# FLEAT CTD-Chipod Notes

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# Contents

# 1 About

Notes on processing and analysis of CTD-chipod data collected during FLEAT cruise..

# 2 Data and Processing

Data paths are set w/ :

- erb+Load$_c hipod_p aths_F LEAT.m$+
    Chipod deployment info is given in

- erb+Chipod$_D eploy_I nfo_F LEAT$+

## 2.1 CTD

Raw (hex) CTD data are processed with:

- erb+Process$_C TD_h ex_F LEAT.m$+

## 2.2 Chipod

Table 1: Summary of Chipod deployment .

Raw chipod files are plotted with

- erb+PlotChipodDataRaw$_F LEAT.m$+ to check for obvious issues/malfunctions with any of the instruments; these plots are saved in erb+/Figures/chipodraw/+. Based on a quick look at these:

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    Files with obviously bad or missing data (based on above raw plots) are noted in erb+bad$_f ile_l ist_X XXX.m+and, which will prevent them from being loaded in the processing.$ Processing scripts are:

- erb+MakeCasts$_C TD chipod_F LEAT.m + erb + DoChiCalc_F LEAT.m$+

## 2.3 Further processing and analysis

- Data from all casts are combined into a single structure w/ erb+MakeCombinedStruct$_F LEAT.m$+

Figure 1: Map of CTD cast locations during cruise FLEAT.

# 3 Processing Notes

- Table efchidepinfo gives the info for $TableefprocsumgivesasummaryoftheprocessingfromMakeCasts.$
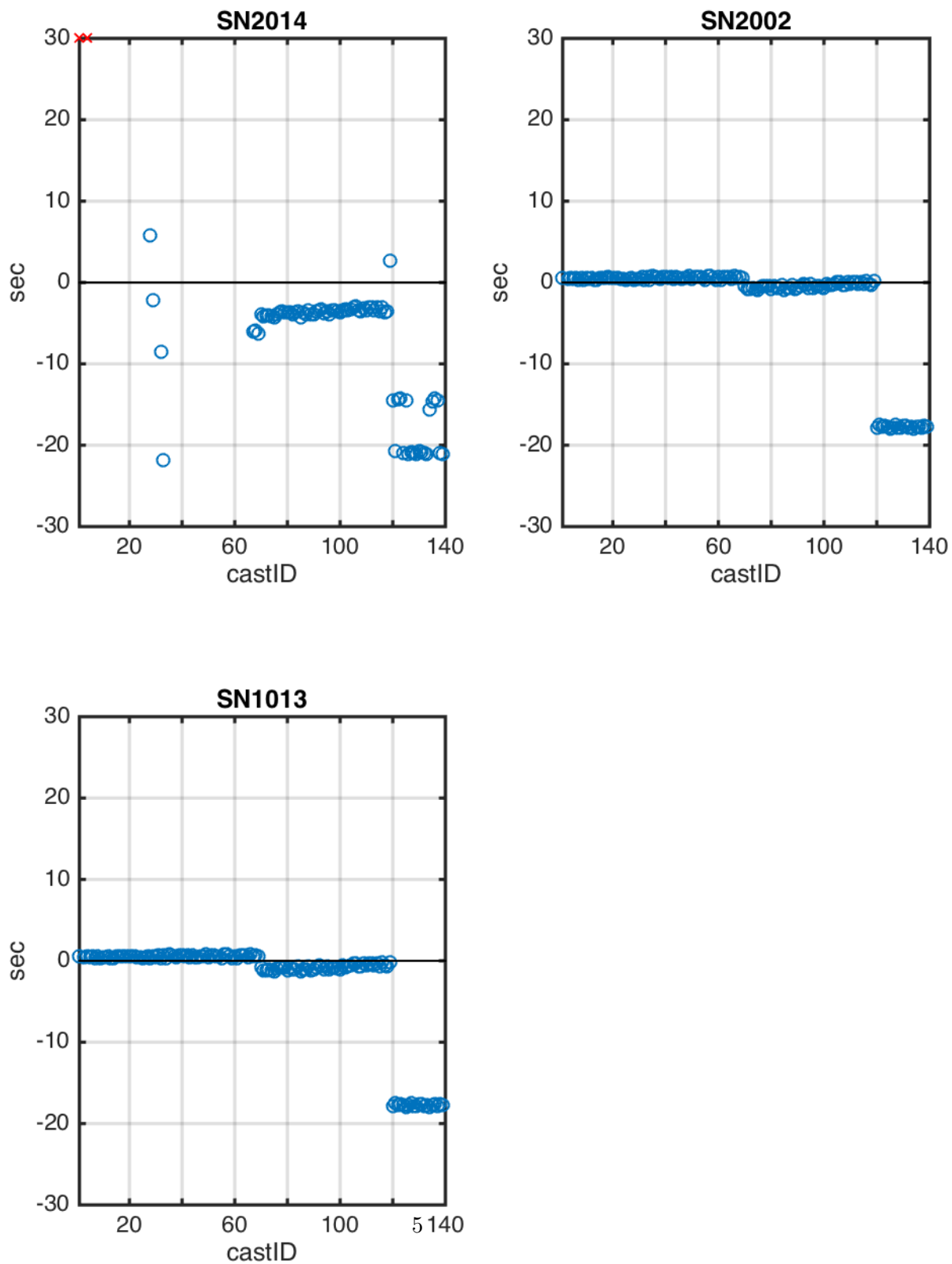
### 3.0.1 Time Offsets

Figure 2: Time-offsets for all χpods, found by aligning with CTD data.

# 4  Example Raw Chipod Data for 1 cast

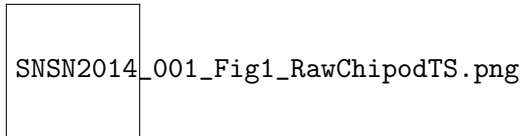SNSN2014_001_Fig1_RawChipodTS.png

Figure 3: Raw chipod data from SNSN2014for a CTD cast.

SNSN2002_001_Fig1_RawChipodTS.png
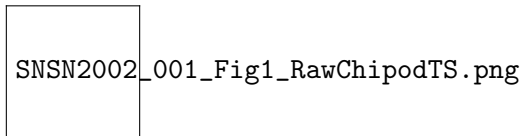
Figure 4: Raw chipod data from SNSN2002for a CTD cast.
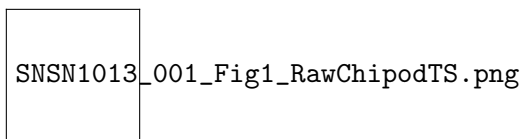
SNSN1013_001_Fig1_RawChipodTS.png

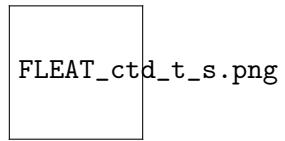Figure 5: Raw chipod data from SNSN1013for a CTD cast.

# 5 Results

### 5.0.2   CTD Data

FLEAT_ctd_t_s.png

Figure 6: Plot of temperature and salinity from CTD downcasts on all casts.
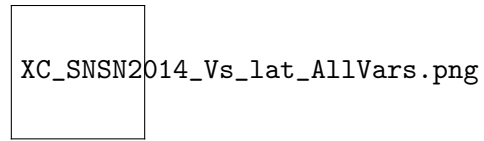
### 5.0.3 Data from each individual Chipod

XC_SNSN2014_Vs_lat_AllVars.png

Figure 7: All chipod profiles from sensor SNSN2014. Variables are: N2, dTdz, chi, eps, and KT.

XC_SNSN2002_Vs_lat_AllVars.png
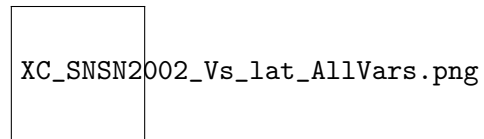
Figure 8: All chipod profiles from sensor SNSN2002. Variables are: N2, dTdz, chi, eps, and KT.
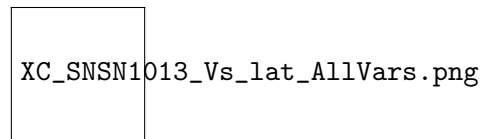
XC_SNSN1013_Vs_lat_AllVars.png

Figure 9: All chipod profiles from sensor SNSN1013. Variables are: N2, dTdz, chi, eps, and KT.

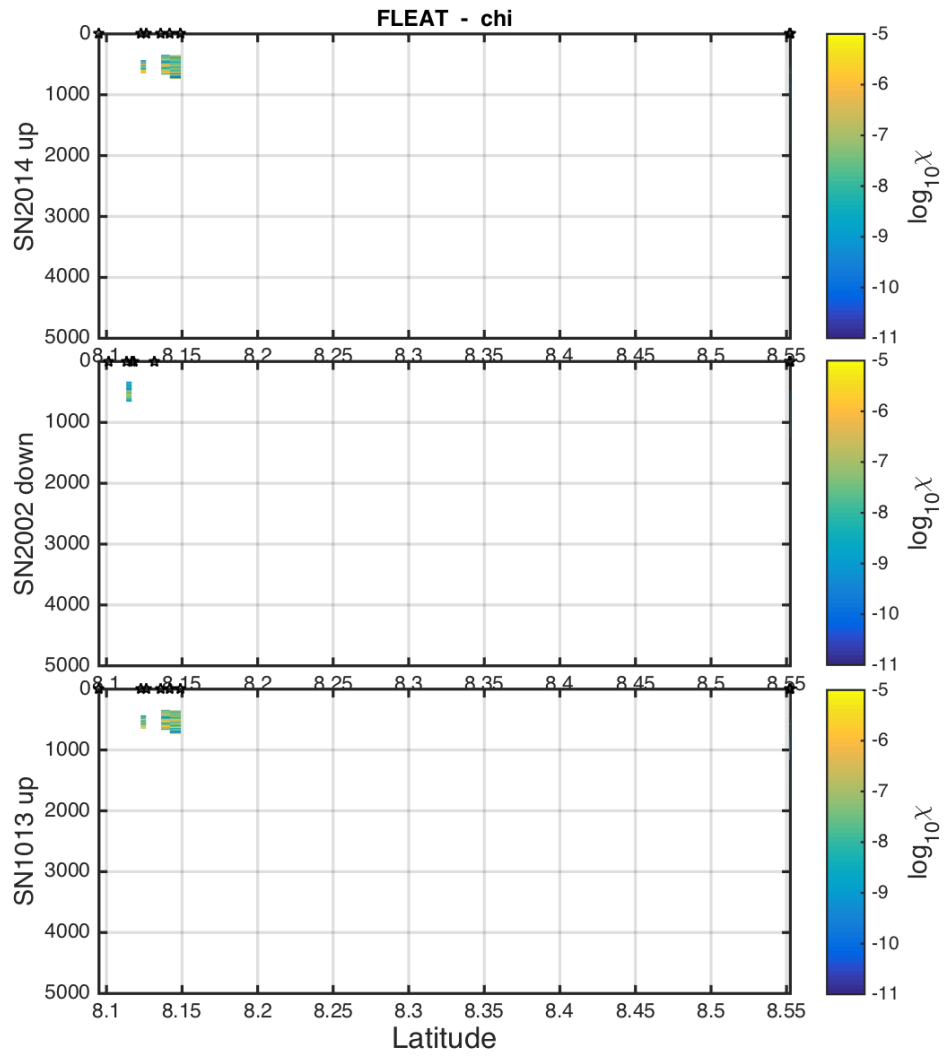### 5.0.4   One variable from all Chipods
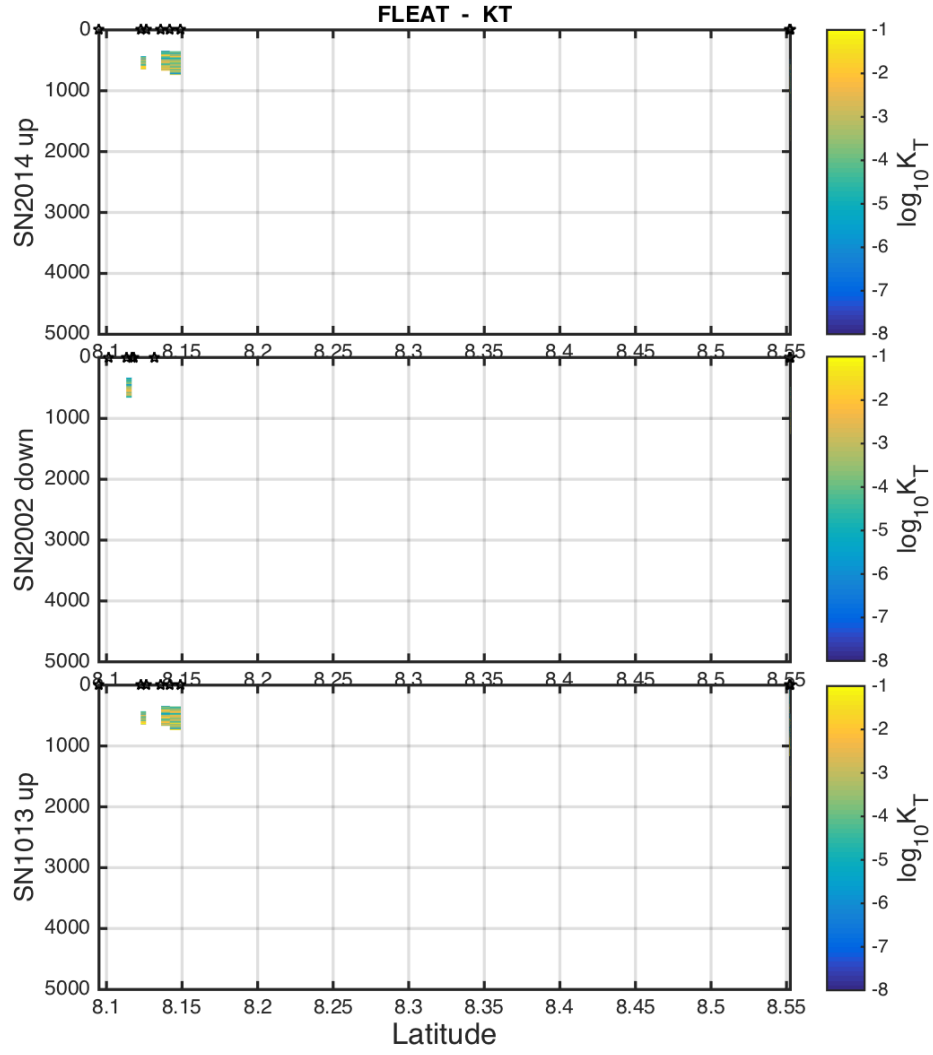
Figure 10: Plot of one variable from all chipods.

Figure 11: Plot of one variable from all chipods.