

1,000,000 FT. S. ZONE
500,000 FT. S. ZONE
400,000 FT. S. ZONE
300,000 FT. S. ZONE
200,000 FT. S. ZONE
100,000 FT. S. ZONE
400,000 FT. S. ZONE
300,000 FT. S. ZONE
200,000 FT. S. ZONE
100,000 FT. S. ZONE

6185
500,000 FT. S. ZONE
400,000 FT. S. ZONE
300,000 FT. S. ZONE
200,000 FT. S. ZONE
100,000 FT. S. ZONE
400,000 FT. S. ZONE
300,000 FT. S. ZONE
200,000 FT. S. ZONE
100,000 FT. S. ZONE

- 1 WILLAPA BAY OYSTER CO. CANNERY, BLACK STACK
- 2 PETERSONS OYSTER HOUSE, NEAR SNAKE 2, CHIMNEY (ADD)
- 3 NAWICOTTA, EAGLE OYSTER CO. CANNERY, ON DOCK, E. GABLE
- 4 NAWICOTTA, OYSTER-SHELL REFINERY, PLANT, METAL STACK
- 5 OYSTERSVILLE, BIRD-HEM DARY BARN, N. GABLE (BARN)
- 6 OYSTERSVILLE, HOLWAY OYSTER HOUSE, SMALL METAL STACK (STAK)
- 7 WILLARD BAY, LARGE BARN, N. GABLE (BARN)
- 8 LONG ISLAND SIGNAL LIGHT (INAN)
- 9 ELWACO OYSTER CO. HOUSE, S. GABLE
- 10 ELWACO OYSTER CO. HOUSE, W. GABLE (ROOF)
- 11 NEHAMA RIVER, ENTRANCE, CABIN ON PILES, GABLE
- 12 NEHAMA RIVER BEACON ON REEL, SE. GABLE
- 13 NEHAMA RIVER BEACON 18 & 22 (FISH)
- 14 NEHAMA RIVER BEACON 20 (FISH)
- 15 NEHAMA RIVER BEACON 16 (FISH)
- 16 NEHAMA RIVER BEACON 14 (FISH)
- 17 NEHAMA RIVER BEACON 12 (WED)
- 18 NEHAMA RIVER BEACON 10 (TU)
- 19 NEHAMA RIVER BEACON 8 (MON)
- 20 NEHAMA RIVER BEACON 4 (SAT)
- 21 NEHAMA RIVER BEACON 2 (JOC)
- 22 NEHAMA RIVER BEACON REFLECTOR, (FEN)
- 23 RIDGEL SPT LIGHT (RID)
- 24 SANDY POINT LIGHT (NEAR)
- 25 OPERA 2 (USE)
- 26 SOUTH BEND, BAPTIST CHURCH, CUPOLA, FINAL
- 27 WILLAPA BAY COAST GUARD STATION, FLAGSTAFF
- 28 WILLAPA L.S.S.
- 29 PAIX RIVER BRIDGE, POWER POLE, CENTER INSULATOR
- 30 BAY CENTER, CANNERY 1 MILE S. OF, N. VENTILATOR
- 31 BAY CENTER, LIME FACTORY, E. GABLE
- 32 BAY CENTER CHANNEL LIGHT (JCI)
- 33 OYSTER HOUSE (GOOSE PT)
- 34 BAY CENTER CHANNEL RANGE FRONT LIGHT (CUT)
- 35 MALBOAT SLOUGH LIGHT (LIGHT)
- 36 MALBOAT SLOUGH LIGHT 39
- 37 PAIX RIVER BAY BEACON 2 (JCI)
- 38 PAIX RIVER JUNCTION LIGHT
- 39 TOLAND, NELSON BROS. CRAB & OYSTER CANNERY, TANK (TANK)
- 40 TOLAND, COAST GUARD BOATHOUSE, SE GABLE (BOAT)
- 41 WILLAPA POINT OYSTER CO. OYSTERHOUSE, CUPOLA (HUN)
- 42 NORTH RIVER BEACON 14 (COT)
- 43 NORTH RIVER BEACON 12 (AR)
- 44 NORTH RIVER BEACON 10 (TEN)
- 45 NORTH RIVER BEACON 8 (ATE)
- 46 NORTH RIVER BEACON 6 (SIX)
- 47 NORTH RIVER BEACON 4 (FOUR)
- 48 NORTH RIVER BEACON 2 (TWO)
- 49 WHARF HOUSE (CENTER)
- 50 WILLAPA RIVER, DOLOPHN 1 (KIT)
- 51 WILLAPA RIVER, BEACON 1 (UO)
- 52 WILLAPA RIVER, DOLOPHN 1 (IM)
- 53 WILLAPA RIVER, DOLOPHN 2 (IM)
- 54 WILLAPA RIVER, DOLOPHN 3 (ON)
- 55 WILLAPA RIVER, DOLOPHN 4 (IGIZ)
- 56 WILLAPA RIVER, PILE (ROT)
- 57 WILLAPA RIVER, DOLOPHN 6 (SAG)
- 58 WILLAPA RIVER, RANGE FRONT LIGHT (BAN)
- 59 BAY CENTER CUTOFF CHANNEL BEACON 4
- 60 WILLAPA BAY BEACON 8 (WV)
- 61 WILLAPA BAY BEACON 10 (YAN)
- 62 WILLAPA RIVER RANGE LIGHT (APA)
- 63 WILLAPA RIVER RANGE REAR LIGHT 27
- 64 MALBOAT SLOUGH RANGE REAR BEACON (MAY)
- 65 MALBOAT SLOUGH RANGE FRONT LIGHT 27
- 66 WILLAPA RIVER RANGE FRONT LIGHT 27
- 67 SOUTH BEND, WINDMILL TOWER OPPOSITE
- 68 SOUTH BEND, BROADWAY SCHOOL, CUPOLA, FINAL
- 69 SOUTH BEND, LONG ISLAND OYSTER CO., BLACK STACK
- 70 SOUTH BEND FIRE STATION, TOWER, APEX
- 71 SOUTH BEND, BAPTIST CHURCH, CUPOLA, FINAL
- 72 SOUTH BEND, METHODIST CHURCH, STEEPLE, FINAL
- 73 SOUTH BEND, CATHOLIC CHURCH, BELL TOWER
- 74 SOUTH BEND, STANDARD OIL CO., SMALL TANK
- 75 SOUTH BEND, H. CRON OYSTER CO., BLACK STACK
- 76 SOUTH BEND, AMERICAN SHINGLE CO., BLACK STACK
- 77 SOUTH BEND, STANDARD OIL CO., LARGE TANK
- 78 SOUTH BEND, RAYMOND LUMBER MILL, BLACK STACK
- 79 RAYMOND, ANDAL SHINGLE MILL, STACK
- 80 RAYMOND, N. HOUSE NEAR COE, N. GABLE
- 81 POLE, BLACK & WHITE TARGET (INSHORE ONE OF TWO)
- 82 POLE, BLACK & WHITE TARGET (OFFSHORE ONE OF TWO)
- 83 RAYMOND MILL "W", BRICK STACK
- 84 RAYMOND MILL "W", BURNER
- 85 RAYMOND, BARN, N. GABLE
- 86 RAYMOND, RIVERDALE SCHOOL, CUPOLA, STAFF
- 87 RAYMOND, MILL "E", STACK
- 88 RAYMOND, MILL "E", BURNER
- 89 RAYMOND, TALL POWERLINE TOWER
- 90 RAYMOND, ROUND CONCRETE TANK, APEX OF ROOF
- 91 RAYMOND, WILLAPA HARBOR LUMBER MILL 2, STACK
- 92 RAYMOND, ELEVATED TANK, BETWEEN CASE MILL & MILL 2
- 93 RAYMOND, NORTHERN PACIFIC RR BRIDGE POLE, CENTER OF DRAW SPAN
- 94 RAYMOND, OLD BURNER
- 95 CANADIAN EXPORTER WRECK, STEEL, MAST UPRIGHT (MAST)
- 96 BAY CENTER CUTOFF CHANNEL BEACON 1
- 97 BAY CENTER CUTOFF CHANNEL BEACON 3
- 98 BAY CENTER CUTOFF CHANNEL BEACON 5
- 99 BAY CENTER CUTOFF CHANNEL BEACON 6
- 100 BAY CENTER CUTOFF CHANNEL BEACON 7
- 101 BAY CENTER CUTOFF CHANNEL BEACON 8
- 102 BAY CENTER CUTOFF CHANNEL BEACON 10
- 103 BAY CENTER CUTOFF CHANNEL BEACON 11
- 104 BAY CENTER CUTOFF CHANNEL BEACON 13
- 105 BAY CENTER CUTOFF CHANNEL BEACON 12
- 106 BAY CENTER CUTOFF CHANNEL BEACON 14
- 107 TOPA FLAG
- 108 BROWN
- 109 TOKELAND BEACH E BASE
- 110 HOTEL RUSTIC
- 111 EVANS
- 112 STUMP
- 113 JIM (USE)
- 114 TOKELAND BEACH W BASE
- 115 CEDAR RIVER FLATS LIGHT (DAR)
- 116 CEDAR RIVER FLATS LIGHT
- 117 TOKE PT LIGHT (TOKE)
- 118 TOKE
- 119 WILLAPA RIVER RANGE FRONT LIGHT 4
- 120 WILLAPA RIVER WEST RANGE, FRONT (FRONT)
- 121 SHALWATER BAY NE. BASE
- 122 SHALWATER BAY MIDDLE BASE
- 123 CRESCENT
- 124 GOOSE
- 125 GOOSE 2
- 126 GOOSE 3
- 127 NEHAMA, DWYERS STORE, SW CORNER
- 128 USE MAP CONTROL STATION
- 129 GAME RESERVE, SIGN
- 130 DUNE (USE)
- 131 BETTER
- 132 USE MAP CONTROL STATION
- 133 HIGH 2
- 134 TREE
- 135 WILLAPA RIVER BAY BEACON 4
- 136 GOOSE POINT RANGE FRONT LIGHT (OFF)
- 137 BAY CENTER CHANNEL DIRECTIONAL LIGHT
- 138 WILLAPA RIVER WEST RANGE, REAR (REAR)
- 139 WILLAPA RIVER RANGE REAR LIGHT 4
- 140 WILLAPA BAY 2 LIGHT (BUS)
- 141 RUSSELL CHANNEL LIGHT (RT)
- 142 WILLAPA RIVER LIGHT 8
- 143 NORTH RIVER LIGHT (RT)
- 144 WILLAPA RIVER LIGHT 12
- 145 JOHNSON LIGHT (JOHN)
- 146 WILLAPA RIVER LIGHT 33

TRIANGULATION DIAGRAM

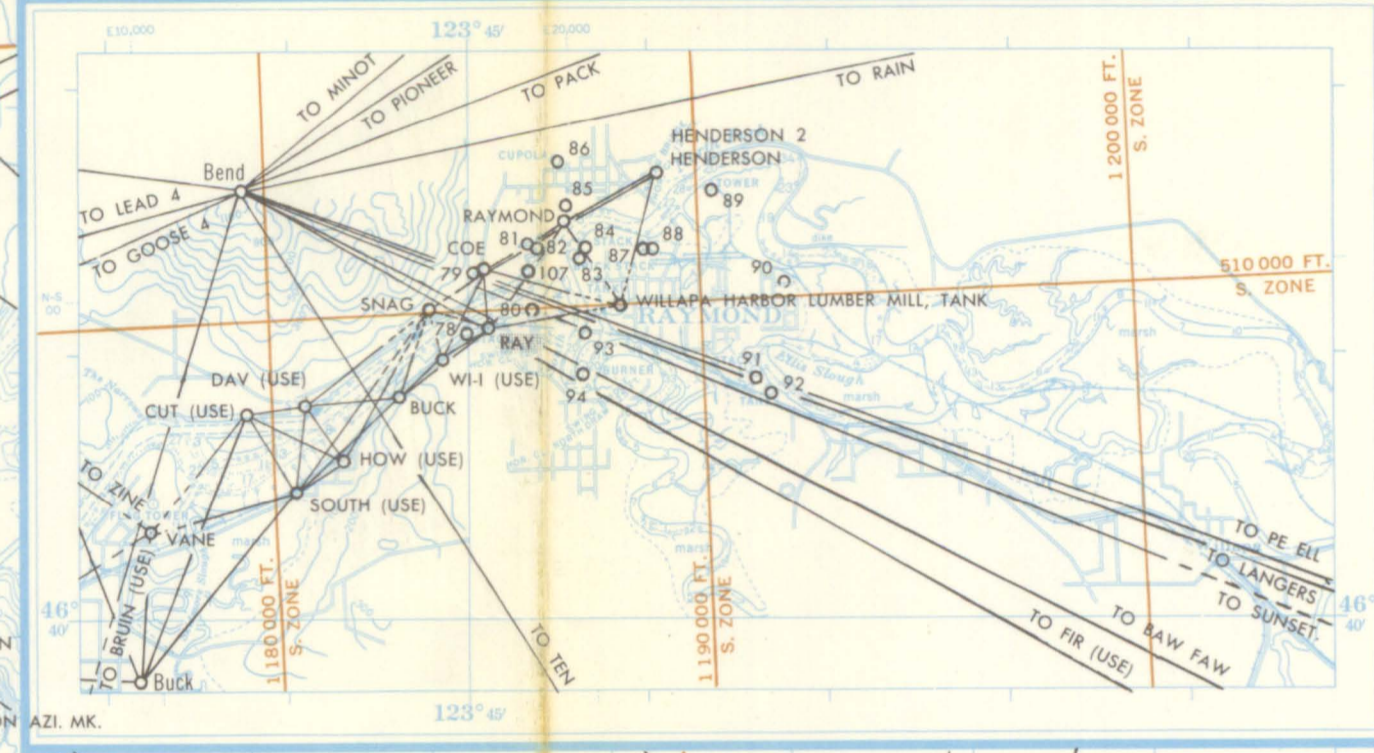
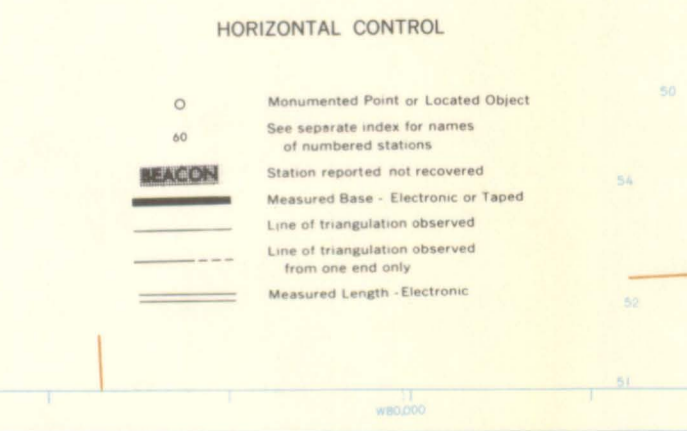
U.S. DEPARTMENT OF COMMERCE
John T. Connor, Secretary

ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
Robert M. White, Administrator

COAST AND GEODETIC SURVEY
James C. Tolan, Jr., Director

WASHINGTON, D.C.
August 1965

(Not For Navigational Purposes)



UNITED STATES - WEST COAST
WASHINGTON

WILLAPA BAY

SOUNDINGS IN FEET
AT MEAN LOWER LOW WATER

State plane coordinate grid shown in brown