

CCE-P0605 ACTIVITY SCHEDULE

(from Cruise Report; 060617_V1)

10 May

0500 CTD test
0630 Glider deployment
0900 Resume MVP survey, near-shore sections
1600 **ETA – position 34°20'N, 120°48'W, begin CYCLE #1**
1600 CTDs, PAR light depths, water for evening experiments
1930 Bongo tows, animals for experiments
2130 Bongo/LOPC, zooplankton biomass & gut pig sampling
2230 MOCNESS/Zooplankton sampling

11 May

0200 CTD, setup *in situ* experiments (150m)
0300 Go-Flo trace-metal sampling, setup grow-out experiments
0430 Deploy *in situ* Array #1
0500 CTD, dissolved organics, POC, PON, bacteria (600 m)
0600 MVP – small bow-tie survey
1000 Bongo/LOPC, zooplankton biomass & gut pig sampling
1100 Mid-day CTD, ¹⁴C-PP CalCOFI & PvsE
1300 Mid-day Radiometer & IOP casts (stern)
1430 MOCNESS/Zooplankton sampling
1730 Fe clean pump, water for evening experiments
1930 Thorium pump
2200 Bongo LOPC/Zooplankton biomass & gut pig sampling
2300 Bongo tows, animals for experiments

12 May

0200 CTD, setup *in situ* experiments (150m)
0300 Go-Flo trace-metal sampling
0430 Recover Array #1/deploy *in situ* Array #2
0500 MVP – small bow-tie survey
1000 Bongo/LOPC, zooplankton biomass & gut pig sampling
1100 CTD, simultaneous Radiometer off stern
1200 IOP cast (hydrowire)
1300 Bongo/LOPC, zooplankton biomass & gut pig sampling
1430 Lihini – surface pump
1800 Bongo/LOPC, zooplankton biomass & gut pig sampling
1900 CTD, full dilution experiments
2000 Bongo/LOPC, zooplankton biomass & gut pig sampling
2200 Bongo/LOPC, zooplankton biomass & gut pig sampling
2230 MOCNESS/Zooplankton sampling

13 May

0100 Bongo/LOPC, zooplankton biomass & gut pig sampling
0200 CTD, setup *in situ* experiments (150m)
0400 Recover Array #2/deploy *in situ* Array #3

0440 Bongo/LOPC, zooplankton biomass & gut pig sampling
0500 CTD – thorium sampling (150 m)
0600 Bongo/LOPC, zooplankton biomass & gut pig sampling
0700 Go-Flo trace-metal sampling
0830 Lihini – surface pump
1000 Bongo/LOPC, zooplankton biomass & gut pig sampling
1100 CTD, simultaneous Radiometer off stern
1200 IOP cast (hydrowire)
1300 MOCNESS/Zooplankton sampling
1500 MVP bow-tie survey
1900 CTD, water for evening experiments
2000 Lihini - surface pump
2200 Bongo/LOPC, zooplankton biomass & gut pig sampling
2300 Bongo, animals for experiments

14 May

0200 CTD, setup *in situ* experiments (150m)
0300 Trace-metal pump sampling
0430 Recover Array #3/deploy *in situ* Array #4
0500 CTD organics (600 m)
0600 MVP bow-tie survey
1000 Bongo/LOPC, zooplankton biomass & gut pig sampling
1100 CTD, simultaneous Radiometer off stern
1200 IOP cast (hydrowire)
1300 MOCNESS/Zooplankton sampling
1800 Lihini – surface pump
2100 Bongo, animals for experiments
2200 Bongo/LOPC, zooplankton biomass & gut pig sampling
2230 MOCNESS/Zooplankton sampling

15 May

0200 CTD, in situ & Th & organics (final samples only)
0400 Recover in situ Array #4
0430 Thorium pump
0530 Begin MVP transect to next study area
1000 Go-Flo, soak cast (enroute)
1100 Resume MVP survey, core California Current region
2040 **ETA – position 33°40'N, 122°15'W, begin CYCLE #2**
2130 Bongo/LOPC, zooplankton biomass & gut pig sampling
2230 MOCNESS, zooplankton sampling

16 May

0200 CTD, setup *in situ* experiments (200m)
0300 Go-Flo trace-metal sampling, setup grow-out experiments
0430 Deploy *in situ* Array #5
0500 CTD, organics, bacteria, thorium (600 m)
0600 MVP – small bow-tie survey
1000 Bongo/LOPC, zooplankton biomass & gut pig sampling

1100 CTD (¹⁴C-PP, PvsE), simultaneous Radiometer off stern
1300 IOP cast (hydrowire)
1430 MOCNESS, zooplankton sampling
1730 Thorium pump, Lihini surface pump
1900 CTD, water for evening experiments
2000 Go Flo trace-metal sampling & experiments
2200 Bongo/LOPC, zooplankton biomass & gut pig sampling
2300 Bongo tows, animals for experiments

17 May

0200 CTD, setup *in situ* experiments (200m)
0300 Go-Flo trace-metal sampling
0430 Recover Array #5 (wire cut, top depth only)/deploy *in situ* Array #6
0500 MVP – small bow-tie survey
1000 Bongo/LOPC, zooplankton biomass & gut pig sampling
1100 CTD, simultaneous Radiometer off stern
1200 IOP cast (hydrowire)
1300 Bongo/LOPC, zooplankton biomass & gut pig sampling
1400 Lihini, surface pump
1600 Bongo/LOPC, zooplankton biomass & gut pig sampling
1800 Bongo/LOPC, zooplankton biomass & gut pig sampling
1900 CTD, full dilution experiments & thorium
2000 Bongo/LOPC, zooplankton biomass & gut pig sampling
2200 Bongo/LOPC, zooplankton biomass & gut pig sampling
2230 MOCNESS, zooplankton sampling

18 May

0100 Bongo/LOPC, zooplankton biomass & gut pig sampling
0200 CTD, setup *in situ* experiments (200m)
0400 Recover *in situ* Array #6 (recovered late 1045 after search)
0430 Bongo/LOPC, zooplankton biomass & gut pig sampling
0630 Bongo/LOPC, zooplankton biomass & gut pig sampling
0730 Go-Flo trace-metal sampling
1000 Bongo/LOPC, zooplankton biomass & gut pig sampling
1100 CTD, simultaneous radiometer off stern
1200 IOP cast (hydrowire)
1300 MOCNESS, zooplankton sampling
1800 CTD, water for evening experiments
1900 Thorium pump (deep cast), simultaneous Lihini surface pump
2200 Bongo/LOPC, zooplankton biomass & gut pig sampling
2300 Bongo, animals for experiments

19 May

0000 CTD, setup *in situ* experiments (200m)
0200 Deploy *in situ* Array #7
0215 Go-Flo trace-metal sampling
0330 CTD organics, thorium (600 m)
0530 MVP bow-tie survey

1000 Bongo/LOPC, zooplankton biomass & gut pig sampling
1100 CTD, simultaneous Radiometer off stern
1200 IOP cast (hydrowire)
1300 MOCNESS, zooplankton sampling (1000 m, EtOH preserved, genetics)
1800 Go-Flo trace metal sampling, simultaneous Lihini surface pump
2100 Bongo, animals for experiments
2300 Bongo/LOPC, zooplankton biomass & gut pig sampling

20 May

0100 CTD, setup *in situ* experiments (200m)
0300 Recover *in situ* Array #7, Deploy Array #8
0400 Go-Flo trace-metal sampling
0500 MVP bow-tie survey
1000 Bongo/LOPC, zooplankton biomass & gut pig sampling
1100 CTD, simultaneous Radiometer off stern
1200 IOP cast (hydrowire)
1300 MOCNESS, zooplankton sampling
1630 CTD, Lihini 1000 m
1900 Thorium pump, simultaneous Lihini surface pump
2100 Bongo, animals for experiments
2200 Bongo/LOPC, zooplankton biomass & gut pig sampling
2230 MOCNESS, zooplankton sampling

21 May

0130 Proceed to array position
0200 CTD, in situ & Th & organics (final samples only)
0400 Recover *in situ* Array #8
0430 Begin VPR (or MVP) transect to next study area
0500 VPR transect to Point Arguello
1500 MVP survey, Point Arguello region
2200 **ETA – position 34°36.7'N, 120°46'W, begin CYCLE #3**
2200 Bongo, animals for experiments
2300 Bongo/LOPC, zooplankton biomass & gut pig sampling

22 May

0000 MOCNESS, zooplankton sampling
0130 Pole sampling, trace metals
0200 CTD, setup *in situ* experiments, organics, thorium, nickel (70m)
0400 Deploy *in situ* Array #9
0430 Run MVP survey pattern (Cancelled: retermination)
1000 Bongo/LOPC, zooplankton biomass & gut pig sampling
1100 CTD (¹⁴C-PP, PvsE), simultaneous Radiometer off stern
1200 IOP cast (hydrowire)
1300 MOCNESS, zooplankton sampling
1730 Thorium pump, Lihini surface pump
1900 CTD, water for evening experiments
2000 CTD, organics (10-20 m)
2200 Bongo/LOPC, zooplankton biomass & gut pig sampling

2300 Bongo tows, animals for experiments

23 May

0200 CTD, setup *in situ* experiments, nickel sampling (70m)
0400 Recover *in situ* Array #9/Deploy Array #10
0500 Run MVP survey pattern (Cancelled, crab pots)
1000 Bongo/LOPC, zooplankton biomass & gut pig sampling
1100 CTD, simultaneous Radiometer off stern
1200 IOP cast (hydrowire)
1300 Bongo/LOPC, zooplankton biomass & gut pig sampling
1400 Lihini surface pump, trace metal pole sampling
1600 Bongo/LOPC, zooplankton biomass & gut pig sampling
1800 Bongo/LOPC, zooplankton biomass & gut pig sampling
1900 CTD, full dilution experiments & thorium
2000 Bongo/LOPC, zooplankton biomass & gut pig sampling
2200 Bongo/LOPC, zooplankton biomass & gut pig sampling
2300 Bongo tow, animals for experiments

24 May

0100 Bongo/LOPC, zooplankton biomass & gut pig sampling
0200 CTD, setup *in situ* experiments, nickel sampling (70m)
0400 Recover *in situ* Array #10/Deploy Array #11
0430 Bongo/LOPC, zooplankton biomass & gut pig sampling
0630 Bongo/LOPC, zooplankton biomass & gut pig sampling
1000 Bongo/LOPC, zooplankton biomass & gut pig sampling
1100 CTD, mid-day CalCOFI 14-C production
1300 MOCNESS, zooplankton sampling
1600 Thorium pump, simultaneous Lihini surface pump
1800 CTD, water for evening zooplankton experiments
2200 Bongo/LOPC, zooplankton biomass & gut pig sampling
2300 Bongo tows, animals for experiments

25 May

0000 MOCNESS, zooplankton sampling
0200 Recover *in situ* Array #11
0300 CTD, in situ & Th & organics (final samples only)
0330 Begin transit to Santa Barbara Harbor
1100 Personnel transfers, Santa Barbara
1400 Begin transit from Santa Barbara to 34°N, 120° 32'W
1830 Deploy VPR, begin offshore transect to station
2330 ETA – position **34° 3'N, 121° 18.2'W**, begin CYCLE #4

26 May

0000 CTD, organics, bacteria, thorium (600 m)
0200 CTD, setup *in situ* experiments (200 m)
0400 Deploy *in situ* Array #12
0430 Go-Flo trace-metal sampling, grow-out experiments
0530 MVP bow-tie survey
1000 Bongo/LOPC, zooplankton biomass & gut pig sampling

1100 CTD (¹⁴C-PP)
1200 MOCNESS, zooplankton sampling
1600 Thorium pump, Lihini surface pump
1900 CTD, water for evening experiments
2200 Bongo/LOPC, zooplankton biomass & gut pig sampling
2300 MOCNESS, zooplankton sampling

27 May

0200 CTD, setup *in situ* experiments (200 m)
0400 Recover *in situ* Array #12; Deploy Array #13
0430 Go-Flo trace-metal sampling
0530 MVP bow-tie survey
1000 Bongo/LOPC, zooplankton biomass & gut pig sampling
1100 CTD (¹⁴C-PP)
1300 Bongo/LOPC, zooplankton biomass & gut pig sampling
1400 Trace metal pump; Lihini surface pump
1600 Bongo/LOPC, zooplankton biomass & gut pig sampling
1800 Bongo/LOPC, zooplankton biomass & gut pig sampling
1900 CTD, deck dilution experiments & thorium
2000 Bongo/LOPC, zooplankton biomass & gut pig sampling
2230 Bongo/LOPC, zooplankton biomass & gut pig sampling

28 May

0100 Bongo/LOPC, zooplankton biomass & gut pig sampling
0200 CTD, setup *in situ* experiments (200 m)
0400 Recover *in situ* Array #13; Deploy Array #14
0430 Bongo/LOPC, zooplankton biomass & gut pig sampling
0630 Bongo/LOPC, zooplankton biomass & gut pig sampling
0700 Go-Flo trace-metal sampling
0830 Bongo/LOPC, zooplankton biomass & gut pig sampling
1030 Bongo/LOPC, zooplankton biomass & gut pig sampling
1130 CTD (¹⁴C-PP)
1230 MOCNESS, zooplankton sampling
1600 Thorium pump, simultaneous Lihini surface pump
1900 CTD, thorium & water for evening experiments
2100 Bongo, animals for experiments
2200 Bongo/LOPC, zooplankton biomass & gut pig sampling
2300 MOCNESS, zooplankton sampling

29 May

0200 CTD, setup *in situ* experiments (200m)
0400 Recover *in situ* Array #14; Deploy Array #15
0415 Go-Flo trace-metal sampling
0530 CTD organics, thorium (600 m)
0700 MVP bow-tie survey
1130 CTD (¹⁴C-PP)
1230 Bongo/LOPC, zooplankton biomass & gut pig sampling
1730 Go-Flo trace metal sampling, simultaneous Lihini surface pump

1900 CTD, deck dilution, thorium, water for evening experiments
2100 Bongo, animals for experiments
2300 Bongo/LOPC, zooplankton biomass & gut pig sampling

30 May

0200 CTD, setup *in situ* experiments (200 m)
0400 Array #15 lost (MIA); Deploy Array #16
0430 Go-Flo trace-metal sampling
0600 MVP bow-tie survey
1100 CTD (¹⁴C-PP)
1200 Bongo/LOPC, zooplankton biomass & gut pig sampling
1300 MOCNESS, zooplankton sampling
1600 CTD deep cast - organics, bacteria, thorium (2,500 m)
1900 Thorium pump, simultaneous Lihini surface pump
2100 Bongo, animals for experiments
2200 Bongo/LOPC, zooplankton biomass & gut pig sampling
2300 MOCNESS, zooplankton sampling

31 May

0200 CTD, in situ & Th & organics (final samples only)
0400 Recover *in situ* Array #16
0500 Begin transit CYCLE 4 site to end of CalCOFI 80 line
2000 MVP site survey to station
2300 ETA – position **32° 51'N, 124°W**, begin CYCLE #5
2330 MOCNESS, zooplankton sampling

1 June

0200 CTD, setup *in situ* experiments (200 m)
0300 Go-Flo trace metal sampling, grow out experiments
0400 Deploy *in situ* Array #17
0430 Bongo, animals for experiments
0600 CTD, organics, bacteria, thorium (600 m)
0800 Trace metal pump (or more Go Flos)
1000 Bongo/LOPC, zooplankton biomass & gut pig sampling
1100 CTD (¹⁴C-PP)
1200 MOCNESS, zooplankton sampling
1600 Thorium pump, Lihini surface pump
1800 CTD, water for evening experiments
1900 Go Flos or trace metal pump, to be determined
2200 Bongo, animals for experiments
2300 Bongo/LOPC, zooplankton biomass & gut pig sampling
2315 Bongo, animals for experiments

2 June

0200 CTD, setup *in situ* experiments (200 m)
0400 Recover *in situ* Array #17; Deploy Array #18
0430 Go-Flo trace metal sampling
0530 MVP bow-tie survey
1000 Bongo/LOPC, zooplankton biomass & gut pig sampling

1100 CTD (¹⁴C-PP)
1300 Bongo/LOPC, zooplankton biomass & gut pig sampling
1400 Trace metal pump; Lihini surface pump
1600 Bongo/LOPC, zooplankton biomass & gut pig sampling
1800 Bongo/LOPC, zooplankton biomass & gut pig sampling
1900 CTD, deck dilution, thorium, water for evening experiments
2000 Bongo/LOPC, zooplankton biomass & gut pig sampling
2230 Bongo/LOPC, zooplankton biomass & gut pig sampling

3 June

0100 Bongo/LOPC, zooplankton biomass & gut pig sampling
0200 CTD, setup *in situ* experiments (200m)
0400 Recover *in situ* Array #18; Deploy Array #19
0430 Bongo/LOPC, zooplankton biomass & gut pig sampling
0630 Bongo/LOPC, zooplankton biomass & gut pig sampling
0700 Go-Flo trace-metal sampling
0830 Bongo/LOPC, zooplankton biomass & gut pig sampling
1030 Bongo/LOPC, zooplankton biomass & gut pig sampling
1130 CTD (¹⁴C-PP)
1230 MOCNESS, zooplankton sampling
1600 "Dying quivers" sampling, Go-Flos, CTD, Lihini surface pump
(by request)
2100 Bongo, animals for experiments
2200 Bongo/LOPC, zooplankton biomass & gut pig sampling
2300 MOCNESS, zooplankton sampling

4 June

0200 CTD, setup *in situ* experiments (200 m)
0400 Recover *in situ* Array #19; Deploy Array #20
0430 Go-Flo trace-metal sampling
0600 MVP bow-tie survey
1100 CTD (¹⁴C-PP)
1200 Bongo/LOPC, zooplankton biomass & gut pig sampling
1230 Bongo, animals for experiments
1330 MOCNESS, zooplankton sampling
1800 Thorium pump, simultaneous Lihini surface pump
1900 CTD, fill carboys w/ offshore seawater, Checkley, Landry
2100 Bongo, animals for experiments
2200 Bongo/LOPC, zooplankton biomass & gut pig sampling
2300 MOCNESS, zooplankton sampling

5 June

0200 CTD, final *in situ* samples, Th & organics (600 m)
0400 Recover *in situ* Array #20
0430 Begin transect to glider recovery site, 32°58'N, 121°26'W
1700 Search pattern for lost glider
2000 Transit to line 80, 33°35'N, 121°50'W

6 June

0200 Deploy MVP, transit to CYCLE #1 position, 34°20'N, 120°45'W
0700 Bongo, animals for experiments
0730 Transit to San Diego, ETA 0700, 7 June