

CRADCPNCSUReadme.pdf

NCSU ADCP data:

1. Mooring: K1A 300 kHz, bottom mounted, looks up
2. Mooring: N1A 1200 kHz, bottom mounted, looks up
3. Mooring: K5A 75 kHz, bottom mounted, looks up, no data available

adcp_file_format.doc

The format used by NCSU ADCP files is basically the same as the Woods Hole BUOY format, with one exception: the date field has been modified from the original character YYMMDDHHMMSS format to a single real number. This was done to simplify their graphics software.

The first header record describes the format of the data records which follow.

The second header record gives the names of the variables encoded in the data records.

The third and subsequent records are data records and contain, for each time step, the ensemble number and date, and then for each bin of the profile, an n-tuple of the variables for that bin.

Bins are ordered starting with the bin nearest the instrument.

Since these ADCP's were upward-looking, the bins are ordered by increasing height, or decreasing depth. The depth of each bin may sometimes be present as a data value, which increases readability, at the price of disk space.

The date field can be considered as consisting of two parts. The integer part indicates the year and day as YYDDD, while the fractional part is simply fractional days (e.g. 0100 hours will be .04167 days).

K1A 300 kHz
s300.doc

Columbia River Plume, 90-91
Particulars concerning the 300 kHz ADCP at site K1A

filename s300a.uv1hr0
contains (ucmp,vcmp) at 1-hr intervals, with no coordinate system rotation (i.e. ucmp = +East, vcmp = +North)

Per personal communication u and v coordinates were adjusted to true East and true North.

first ensemble at 90290.52546, or Oct 17, 1990, 1236 PST
1069 records total
last ensemble on Dec 01, 1990
ensembles are at the original sample interval of 1-hour

bin size was 1 meter
first bin is centered on 23m depth, assuming a site depth of 27.5m.
total # of bins is 32
the effects of side lobe contamination should be seen, beginning with bin #24, if we could assume a constant water depth. Since the depth varies much more at this site, identifying the last good bin may be much more of a problem.

Note that the extraneous bins have NOT been removed from this file.

c.g. 4.5.93

N1A 1200 kHz
s1200.doc

Columbia River Plume, 90-91
Particulars concerning the 1200 kHz ADCP at site N1A

filename s1200a.uv1hr0
contains (ucmp,vcmp) at 1-hr intervals, with no coordinate system rotation (i.e. ucmp = +East, vcmp = +North)

Per personal communication u and v coordinates were adjusted to true East and true North.

first ensemble at 90283.54167, or Oct 10, 1990, 1300 PST
3341 records total
last ensemble on Feb 26, 1991
ensembles have been block averaged to 1-hr records from the original sample interval of 5-minutes

bin size was 1 meter
first bin is centered on 32.5m depth, assuming a site depth of 35.5m.
total # of bins is 38
the effects of side lobe contamination should be seen, beginning with bin #28, if we could assume a constant water depth. Since the depth varies much more at this site, identifying the last good bin may be much more of a problem.

Note that the extraneous bins have NOT been removed from this file.

c.g. 4.5.93