 foot cut, even with the road surface. A 1" x 1" x 1/8" angle iron 3 feet long projecting 3 inches and stamped "TN 16".

R.M. #1 is the bottom nail of a zinc strip tacked to an 8 inch fir tree.

R.M. #2 is the bottom nail of a zinc strip tacked to an abandoned telephone pole.

OBJECT	DISTANCE		AZIMUTH
	<u>meters</u>	<u>feet</u>	
R.M. #1	4.545	14.91	41-04-29.7
R.M. #2	7.498	24.60	90-54-38.2

TN 17

6.95 miles along the Palix River-South Bend road from the city hall in South Bend and 1.55 miles from the Palix River bridge. At the outside of a curve, 4.0 meters north of the centerline of the road, 12.2 meters south of transmission power line pole #13-18 and even with the surface of the road. Station is a 1" x 1" x 1/8" angle iron 3 feet long projecting 2 inches and stamped "TN 17".

R.M. #1 is the bottom nail of a zinc strip tacked to a 10" fir tree.

R.M. #2 was not set.

TN 18

7.0 miles along the Palix River-South Bend road from the city hall in South Bend and 1.5 miles northeast of the Palix River bridge, on the outside of a gradual curve, 3.0 meters east of the centerline of the road, 7.25 meters east of a blazed 3 inch alder, and about 15 meters south of north end of a four foot cut and even with the road surface. A 1" x 1" x 1/8" angle iron 3 feet long projecting 3 inches and stamped "TN 18".

No reference marks were set.

TN 19

7.05 miles along the Palix River-South Bend road from the city hall in South Bend and 1.45 miles northeast of the Palix River bridge, on the outside of a curve, 3.6 meters west of the centerline of the road, 10.4 meters west of a blazed 6 inch hemlock and 4.6 meters east of abandoned transmission power line pole #13-21 and even with the surface of the road. A 1" x 1" x 1/8" angle iron 3 feet long projecting 3 inches and stamped "TN 19".

R.M. #1 is the left nail (when facing strip) of a zinc strip tacked to a black transmission power line pole.

OBJECT	DISTANCE		AZIMUTH
	<u>meters</u>	<u>feet</u>	
R.M. #1	5.075	16.65	146-28-23.1

TN 20

7.1 miles along the Palix River-South Bend road from the city hall in South Bend and 1.4 miles from the Palix River bridge, 3.9 meters west of the centerline of road and 20.8 meters north of transmission power line pole #13-23 and even with surface of road. A 1" x 1" x 1/8" angle iron 3 feet long projecting 2 inches and stamped "TN 20".

No reference marks were set.

TN 21

7.15 miles along the Palix River-South Bend road from the city hall in South Bend and 1.35 miles from the Palix River bridge, 4.0 meters east of the centerline of road, 11.5 meters east of transmission power line pole #13-24 and even with the road surface. A 1" x 1" x 1/8" angle iron 3 feet long and projecting 3 inches, stamped "TN 21".

R.M. #1 is the bottom nail of a zinc strip tacked to an anchor pole of transmission line.

R.M. #2 was not set.

OBJECT	DISTANCE		AZIMUTH
	meters	feet	
R.M. #1	2.673	8.77	293-38-49.9

TN 22

7.2 miles along the South Bend-Palix River road from the city hall in South Bend and 1.3 miles from the Palix River bridge, on the outside of a curve, 3.4 meters west of centerline of road, 19.0 meters north west of abandoned telephone pole #264 R2 and even with the surface of the road. A 1" x 1" x 1/8" angle iron 3 feet long projecting 2 inches and stamped "TN 22".

No reference marks were set.

TN 23

7.3 miles along the Palix River-South Bend road from the city hall in South Bend and 1.2 miles from the Palix River bridge. At the outside of a curve, 4.2 meters west of centerline of road, 9.7 meters west of abandoned telephone pole #266 and even with the surface of the road. A 1" x 1" x 1/8" angle iron 3 feet long and projecting 2 inches. Stamped "TN 23".

R.M. #1 is a nail in the center of a triangle of nails in transmission power line pole #14-5.

OBJECT	DISTANCE		AZIMUTH
	<u>meters</u>	<u>feet</u>	
R.M. #1	5.097	16.72	78-24-43.9

TN 24

7.35 miles along the Palix River-South Bend road from the city hall in South Bend and 1.15 miles from the Palix River bridge, on the outside of a curve, 4.6 meters east of centerline of road, 14.2 meters east of transmission power line pole #14-7, even with the surface of the road. A 1" x 1" x 1/8" angle iron 3 feet long projecting 3 inches and stamped "TN 24".

R.M. #1 is a nail in the center of a triangle of nails in a transmission power line anchor pole.

R.M. #2 was not set.

OBJECT	DISTANCE		AZIMUTH
	<u>meters</u>	<u>feet</u>	
R.M. #1	1.972	6.62	11-32-49.4

TN 25

7.4 miles along the Palix River-South Bend Road from the city hall in South Bend and 1.1 miles from the Palix River bridge, at the east end of a 1/2 mile tangent, 4.5 meters south of centerline of road, 19.0 meters south west of transmission power line pole #14-8 and 3 feet above the road surface. A 1" x 1" x 1/8" angle iron 3 feet long projecting 3 inches and stamped "TN 25".

R.M. #1 is the nail in the center of a triangle of nails in abandoned telephone pole #271.

OBJECT	DISTANCE		AZIMUTH
	<u>meters</u>	<u>feet</u>	
R.M. #1	1.721	5.65	50-13-07.1

TN 26

7.45 miles along the Palix River-South Bend road from the city hall in South Bend and 1.05 miles from the Palix River bridge, 3.2 meters north of centerline of road, 18.0 meters northwest of abandoned telephone pole #273, about 13 meters southwest of transmission power line pole #14-10, and even with road surface. A 1" x 1" x 1/8" angle iron 3 feet long projecting 2 inches and stamped "TN 26".

No reference marks were set.

TN 27

7.6 miles along the Palix River-South Bend road from the city hall in South Bend and 0.9 miles from the Palix River Bridge, 2.8 meters south of centerline of road, 47.0 meters west of east end of gate in driveway leading to farm buildings, 15.6 meters east of end fence post on east side of drainage slough, 0.3 meters north of south bank of road fill, and even with the surface of the road. A 1" x 1" x 1/8" angle iron 3 feet long projecting 2 inches and stamped "TN 27".

No reference marks were set.

TN 28

7.85 miles along the Palix River-South Bend road from the city hall in South Bend and 0.65 miles from the Palix River bridge, 6.5 meters north of centerline of road, 7.0 meters northeast of centerline of intersections of Palix River-South Bend road and side road leading northwest, 194.5 meters west of the west end of bridge over slough, 4.2 meters east of east end of 8 inch concrete drainage tile at entrance to side road and even with surface of road. A 1" x 1" x 1/8" angle iron 3 feet long projecting 3 inches and stamped "TN 28".

No reference marks were set.

TN 29

7.95 miles along the Palix River-South Bend road from the city hall in South Bend and 0.55 miles from the Palix River bridge, 4.0 meters south of the centerline of road and 24.2 meters southeast of a 3 foot hemlock and even with the surface of the road. A 1" x 1" x 1/8" angle iron 3 feet long projecting 2 inches and stamped "TN 29".

R.M. #1 is a nail in the center of a triangle of nails in a 3 foot fir tree.

OBJECT	DISTANCE		AZIMUTH
	<u>meters</u>	<u>feet</u>	
R.M. #1	6.263	20.54	26-38-47.1

TN 30

8.0 miles along the Palix River-South Bend road from the city hall in South Bend and 0.5 miles from the Palix River bridge, on the outside of a curve, 4.7 meters south of the centerline of the road, 29.2 meters west of driveway to house, 27.1 meters west of a mail box and 2 feet above the road surface of the road. A 1" x 1" x 1/8" angle iron 3 feet long projecting 3 inches and stamped "TN 30".

R.M. #1 is a nail in the center of a triangle of nails in a 12 inch alder at the edge of the road.

OBJECT	DISTANCE		AZIMUTH
	<u>meters</u>	<u>feet</u>	
R.M. #1	7.080	23.23	70-01-27.9

TN 31

8.2 miles along the Palix River-South Bend road from the city hall in South Bend and 0.3 miles from the Palix River bridge, at the outside of a curve, 3.2 meters north of centerline of road, 16.9 meters northeast of a telephone pole, 16.8 meters east of transmission power line pole #14-27 and even with road surface. A 1" x 1" x 1/8" angle iron 3 feet long projecting 2 inches and stamped "TN 31".

R.M. #1 is a nail in the center of a triangle of nails in a 3 1/2 foot spruce tree.

OBJECT	DISTANCE		AZIMUTH
	<u>meters</u>	<u>feet</u>	
R.M. #1	3.110	10.20	263-46-22.6

TN 32

8.25 miles along the Palix River-South Bend road from the city hall in South Bend and 0.25 miles northeast of the Palix River bridge, at the outside of a curve, 3.7 meters north of centerline of road, 11.2 meters northeast of telephone pole #4. A 1" x 1" x 1/8" angle iron 3 feet long projecting 2 inches and stamped "TN 32".

No reference marks were wet.

TN 33

8.4 miles along the Palix River-South Bend road from the city hall in South Bend and 0.10 miles from the Palix River Bridge, on the outside of a curve, 3.2 meters south of the centerline of the road, 14.5 meters southwest of centerline of intersection of Palix River road and side road leading north, 22.4 meters southeast of transmission power line pole #15-4 and even with the road surface. A 1" x 1" x 1/8" angle iron 3 feet long projecting 3 inches and stamped "TN 33".

R.M. #1 is a nail in the center of a triangle of nails in telephone pole #3.

OBJECT	DISTANCE		AZIMUTH
	<u>meters</u>	<u>feet</u>	
R.M. #1	5.412	17.75	87-10-2611

TN 34

8.45 miles along the Palix River-South Bend road from the city hall in South Bend and 0.05 miles from the Palix River bridge, on the outside of a curve, 2.8 meters north of the centerline of the road, 24.3 meters east of transmission power line pole #15-6, 10.95 meters northwest of a 2 foot post and even with the surface of the road. A 1" x 1" x 1/8" angle iron 3 feet long projecting 3 inches and stamped "TN 34".

No reference marks were set.

TN 35

About $8\frac{1}{2}$ miles south of South Bend, Washington on U.S. highway No. 101, 94 feet south of the south end of the Palix River bridge, 3.9 meters east of the centerline of U.S. highway No. 101, 24.0 meters north of the northedge of a side road leading east, 17.4 meters southeast of the centerline of the intersection of highway No. 101 and the Bay Center road, ~~add~~ even with the surface of the highway. A 1" x 1" x 1/8" angle iron 3 feet long set flush with the ground surface and stamped "TN 35".

R.M. #1 is a nail in the south post of the east railing of the Palix River bridge and 8 inches above the ground.

OBJECT	DISTANCE		AZIMUTH
	<u>meters</u>	<u>feet</u>	
R.M. #1	28.544	93.65	198-10-57.7

TN 36

TN 36 was not set.

TN 37

About 9 miles south of South Bend, Washington on U.S. highway No. 101, 0.35 miles south of the Palix River bridge, 4.9 meters east of the centerline of highway No. 101, 20.5 meters southeast of transmission power line pole #15-19, and even with the surface of the road. A 1" x 1" x 1/8" angle iron 3 feet long projecting 1 inch and stamped "TN 37".

R.M. #1 is a nail in a 7 inch alder about 6 feet above the ground.

OBJECT	DISTANCE		AZIMUTH
	<u>meters</u>	<u>feet</u>	
R.M. #1	9.711	31.86	109- 31-33.1

TN 38

About 9 miles south of South Bend, Wash. on U.S. highway #101, 0.65 miles south of the Palix River bridge, 4.1 meters east of the centerline of the highway, 16.3 meters southwest of a 6 inch alder with a triangular shaped blaze on it and even with the surface of the road. A 1" x 1" x 1/8" angle iron 3 feet long projecting 1 inch above the surface of the road and stamped "TN 38".

No reference marks were set

TN 39

About $9\frac{1}{2}$ miles south of South Bend, Wash. on U.S. highway #101, 0.80 miles south of the Palix River bridge, 3.2 meters east of the centerline of the highway, 16.4 meters southeast of transmission power line pole #16-8 and even with the road surface. A 1" x 1" x $\frac{1}{8}$ " angle iron 3 feet long driven flush with the ground surface and stamped "TN 39".

R.M. #1 is a nail in a 4 inch alder about 5 feet above the ground.

OBJECT	DISTANCE		AZIMUTH
	<u>meters</u>	<u>feet</u>	
R.M. #1	13.32	43.70	66-10-42.6

TN 40

About $9\frac{1}{2}$ miles south of South Bend, Wash. on U.S. highway #101, 0.85 miles south of the Palix River bridge, 4.2 meters west of the centerline of the highway, 3.5 meters east of a 5 inch alder with a triangular shaped blaze, 16.6 meters southeast of transmission power line pole #16-9 and even with the surface of the road. A 1" x 1" x $\frac{1}{8}$ " angle iron 3 feet long projecting about 2 inches and stamped "TN 40".

No reference marks were set.

ORIGINAL CHARTER OF CITY OF SOUTH BEND, WASHINGTON

The City of South Bend, Washington was incorporated in August 1890. The following description is extracted from the act of incorporation appearing on p. 317, Vol. 4, Record of Commissioners' Proceedings, on file in the Office of the Auditor, County of Pacific, Washington:

***** Therefore it is ordered that the following described premises be declared duly incorporated as a municipal corporation of the fourth class under the name and style of the town of South Bend, and to include the following bounded territory to wit:

Beginning at a point on the south bank of the Willapa River where the north line of Section 28 of Township No. 14 North of Range No. 9 West intersects said river, thence West to the northwest corner of said section 28, thence west 80 rods, thence south 80 rods, thence east 80 rods to the section line between sections 28 and 29 in said Township and Range, thence south to the south line of said section 28, thence east to the quarter post on said south line, thence south on a line between the northeast and the northwest quarters of section 33 of said Twp. and Range. 80 rods, thence east one mile, thence north to the north line of sec. 34 of said Twp. and Range, thence east along said north line 80 rods, thence north 160 rods, thence west to the south bank of the Willapa River, thence along the meander line of said river to the place of beginning, containing 509 acres.

Also beginning at the intersection of the line between sections 27 and 28 and the southern boundary of Mailboat Pass, thence easterly along that line to the Willapa River, thence southwesterly along the north bank of said river to the north line of the southwest quarter of section 28, thence easterly along said north line and the north line of the southeast quarter of said section 28, to the line between section 27 and 28 aforesaid, thence north along said line to the place of beginning (embracing Commerce and Terminal Additions to South Bend) and containing one hundred and twenty-five acres and fifty hundredths of an acre, making a total of 634 50/100 acres. ***** "

FIRST ADDITION TO THE CITY OF SOUTH BEND, WASHINGTON

The following described territory was added to the City of South Bend by an Ordinance of the City Council dated 29 March 1909. The following description appears in the Proceedings of the City Council, p. 570 of the appropriate volume, on file in custody of the City Clerk, City of South Bend, Washington:

" ***** thereafter said land and territory shall be and remain a part of the City of South Bend, Pacific County, Washington; and which said land and territory is situated in Pacific County, Washington and described as follows, to wit:

Commencing at a point on section line between Sections 28 and 33, Township 14 North Range 9 West WM 1321.266 feet east of corner common to sections 28, 29, 32, 33 in above mentioned Township and Range, thence east on said section line 1118.94 feet to where west side line of Vine St. in corrected plat of South Bend, Pacific County, Washington intersects said section line, thence southwesterly along the west side line of Vine St. in said city if produced 47.07 feet to a point where the south side line of Cowlitz Street in said city if produced would intersect the west side line of Vine St. if produced, thence southeasterly along the south line of Cowlitz Street if produced 233 feet, to a point where the south side line of Cowlitz St. intersects the line between the NE $\frac{1}{4}$ of the NW $\frac{1}{4}$ and the NW $\frac{1}{4}$ of NE $\frac{1}{4}$ both of section 33 above mentioned Twp. and R., thence southerly 1219.98 feet to the southeast corner of the NE $\frac{1}{4}$ of NW $\frac{1}{4}$ of said section 33, thence westerly 1337.25 feet to the southwest corner of NE $\frac{1}{4}$ of NW $\frac{1}{4}$ of said section 33, thence northerly 1301.3 feet to the point of beginning and containing 39.145 acres, more or less. ***** "

BUSH PACIFIC PIONEER STATE PARK BOUNDARY

PACIFIC

The following description of the tract now known as "BUSH^{PACIFIC} PIONEER STATE PARK" is recorded on p. 305, Vol. 120 of Deeds, filed at the Office of the Auditor, County of Pacific, State of Washington:

"The grantors Z B Shay and Addie B. Shay, husband and wife of Willapa, Pacific County, Washington, for and in consideration of the sum of One Dollar, and the further consideration that the hereinafter described real estate shall in perpetuity (sic) be held by the grantee and its assignee as a free public park and meeting place for Pacific County Pioneers Association, hereby convey and quit-claim to Pacific County, Washington all their interests in the following described real estate situated in the County of Pacific, State of Washington, and particularly described as follows, to wit:

Beginning at the meander corner ^{ON} ~~and~~ the shore of Shoalwater Bay common to sections 5 and 8, T.13 N R 10 W WM, thence following the meander line of Shoalwater Bay S 38 deg 43'18" W 160.6 feet, S 0 deg. 43'18" W 102.86 feet, S 13 deg 16'42" E 1410.16 feet, and S 1 deg 16'42" E 456.06 feet to the south line of Main Street extended, thence N 88 deg. 30'01" E 355.25 feet to the ^West right of way line of the Bush County Road, thence along the Bush Road N 7 deg 38'50" E 84.10 feet, N 2 deg 43'50" E 44.82 feet and N 2 deg 11'10" W 158.41 feet to the North line of School Street, thence along School St. N 63 deg 48'50" ^E 50.53 feet to the center line of Fifth Street, thence N 25 deg. 30' W along the center line of Fifth Street 260.00 feet to the north line of Park Street, thence along Park Street N 63 deg. 48'50" E 518.59 feet and N 51 deg 36' 50" E 259.07 feet to the east line of Second St., thence N 25 deg. 40'37" W 208.61 feet, thence N 39 deg. 19'11" E 237.26 feet, thence N 34 deg 01'10" W 86.46 feet, thence N 38 deg 38'30" W 362.80 feet, thence N 43 deg 05'30" ^E

217. 54 feet, thence N 46 deg 54'30" W 180.01 feet, thence S 52 deg 01' W 220.00 feet, thence N 31 deg 17'30" W 311.00 feet, thence N 52 deg 01' E 110 feet, thence N 37 deg 38'30" W 151.17 feet, thence S 44 deg 39' W 50.28 feet, thence N 48 deg 30' W 179.98 feet, thence ^S7 deg 51' E 389.93 feet, thence S 82 deg 16'04" W 544.50 feet, thence N 0 deg 40' W 163.87 feet to the place of beginning, containing 38.293 acres, more or less, together with the perpetual right of the Pacific County Pioneers Association and its assigns and of the public generally of public use for recreational purposes and of public travel by any means incidental to such recreational purpose of the beach and waters in front of the above granted land, within the following description, beginning at the meander corner on the east shore of Shoalwater Bay common to Sections 5 and 8 T 13 N R 10W of WM, thence N 8 deg 33' W 103 feet, thence S 81 deg 27' W 50 feet, thence N 34 deg 03' W 108 feet, thence N 9 deg 03' W 189 feet, thence N 20 deg 57' E 82.5 feet, thence N 68 deg 57' E 134 feet, thence N 52 deg 57' E 170 feet, thence S 76 deg 03' E 131 feet, thence S 30 deg 03' E 138 feet, thence N 59 deg 51' E 104 feet, thence S 62 deg 35'37" E 170.24 feet, thence N 44 deg 39' ^{E 58}~~W 27.06~~ feet, thence S 48 deg 30' E 53 feet, 208 feet, thence S 44 deg 39' W 27.86 feet, thence S 31 deg 17'30" E 480.02 feet, thence S 46 deg 54'30" E 180.01 feet, thence N 43 deg 05'30" E 212.49 feet, thence N 4 deg 14' E 273.04 feet, thence N 54 deg 55'30" W 469.30 feet, thence N 67 deg 50'35" W 679.93 feet, thence S 60 deg 50'41" W 609.53 feet, thence S 9 deg 13'34" E 1205.50 feet, thence S 4 deg 43'01" E 1316.76 feet, thence N 88 deg 30'01" E 182.88 feet, thence N 1 deg 16'42" W 456.06 feet, thence N 13 deg 16'42" W 1410.16 feet, thence N 0 deg 43'18" E 162.86 feet, thence N 38 deg 43'18" E 160.60 feet, to the point of beginning.

The grantors, as representatives of the Pacific County Pioneers Association convey the above described real estate to the grantees, and the grantee accepts said conveyance subject to the conditions that the said real estate

shall be designated "Bush Pacific County Pioneer Park", and shall by the grantee, without any order or notice of sale be conveyed to the State of Washington at any time when such conveyance is requested ~~in~~ writing by the President and Secretary of the Pacific County Pioneers Association;

Dated the 31st. day of December, 1938

Z. B. Shay (Seal)

Addie B. Shay (Seal)

Recorded July 7, 1939 at 4:30 P.M.

Fee # 15557

Request of Pacific County "

The identically described tract was conveyed to the State of Washington by the Commissioners of Pacific County by deed recorded on p. 243, Vol. 121 of Deeds, dated 15 January 1940, filed at the Office of the Auditor, County of Pacific, State of Washington. Recorded April 17, 1940 at 9:00 A.M.

Fee # 19110

INCORPORATION
of
CITY OF RAYMOND, WASHINGTON

The following description is taken from the original Act of Incorporation of the County Commissioners, County of Pacific, Washington. It appears on p. 479, Vol. 7 of Proceedings of The County Commissioners, on file at the Office of the Auditor, Pacific County, Washington.

***** Now Therefore, the said Board being in session as above stated and set out, it is hereby ordered, adjudged, declared and decreed that the following described lands and territory and real property which are situated within Pacific County, Washington, to-wit:

Beginning at a point South 89-40 West 2647.77 feet from the one fourth corner between Sections 28 and 29 in Township 14, North of Range 8 West of the Willamette Meridian; and running thence West following the center lines of Sections 29, 30 and 25 to the one-fourth corner between Sections 25 and 26, Township 14, North of Range 9 West of the Willamette Meridian 2 and $\frac{1}{2}$ miles; thence North following the section lines between Sections 25 and 26, 23 and 24, 13 and 14, to the one-fourth corner between said sections 13 and 14 two miles; thence East following the center line of Sections 13, 18, and 17 to the center of Section 17 in township 14, North of Range 8, West of the Willamette Meridian 2 and $\frac{1}{2}$ miles; and thence South following the center lines of Sections 17, 20 and 29 two miles to the place of beginning, all lying and being in Pacific County, Washington, be and the same are hereby declared duly incorporated as a municipal corporation of the third class under the name and style of the "City of Raymond", and the same hereby are duly incorporated. *****

***** Done in session of the Board of County Commissioners of Pacific County, Washington ***** this 5th day of August A. D. 1907."

EXCLUSION OF CERTAIN TERRITORIES FROM
the
CITY OF RAYMOND, WASHINGTON

* * * * *

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CITY OF RAYMOND, WASHINGTON

ORDINANCE NO. 480

An Ordinance excluding certain territory from the corporate boundaries of the City of Raymond, specifically describing said territory so excluded and defining and fixing the corporate boundaries of the city of Raymond, Washington, as defined in the petition and Notice of Election held to vote upon the reduction of Corporate Limits of the City of Raymond.

Be it ordained by the City Commission of the City of Raymond, Washington, that the following described real estate situated, lying, and being within the corporate limits of the City of Raymond, Washington, until June 13, 1922, when a special municipal election was held for the purpose of determining the proposition of reducing the corporate limits of said City of Raymond, be and the same is hereby declared to be no longer a part of or lying within the City of Raymond, Washington.

Beginning at a point on the north and south one quarter line of Section 20, which is the SE corner of the NE $\frac{1}{4}$ of the NW $\frac{1}{4}$ of Section 20, T. 14 N R 8 W. W. M; thence westerly along the southerly line of the NE $\frac{1}{4}$ of the NW $\frac{1}{4}$ of section 20 to the SW corner of the NE $\frac{1}{4}$ of the NW $\frac{1}{4}$ of section 20; thence northerly along the westerly line of the NE $\frac{1}{4}$ of the NW $\frac{1}{4}$ of section 20 to the NW corner of the NE $\frac{1}{4}$ of the NW $\frac{1}{4}$ of section 20; thence westerly along the northerly line of section 20 to the section corner common to sections 17, 18, 19 and 20; thence northerly along the section line common to sections 17 and 18 for a distance of 500 feet; thence due west to a point on the meander line on the northerly and easterly bank of the Willapa River; thence northerly and westerly along the aforesaid meander line to a point which is on a line parallel to and 300 feet east of the N and S $\frac{1}{4}$ line of section 18 T 14 N R 8 W. W. M; thence northerly along a line which is parallel to and 300 feet east of the N and S $\frac{1}{4}$ line in section 18 to a point on the E and W $\frac{1}{4}$ line of section 18; thence easterly along the E and W $\frac{1}{4}$ line of sections 18 and 17 to the N and S $\frac{1}{4}$ line of section 17; thence southerly along the N and S $\frac{1}{4}$ line through section 17 and part of section 20 to the place of beginning.

Beginning at a point on the north and south section line common to sections 23 and 24 in T. 14 N R 9 W. W. M. where the same intersects the pier head line of WU. S. Engineers survey 1908 of Willapa Harbor on the north side of the Willapa River; thence north along the section line between sections 23 and 24 3240 feet to the section corner common to sections 13, 14, 23 and 24; thence easterly along the north line of section 24 for a distance of 1320 feet; thence south 1310 feet; thence east 700 feet; thence south 900 feet to a point on the pier head line on the north side of the Willapa River; thence southwesterly along the pier head line on the north side of the Willapa River for a distance of 2260 feet more or less to its intersection with the north and south line

between sections 23 and 24; which point of intersection is the place of beginning.

That the exclusion of said territory comprising of lots, blocks, tracts of land, and other territory hereinabove described will cause the corporate boundaries of the City of Raymond to be altered, and it is therefore hereby further ordained that the corporate boundaries of the City of Raymond, Washington, after the exclusion of territory hereinabove described be and the same are hereby established and defined as follows:

Beginning at a point of intersection of the E and W $\frac{1}{2}$ line through section 25 and the N and S section line common to sections 25 and 26 in T 14 N R 9 W. W. M; thence east along the E and W $\frac{1}{2}$ line through section 25 in T 14 N R 9 W. W. M; the E and W $\frac{1}{2}$ line through sections 30 and 29 in T 14 N R 8 W. W. M; to the N and S $\frac{1}{2}$ line through section 29, thence north along the N and S $\frac{1}{2}$ line through sections 29 and 20 to the SE corner of the NE $\frac{1}{4}$ of the NW $\frac{1}{4}$ of section 20; thence westerly along the southerly line of the NE $\frac{1}{4}$ of the NW $\frac{1}{4}$ of section 20 to the SW corner of the NE $\frac{1}{4}$ of the NW $\frac{1}{4}$ of section 20; thence northerly along the westerly line of the NE $\frac{1}{4}$ of the NW $\frac{1}{4}$ of section 20 to the NW corner of the NE $\frac{1}{4}$ of the NW $\frac{1}{4}$ of section 20; thence westerly along the northerly line of section 20 to the section corner common to sections 17, 18, 19 and 20; thence northerly along the section line common to sections 17 and 18 for a distance of 500 feet; thence due west to a point on the meander line on the northerly and easterly bank of the Willapa River; thence Northerly and westerly along the aforesaid meander line to a point which is on a line parallel to and 300 feet east of the N and S $\frac{1}{2}$ line through section 18, T 14 N R 8 W. W. M; thence northerly along a line which is parallel to and 300 feet east of the N and S $\frac{1}{2}$ line through section 18 to a point on the E and W $\frac{1}{2}$ line through section 18; thence west along the E and W $\frac{1}{2}$ line through section 18 and the E and W $\frac{1}{2}$ line through section 13 in T 14 N R 9 W. W. m; to the N and S section line common to sections 13 and 14; thence south along the N and S section line common to sections 13 and 14 to the section corner common to sections 13, 14, 23, and 24; thence easterly along the north line of section 24 for a distance of 1320 feet; thence south 1310 feet; thence east 700 feet; thence south 900 feet to a point on the pier head line on the north side of the Willapa River on the U. S. Engineers survey 1908 of Willapa Harbor; thence south-westerly along the pier head line on the north side of the Willapa River for a distance of 2260 feet more or less to its intersection with the north and south section line between sections 23 and 24; thence south along the north and south section line between sections 23 and 24 and 25 and 26 to the place of beginning.

Passed this 21st day of June 1922; Nays, none; Absent, 1.

ACTING MAYOR

Attest: Lillian Martin
City Clerk

Recorded p. 378, Book 5 of Ordinance Books, on file at the Office of the City Clerk, City of Raymond, Pacific County, Washington.

Note: The paragraph describing the city limits and the paragraph preceding were apparently interchanged by the clerk when they were transcribed into the record. They appear here in the logical order. The wording is in no way changed.

EXCLUSION OF CERTAIN TERRITORIES FROM
the
CITY OF RAYMOND, WASHINGTON

* * * * *

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CITY OF RAYMOND, WASHINGTON

ORDINANCE NO. 528

AN ORDINANCE defining and fixing the corporate limits of the City of Raymond, Pacific County, Washington.

WHEREAS, at an election held prior hereto, called for said purpose, the electors of the said City of Raymond did vote in favor of the reduction of the corporate limits of said City; and whereas, said vote has been canvassed and certified to the Secretary of State;

NOW THEREFORE, THE CITY COMMISSION OF THE CITY OF RAYMOND, PACIFIC COUNTY, WASHINGTON, DOES ORDAIN AS FOLLOWS:

Section 1. That athe (sic) corporate limits of the City of Raymond, Pacific County, Washington, be and the same are hereby bounded and described by metes and bounds as follows:

Beginning at the one quarter corner to Sections 25 and 26, Township, 14, North, Range 9 West, W. M. which point is the southwest corner of the city limits of Raymond, Washington; and running thence northerly 4900 feet more or less to the north bank of the Willapa River where same is intersected by the west line of Section 24, abovesaid township and range; thence northeasterly along the north bank of the Willapa River 2260 feet more or less to a point in Lot 3, said Section 24, which point is 2020 feet east of the said west line of Section 24; thence north 900 feet more or less to the north line of said Lot 3; thence easterly along the northe line of said Lot 3, 420 feet more or less to the north east corner of said Lot 3; thence northerly along the north and south center line of Section 24 a distance of 925 feet more or less to the south line of the Quinault Addition to Raymond; thence westerly 80 feet more or less to the southwest corner of said Quinault Addition; thence northerly along the west side of the Quinault Addition 1700 feet more or less to the northwest corner of said Quinault Addition; thence easterly 250 feet more or less to the southwest corner of the Willavale Addition to Raymond; thence northerly along the west line of the Willavale Addition 1320 feet more or less to the east and west center line of Section 13, Township 14, North, Range 9 West, of the Willamette Meridian; thence easterly along center line of Section 13 abovesaid, and Section 18, Township 14 North, Range 8 West, W.M.// to a point north of the east line of the plat of Riverside; thence southerly 2150 feet more or less to the southeast corner of (Block 19, Plat of Riverside; thence northeasterly, easterly, and southeasterly along) the north bank of the Willapa River to a point 500 feet north of the south line of said Section 18 // thence easterly 850 feet more or less to the east line of Section 18; thence southerly 500 feet (to) the corner of Sections 17, 18, 19 and 20, Township 14 North, // Range 8 West, WM.; thence easterly 1320 feet more or less to the northwest corner of Sunnyside Addition to Raymond; thence southerly along the west line of the said Sunmyside Addition, 1320 feet more or less to the north line of Lot 1, abovesaid Section 20; thence easterly along the north

(City of Raymond, Washington, Ordinance No. 528, Cont.)

line of said Lot 1, 470 feet more or less to the West line of the Sunny Addition in Lot 1; thence southerly along the west line of Sunny Addition 1320 feet more or less to the south line of said Lot 1; thence easterly along the south line of Lot 1, 850 feet more or less to the center of Section 20 abovesaid; thence southerly along the center line of Section 20 and 29, Township 14 North, Range 8 West, W.M. 5280 feet more or less to the center of said Section 29; thence Westerly along the east and west center line of Section 29 and 30, last said township and range 1410 feet more or less to the east line of Lake Avenue, Raymond Heights Addition to Raymond; thence northerly along the east line of said Lake Avenue to the north line of the south one-half of the Northeast Quarter (5f) Section 30, Township 14 North, Range 8 West, W.M.; thence west along said north line of the south one-half of the northeast quarter of Section 30 abovesaid) 2550 feet more or less to the North and South center line of Section 30 abovesaid; thence southerly 1320 feet more or less to the center of said Section 30; thence westerly one and one-half miles along the center line of Section 30, Township 14 North, Range 8 West, and Section 25, Township 14 North, Range 9 West, W.M. to the place of beginning.

Section 2. That the territory excluded is described by metes and bounds as follows, to-wit:

First

First: Beginning at the northwest corner of the present city limits of the City of Raymond, Washington, which point is the one quarter corner to Sections 13 and 14, Township 14 North, Range 9 West, of the Willamette Meridian, and running thence southerly along the west line of said Section 13, 2640 feet more or less to the corner common to Sections 13, 14, 23, and 24, abovesaid township and range; thence easterly 1320 feet along the south line of said Section 13; thence southerly 1320 feet more or less to the northwest corner of Lot 3,, Section 24 abovesaid, thence easterly 1320 feet more or less to the northeast corner of said Lot 3, thence northerly along the north and south center line of said Section 24, 925 feet more or less to the south line of the Quinault Addition to Raymond; thence westerly 80 feet more or less to the southwest corner of the said Quinault Addition; thence northerly along the west side of the Quinault Addition 1700 feet more or less to the northwest corner of said Quinault Addition; thence easterly 250 feet more or less to the southwest corner of the Willavale Addition to Raymond; thence northerly along the west line of the Willavale Addition 1320 feet more or less to the east and west center line of Section 13 abovesaid; thence westerly 2640 feet more or less to the point of beginning.

Second: Beginning at a point on the north bank of the Willapa River in Section 18, Township 14 North, Range 8 West of the Willamette Meridian, which is the southeast corner of Block 19, Plat of Riverside; thence running northerly along the east line of said plat of Riverside and the extension of said east line a distance of 2150 feet more or less to the east and west center line of Section 18 abovesaid; thence easterly along said east and west center line a distance of 1000 feet more or less to the northeast corner of the present city limits; thence southerly along

(City of Raymond, Washington, Ordinance No. 528, Cont.)

the present city limits line 1800 feet more or less to the north bank of the Willapa River; thence southwesterly along the north bank of the Willapa River 1200 feet more or less to the point of beginning.

Third: Beginning at the northeast corner of Lot 1, Section 20 Township 14 North, Range 8 West of the Willamette Meridian, and running thence easterly 860 feet more or less to the west line of Block 35, Sunnyside Addition to Raymond, thence southerly along the westerly side of said Sunnyside Addition in Lot 1 a distance of 1320 feet more or less to the south line of said Lot 1; thence easterly 850 feet more or less to the southeast corner of Lot 1; thence northerly 1320 feet more or less along the easterly line of Lot 1 to the point of beginning; being all that portion of Lot 1 aforesaid which is platted as Sunnyside Addition.

Fourth: All of the South half of the Northeast quarter of Section 30, Township 14 North, Range 8 West, of the Willamette Meridian, excepting a portion of Blocks 4, 9 and 10 lying easterly of Lake Avenue, Plat of Raymond Heights Addition to Raymond, Washington.

And the same is no longer a part of said corporation.

Introduced and passed this 4th day of March 1925 with the following vote: Ayes 3; Nays 0; Absent 0.

E. J. Doncaster, Mayor

Attest: Gladys LaVigne, City Clerk.

Recorded p. 440, Book 5 of Ordinance Books, on file at the Office of the City Clerk, City of Raymond, Pacific County, Washington.

Note: The clerk apparently made two omissions in the transcription of the record; these omissions have been added above in parentheses where the intent was otherwise clear, as indicated by accompanying plats.

R.H.S.II

COMPILATION REPORT
Project Ph-62
Survey T-9633

Photogrammetric Plot Report: Bound with the Descriptive Report for Survey No. T-9637.

31. DELINEATION

All topography was compiled on the Multiplex instrument.

Special mention is made here of the very poor quality of the photography at 1:40,000 scale and its influence on the compilation of this manuscript. The glare and clouds made it impossible to compile complete models. Gaps left by these conditions were filled with 1:24,000 scale models. This was a slow process, due to the necessity of enlarging and reducing each area. Thirteen 1:24,000 scale models were set in this manner covering photographs 7200 to 7202, 7262 and 7263. On the east portion of T-9633, six additional 1:24,000 scale models were set to fill gaps of glare areas.

32. CONTROL

Clouds mentioned in the item above inhibited the absolute orientation of several models. In some cases, field elevations were furnished and could not be used due to cloud or cloud shadows. Yet, with this poor orientation, multiplex elevations had to be read around the perimeter of cloud obscured areas in order to establish sufficient control for the orientation of the 1:24,000 scale models.

The models could not be set in sequence, since multiplex elevations for control of model level had to be established for other areas where control was either lacking or obscured. For example, model of 7185 and 7186 had to be completed and a multiplex elevation dropped before model of 7201 and 7202 - since this model lacked an elevation in the NW corner. Then, when model of 7201 and 7202 was oriented, another elevation had to be established in the NW corner, so that model of 7200 and 7201 could be leveled.

Other examples exist, but since the anomalies are similar they will not be discussed. Indications of the areas considered weak are shown on the discrepancy overlay for field edit.

A small reflight of three photographs of good quality, along the junction area between 9633 and 9621, would have eliminated the need for setting thirteen additional models at 1:10,000 scale.

33. SUPPLEMENTAL DATA

Grays Harbor, Pacific County Line was compiled from data furnished by the Field Inspection party indexed as E-1 in the Special Report in "Boundaries".

33. SUPPLEMENTAL DATA (cont'd)

Land Plats as follows:

Twp	16N	R11W
"	"	R10W
"	15N	R11W
"	15N	R10W

34. * CONTOURS AND DRAINAGE

An indication of the accuracy of the contours can be deduced from the discussion of the photography under item 32 and the fact that this survey is almost completely wooded. Contouring in wooded areas has been discussed many times before and will not be repeated here. For this discussion, the reader is referred to Descriptive Report for T-9516.

It is recommended that a considerable amount of field edit "spot checking" be done over this survey. ** THIS MANUSCRIPT WILL BE PUBLISHED WITHOUT ACCURACY STATEMENT.*

35. SHORELINE AND ALONGSHORE DETAILS

The narrow areas of shoreline of Cedar, Elk and Johns Rivers were office interpreted. Inspection was furnished for the MHWL of North River. Shoreline inspection was adequate.

36. OFFSHORE DETAILS

Inapplicable.

37. LANDMARKS AND AIDS

None.

38. CONTROL FOR FUTURE SURVEYS

One topographic station "WOOD, 1953", for which Form 524 has been submitted with this report, is within the limits of this survey.

This recoverable topographic station has been listed in paragraph No. 49 of this report.

39. JUNCTIONS

To the north, junction was made with Survey T-9519.

39. JUNCTIONS (cont'd)

To the south, junction was made with Survey T-9635.

To the west junction was made with Survey T-9621.

* To the east, there is no contemporary survey.

* SSS REVIEW REPORT ITEM

JUNCTIONS

AKH
2

40. HORIZONTAL AND VERTICAL ACCURACY

This item has been adequately discussed in paragraphs No. 31 & 32.

46. COMPARISON WITH EXISTING MAPS

Comparison was made with AMS - QUADRANGLE ABERDEEN, SHEET 1277 IV, AMS Series V-791, scale 1:50,000, published, First Edition 1942.

47. COMPARISON WITH NAUTICAL CHARTS

Chart No. 6002, scale 180,789 at Latitude 47° 00' published July 1942, 10th Edition, 4/21/52.

Items to be applied to Nautical Charts immediately: None.

Items to be carried forward: None.

Approved and forwarded

E. H. Kirsch
E. H. Kirsch,
Comdr. USC&GS
Officer in Charge
Balto. Photo. Office

Respectfully submitted
11 March 1955

A. K. Heywood
A. K. Heywood,
Carto. (Photo.)

PHOTOGRAMMETRIC OFFICE REVIEW

T. 9633

- 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 along-shore 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. A. C. Greenwood Reviewer Henry B. Fisher Supervisor, Review Section or Unit

41. Remarks (see attached sheet)

FIELD COMPLETION ADDITIONS AND CORRECTIONS TO THE MANUSCRIPT

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

Bernard Kuro Compiler Henry B. Fisher Supervisor

43. Remarks:

48. GEOGRAPHIC NAMES

Archer Creek
Atwood Creek

Ballou Creek
Barlow Creek

Cedar River
Crawford Ditch

East Branch Elk River
Elk River

Florence Creek

Gold Creek

Grays Harbor County

Hall Creek

Johns River

Middle Branch Elk River

North Fork Johns River
North River

Pacific County

South Fork Johns River

West Branch Elk River
Western

Names approved 8-27-56
on basis of project
Names Report
L. Heck

T-9633

49. NOTES FOR THE HYDROGRAPHER

The following recoverable topographic station is located on this survey:

WOOD, 1953

FIELD EDIT REPORT

Project 24120

Sheets T-9521, T-9633 and T-9634

23 November 1956

51. Methods:

Field edit was done in accordance with Letter: Instructions for Field Edit, Project Ph-62, dated 1 June 1955, and notes to the field editor on the discrepancy prints.

All cultural features were edited. Additions were made with red ink and deletions with green ink. Comparison with the hydrographic survey completed this year should be made for mean low low-water line and offshore structures, namely piling. See Section 52, Paragraphs a and d for shoreline changes in South Bay.

No extensive effort to recover section corners was made. All section corners that were suggested for recovery on the discrepancy prints were searched for. A summary of section corner information follows:

T-9521

<u>Section Corner</u>	<u>Information</u>
22,23,27,26 T16N R11W	Located by planetable on Field Edit Sheet No. 1
27,26,34,35 T16N R11W	Recovered. Could not be identified on photograph and inasmuch as the adjacent corner to the north was located, it was considered impractical to locate by planetable because of the line clearing that would have been necessary.
21,22,28,27 T15N R11W 28,27,33,34 T15N R11W	Both these corners were searched for but not recovered.

T-9634

No section corner information

T-9633

(cont. next page)

T-9633

<u>Section Corner</u>	<u>Information</u>
22,23,27,26 T16N R10W	Recovered, identified on Photo 51 0 7248 (1:17,000)
15,14,22,23 T15N R10W	Doubtful recovery, identified on Photo 51 0 7246 (1:17,000)
Point on line between Sections 22 and 27 T15N R10W	Recovered and identified on Photo 51 0 7246 (1:17,000)
22,23,27,26 T15N R10W 27,26,34,35 T15N R10W	Both these corners searched for but not recovered.

Inasmuch as Paragraph 3 of Notes to Field Editor, T-9521 states: "Field edit of ocean shoreline may be omitted. This shoreline will be mapped as of 1952 (date of field inspection) with further field check", no attempt was made to edit the ocean shoreline on T-9521 and T-9634. There is no ocean shoreline on T-9633.

A legend of colored inks and symbols used during field edit is found on Field Edit Sheet No. 1, Sheet T-9521.

Notes to the field editor have been answered on the discrepancy prints on which they appear or cross - referenced to the proper source of information.

Field edit information has been noted on the discrepancy prints, Field Edit Sheet No. 1 for each of the sheets included in this report, on supplementary data listed in Section 56 of this report and on the following photographs:

<u>Photo</u>	<u>Information</u>
51 0 7183 (contact)	Swamp limits and terminal of submarine cable just east of Cape Shoalwater
✓ 51 0 7184 (contact)	Trail and photo point for locating Section Corner 16,15,21,22 T15N R11W. See reverse side of photo.
✓ 51 0 7185 (contact)	Points on section lines
✓ 51 0 7203 (contact)	Point on section line 28/27
51 0 7204 (contact)	Additional shoreline inspection northwest of Tokeland

<u>Note</u>	<u>Information</u>
✓ 51 0 7239 (contact)	Indication of drainage, Elk River and tributary streams and trail on west side of reef ?
50 0 1529 (contact)	Swamp limits and drainage
51 0 7246 (1:17,000)	Section line information
51 0 7248 (1:17,000)	Section line information
✓ 50 0 1524 (1:10,000)	Swamp limits
✓ 50 0 1525 (1:10,000)	Verification and reidentification of Bench Mark K 295
✓ 50 0 1526 (1:10,000)	Drainage, north side of Grayland

Barometric elevations in the area just northeast of Grayland (T-9521) were established by the leap-frog method. The single-base method was used to establish all other barometric elevations in T-9521 and T-9633. The furthest distance from the base that elevations were established was approximately one and one-half miles. The single-base method was used because of the time element involved. Denseness of brush hindered travel to the extent that several of the elevations could not have been established within a days time using the leap-frog method.

52. Adequacy of Compilation:

It is believed that compilation of these sheets with the information furnished was adequate. Attention is directed to the following changes and verifications made during field edit:

✓ T-9521

a. Secondary Highway No. 13-A has been relocated at Bay City and a new bridge constructed. The road was located on Field Edit Sheet No. 1 by planetable methods and drawing of Secondary State Highway No. 13-A, South Bay Bridge Approaches, which is submitted with the field edit data for Sheet T-9521. Bridge clearances were obtained from the Washington State Highway Commission. This is the only highway relocation within the area of Sheet T-9521. The old bridge structure, the west approach and part of the east approach were removed at the time of field edit and the removal of the east approach was still in progress. The entire old structure has been deleted from the map.

b. Terminals of submarine and overhead cables across South Bay have been located by planetable on Field Edit Sheet No. 1.

✓ Note shoreline change around the bridge approach walls at the

e. The following among others, from the vicinity of Bay City have been destroyed:

- ✓ Map 1940
- ✓ Bay City Range 2 Front Daybeacon 1952
- ✓ Bay City Range 3 Front Daybeacon 1952
- ✓ Weight 1940
- ✓ Bay City Pilchard Plant Stack 1952

Recovery notes for these stations are submitted with the field data for this sheet.

✓ f. The boundary of Twin Harbors Beach State Park is indicated on the park drawing. The park includes Parcels A, B and F on the east side of Highway 13-A and Government lot 3 (Parcel D) and Blocks 1, 2, 3 and 4 on the west side of the highway. Blocks A and B which join the east side of Blocks 3 and 4 are not included in the park at the time of this field edit. See Section 56, Paragraph "a" of this report.

✓ g. Bench Mark K 295 was reidentified by the detail party. On the original control station identification card, the original station was substituted from Station PINE 1952 to BM K 295. The angle was not $12^{\circ} 12' 01''$ as it appears to be at first glance. Also the distance should be 32.19 meters, 105.6 feet. The original substitute card was not recovered and the angles and distances were not checked in the field edit unit, but the direct identification in 1952 on the large scale print of Photograph 50 0 1525 was verified by measurements between the tail points which have been indicated on the photograph with pencil. See note on Photo 1525 and control station identification card for BM K 295 dated 10/1/56.

✓ h. TRIPOD 1952 (approximate latitude $46^{\circ} 46.15'$, longitude $124^{\circ} 05.5'$) has been destroyed. The present tripod was located by planimetry table on Field Edit Sheet No. 1 and designated as TRIPOD 1952. See Form 524 for TRIPOD 1952 and TRIPOD 1956.

✓ j. The elevation indicated with red pencil at approximate latitude $46^{\circ} 47.3'$, longitude $124^{\circ} 03.5'$ was not checked. The field edit unit attempted to reach the point but dimensions of compasses allowed them only to the extent that the party had to turn back before reaching it in order to get out of the woods before dark. It was considered unpractical to make a second attempt.

✓ k. Numerous buildings have been added. See Field Edit Sheet No. 1, T-952 for additions and deletions of buildings.

a. A new road 7 to Malaga Bay Ligan has been added. See Field Edit Sheet No. 1.

b. Note arrangement of buildings at road intersection approximately 1500 feet south of BM U 295. See Field Edit Sheet No. 1.

c. Several buildings have been added to the map. See Field Edit Sheet No. 1, T-9634, for additions and Deletions.

T-9633

a. The 400 top indicated with red pencil at approximate latitude $46^{\circ} 50.0'$ and longitude $123^{\circ} 56.4'$ was not checked as the field edit unit could not reach the point and get out of the woods before dark on the same day.

b. Note addition of buildings at approximate Latitude $46^{\circ} 50'$ Longitude $123^{\circ} 58.8'$ and additions and deletions of buildings along the Johns River Road.

53. Map Accuracy:

No horizontal accuracy test was made.

No vertical accuracy test was required and none was made. The 20-foot contour was added where indicated on the discrepancy prints and contours along the beach were checked. Some 20-foot contours were added along the beach on Sheet T-9521.

Barometric elevations were established where it was indicated that checks should be made in the wooded areas. These elevations indicated that the AMS elevations for the same points are incorrect. See barometric elevations indicated with red ink on the Field Edit Sheets.

The planetable was used to check elevations in the vicinity of Station LARKIN 1939, Sheet T-9634. The elevation of this station published in the list of geographic positions (unadjusted field) was used.

54. Recommendations:

The only sheets furnished for T-9521 and T-9633 were at the scale of 1:17,000. This is a very inconvenient scale to use on the planetable, as each stadia distance must be multiplied by a factor before it can be plotted on the sheet with a 1:10,000 or 1:20,000 scale. It is recommended that sheets for planetable use be at the scale of either 1:10,000 or 1:20,000.

Mr. Workman
c/o West Tacoma Newspaper
400 East First Street
Cosmopolis, Washington

Mr. Workman has been a resident of the area for over thirty five years.

Mr. Ostrocki has been in the area six years and is at present an engineer with West Tacoma Newspaper.

56. Supplemental Data

a. Drawing of Twin Harbors Beach State Park with park boundary indicated thereon with red pencil.

b. Retic print of drawing - Secondary State Highway No. 13-A, South Bay Bridge Approaches.

57. Current Hydrographic Surveys:

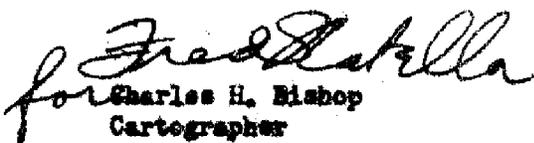
That part of the hydrographic survey of Grays Harbor completed by the Coast and Geodetic Survey in September 1956 that is within the area of Sheet T-9521 (South Bay) should be searched for piling or other offshore detail that may have been missed by the field editor.

Approved:



Fred Stalla
Comdr., CGS Survey
Officer-in-Charge

Respectfully submitted:



for Charles H. Bishop
Cartographer

REVIEW REPORT T-9633
TOPOGRAPHIC
May 1958

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS

H-334	1:221,360	1852
6731a	1:10,000	1939

Manuscript T-9633 supercedes the above surveys in common areas as source material for charts.

63. COMPARISON WITH MAPS OF OTHER AGENCIES

Aberdeen AMS Sheet 12771V 1:50,000
Published 1942.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS

None

65. COMPARISON WITH NAUTICAL CHARTS

6002 10 Edition 9 July 1942
Corrected to 4/8/57

66. ADEQUACY OF RESULTS AND FUTURE SURVEYS

This map complies with instructions. It does not meet the ^{Vertical} National Standards of Map accuracy. *It does meet the Horizontal National Standards of map accuracy RLB*
Refer to Compilation report item 34, Review Report for T-9514, item 66 and Report to Chief, by Cravat bound with Descriptive Report T-9516.

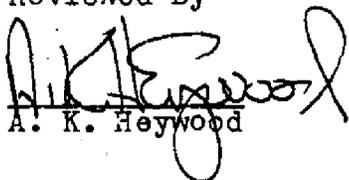
67. JUNCTIONS

The east junction between this manuscript and an advance print of Aberdeen S. E. Washington does not tie from Latitude $46^{\circ}51'$ ^{North} to Latitude $46^{\circ}49'$ ^{South}. During the time of compilation (1954) a junction edge was furnished to the Geological Survey for this purpose. The junction will have to be made by the Geological Survey before publication.

68. LAND LINES

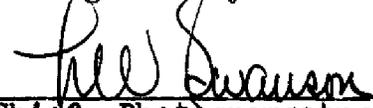
The land lines on this manuscript are generally poor. Only three corners, one of which is doubtful, were recovered by the field parties. The limits of logged areas, generally accepted to be along section lines, were used wherever possible.

Reviewed By


A. K. Heywood

Approved


Chief, Review Branch
Photogrammetry Division


Chief, Photogrammetry
Division

3 July 1958 


Chief, Nautical Chart Branch
Charts Division


Chief, Coastal Surveys
Division

