ADCP Moorings README file.
Inner Shelf Dynamics ONR DRI pilot study 2015.

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Instrumentation: Nortek Aquadopp Acoustic Doppler Current Profilers
Sample interval: 1 s
Deployment date/time: 10 June 2015 12:00:00 (local time)
Recovery date/time: 22 July 2015 00:00:00 (local time)

Note: All moorings have same instrumentation, sample interval, and deploy/recover times.

Individual Matlab files are created for each yearday for each mooring. For example, "X06_yd198.mat" represents mooring "X06" for yearday 198.

Each .mat file contains the following variables:
A – mean of the three beam acoustic amplitude (counts)
dp – instrument height off the bottom (meters)
dt - sample interval (seconds)
du – ADCP measurement bin described in meters above bottom (mab)
eta – sea surface elevation of swell and sea waves (meters) computed from linear wave theory
h – the total sea surface elevation of swell/seas waves and tides (meters) computed from linear wave theory
head – instrument heading (degrees)
ll_pos - [latitude, longitude]
p – raw pressure data (decibars)
pressure_offset – pressure offset inputted at programming that was set to greater than zero, because the pressure sensor does not registered below zero.
t – time in yeardays
temp - temperature (degC)
u - east/west velocities (eastward positive) (m/s)
utm_pos - UTM reference position, (x0,y0) = (7.134042314671809e+05,3.867067752530194e+06),
(UTM zone: 10 S)
v - north/south velocities (northward positive) (m/s)
w - vertical velocities (upward positive) (m/s)
xy_pos - local coordinate position relative to UTM reference position (x0,y0)

Mooring Name	Mooring Position Lat/Lon	measurements heights off the bottom (meters), described as “du”
X06	34.9243 -120.6664	1.08,1.58,2.08,2.58,3.08,3.58,4.08,4.58,5.08,5.55,6.08,6.58,7.08, 7.58,8.08,8.58
X11	34.9249 -120.6695	1.08,1.58,2.08,2.58,3.08,3.58,4.08,4.58, 5.08,5.58,6.08,6.58,7.08, 7.58,8.08,8.58,9.08,9.58,10.08
X15	34.9251 -120.6735	1.78,2.78,3.78,4.78,5.78,6.78,7.78,8.78, 9.78,10.78,11.78,12.78, 13.78,14.78,15.78,16.78, 17.78
X20	34.9254 -120.6770	1.78,2.78,3.78,4.78,5.78,6.78,7.78,8.78, 9.78,10.78,11.78,12.78, 13.78,14.78,15.78,16.78
Y8A	34.9084 -120.6714	1.08,1.58,2.08,2.58,3.08,3.58,4.08,4.58, 5.08,5.58,6.08,6.58,7.08,

7.58,8.08,8.58,9.08,9.58,10.08,10.58,11.08,11.58,12.08,12.58