
Readme for DECADE 2003 and 2004 Mooring dataset

<ftp://ftp.cms.udel.edu/pub/users/tilburg/data/DECADE/Mooringdat/>

In the spring of 2003 and 2004 a series of instruments were deployed in the form of an array off the coast of Delaware on the continental shelf. The array consisted of an across-shelf line (moorings A1, A2 and A3 (for 2004 only)) and an alongshelf line (DA, DB and DC) (see attached fig. 1). Each mooring consisted of two lines (a “slack” line and a “taut” line), which contained the following types of instruments: S4 current meters, thermistors (T), CTDs (conductivity-temperature-depth profilers; only for 2004) and CTs (conductivity-depth). A single bottom-mounted ADCP was placed somewhere between the two lines in each mooring (see attached fig. 2 for vertical configuration of moorings).

This directory contains the raw and processed 2003 and 2004 DECADE mooring data files. As can be observed, the 2003 subdirectory is identical to the 2004 subdirectory and both contain subdirectories for each of the instruments listed above. In each of the instrument subdirectories are the raw (‘.txt’) files and the processed (‘.trm’, ‘lp.’, and ‘.res’) files. All files are in column format and have a similar heading, which explains starting dates and times, mooring name, mooring depth, sampling interval (in seconds), type of data etc... The first column in each file is always the time variable, stored in “year days.” It is important to note that the convention **Jan 1 = year day 1** is used for this variable.

File Extensions

TXT files contain the raw data from each instrument.

TRM files contain data that have been sampled to 15-minute intervals and have been “trimmed” so that the starting times and end times for each file are the same.

LP files contain data which have been sampled to 15-minute intervals, trimmed and have been “low-passed” filtered (or detided) with a 40 hour filtered.

RES files contain 15-minute sampled data that haven been trimmed, low-passed filtered with a 40 hour filter and then “re-sampled” to 4-hour intervals.

File naming convention

A similar file naming convention is used for all 2003 and 2004 files. All file names include mooring (A1, A2, A3, DA, DB or DC), instrument type (S4, CT, CTD, T or ADCP) and depth (from the ocean surface).

Example: S4A105.trm , is the “trimmed” S4 file for mooring A1 at 5 m depth.

Instruments on the “slack” lines can be distinguished from those on the “taut” lines due to an “S” placed in the file name before the depth characters.

Example: S4A1S01.trm, is the trimmed S4 file for mooring A1 at 1 m depth on the slack line

* (**Note:** ADCP files additionally include bin numbers in file names. Bins numbers decrease with water depth)

Notes for 2003 files

All data files (except ADCP files) have been trimmed to the following start and end times (in year-days):

- **Start year-day: 96.9 (April 6, 2003, 21:36)**
- **End year-day: 150.5 (30 May, 2003, 12:00)**

The ADCP file for mooring (DC) was considerably shorter than the rest, so all ADCP files have been trimmed to the following start and end times (in year-days):

- **Start year-day: ~ 100.5 (10 April, 2004)**
- **End year-day: ~ 120.6 (30 April, 2004)**

In order to be able to compare ADCP data with data from other instruments in the mooring, the subdirectories titled “**short**” in the “ADCP”, “CT”, “S4” and “T” directories contain TRM, LP and RES files that have been trimmed to the latter start and end times.

ADCP files

ADCP instruments collected data for up to 31 bins, however, only files for relevant bins (i.e. relevant water depths) for each mooring were written to this directory. It should also be noted that although data files were trimmed, some bins still have bad data.

The DC ADCP TXT files were split into 9 chunks for each bin. This was done for processing purposes due to the lengthiness of each individual file. Please contact Ana Eguiluz (see information below) for a copy of these files.

The A1 ADCP instrument did not collect any data, so no data is provided for this instrument.

Notes for 2004 files

All data files have been trimmed to the following start and end times (in year-days):

- **Start year-day: ~ 90.6 (30 March, 2004)**
- **End year-day: ~ 142.9 (21 May, 2004)**

ADCP files

ADCP instruments collected data for up to 34 bins (depending on the mooring), however, only files for relevant bins (i.e. relevant water depths for each mooring) were written to this directory. It should also be noted that although data files were trimmed, some bins still have bad data.

The DC ADCP TXT files were split into 10 chunks for each bin. This was done for processing purposes due to the lengthiness of each individual file.

The A3 ADCP instrument did not collect any data, so no data is provided for this instrument.

***Last updated:** October 7, 2005

If you have any questions please contact:

Ana Eguiluz

e-mail: eguiluz@udel.edu

Tel: (302) 831-2848