

eMOLT Spring 2018 Update

Realtime bottom temperature telemetry

We now have 17 vessels with satellite transmitters sending bottom temperatures in realtime and hope to have dozens more by the end of this year. While the funding for this project asks for these systems on mobile gear, we hope to start rigging fixed gear as well. Only two lobstermen have experimented with this equipment to date. As the gear is hauled on deck, it automatically sends raw data to an on-board computer in the wheelhouse, processes the information, plots it, and relays the position along with averaged temperature and depths to our desktops via the satellite. If you would like to try the new instrumentation on a lobster boat, please let us know by emailing james.manning@noaa.gov.



The importance of good documentation

As I mention in each mailing, we need to remind those using the original probes **to supply well-documented latitude, longitude, and depths** when you mail your probe back at the end of the year. Most of you receiving this newsletter have a probe enclosed ready for your 2018 fishing season. Please take note of the log sheet also enclosed which lists your standard eMOLT sites. As always, we ask that you return to these locations. If there is no probe enclosed and you don't have one deployed, let me know.

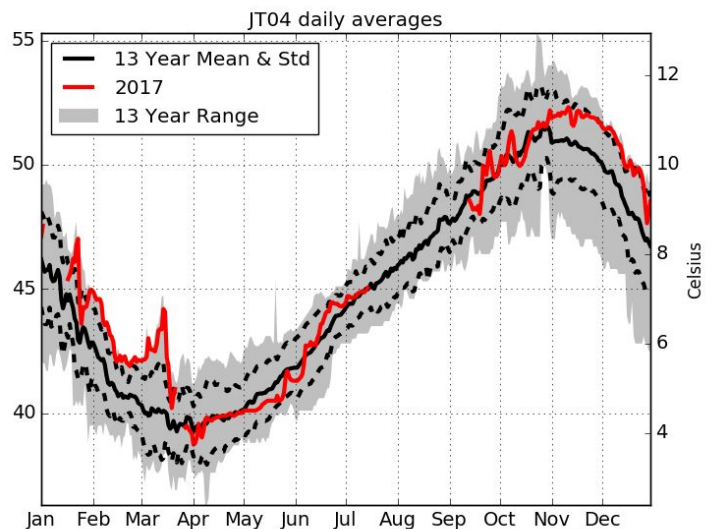
2017 was the year of extremes

As seen in Jim Tripp's 63 fathom (~115 meter) example observation shown to the right, 2017 was the year of both cold and warm conditions. While it started out relatively warm, it was especially cold in late Spring and then warm again in the Fall.

Other Project Updates:

Current meters

The current meter prototype that many of the eMOLT participants tested several years ago is now being used regularly on long line gear in the Gulf of Maine. It provides them with a estimate of flow past the hooks and the extent of bait plume. However, if anyone would like to deploy a year-round current meter mooring on a lobster trap again, please let us know. They are best deployed on these stationary moorings that don't get hauled regularly.



Drifters

Given our focus on realtime bottom temperatures in the past year, the drifter project is less active so that only a few dozen deployments are planned in 2018. However, if any of your local schools would like to be involved, please have them contact Erin Pelletier (erin@gomlf.org at the Gulf of Maine Lobster Foundation) who, along with her new hire Cassie Stymiest, continues to make this program work. See gomlf.org “drifters” section or www.studentdrifters.org.

Cameras on traps

As with many of these pilot projects from the past, the camera project is only limited by funding. With help from several eMOLT participants a few years ago, we proved it was possible to secure water-proofed Go-Pros on traps and got thousands of images. However, it takes man-hours to process these images and/or devise the image-analysis routines to inform the science.

Unmanned sail boats, “miniboats”

The Educational Passages organization, originally based in Belfast Maine, is now run out of the offices of the Gulf of Maine Lobster Foundation in Kennebunk. It has launched well over 100 miniboats and has been expanding its operation in the last few years (visit educationalpassages.org). Dozens of these units are being deployed around the world each year and some by eMOLT participants (see photo of Cassie Stymiest and Marc Palombo with one in the back of his truck). Sensor packages have been installed on some of the boats to report back oceanographic parameters in realtime. A few dozen have landed on distant European shores. They are tracked along with the drifters so the students (and the general public like yourselves) can see where they are located at anytime at http://www.nefsc.noaa.gov/drifter/drift_X.html.



Weather Stations on Fishing Boats

This is another project that could potentially grow given more support. We are still negotiating with NOAA’s National Weather Service (NWS) for funds needed to install weather sensors on more fishing vessels. One vessel, F/V Illusion out of Greenport, NY, reported hourly weather for well over a year before we had to send the equipment back for refurbishment. Another vessel, the Lisa Ann III out of Newburyport, MA has been routinely sending weather reports to NWS for the past year. It works.