CAUTION
CHANGES in BUOYAGE
Mariners are advised that authorized aids to navigation are being changed to conform to maritime standards of the International Association of Lighthouse Authorities Maritime Buoyage System, Region B. Significant changes are: black port hand buoys to green; black and white vertically striped buoys to red and white vertically striped buoys; and lateral lights from white to red or green as appropriate. Changes to aids to navigation will be announced in the Defense Mapping Agency Hydrographic/Topographic Center weekly Notice to Mariners and the U.S. Coast Guard Local Notice to Mariners.

SOUNDINGS IN FEET

18502

Formerly C&GS 6195, 1st Ed., June 1892 C-1942-576

Nautical Chart Catalog No. 2, Panels F, G

NOAA VHF-FM WEATHER BROADCASTS

The National Weather Service stations listed below provide continuous marine weather broadcasts. The range of reception is variable, but for most stations is usually 20 to 40 miles from the antenna site.

| | | |
|---|---|---|
| Astoria, OR | KEC-91 | 162.40 MHz |
| Olympia, WA | WXM-62 | 162.475 MHz |

STORM WARNINGS

The National Weather Service displays storm warnings at the following approximate locations:
Grays Harbor C.G. Sta. (46°54.3'-124°07.2')
Ocean Shores Marina (46°58.4'-124°08.4')

NOTE A

Navigation regulations are published in Chapter 2, U.S Coast Pilot 7, or weekly Notice to Mariners which include new or revised regulations. Information concerning the regulations may be obtained at the Office of the District Engineer, Corps of Engineers in Seattle, Wash.

Anchorage regulations may be obtained at the Office of the Commander, 13th Coast Guard District in Seattle, Wash.

Refer to section numbers shown with area designation.

CAUTION

Only marine radiobeacons have been calibrated for surface use. Limitations on the use of certain other radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and Defense Mapping Agency Hydrographic/Topographic Center Publication 117 (A & B).

Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.

Station positions are shown thus:
⊙(Accurate location) o(Approximate location)

RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

WISHKAH RIVER BRIDGES

The two swing bridges and one bascule bridge crossing the Wishkah River have a horizontal clearance of 75 feet and a vertical clearance of 8 feet. The fixed bridge has a horizontal clearance of 75 feet and a vertical clearance of 16 feet.

GRAYS HARBOR

CORPS OF ENGINEERS - REPORTS TO JULY 1982 AND SURVEYS TO MAY 1982

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW) / PROJECT DIMENSIONS

| NAME OF CHANNEL | LEFT OUTSIDE QUARTER | MIDDLE HALF OF CHANNEL | RIGHT OUTSIDE QUARTER | DATE OF SURVEY | WIDTH (FEET) | LENGTH (NAUT. MILES) | DEPTH MLLW (FEET) |
|---|---|---|---|---|---|---|---|
| SOUTH REACH | 23.6 | 30.9 | 26.8 | 4,5-82 | 350 | 3.7 | 30 |
| CROSSOVER CHANNEL | 27.3 | 30.0 | 29.2 | 4,5-82 | A350 | 1.9 | 30 |
| NORTH CHANNEL | 26.9 | 24.8 | 17.9 | 4,5-82 | A350 | 2.4 | 30 |
| HOQUIAM REACH | 25.9 | 29.7 | 21.5 | 4,5-82 | 350 | 1.9 | 30 |
| COW POINT REACH | 27.9 | 28.8 | 24.2 | 4,5-82 | 350-600 | 1.8 | 30 |
| ABERDEEN REACH | 27.6 | 31.1 | 24.9 | 5-82 | 550-200 | 1.1 | 30 |
| WEST TURNING BASIN | 24.6 | 32.3 | 24.5 | 5-82 | 600 | 0.17 | 30 |
| THENCE TO THE EAST TURNING BASIN | 31.3 | 29.3 | 17.9 | 1,9-81 | 200-400 | 1.8 | 30 |
| EAST TURNING BASIN | B 7.5 | 20.7 | 31.7 | 1-81 | 200-550 | 0.2 | 30 |
| EAST TURNING BASIN TO COSMOPOLIS | 26.9 | 27.7 | 27.9 | 1-81 | 200 | 0.3 | 30 |

A. ONLY THE NORTH 350 FEET OF THE WIDENER AT THE JUNCTION OF CROSSOVER CHANNEL AND NORTH CHANNEL IS INCLUDED IN THE DEPTH TABULATION; A DEPTH OF 17.7 FEET WAS AVAILABLE IN THE REMAINDER OF THE WIDENER.
B. CONTROLLING DEPTH WAS LOCATED NEAR THE EDGE OF THE BASIN; A DEPTH OF 13.4 FEET WAS AVAILABLE IN THE INSIDE HALF OF THE QUARTER.
NOTE-CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

PRODUCED BY COMPUTER ASSISTED METHODS

LOGARITHMIC SPEED SCALE

To find SPEED, place one point of dividers on distance run (in any unit) and the other on minutes run. Without changing divider spread, place right point on 60 and left point will then indicate speed in units per hour. Example: with 4.0 nautical miles run in 15 minutes, the speed is 16.0 knots

POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEAN SURVEY

# UNITED STATES - WEST COAST
# WASHINGTON
# GRAYS HARBOR

Mercator Projection
Scale 1:40,000 at Lat. 46°56'
North American 1927 Datum
SOUNDINGS IN FEET
AT MEAN LOWER LOW WATER

CAUTION
Bar Channel
The bar channel is subject to frequent changes. Deep draft vessels should not enter without knowledge of conditions at the time of entering. The deepest water is not always on the range.

AUTHORITIES

Hydrography and topography by the National Ocean Survey with additional data from the Corps of Engineers and U.S. Coast Guard.

SUPPLEMENTAL INFORMATION

Consult U.S. Coast Pilot 7 for important supplemental information.

PLANE COORDINATE GRID

The Washington State plane coordinate grid, South Zone, is indicated on this chart at 10,000 foot intervals thus:
This grid is shown on the Westhaven Cove inset at 2,000 foot intervals. The last three digits are omitted.
Corps of Engineers local plane coordinate grid is shown by dotted ticks at 10,000 foot intervals.
This grid is shown on the Westhaven Cove inset at 2,000 foot intervals.
Orgin is East Base 1909.

CAUTION

Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

CAUTION

Temporary changes or defects in aids to navigation are not indicated on this chart. See Notice to Mariners.

AIDS TO NAVIGATION

Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

HEIGHTS

Heights in feet above Mean High Water.

TIDAL INFORMATION

| Place Name | (Lat/Long) | Mean Higher High Water | Mean High Water | Mean Tide Level | Mean Lower Low Water | Extreme Low Water |
|---|---|---|---|---|---|---|
| | | feet | feet | feet | feet | feet |
| Point Chehalis | (46°55'N/124°07'W) | 9.0 | 8.3 | 4.8 | 0.0 | -3.5 |
| Aberdeen | (46°58'N/123°51'W) | 10.1 | 9.4 | 5.4 | 0.0 | -3.0 |
| Montesano, Chehalis River | (46°58'N/123°36'W) | 8.1 | 7.5 | 4.1 | 0.0 | -3.0 |

Height referred to datum of soundings (MLLW)

(881)

ABBREVIATIONS (For complete list of Symbols and Abbreviations, see Chart No. 1.)

Aids to Navigation (lights are white unless otherwise indicated):

| | | | |
|---|---|---|---|
| AERO aeronautical | G green | Mkr marker | R Bn radiobeacon |
| Alt alternating | Gp group | Mo morse code | R Tr radio tower |
| B black | I Qk interrupted quick | N nun | Rot rotating |
| Bn beacon | Int Qk interrupted quick | OBSC obscured | sec seconds |
| C can | ISO isophase (E Int) | Occ occulting | SEC sector |
| DIA diaphone | Lt Ho lighthouse | Or orange | St M statute miles |
| E Int equal interval (ISO) | M nautical mile | Qk quick | W white |
| F fixed | m minutes | R red | WHIS whistle |
| Fl flashing | Micro Tr microwave tower | Ra Ref radar reflector | Y yellow |

Bottom characteristics:

| | | | | |
|---|---|---|---|---|
| bk black | Cl clay | Grs grass | Oys oysters | sft soft |
| Blds boulders | Co coral | hrd hard | Rk rock | Sh shells |
| brk broken | G gravel | M mud | S sand | stk sticky |

Miscellaneous:

| | | | |
|---|---|---|---|
| AUTH authorized | Obstr obstruction | PD position doubtful | Subm submerged |
| ED existence doubtful | PA position approximate | Rep reported | |

21 Wreck, rock, obstruction, or shoal swept clear to the depth indicated.
(2) Rocks that cover and uncover, with heights in feet above datum of soundings.
COLREGS: International Regulations for Preventing Collisions at Sea, 1972.
Demarcation lines are shown thus: — — — — —

(Inner neatline 60.23cm N.S. x 95.19cm E.W.)

DMA STOCK NO. 18BHA18502

76th Ed., Dec. 18/82

18502

CAUTION
This chart has been corrected from the Notice to Mariners published weekly by the Defense Mapping Agency Hydrographic/Topographic Center and the Local Notice to Mariners issued periodically by each U.S. Coast Guard district to the print date shown in the lower left hand corner.

This nautical chart has been designed to promote safe navigation. The National Ocean Survey encourages users to submit corrections, additions, or comments for improving this chart to the Director, National Ocean Survey, NOAA, Rockville, Maryland 20852.

WARNING
The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

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U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY

SOUNDINGS IN FEET

| FATHOMS | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FEET | 6 | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 | 78 | 84 | 90 | 96 | 102 |

METERS 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

(Grays Harbor, Wash.)
SOUNDINGS IN FEET - SCALE 1:40,000

18502

LITIGATION/COPY