NESEC NEWS

Published by the Northeast States Emergency Consortium

Wakefield, Massachusetts

Connecticut • Maine • Massachusetts • New Hampshire • New Jersey • New York • Rhode Island • Vermont

Volume 19 Issue 2 ***www.nesec.org*** **Summer 2016**

Vigilant Guard 2016 Exercise Simulates Earthquake in Vermont

A team of New England Soldiers care for simulated injured patient during Vigilant Guard 2016 Exercise **DVIDS PHOTO**

This article was previously published in its entirety under the title "Search and Rescue" *on dvidshub.net*

JERICO, VT - A simulated earthquake shook Camp Ethan Allen Training Site, Jericho, Vermont on July 29, 2016 as part of Vigilant Guard 2016. This resulted in several downed trees, as well as collapsed bridges and buildings, with individuals and simulated casualties located throughout the scenario. The scenario was set up to test title 10 forces, state, federal and local agencies, emergency responders and nine states with National Guard units.

As a result of the earthquake a house was submerged in water; the only way for the responders to gain entrance was through the roof, once inside they discovered an unconscious casualty. A Canadian Airman teamed up with soldiers for the New York Air National firefighters, and Massachusetts Task Force

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USGS Storm Surge Forecast Pilot Program in Massachusetts

As the 2016 hurricane season continues, weather forecasters, emergency managers and coastal residents have access to tools developed by the U.S. Geological Survey (USGS) that predict, more precisely than ever, where beach erosion and beachfront flooding will take place during hurricanes and other storms.

These potentially life-saving coastal change forecasts are publicly available online for beaches within a hurricane's predicted strike zone approximately 36 hours before the storm makes landfall. And in a pilot program beginning this year, emergency managers and forecasters in areas of Massachusetts will have access to hour-by-hour predictions of potential beachfront changes brought on by hurricanes, Nor'easters, or lesser storms.

"This year coastal residents can get specific information about likely impacts from an approaching storm, like where erosion will occur, whether sand dunes will be inundated by storm surge, and how high water levels are expected to be at the shoreline," said USGS research oceanographer Hilary Stockdon, who

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USGS Coastal Change Hazards Portal showing probability of outcomes from a CAT 1 Hurricane **USGS IMAGE**

Maine Drought Task Force Convenes

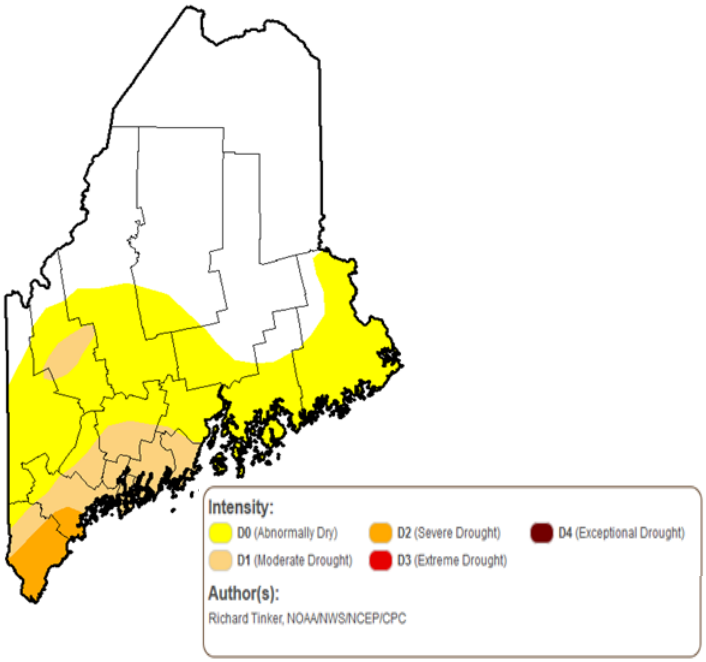
The Maine Drought Task Force (DTF) convened in August for the first time in 14 years. The DTF assists in monitoring and managing responses to droughts and recommends actions to minimize their impacts.

"We have been monitoring the situation for some time because of the low snowfall last winter," said Bruce Fitzgerald, Director of Maine Emergency Management Agency. "State weather and water level experts are keeping us informed and although there have been no reports of major issues related to the dry weather conditions, water levels have changed in the last couple of weeks."

The DTF is composed of state, federal and private scientific, agricultural, regulatory, water use and natural resources organizations.

The National Weather Service reported that precipitation levels had been down for the last six months and that dry weather conditions were expected to continue for at least the next few weeks.

The U.S. Geological Survey reported that surface water and groundwater levels were normal in the northern half of Maine, but below normal in the southern half of the state.



Maine Drought Monitor release from August 2, 2016

USDM IMAGE

Representatives from the Department of Agriculture reported that farmers in the southern part of the state are concerned about water levels in wells.

Although no restrictions have been placed on water usage, tips for conserving water are available at mainepreparespares.com.

The Task Force will continue to monitor the situation and plans to meet again in about a month. Reports will be available online at www.state.me.us/mema or can be obtained from MEMA by calling 207-624-4400.

USGS Hurricane Surge Models

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led the development of these forecasting tools.

While most people think of hurricanes as massive wind and rain storms, "storm surge and large waves pose the greatest threat to life and property along the coast," according to the National Hurricane Center's hazards summary. Beaches are important natural barriers against damaging waves, but their capacity to protect coastal communities varies, depending on local coastal conditions and each storm's characteristics.

The USGS' coastal change forecast model works with information from the National Hurricane Center's storm surge predictions and NOAA wave forecast models, which describe storm waves' heights and the timing between them. The USGS model adds information about the beach slope and predicts how far a storm's large waves will push water up the beach and predicts whether water levels will overtop dunes, ocean water will inundate areas behind the beachfront, and barrier islands will breach.

In 2015 the USGS began providing emergency managers and citizens with detailed information from the coastal change forecast developed by Stockdon and others. The forecast provides information for Gulf and Atlantic sandy beaches every kilometer (just under two-thirds of a mile). When a hurricane is expected to strike the U.S. coast, the model shows three types of likely impacts - beach erosion, dune overwash and coastal inundation - for the predicted area of landfall. The USGS' Coastal Change Hazards Portal makes that information easily accessible to the public when a storm is approaching. It also offers scenarios for those same three types of coastal change if hypothetical hurricanes ranging from Category 1 to Category 5 make landfall anywhere along the U.S. Atlantic or Gulf coasts.

A new version of the coastal change forecast model, which Long is developing and testing with the National Weather Service, can make the same types of predictions up and down the coast at a scale of about two-tenths of a mile.

"Our goal is to be able to provide the best possible forecasts of the vulnerability of our coasts and communities nationwide. The pilot projects will help us test our understanding and determine how best to do that," said John Haines, USGS Coastal and Marine Geology Program Coordinator.

Congressional funding provided after Hurricane Sandy in 2012 supports USGS advances in predicting coastal change. "This kind of information is aimed at improving emergency preparedness and response," said Haines, "It is a good example of our efforts to deliver coastal change science that makes our coasts safer and more resilient."

MEMA Hosts Hurricane Seminar for Media

The Massachusetts Emergency Management Agency (MEMA), the National Hurricane Center (NHC), National Weather Service (NWS) and FEMA recently hosted a seminar for our regional media partners to better serve the public should we face an impending hurricane. The seminar provided an opportunity for more than 30 News Directors, Editors, Reporters, and Broadcast Meteorologists to discuss with state and federal officials new hurricane forecasting products, the criticality of coordinated public messaging, potential hurricane impacts, the new Evacuation Clearance Time Estimate, the 'Know Your Zone' Program, and the updated Cape Cod Emergency Traffic Plan. Presenters included NHC Director Dr. Richard Knapp, NWS Meteorologist-in-Charge Bob Thompson, MEMA Director Kurt Schwartz, FEMA Hurricane Program Manager Paul Morey and MEMA Deputy Director Christine Packard.

MEMA Director Kurt Schwartz speaks to local and regional media members **MEMA PHOTO**

Vermont Vigilant Guard Exercise 2016

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Soldiers and Airmen, from the Vermont National Guard, work together to move the Tactical Operations Center during Vigilant Guard 2016 **DVIDS PHOTO**

members to remove the unconscious individual from the building using a ladder to assist moving the sked back through the hole in the roof.

"It was a great to be able to combine our assets together to complete the mission," said Sgt. Mark Lewis, team leader, 19th Wing Comox, Royal Canadian Air Force.

Firefighters with the Vermont Air National Guard 158th Fighter Wing worked with FEMA's Vermont Task Force 1 Urban Search and Rescue. Members from both teams lined up with pry bars to raise the buildings and two mannequins' were recovered from underneath the collapsed building. FEMA's Vermont Task Force 1 Urban Search and Rescue called in the air ambulance for a medevac to the hospital.

"This prepares us to work with all entities, local, federal and international to be more cohesive when the need arises," said Rafael Goyenechea, medical specialist, FEMA's New York Task Force 1.

There were additional situations all along the road to test the different agencies that were partaking in this lane. Vigilant Guard 2016 is an exercise created to give the over 5000 participants from all of these organizations a training environment where they can train together and build relationships that will be a benefit in a real world situation.

Airmen with 157th Medical Group, New Hampshire National Guard, treat a patient during Vigilant Guard 2016 **DVIDS PHOTO**

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