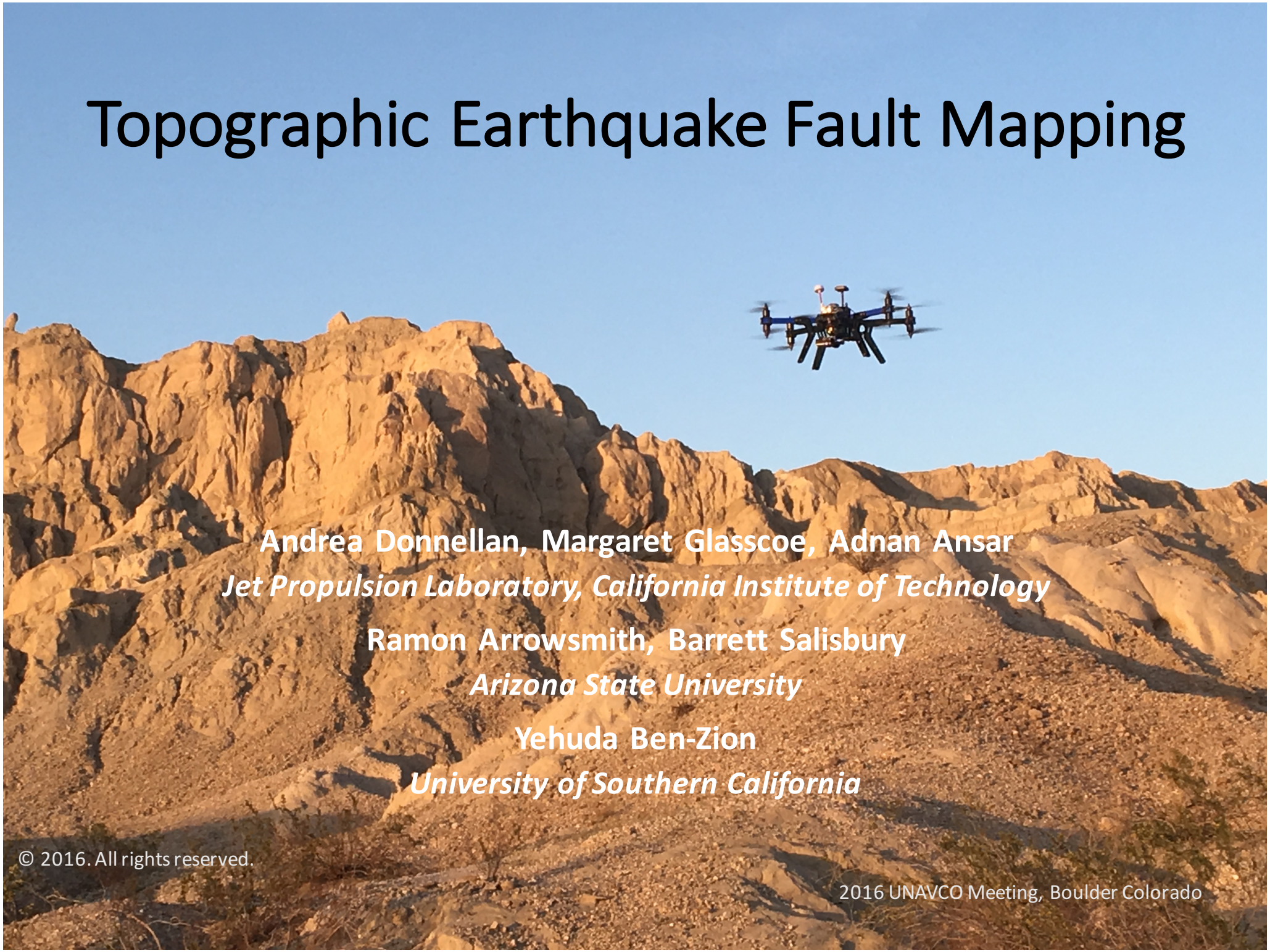
Topographic Earthquake Fault Mapping



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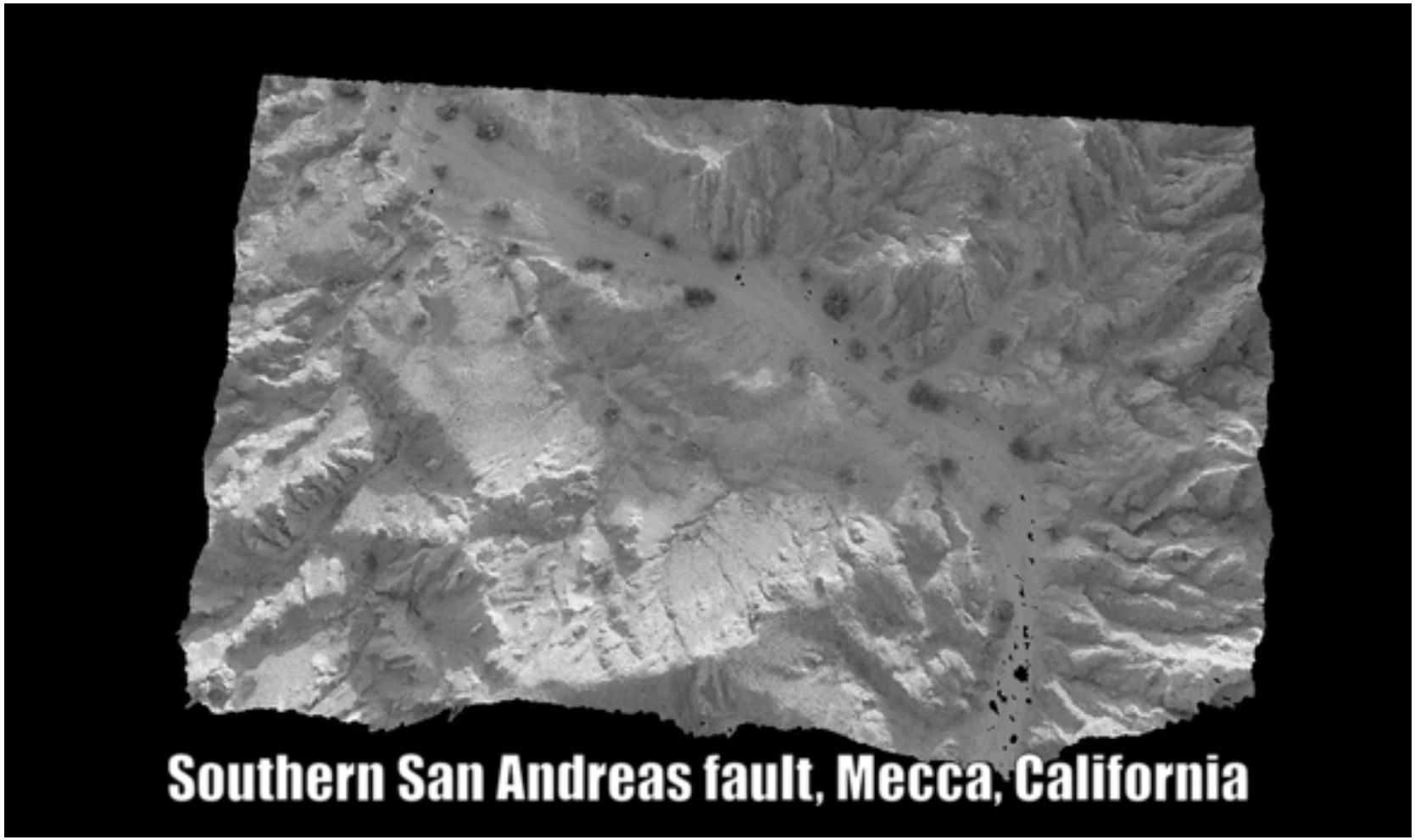
Terrestrial Geodetic Imaging

- *Compelling science opportunities and geodetic technical advances*
  - Determine damage structure and surface characteristics of earthquake faults from geomorphic metrics by identifying features such as lineations, fault asymmetry, and topographic fabric and complexity
  - Correlate geomorphic metrics with earthquake rupture characteristics
- *Farther horizon for future science directions, perhaps related to rising initiatives*
  - Immediate: Small UAV (sUAV) structure from motion (SfM) observations and response
  - Near-term (1-3 years): Airborne structure from motion, preferably couple with UAVSAR
  - Mid-term (3-8 years): Space-based structure from motion with ground (sUAV) validation and response
- *Technical and facility requirements to advance these emerging and new science directions*
  - Must meet NASA and FAA requirements
  - Automated workflow

Preliminary Results