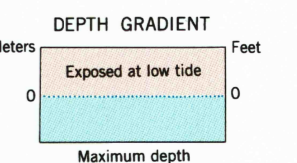


To convert feet to meters multiply by 0.3048
To convert meters to feet multiply by 3.2808



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APR 3 0 2000
USGS
HISTORICAL MAP ARCHIVES

Produced by the United States Geological Survey
Topography compiled 1943 by the National Imagery and Mapping Agency. Planimetry derived from imagery taken 1981 and other sources. Photomicroscopy using imagery taken 1986; no major culture or drainage changes observed. PLS and survey control current as of 1953. Boundaries, other than corporate, verified 1999. Supplemental control by Pacific Power and Light Company. Bathymetry compiled by the National Ocean Service from tide-coordinated hydrographic surveys. This information is not intended for navigational purposes. Mean low water (dotted) line and mean high water (heavy solid) line compiled by NOS from tide-coordinated aerial photographs. Apparent shoreline (outer edge of vegetation) shown by light solid line. Information shown in purple may not meet USGS content standards and may conflict with previously mapped contours. North American Datum of 1927 (NAD 27). Projection and 1000-meter grid: Universal Transverse Mercator, zone 10. 10 000-foot ticks: Oregon Coordinate System of 1927 (north zone) and Washington Coordinate System of 1927 (south zone). North American Datum of 1983 (NAD 83) is shown by dashed corner ticks. The values of the shift between NAD 27 and NAD 83 for 7.5-minute intersections are obtainable from National Geodetic Survey NADCON software. There may be private inholdings within the boundaries of the National or State reservations shown on this map. Where omitted, land lines have not been established.

NATIONAL OCEAN SERVICE HYDROGRAPHIC SURVEY INDEX

| SURVEY NUMBER | SURVEY DATE | SURVEY SCALE | SURVEY LINE SPACING (NAUT. MILES) |
|---------------|-------------|--------------|-----------------------------------|
| H-8421 | 1935 | 1:10,000 | 01-05 |
| H-8417 | 1958 | 1:20,000 | 03-35 |
| H-8421 | 1958 | 1:10,000 | 01-17 |
| H-8422 | 1958 | 1:10,000 | 01-17 |

NOS CHART 18521 MARCH 27, 1982 1:40,000

SCALE 1:24 000

CONTOUR INTERVAL 50 FEET
DASHED LINES REPRESENT 25 FOOT CONTOURS
NATIONAL GEODETIC VERTICAL DATUM OF 1929
TO CONVERT FROM FEET TO METERS, MULTIPLY BY 0.3048
BATHYMETRIC CONTOUR INTERVAL 2 METERS WITH SUPPLEMENTARY 1 METER CONTOURS - DATUM IS MEAN LOWER LOW WATER
THE RELATIONSHIP BETWEEN THE TWO DATUMS IS VARIABLE
THE MEAN RANGE OF TIDE IS APPROXIMATELY 2.4 METERS

ROAD CLASSIFICATION

| | |
|--------------------------------|---|
| Primary highway hard surface | Light-duty road, hard or improved surface |
| Secondary highway hard surface | Unimproved road |

Interstate Route U.S. Route State Route

UTM GRID AND 1999 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

QUADRANGLE LOCATION

BASE MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS BATHYMETRIC SURVEY DATA COMPLIES WITH INTERNATIONAL HYDROGRAPHIC ORGANIZATION (IHO) SPECIAL PUBLICATION 44 ACCURACY STANDARDS AND/OR STANDARDS USED AT THE DATE OF THE SURVEY

FOR SALE BY U.S. GEOLOGICAL SURVEY, P.O. BOX 25286, DENVER, COLORADO 80225 AND NATIONAL OCEAN SERVICE, ROCKVILLE, MARYLAND 20852 A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

WARRENTON, OR-WA 1996 NIMA 1276 III NW-SERIES V892

ADJOINING 7.5' QUADRANGLE NAMES

| | | |
|---|---|---|
| 1 | 2 | 3 |
| 4 | 5 | 6 |
| 7 | 8 | 9 |

1 Cape Disappointment
2 Chinook
3 Knappa
4 Clatsop Spit
5 Astoria
6 Gearhart
8 Olney

80% TOTAL RECYCLED FIBER