

# The Quinault Canyon II Project September 1980– January 1981

The Quinault Canyon II Project was sponsored by the United States Department of Energy Contract DE-AT06-76-EV-71025 to Dr. B. Hickey at the University of Washington. The study of circulation in and around canyons is important to the Washington coast since several canyons are located in this area. Astoria and Quinault Canyon provide the primary conduits by which land derived sediments and pollutants reach the deep ocean.

The University of Washington maintained 9 current meter moorings, QC801 through QC8010 (QC806 was not deployed) in and around Quinault Canyon. Current meters were all Aanderaa (AA) instruments. Speed and direction and temperature were measured by the Aanderaa meters. Data was sampled in 20 minute intervals, then edited for spurious values. Speed and direction were independently filtered with a 5 point binomial filter spanning approximately 1.5 hours then resolved into u and v components.

Abbreviations and units are:

Depth, m, meters,

Speed, spd, cm/sec,

Direction, D, degrees, true north,

u component (eastward), u, v component (northward), v, cm/sec, true North,

Temperature, T, °C,

Pressure, P, decibars,

Date and time is listed as DATE. Add 8 hours to get GMT, format is mm/dd/yy hh:mm.

Data files consist of ASCII tab delimited files, one per meter. Headers indicate the mooring, the deployment, variable, and depth rounded to the nearest meter. For example QC802u252 indicates the data is from the QC802 mooring, u component at 252m, QC805T395 indicates the data is from the QC805 mooring, temperature data at 395m. The last column, JJ, is zero filled to indicate last data column for that meter.

Mooring: QC801

Position: 47°16.7'N, 124°45.9'W

Bottom depth: 156m

Deployed: 1508 (+8) Sept. 26, 1980

Recovered: Release signal sent 0807 (+8) Jan. 19, 1981. Mooring did not surface. Determined array moving ~1800 Jan. 20, 1981, followed during darkness until recovered ~0700 Jan 21, 1981.

| Actual Depth        | Variables | Comments         |
|---------------------|-----------|------------------|
| <a href="#">136</a> | T         | No spds, T only. |
| <a href="#">149</a> | u,v,T     |                  |
| <a href="#">151</a> | u,v,T     |                  |

Mooring: QC802

Position: 47°18.1'N, 124°46.4'W

Bottom depth: 405m

Deployed: 1335 (+8) Sept. 26, 1980

Recovered: 0906 (+8) Jan. 20, 1981

| Actual Depth        | Variables | Comments                           |
|---------------------|-----------|------------------------------------|
| <a href="#">150</a> | u,v,T     |                                    |
| <a href="#">399</a> | u,v,T     | Very short record, approx. 10days. |
| <a href="#">400</a> | u,v,T     |                                    |

Mooring: QC803

Position: 47°21.5'N, 124°51.6'W

Bottom depth: 1197m

Deployed: 1430 (+8) Oct. 17, 1980

Recovered: 1504 (+8) Jan. 23, 1981

| Actual Depth         | Variables | Comments   |
|----------------------|-----------|--|
| <a href="#">142</a>  | u,v,T     |  |
| <a href="#">392</a>  | u,v,T     |  |
| <a href="#">892</a>  | u,v,T     | Temperature appears range limited.   |
| <a href="#">1191</a> | u,v,T     | Spds constant 0.6 1650 11/07/80 to 1750 11/09/80. Temperature appears range limited. |
| <a href="#">1192</a> | u,v,T     | Temperature appears range limited.   |

Mooring: QC804

Position: 47°20.8'N, 125°09.1'W

Bottom depth: 1639m (correctd 7/5/2017, previously 1666m)

Deployed: 1200 (+8) Oct. 18, 1980

Recovered: 1530 (+8) Jan. 24, 1981

| Actual Depth         | Variables | Comments   |
|----------------------|-----------|--|
| <a href="#">384</a>  | u,v,T     | Temperature appears range limited.   |
| <a href="#">689</a>  | u,v,T     | Temperature appears range limited.   |
| <a href="#">1334</a> | u,v,T     | Temperature appears range limited.   |
| <a href="#">1633</a> | T         | Note- bottom meters smashed into ship on deployment. No spds, T only. Temperature appears range limited. |
| <a href="#">1634</a> | T         | Note- bottom meters smashed into ship on deployment. No spds, T only. Temperature appears range limited. |

Mooring: QC805

Position: 47°20.4'N, 125°11.5'W

Bottom depth: 1651m

Deployed: 1337 (+8) Oct. 19, 1980

Recovered: 1012 (+8) Jan. 23, 1981

| Actual Depth | Variables | Comments |
|--------------|-----------|----------|
|--------------|-----------|----------|

|                      |   |   |
|----------------------|---|---|
| <a href="#">1446</a> | T | No spds, T only. Temperature appears range limited. |
|----------------------|---|---|

Mooring: QC807                      Position: 47°07.5'N, 124°59.2'W  
 Bottom depth: 393m  
 Deployed: 0955 (+8) Oct. 20, 1980  
 Recovered: 1458 (+8) Jan. 17, 1981

| Actual Depth        | Variables | Comments  |
|---------------------|-----------|---|
| <a href="#">138</a> | u,v,T     | Temperature appears range limited.  |
| <a href="#">288</a> | u,v,T     | Temperature appears range limited.  |
| <a href="#">388</a> | T         | No spds, T only. Very short record, approx. 10 days. Last half of temperature suspect. Temperature appears range limited. |

Mooring: QC808                      Position: 47°07.5'N, 124°54.2'W  
 Bottom depth: 151m  
 Deployed: 1408 (+8) Sept. 25, 1980  
 Recovered: 1323 (+8) Jan. 17, 1981

| Actual Depth        | Variables | Comments                           |
|---------------------|-----------|------------------------------------|
| <a href="#">146</a> | u,v,T     | Temperature appears range limited. |

The following corrections were made on July 5, 2017:  
 Mooring: QC804 bottom depth corrected to 1639m, previously erroneously listed as 1666m.

Last updated July 5, 2017.