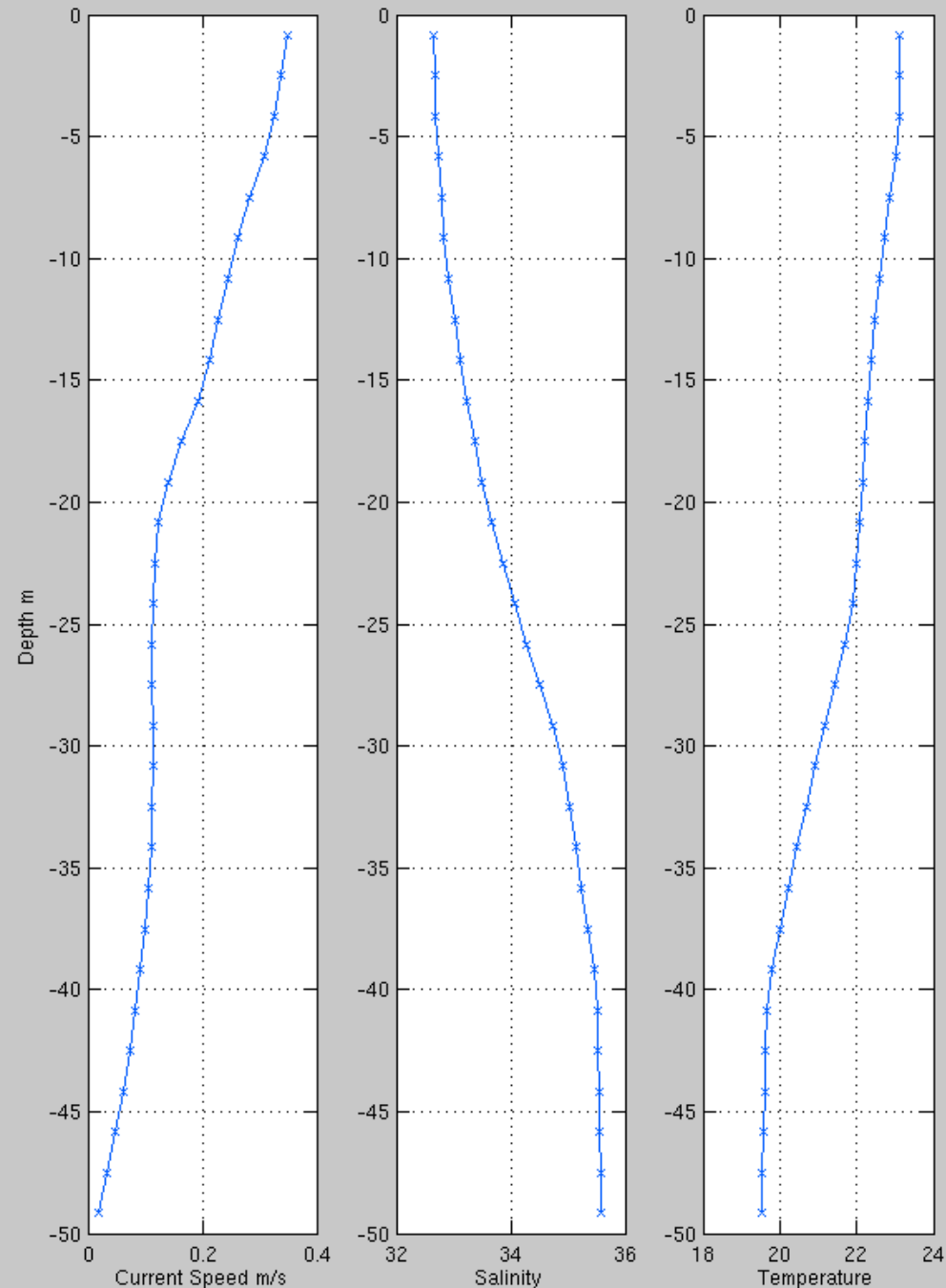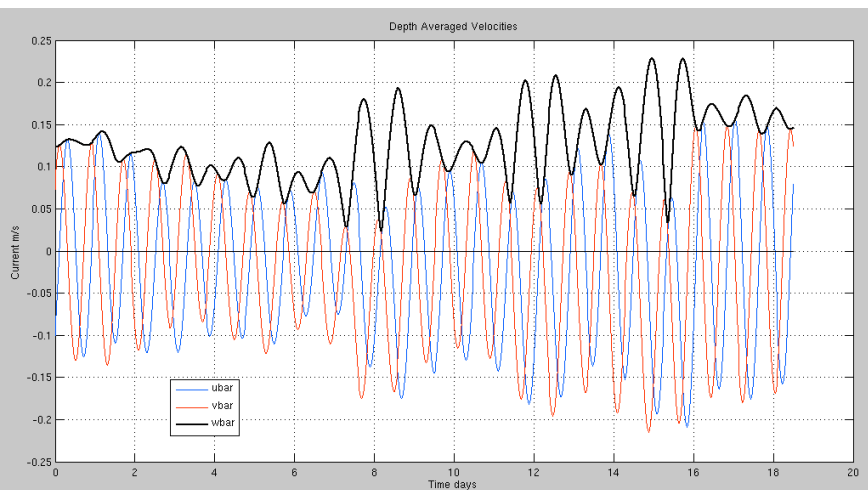# CSOMIO:
One-D Vertical COAWST Model

Courtney Harris

VIMS; July 2018

Description of model setup

- One-dimensional, vertical version of COAWST.
- Used Version COAWST Release from July 9, 2018.
- Vertical grid:
  - 50m deep
  - 30 evenly spaced grid cells.
  - dz = 1.6667 m.
- Horizontal grid: 6x6 Uniform.
- Forcing:
  - Temperature and salinity strongly nudged to measured values.
  - Winds are input, but don't seem to force the flow.
  - Current velocities vary from about +- 20 cm/s.
  - Waves are "on" but too small to matter for bed stress. They are held constant in time.
- Sediment input:
  - Includes 15 cohesive floc sizes, and 4 non-cohesive sand sizes.
  - No external sources of sediment aside from bed resuspension.
  - Shear stresses are not strong enough to suspend them.

Model Repository

- Put the source code under the CSOMIO Git-Hub repository under "COAWST". This is a straight fork from John Warner's latest version (July 9, 2018).

- Put the model implementation files under the CSOMIO Git-Hub repository under "SED_FLOC_TOY/ SED_FLOC_TOY01". This includes the
    - input and configuration files (under External and Internal),
    - the build script (coawst.bash)
    - model log file and output (*.out and Results History File).

- Putting this information in the README file.