

Drifter Newsletter #8

October 2011

New Drifter Users in 2011

The following institutions have recently joined our efforts to deploy drifters around the country:

- UMASS Boston Math and Science Dept
- UMASS Boston Environmental, Earth, and Ocean Science Dept
- Mass Marine Educators
- Quincy MA High School
- Florida State University
- Collaboration of Jacksonville University/Academy of Coastal and Environmental Studies/Clear Science/Terry Parker High School of the Duval County Public Schools
- Zephyr Marine Education Foundation
- Sea Education Association
- URI Graduate School of Oceanography
- Penn State University



Sea Education Association students preparing for a deployment.

We welcome these groups and hope they can spread the word on drifters through other local school systems. The Zephyr Foundation, in particular, has introduced hundreds of high school students to drifters this past summer by deploying drifters on about a dozen trips in Woods Hole waters. Each trip involved a different high school each with dozens of students and teachers!

The “Engineering Club” at Bristol Community College in Fall River, MA have been building drifters from the kits recently. The kits are still supplied by the Southern Maine Community College.

Documenting your deployments, groundings, and recoveries

Now that more than 30 labs are involved with deploying these drifters, we ask that you start documenting your deployments on the web. In this way, the information gets processed automatically in a standard format and it is entered directly into the database. Some of you have tried this in the last year or two and have worked out most of the bugs. Thank you. You can still call me at my office (508-495-2211) or my cell (508-566-4080) any time but, keep in mind, there are three steps to the documentation process that are linked from the main drifter site at <http://www.nefsc.noaa.gov/drifter> as follows:

1. Go to the “planning your deployment” link and reserve your deployment id beforehand by entering the planned position and time of deployment. The website will return this 9-digit “deployment id” that depends on what you enter. You can then mark the body of your drifter before you deploy it if you like. Some users prefer to just mark the drifter with the 6 digit electronic serial number (ESN) of the transmitter but, in either case, you will need to conduct this first step in order to have your deployment properly processed and plotted. This also gives me a heads-up on your deployment plans.
2. After you put the drifter in water, you return to the drifter website to record the actual deployment information. You will need to start here with your “deployment IDs” that you got from step #1.
3. Finally, after you have recovered your instrument (or notice that it has grounded), you should return to the drifter website to record the recovery information. You are also asked a) to submit any photos and b) whether you want to “decommission” the unit at this time. If the unit is not decommissioned, the satellite company will continue to charge \$2.35/mth for these units regardless of whether they are used or not. Keep in mind, however, that they charge us another \$30/unit to recommission the units.

It is important that we follow through with these website forms so that the meta data associated with each deployment is properly logged (ie what type of drifter it is, whether it has a drogue, etc). We are trying to build a well-documented dataset that others can access and use in the future.

New Drifter Design Works

The 2by4-masted “Eddie” is now our standard surface drifter. It replaces the PVC-masted “Rachel” drifter, is less expensive, takes less time to make, puts less plastic in the ocean, exposes less to the wind, and has less hardware failures. Most users will agree it is far superior. One of the primary problems with the Rachel was the flotation failures at the end of the spars (the plastic buoy sticks were breaking).

Proposal Update

We had hoped to submit a full proposal to NOAA's Environmental Literacy Grant call for k-12 education projects in earlier this year but our pre-proposal to partner with MATE, SMCC, GoMLF, and

many New England-based marine educators was declined. We will look for other opportunities to follow-up on what we have been doing for years: engaging students in drifter designing, building, and tracking. The idea would be to have a series of workshops where marine science educators from local high schools, service providers, and students learn how to build drifters. Most of the drifters are deployed in offshore waters by fishermen. If you have any leads on new proposal opportunities, please let us know.

Software updates

We are happy to report that nearly 100% of the drifter operation is powered by Python. Thanks to Xiuling Wu, a student from China, we have converted all the old Matlab code to this open source language and are ready to share the code with whoever is interested. We have assembled a package of “Python for Oceanographers” and will soon be ready to distribute it to our colleagues.

Conferences/Workshops

Two drifter-related events occurred in the past few months. A presentation was made at the National Marine Educators Conference in Boston and a workshop was held by the Marine Advanced Technology and Education (MATE) group in Monterey. Both introduced the drifter idea to more educators. We hope to promote more of these workshops in the future and look for funding that will supply schools with the basic kits.