

Table 2: Draft list of deck operations to be carried out at sampling stations during Leg 2a and 2b of the 2014 CCGS *Amundsen* Expedition.

Station type (symbol)	Duration of operations	Sampling operations
CTD (C)	~30 minutes	<ol style="list-style-type: none"> 1. Bottom-surface profiles of temperature, salinity, light transmittance, PAR, chlorophyll <i>a</i> fluorescence, oxygen and currents using the Seabird 911+ profiler with LADCP (1 CTD cast = 30 min). No water sampling.
CTD + Nutrients (N)	1 hr	<p><u>Same as CTD +</u></p> <ol style="list-style-type: none"> 1. Rosette sampling for high-resolution profile of nutrients and phytoplankton biomass.
BASIC (B)	Approx. 6 hrs	<p><u>Same as CTD-Nutrients +</u></p> <ol style="list-style-type: none"> 1. Additional Rosette sampling for DOC, DIC, contaminants, nutrients, total and fractionated Chl <i>a</i> and CDOM, phytoplankton absorption, total suspended matter, HPLC, FISH, DNA, RNA, pigment content, fatty acid markers (1 additional CTD-Rosette casts = 1 hr). 2. Sea water sampling via submersible pump (30 min) 3. Light profiles with PNF and Secchi disk (30 min). 4. Box coring of bottom sediments (1 deployment = 45 min). 5. Deployment of Agassiz sledge for sampling the epibenthic fauna (1 deployment = 45 min). 6. 6-Net Vertical Sampler (6NVS) tow for the determination of zooplankton and ichthyoplankton densities (1 vertical tow = 45 min) 7. Double Square Net (DSN) tow for the determination of zooplankton and ichthyoplankton densities (1 horizontal net tow = 45 min).
Full (F)	Approx. 15 hours (18 hours on Leg 2b)	<p><u>Same as Basic (~6 hrs) +</u></p> <ol style="list-style-type: none"> 1. 2 additional CTD-Rosette deployments (2 hrs). 2. Hydrobios deployment (1 hr) 3. Bioness deployment (1 hr) 4. IKMT deployment (45 min) 5. Light-frame On-sight Key-species Investigation (LOKI) deployment (1 deployment = 1 hr) 6. MOKI zooplankton recorder deployment (1 deployment = 1 hr) 7. Deployment of trigger corer (1 deployment = 45 min) 8. Box coring of bottom sediments (1 additional deployment = 45 min)

Additional information for Leg 2a operations (times do not include ship transits):

1. SX90 active acoustic surveys in Amundsen Gulf/Beaufort Sea (approx. 48 hrs – including deployment of nets);
2. Bathymetric surveys at selected sites in the Beaufort Sea and Mackenzie Trough for BREA project (approx. 120 hrs total);
3. Deployment of 3 ArcticNet moorings and 6 BREA moorings;
4. Dedicated rosette cast for contaminant group at 4 mooring locations;
5. Piston coring operations at selected stations (10 deployments);
6. Bathymetric survey at selected piston coring sites (8 hrs);
7. Deployment of ice-tethered moorings (approx. 12 hrs);
8. Deployment of POPS, Polar SVP and Uptemp buoys and ice beacons (approx. 12 hrs);
9. Opportunistic deployment of the benthic beam trawl;
10. Launch of radiosondes (underway operation)

Additional information for Leg 2b operations (times do not include ship transits):

1. Recovery and deployment of 3 moorings in Barrow Canyon;
2. Recovery of 3 moorings and redeployment of 1 mooring in Chukchi Sea;
3. Recovery of ice-tethered moorings (approx. 12 hrs);
4. Deployment of the gravity corer at various shallow stations (JAMSTEC);
5. On ice physical sampling and ice motion beacon deployments (approx. 12 hrs);
6. Launch of radiosondes (underway operation).