

Halifax Harbour Water Quality Monitoring Project

Weekly Summary #90

Survey Date: 07 March 2006
Nature of Survey: Coliform Survey
Report File (this document): HHWQMP_report090_060307.doc
Data File: HHWQMP_data090_060307.xls

Data Return:
 Profile: 97%
 Bacteria: 96%
 Chemical: na
Overall: 97%

Sample Notes:

Site DYC was frozen and not sampled.

An alternate BYC site was sampled at the ice edge. Location: 44° 43.035 N, 63° 39.852' W

The site for the fourth QA/QC sample was not documented.

QA/QC samples:

Fecal Coliform (CFU/100ml)

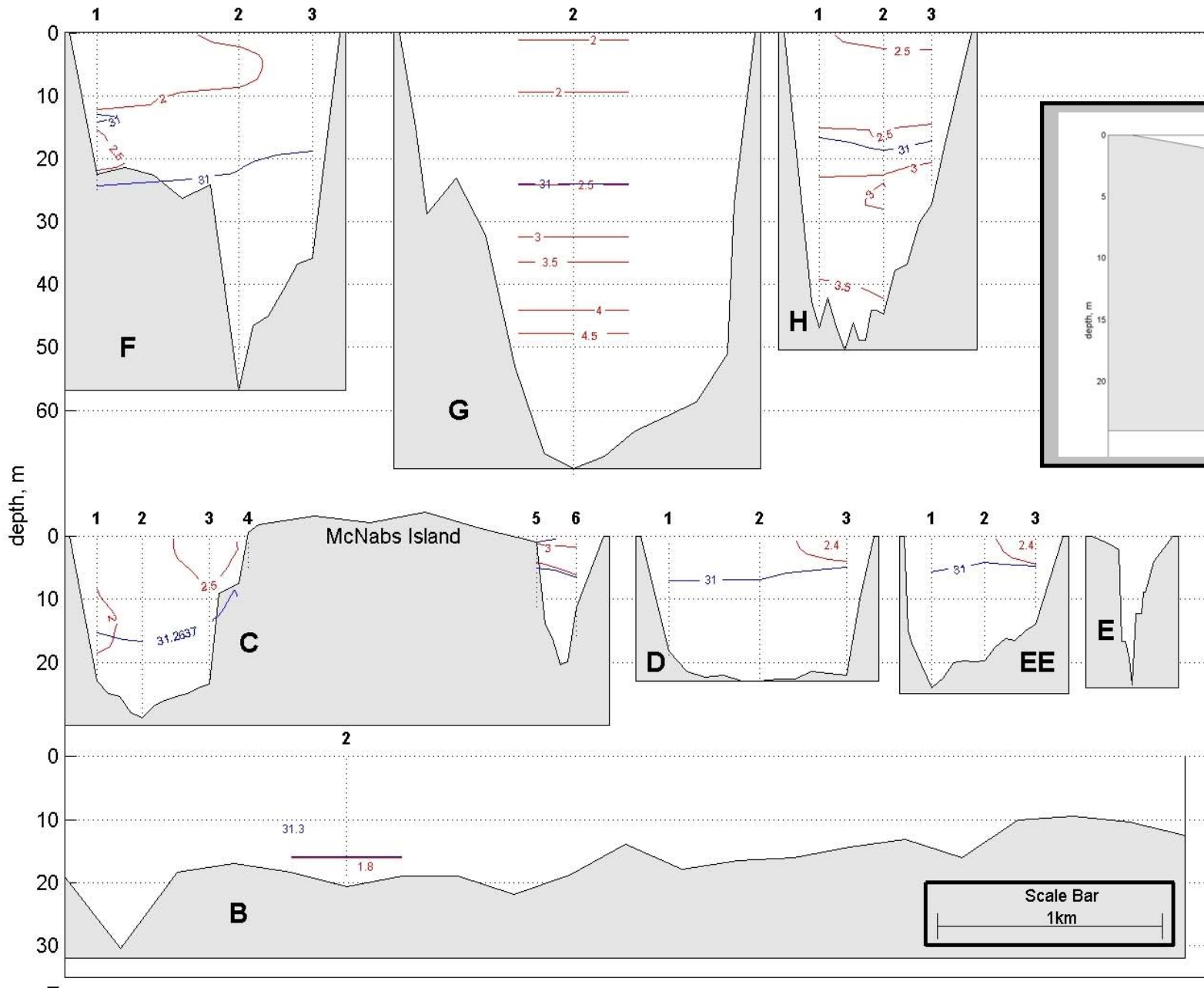
Site	D2-10m	H3-1m	SYC-1m
Reference	270	0	3
QA/QC	230	0	5

Comments:

General: The Harbour is relatively unstratified. There has been no appreciable precipitation or melting in the previous week. There is relatively dense water at bottom of narrows so there is a possibility of some up Harbour flow of bottom water into mid depths of Basin. The fecal coliform values are highest in the surface samples in the Inner Harbour. The values in the Basin are relatively low but are higher in 10 m samples. This distribution is unremarkable and seems to be typical of relatively unstratified conditions where little estuarine or meteorologically induced circulation occurring.

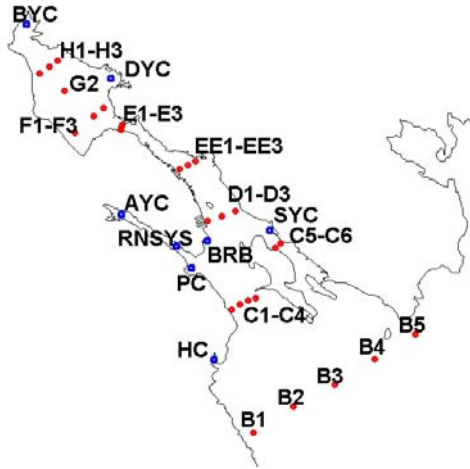
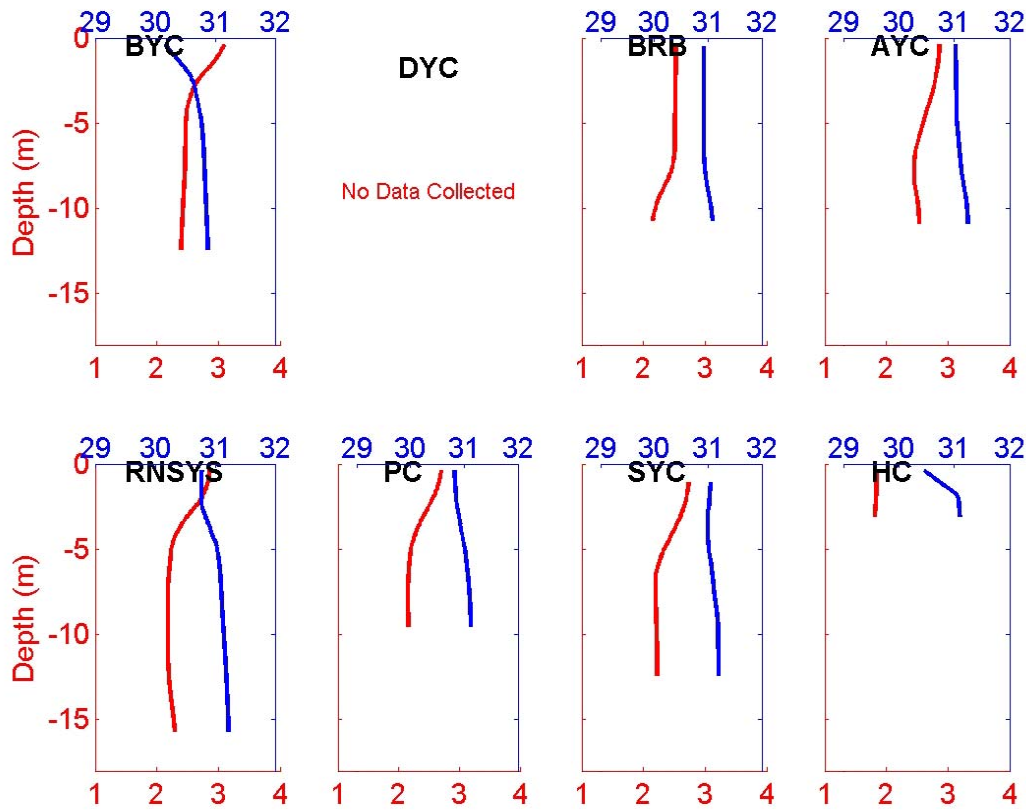
Chlorophyll: The elevated fluorescence values noted last week have continued to increase. It appears that the spring bloom has begun. There is a maximum fluorescence at about 10m throughout the Harbour. The highest values are in the Basin, where values > 30 mg/m³ occur. These values decrease somewhat going out of the Harbour, to a maximum of about 16 mg/m³ at site B2.

Dissolved Oxygen: The dissolved oxygen levels are somewhat higher than last week. The data indicate that the surface values everywhere in the Harbour are between 9 and 10 mg/L. The DO values in the bottom water in the Basin are slightly higher than to last week at just over 3.5 mg/L. This indicates that there may have been some limited exchange of bottom water as well as intermediate water. 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).



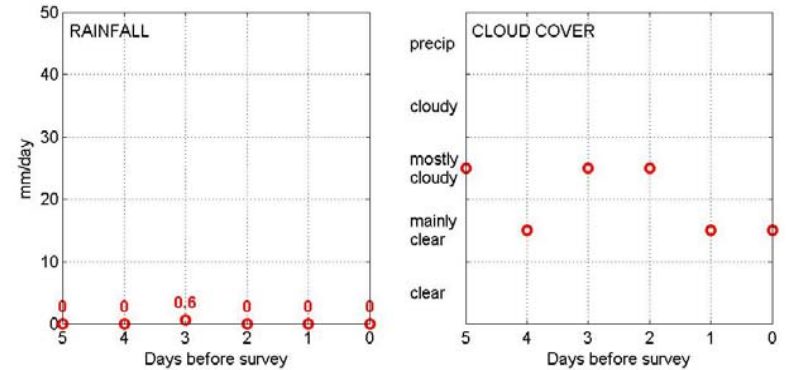
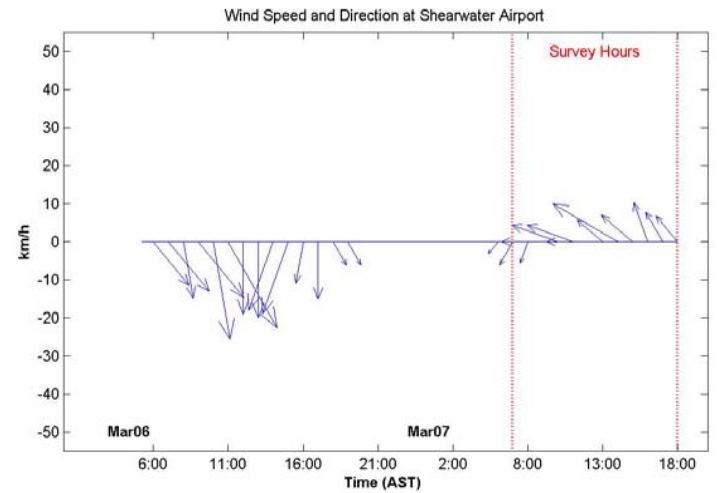
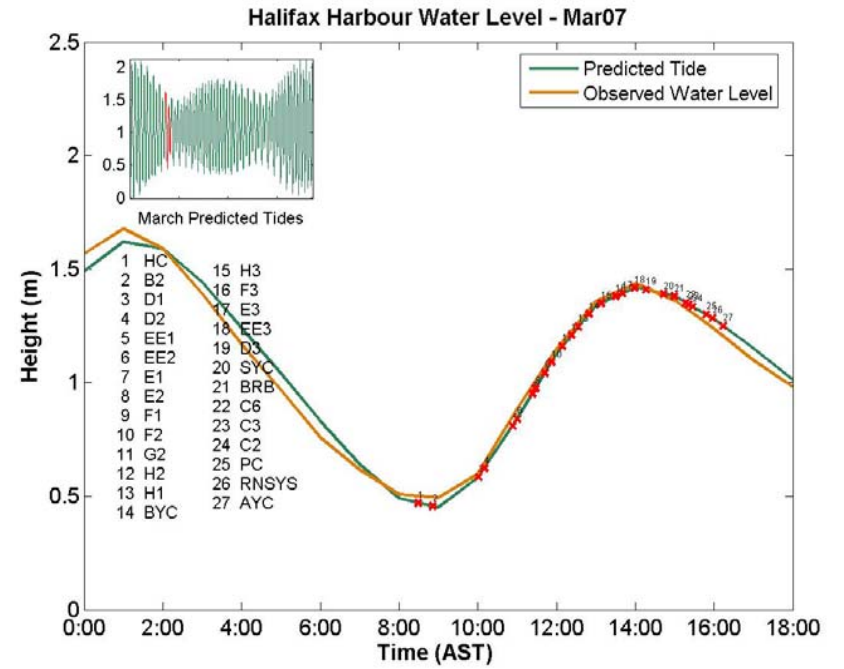
Unless otherwise labeled:
 - salinity contour interval is 1 PSU
 - temperature contour interval is 1°C.

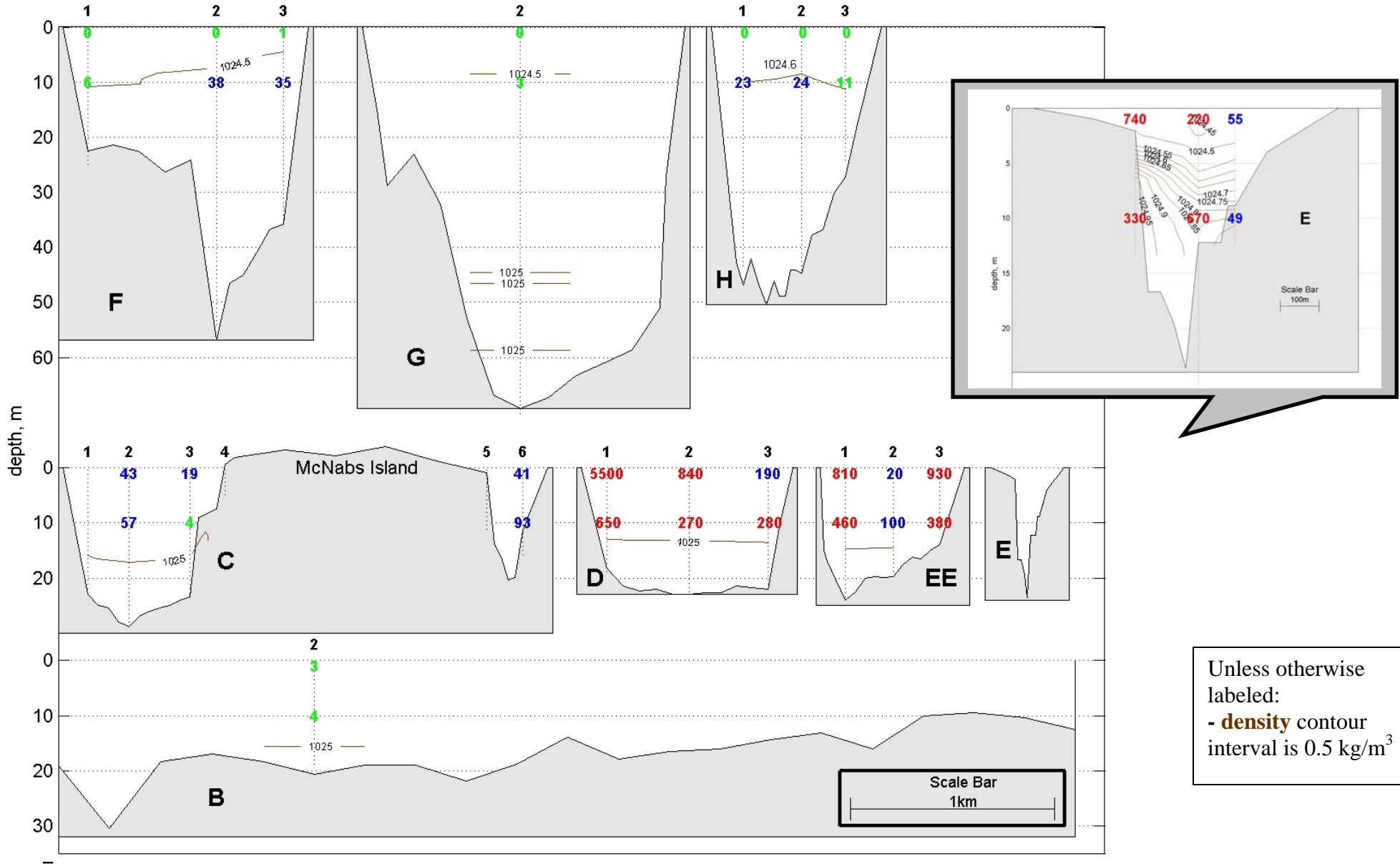
Yacht Clubs



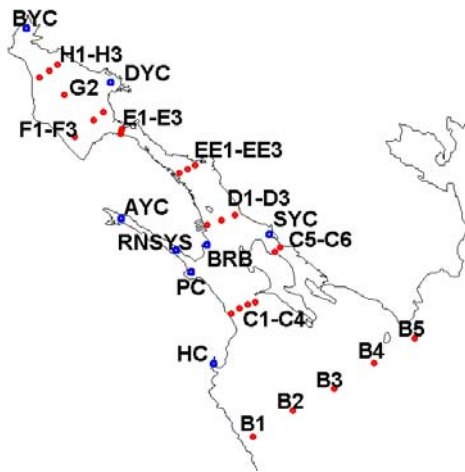
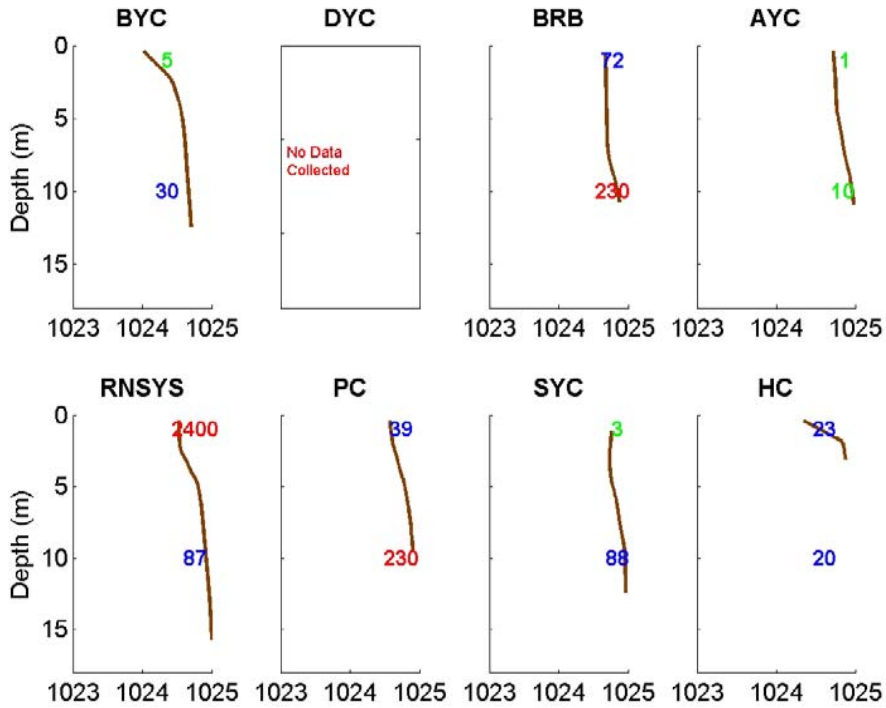
Salinity in PSU Temperature in °C

Weather data collected at the Shearwater Airport



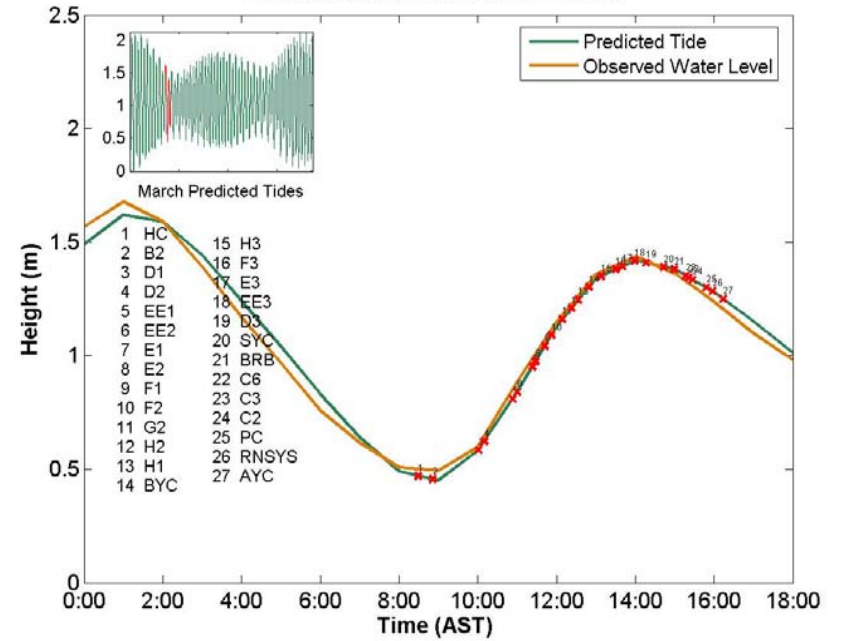


Yacht Clubs

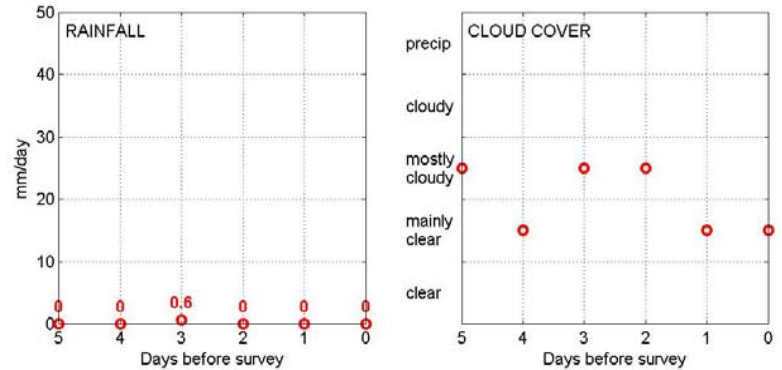
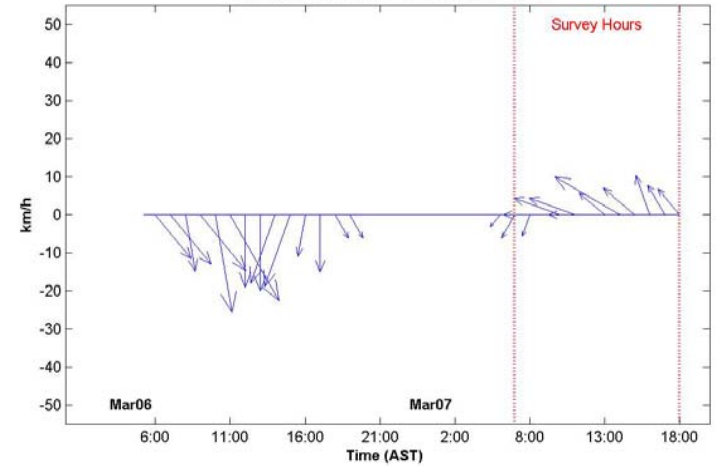


Weather data collected at the Shearwater Airport

Halifax Harbour Water Level - Mar07

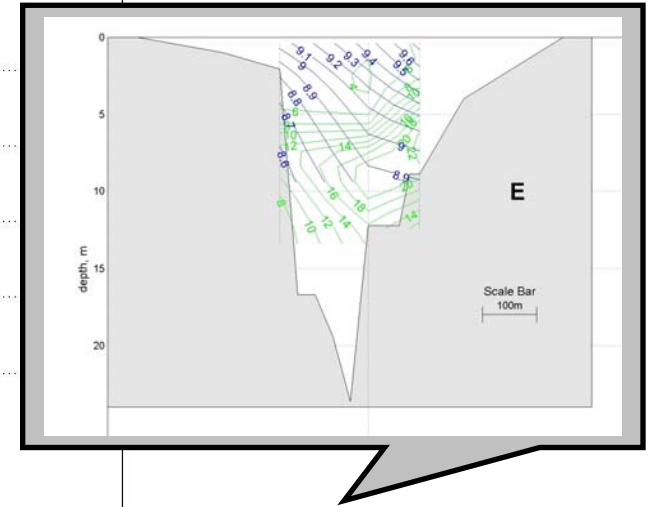
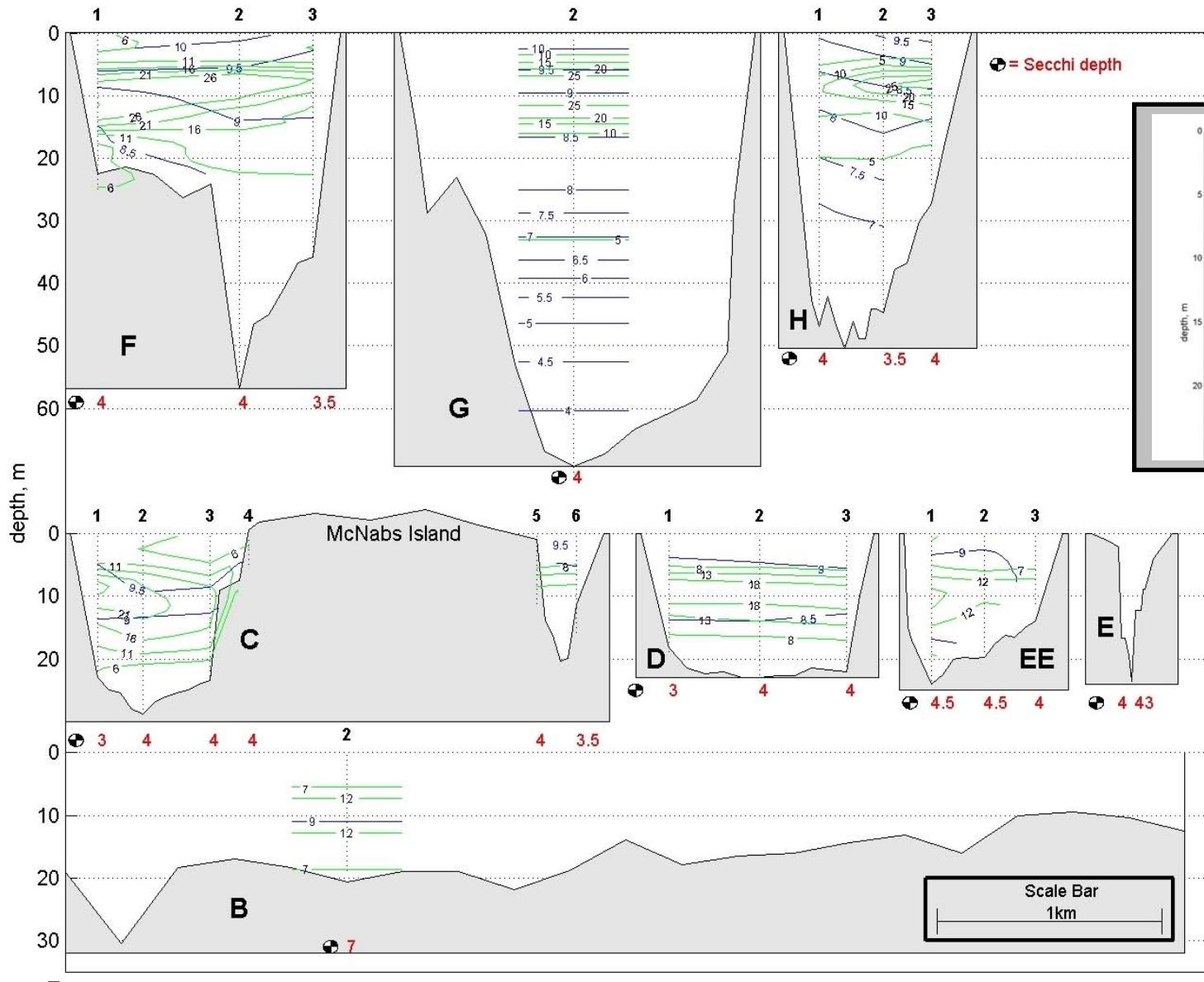


Wind Speed and Direction at Shearwater Airport



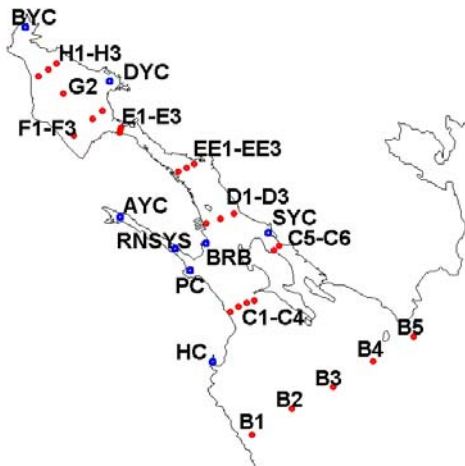
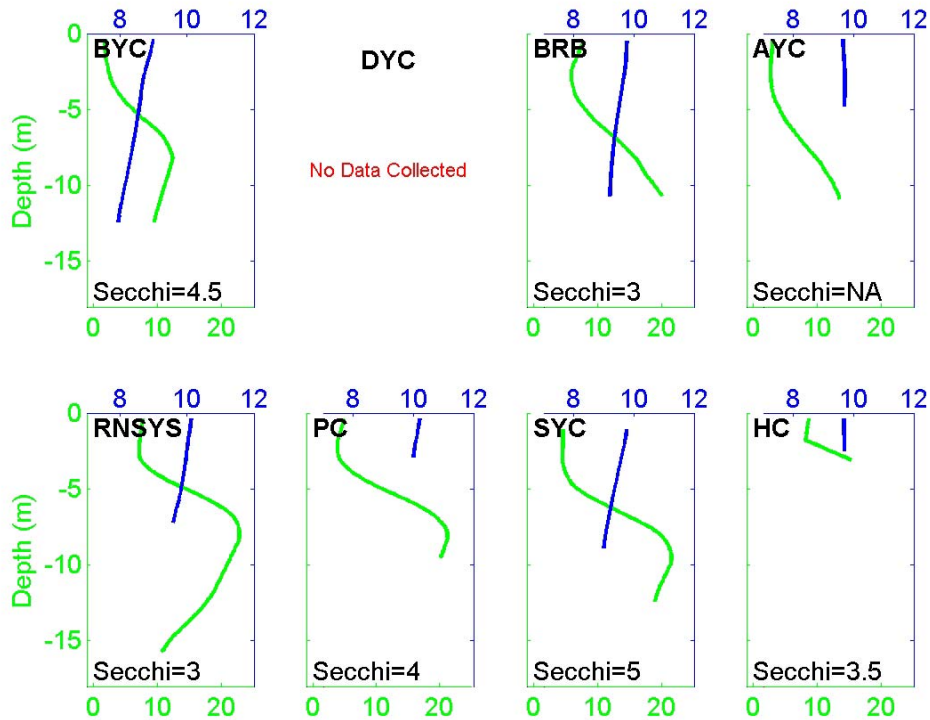
Potential Density in kg/m^3

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 5 mg/m³.

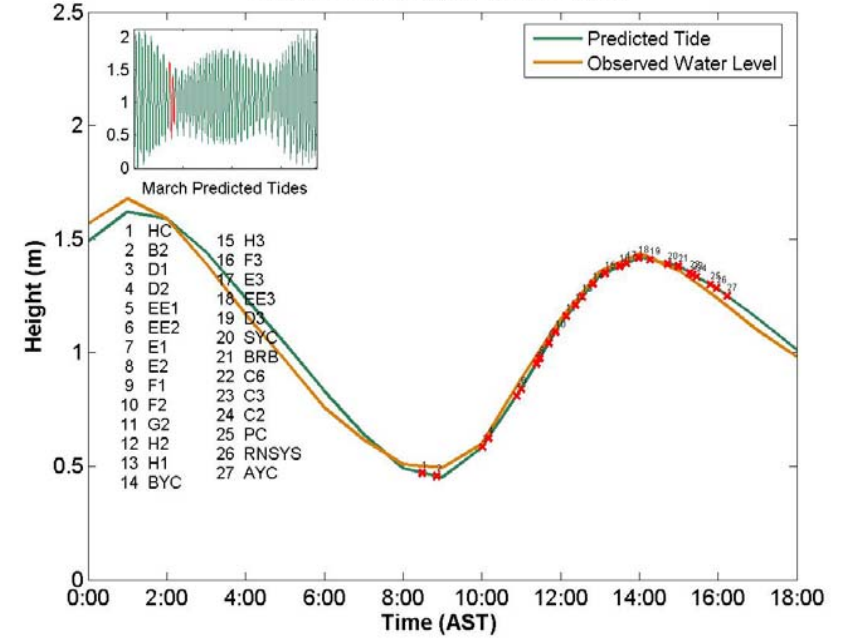
Yacht Clubs



Weather data collected at the Shearwater Airport

DO in mg/L Chlorophyll in mg/m³

Halifax Harbour Water Level - Mar07



Wind Speed and Direction at Shearwater Airport

