



# Updating Precipitation Frequency Estimates For The Northeast States

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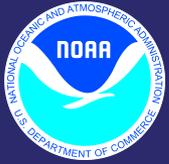
**Office of Hydrologic Development  
NOAA, National Weather Service**



# Topics



- **Why NWS?**
- **What Do We Gain?**
- **What About Climate Change?**
- **Cost & Schedule**



# Why NWS?



- **Early 1950s**
  - *NWS chosen to prepare IDF curves for fed gov't*
  - *NWS is independent*
    - *does not regulate or design*
- **Today's De-facto National Standards**
  - *endorsed by federal water agencies*
  - *referenced in many federal, state, and local regs*
  - *NWS has a proven track record*
- **Performed At Request Of And Funded By Users**
  - *not from NWS budget*



# What Do We Gain?



- **More accurate, reliable and robust**
  - *more observing locations, longer period of record*
  - *better statistical methods*
  - *objective, high resolution spatial interpolation*
  - *peer review*
- **De-facto national standards**
  - *on behalf of Federal Government & agencies*
- **Consistency between states (equity)**
- **Web based electronic delivery**
  - *Precipitation Frequency Data Server*
  - *extensive documentation*
- **Credibility and high regard for NA14**



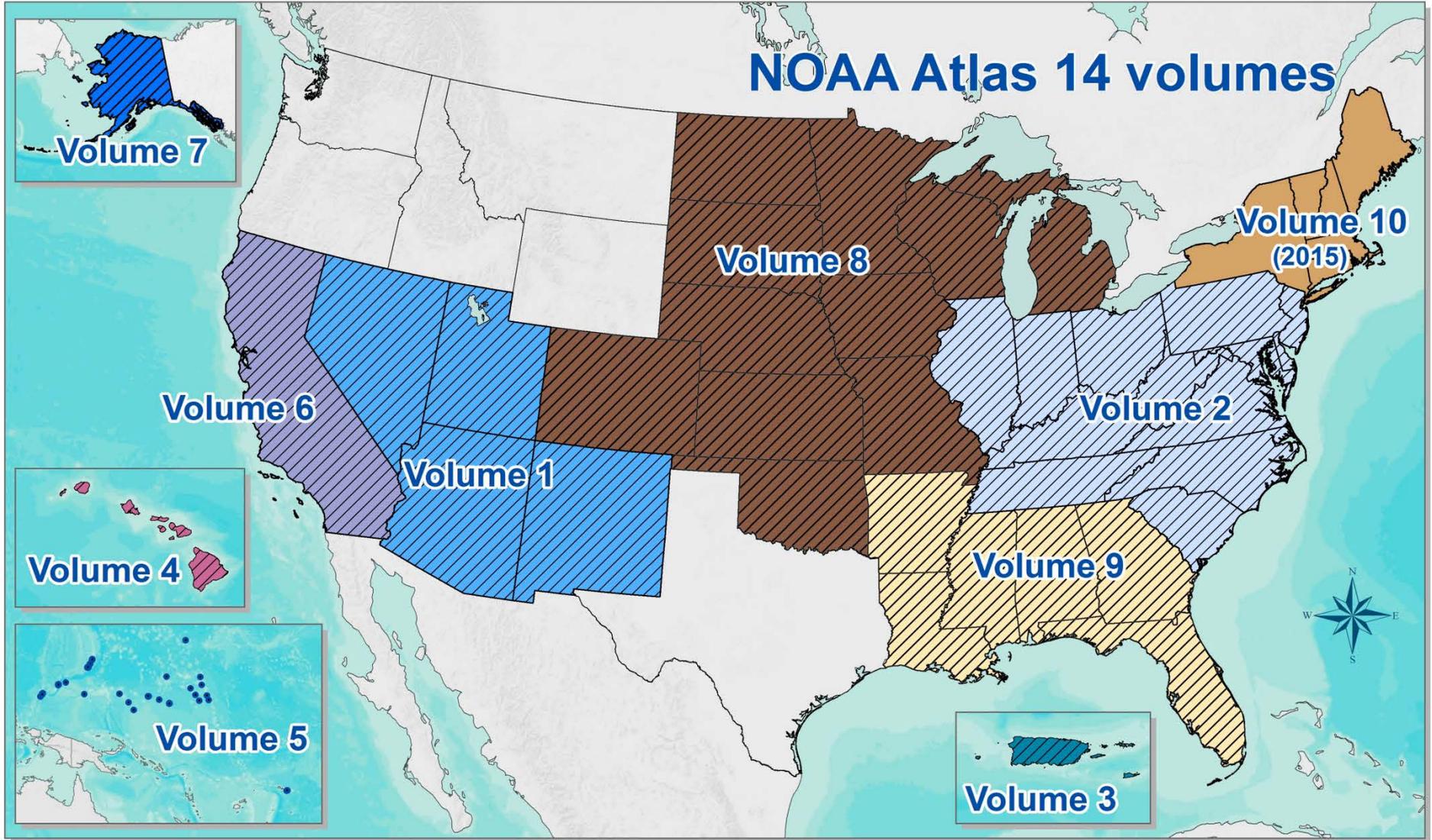
# Precipitation Frequency Estimates



- **Durations**
  - *5 minutes to 60 days*
- **Average Recurrence Interval**
  - *1 to 1,000 years*
- **Annual Maximum and Partial Duration Results**
- **High Resolution Spatial Estimates**
  - *30 arc second*
- **Confidence Interval**
  - *upper and lower bounds of 90% interval*



# NOAA Atlas 14 Proven Approach

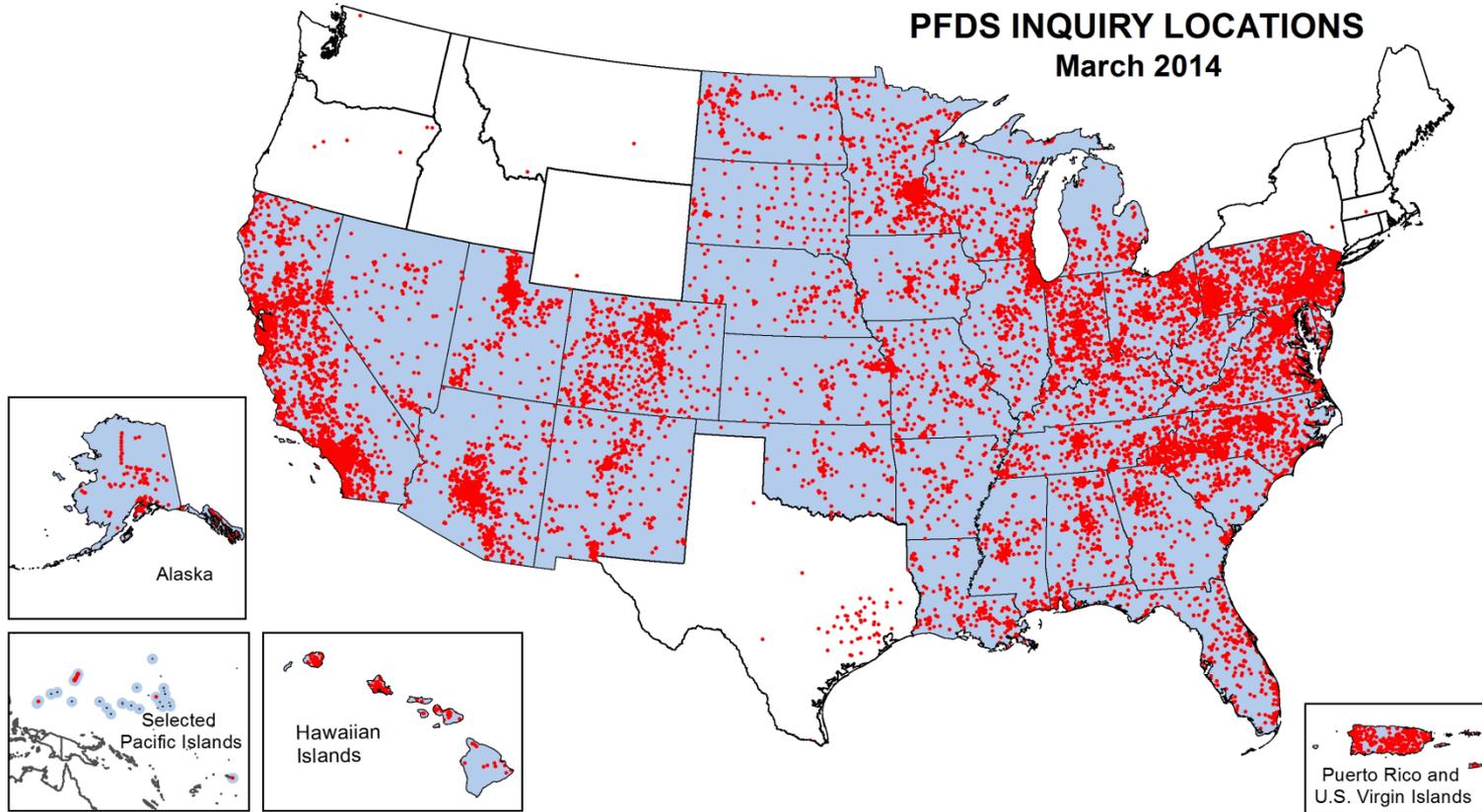




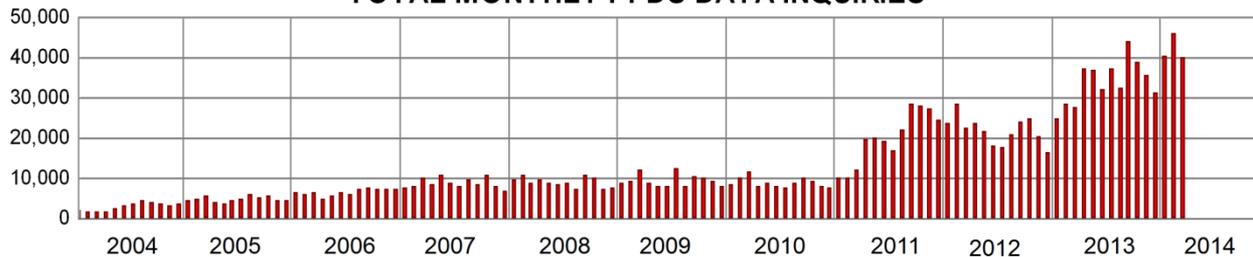
# PFDS Delivers



**PFDS INQUIRY LOCATIONS**  
March 2014



**TOTAL MONTHLY PFDS DATA INQUIRIES**

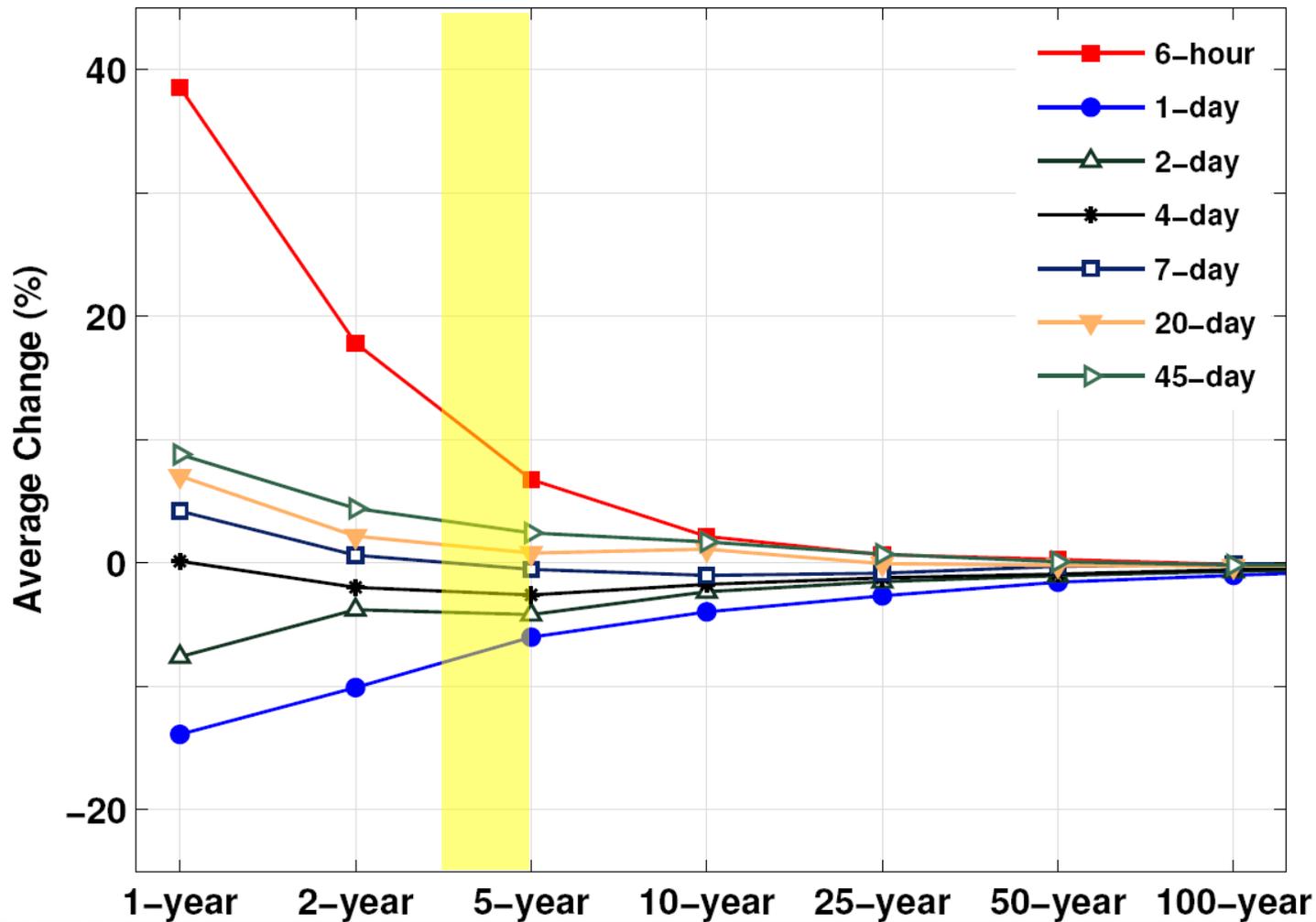




# What About Climate Change?

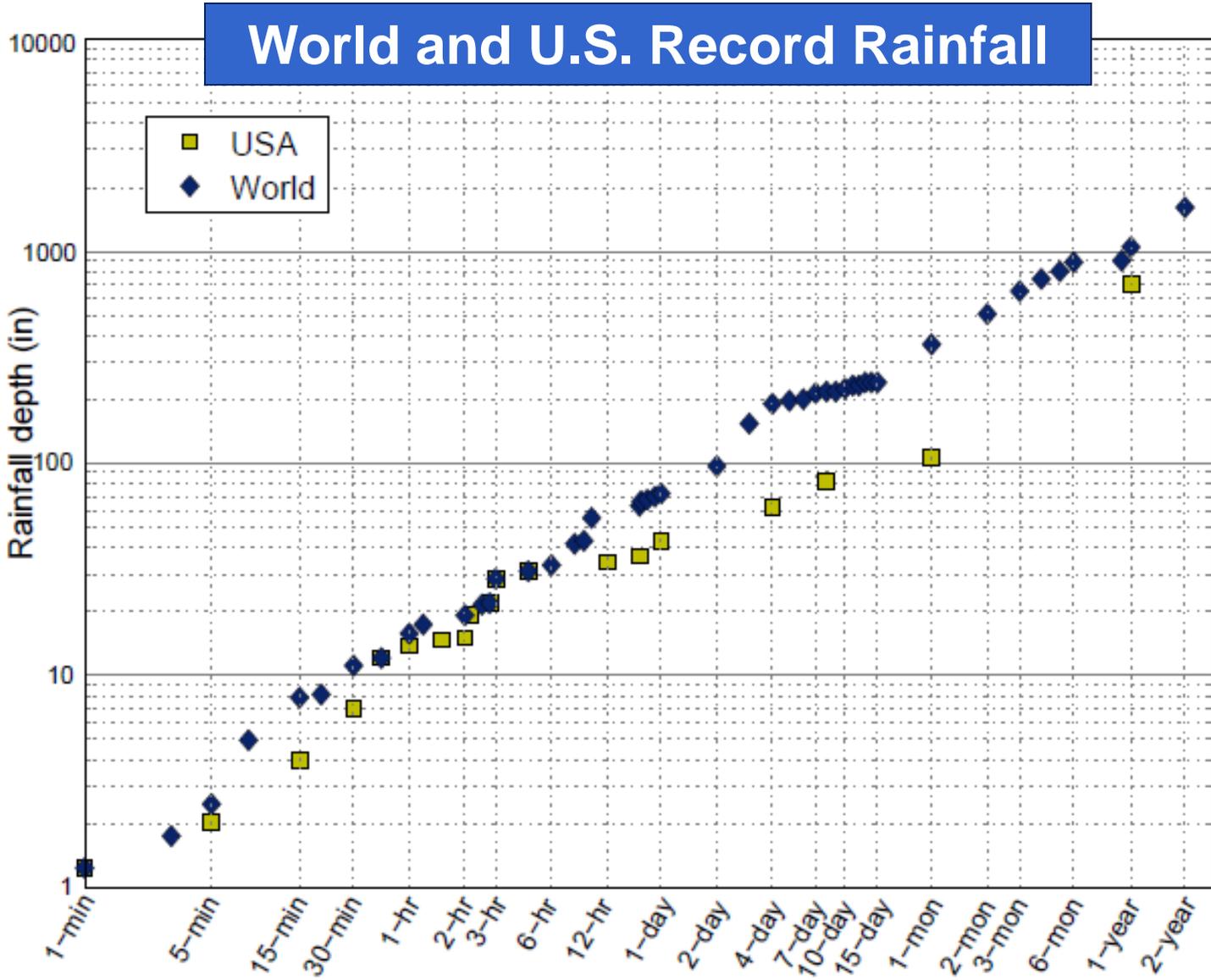


Average % Change in Number of Exceedances per Station per Century, Semiarid Southwest





# Can Climate Change Make the “Perfect Storm” More Perfect?





# Cost/Schedule



- **Takes about 3 years to complete**
  - *work can begin when funding is in place*
- **Receipt of funds can be scheduled over 3 years**
  - *\$1.057M over 3 years or \$352.3K per year*
- **NWS Project Manager:**

**Dr. Sanja Perica**

**Director, Hydrometeorological Design Studies Center**  
**primary author NA14 Vols 4 - 10**



# Questions

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