

Halifax Harbour Water Quality Monitoring Project

Weekly Summary #84

Survey Date: 24 January 2006
Nature of Survey: Coliform Survey
Report File (this document): HHWQMP_report084_060124.doc
Data File: HHWQMP_data084_060124.xls

Data Return:
 Profile: 94%
 Bacteria: 93%
 Chemical: na
Overall: 93%

Sample Notes:

Sites B2 and HC were not sampled due to weather

QA/QC samples:

Fecal Coliform (CFU/100ml)

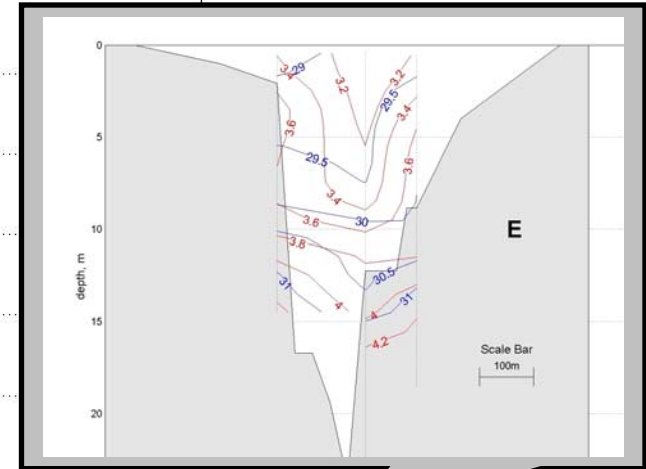
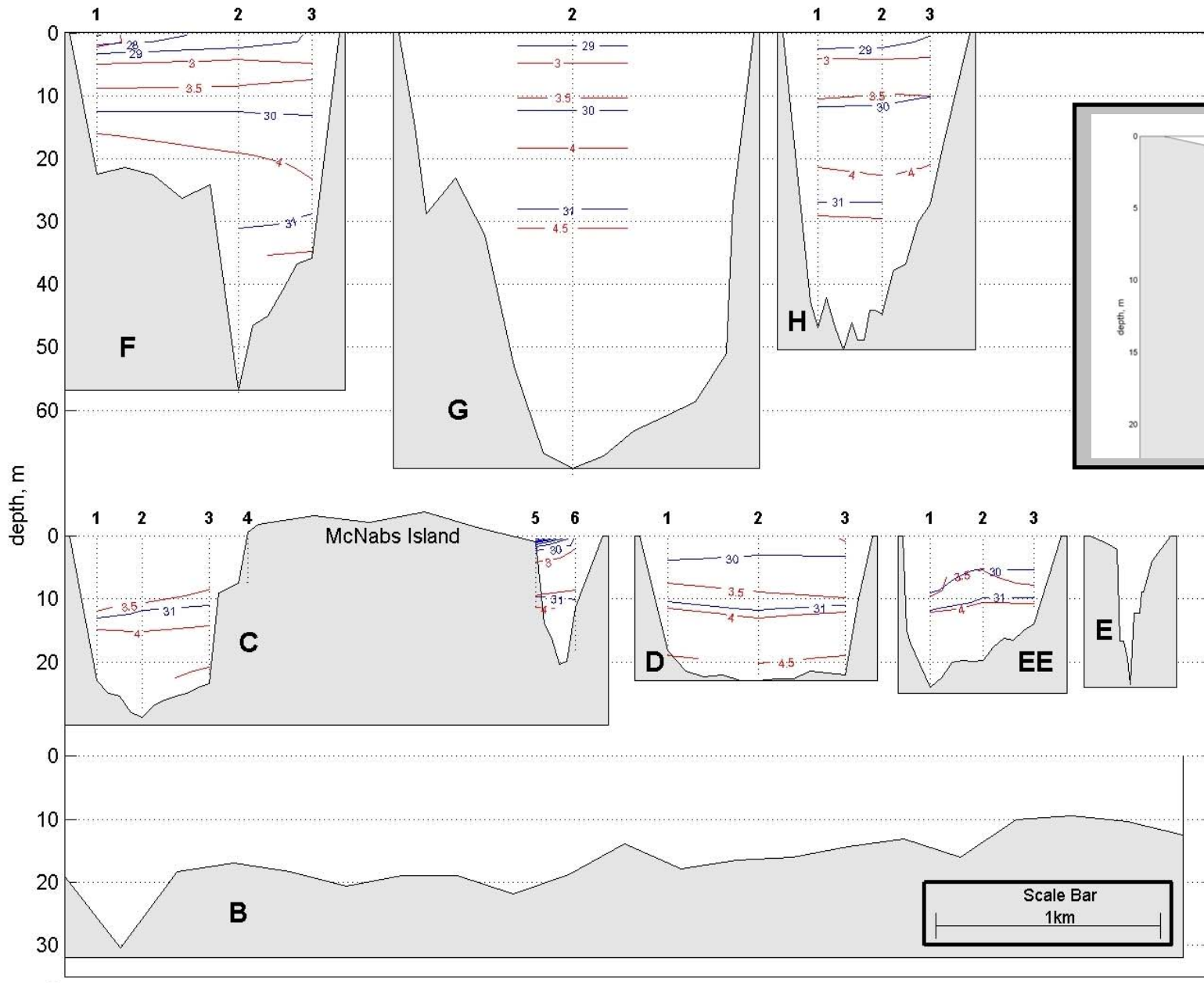
Site	BRB-10m	E2-1m	H2-1m	F1-10m
Reference	200	17	6	54
QA/QC	190	39	8	62

Comments:

General: In general the Harbour water is slightly more saline than last week, in spite of light precipitation in the day before sampling. The exception is a layer of fresher water at the western end of section F. The surface water has cooled slightly however the bottom water, south of the Narrows, is about 0.5 degrees warmer than last week, suggesting an influence of deeper shelf water. There is a relatively uniform water level surge, greater than 10 cm in magnitude, throughout the sampling day. The local winds are light, so the surge is likely caused by shelf wide response to larger weather patterns. The fecal coliform values are lower than those observed last week, but are relatively high in a distribution centered on the Inner Harbour sections of EE and D. There is only a hint of two layer flow in the concentrations at section F.

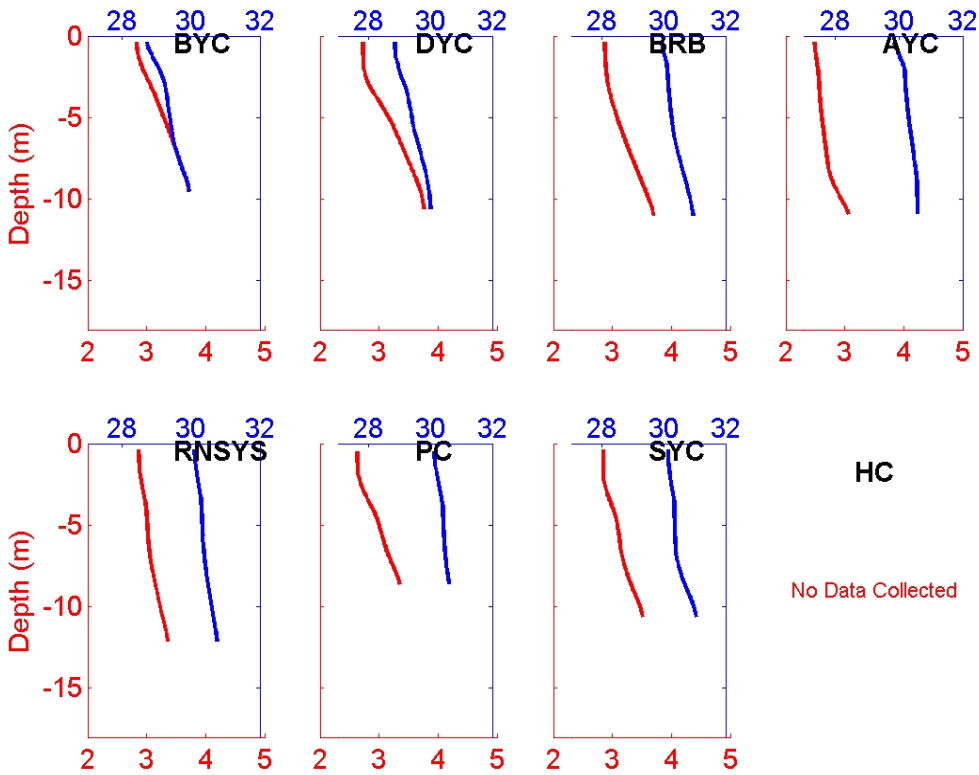
Chlorophyll: The profile maximum fluorescence levels vary only between $<1 - 2 \text{ mg/m}^3$, throughout the Harbour. The maximum values are systematically slightly higher in the Basin than in the outer harbour. This is similar to last week and the values are near typical winter “background” levels in the Harbour

Dissolved Oxygen: The dissolved oxygen levels are similar to those of last week. The data indicate that the surface values everywhere are somewhat greater than 8.0 mg/L. The DO in the deep Basin water continues to drop, and is at about 4.0 mg/L. South of the Narrows, the DO profiles are quite uniform with slightly higher values at the surface. Minimum levels are everywhere between approximately 7.8 and 8.2 mg/L. The Basin deep water represents the only values below the applicable use-specific guidelines this week. The DO data is not ground-truthed and absolute values are questionable (see DO discussion in QR#1).



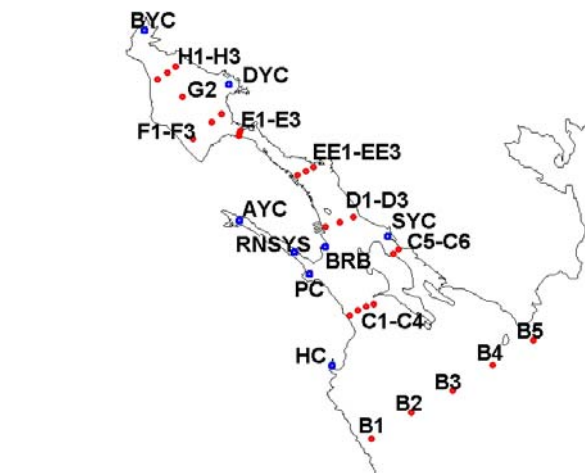
Unless otherwise labeled:
 - salinity contour interval is 1 PSU
 - temperature contour interval is 1°C.

Yacht Clubs



HC

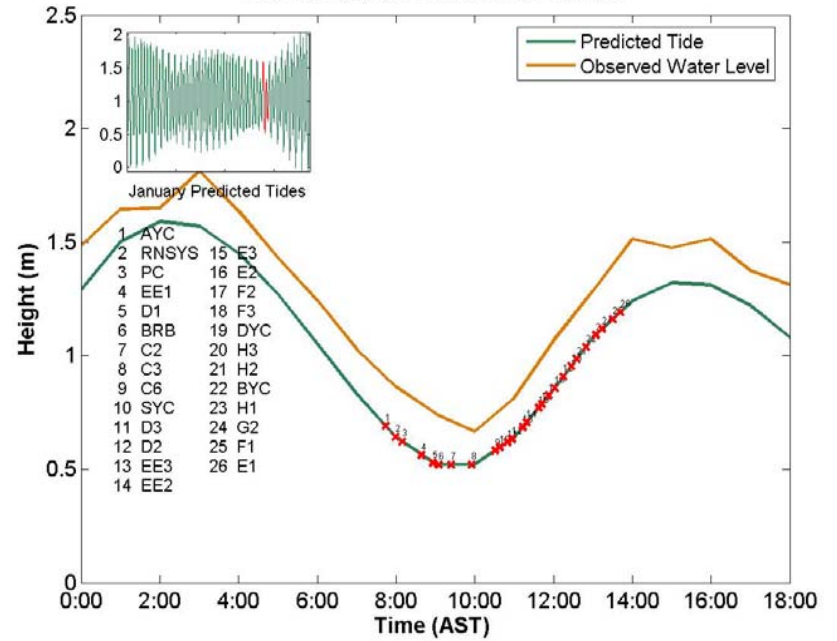
No Data Collected



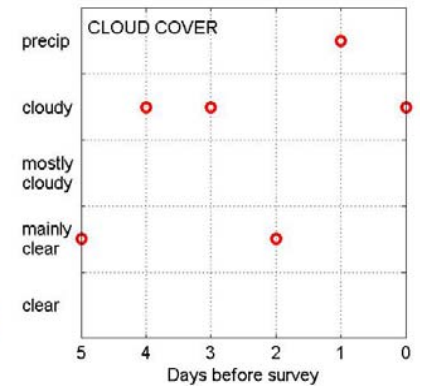
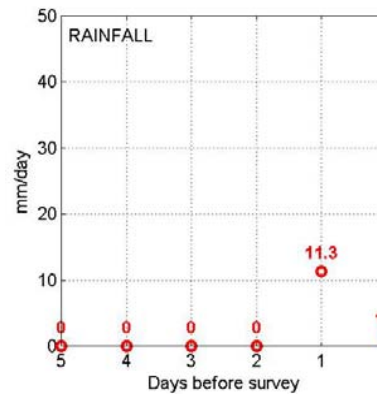
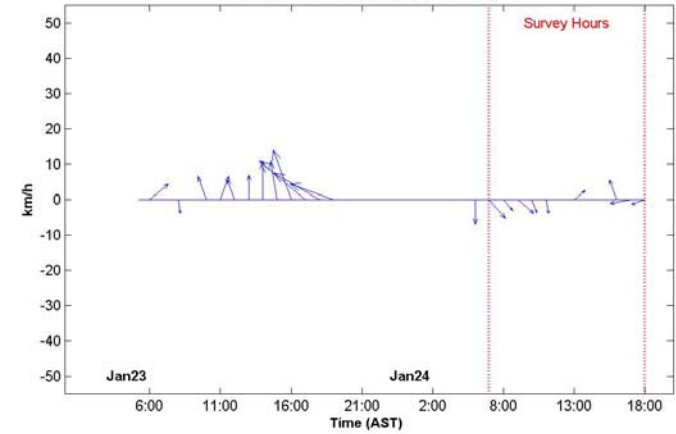
Salinity in PSU Temperature in °C

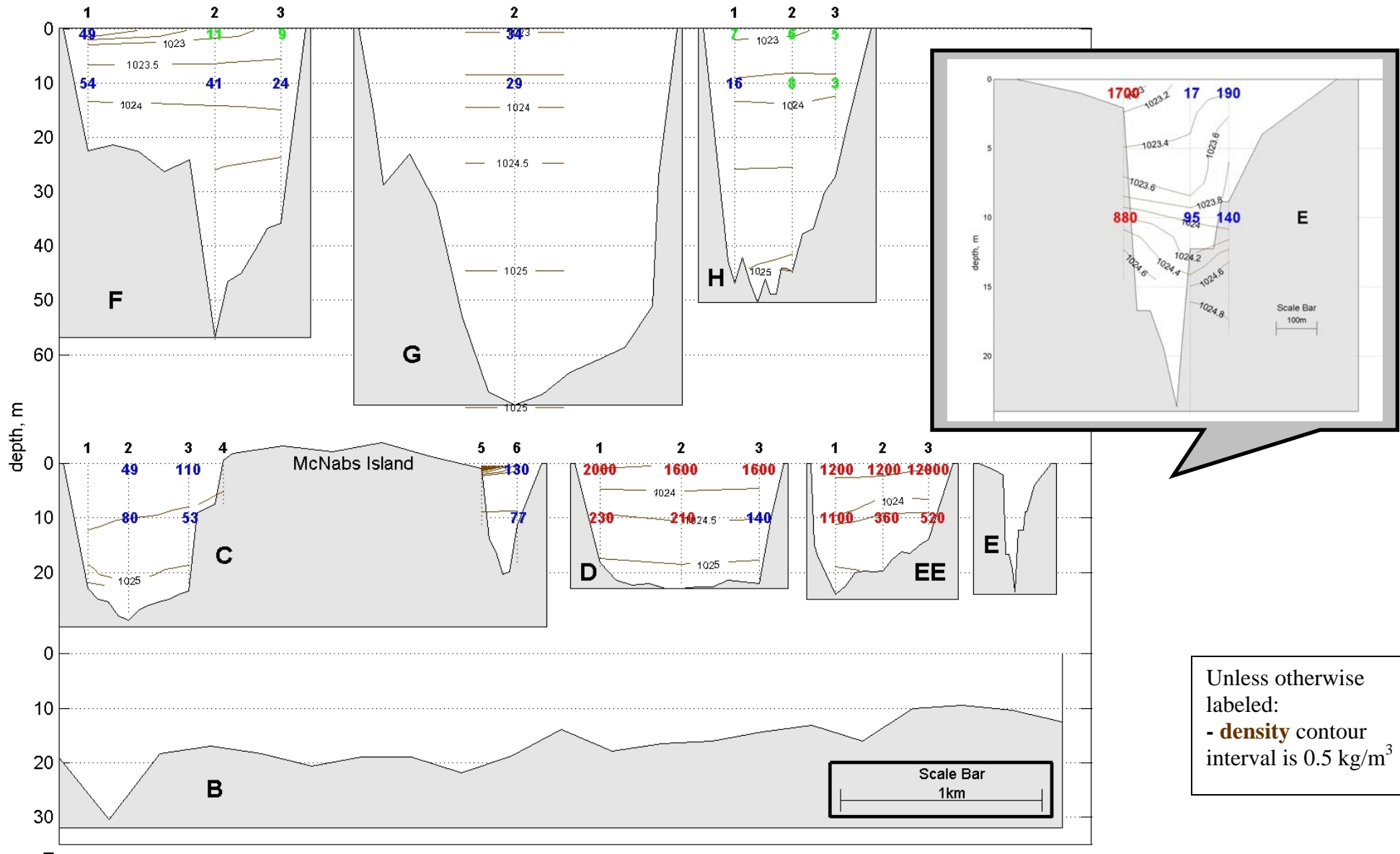
Weather data collected at the Shearwater Airport

Halifax Harbour Water Level - Jan24

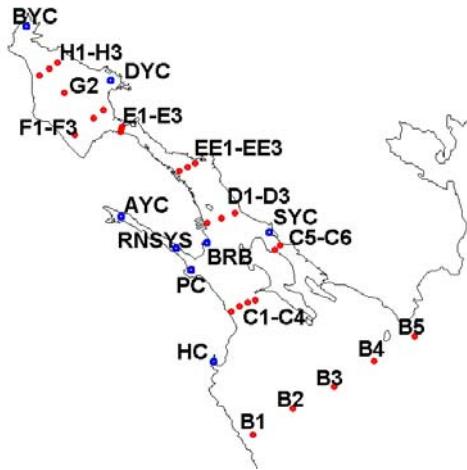
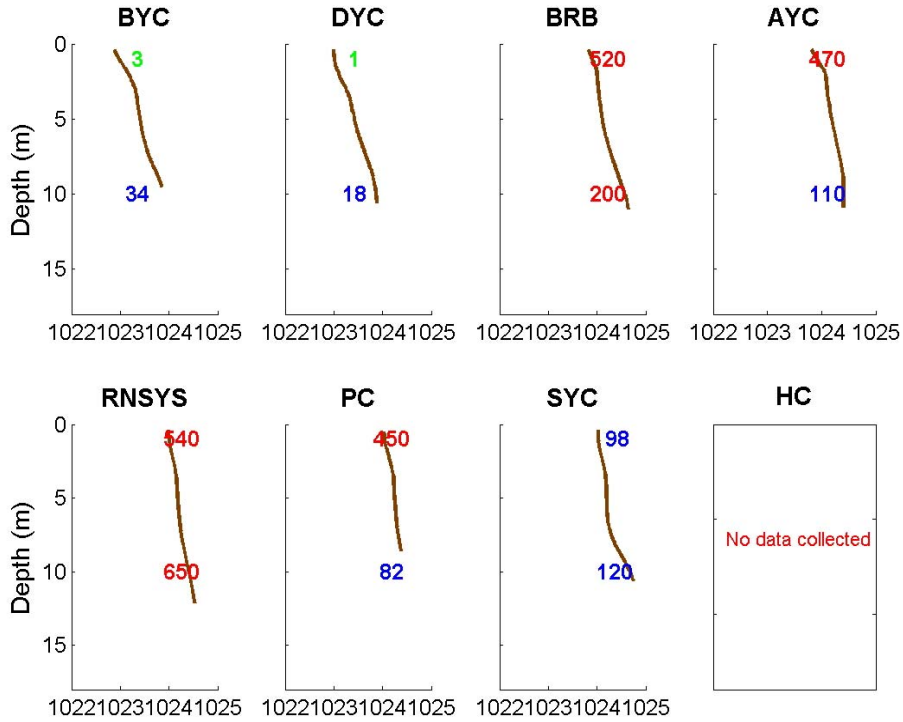


Wind Speed and Direction at Shearwater Airport



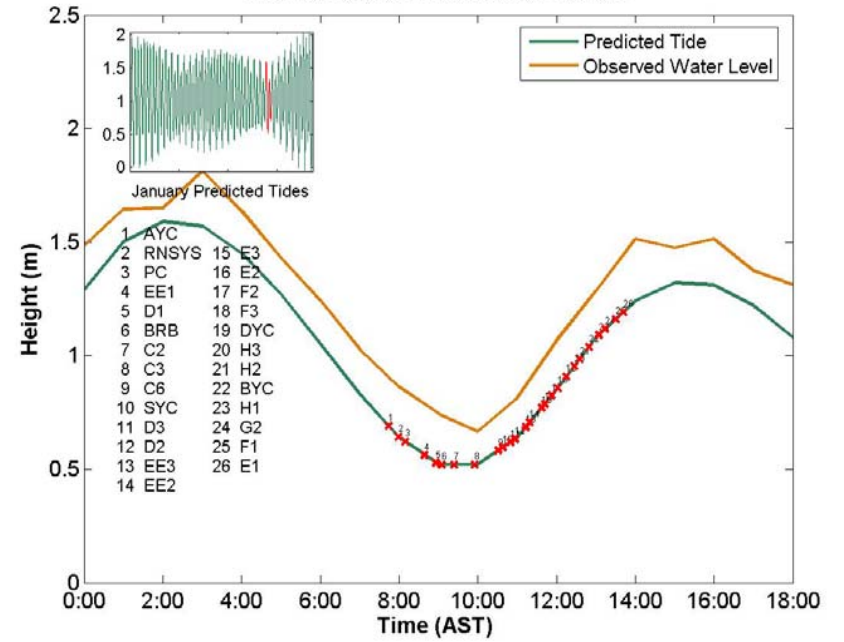


Yacht Clubs

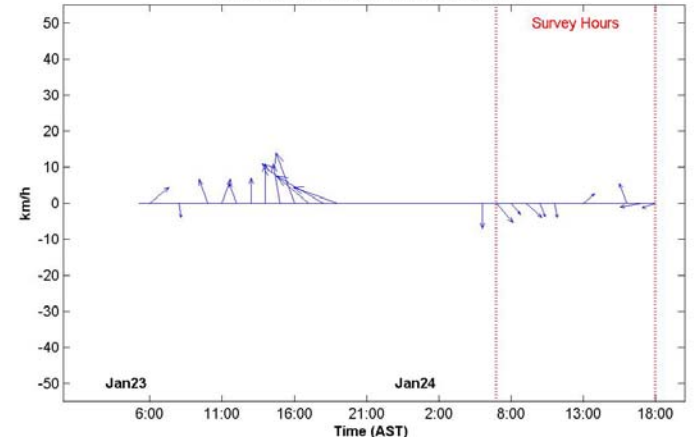


Weather data collected at the Shearwater Airport

Halifax Harbour Water Level - Jan24

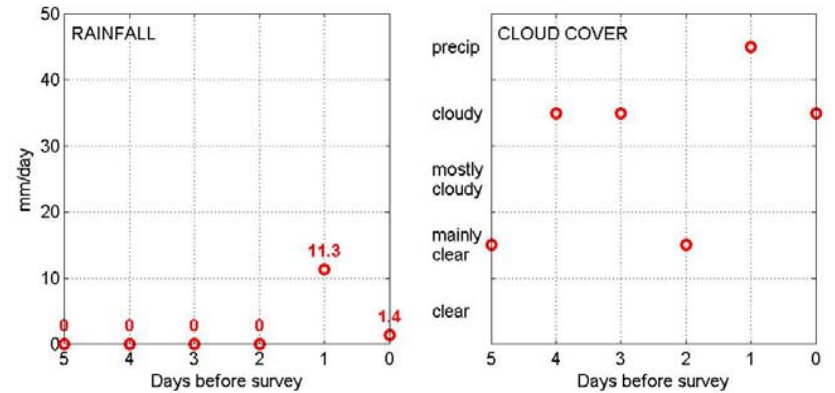


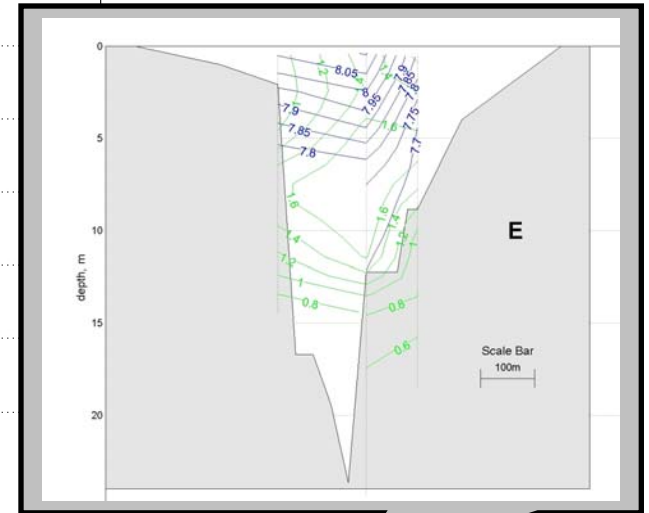
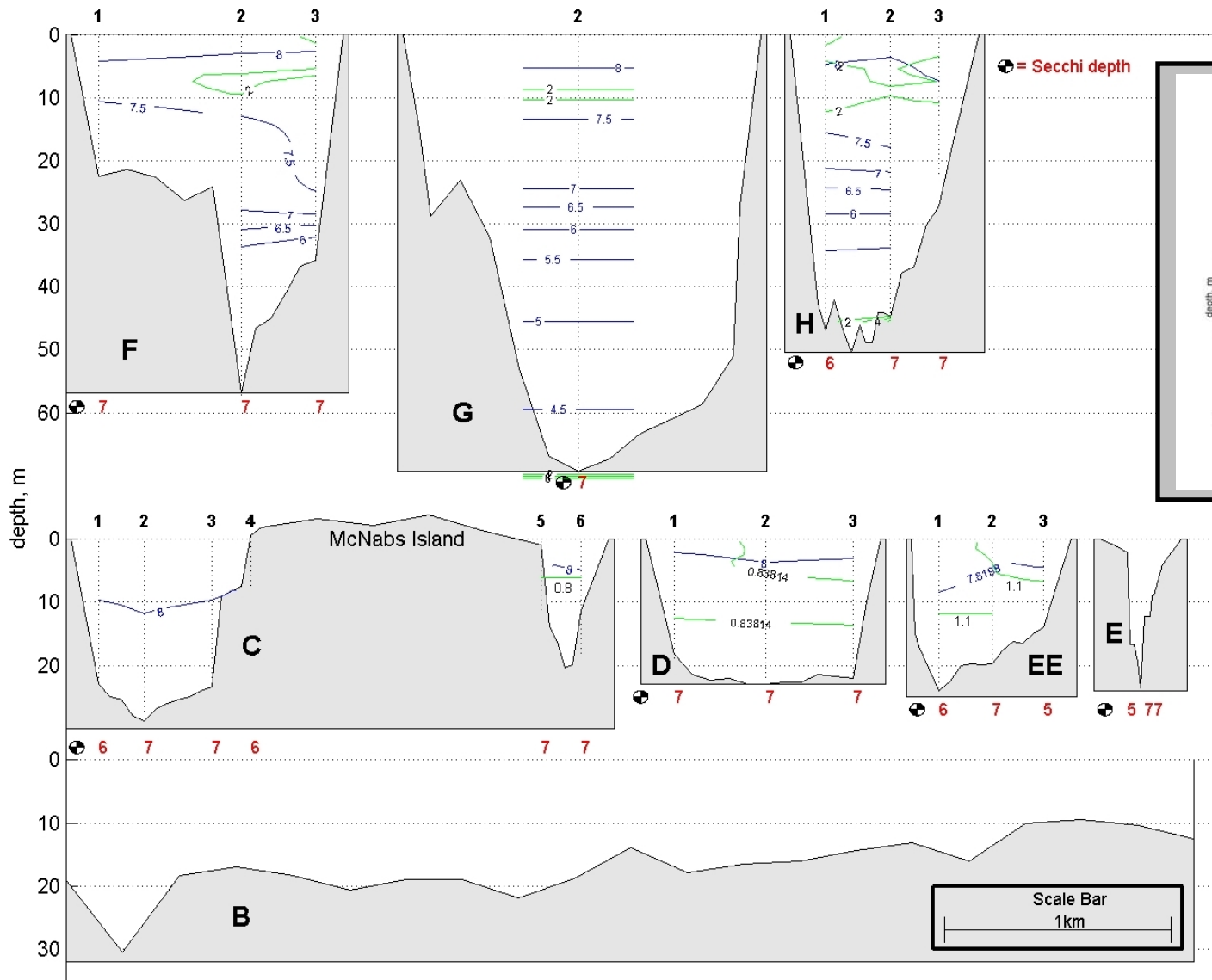
Wind Speed and Direction at Shearwater Airport



Potential Density in kg/m³

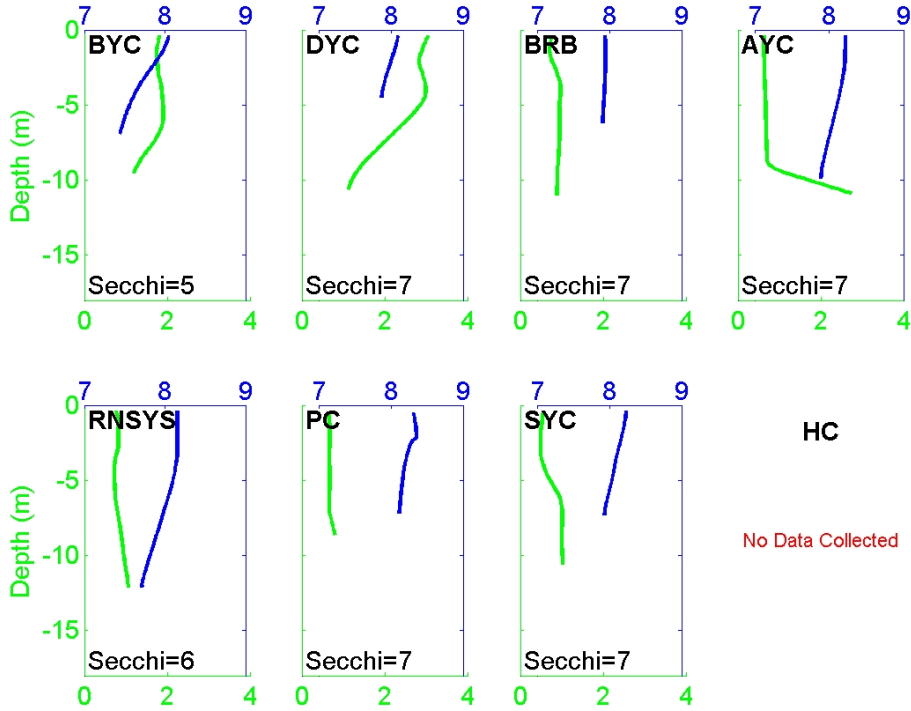
Fecal coliform: above swimming limit (200 cfu/100mL)
 above shellfish limit (14 cfu/100mL)
 below limits





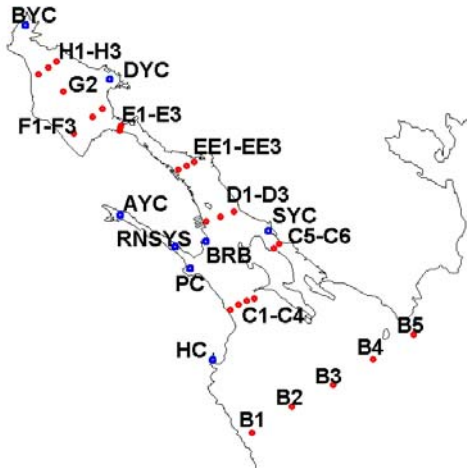
Unless otherwise labeled:
 - **dissolved oxygen** contour interval is 1 mg/L
 - **chlorophyll** contour interval is 2 mg/m³.

Yacht Clubs



HC

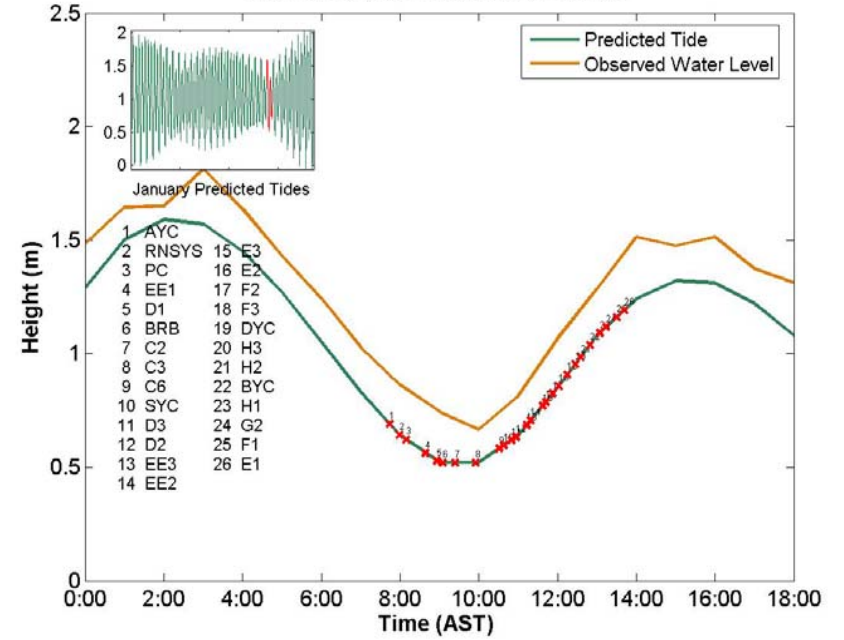
No Data Collected



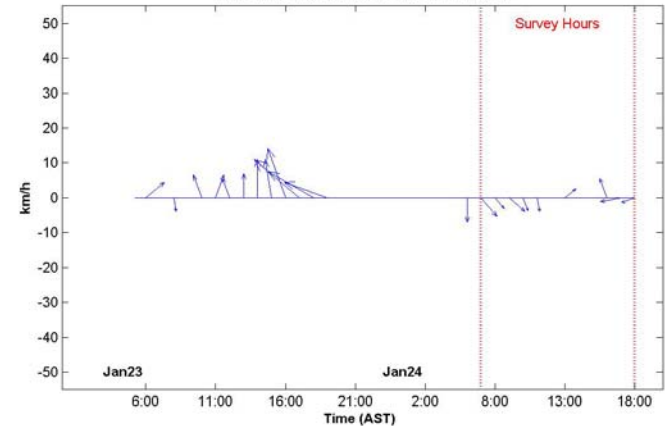
DO in mg/L

Chlorophyll in mg/m³

Halifax Harbour Water Level - Jan24



Wind Speed and Direction at Shearwater Airport



Weather data collected at the Shearwater Airport

