UNDERSTANDING WEATHER AND CLIMATE-RELATED RISKS

Pew Project on National Security, Energy, and Climate January 25, 2016

RICK SPINRAD, PH.D., CMARSCI NOAA CHIEF SCIENTIST



NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION | NOAA

U.S. 2015 BILLION-DOLLAR WEATHER & CLIMATE DISASTERS



www.ncdc.noaa.gov/billions/

Billion-dollar U.S. Disaster Event Types by Year (CPI-adjusted)





EXTREME WEATHER (U.S.) National Climate Assessment

HEATWAVES

More frequent Longer More intense

More frequent More intense

WINTER STORMS

More frequent & widespread

DROUGHT

More frequent

HEAVY DOWNPOURS

Fewer

More intense

HURRICANES

Flooding Sea level rise Coastal storm inundation Nuisance flooding FLOODING

Adequacy for Detection and Understanding Causes of Changes for Classes of Extremes



Monitoring and Understanding Changes in **Extreme Storm** Statistics: State of Knowledge. Kunkel, K.E. et al., 2012, BAMS

Monitoring and Understanding Changes in **Heat Waves, Cold Waves, Floods and Droughts** in the United States: State of Knowledge. Peterson, T.C. et al., 2013, BAMS

Monitoring and Understanding Changes in **Extreme Winds, Waves, and Extratropical Storms** along the Coasts: State of Knowledge. Vose, R.S. et al., 2014, BAMS

CMIP5 Climate Model Analyses: Climate Extremes in the United States. Wuebbles, D., et al., 2014, BAMS

KEY RESOURCES

Climate Change Impacts in the United States U.S. National Climate Assessment nca2014.globalchange.gov

STATE OF THE CLIMATE IN 2014 State of the Climate in 2014 www.amset.org



NOAA NATIONAL CENTERS FOR ENVIRONMENTAL INFORMATION

Formerly the National Climatic Data Center (NCDC)... more about NCEI »

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Climate of the U.S.

Climate Information

NOAA National Centers for Environmental Information www.ncdc.noaa.gov Explaining Extreme Events from a Climate Perspective www.amset.org

U.S. Climate Resilience Toolkit Get Started Taking Action Tools Topics Expertise Identify the Problem Meet the Challenges of a Determine Vulnerabilities Changing Climate Find resources and a framework to Investigate Options understand and address climate issu that impact people and the Evaluate Risks & Costs communities. Take Action

U.S. Climate Resilience Toolkit www.ncdc.noaa.gov

Thank you

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