

eMOLT Spring 2016 Update

The importance of good documentation

As we have said all along, we need to accurately document the latitude, longitude, and depth associated with these observations. When your great grandchildren want to record bottom temperatures at your locations and compare them to yours, they will need an accurate position and they will probably not be using Loran time delays. It is important that you report positions in latitude and longitude and be clear what format you are using. There are multiple ways to format these positions. Here are some longitudes, for example, that represent the same location:

Example	Format
67° 24' 30"W	degrees, minutes, seconds
67° 24.5'W	degrees, minutes, decimal minutes
-67.4083	decimal degrees

We also asked that you supply an estimate of depth at these locations. Most participants provide that variable in “fathoms” but any other unit (feet, meters, etc) is fine as long as it is clearly specified. Within the next few years, we should be able to outfit many of you with equipment that will automatically record your depth and position when you haul the gear but, until such time as we can afford these instruments, we rely on your documentation.

Mailing probes

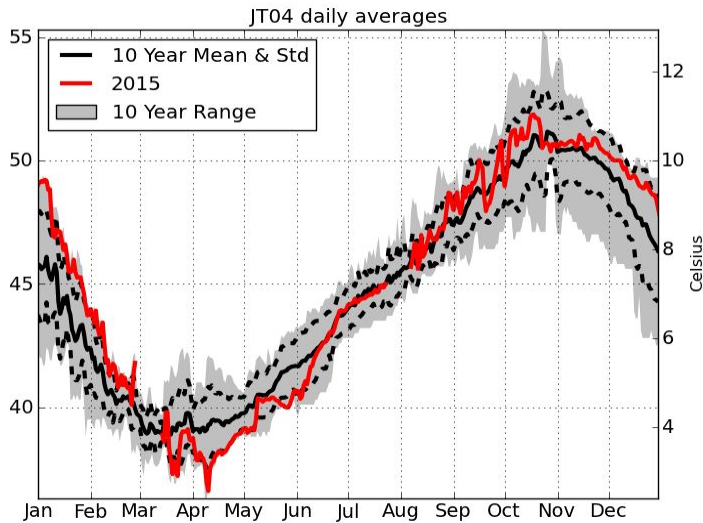
When you are done fishing for the year, please remember to mail in your temperature probe to Jim Manning, NOAA, 166 Water St, Woods Hole, MA. 02543 and remember to provide documentation **even if it is in the same location/depth as usual** so that I can check my records.

Real-time temperature

As reported in the last newsletter (and at both the Mass Lobstermen Weekend and Maine Fishermen Forum), the real-time temperature probe project is finally a reality. In the first year of operation, approximately 1000 set-averaged bottom temperatures have been transmitted from fishing vessels via satellite. Within minutes of the gear being hauled on deck, the information arrives at my desktop in Woods Hole! We hope to install a system like this on a fleet of lobster boats in the coming year. In addition to the satellite system, we have also installed a routine on several boats that automatically uploads raw data when the wheelhouse computer comes within WiFi range. In both these operations, the fishermen do not have to press any button. We have also supplied a few fishermen with a wireless temperature probe that reports to a smartphone. While the smartphone operation is a lot less expensive, it is not yet automatic. The fishermen still need to make a few clicks on the smartphone ap in order for the data to be uploaded. Let me know if you are interested in participating (email: james.manning@noaa.gov) in any of these experiments. I have a list of individuals who have expressed interest in the past and I hope to outfit them in the near future.

2015 was the year of extremes

The most interesting result this past year is the fact that it started out as one of the warmest winters, quickly became one of the coldest springs, and ended up as one of the warmest falls.



This shows in Jim Tripp's case from the deep (63 fathom) gulf.

Other Project Updates:

Current meters

We are still in the process of adding a wireless download along with a temperature sensor.

Drifters

The drifter project is more active than ever. Close to 50 high schools around New England are building drifters in their classrooms this Spring and should be ready to deploy later this year. We may be contacting some of the eMOLT lobstermen to help with deployments. Let us know if you are interested. If any of your local schools would like to be involved, please let me know at james.manning@noaa.gov or contact Erin Pelletier (erin@gomlf.org at the Gulf of Maine Lobster Foundation) who has been instrumental in making this program work.

Cameras on traps

The camera project may be back in operation this summer with a local high school student who is interested in following up our efforts from a few years ago. If you are interested in testing one of his camera rigs, let me know. When we tried this before we had battery limitations of less than 4 hours of pictures but he has ways of extending that to multiple days and has a motion detection sensor that might be the answer.

Unmanned sail boats

Dozens of these units, built in Belfast Maine, are being deployed around the Atlantic each year and some by eMOLT participants. Several boats have landed on distant European shores in the past year. They are tracked along with the drifters so you can see where they are located at anytime at http://www.nefsc.noaa.gov/drifter/drift_X.html.

Weather Stations on Fishing Boats

As noted last time, the National Weather Service has funded us to install weather sensors on fishing vessels. The first one has been operating for more than a month and is sending us hourly reports. The next two should be installed this spring. If you are interested in having one on your boat, let me know.