SOCCOM Shipboard Calibration Data Information
Date of form: August 10, 2016

Citing data: NSF Cooperative Support Agreement OCE-1026342, Operations & Maintenance of the Ocean Observatories Initiative (OOI), and/or link to the OOI website (e.g. ooinet.oceanobservatories.org). (email Feb. 1, 2016 from helpdesk)

Number of SOCCOM floats:	3 (deployed at 2 locations)
Cruise Name or Nickname:	OOI Southern Ocean
Ship:	RVIB NB Palmer
Cruise number:	NBP15-11
Expocode:	320620151206
Chief Scientist or Cruise POC:	Sebastien Bigorre (WHOI) sbigorre@whoi.edu
Departure Port:	Punta Arenas
Departure Date:	December 6, 2015
Final Port:	Punta Arenas
Final Date:	January 2, 2016
SOCCOM responsible person onboard:	Veronica Tamsitt (SIO) vtamsitt@acsmail.ucsd.edu

Measurement	Institution	Contact name & Email	Collected? (check if yes)	Analysis Lab	Date Rec'd	Date Archived	Archive location; Filename
SOCCOM REQUIRED CALIBRATION OBSERVATIONS							
CTD profile	OOI (USAP)	USAP - who	Yes	USAP		20160129, Escher	CCHDO http://cchdo.ucsd.edu/cruise/320620151206
Optical profile	OOI (USAP)	USAP - who	Yes	USAP		20160129, Escher	CCHDO http://cchdo.ucsd.edu/cruise/320620151206
Rosette salts	OOI (WHOI)	Leah Houghton lhoughton@whoi.edu	Yes			20160426, Key	CCHDO http://cchdo.ucsd.edu/cruise/320620151206
Rosette O_2	OOI (WHOI)	Leah Houghton lhoughton@whoi.edu	Yes			20160426, Key	CCHDO http://cchdo.ucsd.edu/cruise/320620151206
Nitrate	OOI	Paul Henderson	(Frozen or			2016042	CCHDO

	(WHOI) SOCCOM (ODF/SIO)	 Susan Becker sbecker@ucsd.edu	Unfrozen) Yes			6, Key	http://cchdo.ucsd.edu/cruise/32020151206
pH	OOI (WHOI) SOCCOM (SIO)	Aleck Wang zawang@whoi.edu Andrew Dickson adickson@ucsd.edu	Yes yes	Dickson SIO	1/26/16 samples arr. SIO	7/18/16 Dickson samples completed	
Talk	OOI (WHOI) SOCCOM (SIO)	Aleck Wang zawang@whoi.edu Andrew Dickson adickson@ucsd.edu	yes	Dickson SIO	1/26/16 samples arr. SIO	7/18/16 Dickson samples completed	
HPLC	SOCCOM (Boss and ODF)	Susan Becker sbecker@ucsd.edu	yes	NASA Goddard Crystal Thomas <crystal.s.thomas@nasa.gov>	1/15/2016 to SIO		
POC	SOCCOM (Boss and ODF)	Susan Becker sbecker@ucsd.edu	yes		1/15/2016 to SIO		
OTHER USEFUL OBSERVATIONS FOR SOCCOM PROGRAM (NOT REQUIRED FOR CALIBRATION)							
DIC	OOI (WHOI)	Aleck Wang zawang@whoi.edu	yes				
Chlorophyll	OOI (WHOI)	Heidi Sosik hsosik@whoi.edu	yes				

SOCCOM BGC floats: shipboard calibration data requirements
10 November 2015
(L.D. Talley, S. Becker, R. Key, A. Dickson, E. Boss)

Required station depth and measurements:

2000 m profile (or deeper)

Continuous profiling:
CTD profile
Bio-optical profile (e.g. Boss' Wet Labs BB2F)

Rosette samples, with good vertical spacing (see attached example)
At all bottles to 2000 m:

- Salt (for identifying bottle quality)
- Oxygen
- Nitrate
- pH
- alkalinity

(pH/alkalinity include replicates from same Niskin at 10% of bottles, hence 2 bottles on 24-bottle cast)

At near-surface and chlorophyll maximum bottle(s):

Note that 10 liters are needed for an HPLC plus POC plus replicates of both. Can use a separate surface bottle if convenient rather than firing from rosette.

- HPLC with duplicate (sample collected, filtered, and returned to lab for analysis; liquid N_2 storage and frozen shipping)
- POC with duplicate (sample collected, filtered, and returned to lab for analysis; can be dried at sea)

Useful but not required:

- DIC (high priority)
- Other macronutrients (silicate, phosphate, nitrite)
- Transmissometer profile if taken

Parameter	Sampling requirement, including rinses and overflows	Accuracy requirement•	Shipboard or shore lab
Required			
Salinity	0.5 liter	±0.002	Shipboard
Oxygen	0.95 liter	1%	Shipboard
Nutrients (nitrate)	0.3 liter	1%	Shipboard (all nuts.) or Shore (frozen - nitrate only)
pH	0.8 liter	±0.005	Shore or shipboard
Alkalinity (TA)	0.5 liter	±2	Shore or shipboard
HPLC (plus duplicate)	1-2 liters depending on how green water is	NA	Shore
POC (plus duplicate)	2-3 liters depending on how green water is	NA	Shore
Useful, not required			
DIC	0.8 liter	±2 μM	Shipboard
Nutrients: silicate	(same sample as nitrate)	1%	Shipboard
Phosphate	(same sample as nitrate)	1%	Shipboard
Nitrite	(same sample as nitrate)	NA	Shipboard

- Macronutrients and oxygen from GO-SHIP manual.
- Salinity from WHP standards manual cruise requirements.
- pH, total alkalinity, DIC from GOOS EOVs(draft, 2014).
- OR
- Dickson, A.G., Sabine, C.L. and Christian, J.R. (Eds.) 2007. *Guide to best practices for ocean CO_2 measurements*. PICES Special Publication 3, 191 pp.