Halifax Harbour Water Quality Monitoring Project
Weekly Summary #34

Survey Date: 08 Feb 05
Nature of Survey: Coliform Survey
Report File (this document): HHWQMP_report034_050208.doc
Data File: HHWQMP_data034_050208.xls

Data Return:

Profile:	90%
Bacteria:	89%
Chemical:	na
Overall:	**90%**

Sample Notes:

Stations: BYC, DYC and HC were not sampled due to ice.

A CTD profile was taken at alternate site BYC-Alt at ice edge. Coordinates: 44.7180N, 63.6656 W.

CTD profile data is missing at site C4. The reason is uncertain, the instrument was deployed, but there was no record on the instrument.

There is a spike (- 1.7 to +15 mg/l) in the DO profile at site F2, between 45 and 50 m depth. Other sensors are not obviously affected.

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QA/QC samples:

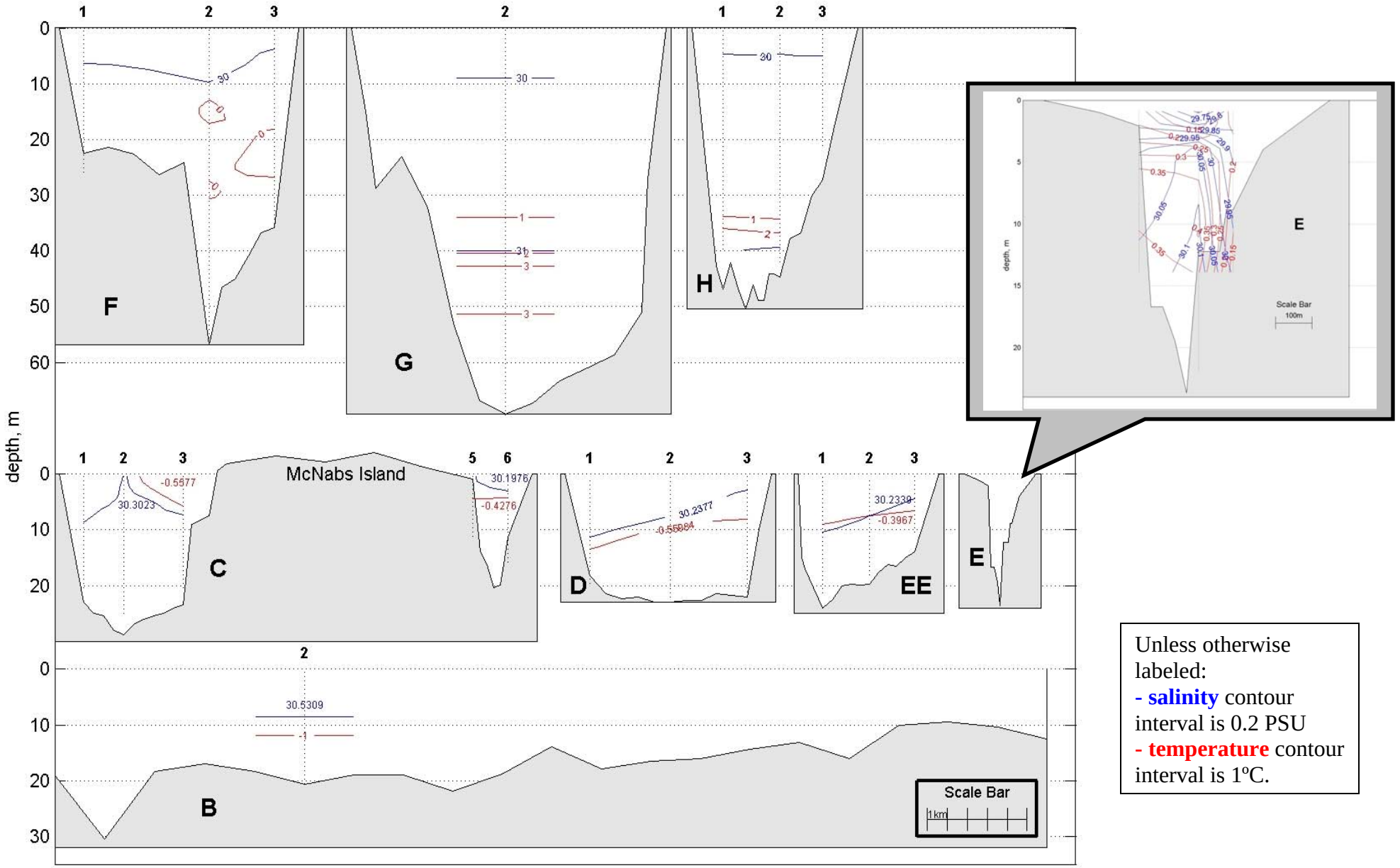
Fecal Coliform (CFU/100ml)

Site	H1-1m	H1-10m	F3-10m	F3-1m	EE3-10m	SYC-1m
Reference	2	23	280	6	320	5
QA/QC	4	16	250	12	320	13

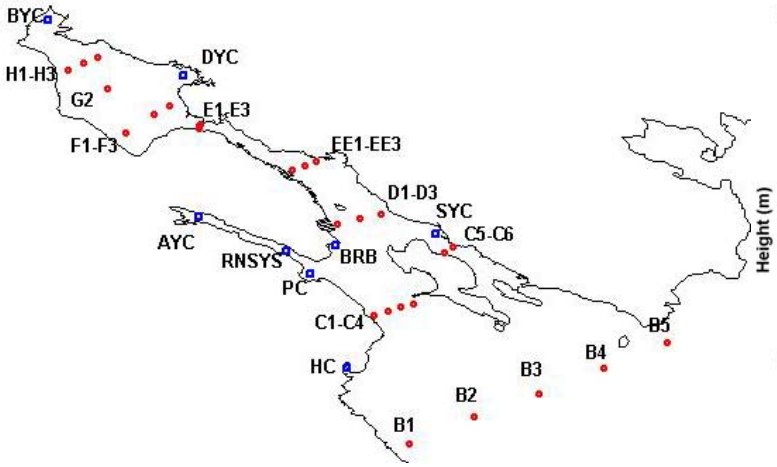
Comments:

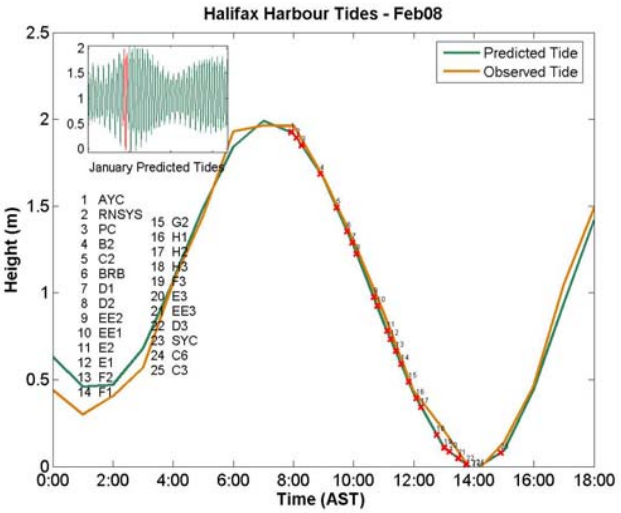
Dissolved Oxygen: Surface water (<20 m) DO ranges from 9.5- 10.0 mg/L throughout the Harbour with the lower values occurring in the Basin. No guidelines are exceeded except in the bottom water of Bedford Basin where the observed minimum DO has come up slightly to 2.2 mg/L.

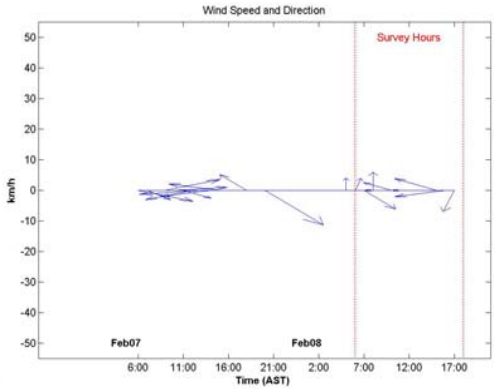
General: This represents a period of relatively calm, dry weather with above freezing temperatures on sampling day (6° C at start of sampling). Overall the Harbour is very uniform from top to bottom in all parameters, with little horizontal gradient. The exception is the local stratification at the head of the Basin (potential meltwater effect), evident at BYC and the H transect, and the water column structure at the E transect caused by a lens of slightly warmer saltier water at about a 10M water depth (potentially the Tufts Cove generating station cooling water plume). The elevated coliform levels are quite concentrated in the Inner Harbour (D and EE transects). This may reflect a period of relatively low flushing, having little wind or freshwater contribution, with tides alone being the major contribution to mixing.

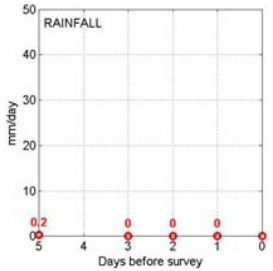


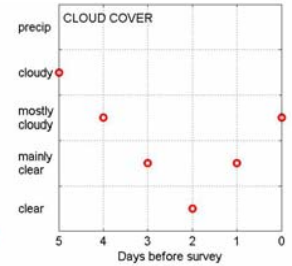
Unless otherwise labeled:
- **salinity** contour interval is 0.2 PSU
- **temperature** contour interval is 1ºC.



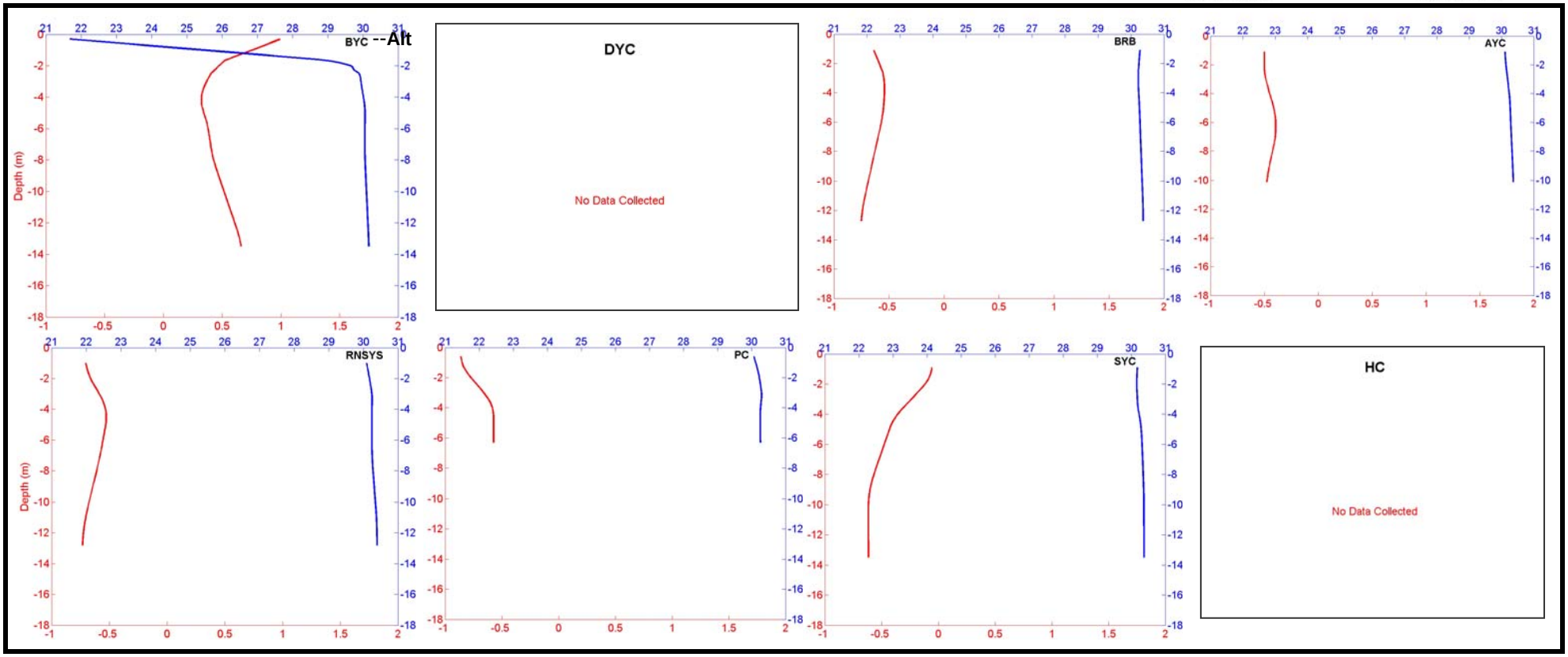




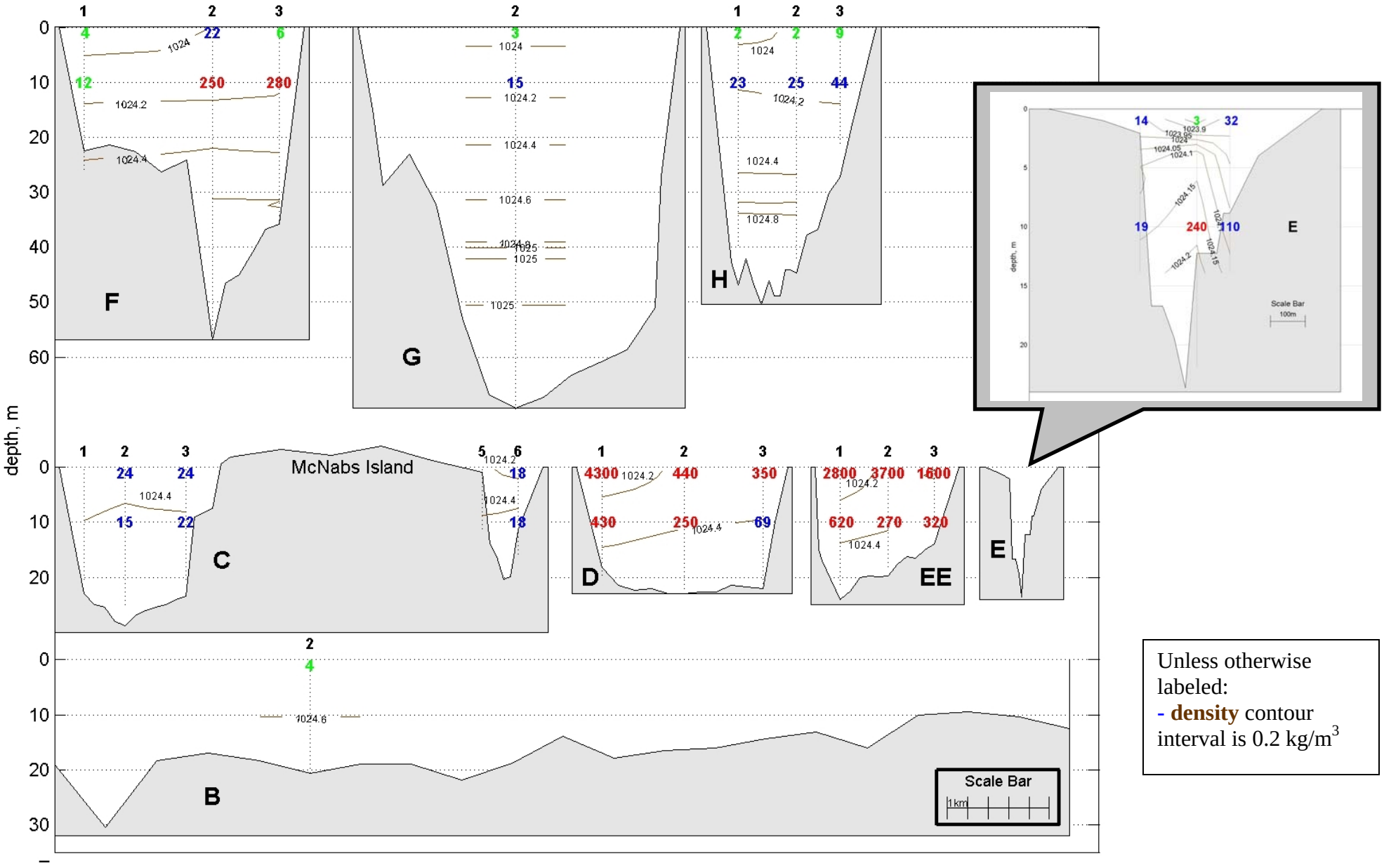




Yacht Clubs

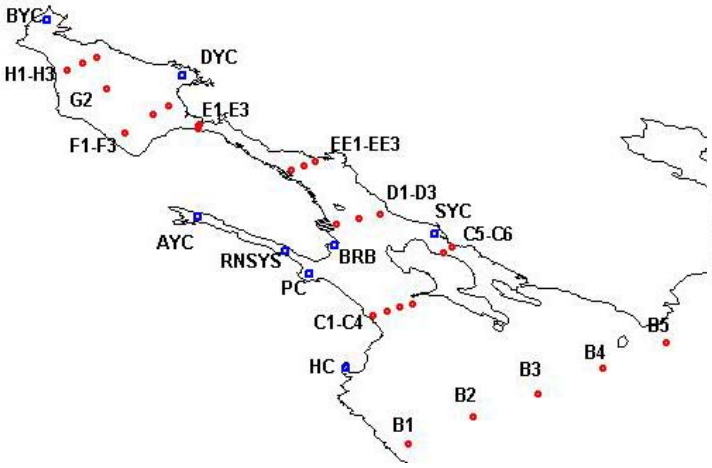


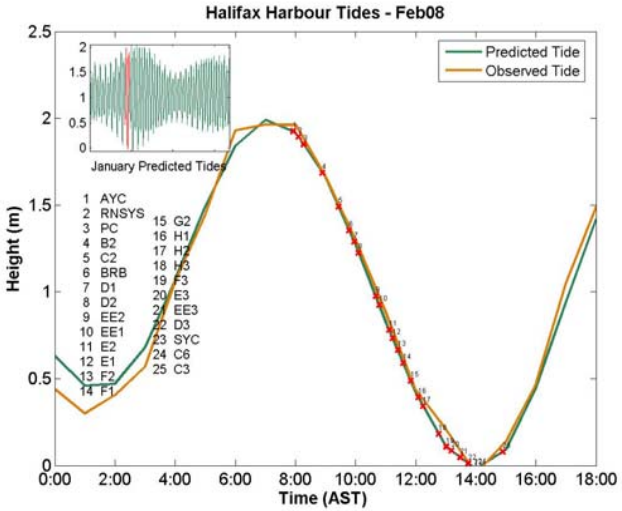
Salinity in PSU **Temperature in ^{o}C**

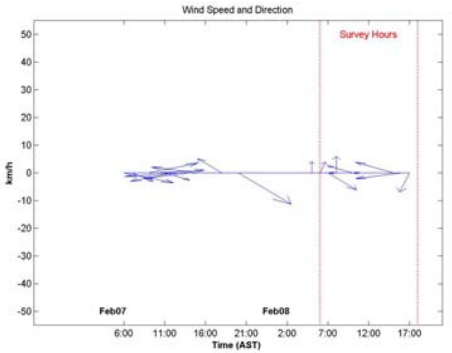


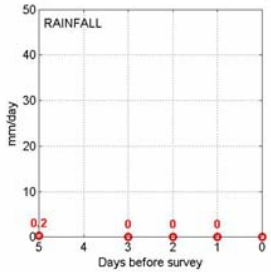
Unless otherwise labeled:
- **density** contour interval is 0.2 kg/m^3

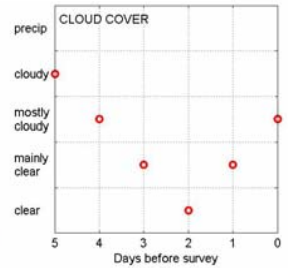
Density in kg/m^3 **Fecal coliform:** above swimming limit (200 cfu/100mL)
above shellfish limit (14 cfu/100mL)
below limits



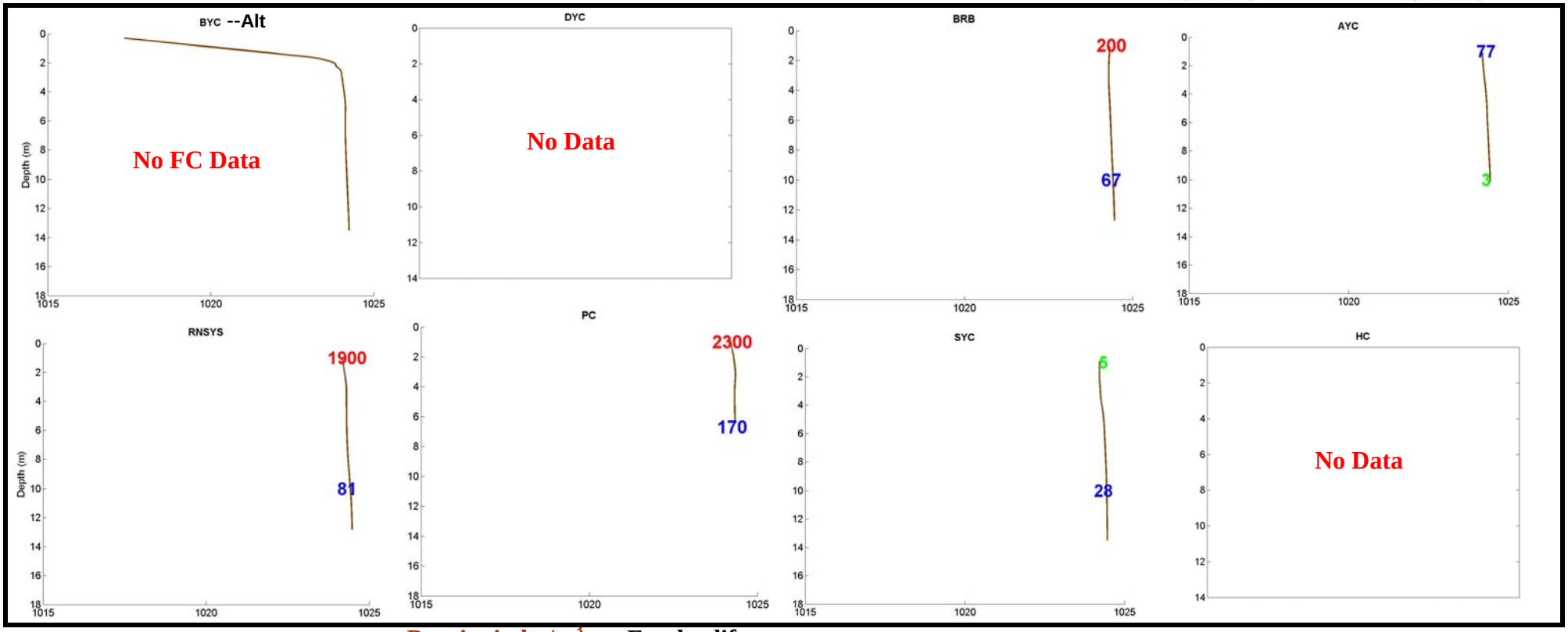








Yacht Clubs



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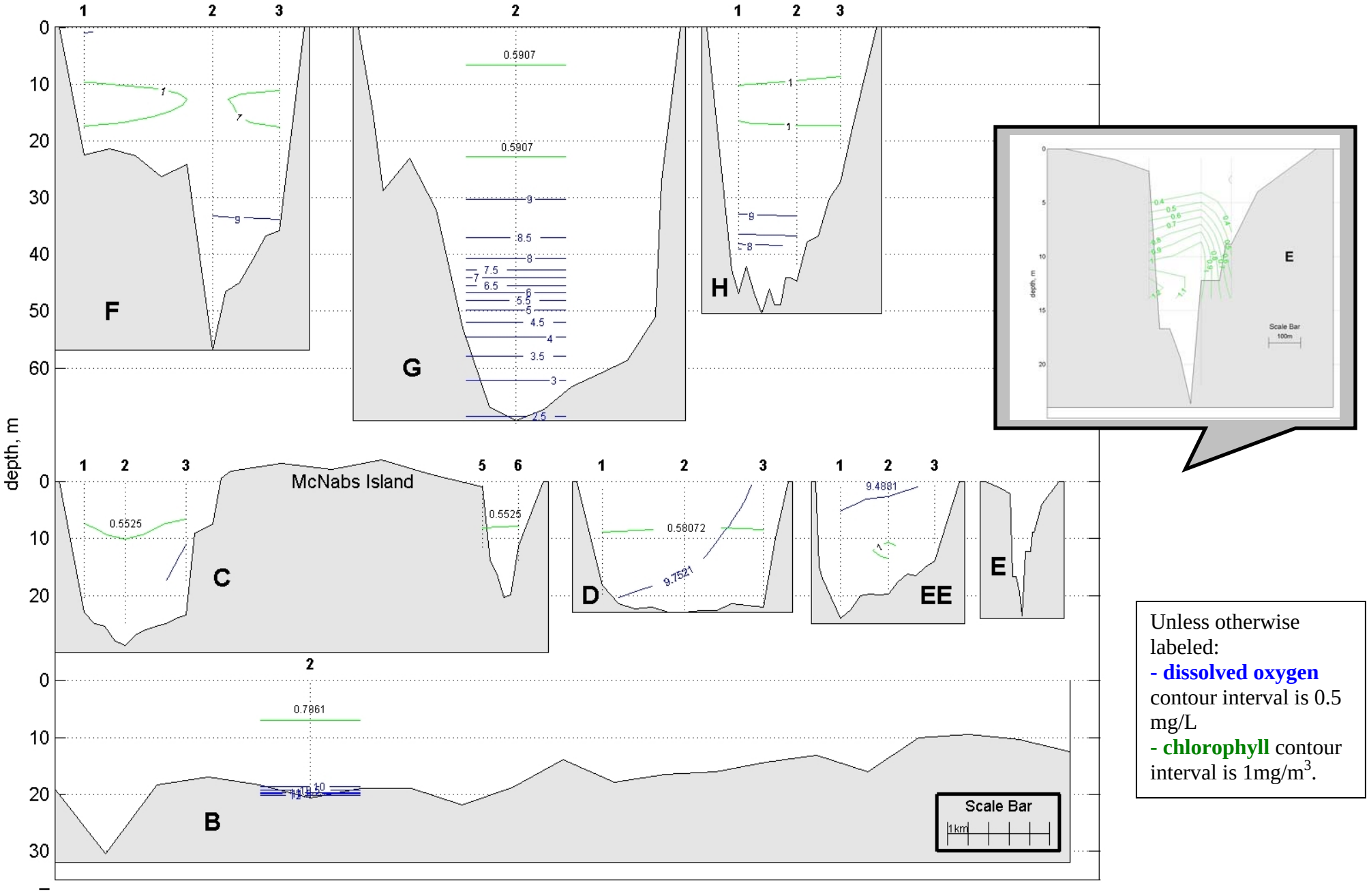
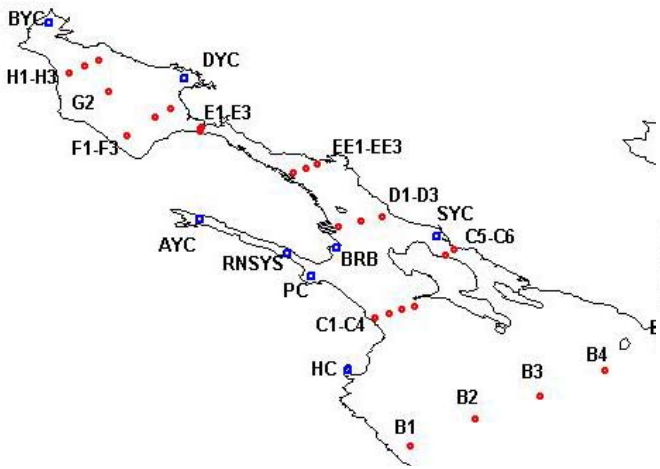
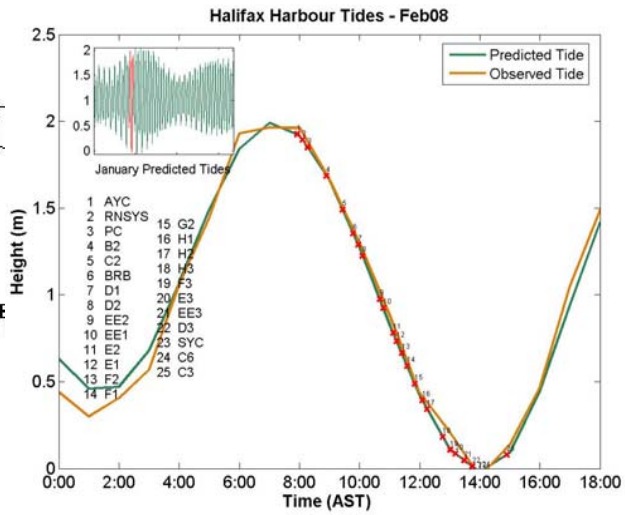
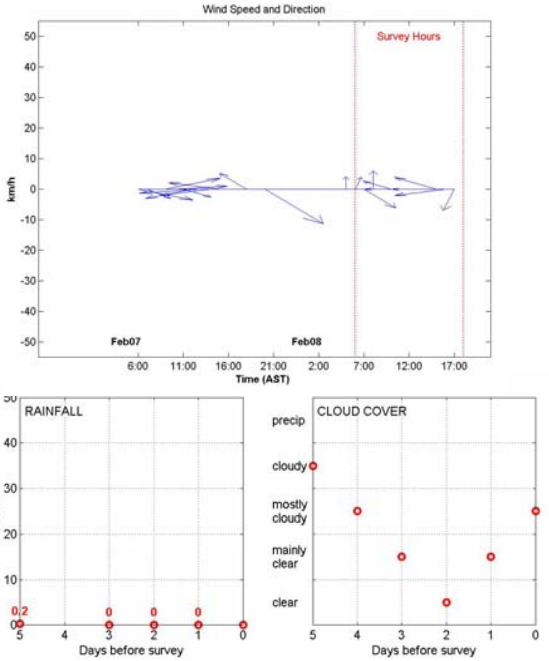


Unless otherwise labeled:
- dissolved oxygen contour interval is 0.5 mg/L
- chlorophyll contour interval is 1mg/m^3.







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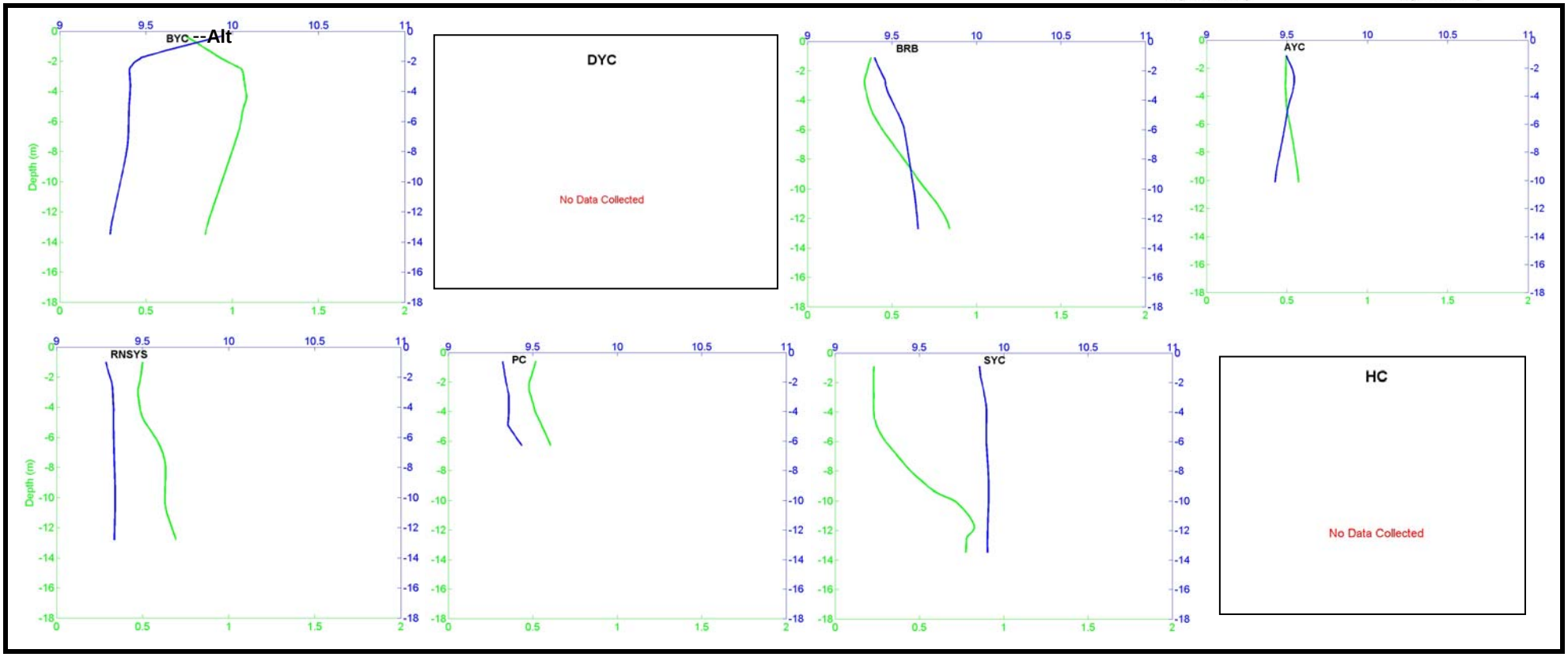

DO in mg/L **Chlorophyll in mg/m^3**