



www.nationalfloodworkshop.net

SHORT COURSES

Monday, February 27, 2012 – 1 p.m. to 5 p.m.

Renaissance Hotel – Houston, Texas

Short Course Fee - \$75.00 for Storm Surge and Flash Flood; \$25.00 for Skywarn Spotter Training

Attendees will receive Continuing Education toward the Certified Floodplain Managers Certification, the Texas Professional Engineers License, and Professional Development Points for the American Meteorological Society Certified Broadcast Meteorologist and Certified Consulting Meteorologist certifications.

To register, go to www.nationalfloodworkshop.net/register.html

1. An Introduction to Storm Surge, the NWS SLOSH Model and SLOSH Based Products

Jamie R. Rhome

*Storm Surge Specialist/Team Lead
National Hurricane Center, Miami, FL*

Since its birth, the United States has lost over 25,000 people to tropical cyclones, most of which were attributable to storm surge. Every decade from the 1890's through the 1960's had at least one storm in which surge took hundreds or thousands of lives. More recently, Hurricane Katrina killed an estimated 1500 persons. The need for highly accurate storm surge information and products aimed at significantly reducing loss of life and promoting optimally resilient coastal communities has never been greater. This session will focus on current National Weather Service tools and products and how to best use these products for sound decision-making.

Topics will include:

Introduction to Storm Surge

- Definition of storm surge/storm tide/total water
- Storm Surge Impacts
- Measuring storm surge
- Available observations, limitation, applications
- Vertical datums
- Factors impacting storm surge

Forecasting Storm Surge

- Introduction to SLOSH
- SLOSH storm surge products
- NHC storm surge operations

SLOSH Display Program

- Instruction on how to obtain and install the SLOSH Display Program (SDP)
- Demonstration of SDP capabilities



2. Skywarn Spotter Training and Radar Interpretation for Severe Thunderstorms

Dan Reilly
Warning Coordination Meteorologist
Houston/Galveston NWS, Dickinson, TX

This course will cover the basic science of thunderstorm formation and dynamics, and also what can be inferred about the possible severity of a thunderstorm by observing it visually. Also basic radar meteorology will be covered, with an emphasis on interpretation of the radar data to in determining the severity of the storm, and the potential for it to produce large hail, damaging winds, flooding, and/or tornadoes. Those that go through the course will become certified Skywarn Spotters, a group of volunteers that report severe weather to the National Weather Service.

3. Flash Floods: Rainfall, Runoff, and the Hydrologic Response

Matt Kelsch
Hydrometeorologist
COMET, Boulder, CO

Flash floods are neither purely meteorological nor purely hydrologic events. Rather, they are a complex combination of both meteorological and hydrologic processes, and are more accurately referred to as hydrometeorological events. Furthermore, the combination of factors that come together in major flash floods can be very different from one place to another.

This short course will look at the three primary contributors to flash floods:

1. Precipitation, and in particular precipitation intensity,
2. Runoff, or how the water behaves once it's on the ground, and
3. Hydrologic response to runoff of streams, ditches and low-lying areas.

We will look at several cases of flash flood episodes that represent some of the primary subcategories of flash floods. These subcategories will look at issues such as anomalous precipitation intensity, pre-existing moisture, and ground surface alterations such as those in urban areas.

Finally we will look at some of the societal response issues associated with some major flash flood events.

