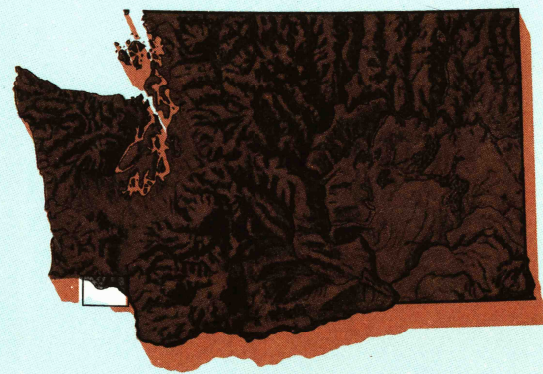
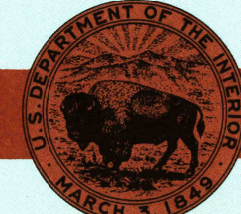


1:100 000-scale metric  
topographic map of  
**Astoria**  
OREGON—WASHINGTON



30 X 60 MINUTE QUADRANGLE  
SHOWING

- Contours and elevations  
in meters
- Highways, roads and other  
manmade structures
- Water features
- Woodland areas
- Geographic names



GEOLOGICAL SURVEY

1981

Produced by the United States Geological Survey

Compiled from USGS 1:24 000 and 1:62 500-scale topographic maps dated 1949–1978. Planimetry revised from aerial photographs taken 1976–77, 1979, and other source data. Revised information not field checked. Map edited 1981.  
Projection and 10 000-meter grid, zone 10, Universal Transverse Mercator  
25 000-foot grid ticks based on Washington coordinate system, south zone and Oregon coordinate system, north zone 1927 North American Datum  
To place on the predicted North American Datum 1983 move the projection lines 24 meters north and 96 meters east  
There may be private inholdings within the boundaries of the National or State reservations shown on this map

CONTOUR INTERVAL 50 METERS  
NATIONAL GEODETIC VERTICAL DATUM OF 1929

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS

| CONVERSION TABLE                             |         | DECLINATION DIAGRAM                                                                                     | ADJOINING MAPS                                                                                                                    |   |   |  |
|----------------------------------------------|---------|---------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|---|---|--|
| Meters                                       | Feet    |                                                                                                         | 1                                                                                                                                 | 2 | 3 |  |
| 1                                            | 3.2808  |                                                                                                         | 1                                                                                                                                 | 2 | 3 |  |
| 2                                            | 6.5617  |                                                                                                         | 4                                                                                                                                 | 5 |   |  |
| 3                                            | 9.8425  |                                                                                                         | 6                                                                                                                                 | 7 | 8 |  |
| 4                                            | 13.1234 |                                                                                                         |                                                                                                                                   |   |   |  |
| 5                                            | 16.4042 |                                                                                                         |                                                                                                                                   |   |   |  |
| 6                                            | 19.6850 |                                                                                                         |                                                                                                                                   |   |   |  |
| 7                                            | 22.9659 |                                                                                                         |                                                                                                                                   |   |   |  |
| 8                                            | 26.2467 |                                                                                                         |                                                                                                                                   |   |   |  |
| 9                                            | 29.5275 |                                                                                                         |                                                                                                                                   |   |   |  |
| 10                                           | 32.8084 |                                                                                                         |                                                                                                                                   |   |   |  |
| To convert meters to feet multiply by 3.2808 |         | UTM grid convergence (GN) and 1981 magnetic declination (MD) at center of map<br>Diagram is approximate | <div>1 Westport<br/>2 Cathlamet River<br/>3 Centralia<br/>4 Ilwaco<br/>5 Mt. St. Helens<br/>6 Nehalem River<br/>7 Vancouver</div> |   |   |  |
| To convert feet to meters multiply by 0.3048 |         |                                                                                                         |                                                                                                                                   |   |   |  |

FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225  
OR RESTON, VIRGINIA 22092

Topographic Map Symbols

|                                                             |  |
|-------------------------------------------------------------|--|
| Primary highway, hard surface                               |  |
| Secondary highway, hard surface                             |  |
| Light duty road, principal street, hard or improved surface |  |
| Other road or street, trail                                 |  |
| Route marker: Interstate, U. S., State                      |  |
| Railroad: standard gauge; narrow gauge                      |  |
| Bridge: overpass; underpass                                 |  |
| Tunnel: road; railroad                                      |  |
| Built up area; locality; elevation                          |  |
| Airport: landing field; landing strip                       |  |
| National boundary                                           |  |
| State boundary                                              |  |
| County boundary                                             |  |
| National or State reservation boundary                      |  |
| Land grant boundary                                         |  |
| U. S. public lands survey: range, township; section         |  |
| Range, township; section line: protracted                   |  |
| Power transmission line: pipeline                           |  |
| Dam; dam with lock                                          |  |
| Cemetery: building                                          |  |
| Windmill; water well; spring                                |  |
| Mine shaft; adit or cave; mine, quarry; gravel pit          |  |
| Campground; picnic area; U. S. location monument            |  |
| Ruins; cliff dwelling                                       |  |
| Distorted surface: strip mine, lava; sand                   |  |
| Contours: index; intermediate; supplementary                |  |
| Bathymetric contours; index; intermediate                   |  |
| Stream, lake; perennial; intermittent                       |  |
| Rapids, large and small; falls, large and small             |  |
| Areas to be submerged; marsh, swamp                         |  |
| Land subject to controlled inundation; woodland             |  |
| Scrub; mangrove                                             |  |
| Orchard; vineyard                                           |  |

A pamphlet describing topographic maps is available on request

RETURN TO:

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