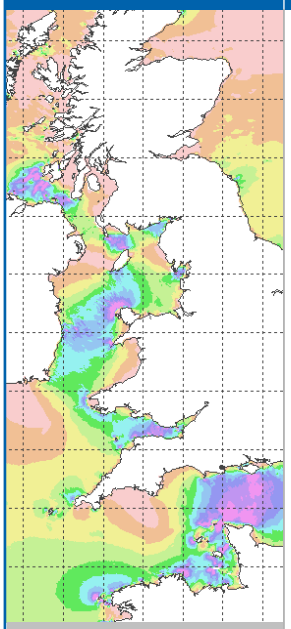
Information Sheet



CS3, CS3X Tide+Surge, Tide only and Residual Surge Data Files

Hindcast of hourly level and current simulations from the NOC CS3 and CS3X Models are available for total (tide plus surge) (T+S) and surge residuals for the years 1992 onwards.

The model makes use of meteorological data from the UK Met. Office Operational Storm Surge Local Area Model (1992 to 1998), Mesoscale model (1999 to 2005), North Atlantic European model (2006) and the extended area CS3 surge model (CS3x) (2007 onwards). The data being hindcast from the NOC CS3 and CS3X Models using a combination of measured and modelled meteorological data. In addition to the timeseries data file we can provide a 2D histogram of modelled current speed with current direction.

Tide level and depth averaged current speed and direction, hindcast or prediction can also be supplied as time series from the NOC CS3 and CS3X numerical models. Tidal prediction is based on up to 50 tidal harmonic constituents.

The NOC CS3 and CS3X model grid have a resolution of 1/9° latitude by 1/6° longitude (approx. 12km).

Position of Parameters within CS3 andCS3X Model Grids

The values for elevation, z (metres), east component of current, u, and north component of current, v, (both m/s) are all sited at the centre of the grid square.

Naming convention

Files are named **siiijjj_yyyy.dat** for tide+surge,
riiijjj_yyyy.dat for surge residuals
where **iii** and **jjj** represent the cs3,CS3X model grid reference and **yyyy** represents the year.

Format of Data Files

Each data file contains the time series data for every location, for a specific year, indicated by the filename. For each location the hourly time series, for each parameter, z (elevation), u (east-going current component) and v (north-going current component) is given. Each record holds twelve hours of data followed by the date and hour with format (12f6.2,1x,2i2,i4,1x,i2). There are two records per day, the first record covers 0000hrs to 1100hrs, the second record 1200hrs to 2300hrs, the hours value at the end of each record (either 00 or 12) indicates the starting hour of each line.

Sample Output

```
         1         2         3         4         5         6         7         8
12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345
Parameter Z: CS3 Location (iii,jjj) Lat latval Lon   lonval
2 rows per day giving values at hour specified below (12f6.2)
  0000  0100  0200  0300  0400  0500  0600  0700  0800  0900  1000  1100 ddmmyyyy hh
  1200  1300  1400  1500  1600  1700  1800  1900  2000  2100  2200  2300 ddmmyyyy hh
...
    where iii,jjj represent the i and j grid references for POL's CS3 or CS3X Model Grid
    latval is latitude (f6.3), lonval is longitude (f7.3)(-ve indicates West)
    ddmmyyyy represent day, month, year
    hh represents start hour of each line (ie either 00 or 12).

Parameter U: CS3 Location (iii,jjj) Lat latval Lon   lonval
...
Parameter V: CS3 Location (iii,jjj) Lat latval Lon   lonval
...
eof

example of first 2 lines
Parameter Z: CS3 Location (102, 73) Lat 54.944 Lon   4.917
 -0.20 -0.18 -0.10  0.02  0.10  0.07  0.04  0.04 -0.02 -0.11 -0.18 -0.23 01012003 00
```