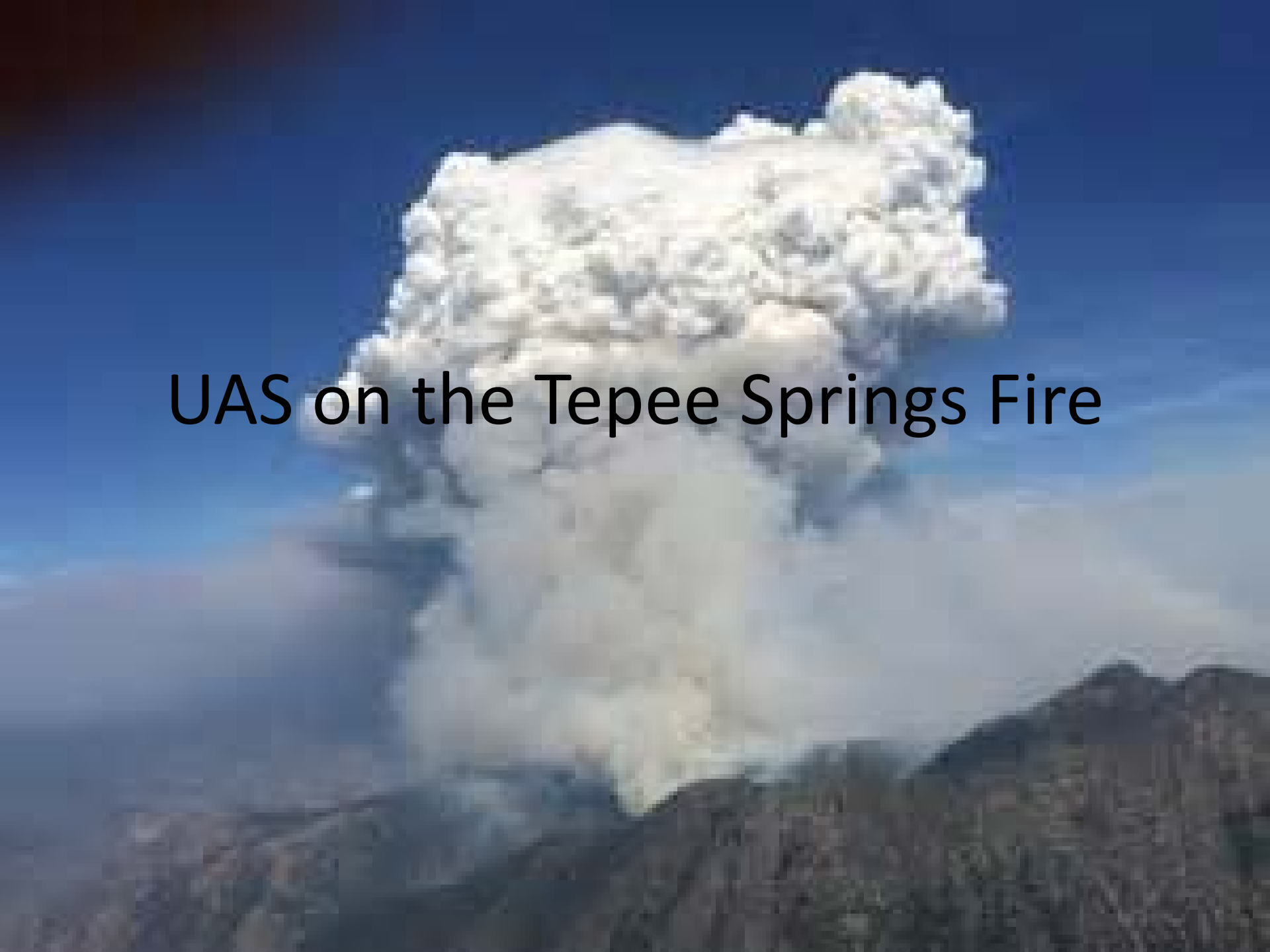


UAS on the Tepee Springs Fire



Aerosonde Small Unmanned Aircraft System



Aerosonde Small Unmanned Aircraft System

- Advanced Electro-optic/infrared payload for day and night persistent oversight of the impacted area
- Communications relay to extend the reach of responder's equipment

Situation Unit Expectations

- Map of “true” perimeter
- Vegetation canopy request. Pre vs. Post Burn
- Heat signatures from people or animals
- Fuel consumption estimates
- Retardant detection
- Precipitation penetration to forest floor
- Equipment tracking
- Infrastructure inspection and impacts

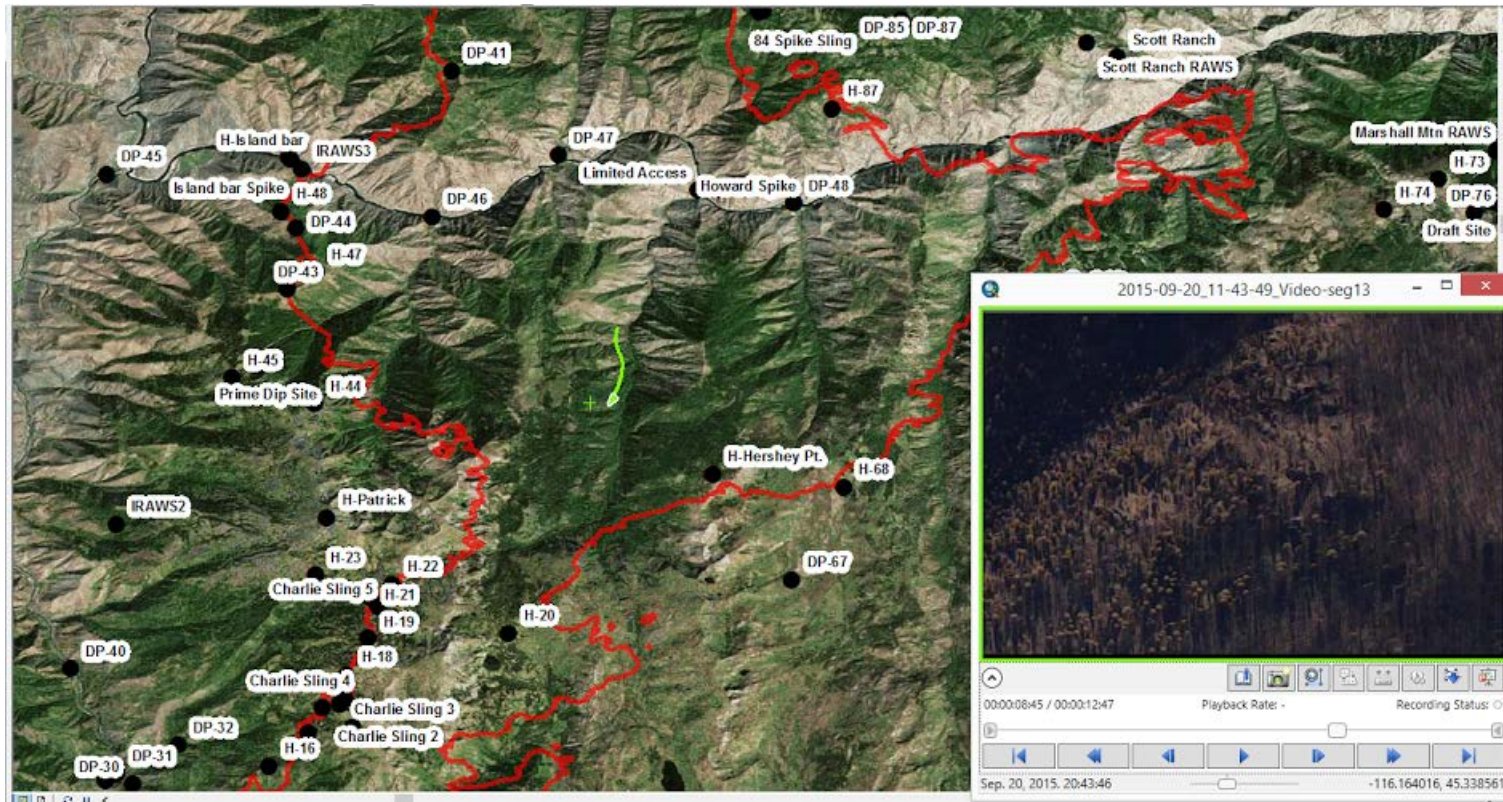
BAER Team Expectations

- Hydrologic Profiles
- Bare rock vs. soil
- LiDar like imagery
- Burn severity assessment
- Landslide potential
- Soil moisture

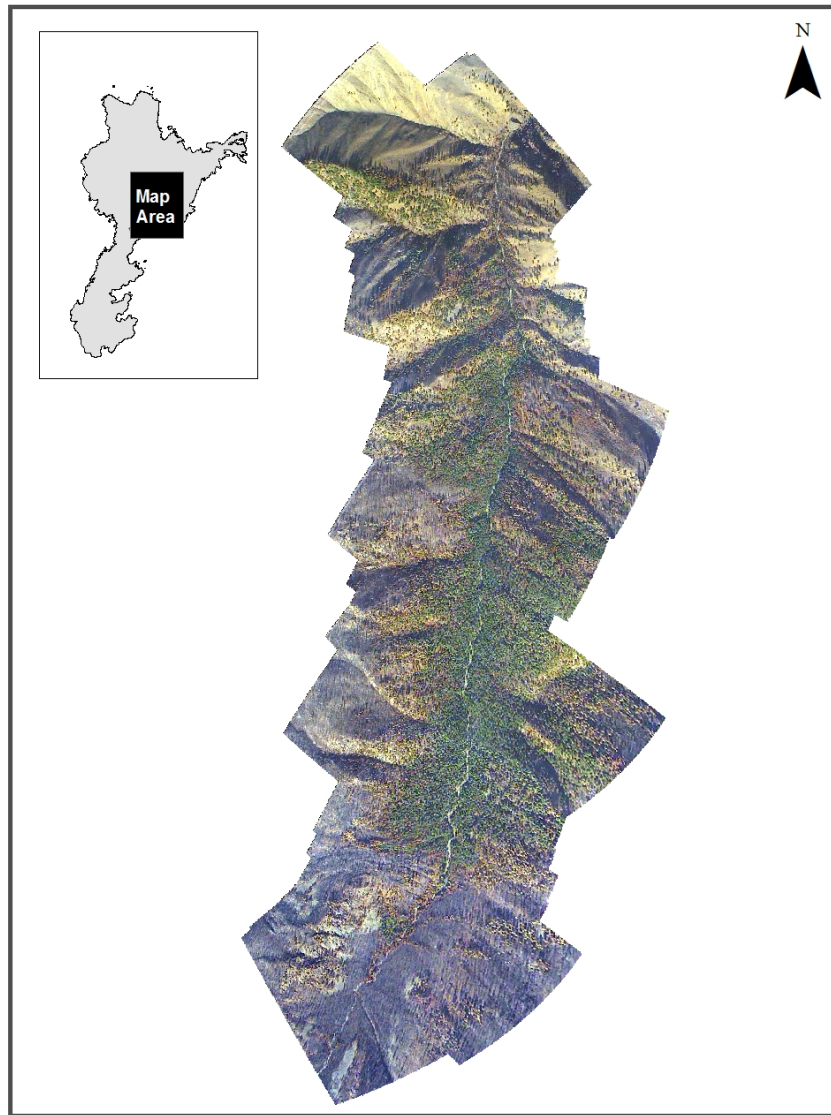
Other Expectations

- Create 3G/4G network over the incident
- Real time resource tracking
- IR for heat in near real time
- Rate of change of active fireline
- Suppression repair work information
- Tracking of accountable property
- Search and Rescue

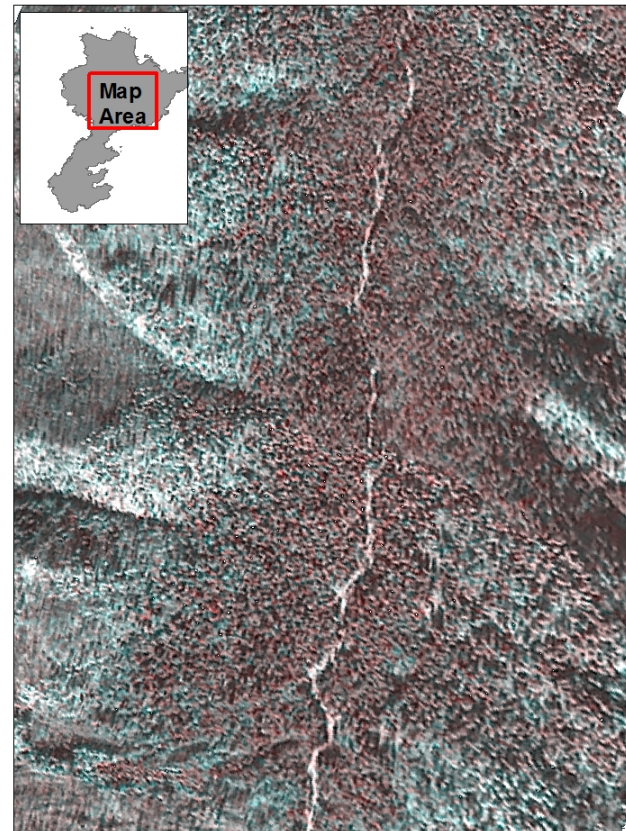
Change Detection



Partridge Creek Drainage



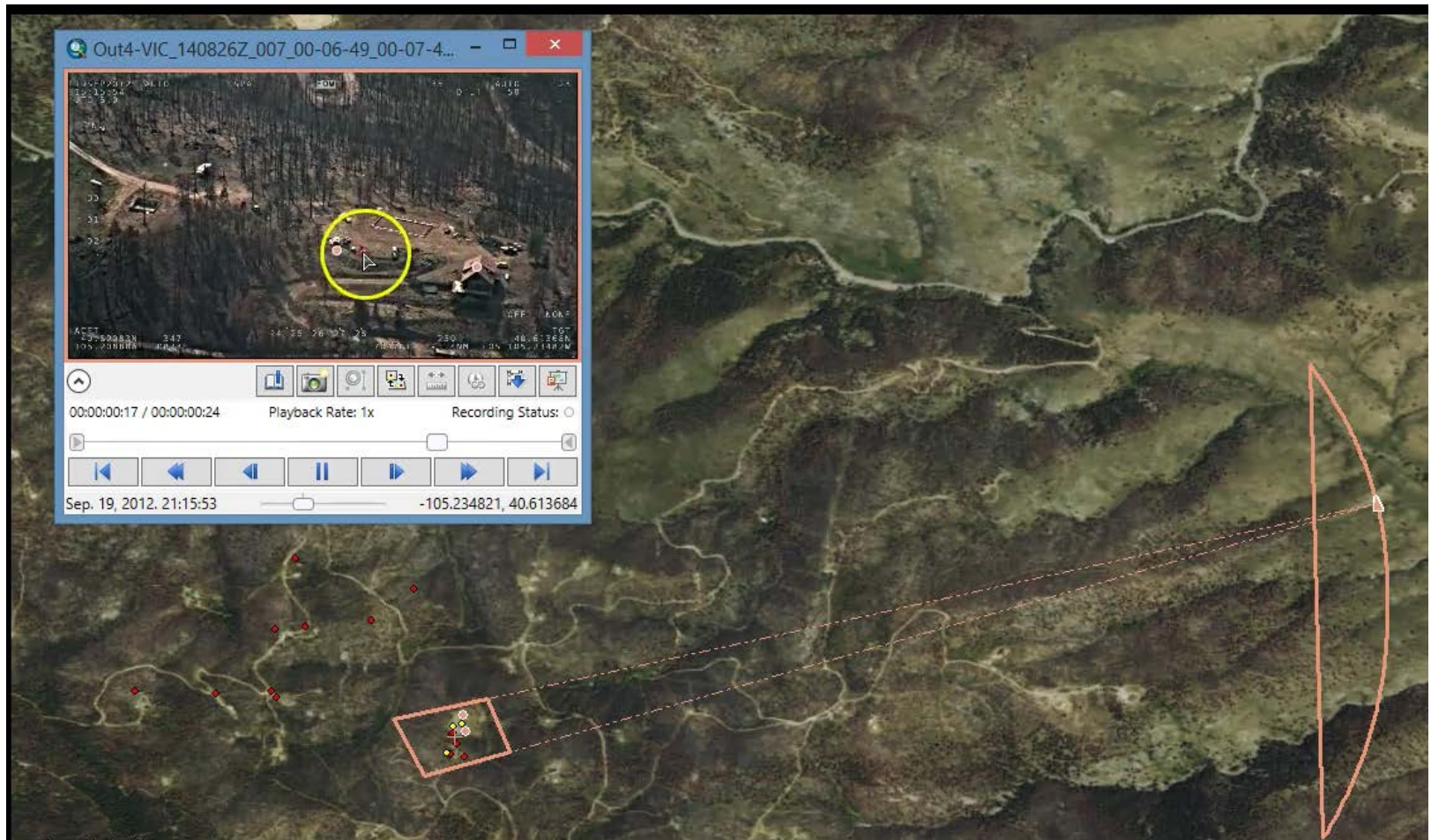
Coordinate System: NAD83 UTM zone 11N
 Projection: Transverse Mercator
 Datum: North American 1983
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 false northing: 0.0000
 central meridian: -117.0000
 scale factor: 0.9996
 latitude of origin: 0.0000
 Units: Meter



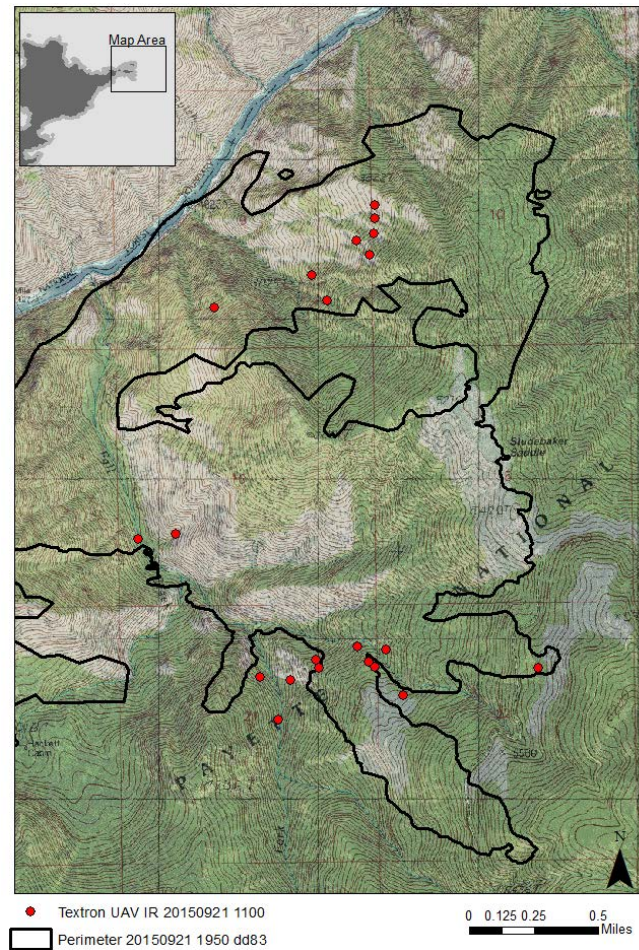
Healthy Vegetation

0 0.05 0.1 0.2
 Miles

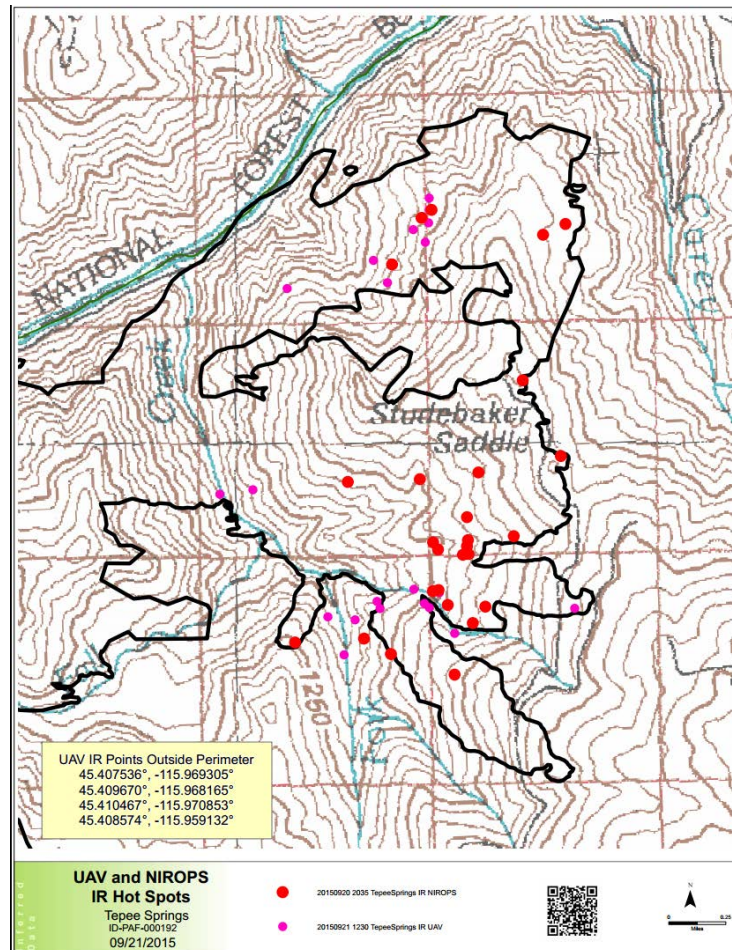
Videos



Textron UAV IR



UAV and NIROPS



Questions?