# NOAA ATLAS 14 VOLUME 11 UPDATE

Flood Management Task Force Meeting April 20<sup>th</sup>, 2018

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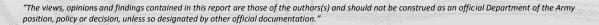


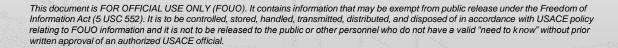










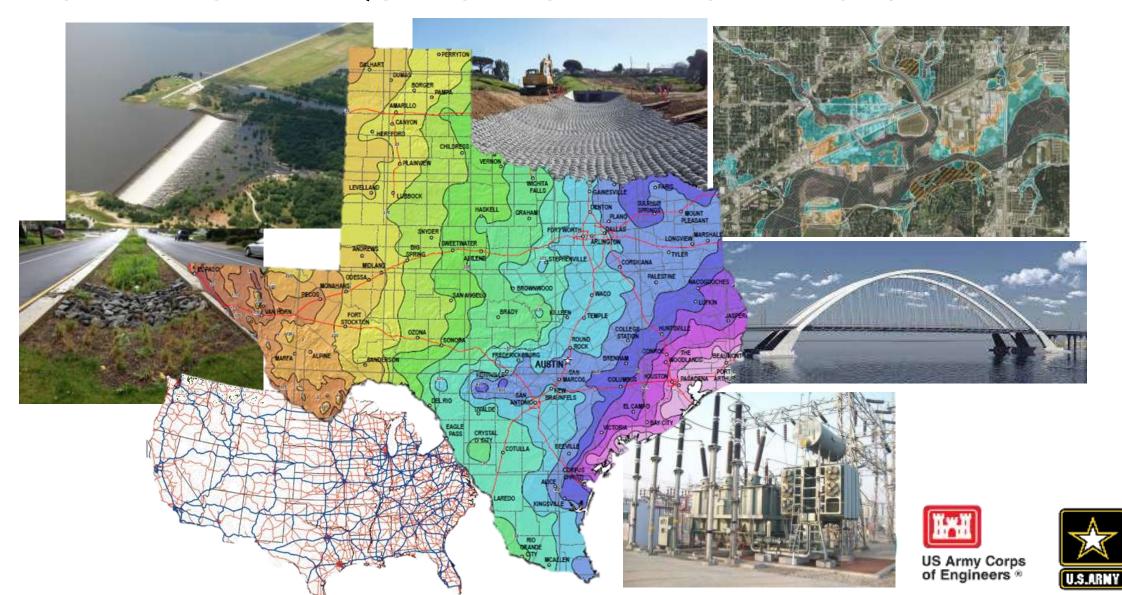






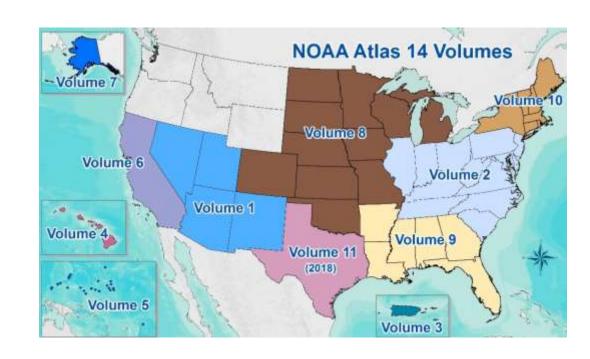


# BOTTOM LINE UP FRONT: PRECIPITATION FREQUENCY ESTIMATES EFFECTS EVERYTHING



# **NOAA ATLAS 14**

- Updated precipitation frequency estimates for different regions
  - New statistical methods
  - More data
  - Greater range of duration and ARI
  - Better preparedness planning
- Volume 11 (Texas) expected
   September 2018
- Web-based data platform
- Funded by End Users









## BASE PROJECT SCHEDULE

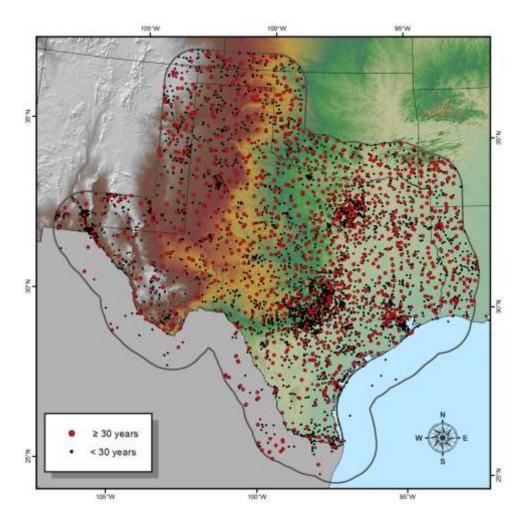
- Data collection and initial quality control Done
- Technical and Statistical Analysis Done
- Initial spatial interpolation of precipitation frequency estimates – **Done**
- Incorporating Hurricane Harvey Done
- Peer Review In Progress
- Revision of PF estimates May 2018
- Web Publication September 2018
- Documentation Published December 2018







## PRECIPITATION DATA

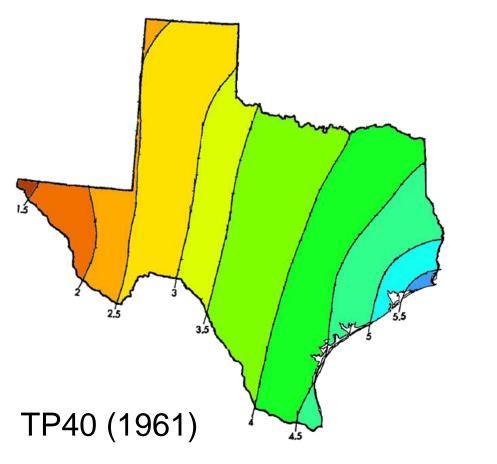


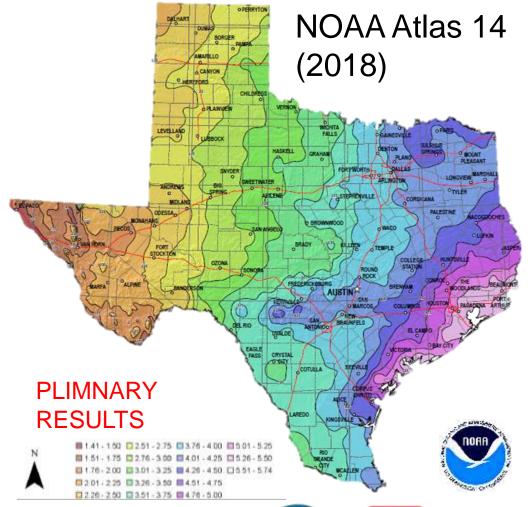
- Formatted 11,931 stations
  - \_ ≤15-min
  - 1-hour
  - 1-day
- Retained 3,900 stations
  - Length of record
  - Reliability of record





## 2-YEAR 24-HOUR PRECIPITATION ESTIMATE



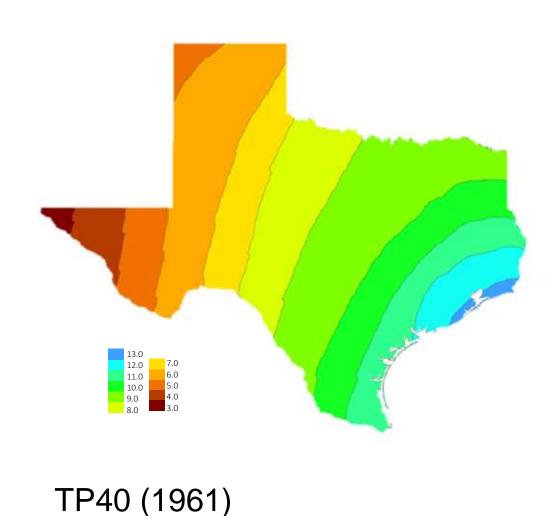




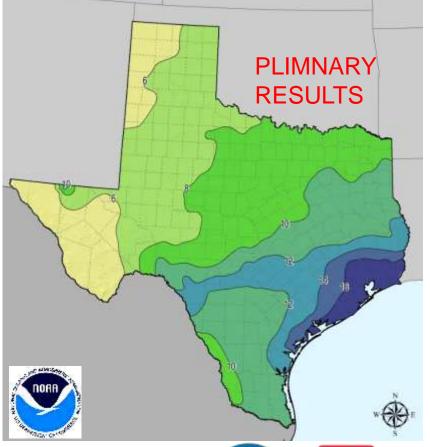




## **100-YEAR 24 HOUR PRECIPITATION ESTIMATE**



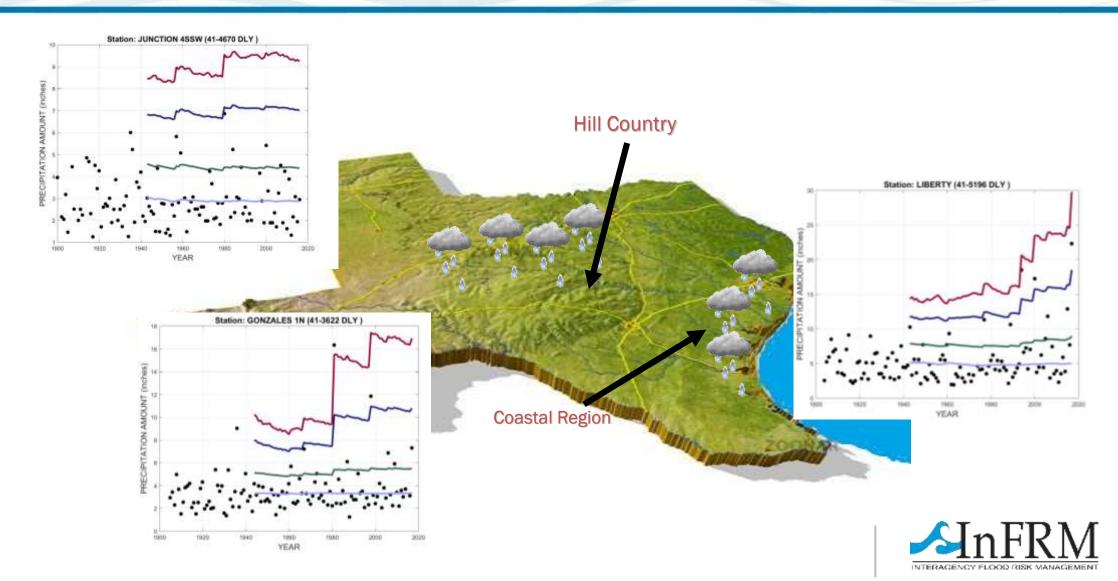
NOAA Atlas 14 (2018)







# **NOAA Atlas 14 Precipitation Changes**



## PEER REVIEW BOARD

- Dr. John Nielsen-Gammon Texas A&M University/State Climatology
- Dr. William Asquith Texas Tech University/USGS
- Dr. Nick Fang University of Texas at Arlington
- Dr. DJ Seo University of Texas at Arlington
- Steve Fitzgerald Harris County Flood Control District (HCFCD)
- Saul Nuccitelli TxDOT
- Daniel Huckaby NOAA/NWS
- Paul McKee NOAA/NWS

- Maureen O'Leary NWS/NOAA
- Jon Zeitler NOAA/NWS
- Alan Johnson FEMA
- Jason Johnson USGS
- Simeon Benson USACE
- Jerry Cotter USACE
- Landon Erickson USACE
- Craig Loftin USACE
- Helena Mosser USACE
- Steve Pilney USACE
- Paul Rodman USACE
- Max Strickler USACE







### **CURRENT FINANCIAL OUTLOOK**

#### **NOAA Atlas 14 Funding**

Budgeted Cost (Base Effort)	\$1,577,138
Funds Raised to date	\$1,422,389
Remaining Funds Required	\$154,749
Additional Studies	\$4,000,000

#### Current Partners

- Brazos River Authority
- City of Austin
- City of Fort Worth
- USACE

- Harris County Flood Control District
- NCTCOG
- TxDOT

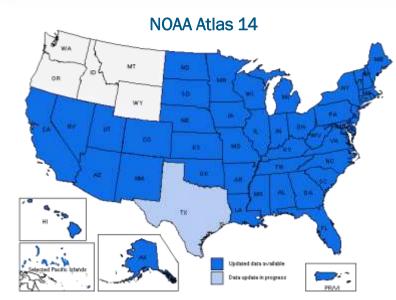






## InFRM – Meteorology Research Initiatives

- Ongoing studies
  - NOAA Atlas 14 (September 2018)
  - Extreme storm HHT & Extreme storm DB
- Studies still needed
  - Other methods to estimate precipitation frequency (check)
  - Trend analysis
  - Storm studies







### PRECIPITATION FREQUENCY ESTIMATES EFFECTS EVERYTHING

