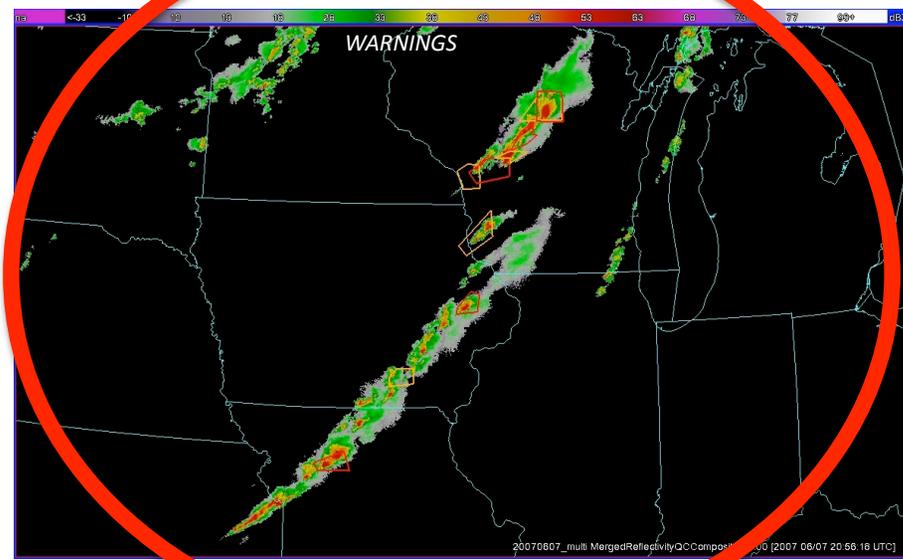
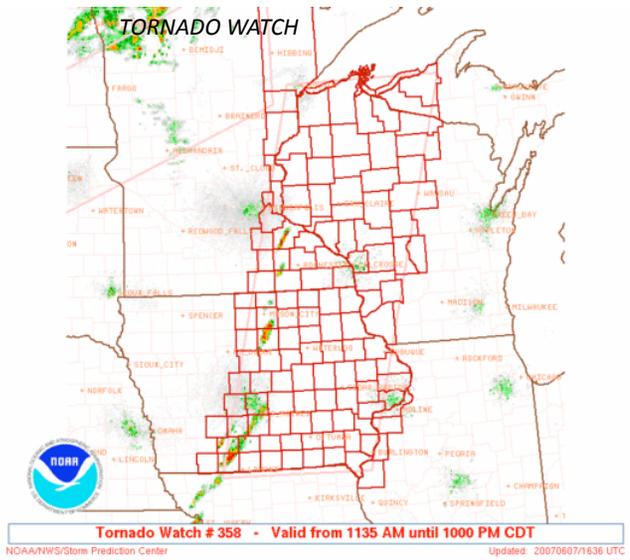
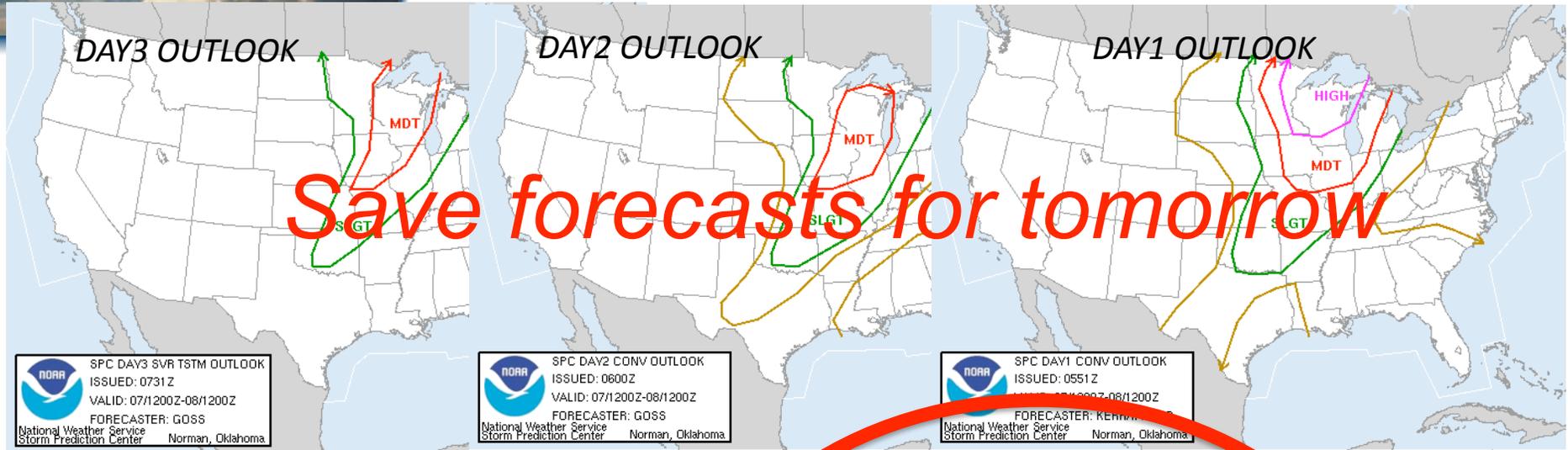


Hazardous Weather Warnings

Donald W. Burgess
Hazardous Weather Forecasts
& Warnings







Relevance

NOAA Mission Goal

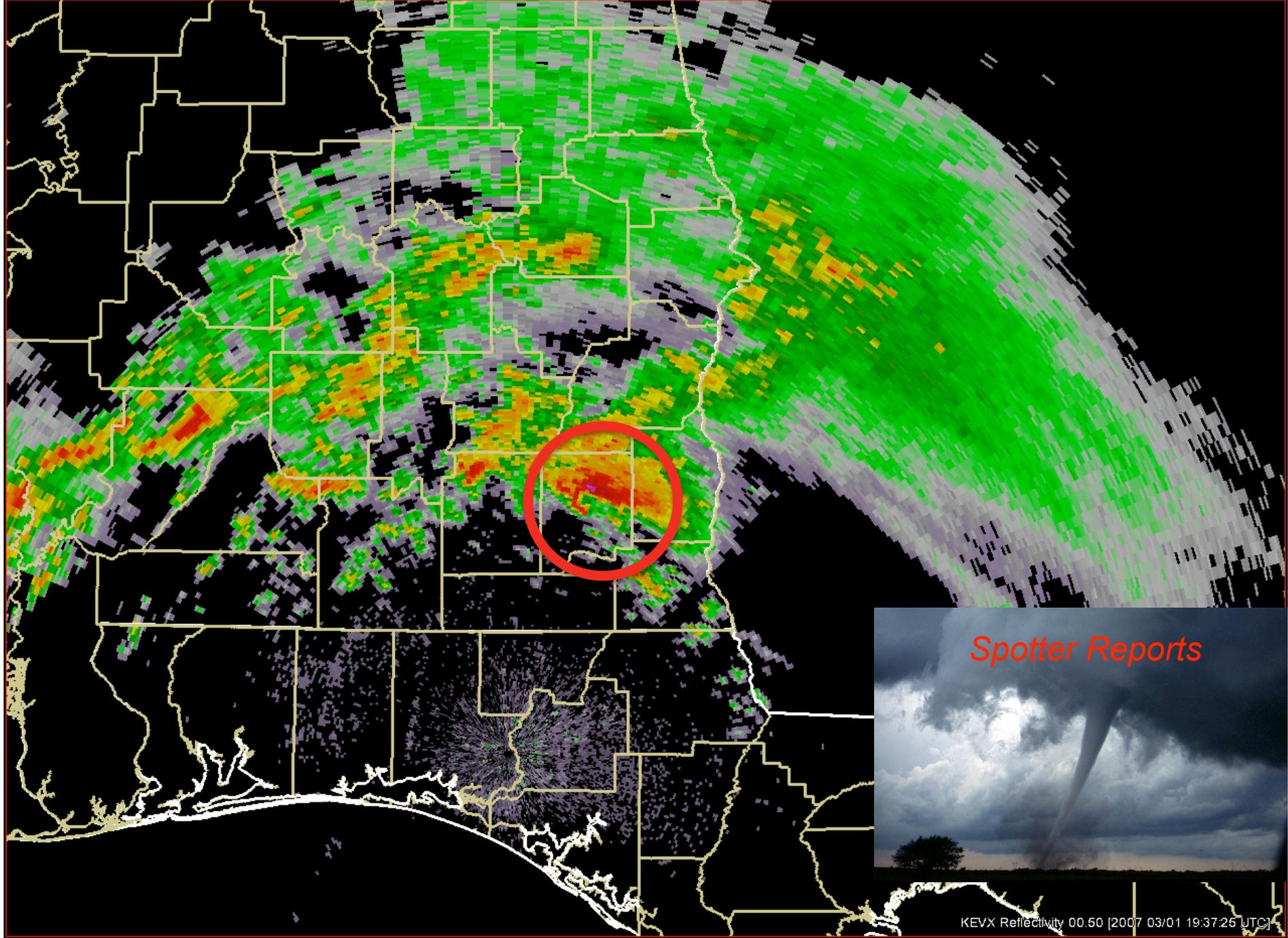
Weather and Water

“Serve society’s needs for weather and water information”

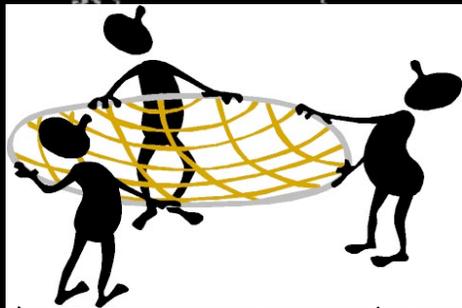
Objectives:

- Increase **lead-time** and accuracy for weather and water **warnings** and forecasts
- Increase development, application, and **transition** of advanced science and technology to operations and services

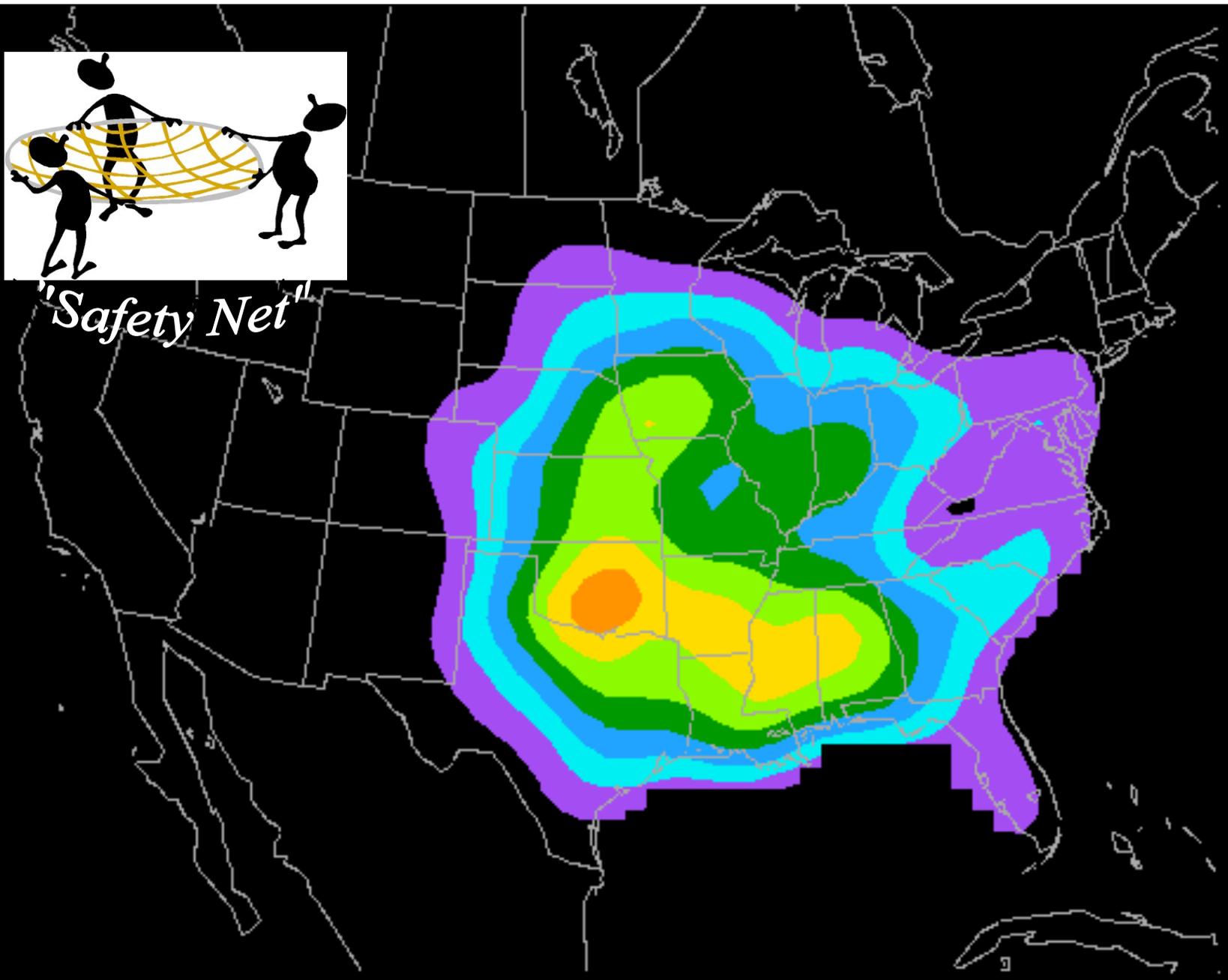
na <-33 -10 10 13 16 26 33 36 43 46 53 63 66 73 77 88+ dBZ



KEVX Reflectivity 00.50 [2007 03/01 19:37:25 UTC]

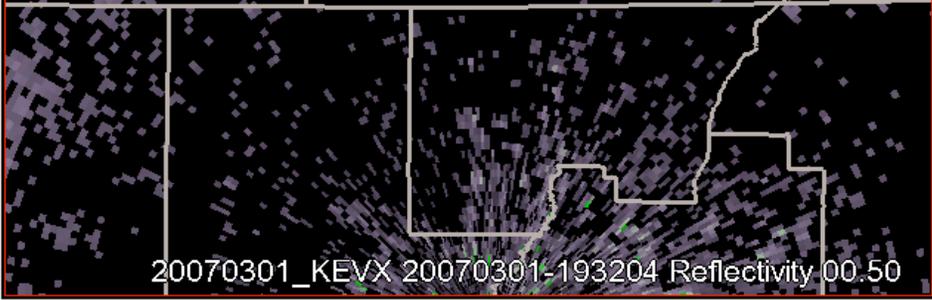
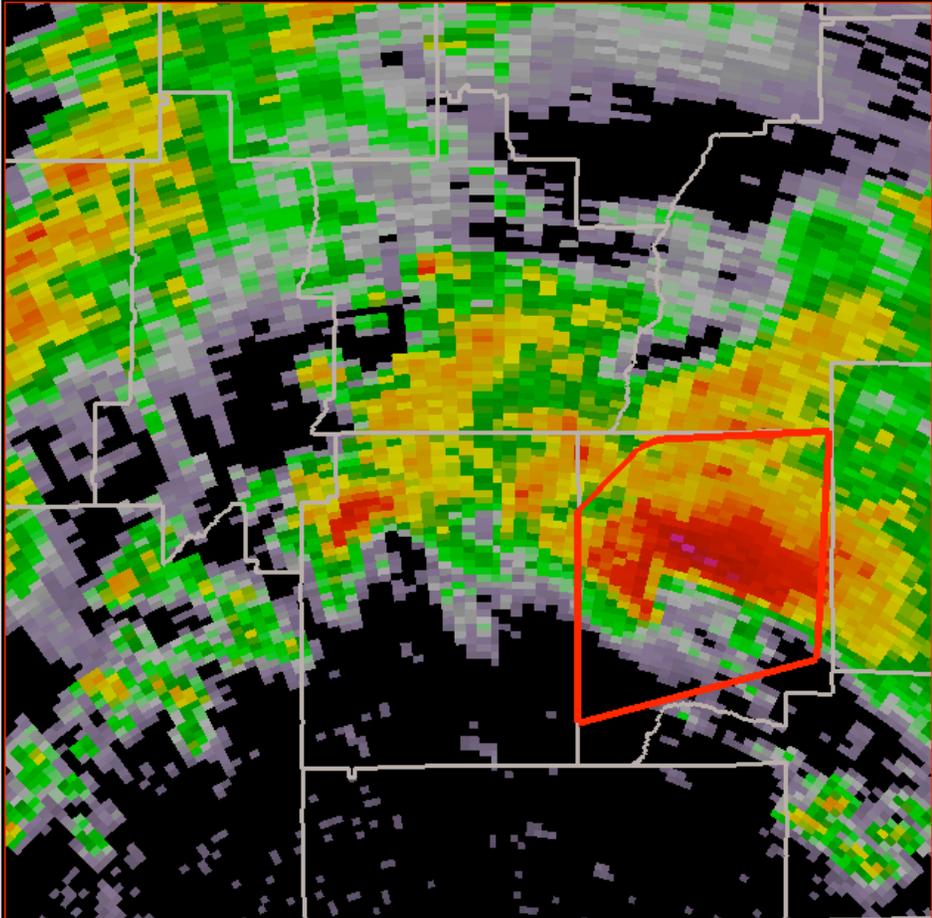


"Safety Net"



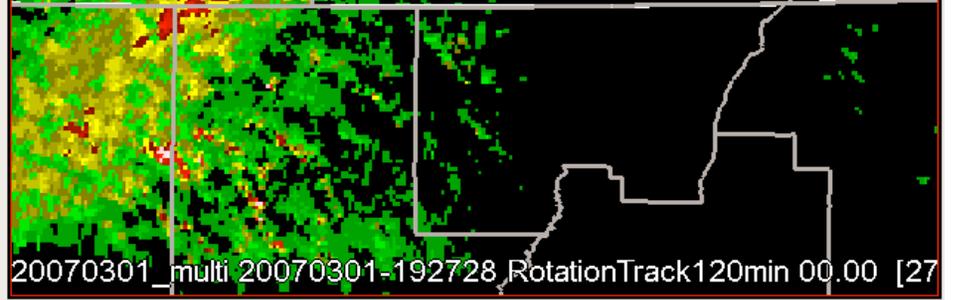
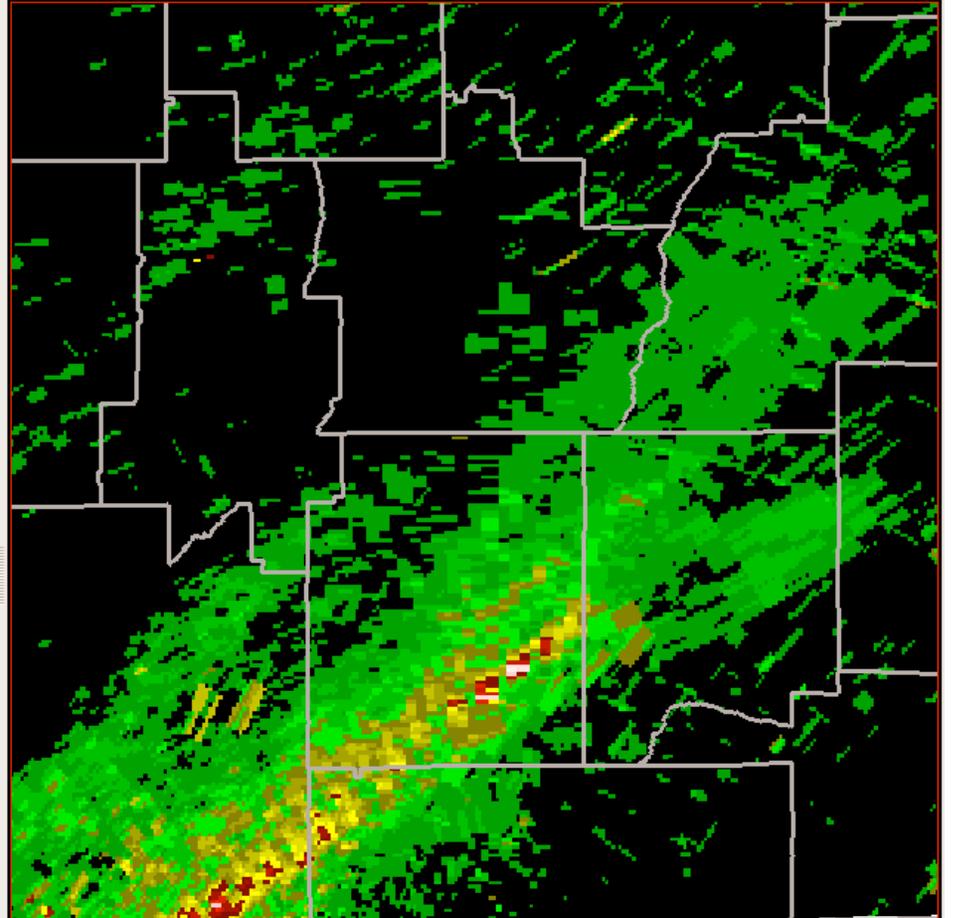
Significant (F2 or greater) Tornado Days Per Century (1921-1995)

#3 (group 'A')
na <-33 10 13 18 28 33 38 43 48 53 63 68 73 77 dBZ

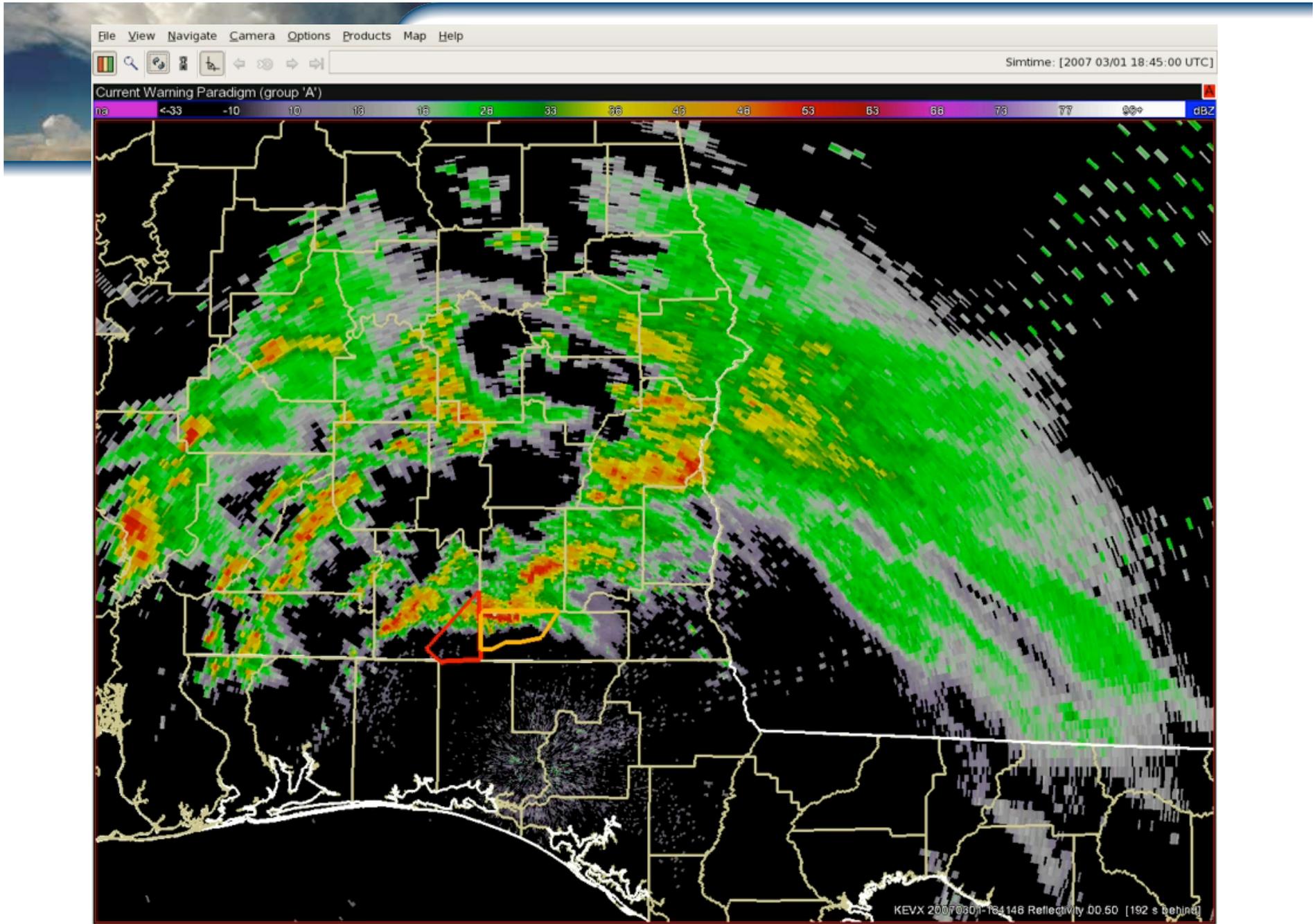


20070301_KEVX 20070301-193204 Reflectivity 00.50

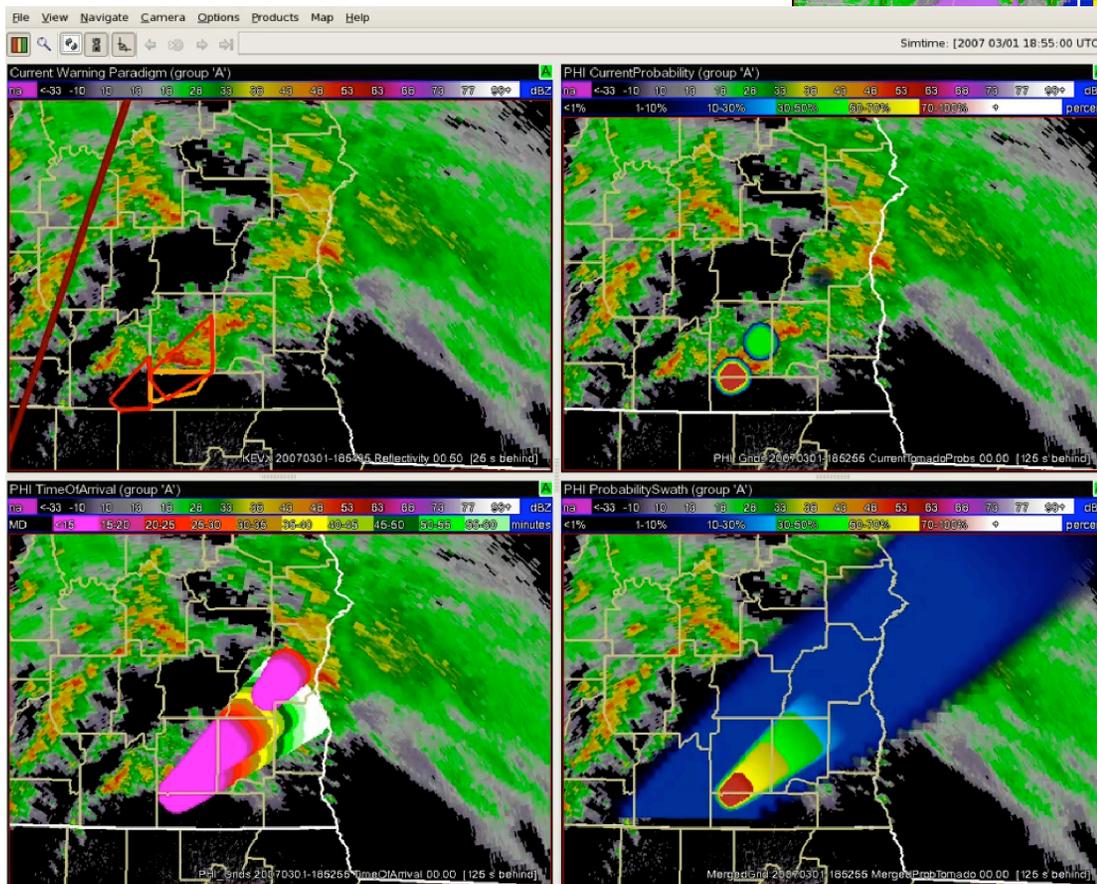
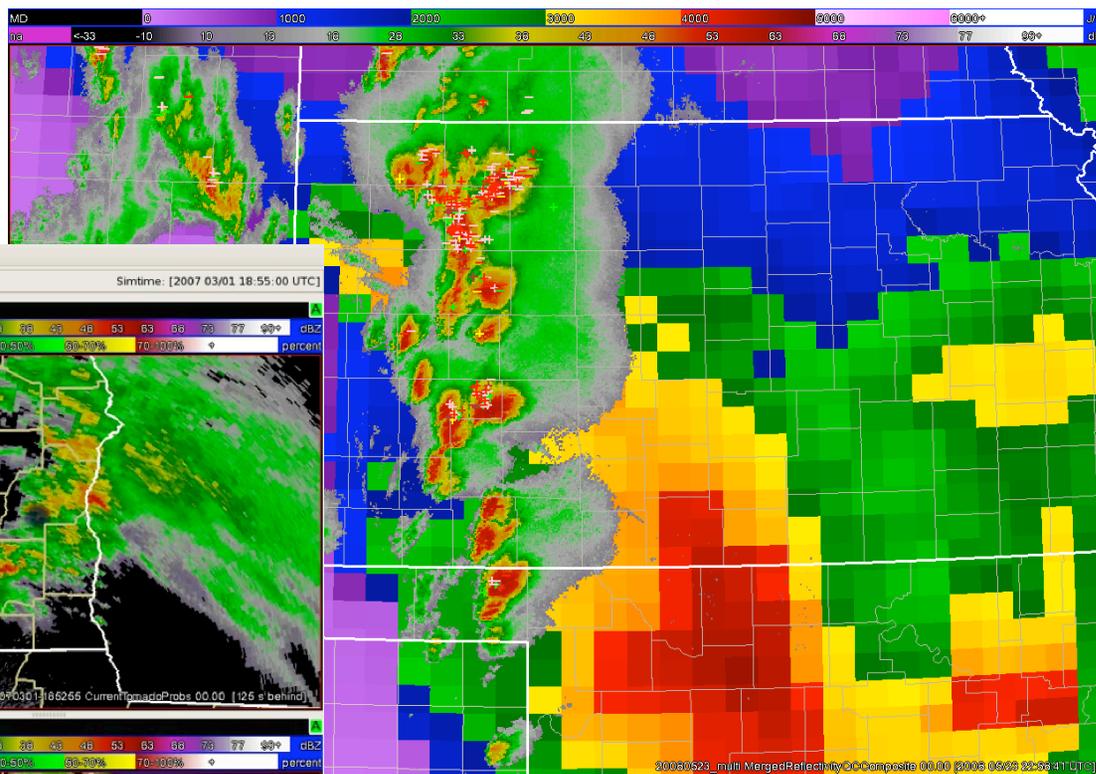
#2 (group 'A')
MD 0.001 0.003 0.005 0.007 0.009 0.011 0.013 ≥0.015 s^-1



20070301_multi 20070301-192728 RotationTrack120min 00.00 [27



New ways to integrate, assess, disseminate







Quality

- Over 30 peer reviewed publications in last 5 years
 - Roberts, R. D., D. W. Burgess, M. Meister, 2006: Developing Tools for Nowcasting Storm Severity. *Weather and Forecasting*, **21**, 540-558.
 - Brown, R. A., R. M. Steadham, B. A. Flickinger, R. R. Lee, D. Sirmans, V. T. Wood, 2005: New WSR-88D volume coverage pattern 12: Results of field tests. *Weather and Forecasting*, **20**, 385-393.
 - Kelleher, K. E., K. K. Droegemeier, J. J. Levit, C. S. Sinclair, D. E. Jahn, S. D. Hill, L. Mueller, G. Qualley, T. D. Crum, S. D. Smith, S. A. Del Greco, S. Lakshmiarahan, L. Miller, M. Ramamurthy, B. Domenico, D. W. Fulker, 2007: Project CRAFT: A Real-Time Delivery System for NEXRAD Level II Data Via the Internet. *Bulletin of the American Meteorological Society*, **88**, 1045-1057

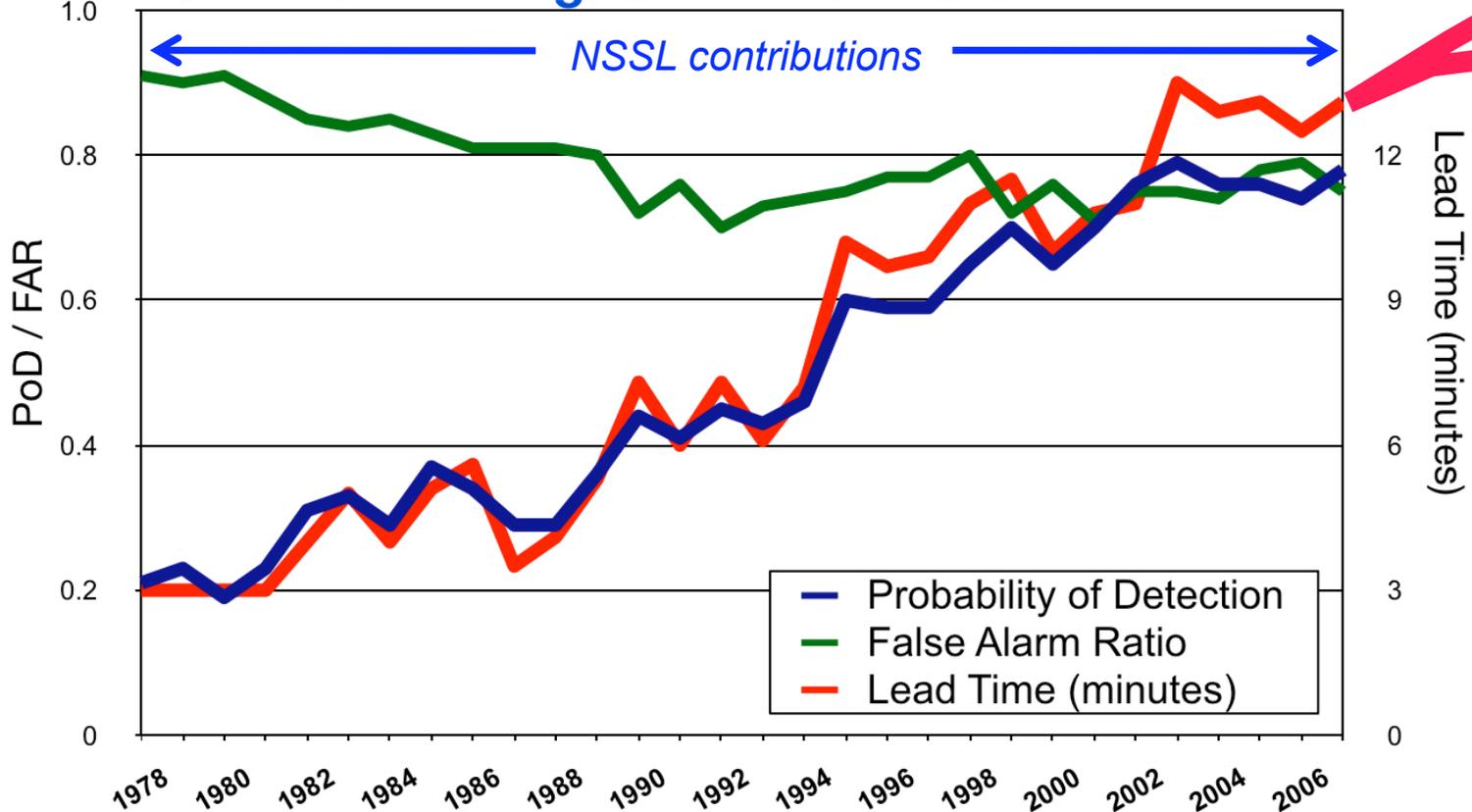
—— NSSL and CIMMS — University/NCAR — Other NOAA — Private Sector

- **DEPARTMENT OF COMMERCE GOLD MEDAL**, Vincent Wood and J. Purpura for instituting a program of disseminating NWS hazardous weather warnings to the Oklahoma deaf and hard-of hearing community through alphanumeric pagers (2004)
- ~\$1M in external funding from several sources spent during 2008

Performance: Tornado Lead Time Success Story



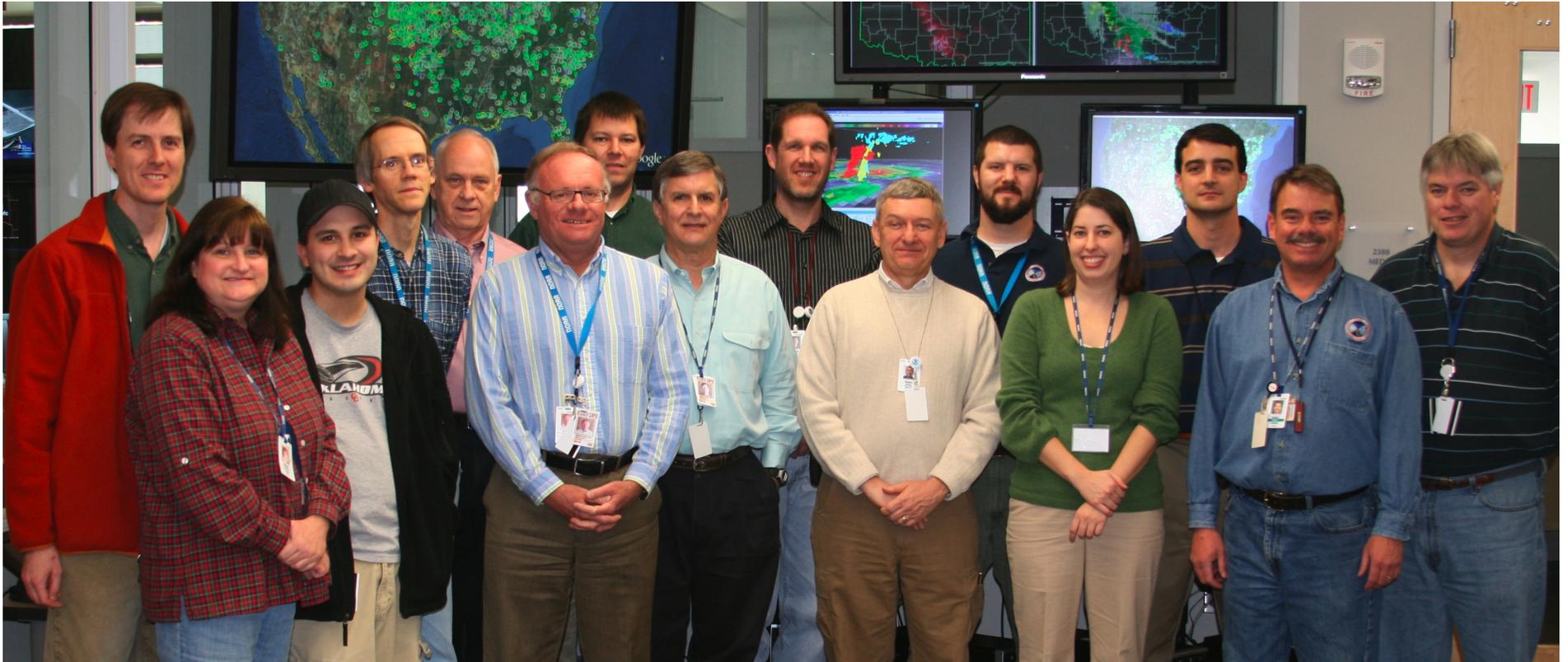
Tornado Warnings Statistics 1978-2006



DEPARTMENT OF COMMERCE GOLD MEDAL, NSSL Unit Citation “for achieving scientific and technical breakthroughs leading to the continuous improvements in the national network of Doppler radars (WSR-88D)” (1995)



It's All About the People





Hazardous Weather Warnings Session

Talks:

- Advanced Storm Visualization Techniques (Greg Stumpf)
- Nowcasting Applications (Travis Smith)
- Probabilistic Hazard Information (Kristin Kuhlman)

Electronic Posters (tomorrow morning):

- Hail Verification and Analysis Research (Kiel Ortega)
- Circulation Detection and Analysis (Kim Elmore)

Talks:

- Warn on Forecast and VORTEX2** (Louis Wicker – tomorrow morning)