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SOCCOM | Unlocking the

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SOCCOM

Unlocking the mysteries of the Southern Ocean

SOCCOM is launched!

The SOCCOM project has been awarded funding from the National Science Foundation and was officially launched on September 9, 2014.



SEARCH SOCCOM

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Latest News



Southern Ocean Town Hall at AGU

Join us on Dec. 14th to discuss SOCCOM and other progress

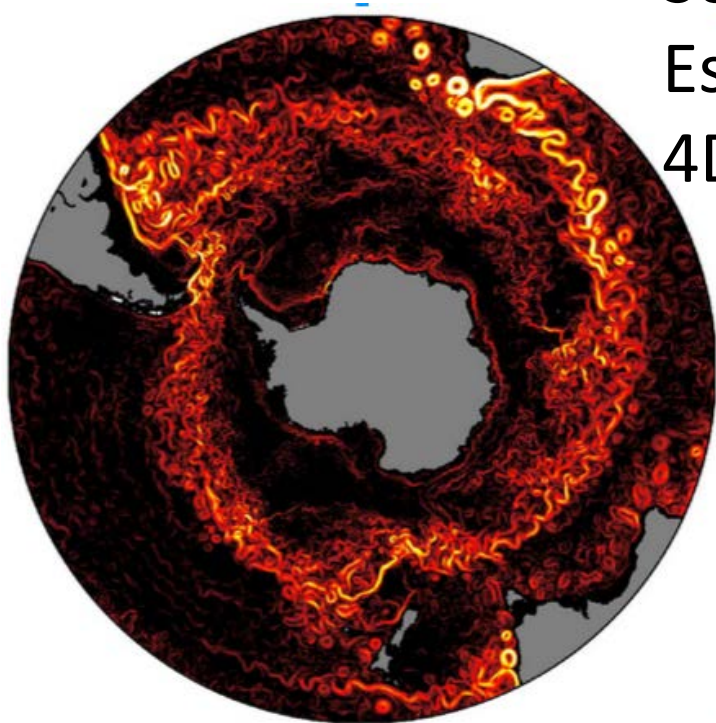
SOUTHERN OCEAN CARBON AND CLIMATE OBSERVATIONS AND MODELING

The Southern Ocean Carbon and Climate Observations and Modeling project (SOCCOM) is an NSF-sponsored program focused on unlocking the mysteries of the Southern Ocean and determining its influence on climate.

200 profiling floats over 6 years with pH, NO_3^- , O_2 , biooptics with calibration tied to GO-SHIP observations



Southern Ocean State Estimate model to get 4D fluxes



Improved coupled climate model (GFDL) predictions of Southern Ocean role in carbon and climate

SOC COM funded by NSF for 6 years with additional support from NOAA and NASA

Directorate



Jorge Sarmiento,
Princeton

Theme I
Observations



Lynne Talley,
SIO

Theme II
Modeling



Joellen Russell,
U. Arizona

Theme III
Education & Outreach



Heidi Cullen,
Climate Central



Ken Johnson



Steve Riser, U. W.

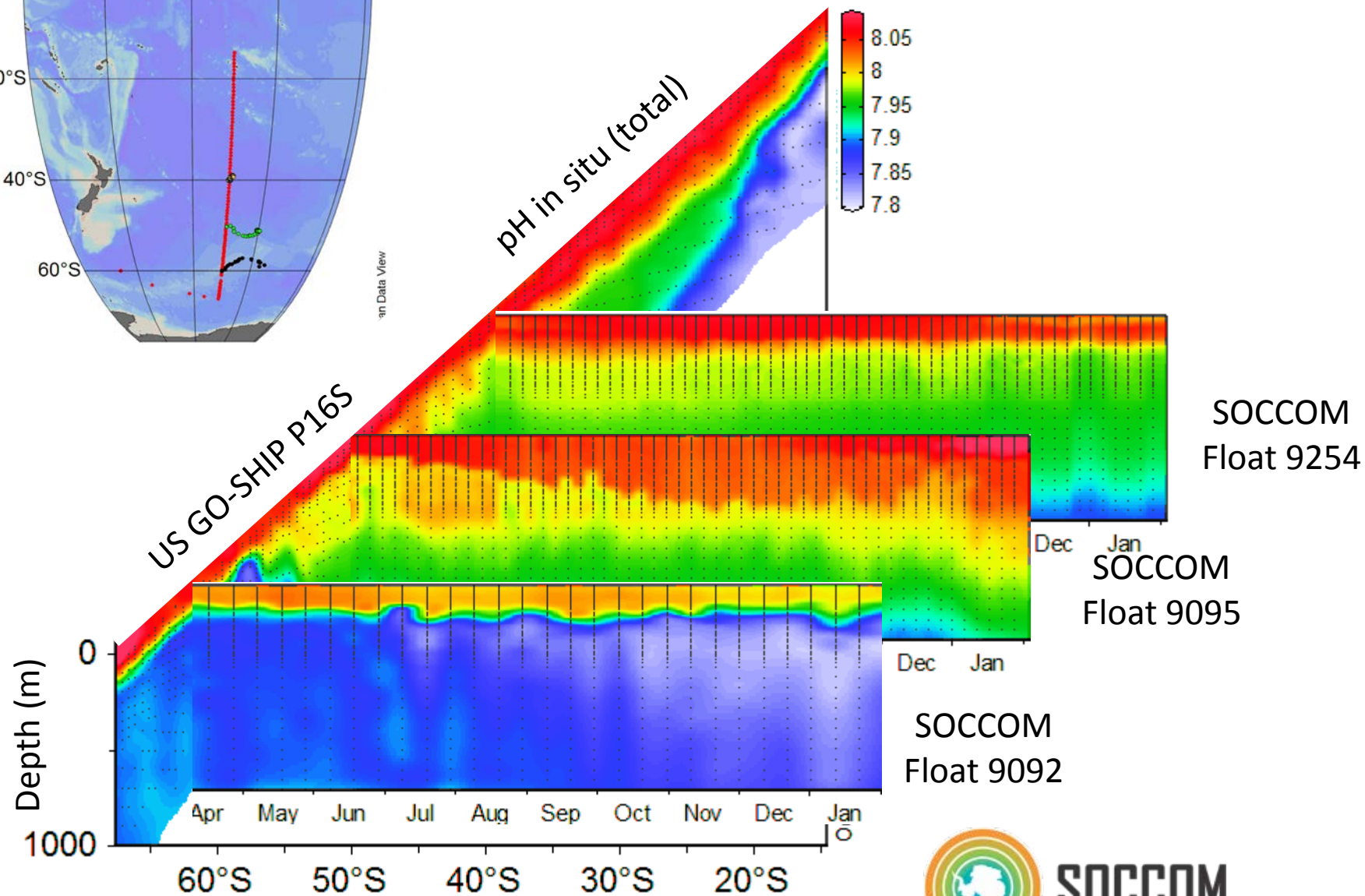
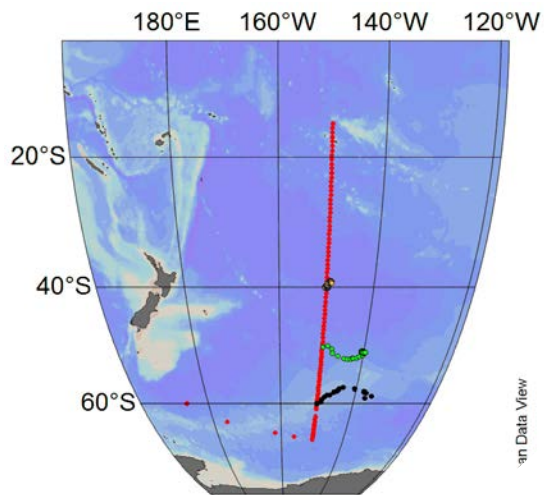


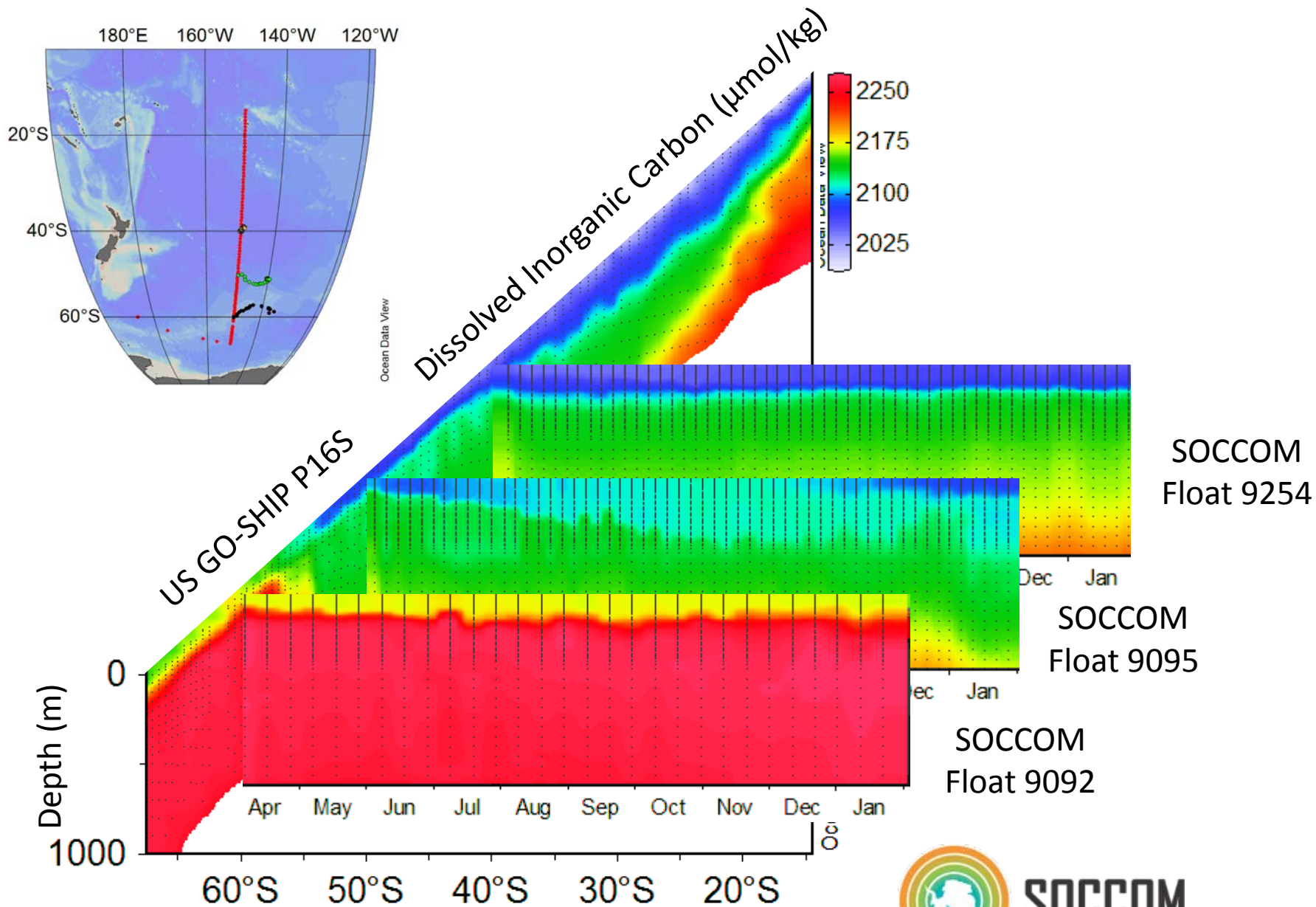
Biooptics (Emmanuel Boss,
Maine, Oscar Schofield, Rutgers)



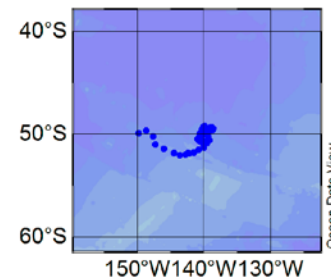
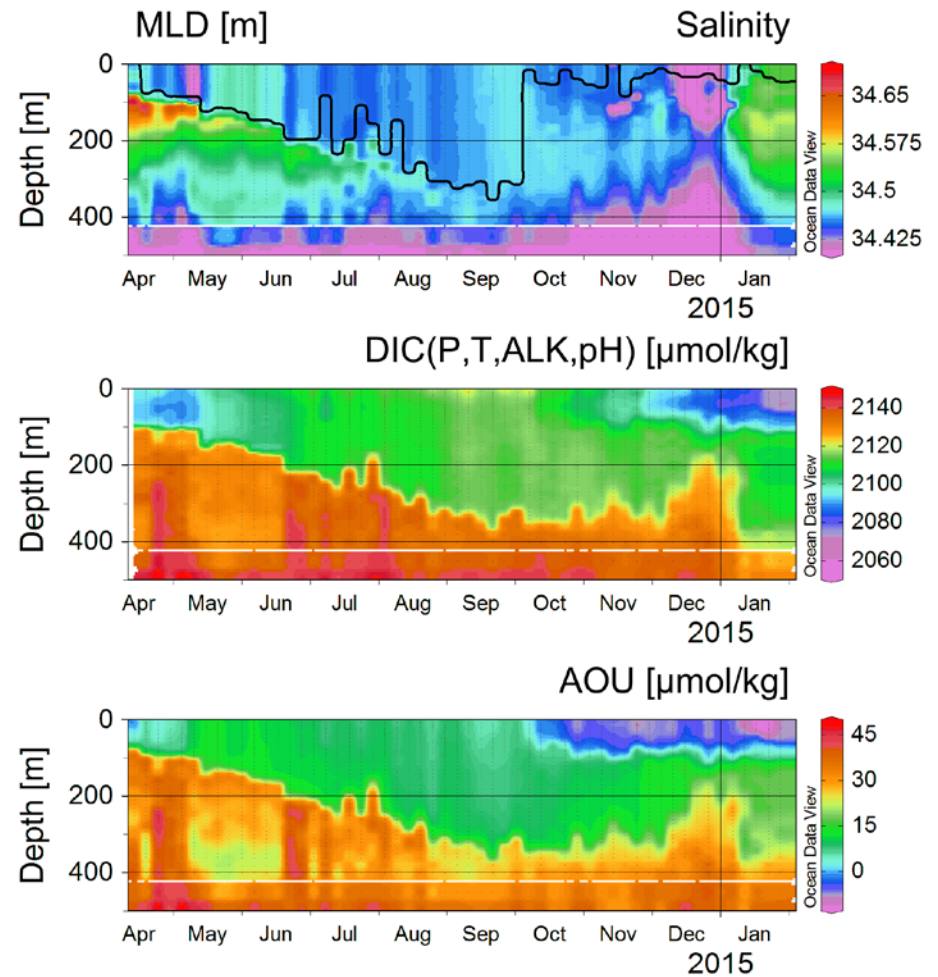
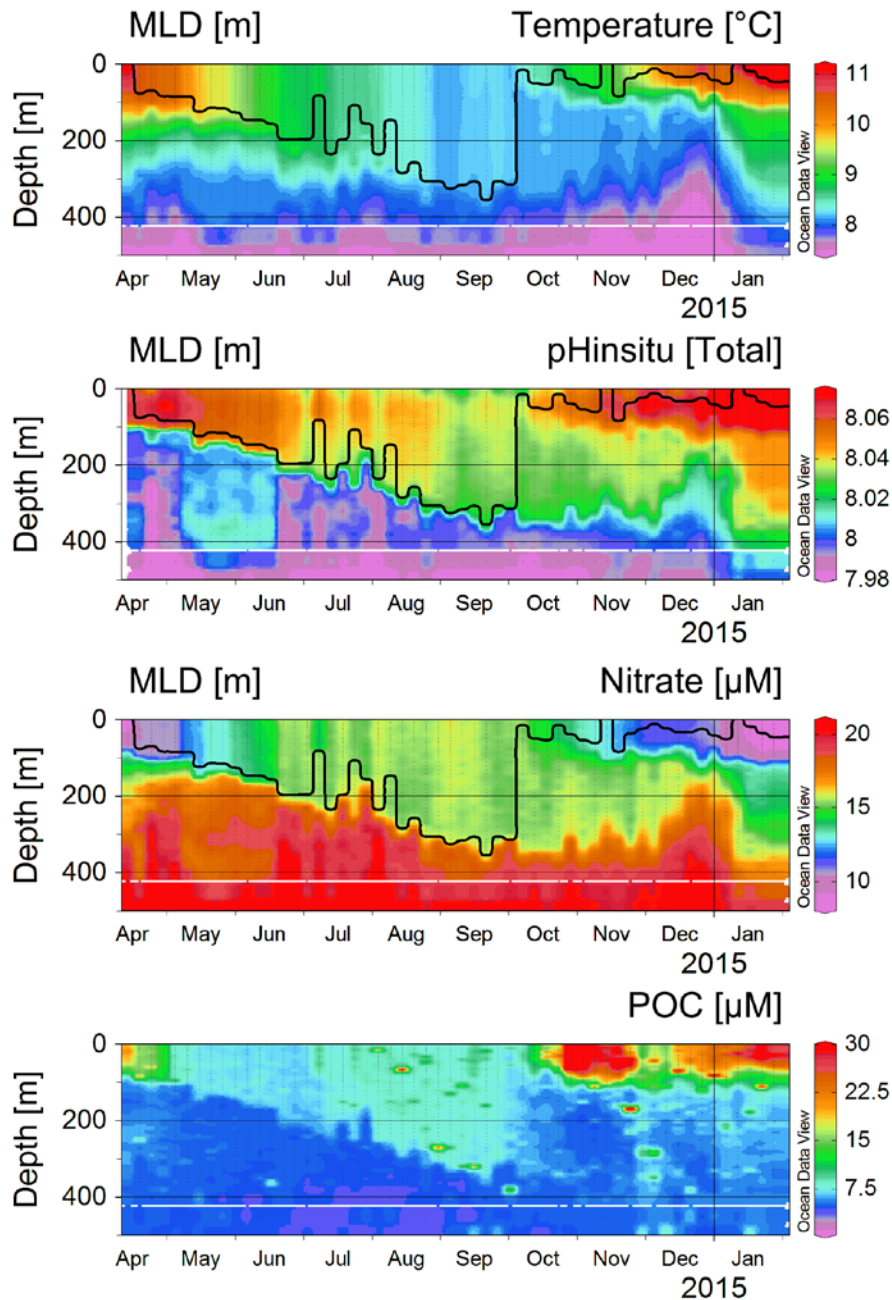
SOC COM

23 senior researchers at 11 institutions

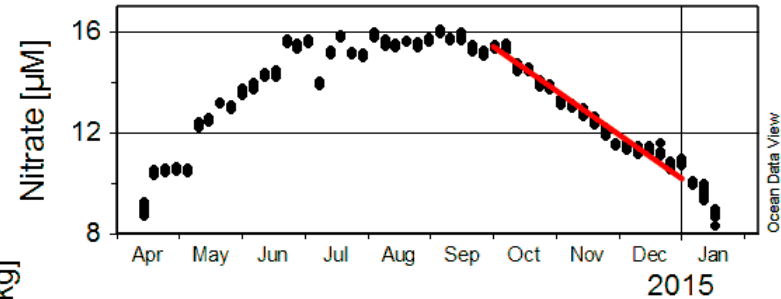
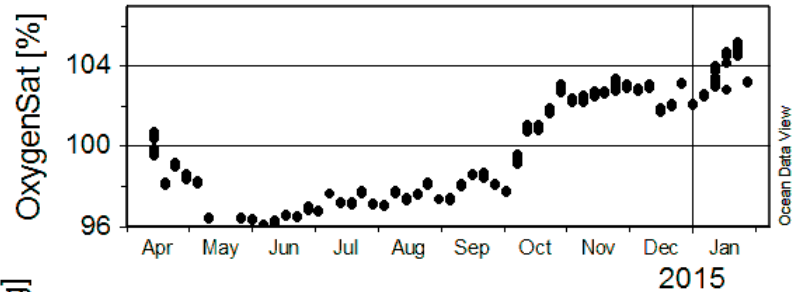
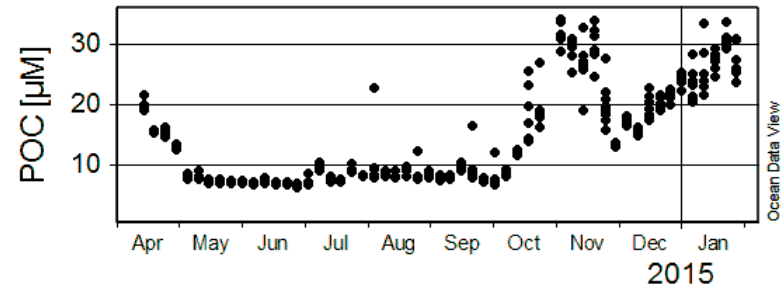
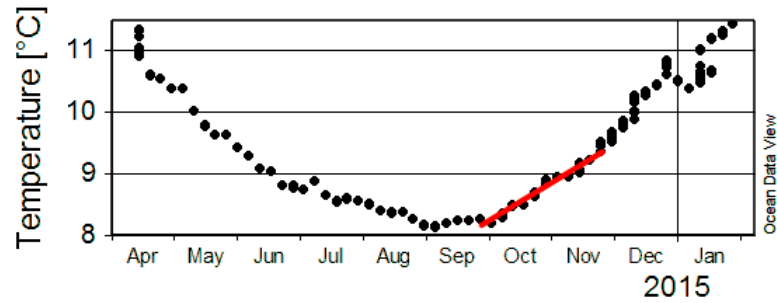




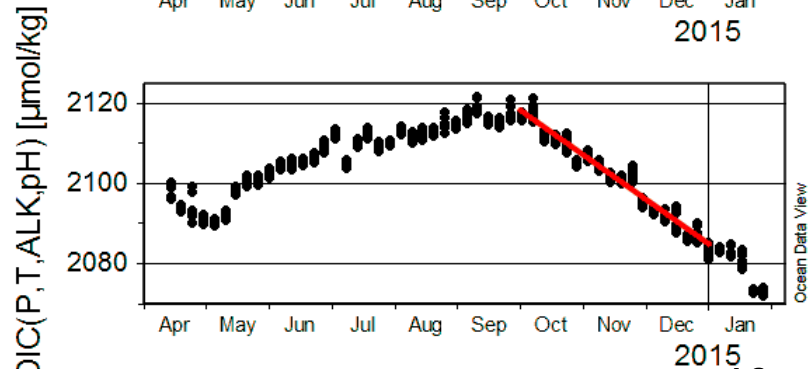
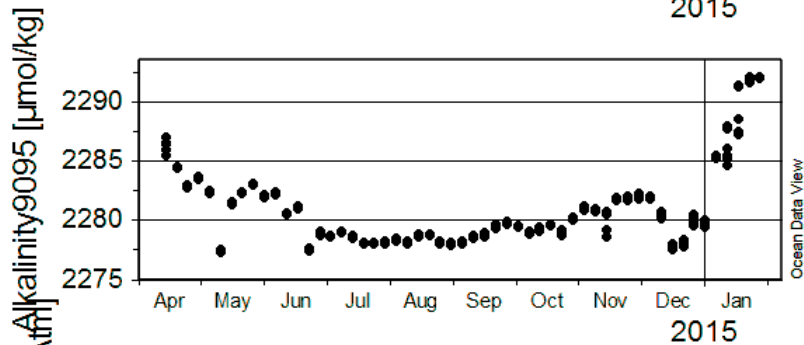
Float 9095 spring bloom carbon cycle



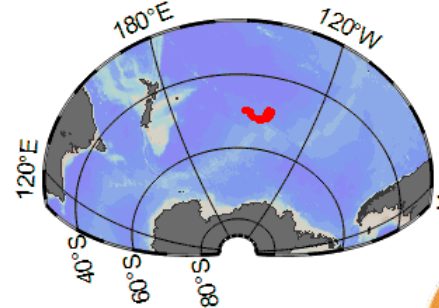
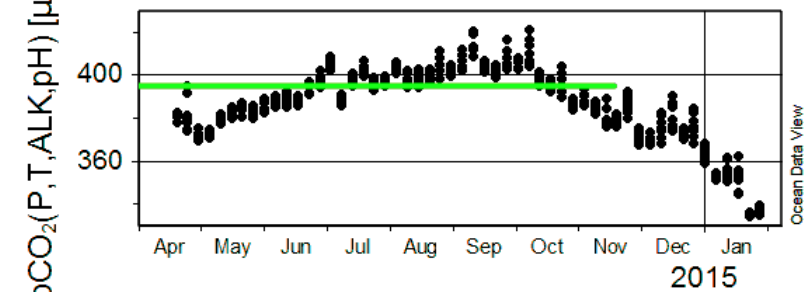
Float 9095 spring bloom carbon cycle (upper 40 m)



$\Delta =$
6.9
 μM

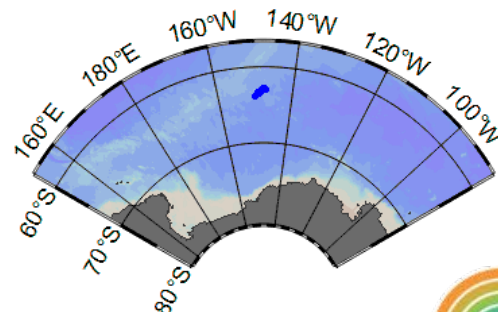
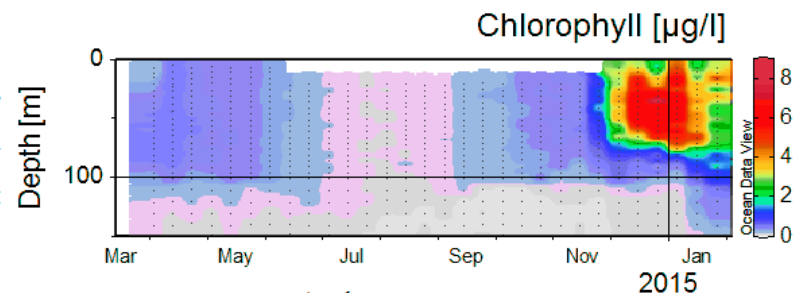
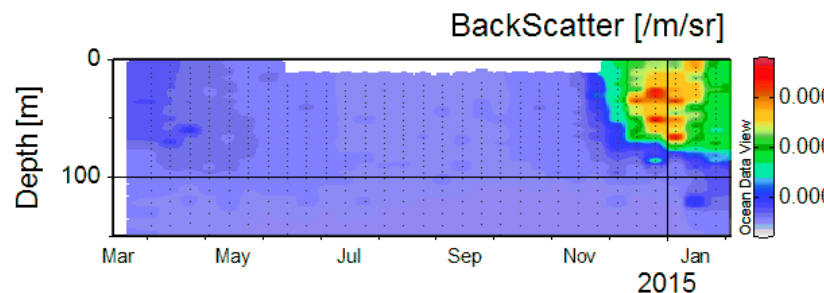
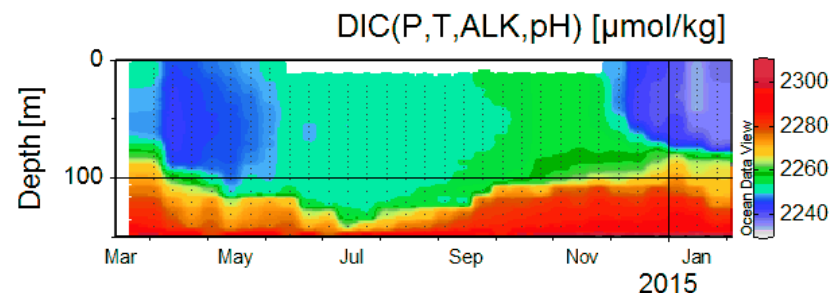
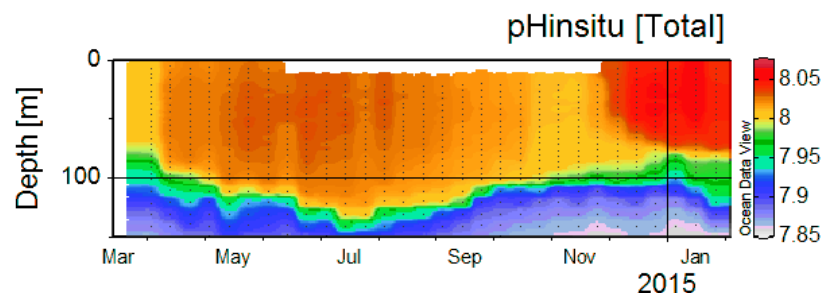
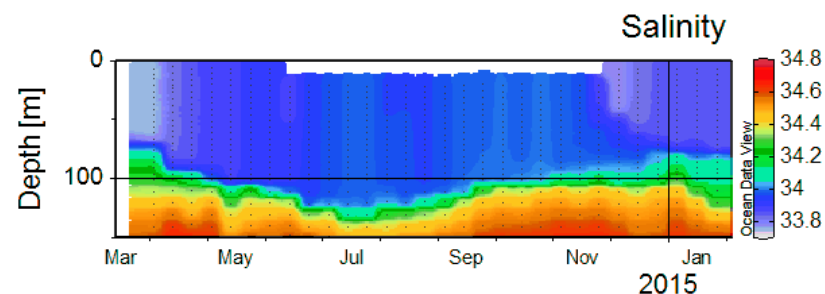
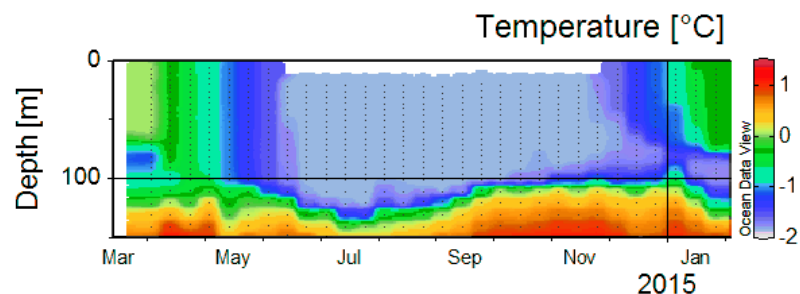


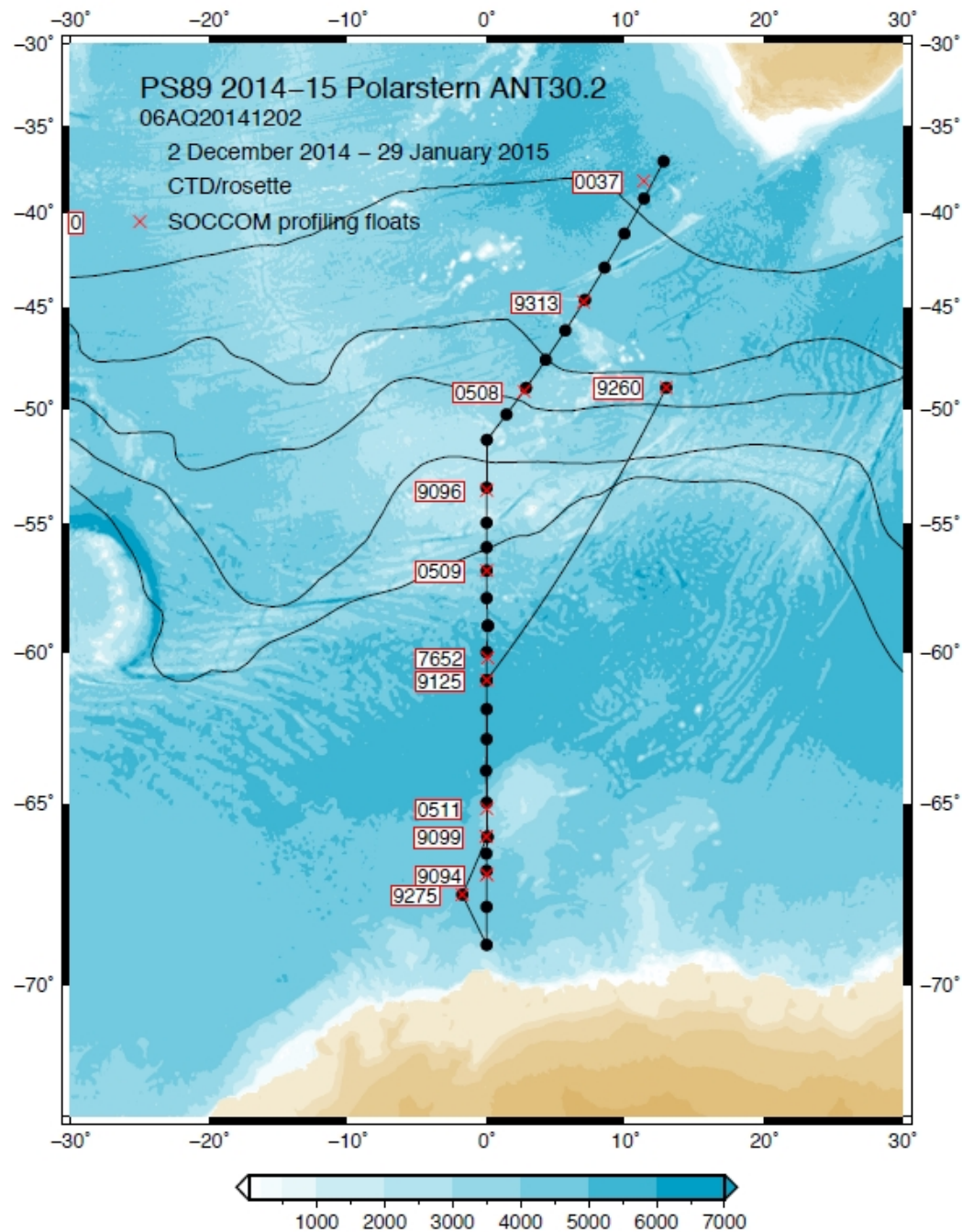
$\Delta =$ 42
 μM



Redfield
C/N = 6.6
Float = 6.2

Float 9091 – ice edge bloom





SOCCOM float 0511 at 65 South

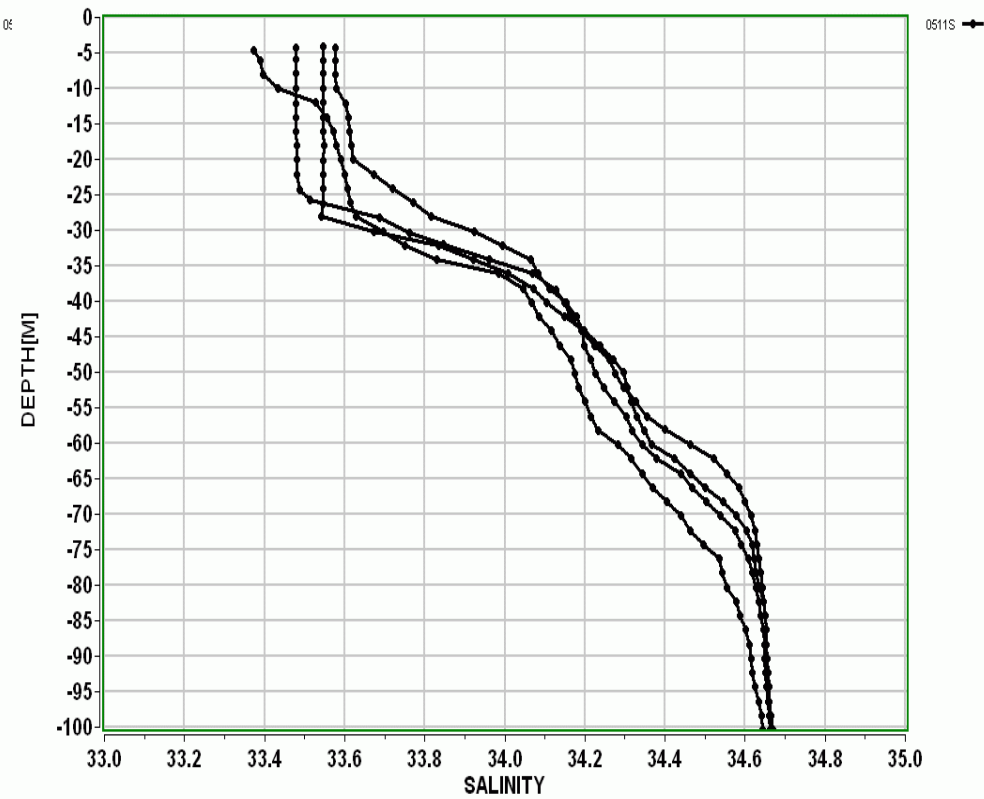
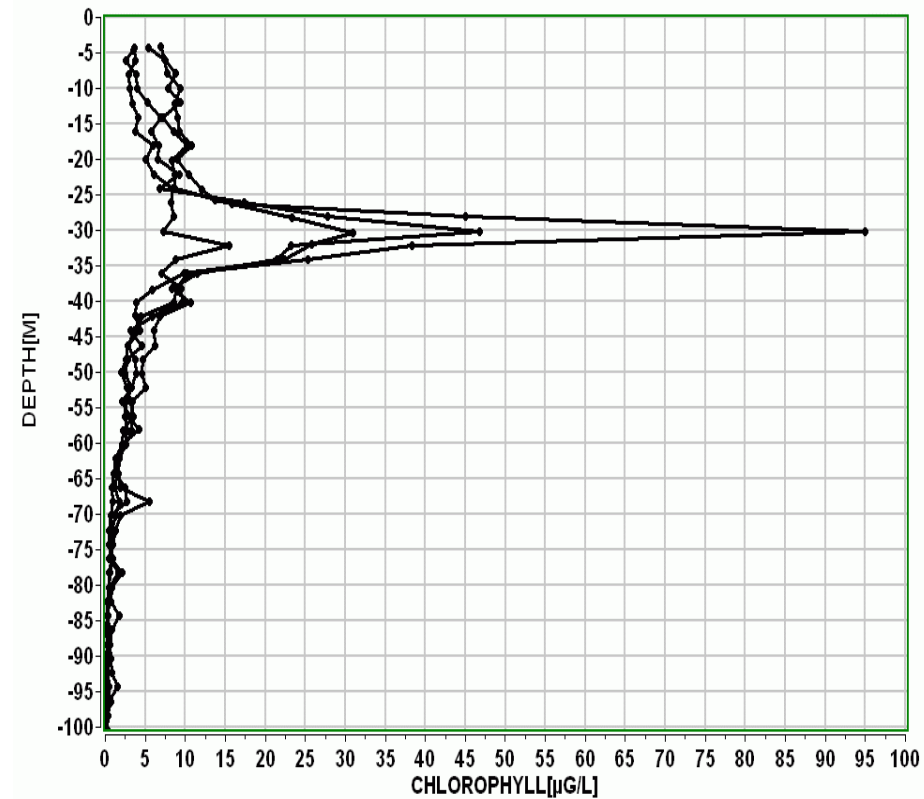
0 Chlorophyll ug/L

100

33

Salinity

35

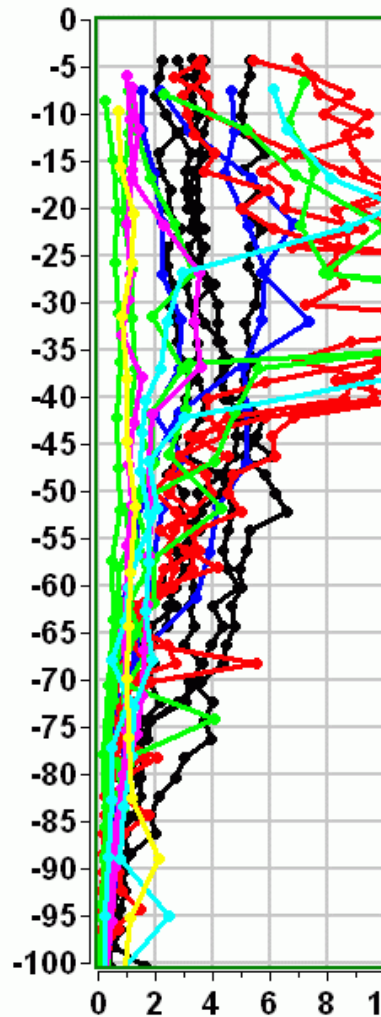


0

Chlorophyll ug/L

50

DEPTH[M]

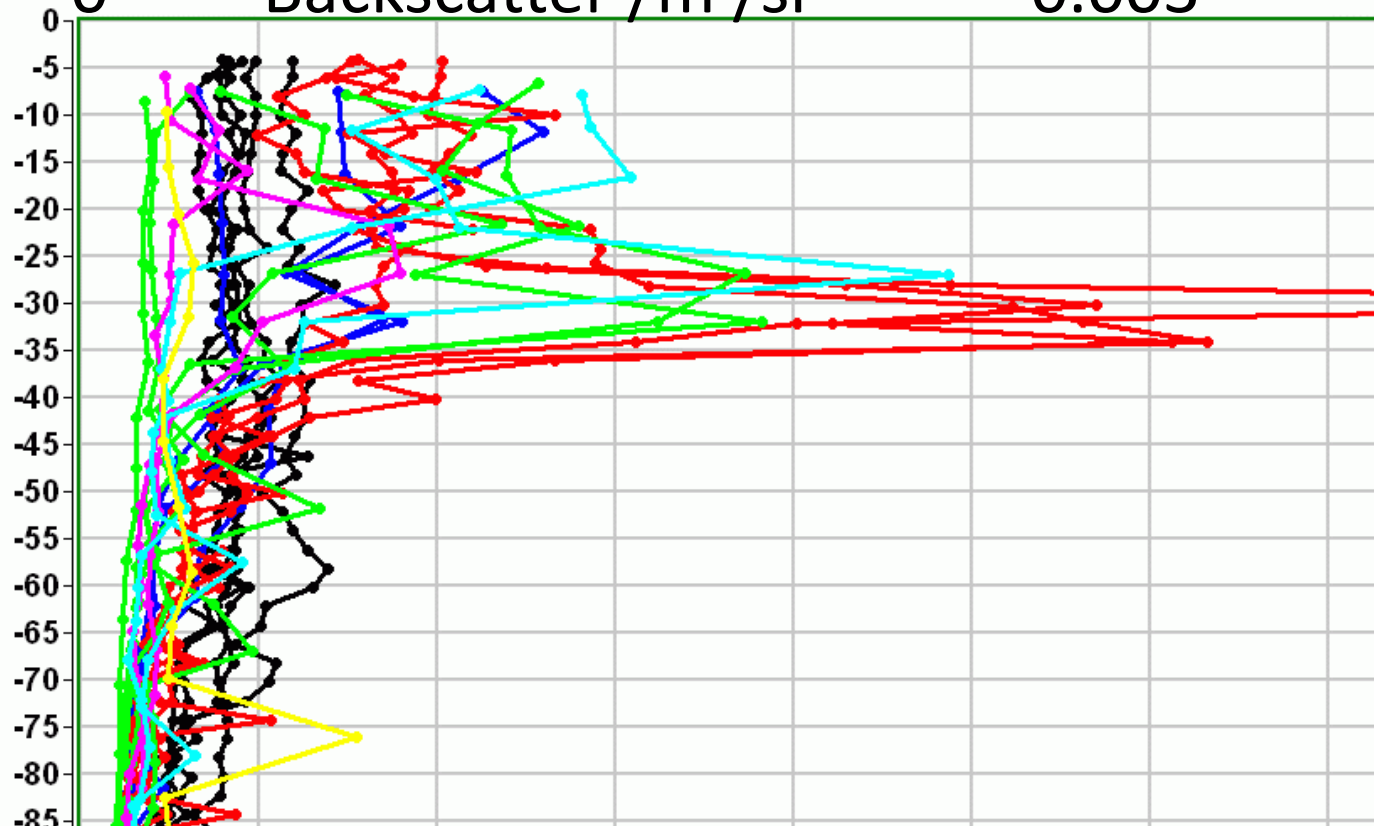


DEPTH[M]

0

Backscatter /m /sr

0.003



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