

CCE-P2107 DAILY ACTIVITY SCHEDULE

(13 July – 13 August 2021) R/V Roger Revelle

Listed times are estimates; consult Event Log for actual times.

13 July

1000 Depart MARFAC
1400 Calibrate EK-80
2200 Transit to test station (33.605N 119.317W)

14 July

0830 Bongo Net Test Cast
0930 CTD Test Cast
1100 Trace Metal Rosette Test Cast
1200 MOCNESS Test Cast – Aborted, terminated incorrectly
Transit toward radiator survey start location
1700 MOCNESS Test Cast

15 July

Continue to radiator survey start location (34.148N, 121.341W)

0100 Salp Net Tow

0145 CTD Cast

0245 Start Radiator Survey 1 (Underway sampling for nutrients, Chl, HPLC, POC/PN, ²³⁴Th)

1-1	34.437	120.649
1-2	34.546	120.734
1-3	34.655	120.820
1-4	34.765	120.905
1-5	34.874	120.991
1-6	34.983	121.076
1-7	35.092	121.162
1-8	35.201	121.247
1-9	35.310	121.333
1-10	35.420	121.418
1-11	35.529	121.504
1-12	35.638	121.590
1-13	35.747	121.675
1-14	35.856	121.761
1-15	35.965	121.846
1-16	36.074	121.932
1-17	36.184	122.017
1-18	36.293	122.103
1-19	36.402	122.188
1-20	36.511	122.274
2-1	36.356	122.655
2-2	36.247	122.568
2-3	36.139	122.480
2-4	36.030	122.393
2-5	35.922	122.306
2-6	35.813	122.218

2-7	35.704	122.131
2-8	35.596	122.043
2-9	35.487	121.956
2-10	35.379	121.869
2-11	35.270	121.781
2-12	35.161	121.694
2-13	35.053	121.606
2-14	34.944	121.519
2-15	34.836	121.432
2-16	34.727	121.344
2-17	34.618	121.257
2-18	34.510	121.169
2-19	34.401	121.082
2-20	34.292	120.995
3-1	34.256	121.430
3-2	34.364	121.519
3-3	34.472	121.608
3-4	34.580	121.698
3-5	34.688	121.787
3-6	34.796	121.876
3-7	34.904	121.965
3-8	35.012	122.055
3-9	35.120	122.144
3-10	35.228	122.233
3-11	35.336	122.322
3-12	35.445	122.412
3-13	35.553	122.501
3-14	35.661	122.590
3-15	35.769	122.679
3-16	35.877	122.769
3-17	35.985	122.858
3-18	36.093	122.947
3-19	36.201	123.037

1600 CTD Cast (end of radiator survey line 1, station 1-20)

1700 Salp Net Cast

Continue radiator survey

16 July

Continue radiator survey

900 CTD cast (end of radiator survey line 2, station 2-20)

1000 Ring net cast

Continue radiator survey

17 July

0130 CTD (end of radiator survey line 3)
Proceed toward radiator survey line Station 1-20 (Diel Station)

0630	CTD	(Diel study)
0730	Trace Metal Rosette	(Incubations)
0830	McLane Pump	(Deep Cast)
1200	CTD	(Diel study)
1300	MOCNESS	(Deep Tow)
1900	CTD	(Diel study)
2000	McLane Pump	(Shallow Cast)
2200	Bongo tow	
2300	CTD	(Diel study)

18 July

0000	MOCNESS	(Deep Tow)
0630	CTD	(Aborted, electronics issues)
0700	Trace Metal Rosette	(Incubations)
0745	CTD	(Diel study)
0900	Bongo tow	
1000	MOCNESS tow	(Organism collection)
1530	CTD	(Diel study)
1650	Trace metal rosette	(profile)
1700	McLane Pump	(Shallow Cast)

Survey south on radiator survey line 1 to assess water temperature and search for filament, heading towards station 1-1.

19 July

Start Benthic Boundary Layer transect #1 (BBL 1) ~1500

Station 1	Cambria	35°34.728'N	121°10.096'W
CTD Cast (Barbeau)			
GO-Flo Cast (Barbeau)			
Station 2	Pt. Estero	35°28.507'N	121°03.411'W
CTD Cast (Barbeau)			
GO-Flo Cast (Barbeau)			
Station 3	Morro Bay	35°21.621'N	120°55.541'W
CTD Cast (Barbeau)			
GO-Flo Cast (Barbeau)			
Station 4	Shell Beach	35°05.090'N	120°46.250'W
CTD Cast (Barbeau)			
GO-Flo Cast (Barbeau)			

20 July

Continue BBL 1 transect

Station 5	Vandenberg	34°52.860'N	120°44.170'W
CTD Cast (Barbeau)			
GO-Flo Cast (Barbeau)			
Station 6	Santa Ynez	34°41.530'N	120°42.560'W
CTD Cast (Barbeau)			
GO-Flo Cast (Barbeau)			
Station 7	Pt Arguello	34°33.857'N	120°41.065'W
CTD Cast (Barbeau)			
GO-Flo Cast (Barbeau)			
Station 8	Line 80, Station 51	34°27.735'N	120°31.250'W
CTD Cast (Barbeau)			
GO-Flo Cast (Barbeau)			
Station 9	Gato	34°25.351'N	120°24.443'W
CTD Cast (Barbeau)			
GO-Flo Cast (Barbeau)			

Completed BBL 1 transect ~0800

0930	CTD	Santa Barbara Basin Station
1030	Trace metal rosette	Santa Barbara Basin
1130	McLane pump	Santa Barbara Basin

Transit to CTD survey location, toward Point Sur region

2100	CTD (profile only, 100 m from bottom)
2200	Ring net and salp net sampling

21 July

0400	CTD (profile only, 100 m from bottom)
0500	CTD (profile only, 100 m from bottom)
0700	CTD (profile only, 100 m from bottom)
0930	CTD (profile only, 100 m from bottom)
1030	Net tow
1145	CTD (profile only, 100 m from bottom)
1230	Salp net
1700	CTD (profile only, 100 m from bottom)
1900	CTD (profile only, 100 m from bottom)
2000	CTD (profile only, 100 m from bottom)

Cycle 1 Day 0

23:00 Sediment trap deployment

22 July

Cycle 1 Day 1

0200 CTD (array setup, 200 m)
0300 Trace metal rosette (array setup)
0415 Array deployment
0500 CTD cast (full dilution setup and thorium, 300 m)
0600 Trace metal rosette
0700 McLane Pump (shallow)
0900 Bongo Tow (quantitative)
1000 *Zooglider* deployment
1130 Noon CTD cast (500 m)
1230 Bongo tow
1300 Shallow MOCNESS tow (Day #1)
1800 Bongo tow (rhizarian collection)
1900 CTD (incubations, 1000 m)
2100 Bongo tow (quantitative)
2200 Shallow MOCNESS tow (Night #1)

23 July

Cycle 1 Day 2

0200 CTD (array setup, 1000 m)
0300 Trace metal rosette (array setup)
0415 Array recovery and redeployment
0500 Trace metal rosette
0600 Transit away from station to dump waste
0800 Bongo Tow (quantitative)
0900 McLane Pump (deep)
1200 CTD cast aborted, hydraulic leak
1300 Deep MOCNESS tow (Day #1, pump waste while deeper than 500 m)
1700 CTD cast (1000 m)
1800 CTD cast
2030 Bongo tow (quantitative)
2100 Deep MOCNESS tow (Night #1, pump waste while deeper than 500 m)

24 July

Cycle 1 Day 3

0200 CTD (array setup, 200 m)
0300 Trace metal rosette (array setup)
0415 Array recovery and redeployment
0500 Trace metal rosette
0600 Leave drifter area to pump waste
0900 Bongo tow (quantitative)

1000 McLane Pump (shallow)
1200 Noon CTD (1000 m)
1300 Shallow MOCNESS tow (Day #2)
1600 CTD
1700 Ring net (Rhizarian collection)
1900 CTD cast (incubations, 1000 m)
2000 Salp net (live organisms)
2100 Bongo tow (quantitative)
2200 Shallow MOCNESS (Night #2)

25 July

Cycle 1 Day 4

0200 CTD (array setup, 1000 m)
0300 Trace metal rosette (array setup)
0415 Array recovery and redeployment
0500 Trace metal rosette
0600 Leave drifter area to pump waste
0900 Bongo tow (quantitative)
1200 Noon CTD (1000 m)
1300 Shallow MOCNESS (Rhizarians and Svens)
1700 McLane Pump (deep)
1930 CTD (incubations, 1000 m)
2000 Salp net (live organisms)
2100 Bongo tow (quantitative)
2300 Ring net (Rhizarians and Svens)

26 July

Cycle 1 Day 5

0100 CTD (array finals, 1000 m)
0200 Trace metal rosette
0330 Array recovery – Re-deploy empty marker drift array
0500 CTD at sediment trap location
0600 Sediment trap recovery – END CYCLE 1
0730 Proceed to BBL 2-1 location: 36° 11.6985' N, 121° 44.70402' W
0900 CTD (to near the bottom, shallow water)
0930 GO-Flo Cast
1000 Proceed to BBL 2-2 location: 36° 13.69752' N, 121° 49.71684' W
1100 CTD (to near the bottom, shallow water)
1130 GO-Flo Cast
1200 Proceed to BBL 2-3 location: 36° 16.2855' N, 121° 54.6969' W
1300 CTD (to near the bottom, shallow water)
1330 GO-Flo Cast
1400 Return to marker drift array location + Bowtie survey (no sampling)

27 July

0000 M. Stukel drop off, Monterey
Transit to marker drift array location
0700 Deep MOCNESS (Rhizarians)
1000 Bongo tow (quantitative)
1130 McLane Pump
1400 CTD
1600 Recover marker drift array
1600-1900 Underway MET survey

Cycle 2 Day 0

1900 Sediment trap deployment
2200 Bongo tow
2300 CTD (200 m)
2330 Ring net

28 July

Cycle 2 Day 1

0130 CTD (array setup, 1000 m)
0300 Trace metal rosette (array setup)
0415 Array deployment
0500 CTD cast (full dilution setup and thorium, 300 m)
0600 Trace metal rosette
0700 McLane pump (shallow)
0900 Bongo tow (quantitative)
1000 Transit away from station to dump waste
1200 Noon CTD cast (1000 m)
1300 Shallow MOCNESS tow (Day #1)
1900 CTD (incubations, 1000 m)
2000 Ring net (live organisms)
2100 Bongo tow (quantitative)
2200 Shallow MOCNESS tow (Night #1)

29 July

Cycle 2 Day 2

0130 CTD (array setup, 1000 m)
0300 Trace metal rosette (array setup)
0415 Array recovery and redeployment
0500 Trace metal rosette (3x, tech issues)
0600 Transit away from station to dump waste
0800 Bongo tow (quantitative)
0900 McLane pump (deep)
1200 Noon CTD cast (1000 m)
1300 Shallow MOCNESS tow (Day #2)
1700 Ring net tow

1800 CTD cast (incubation, 1000 m)
1900 Salp net tows (live organisms)
2100 Bongo tow (quantitative)
2200 Shallow MOCNESS tow (Night #2)

30 July

Cycle 2 Day 3

0130 CTD (array setup, 1000 m)
0300 Trace metal rosette (array setup)
0415 Array recovery and redeployment
0500 Trace metal rosette
0600 Leave drifter area to pump waste
0900 Bongo tow (quantitative)
1100 Noon CTD (1000 m)
1300 Zooplankton sampling (salp and ring nets)
1600 CTD (100 m)
1630 Salp net
1700 Trace metal test cast
1800 McLane pump (shallow)
2000 Bongo and ring net tows (live organisms)
2200 Bongo tow (quantitative)
2300 Salp net

July 31

Cycle 2 Day 4

0130 CTD (array setup, 1000 m)
0300 Trace metal rosette (array setup)
0415 Array recovery and redeployment
0500 Trace metal rosette
0600 Leave drifter area to pump waste
0900 Bongo tow (quantitative)
1200 Noon CTD (1000 m)
1300 Deep MOCNESS (Quantitative)
1900 CTD (incubations, 1000 m)
2000 Ring net (live organisms)
2130 Deep MOCNESS (Quantitative)

1 August

Cycle 2 Day 5

0300 CTD (array finals, 1000 m)
0430 Array recovery
0630 Arrive at sediment trap location
0700 CTD at sediment trap location (1000 m)
0800 Trace metal rosette
0900 Ring net
1000 Sediment trap recovery – END CYCLE 2

Transit to Cycle 3 location offshore

2 August

Cycle 3 Day 0

2100 CTD
2200 Sediment trap deployment
2300 Salp nets

3 August

Cycle 3 Day 1

0130 CTD (array setup, 1000 m)
0300 Trace metal rosette (array setup)
0415 Array deployment
0500 CTD cast (full dilution setup)
0600 Trace metal rosette
0700 McLane pump (shallow)
0900 Bongo Tow (quantitative)
1000 Transit away from station to dump waste
1200 Noon CTD cast (1000 m)
1300 Shallow MOCNESS tow (Day #1)
1700 Ring net (rhizarian collection)
1900 CTD (incubations, thorium, 1000 m)
2000 Salp nets (live organisms)
2100 Bongo tow (quantitative)
2200 Shallow MOCNESS tow (Night #1)

4 August

Cycle 3 Day 2

0130 CTD (array setup, 1000 m)
0300 Trace metal rosette (array setup)
0415 Array recovery and redeployment
0500 Trace metal rosette
0600 Transit away from station to dump waste
0800 Bongo Tow (quantitative)

0900 McLane pump (deep)
1200 Noon CTD cast (1000 m)
1300 Shallow MOCNESS tow (quantitative, Day #2)
1700 Ring nets (Rhizarians)
1800 CTD cast (incubation, 1000 m)
1900 Salp nets (live organisms)
2130 Bongo tow (quantitative)
2200 Shallow MOCNESS tow (quantitative, Night #2)
2400 Salp nets

5 August

Cycle 3 Day 3

0130 CTD (array setup, 1000 m)
0300 Trace metal rosette (array setup)
0330 Salp net
0430 Array recovery and redeployment
0500 Trace metal rosette
0600 Leave drifter area to pump waste
0800 Bongo Tow (quantitative)
0900 Deep CTD (4000 m)
1200 Noon CTD (500 m)
1400 MOCNESS for rhizarians, Sven
1700 McLane pump cast (shallow)
1900 CTD (shallow)
2000 Salp nets (live organisms)
2130 Bongo tow (quantitative)
2230 Zooplankton sampling for rhizarians, Sven

6 August

Cycle 3 Day 4

0130 CTD (array setup, 1000 m)
0300 Trace metal rosette
0415 Array recovery and redeployment
0500 Trace metal rosette
0600 Leave drifter area to pump waste
0800 Bongo Tow (quantitative)
0900 McLane Pump (deep)
1200 Noon CTD (1000 m)
1300 Deep MOCNESS (Quantitative)
1900 Ring net
2000 CTD (incubations, thorium, 1000 m)
2100 Salp nets (live organisms)
2130 Bongo tow (quantitative)
2230 Deep MOCNESS (Quantitative)

7 August

Cycle 3 Day 5

0400 CTD (array finals, 1000 m)
0430 Array recovery
0500 Trace metal rosette
0600 Salp net
0700 McLane pumps
1030 Sediment trap recovery – END CYCLE 3

Transit to California Current Transect (CCT) Station 1

2200 CTD (1000m) – CCT1
2300 Trace metal rosette – CCT1
2330 Bongo/Salp net tows – CCT1

8 August

0430 CTD (1000 m) – CCT2
0530 Trace metal rosette – CCT2
0600 Bongo/Salp net tows – CCT2
1100 CTD (1000 m) – CCT3
1200 Trace metal rosette – CCT3
1230 Bongo/Salp net tows – CCT3
1900 CTD (1000 m) – CCT4
2000 Trace metal rosette – CCT4
2030 Bongo/Salp net tows – CCT4

9 August

0030 CTD – CCT5
0130 Trace metal rosette – CCT5
0200 Bongo/Salp net tows – CCT5
0700 CTD – CCT6
0730 Trace metal rosette – CCT6
0800 Bongo/Salp net tows – CCT6
1200 *Zooglider* recovery/annular survey
1300 CTD
1600 CTD (300 m) – CCT7
1630 Trace metal rosette – CCT7
1700 McLane pump – CCT7
1800 Bongo/Salp net tows – CCT7
2240 CTD (1000 m) – CCT8
2340 Trace metal rosette – CCT8

10 August

0010 Bongo/Salp net tows – CCT8

Transit toward Alongshore Transect (AT) Station 1

0500 CTD
0530 Trace metal rosette (incubation)
0700 CTD – AT1
0730 Bongo/Salp net tows – AT1
0930 CTD – AT2
1000 Bongo/Salp net tows – AT2
1215 CTD – AT3
1300 Bongo/Salp net tows – AT3
1530 CTD – AT4/CCT9
1600 Trace metal rosette – AT4/CCT9
1700 Bongo/Salp net tows – AT4/CCT9
1900 CTD – AT5
1930 Trace metal rosette (incubation)
2000 Bongo/Salp net tows – AT5
2200 Small boat sampling
2300 Salp nets

11 August

0400 CTD for S. Plummer dilution experiment at AT5
0700 CTD – AT6
0800 Bongo/Salp net tows – AT6
1000 CTD – AT7
1030 Bongo/Salp net tows – AT7
1230 CTD – AT8
1300 Bongo/Salp net tows – AT8
Transit offshore
1700 CTD (1500 m, thorium)
1800 Ring net
1900 Bongo tow
2000 Salp net

Transit to DDT dump site, San Pedro Basin

12 August

0945 CTD (870 m) – DDT site
1045 McLane pumps – DDT site
1300 EK80 survey – DDT site
1530 MOCNESS (deep) – DDT site
2200 Go Pro deployments

Transit to MarFac

13 August

1030 Arrive MarFac