

The Year in Flooding

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Alabama Association of Floodplain
Managers

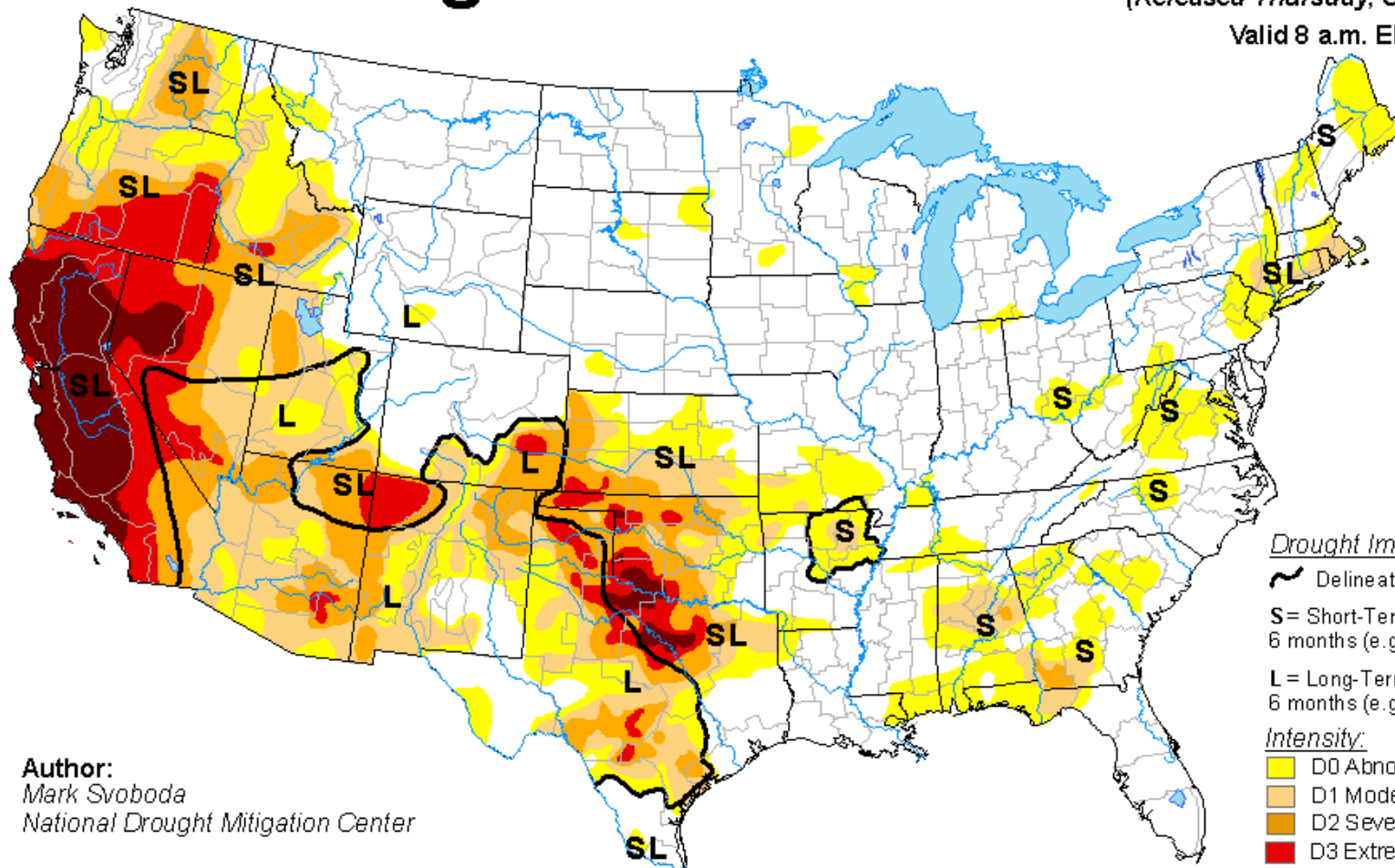
October 2014
Auburn, AL

U.S. Drought Monitor

October 7, 2014

(Released Thursday, Oct. 9, 2014)

Valid 8 a.m. EDT



Author:
Mark Svoboda
National Drought Mitigation Center

Drought Impact Types:

~ Delineates dominant impacts

S = Short-Term, typically less than 6 months (e.g. agriculture, grasslands)

L = Long-Term, typically greater than 6 months (e.g. hydrology, ecology)

Intensity:

D0 Abnormally Dry

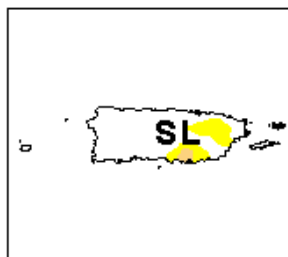
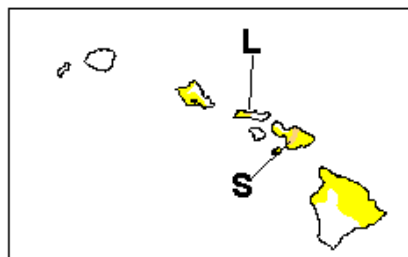
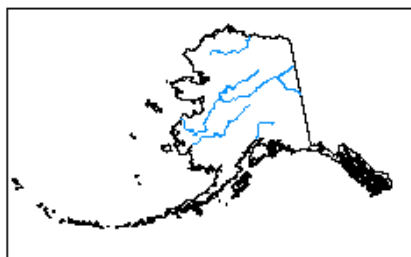
D1 Moderate Drought

D2 Severe Drought

D3 Extreme Drought

D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.



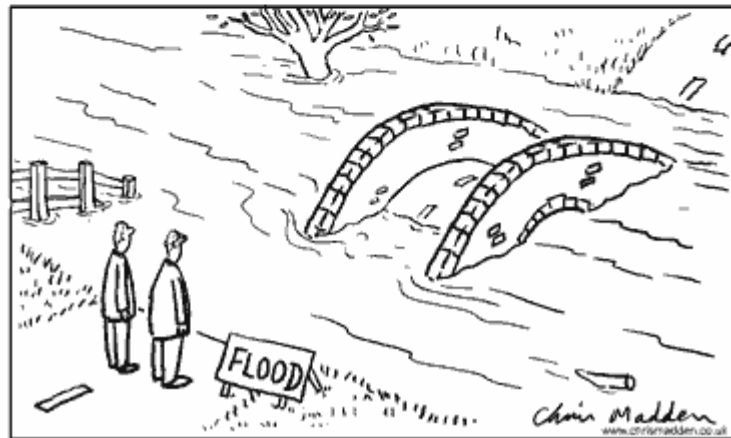
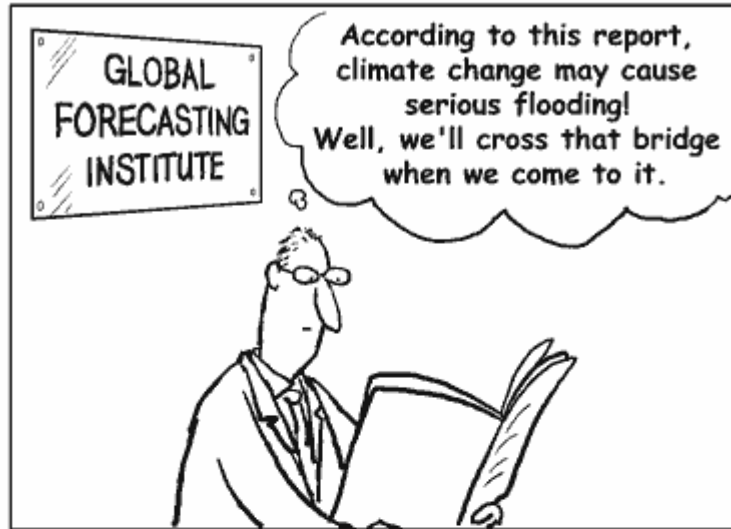
<http://droughtmonitor.unl.edu/>

Famous Floods

- Curt Flood—Baseball player, instrumental in labor laws that led to free agency in professional sports
- James C. Flood—American businessman; made fortune in mining industry in 1800's
- Toby Flood—English Rugby Star
- Willo Flood—Irish Soccer Player
- Kyle Flood—Rutgers University Football Coach



The Year in Floods (Jokes)



2014 Flood Insurance Legislation



- Presentation Tomorrow at 10:45:
- Janice Mitchell, FEMA IV, “NFIP—What to Expect (BW-12 & Homeowner Flood Insurance Affordability Act)”
- HFIAA went in to effect on March 21, 2014
- Repeals/Modifies portions of Biggert Waters Flood Insurance Reform Act
- Establishment of TMAC



- Technical Mapping Advisor Council
- Authorized under BW-12
- “To review and make recommendations to FEMA on matters related to the national flood mapping program...”
- Alabama Represented!
- First Meeting held Sept 30th



Flood Insurance, What's Trending?

- Refunds for overpayments began on October 1st. “Up to 1 million policy holders will begin receiving refunds” under the HFIAA.
- SW Florida recently named “Flood Insurance” as the number 1 issue in the region.
- Private Offerings for Flood Insurance are on the rise, particularly in FL.
- Increasing interest in Community Rating System.
- More scrutiny on Community Ordinances.



Flood Mapping, What's Trending?

- Risk MAP is ongoing, maps continually being updated.
- Funding levels have steadily been on the decline, focus recently has been on coastal mapping.
- Sen. Landrieu of Louisiana increased funding in FY2015 budget 16 million from FY2014.
 - Only 52% of our nation's flood maps are currently certified as accurate
 - FEMA estimates 4-10% will become not current every year going forward.
 - **“we cannot make good decisions without good maps”**



Flood Mapping, Latest Headlines

- “Wrightsville Beach leaders consider appealing flood zone...” (North Carolina)
- “Pasco adds 8,600 properties to flood zones...” (Pasco County, FL)
- “More Armstrong properties included on new flood maps...” (Pennsylvania)
- “Shepherdsville residents outraged at new FEMA floodplain MAP...” (Kentucky)
- “New FEMA flood maps could mean big changes...” (Maryland)
- “Council to discuss pot, flood maps...” (Oregon)
- “Why are cities fighting FEMA’s new flood risk maps...” (Florida)
- “New flood maps means more need special insurance...” (New York)
- “Should you dump your flood insurance...” (Florida)

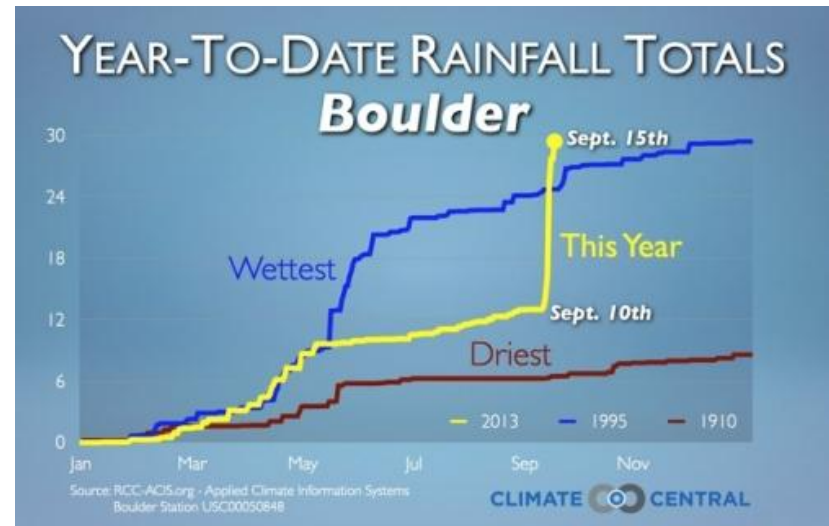


The Year in Flooding



2013 Colorado Floods

- September 9th to 15th
- Front Range of Rockies
- Nearly a years worth of rain in one week ~ 20 inches
- 1000 year storm in some places, overall 100 year estimation.
- 10 deaths
- 19,000 homes damaged



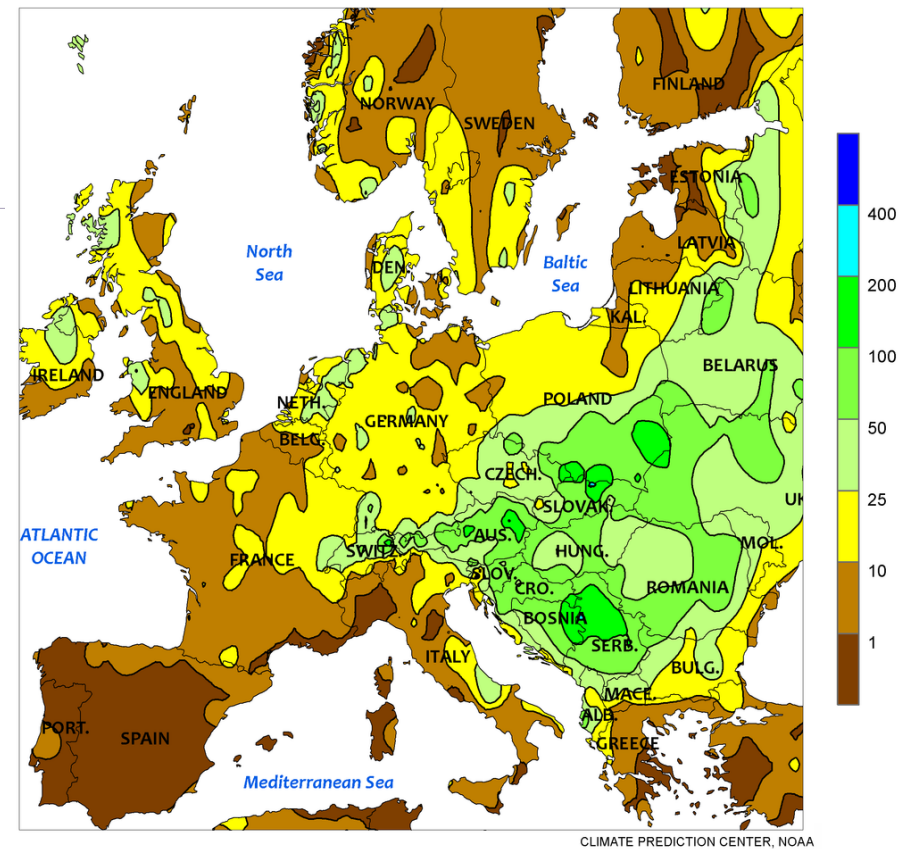
2013 Sardinia Floods

- November 17th to 19th
- Mediterranean Island
- 17.3" of rain on Nov 19th
- 18 deaths
- 1 Billion Euro in Damage

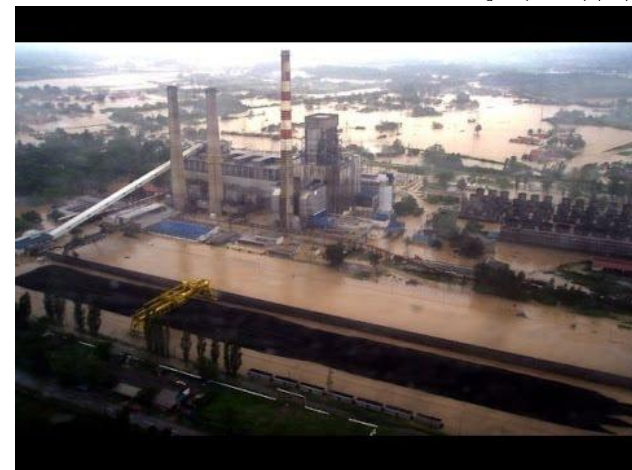


2014 Eastern European Floods

- May 14th to 18th
- Serbia/Bosnia
- Heaviest Rain in 120 years
- 62 deaths
- Several Billion Euro in Damage
- 2,000 landslides
- 1.6 million adversely affected



CLIMATE PREDICTION CENTER, NOAA



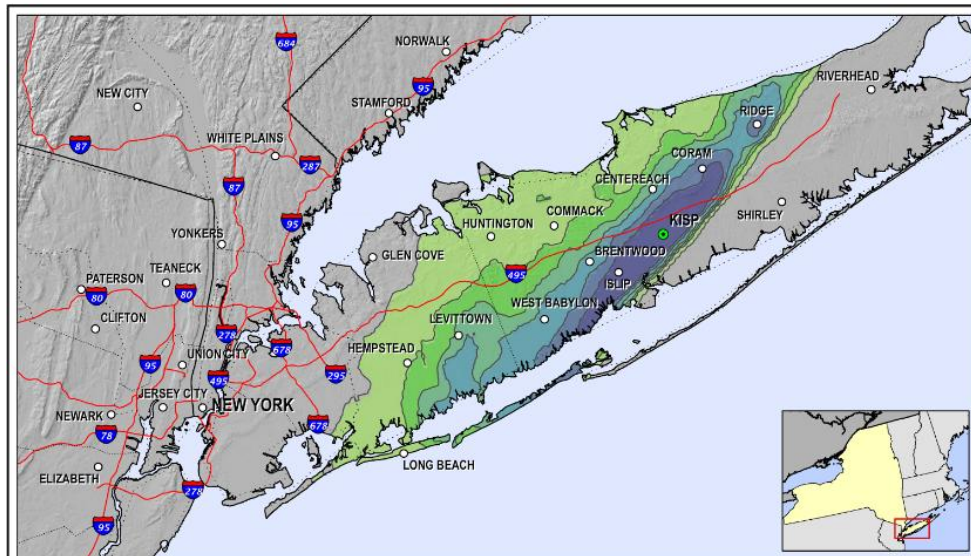
June 2014 Afghan Floods

- June 7th Flash Flood
- Baghlan Region
- Over 200 dead
- 2,000 homes destroyed



August 2014 Long Island Floods

- August 12th and 13th
- 24 hour rain record in Islip, NY (13.57")
- 1 death
- 100's of homes damaged



Islip, NY Flood Event, 13 August 2014
Annual Exceedance Probabilities (AEPs) for the Worst Case 3-Hour Rainfall



Hydrometeorological Design Studies Center
Office of Hydrologic Development, National Weather Service
National Oceanic and Atmospheric Administration

<http://www.nws.noaa.gov/ohd/hdsc/>

Created 22 August 2014

Precipitation frequency estimates are from unpublished NOAA Atlas 14, Volume 10, Version 1.
Rainfall values come from KOKX Dual-Polarization radar QPE data.

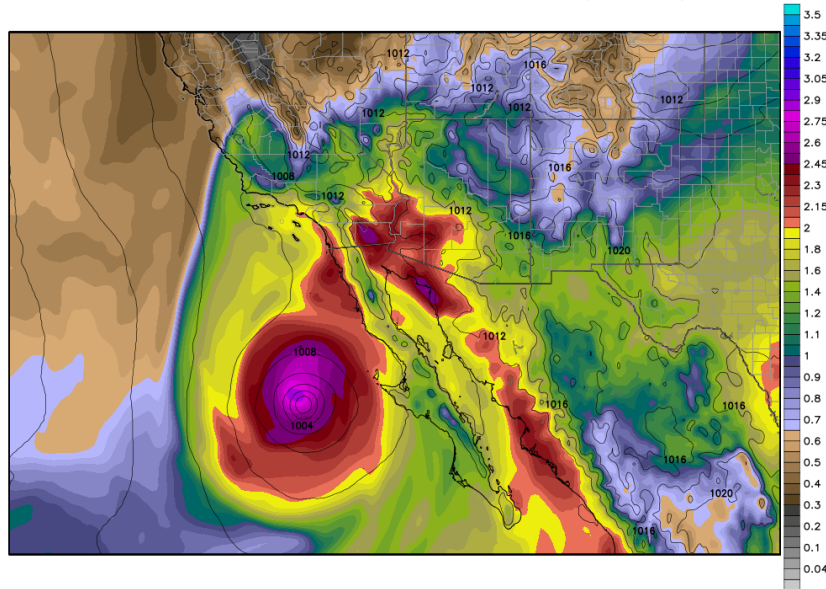


September 2014 Phoenix Flood

- September 8th
- Wettest day ever recorded (3.29 inches); previous record 1939
- 2 deaths
- Interstate-10 closed
- Remnants of Hurricane Norbert

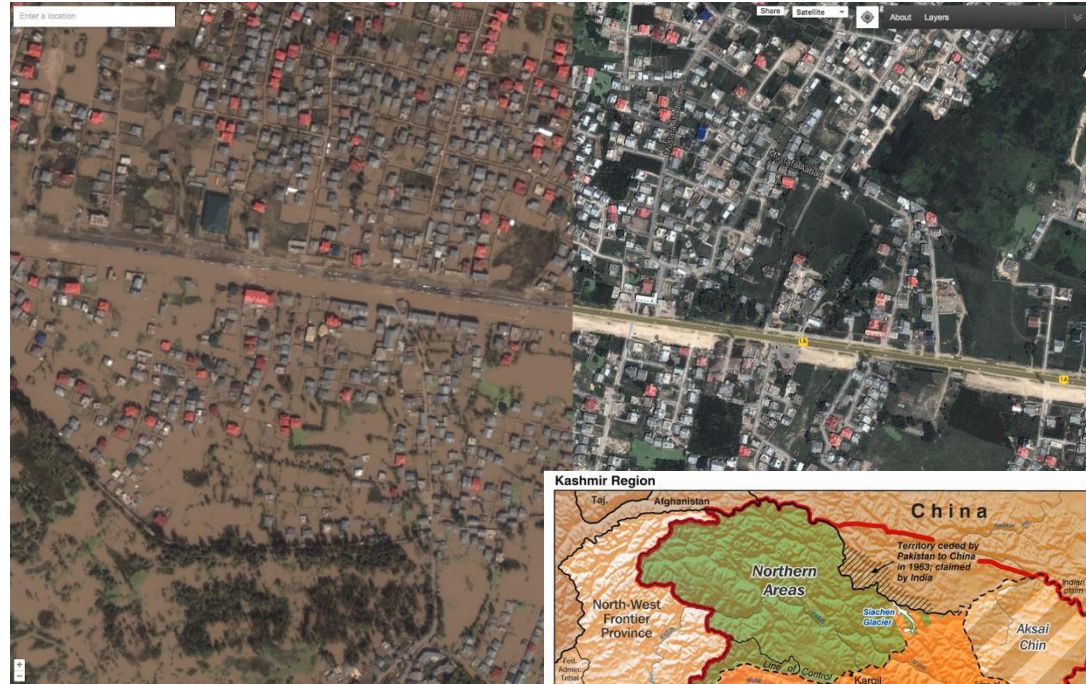


ECMWF Column Water [inch] & MSLP [hPa] INIT: 00Z08SEP2014 fx: [006] hr --> Mon 06Z08SEP2014
Min/Max 998.4 -: 1023.1 hPa



September 2014 India/Pakistan Flood

- September 2nd onward, heavy monsoon season
- Kashmir Region
- “Equivalent of Hurricane Katrina in Kashmir”
- Over 250 deaths
- Over 200,000 rescued
- 100,000 homes destroyed
- 17 billion in damages
- Estimated at 100 year recurrence interval
- Peak discharge of 100,000 CSF on Jhelum. Previous record high of 80,000 in 1928



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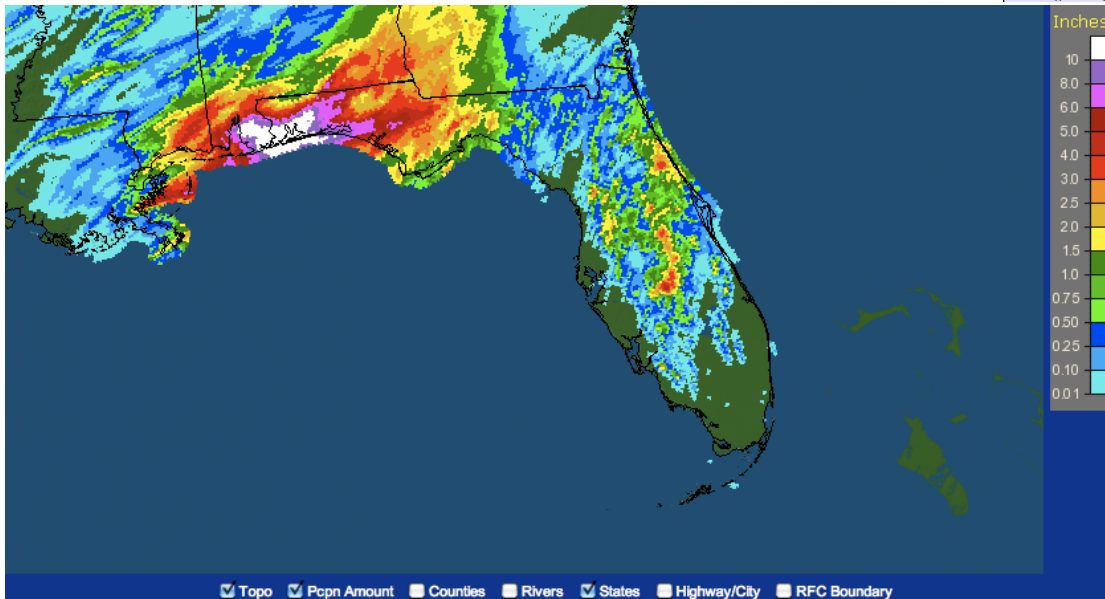
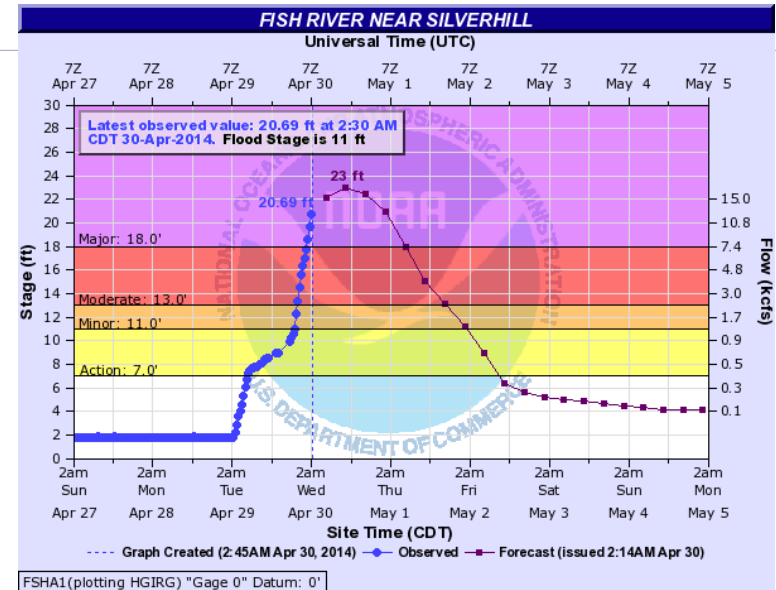
Winter 2014 United Kingdom Flooding

- Highest January rainfalls in recorded history in Southern England
- Wettest overall winter on Record
- Highest Flows on Thames since 1974
- Highest winter runoff on Thames and Severn in recorded history
- 1 Billion British Pounds in damages



Baldwin County/Pensacola April 2014

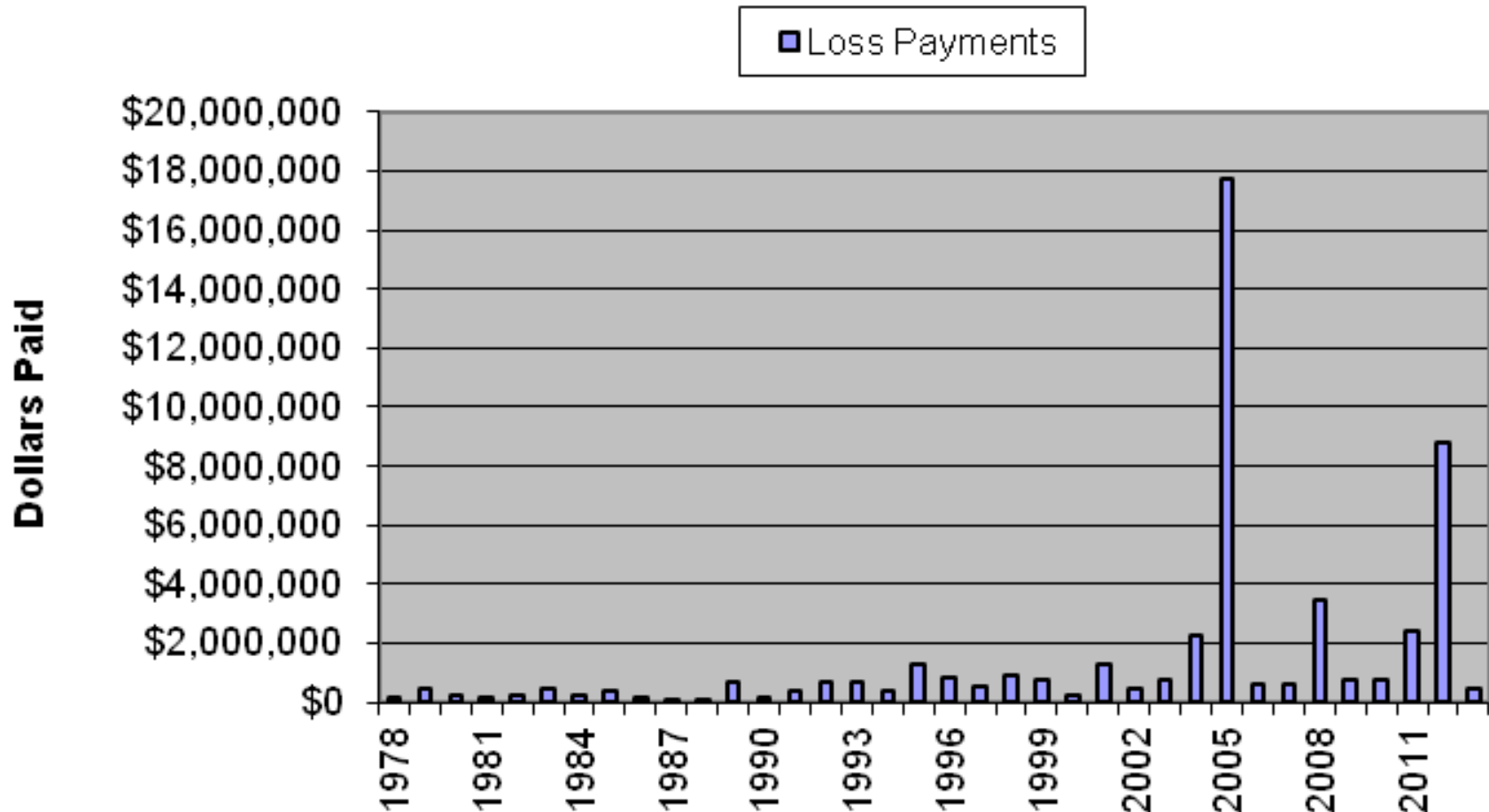
- April 29th and 30th
- Upwards of 2 feet of rainfall
- Worst Flooding in 30 years
- Fish River in Baldwin County reached highest level ever 23.8'.
- 1 reported death



Historical Losses--NFIP



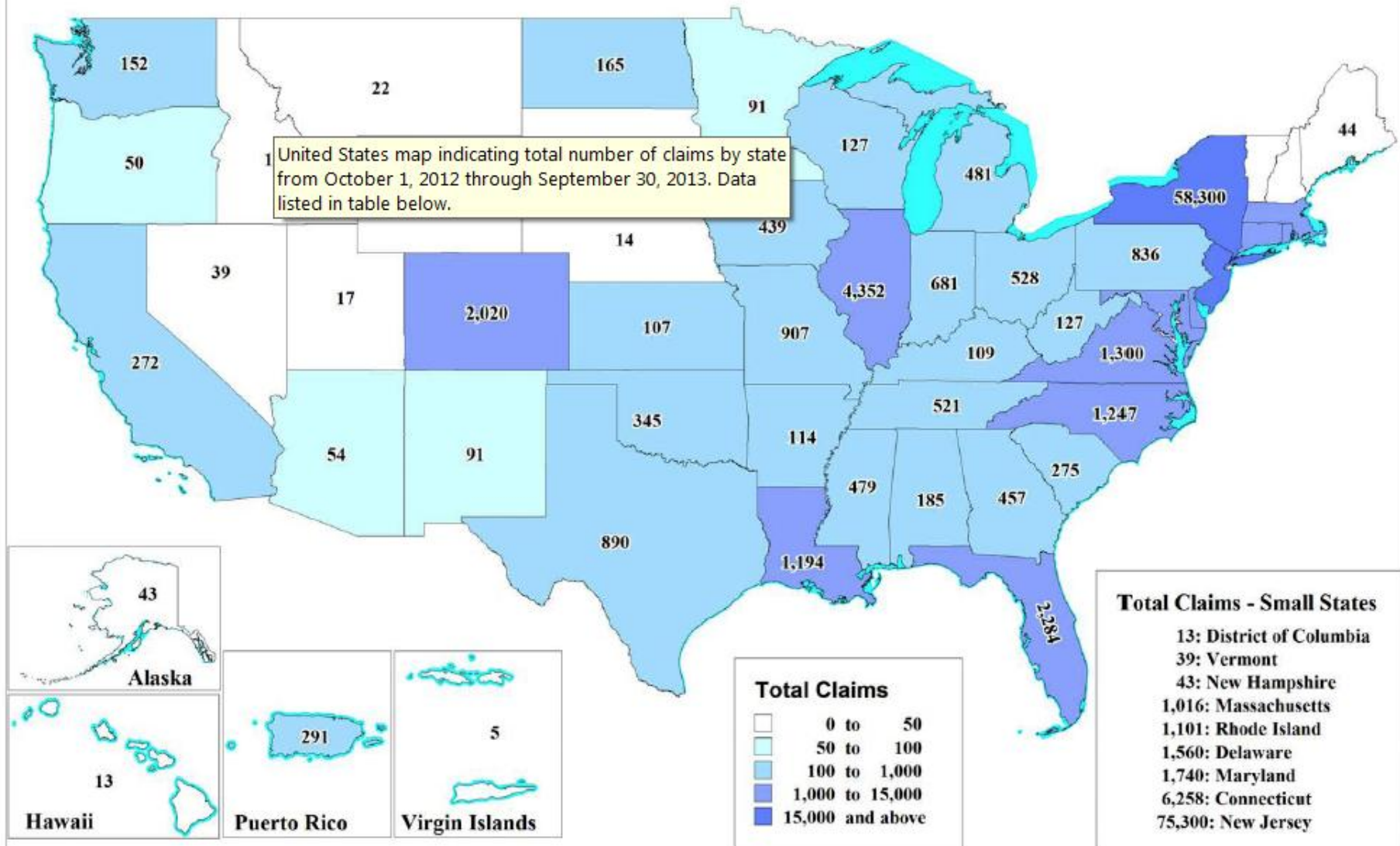
Loss Dollars Paid (Calendar/Historical) (000)



National Flood Insurance Program

Total Number of Claims

OCTOBER 1, 2012 THROUGH SEPTEMBER 30, 2013



Closing Thoughts



- Floods can and will happen—anytime anywhere
- Political debate has never been hotter
- Impacts on homeowners continue to grow
- Accurate maps are very important
- Proper administration of the floodplain ordinances is an important duty in this process
- When you are riding in a time machine way far into the future, don't stick your elbows out the window, or it'll turn into a fossil (deep thoughts with Jack Handy, just seeing if you are still awake)

Questions/Comment



- Thank you for your time and attention!
- Jason.wilson@amec.com