

Draft, Sept 9, 2014

CANON 2014 – Rachel Carson – September 22 – 25 & October 7 – 10, 2014

Daily Operations Plan

General Plan: The Rachel Carson will be used during the CANON experiment to monitor the physical, chemical and biological properties of waters between MBTS stations C1 and M1, to deploy the SF6 and Rhodamine tracers, and then monitor the waters within and surrounding the tracer patch.

For rosette casts, bottles will be tripped in the mixed layer and eleven density surfaces below it (sigma theta). Tentatively they are: 24.6, 24.8, 25, 25.2, 25.4, 25.5, 25.6, 25.8, 26, 26.2, 26.5 kg m⁻³ – 1000.

For pump casts, no bottles will be tripped.

September 22, 2014

0600 Depart ML for C1
0645 Arrive C1, Deploy Dorado
0700 CTD cast to 200 m
0800 Steam to MID station (5 nmi west of C1)
0900 Pump cast to 100 m
1000 CTD cast to 200 m, trip bottles based on dawn water budget, BOG dawn sampling
1130 Deploy surface and deep (50 m) drifters
1200 Deploy sediment traps
1300 Test dye disbursement method
1430 Steam to M1
1500 CTD casts
1630 Pickup Dorado
1700 Steam back to ML

September 23, 2014

0600 Depart ML for location of deep drifter
0645 Deploy Dorado en route to drifter
0730 CTD cast to 200 m at deep drifter location (BOG dawn sampling)
0900 Deploy tracers at deep drifter
1200 Cast to 200 m to check vertical distributions of tracers (more than 2 hours)
1300 Steam to location of sediment traps
1400 Retrieve sediments traps
1530 Redeploy sediment traps in tracer patch
1630 Pickup Dorado
1730 Steam back to ML

September 24, 2014

0600 Depart ML for Patch
0645 Deploy Dorado en route to patch
0730 CTD cast to 200 m inside patch
1000 Retrieve sediment traps
1100 Redeploy sediment traps in patch
1230 CTD cast to 200 m, edge of patch
1430 CTD cast to 200 m, outside of patch
1530 Worden cast (if needed)

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1600 Pick up Dorado
1630 Steam back to ML

September 25, 2014

0600 Depart ML for Patch
0645 Deploy Dorado en route to patch
0730 CTD cast to 200 m inside patch
0900 Retrieve sediment traps
1100 CTD cast to 200 m, edge of patch
1300 CTD cast to 200 m, outside of patch
1400 Pick up Dorado
1430 Steam back to ML

Week 3: October 7 – 10, 2014:

Activities on Rachel Carson cruises between October 7 – 10, 2014 will follow the same daily operations schedule used on September 24, 2014.