# Halifax Harbour Water Quality Monitoring Project
# Weekly Summary #12

**Survey Date:** 7 Sep 04
**Nature of Survey:** Coliform Survey
**Report File (this document):**
HHWQMP_report012_040907.doc
**Data File:** HHWQMP_ data012_040907.xls

**Data Return:**

| | |
|---|---|
| Profile: | 100% |
| Bacteria: | 100% |
| Chemical: | na |
| **Overall:** | **100%** |

**Data Notes:**

**QA/QC samples:**

**Fecal Coliform (CFU/ml)**

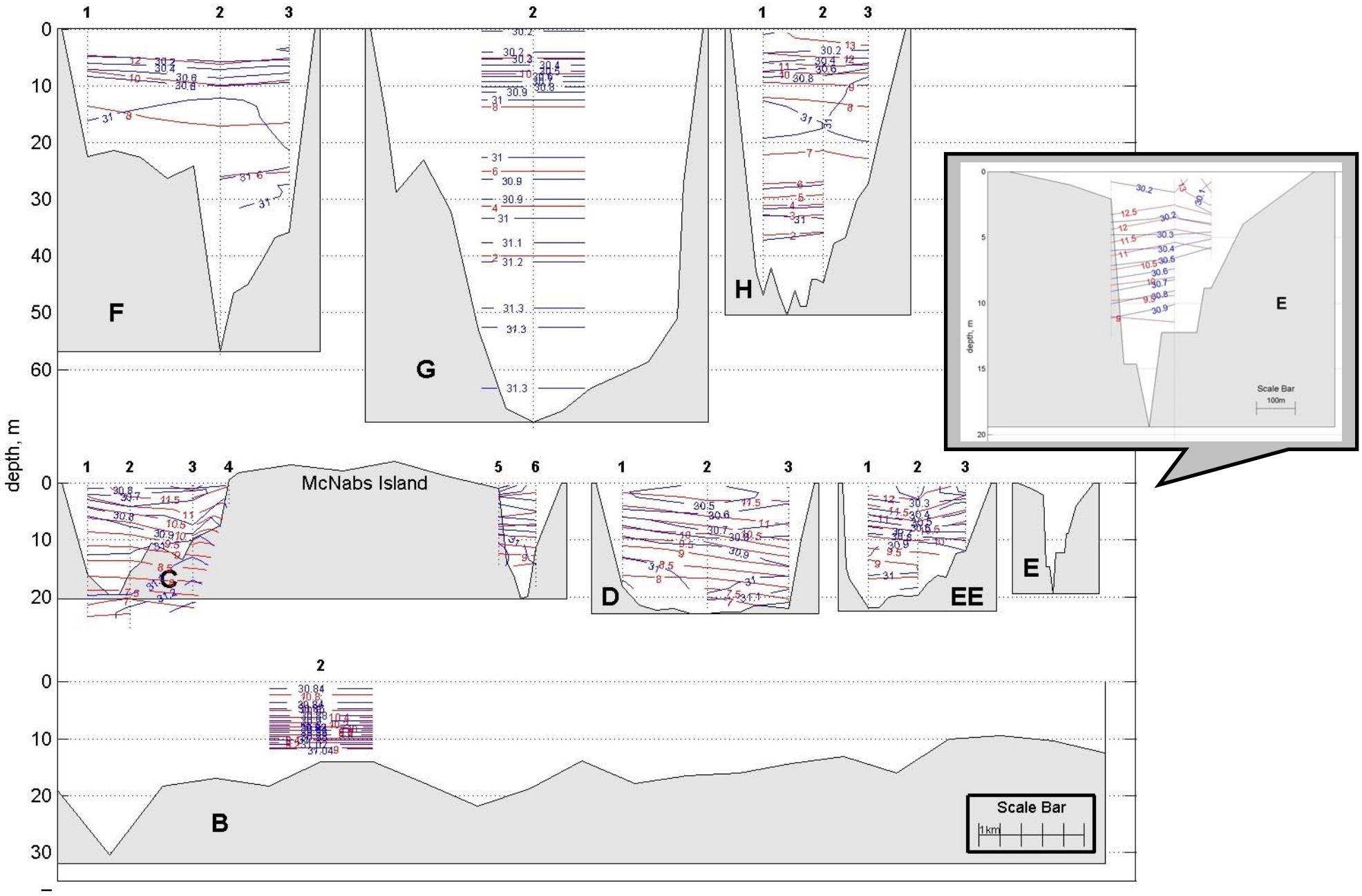
| **Site** | E1-1m | E1-10m | D1-10m | BRB-1m | PC-1m | HC |
|---|---|---|---|---|---|---|
| **Reference** | 1 | 1 | 0.79 | 0.91 | 0.04 | 8 |
| **QA/QC** | 1 | 1 | 1 | 0 | 0 | 7 |

**Comments:**

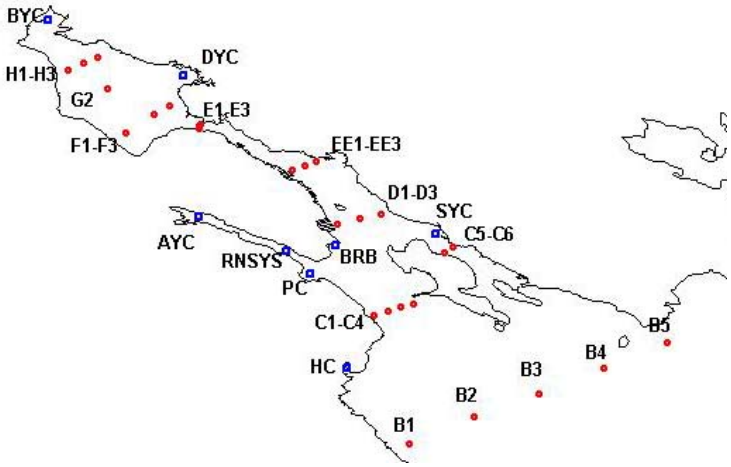
Lab analysis used FC tests with higher resolution (1 CFU/100ml) for sites with typically low values. The values in the data file reflect the mixed resolution. In the plots all results are plotted as CFU/100 ml.

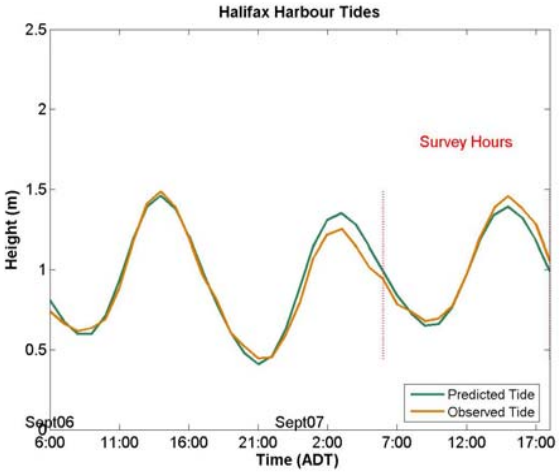
The dissolved oxygen profiles uniformly display a minimum at the surface. In the deeper water of Bedford Basin (stations F2, G2, H1 and H2) there are absolute minimums in the bottom waters but the profiles still exhibit relative minimums at the surface. This data seems questionable on physical grounds. A closer inspection of the data , interactions with the instrument manufacturer, and subsequent diagnostic tests indicate that there was a problem with the instrument flow system that affected the tops of the profiles. The major effect of this is on the DO profiles. This problem likely affected some previous and subsequent surveys until 3 November. Low DO values at the surface are suspect. This is being investigated and will be discussed in the first quarterly report.

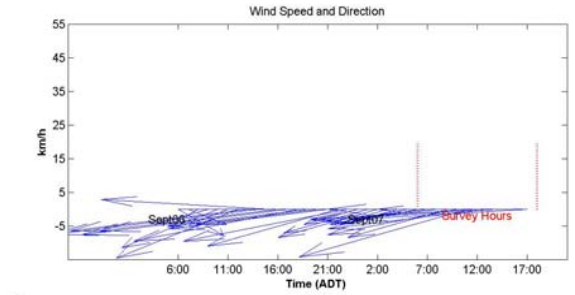
Given the qualification above, the data indicate that there are 12 violations of the water quality criteria in the surface water in both the outer harbour and Bedford Basin. The values are in the 6-8 mg/l range. There are no violations of the SC criterion (6 mg/l) in the Inner Harbour, though surface concentrations are similar to the rest of the harbour. The bottom water in Bedford Basin continues to lose oxygen with DO = 3.3 mg/l at the bottom of station G2.

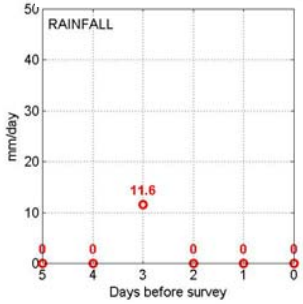


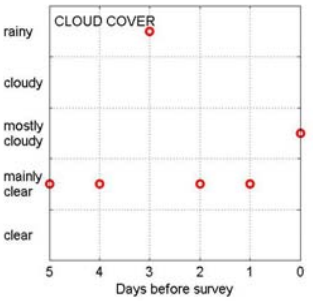

**Salinity in PSU** **Temperature in $^{o}$C**



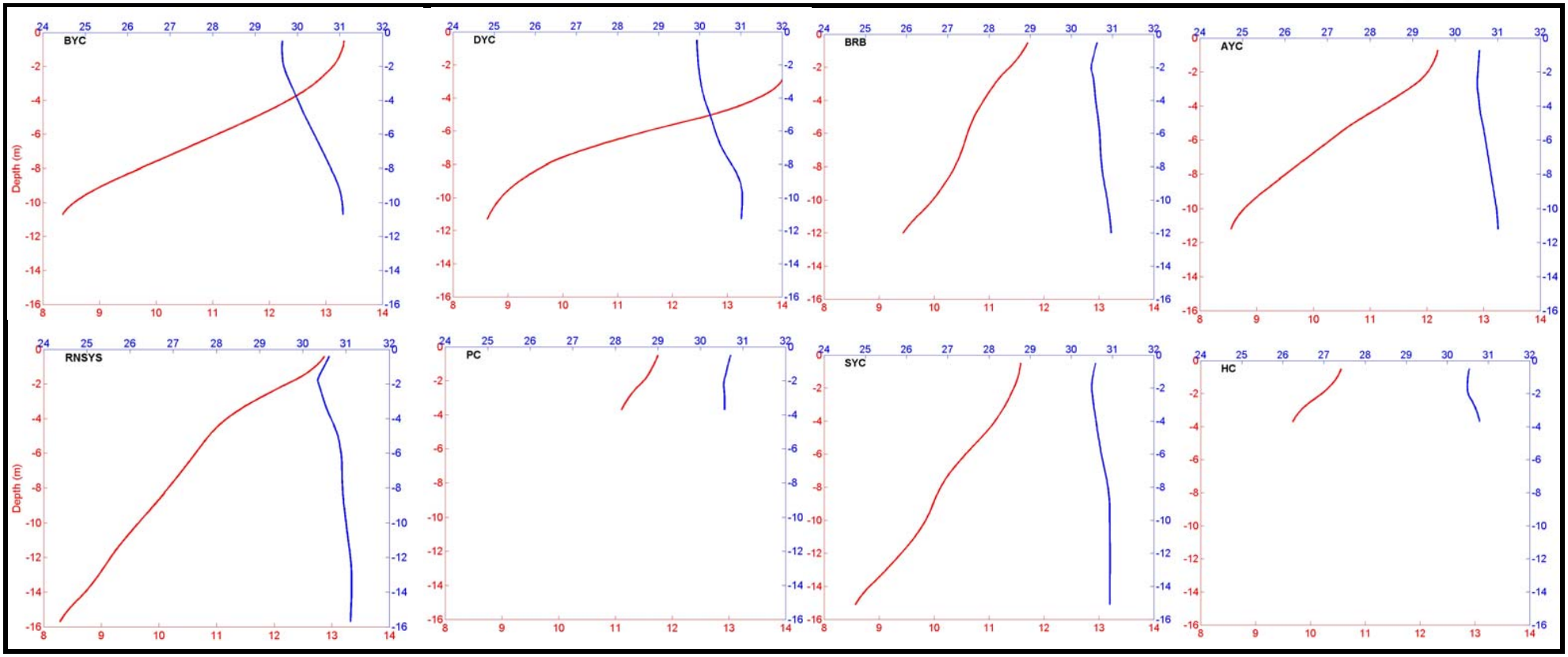




## Yacht Clubs

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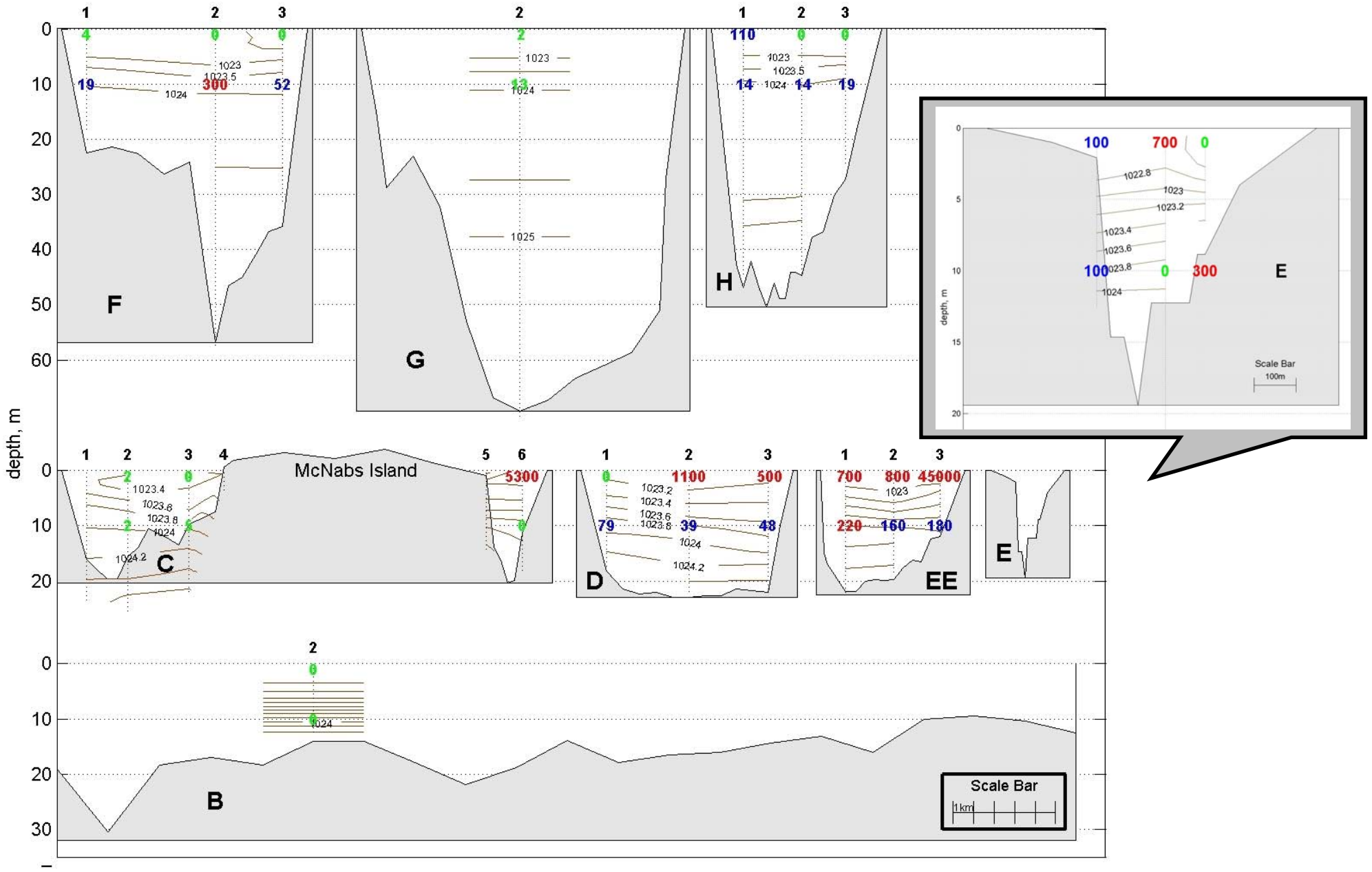
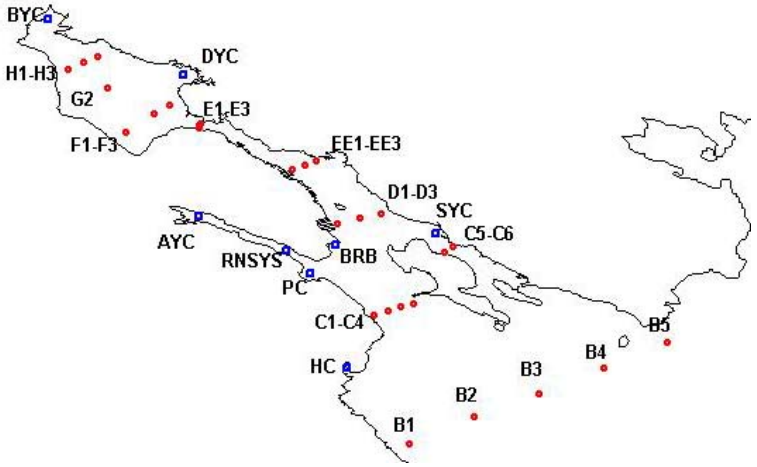
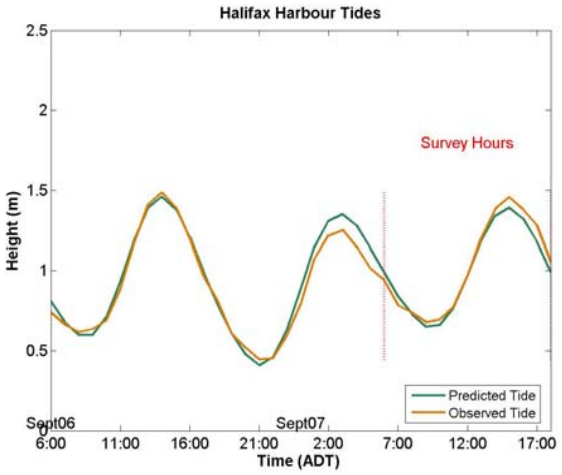
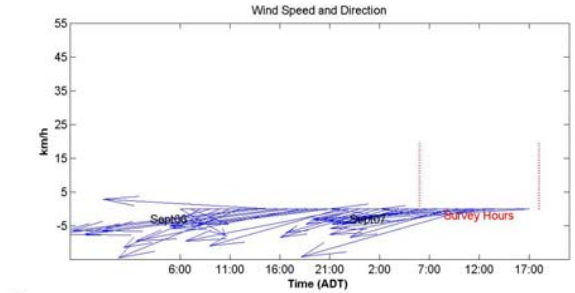
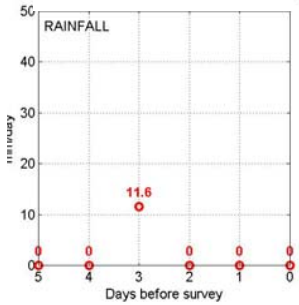


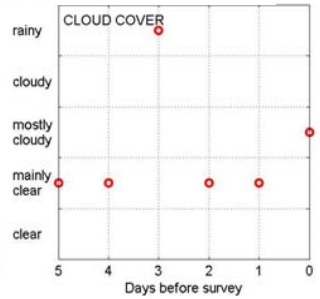

**Density in kg/m$^3$** **Fecal coliform:** **above swimming limit (200 cfu/100mL)**
**above shellfish limit (14 cfu/100mL)**
**below limits**

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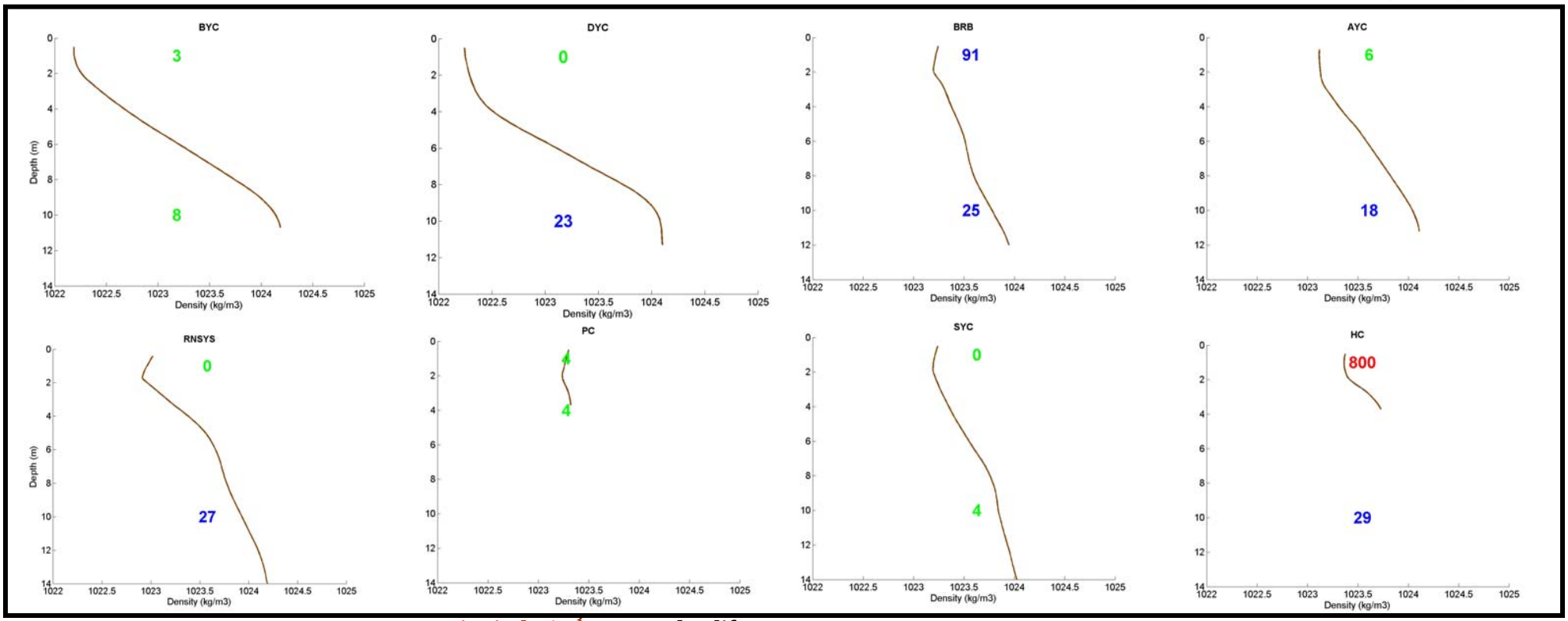


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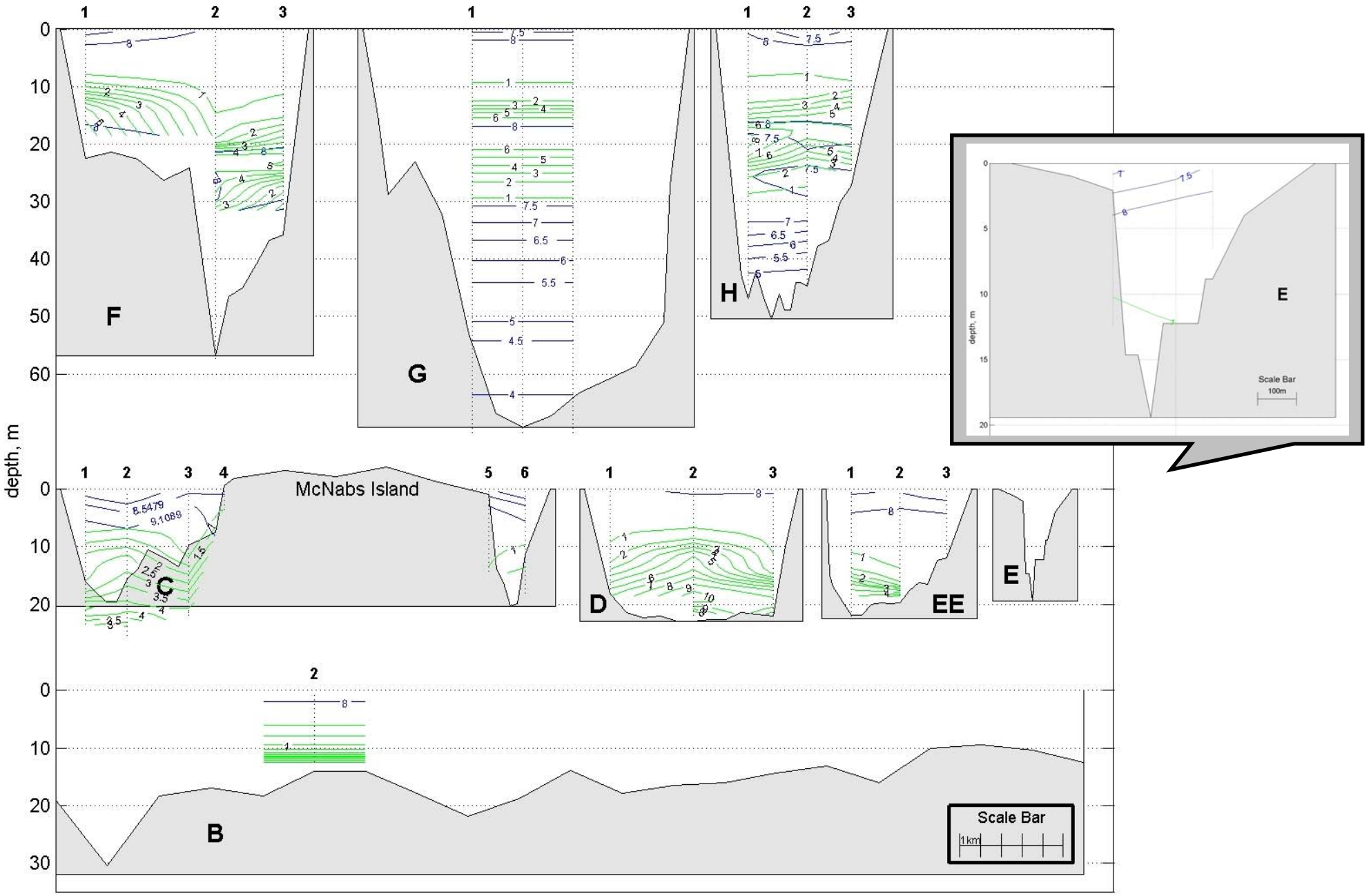
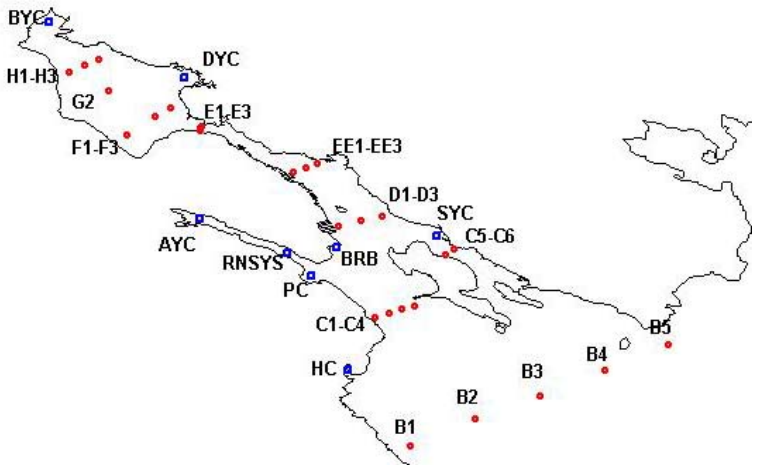
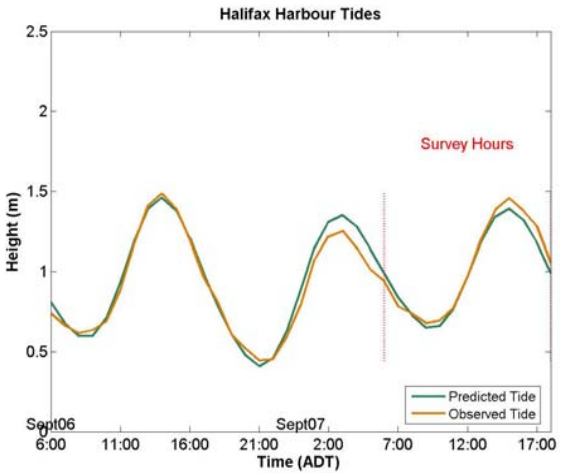
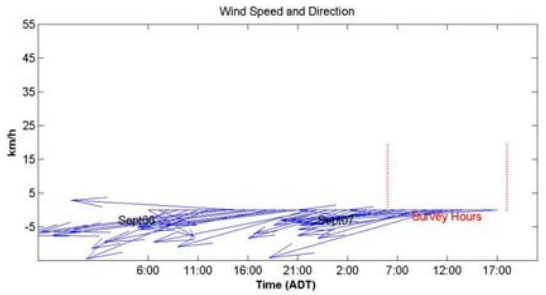
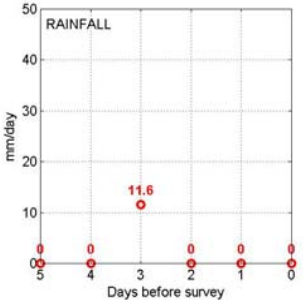


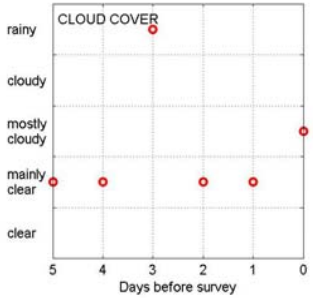

**DO in mg/L** **Chlorophyll in mg/m$^3$**

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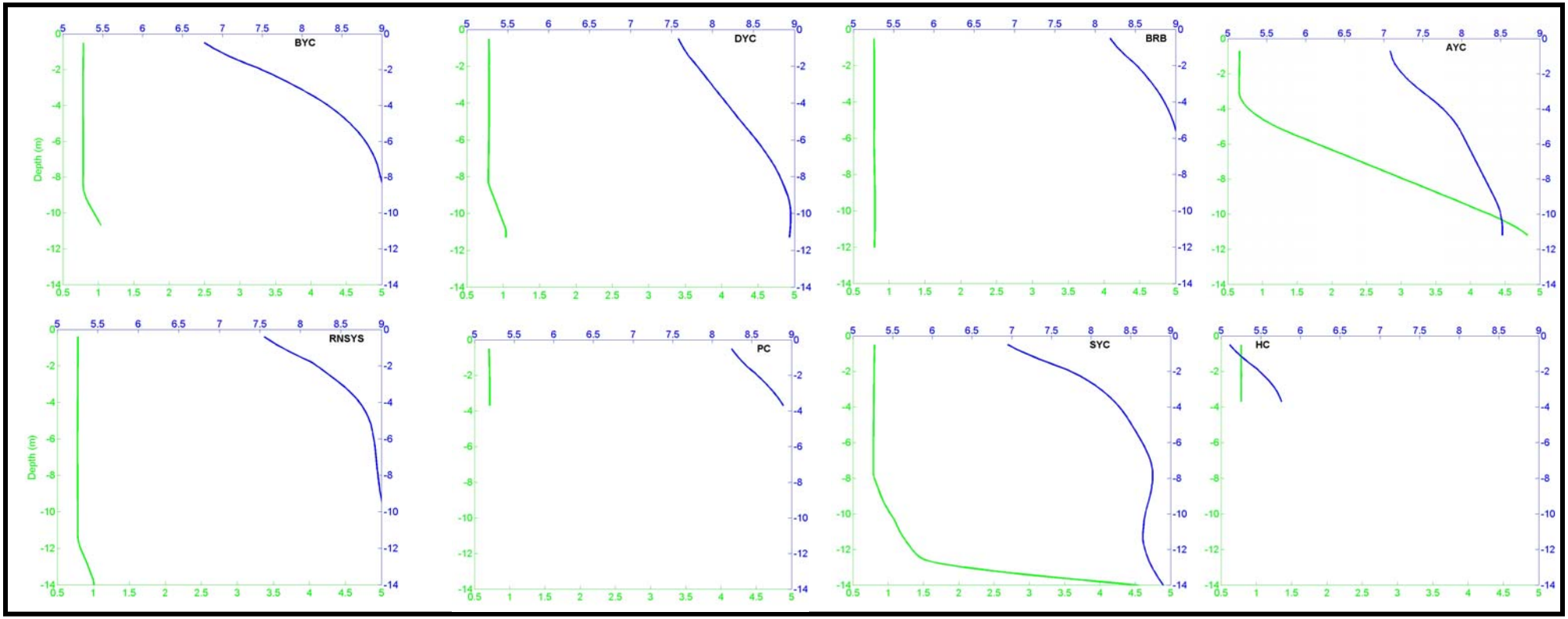


**DO in mg/L** **Chlorophyll in mg/m$^3$**