There is a log file for each VPR tow, and the file naming convention is MMDDHHHH.combo. The data and time maps into VPR1, VPR2, VPR3, …. etc as we refer to them in the cruise report (there is a Table of VPR tows in each cruise report).

In these directories you will also find merged log files that stitch together VPR tows that provide mosaics of various eddies, fronts, etc.

VPR log file format

1 vpr timestep (ms)

2 gmt in hhmmss.sss

3 date in ddmmyy

4 latitude in ddmm.mmmm. From ship GPS, negative values are Western hemisphere

5 longitude in ddmm.mmmm. From ship GPS), negative values are Southern hemisphere

6 bottom depth

7 altimeter

8 roll Roll angle, (degrees, positive: roll to right?)

9 pitch Pitch angle, (degrees, positive up)

10 fluorescence

11 optical backscatter

12 PAR Downwelling light from PAR sensor

13 oxygen

14 salinity Salinity (unitless~=PSU and o/oo) from VPR CTD

15 temperature Temperature of seawater in oC from VPR CTD

16 vprdepth

17 ref (ignore)

18 Bb - counts

19 ref (ignore)

20 flourescence - counts

21 ref (ignore)

22 CDOM - counts

23 ref (ignore)

Calibrations:

Column 11 fluorescence (ug / L)

TN376: fluo=6\*((fluo/1000)-0.068); %SN FLNTURD-4050 Cal 2015-07-27

RR2004: fluo=6\*(fluo/1000-0.073);%SN FLNTURTD-4050 Cal 2020-05-15

Column 12 PAR

light=sqrt(counts)\*0.02;

Column 13 turbidity (NTU)

TN376: obs=2\*(obs/1000-0.067); %SN FLNTURD-4050 Cal 2015-07-27

RR2004: obs=2\*(obs/1000-0.069);%SN FLNTURTD-4050 Cal 2020-05-15

Column 18 Eco-triplet Bb

TN376: Bb=(lambda-66)\*0.000007738;%TN376

RR2004 Bb=4.098e-06\*(lambda-68);%SN BBFL2-123 Cal 2020-05-15

Column 20 Eco-triplet fluorescence

TN376: ecochl=(ecochl\_counts-67)\*0.0119;%%TN376

RR2004: ecochl=0.0109\*(ecochl\_counts-65);%SN BBFL2-123 Cal 2020-05-06

Column 22 Eco-triplet CDOM

TN376: cdom=(cdom\_counts-61)\*0.2207;%TN376

RR2004: cdom=0.1536\*(cdom\_counts-69);%SN BBFL2-123 Cal 2020-05-06