

Microquake swarm in Bucksport-Searsport area, April-May 2011

The New England Seismic Network ([NESN](#)) has recorded a series of very small earthquakes in the Searsport-Bucksport area, Maine, between April 30 and May 5, 2011. All of the earthquakes were microquakes, which means they are smaller than magnitude 2.0. Most of these earthquakes have been detected only by sensitive seismic monitoring equipment. A few were noticed by people in the immediate area, who reported loud noises and vibrations.

Press Release: May 3, 2011

Bucksport-Searsport Region Feels Small Earthquake Swarm

AUGUSTA, Maine -- A series of small earthquakes has been affecting the Bucksport-Searsport area in the past few days, beginning with events on April 30, according to Maine Geological Survey officials.

As many as 30 very small events -- called a swarm -- have occurred, all measuring less than 2 on the Richter magnitude scale, said Dr. Robert Marvinney, Maine state geologist and director of the Maine Geological Survey, under the Maine Department of Conservation.

"This swarm may continue for several days, but there is no need for alarm," Marvinney said. "This type of swarm has occurred before in Maine. While local residents may feel these earthquakes, because they occur only a few miles below the surface, they are well below the magnitude 5 threshold at which damage might occur."

The occurrence of this swarm cannot be taken as an indicator that a larger, potentially damaging earthquake will occur, he said.

"Earthquakes are not something that Mainers think about a lot," Rob McAleer, Maine Emergency Management Agency director, said. "This earthquake swarm reminds us that we need to understand Maine earthquakes as part of preparing for all the hazards we face here."

The Maine Geological Survey, Maine Emergency Management Agency and the New England Seismic Network will continue to monitor the situation and provide updates as necessary, the officials said.

The Richter scale is a logarithmic scale measuring the amount of energy released by an earthquake. An earthquake that measures 5.0 on the Richter scale, for example, is 10 times stronger than one that measures 4.0.

Seismologists at the New England Seismic Network, run by the Weston Observatory at Boston College, have located eight of the larger events. The locations determined for these earthquakes are approximate only, Marvinney said.

A number have taken place in an area between Bucksport, Belfast and Searsport.

Typically, Maine experiences several earthquake events of magnitude 2 or less each year, Marvinney said.

"These occur in response to the movement of large, rock plates that make up the earth's crust, even though Maine is not near a plate boundary, where most of the large events occur, such as California and Japan," Marvinney said. "The crust in Maine is still adjusting to the loss of thick ice at the end of the last ice age, and this may be a cause for some earthquakes."

Marvinney noted that similar swarms have occurred in the past:

- 2006 in the Bar Harbor area -- About three dozen earthquakes occurred, including one magnitude 4.2 event and two magnitude 3 events. These were much larger events than in the current swarm, and they caused minor rock-fall damage.
- 1967 in the Augusta area - At least 12 located events occurred, but probably many smaller events were not detected. The largest event in that sequence was 3.9.

Additional information on these earthquakes can be found at the [New England Real-Time Earthquake Monitor \(from Weston Observatory of Boston College\)](#).

Anyone feeling earthquakes can report the occurrence to the U.S. Geological Survey at the ["Did You Feel It?" website](#).

McAleer said that MEMA recommends residents take the following preparedness steps for earthquakes:

- Check for hazards in the home;
- Identify safe places indoors and outdoors;
- Educate yourself and family members;
- Have disaster supplies on hand;
- Develop an emergency communication plan.

More information on earthquake preparedness is available at [Maine Prepares](#)

Earthquake readiness information at [Ready.gov](#).

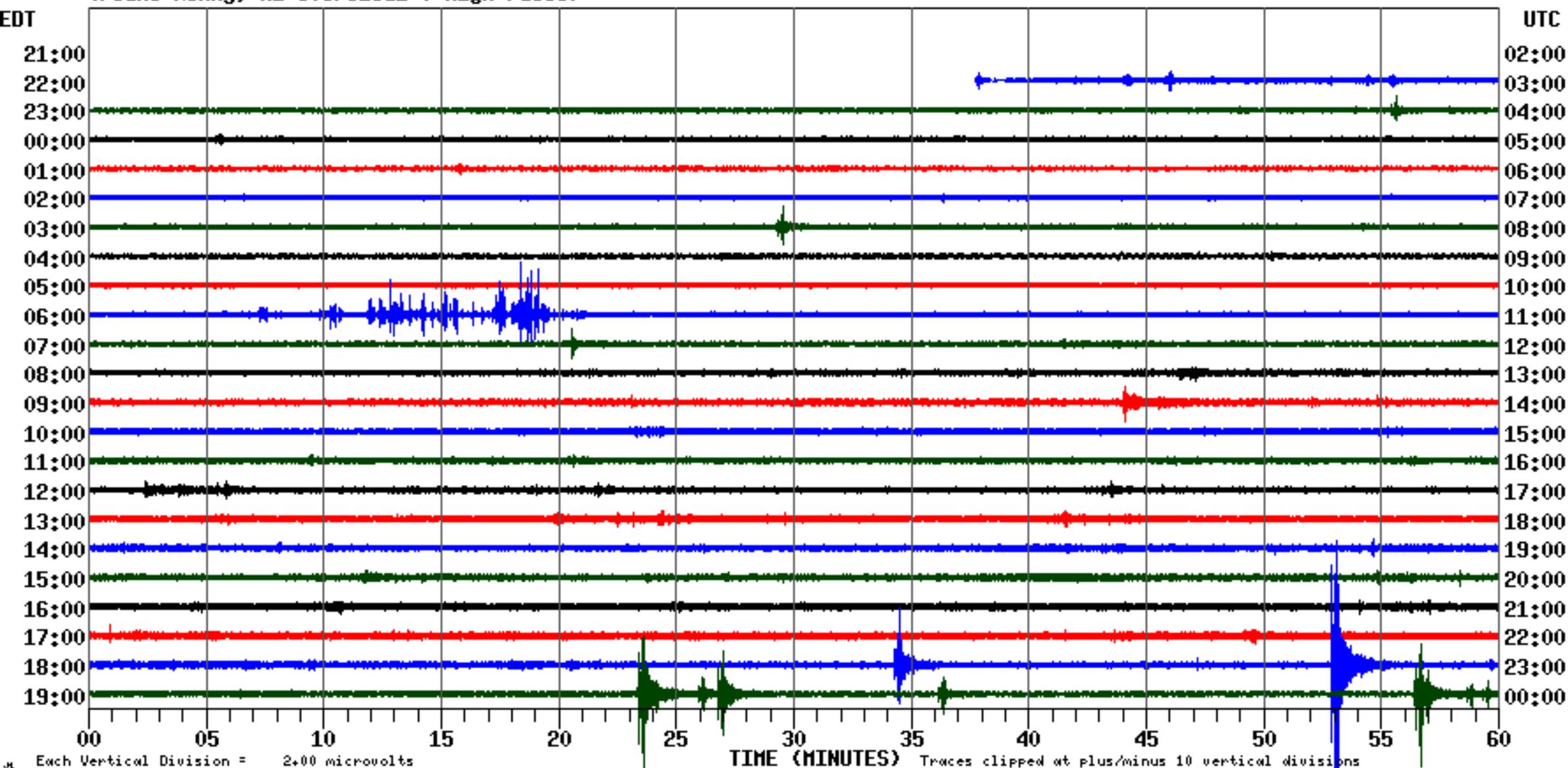
[Earthquake preparedness brochure](#) from the Federal Emergency Management Agency (FEMA).

Link to more information about the [Maine Emergency Management Agency](#).

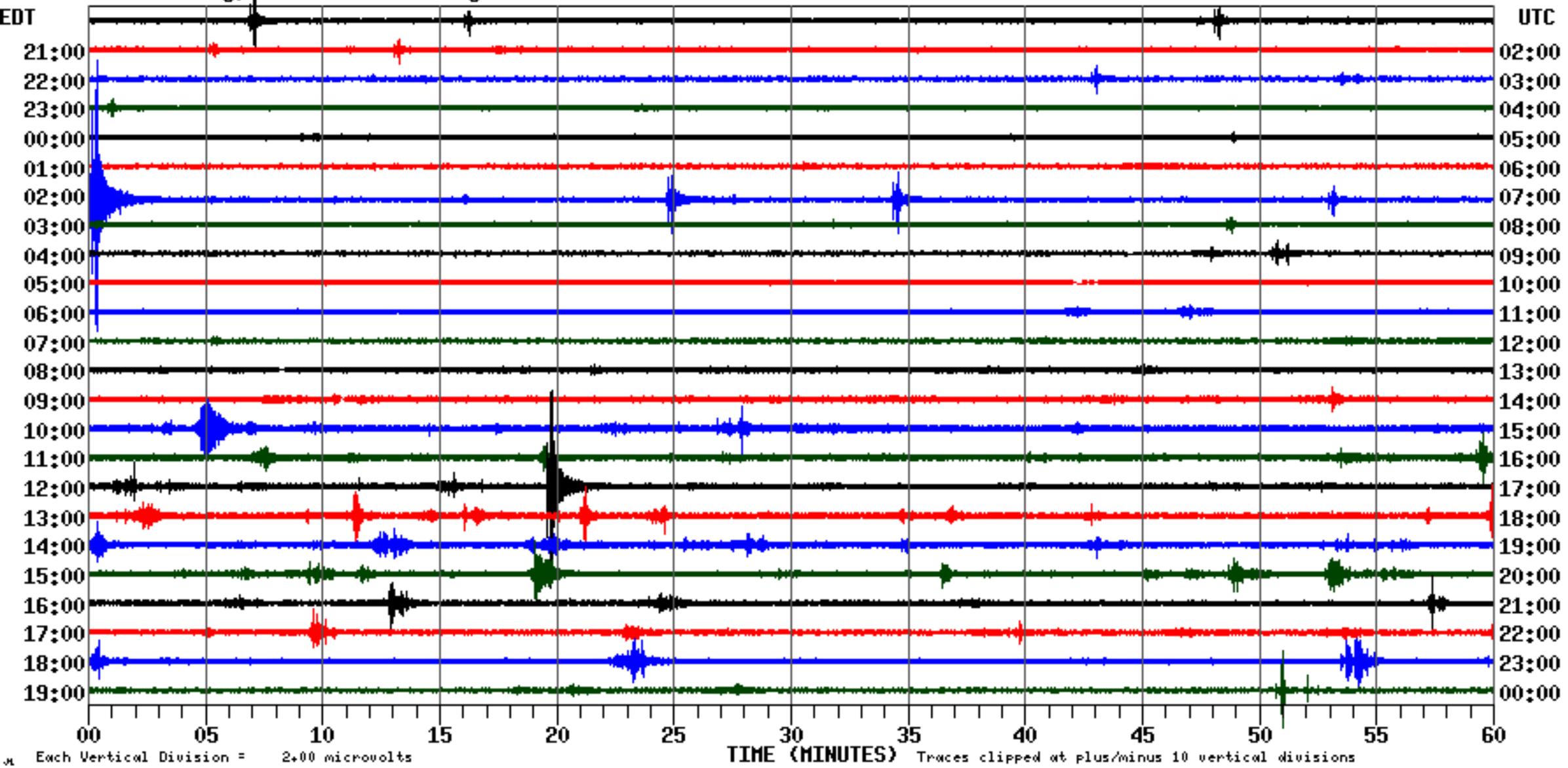
[Links in press release updated 5/16/2022]

Records from NESN seismic station in central, Maine showing several small earthquakes and other earth vibrations between April 30 and May 4, 2011.

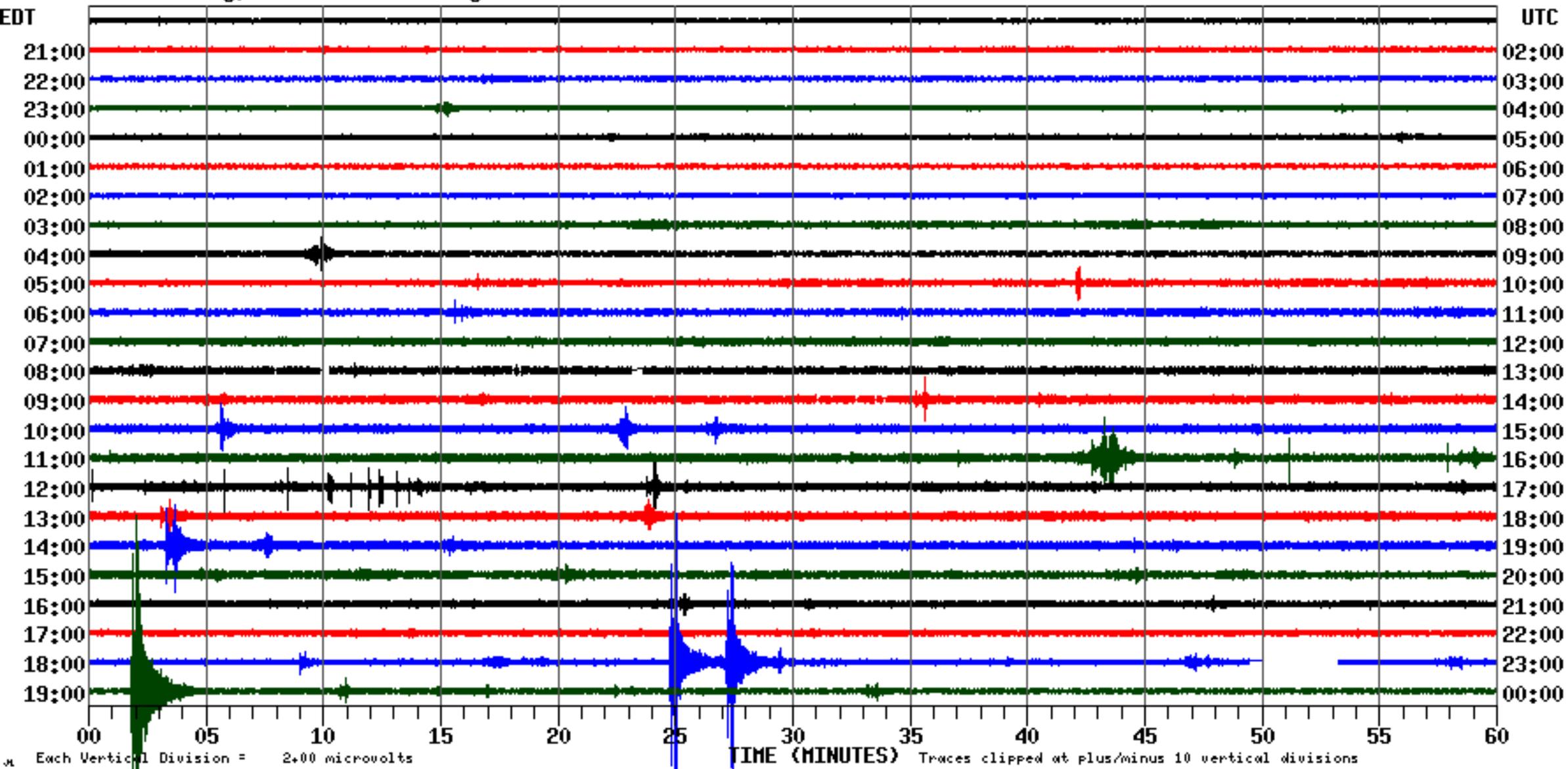
Apr30,2011
PKME SHZ US --
(Peaks-Kenny, ME [Vertical | High-Pass])



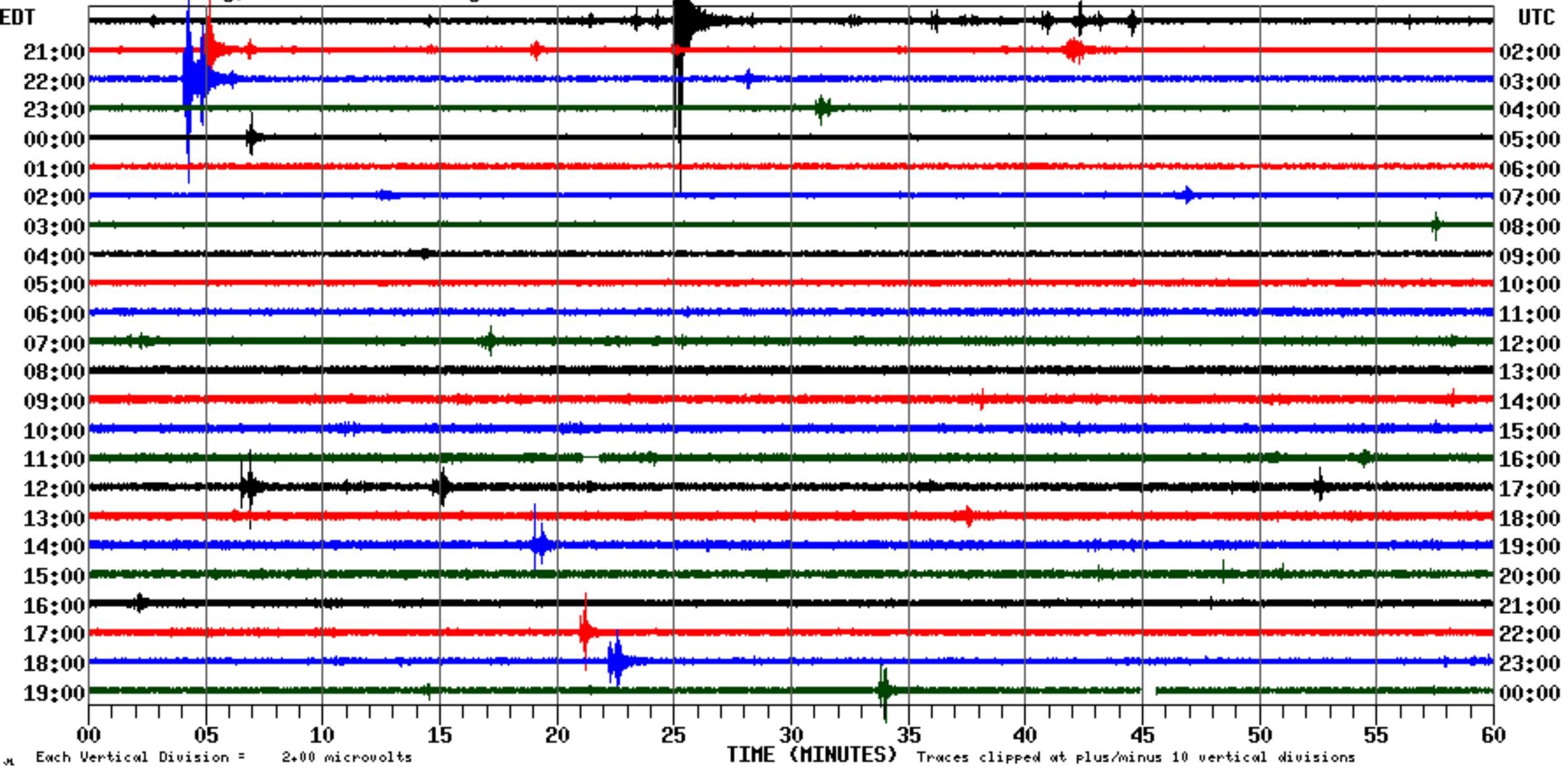
May 1, 2011
PKME SHZ US --
(Peaks-Kenny, ME [Vertical | High-Pass])



May 2, 2011
PKNE SHZ US --
(Peaks-Kenny, ME [Vertical | High-Pass])



May 3, 2011
PKME SHZ US --
(Peaks-Kenny, ME [Vertical | High-Pass])



May 4, 2011
PKNE SHZ US --
(Peaks-Kenny, ME [Vertical | High-Pass])

