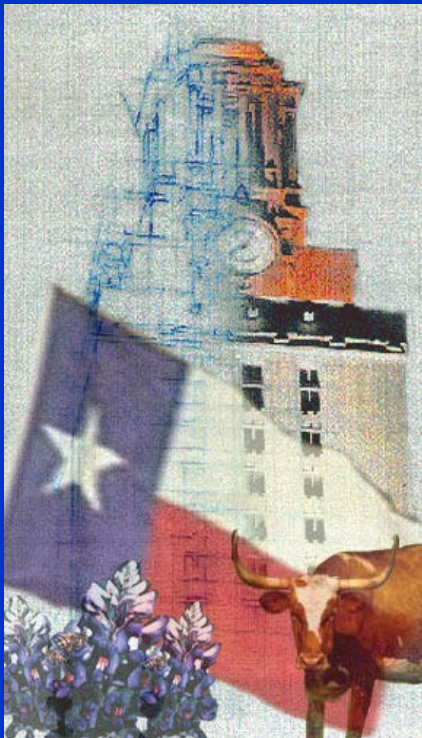


# Satellite and Other Imaging Techniques in Post-Earthquake Geotechnical Reconnaissance



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Meeting of the Committee Formerly  
Known as the GeoRecon Working Group  
16 March 2004

# *Available Imaging Techniques*

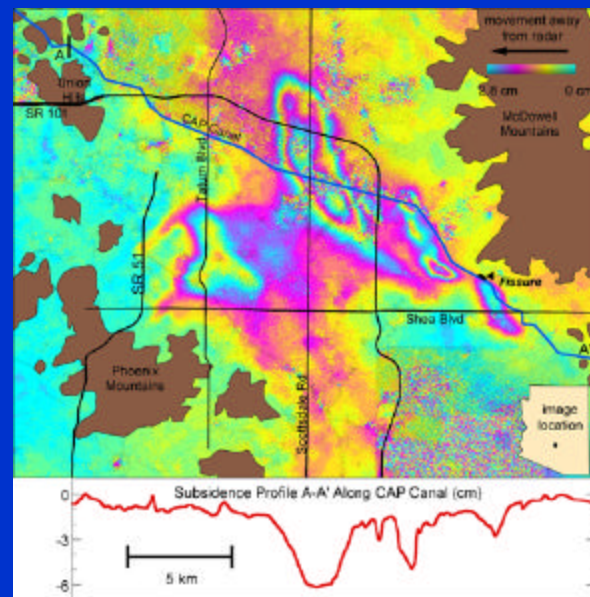
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- Optical satellite images
  - 60-cm resolution
  - Recon uses: base maps, rapid damage evaluation
  - Post-recon uses: damage evaluation, documenting lateral ground deformation
  - Issues: cloud cover, satellite orbits, processing time



# Available Imaging Techniques

- Space-borne synthetic aperture radar
  - 10-m resolution, no cloud issues
  - Post-recon uses: documenting ground deformation
  - Issues: satellite orbits, time to obtain and process images



# *Available Imaging Techniques*

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- Airborne laser altimetry (LIDAR)
  - Ability for high resolution
  - Recon uses: 3D topography over large area
  - Issues: no pre-event image, international earthquakes
- Land-based laser scanning
  - Very high resolution
  - Recon uses: 3D topography
  - Issues: transporting equipment, no pre-event image