

STREAMFLOW DATA INFORMATION

*OVERVIEW PROVIDED TO THE TRINITY – SAN JACINTO RIVER
BASIN AND BAY EXPERT SCIENCE TEAM*

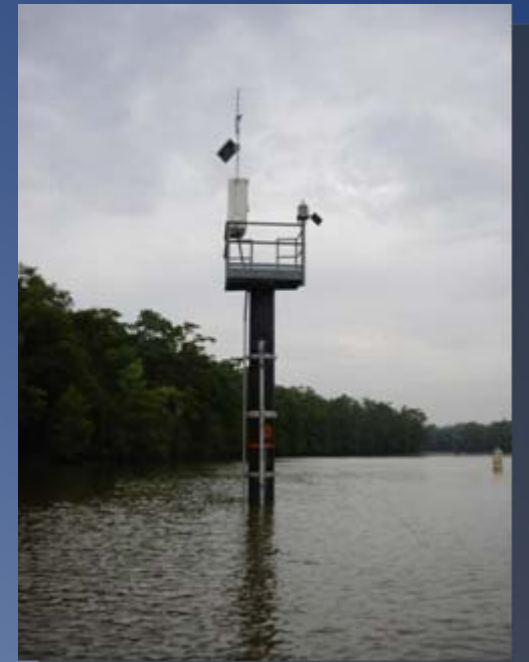


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WATER RESOURCES MISSION –

...to provide hydrologic information and understanding needed by others to achieve the best use and management of the Nation's water resources. **USGS accomplishes this mission in cooperation with State, Local, and Other Federal Agencies.**

STREAMFLOW DATA COLLECTION

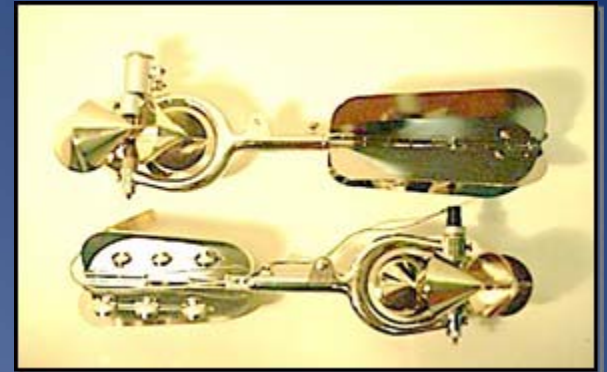
- 125+ years of data collection world-wide
- USGS developed the techniques, and in many cases the technology
- Technology has changed dramatically over the last 10 years
- Varying discharge methods each with unique limitations and appropriate uses

STREAMFLOW DATA COLLECTION



STREAMFLOW DATA COLLECTION

- 1901-late 1990s
 - Standard AA
 - Pygmy
 - Cableway
 - Pen/charts
 - Punchedtapes
- Limitations

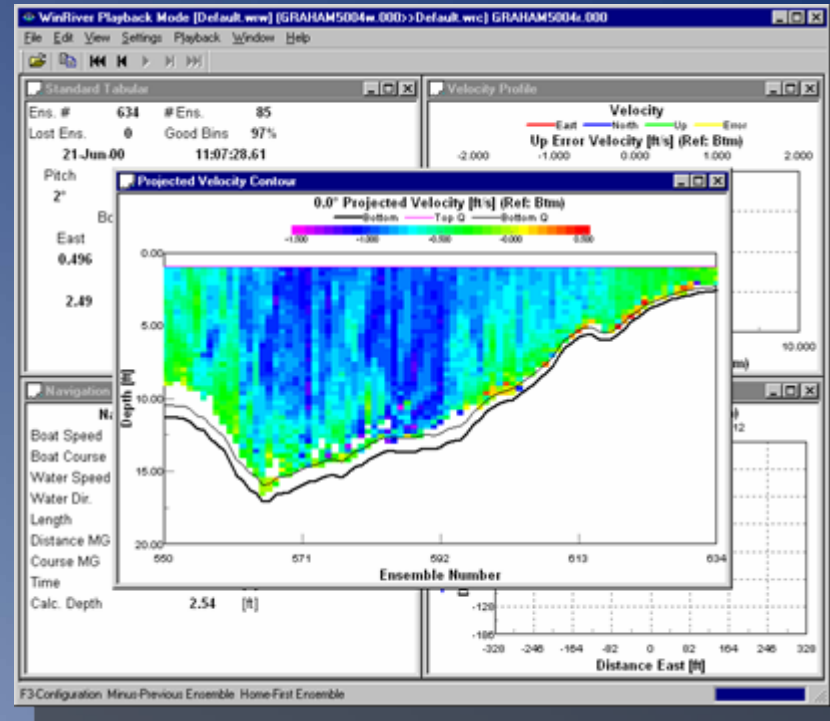


STREAMFLOW DATA COLLECTION



STREAMFLOW DATA COLLECTION

- Late 1990s to current
 - Acoustic Doppler Current Profiler
 - Cableways replaced with boats
 - Telemetry
- Limitations



DATA AVAILABILITY

- Instream flows to Galveston Bay
 - 205+ gages have existed in the Trinity and San Jacinto River Basins since 1900
 - Includes tidally influenced, Full range, Q above base, stage only
 - Of these about 100 gages exist that were operated in 2008

DATA AVAILABILITY

Oklahoma

Aug 26, 2007

Arkansas

Texas

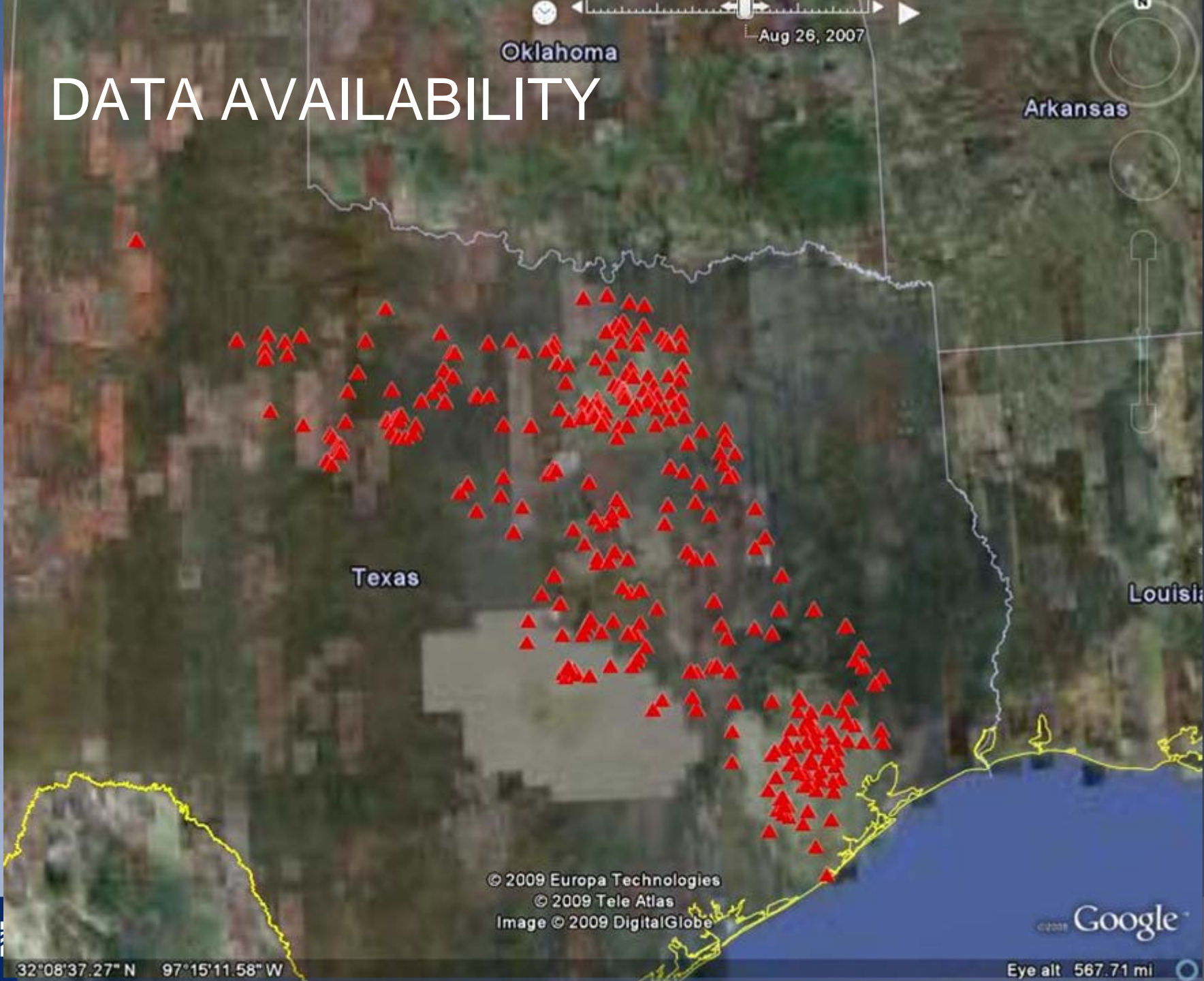
Louisiana

© 2009 Europa Technologies
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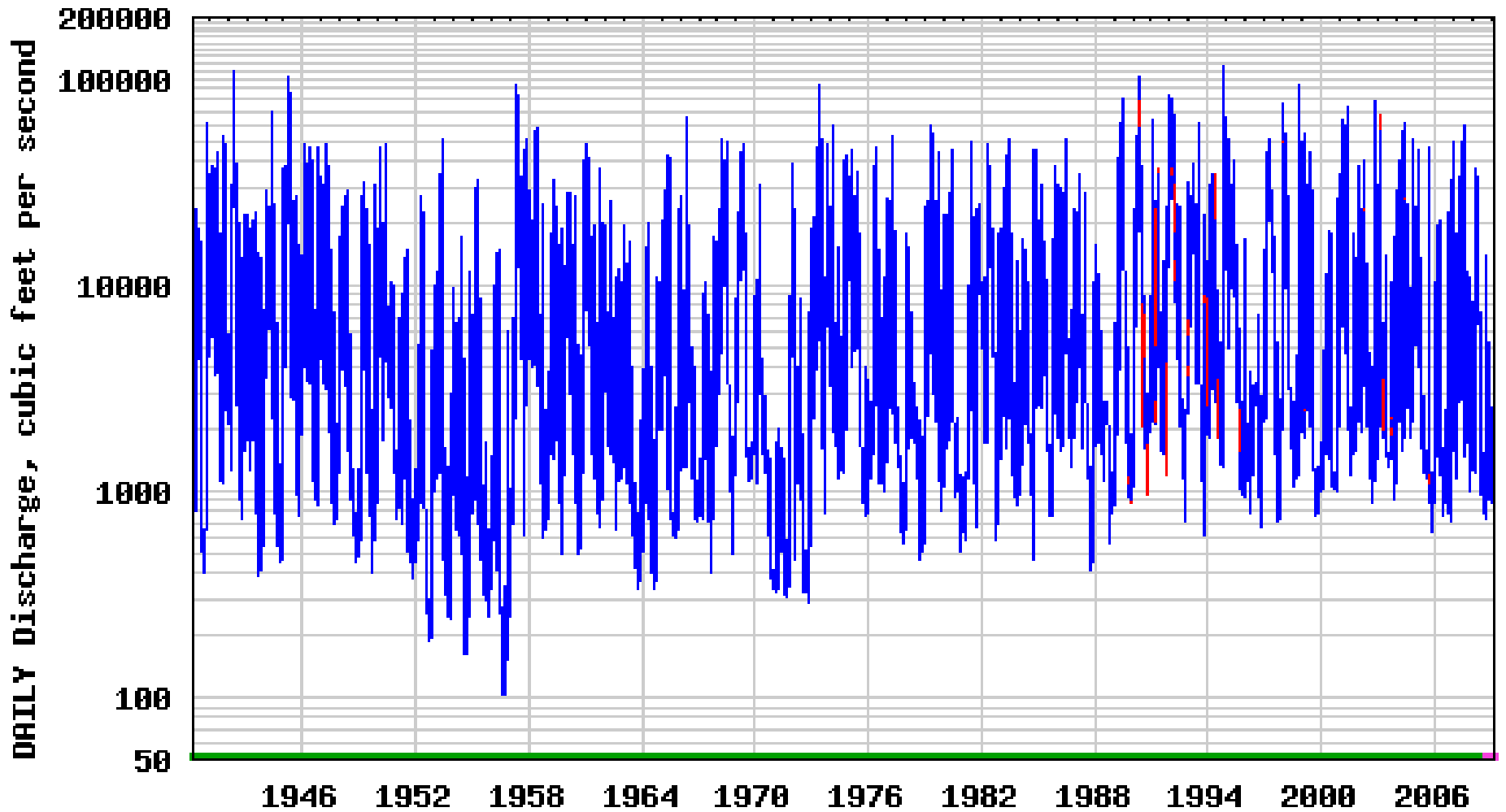
Google

32°08'37.27" N 97°15'11.58" W

Eye alt 567.71 mi

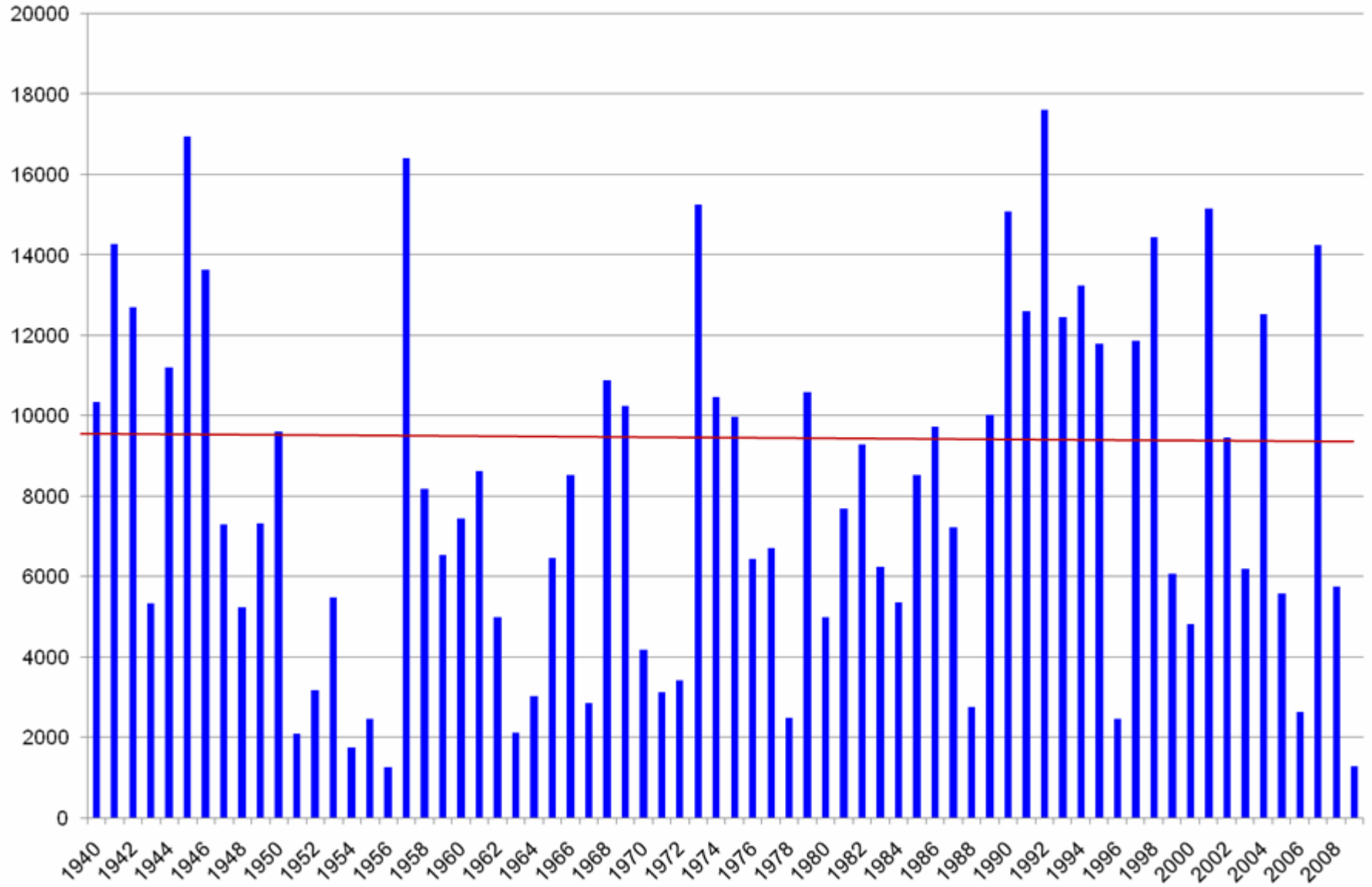


USGS 08066500 Trinity Rv at Romayor, TX



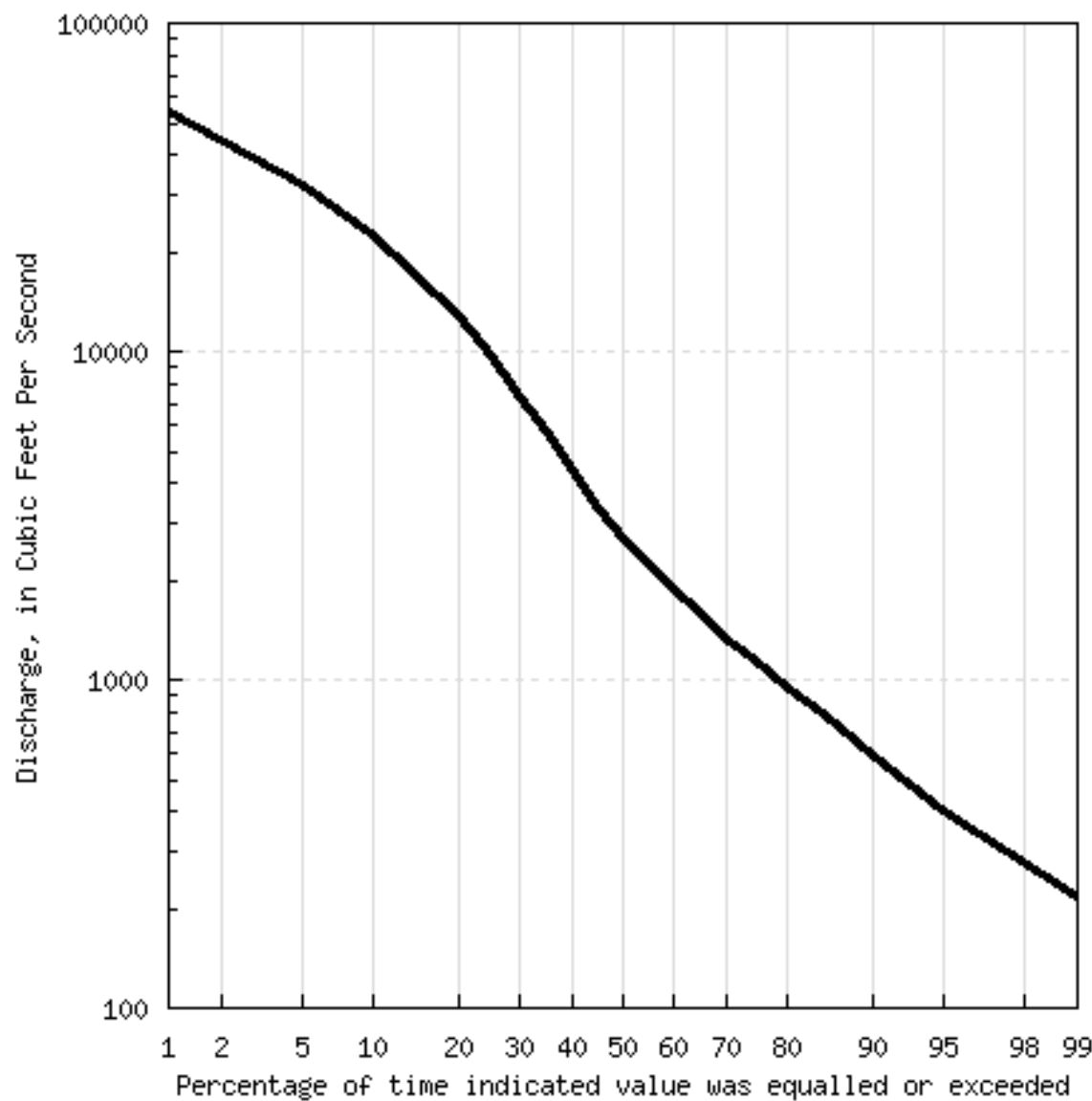
- Daily mean discharge
- Estimated daily mean discharge
- Period of approved data
- Period of provisional data

Year Average: Mean Daily Q - Trinity River near Roymayor, 1940-present



USGS 08066500 Trinity Rv at Romayor, TX

Drainage Area: 17186 Square Miles, Length of Record: 83 Years

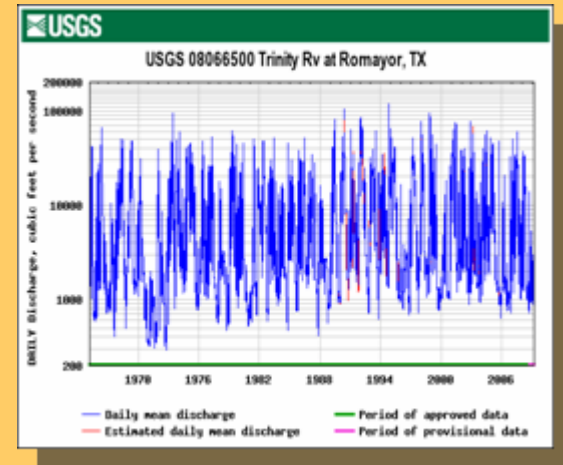


beg_dt:	19240501
end_dt:	20070930
nval:	30468
mean:	7909.5
std:	11592.6
min:	104.0
p05:	400.0
p10:	595.0
p25:	1160.0
p50:	2720.0
p75:	9797.5
p90:	22800.0
p95:	32500.0
max:	117000.0



DATA STATISTICS

- [Trinity River near Romayer](#)
- [Trinity River near Crocket](#)
- [Buffalo Bayou near Houston](#)
- [W. Fork San Jacinto River near Conroe](#)
- [Trinity River near Romayer – Daily Data](#)
- [Trinity River Flow Duration Curves](#)
- [San Jacinto River Flow Duration Curves](#)



- Want [to](#) see others?
- [Other stats?](#)

Where do we go from here?

- Define criteria for selection:
 - Period of record
 - Proximity to Regulation
 - Proximity to endpoint
 - Availability of ancillary datasets (biol/qw)
 - Availability of other data sources
 - Apply weight to data
 -could keep going.....

Where do we go from here?

- Site selection and historical data analysis
 - Basic stats
 - Flow duration curves
- Incorporate these data with ancillary data sets and evaluate obvious relations

Summary

- Streamflow data collection methods have changed significantly over the last 15-20 years.
- The Trinity and San Jacinto Basins have been well gaged over time, and many sites have long term data
- Once a criteria is defined, it would be appropriate to RFQ a data analysis task to develop metrics from the “core” gage set.

Any questions or discussions?

