

CB1200readmetwf.pdf

Coos Bay Estuary 2 (CBEST2) A narrow band 1200 kHz Acoustic Doppler Current Profiler (ADCP) and an Aanderaa current meter or a Sea Bird Electronics MicroCAT recorder (to measure conductivity and temperature) were mounted in a bottom cage located in the Charleston River Estuary, Oregon at 43-21.448N, 124-19.318W. The bottom depth was 14 meters.

The deployments and instrumentation are listed below:

CBEST2.1 03/24/1998 - 10/03/1998 1200kHz ADCP, Aanderaa current meter

CBEST2.2 10/04/1998 - 05/10/1999 1200kHz ADCP, Aanderaa current meter

Note: the ADCP was not deployed until 03/05/99 14:27 (+8).

CBEST2.3 05/10/1999 - 10/11/1999 1200kHz ADCP, Aanderaa current meter

CBEST2.4 10/10/1999 - 08/08/2000 Sea Bird Electronics MicroCAT recorder (SBE37)

Note: Start and end times for instruments do not always line up since each instrument recovery and redeployment was a separate dive. Some dives had to be delayed so both instruments were not in the water at the same time.

Each ADCP deployment is in a separate file composed of tab delimited columns.

First column is the ensemble number.

Second column is the date and time converted to Greenwich mean time (GMT), labeled GDATE.

Third column is the temperature data (degrees C) at the ADCP heads, 11 meters.

Starting with the fourth column, the column header denotes the deployment, the bin and velocity component in units of cm/sec. For example NCBE21.B1U indicates this column is from the CBEST2.1 deployment, Bin 1, u component of velocity. NCBE24.B8V indicates this is from the CBEST2.4 deployment, Bin 8, v component of velocity.

Velocity units are cm/sec.

The last column is labeled JJ and filled with zeroes. It just denotes the last column and has no significance.

Bin1 (B1) is centered at approximately 9.5m, B2 8.5m, B3 7.5m, B4 6.5m, B5 5.5m, B6 4.5m, B7 3.5m, B8 2.5m, B9 1.5m, B10 0.5m.

Bins near the surface may be contaminated from the effects of side lobe reflection off the surface. B10 was included for CBEST2.1 and CBEST2.3 but is likely too close to the surface to be reliable. B9 is centered at 1.5m and is questionable because of side lobe reflections from the surface.

Data has been rotated to true N. The angle used was 18.0 degrees.

The ADCP was set up with the following parameters:

Transducer: facing up

Transducer angle: 30 degrees

Depth cell size: 1m

Pings per ensemble:

CBEST2.1 1800

CBEST2.2 1600

CBEST2.3 1500

Time between pings:

CBEST2.1 00min 01.83secs

CBEST2.2 00min 01.04secs

CBEST2.3 00min 01.10secs

Time between ensembles:

CBEST2.1 60 minutes

CBEST2.2 and CBEST2.3 30 minutes

Velocity coordinates: EARTH

Bottom depth: 14m

Transducer heads at 11m

Temperature at 11m

During the first deployment an Aanderaa current meter was attached to the cage at approximately 12m. Data has NOT been edited to delete sections with biofouling. Use data with discretion.

On 06/09/98 divers checked the mooring, cleaned the conductivity sensor, and left the following notes in the log book.

06/09/98 We found cage downhill and downstream. Doppler heads had 50% coverage at approximately 0.25 inches of barnacles. Aanderaa had conductivity port mostly plugged and 0.5 inch growth at 95% coverage. Setting fully level, missing deep rock channels. This is consistent with the dramatic fall off of the conductivity recorded by the Aanderaa followed by an abrupt change and then another fall off.

During the second deployment an Aanderaa current meter was attached to the cage at approximately 12m. Data has NOT been edited to delete sections with biofouling. Use data with discretion.

On 03/06/99, during the second deployment, divers checked the mooring, cleaned the conductivity sensor and left the following notes in the log book.

03/06/99 Aanderaa conductivity port was 50% plugged with barnacles. This is consistent with the conductivity fall off followed by an abrupt change and then another fall off.

The conductivity sensor looks like it was range limited on the lower end.

During the third deployment an Aanderaa current meter was also attached to the cage at approximately 12m. There are no notes in the logbook about any cleaning dives. Data has NOT been edited to delete sections with biofouling. Use data with discretion.

During the fourth deployment the only instrument on the cage was a Sea Bird Electronics MicroCAT recorder (SBE37). There are no notes in the logbook about any cleaning dives. Data has NOT been edited to delete sections with biofouling. Use data with discretion.

Each Aanderaa or SBE37 deployment is in a separate file composed of tab delimited columns.

First column is the scan number.

Second column is the date and time converted to Greenwich mean time (GMT), labeled GDATE. The following columns contain conductivity (c), temperature (T), depth (d), salinity (S), sigma-t (Sig). The last column is labeled END and filled with zeroes. It just denotes the last column and has no significance. Not all instruments may have all variables. Since the Aanderaa current meters did not measure pressure a constant value of 12 decibars was used to compute salinity. Note- To calculate salinity and sigma-t from the SBE37 data on the CBEST2.4 deployment 5 decibars was used instead of 12. The variables are preceded by CBE2 and the instrument serial number. For example CBE22249.T indicates the column contains temperature data from the Coos Bay Estuary 2 site from instrument serial number 2249.