

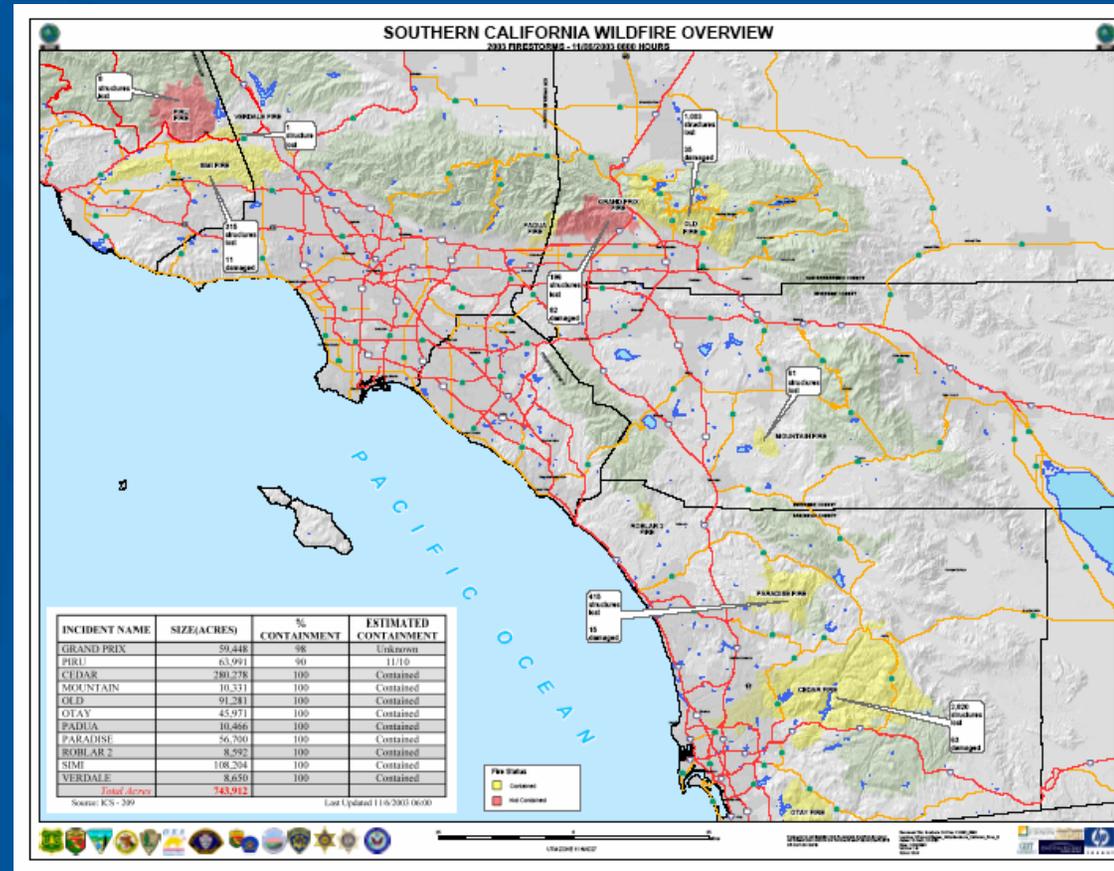
GIS Supports Southern California Fires 2003

Jeff Baranyi – ESRI



Southern California Wildland Fire Siege - 2003

- 743,000 acres burned
- 3,600 homes destroyed
- 22 people killed



Source -
http://firechief.com/ar/firefighting_bush_brief_ed_battle/index.htm



Southern California Wildland Fire Siege - 2003

- Over 50 people from ESRI worked to support fire
 - Mountain Area Safety Taskforce/San Bernardino National Forest Vegetation Mortality Project (<http://www.calmast.org>)
 - Old Fire Incident Command Post
 - Southern Operations Center (GACC)
 - San Diego Emergency Operations Center
- ESRI, as a company, learned some new things and reaffirmed some things we already knew



GIS Plays a Crucial Role

- GIS Unifies by:
 - Bringing People together
 - Helps overcome differences
 - Political
 - Organizational
 - Cultural



GIS plays a crucial role

- GIS can answers questions like:
 - Where is the fire?
 - Where is the fire going?
 - What is the fire burning in?
 - Where are the structures?
 - What is at risk?
- Source – Ray Quintanar, Director of Fire & Aviation Management, USFS Region 5



GIS helps us Communicate



modis_PST.mxd - ArcMap - ArcInfo - Beta II

1:1,771,094

Tracking Analyst

Layer: rectifycalifornia_amo2003300_lrg

File Edit View Insert Selection Tools Window Help

Layers

- Modis293_308_PST
 - Color (11,000 Days)
 - Past 0.000 to 1.000 Days
 - Past 1.000 to 2.000 Days
 - Past 2.000 to 3.000 Days
 - Past 3.000 to 4.000 Days
 - Past 4.000 to 5.000 Days
 - Past 5.000 to 6.000 Days
 - Past 6.000 to 7.000 Days
 - Past 7.000 to 8.000 Days
 - Past 8.000 to 9.000 Days
 - Past 9.000 to 10.000 Days
 - Past 10.000 to 11.000 Days
- rectifycalifornia_amo2003300_lrg
 - RGB
 - Red: Band_1
 - Green: Band_2
 - Blue: Band_3
- bdf_hshd_30m

Playback Manager

Start: 10/20/2003 12:00:00 AM Current: 10/20/2003 12:00:00 AM End: 10/31/2003 09:25:00 AM

Slower Loop Faster

Options <<

Set playback window to temporal extent of: <User Defined Extent>

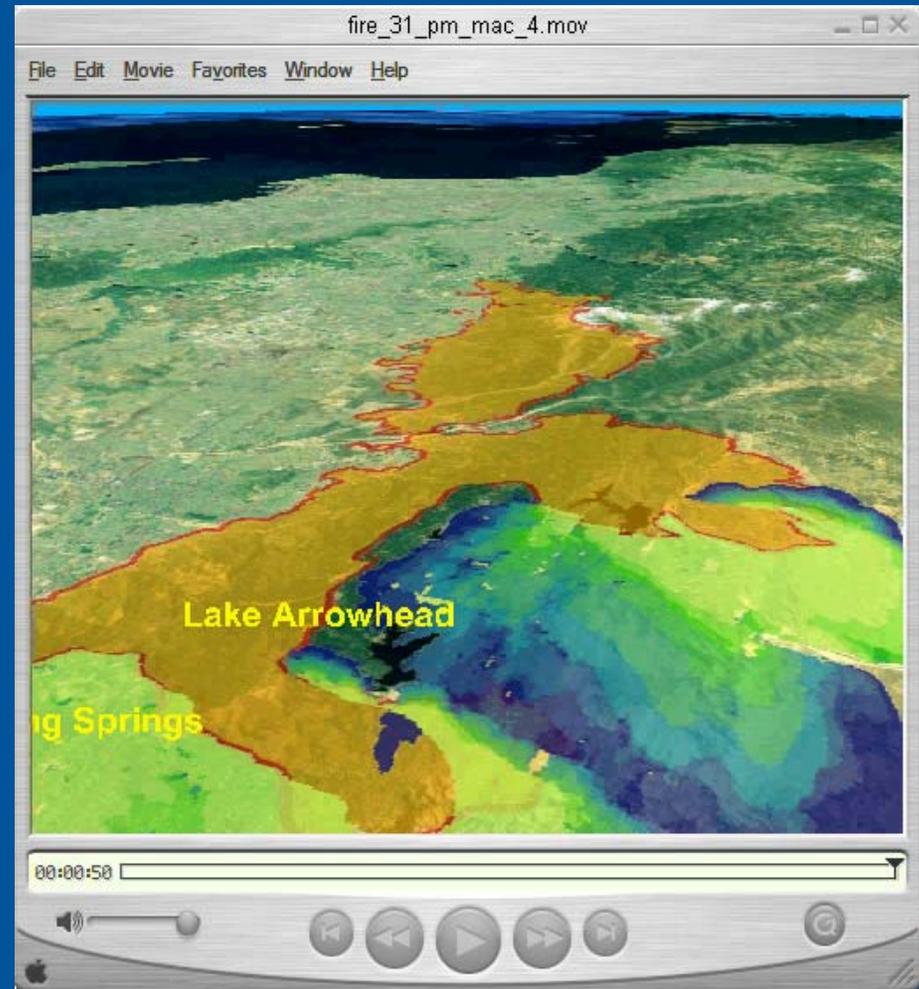
Set the playback rate: 12 Hours Per Second Hide Histogram

117°38'8.14"W 33°1'40.17"N



What we Learned from this Event

- GIS is important to Multi Area Coordination (MAC) groups

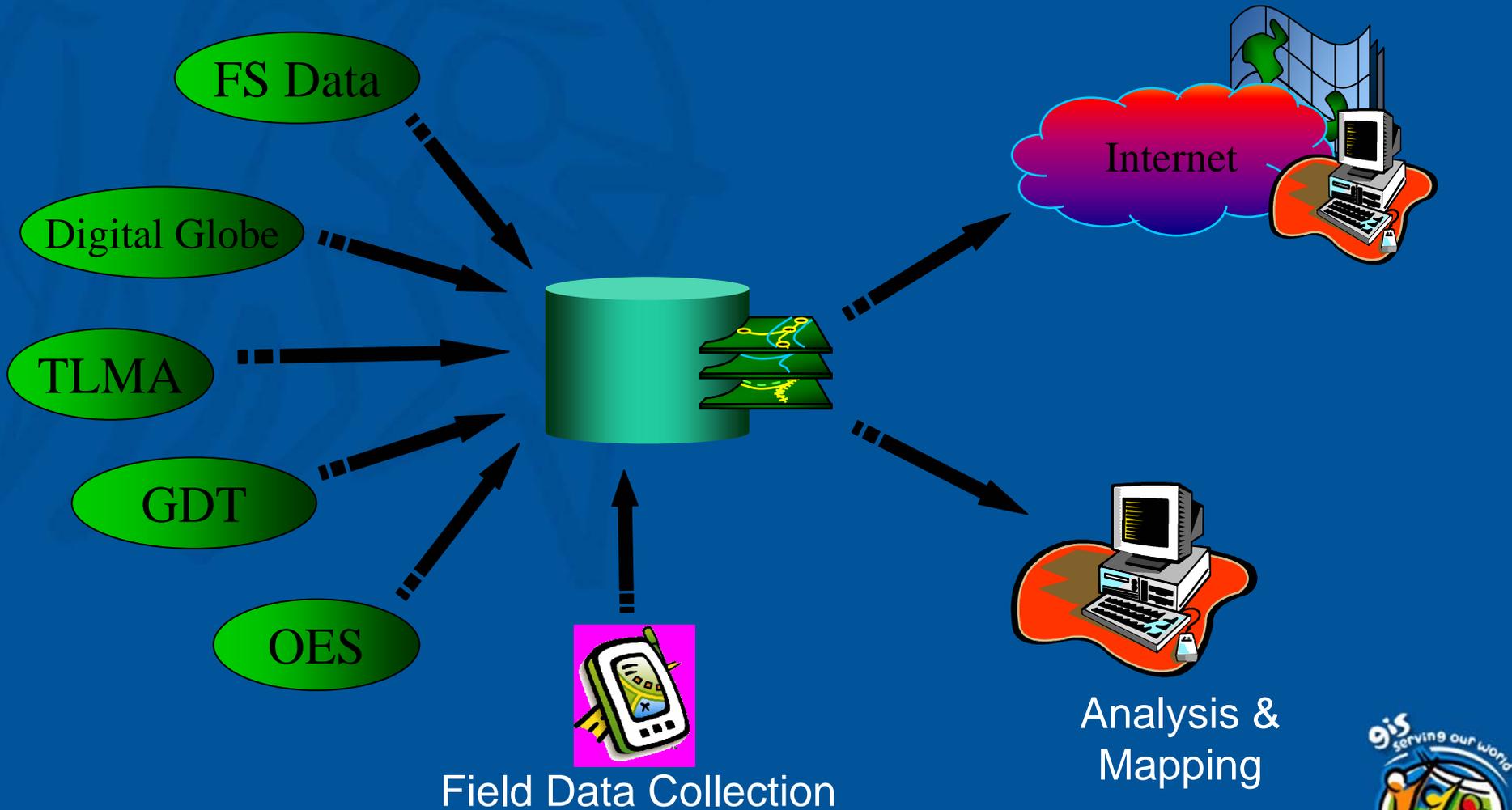


What we learned from this Event

- San Bernardino National Forest Vegetation Mortality Crisis/Geographic Information Center – Mountain Area Safety Taskforce (MAST)
 - Having all the data, hardware, resources allowed agencies to manage this as an event rather than a disaster
 - It helped take the “chaos out of the equation”



Geographic Information Center: Providing Resources to Support Forest Management





What we learned from this event

- Non-technical people understand ArcGlobe
 - Tech-adverse Incident Commanders saw the power of GIS in ArcGlobe
- ArcGlobe takes the “geek-dom” out of the equation
- ArcGlobe puts decision makers in a plane and lets them fly (so they don’t have to physically get in a plane and fly)
- ArcGlobe helps you tell the story of the event quickly (Arnold Schwarzenegger , Ann Veneman, Dale Bosworth, George Motschall...)
- ArcGlobe is what will help you sell GIS and required infrastructure

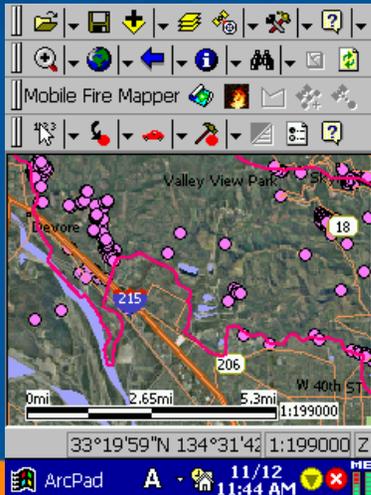
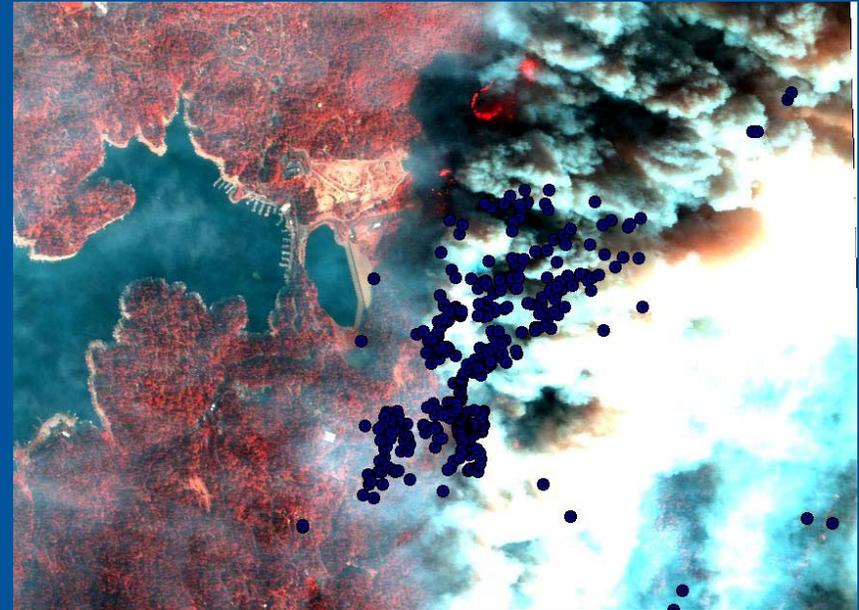


GIS Success Anecdotes

- A helicopter pilot from LA, trained in GIS, could make maps of what was happening... these were in high demand
- MAST pre-planned evacuation maps helped move 100,000 people out without incident
- Lack of communication, a typical after-action report issue, was not an issue
 - Noted by the San Bernardino Sheriff's Department

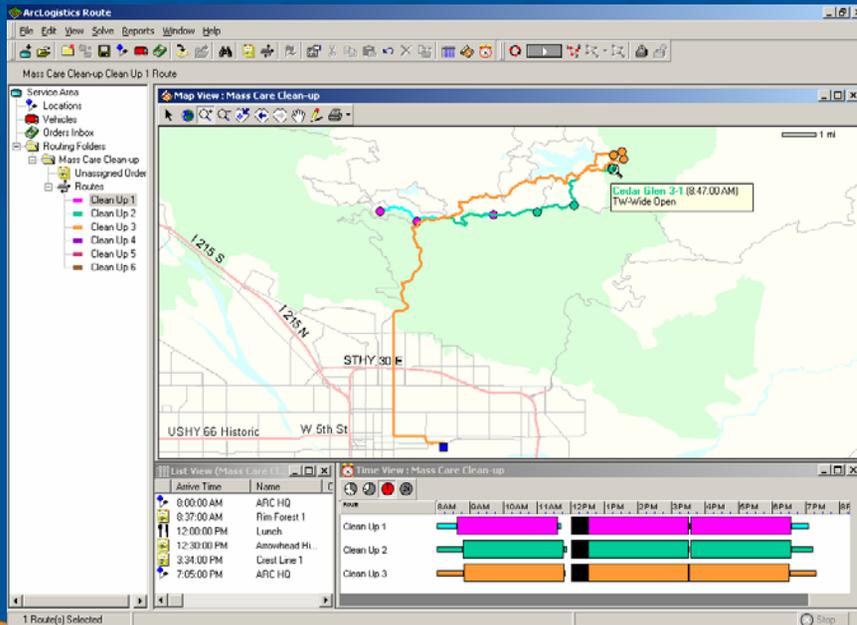


Mapping Damaged Structures



GIS Success Anecdotes

- Our Technology was used to help route the right resources, to the right place, at the right time



Conclusion

- Roadmap to ArcGlobe is really a roadmap to success with GIS
 - 3D visualization environment helped people relate to the information
- Educated people on what GIS can do for them and what questions it can answer
 - “You mean we’ve had this information the whole time?”
- Next steps....

