

1. Chief Scientist Narrative:**ALL CAST DETAILS ARE FOUND IN AE1712 CAST LOG**

Day #	Day & Date	Time (Local)	Event	SIC
1	Sat, 08/July/2017	0845	Depart BIOS for Hydrostation	CC
1	Sat, 08/July/2017	1100	Arrived at HS	CC
		11:10	CTD – CAST #1- for test cast and large volume collections at 200 m. Misfire bottle #13 Set up SIP Experiment DCM ~90 SST ~ 27°C UMP ~ 19°C	
		1155	Depart for BATS	
1	Sat, 08/July/2017	1450	Arrived at BATS Filtration for experiment complete but wait to inoculate until casts are underway	CC
1	Sat, 08/July/2017	1515	CTD – CAST #2 – 1000m cast DCM ~100m SST ~ 27°C OMZ ~ 800m	CC
		1345		
1	Sat, 08/July/2017	1830	CTD – CAST #3 (0-300m) large volume cast <ul style="list-style-type: none"> • Jo collected water for viral prophage and free viruses • Liz Harvey TFF water • DCM ~ 100 m • OMZ ~850 Cast went well but bottle 17 did not close.	CC
1	Sat, 08/July/2017	1830	Craig, Nick, Keri and Jacqui initiated the SIP-DNA CRAM experiment. Mesopelagic water was amended with organic matter substrates and track ¹³ C substrates into mesopelagic microbial assemblages. In incubator at 2218. Allowed to acclimate for 8 hrs prior to sampling to ensure proper mixing	CC

1	Sat, 08/July/2017	2100	CTD – CAST #4 – 1000m cast DCM ~100m SST ~ 27°C OMZ ~ 800m	CC
2	Sun, 09/July/2017	0230	CTD – CAST #5 – 1000m cast Slight delay in deployment due to sailboat being on site at BATS. Once cleared the CTD was deployed. DCM ~90 OMZ ~ 750	NH
2	Sun, 09/July/2017	0600	CTD – CAST #6 – 300m cast <ul style="list-style-type: none"> Jo collected water for viral prophage and free viruses 	CC
2	Sun, 09/July/2017	0625	Initiated SIP experiment	CC
2	Sun, 09/July/2017	0800	CTD – CAST #7 – 1000m cast Slight delay in deployment due to sailboat being on site at BATS. Once cleared the CTD was deployed. SST 27 DCM ~100M OMZ ~ 750	CC
2	Sun, 09/July/2017	1030	MOCNESS DEPLOYMENT Start point 31 42.215N, 64 12.427W End Point 31 37.506N, 64 07.270W Towed at 1-1.5 knots for 4 hours Deployment went smoothly	CC
		1500	MOCNESS RECOVERY. Tow looks successful and Joe and Joe are assessing the haul. Some issues with sensors on package but overall looks good.	
2	Sun, 09/July/2017	1630	IN SITU pump cast with pump A to 10m, pump B to	cc

			<p>80 m and pump C to 200 m. All pumps worked and pumped 52L, 89L and 68 L respectively.</p> <ul style="list-style-type: none"> • Size fractions >54 um, 5-54, 1.2-5 • NA fixed with RNA later 	
2	Sun, 09/July/2017	1910	<p>CTD – CAST #8 – 300m cast Large volume collection cast for Jo, Bacterial Carbon, and size fraction 0.2 -1.2 um. Bacterial carbon exp was done at 10, 80, 120, 200m tested double stack GF-75 and 2 in line GF-75.</p>	CC
2	Sun, 09/July/2017	2100	<p>CTD Cast #9 – 1000 m Type A cast</p> <p>Liz H drew water from 80 for grazing exp instead of 40 m.</p>	CC
2	Sun, 09/July/2017	2230 ~2300	<p>Zooplankton net tow for collecting copepods for zooplankton excretion exp. Net went to ~DCM and oscillated over 25 m at the bottom of deployment with ~200 m of wire paid out.</p> <p>2nd tow went in to get more copepods for exp. This time tow depth was constant at the bottom with about 200 m wire paid out. The collection was better.</p>	CC
3	Mon, 10/July/2017	0200	<p>CTD Cast #10 – 1000 m Type A cast</p> <p>Liz H drew water from 80 for grazing exp instead of 40 m.</p> <p>Micro / DOM group scaled back collection on this cast see cast sheet.</p>	CC
3	Mon, 10/July/2017	0330	<p>Initiated Zooplankton Excretion experiment . ~ 44 copes in triplicate incubations will be harvested 12-18 hours later. All incubation with mesopelagic water at in situ temps.</p>	CC
3	Mon, 10/July/2017	0600	<p>CTD – CAST #11 – 300m cast Large volume collection cast for Jo</p>	CC
3	Mon, 10/July/2017	0800	<p>CTD Cast #12 – 1000 m Type A cast</p> <p>Liz H drew water from 40 for grazing exp on this cast.</p> <p>SST 27 DCM 100 OMZ 800</p>	CC

3	Mon, 10/July/2017	1400	CTD Cast #13– 1000 m Type A cast Liz H drew water from 40 for grazing exp on this cast. SST 27 DCM 90 OMZ 800	CC
3	Mon, 10/July/2017	1600	Harvest DOM from zooplankton experiment. Collected bulk DOM and High res DOM	cc
3	Mon, 10/July/2017	1700	Deployed in situ pumps to ~300 (actual 320m), 160m and 120 for size fractionated nucleic acids. Fractions on pump 1.2-5, 5-54, and >54. Pumped for an hour at 2000 ml/min. Will turn on at 1745 recovery planned for 1850.	CC
		1850	Pump recovery. All pumps worked	
3	Mon, 10/July/2017	1940	CTD – CAST #14– 800m cast Large volume collection cast for Jo, Bact C and size fractionation.	CC
3	Mon, 10/July/2017	1940	CTD – CAST #15 – 1000 m Type A cast .	CC
3	Mon, 10/July/2017	2300	MOCNESS DEPLOYMENT Start point 31 42.688N, 64 13.762W End Point 31 36.755N, 64 05.456W Towed at 1-1.5 knots for 5-6 hours Deployment went smoothly	CC
4	Tue , 11/July/2017	0600	CTD – CAST #16 – – 300m cast Large volume collection cast for Jo	CC
4	Tue , 11/July/2017	0900	CTD – CAST #17 – 4000m DEEP cast. Will be collecting deep DNA, Probe, DOM ref and Rhea Foreman (UH) TDN collection. Sur temp 27 DCM OMZ	CC
4	Tue , 11/July/2017	1300	Science ops complete. Head to Sea Buoy	CC
4	Tues, 11/July/2017	1900	Arrive at SeaBuoy	CC

4	Tues, 11/July/2017	1930	Alongside Marginal Wharf	CC
5	Wed, 12/July/2017	1130	Alongside BIOS Unload samples and chemicals De-Mob 12, July.	CC

2. Data and Sample Transfer Status

Parameter	Location	Date	PI	Status
Data disk	With CAC posted to BIOS-SCOPE dropbox	7/17/17	CAC	posted
CTD cast sheets and Science Log (2 copies)	With CAC to be posted to BIOS-SCOPE dropbox	7/17/17	CAC	posted
Bacterial Production	Samples all run	7-12-17	CAC	Will be posted
Bulk DOM	Shipped to UCSB	7-17-17	CAC	Shipped 7/17/17
DCNS	Hand carried to UCSB by J. Comstock	7-14-17	CAC	At UCSB
DAPI	Hand carried to UCSB by J. Comstock	7-14-17	CAC	At UCSB
POCN	Hand carried to UCSB by J. Comstock	7-14-17	CAC	At UCSB
NUTS	Hand carried to UCSB by J. Comstock	7-14-17	CAC	At UCSB
DNA- Sterivex	N -80 Chest	7-12-17	SG	Will be extractrated at BIOS and shipped to OSU
DNA – Pump filters	Will be Hand Carried to UCSB by C. Carlson	7-20-17	CAC	Will be shipped to OSU late July
PROBE samples concentrate	N -80 chest	7-12-17	SG/ CAC/ RP	Will be prepped at BIOS
Dilution Exp samples microscopy	Hand carried to U Georgia	7-14-17	LH	At Skidaway
Dilution Exp FCM	Hand carried to U Georgia	7-14-17	LH	At Skidaway
Dilution Exp probe	N -80 and N-20 Dead	7-12-17	LH	Being processed

				by RP
MOCNESS Formalin Samples	N 204	7-12-17	LBB/ AM	At BIOS
MOCNESS- ethanol Samples	N Zoop Fridge	7-12-17	LBB/AM	At BIOS
Zooplankton dry mass	N204	7-12-17	LBB/AM	At BIOS
Viral samples	Prepped at BIOS and hand carried with JO 7-25-17	7-12-17	BT	
EPIC PCR	N -70 upright	7-12-17	BT	Jo may be bringing them back to UK
Single Cell Genomic samples	N -70 upright	7-12-17	BT	At BIOS
HR-DOM	Shipped to WHOI	7-17-17	LK/KL	Shipped to WHOI