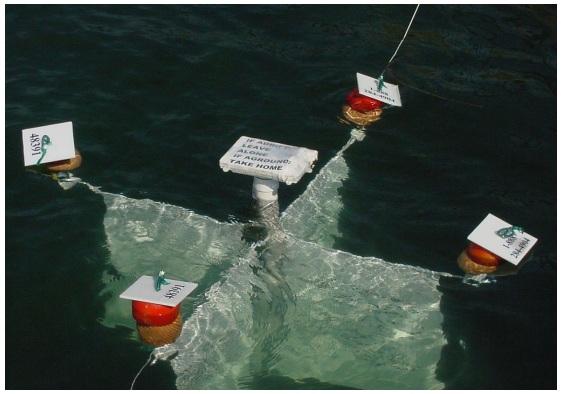
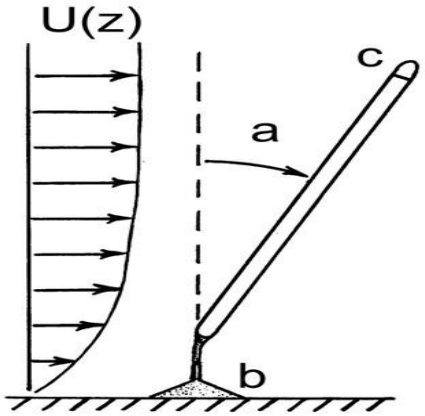
Introducing two new low-cost alternatives to measure ocean currents:

1) Student-built, satellite-tracked drifters



2) Tilt current meters



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Drifter Features

- Variety of configurations (surface and drogued)
- GPS
- Inexpensive unit & fees
- SST & drogue-loss sensors
- Made in Maine
- Easy real-time data access
- Knowledgeable support

Drifter Cost

eMOLT drifters cost less than half that of traditional commercial units. Some options are, for example:

- **"Eddie kit" $500 surface drifter (CODE-like Davis-style)**
- **"Paul" $600 another more eco-friendly surface drifter**
- **"Kathleen" $700 bucket drifter for very near-shore rocky coasts**
- **"Kara" $1500 standard (WOCE-like) drogued drifter**

The models are named after the student who put the most thought and time into the original prototype.

Satellite Cost

Satellite (GLOBALSTAR) fees are also far less than traditional ARGOS fees

- **One-time activation Fee: $30**
- **Monthly maintenance: $2.35**
- **Satellite fixes: $0.15/each**

Services such as programming, labeling, assembling, shipping, and post-processing are available if needed at small additional costs but most support is free.

Drifter Data Access Options:

1. **website download**
2. **automated email**
3. **automated ftp drop**
4. **SOAP API**

Drifter Construction

The standard "Eddie" model is constructed with a set of sails supported by fiberglass rods which are mounted orthogonally around a 4' 2by4. A set of four fishermen's net buoys are lashed around the neck of the drifter for flotation. The GPS transmitter is mounted on the top of the 2by4. Your contact information can be easily posted along the 2by4, on the top of the transmitter, or printed on the sails. The entire unit weighs approximately 20 lbs and floats to minimize windage.

These units are built by marine science students at the Southern Maine Community College during semester breaks. To assemble the drifters (Figure 2 on opposite page), the rods, sails, and buoys are simply secured with stainless hose clamps in the matter of minutes.

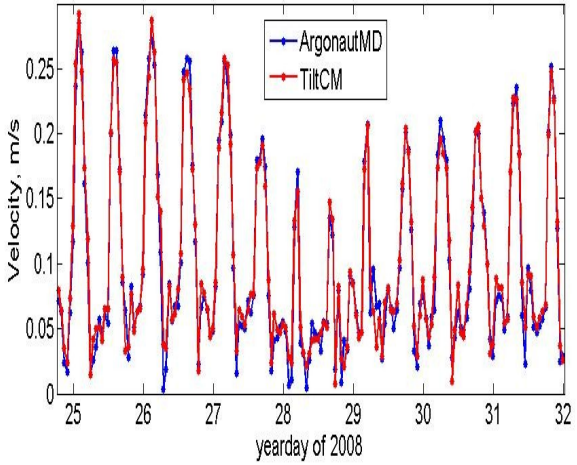
For limited budgets, " kits" can be supplied a nearly half the cost where users do most of the construction themselves.

Tilt-meter Features

- Variety of configurations depending on magnitude and directionality of insitu flow and water depth:
  - multiple lengths
  - designed for both estuarine or shelf environments
- Accelerometer/inclinometer mounted on 1-inch PVC pipe (standard length = 1 meter)
- Tested and calibrated against traditional current meters w/2 cm/s accuracy (Figure 1) below
- User selected sampling interval
- Infrared data extraction
- Made in Massachusetts
- Knowledgeable support

Tilt-meter Cost

These OkeanoLog tilt-meters are an order-of-magnitude less expensive than traditional current meters. While the basic unit sells for $650, the exact design, construction, and cost are negotiable.



Comparing TCM with traditional current meter.

Hundreds of these current meters have been deployed successfully in New England waters beginning in 2008.