

CARGO 4 CRUISE OUTLINE

Schedule of activities

Times in **bold** are critical

Two vans from Twin Cities. Drivers/riders are: Sandy Brovold, Robert Sterner, and Bridget Seegers, and Meghan Funke. Will meet Jo Fritz in Duluth.

Travel day -- Arrive from Twin Cities @ 5 PM. Unload. Conduct science meeting on board.

Day One: April 29

0700 Depart for CD-1 (allow time for weather buffer)

1300 CD-1 Activities

1. CTD profile
2. Water sampling for core chemistry and biology
 - Eight depths with Niskin rosette
 - Six net tows, two at each of three depth intervals
3. Collect water for three photosynthetron PI runs (3 depths, Niskins)
4. Collect water for grazing incubations (Niskins)

1800 Depart for WM

Cruise time 7.5 h (allow time for weather buffer)

Day Two: April 30

Arrive WM 0130

1. CTD profile
2. Collect water for bottle array, in situ grazing
3. Prepare in situ incubation bottles
4. Deploy bottle array **by 0430 (sunrise at 0454)**
5. Collect water for core chemistry and biology
 - Eight in situ incubation depths
 - Six net tows, two at each of three depth intervals

With rest of daylight time before retrieving bottle array, finish processing WM core chemistry and biology samples, opportunistic sampling in and around WM, including zooplankton net tows.

1930, Day Two, retrieve bottle array (**sunset at 1916**)

0130 Depart WM for CD-1. Cruise time 7.5 h (allow time for weather buffer)

While underway, process bottle array incubations, perform other opportunistic sampling.

Day Three: May 1

0830 Arrive CD-1

1. CTD profile
2. Collect water for St. Paul grazing incubations
3. Net tows

Cruise time 4 hr

Time for additional sampling while inbound.

Home by 1700, Day 3

Science Crew Primary Duties

Robert Sterner – Rad van bottle array and PI curves

Sandy Brovold – Process chemistry samples, assist in rad van as needed

Bridget Seegers – Grazing studies

Meghan Funke – Assist w/ chemistry sampling, zooplankton tows

Jo Fritz – Assist w/ grazing studies, zooplankton tows