National Geospatial Program Office
Geospatial Information Coordination

- Organizational Context
- Mission - Natural Hazards

Organizational Context

USGS

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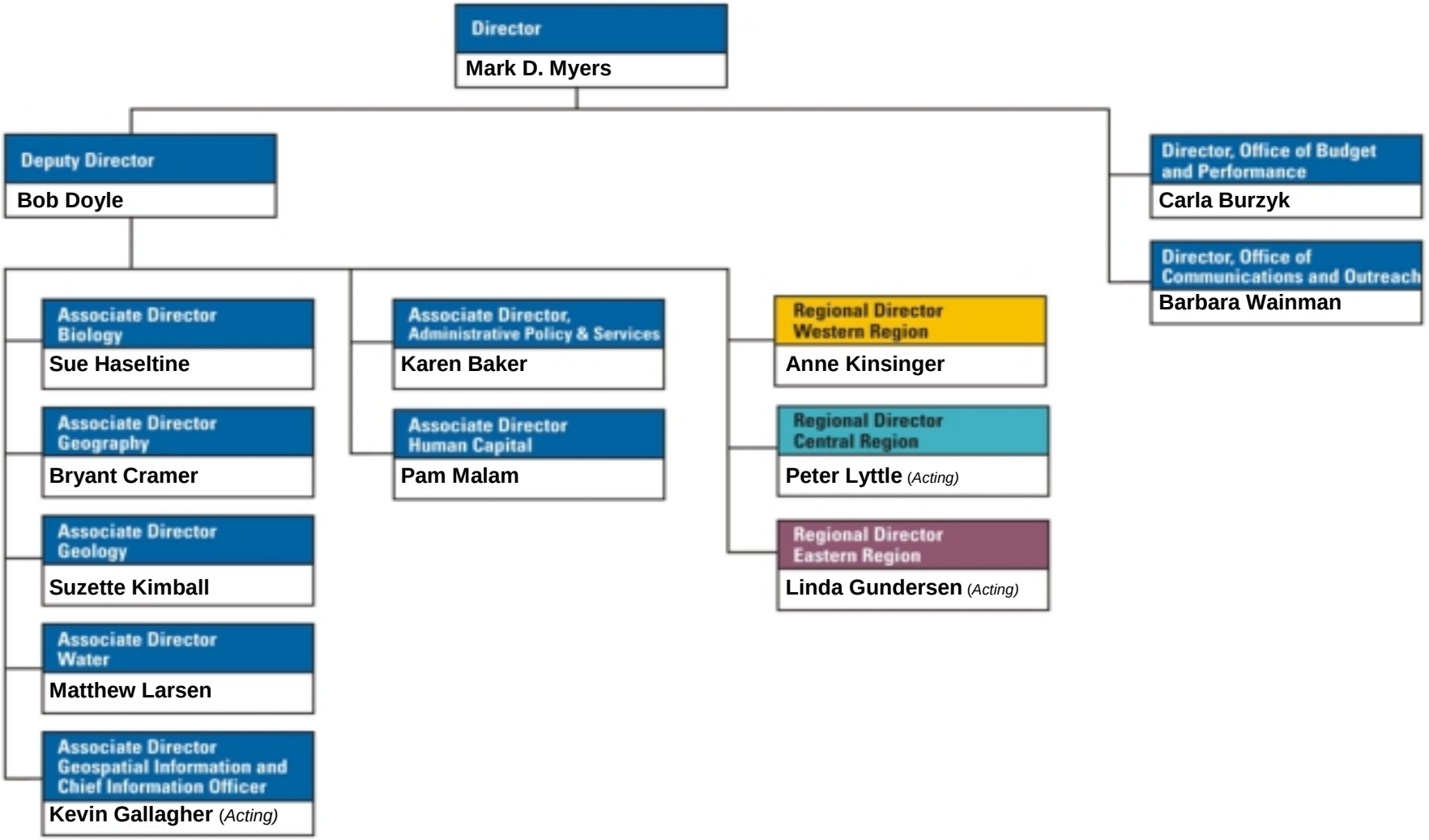
U.S. Geological Survey



November 2008

Hazard Response Executive Committee
(HREC)

Bureau Deputy Director, Chair of HREC

Regional Director(s) for the impacted area

Associate Director for the program associated with the hazard event

Senior Advisor for Science Applications, Bureau Emergency Management Coordinator

Associate Director for Geospatial Information

Associate Director for Administrative Policy and Services

Senior Science Advisor for Earthquakes and Geologic Hazards

Chief, Bureau Office of Communications

Chair of the Geospatial Information Response Team

Emergency Management Specialist, HREC Coordinator

USGS

http://www.usgs.gov/emergency/docs/hrec_charter.pdf

Hazard Response Executive Committee

- Earthquake Hazards Program Coordinator
- Volcano Hazards Program Coordinator
- Landslide Hazards Program Coordinator
- Invasive Species Program Coordinator
- Coastal & Marine Geology Program Coordinator
- Water Resources lead for flooding/severe inland weather events
- Wildland Fire Science Lead
- Biological Threat Lead
- Bureau Operational Coastal Storm Team Lead
- Science Coastal Storm Team Lead
- Other Equivalent Event Coordinator, as needed

USGS

Geospatial Information Response Team (GIRT)

- NGPO – Co-chair (Wendy Budd)
- NCAP Coordinator – Co-chair (John Crowe)
- NGPO Emergency Operations Coordinator (Craig Skalet)
- NGTOC Operations Response Coordinator (Kari Craun)
- EROS Operations Response Coordinator (Wayne Miller)
- Geography Operations Response Coordinator (Mike Hutt)
- HREC Coordinator (Dave Bortnem)
- SRV Operations Response Coordinator (Scott Wilson)
- NGPO Partnership Chief (Vicki Lukas)
- Eastern Region Director's Office Coordinator (Dan Cavanaugh)
- Central Region Director's Office Coordinator (Tracy Fuller)
- Western Region Director's Office Coordinator (Alan Mikuni)

USGS

http://ngtoc.usgs.gov/girt/

USGS
science for a changing world

NWRC Science Response Vehicle

Science Response Vehicle

NWRC maintains a Science Response Vehicle (SRV) capable of rapid deployment in response to natural disasters throughout the United States. It is equipped with computers, software, and plotters to provide spatial analyses during and after natural disasters. USGS personnel are available for deployment to meet the needs of the Nation in response to natural disasters. The SRV was used during the aftermath of Hurricanes Katrina and Rita.

SRV Features include:

Spatial analysis technologies to:

- Evaluate land use, recovery, and restoration
- Develop maps and imagery of critical infrastructure for first-responder assessments
- Model biological impacts of natural hazards (hurricanes, earthquakes, and wildfires)
- Help in emergency response and humanitarian search and rescue operations (mapping 911 calls)
- Provide rapid scientific monitoring and assessments of biological, geological, hydrological, and geographical resources
- Transfer of critical monitoring data.

Response capabilities to:

- Provide a scientific base of operations for sample collection and field processing
- Provide critical communications via the Internet through an onboard satellite dish
- Provide potential capability for serving as a GPS-base station
- Provide satellite voice and data communications
- Receive TV signals through the satellite dish for weather and emergency information
- Provide living quarters for scientific and response personnel

USGS

Mission – Natural Hazards

USGS

USGS Mission

USGS serves the nation by providing reliable scientific information to:

- **Describe and understand the earth**
- **Manage water, biological, energy, and mineral resources**
- **Enhance and protect our quality of life**
- **And…**

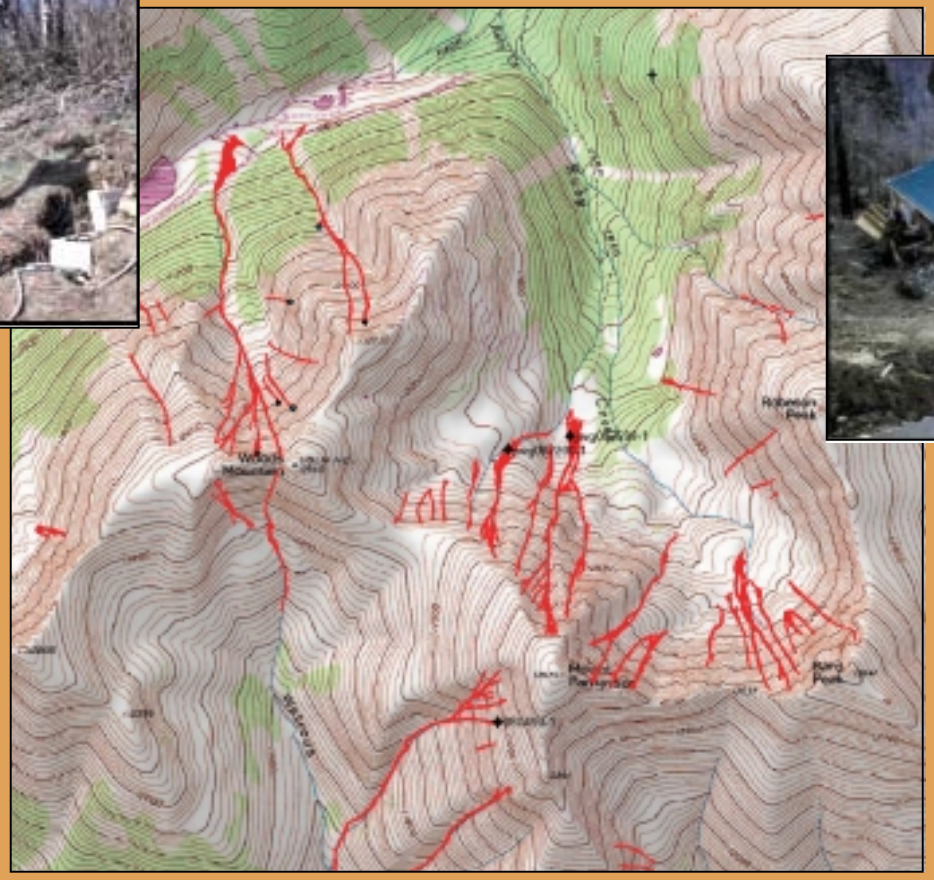
USGS Mission

Minimize loss of life and property from natural disasters such as:

- Landslides
- Earthquakes
- Volcanic Activity
- Flooding
- Wildfires
- Biological Diseases

USGS

Landslide Hazards

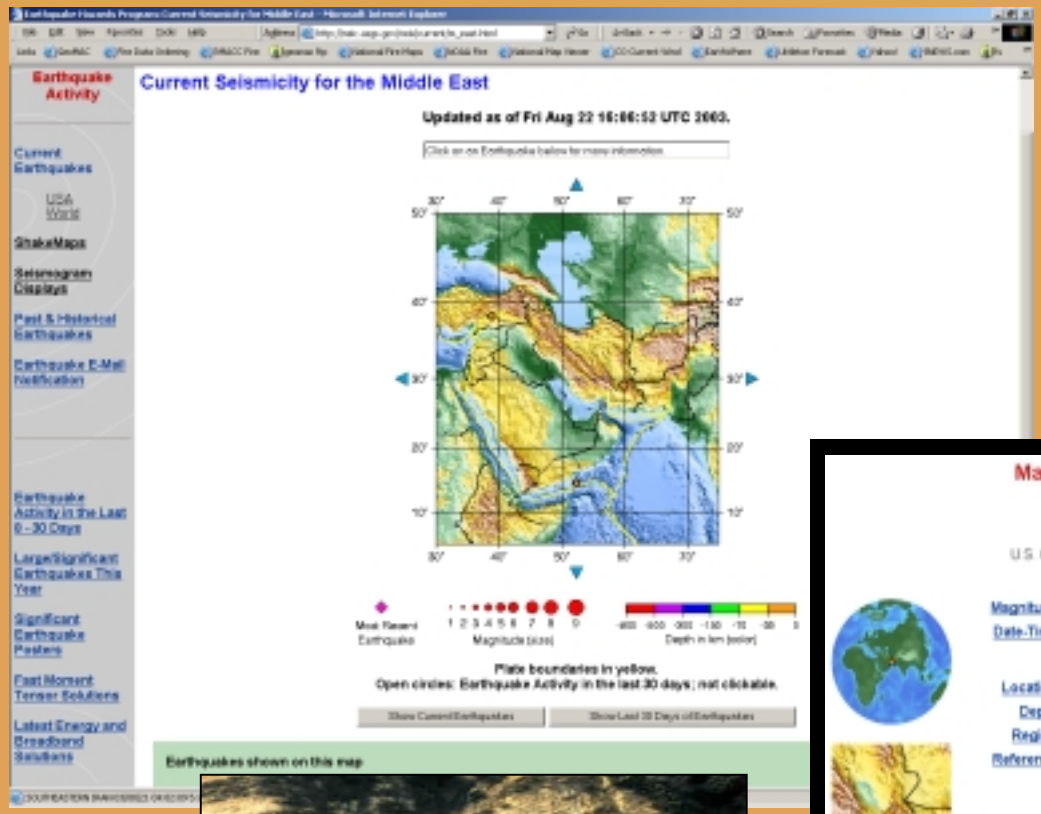


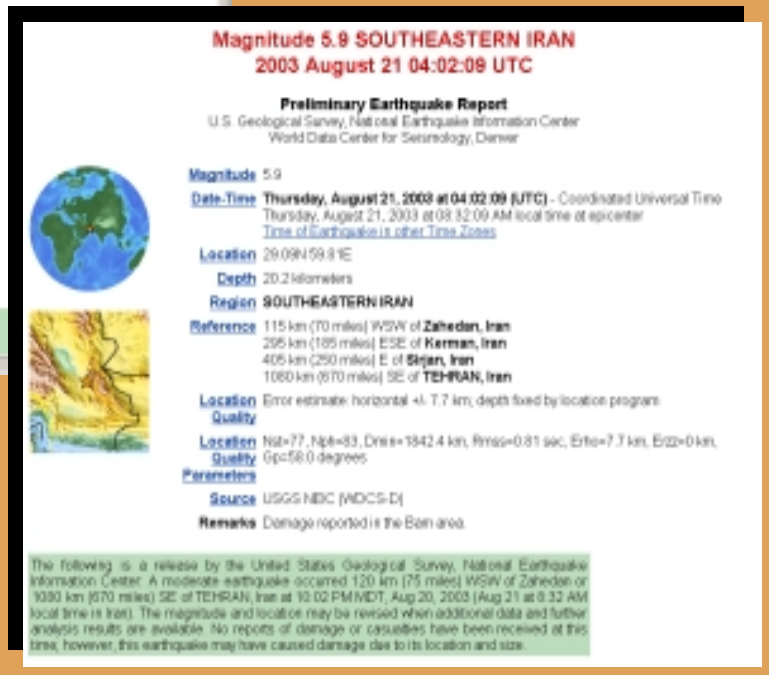
Alpine Debris Flow triggered by July 29, 1999 Thunderstorm – Colorado Front Range

USGS

http://landslides.usgs.gov/

Earthquake Monitoring





USGS

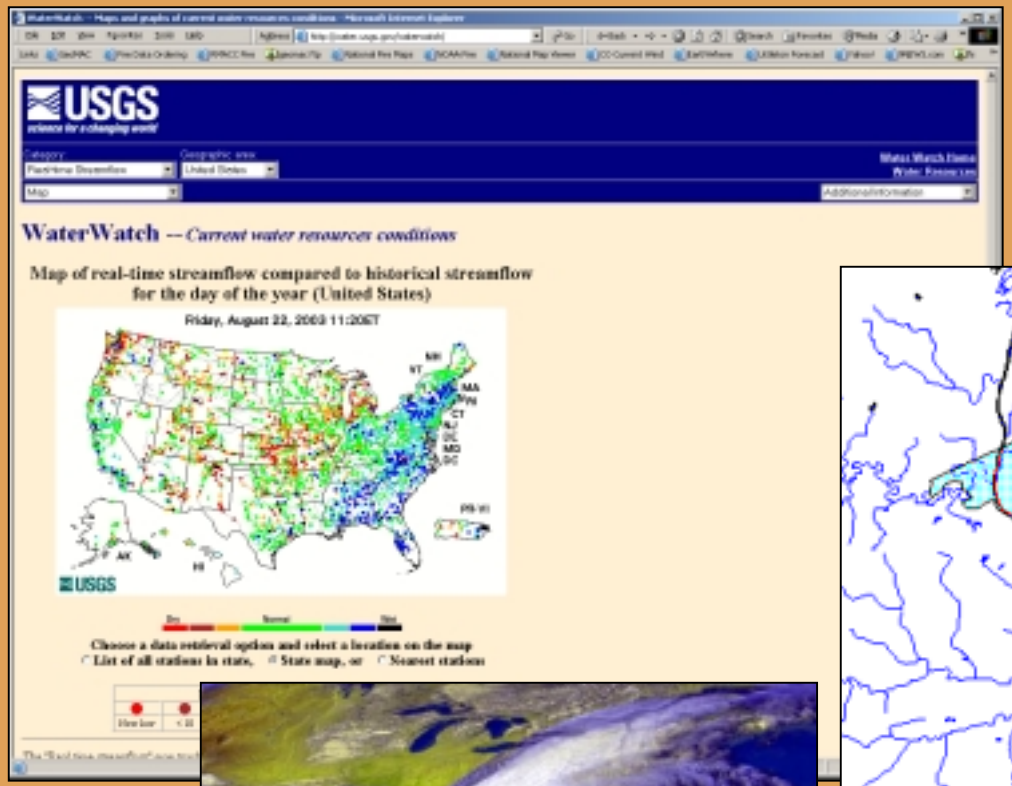
http://earthquake.usgs.gov/

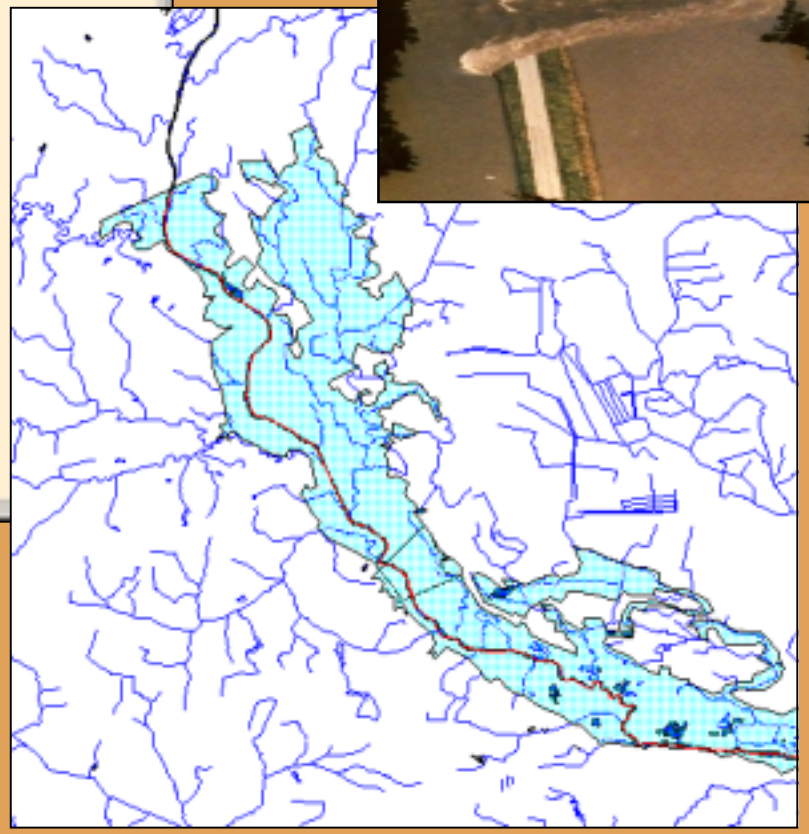
Volcanoes

USGS

http://volcanoes.usgs.gov/

Flooding





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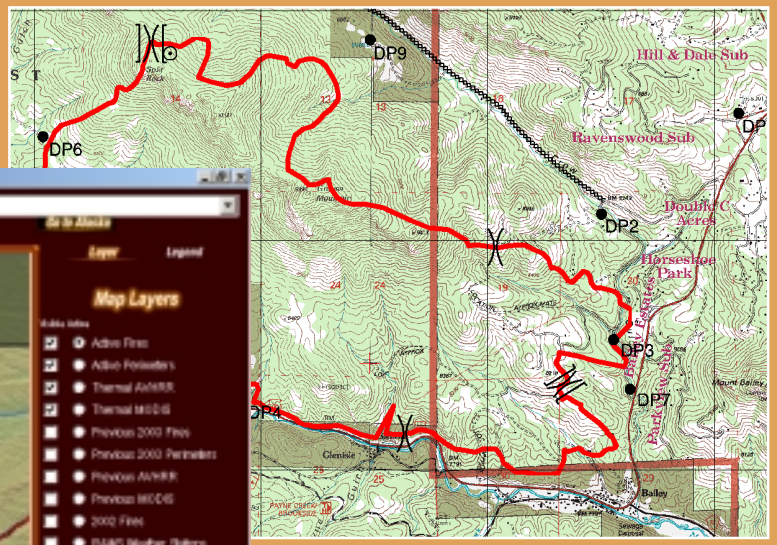
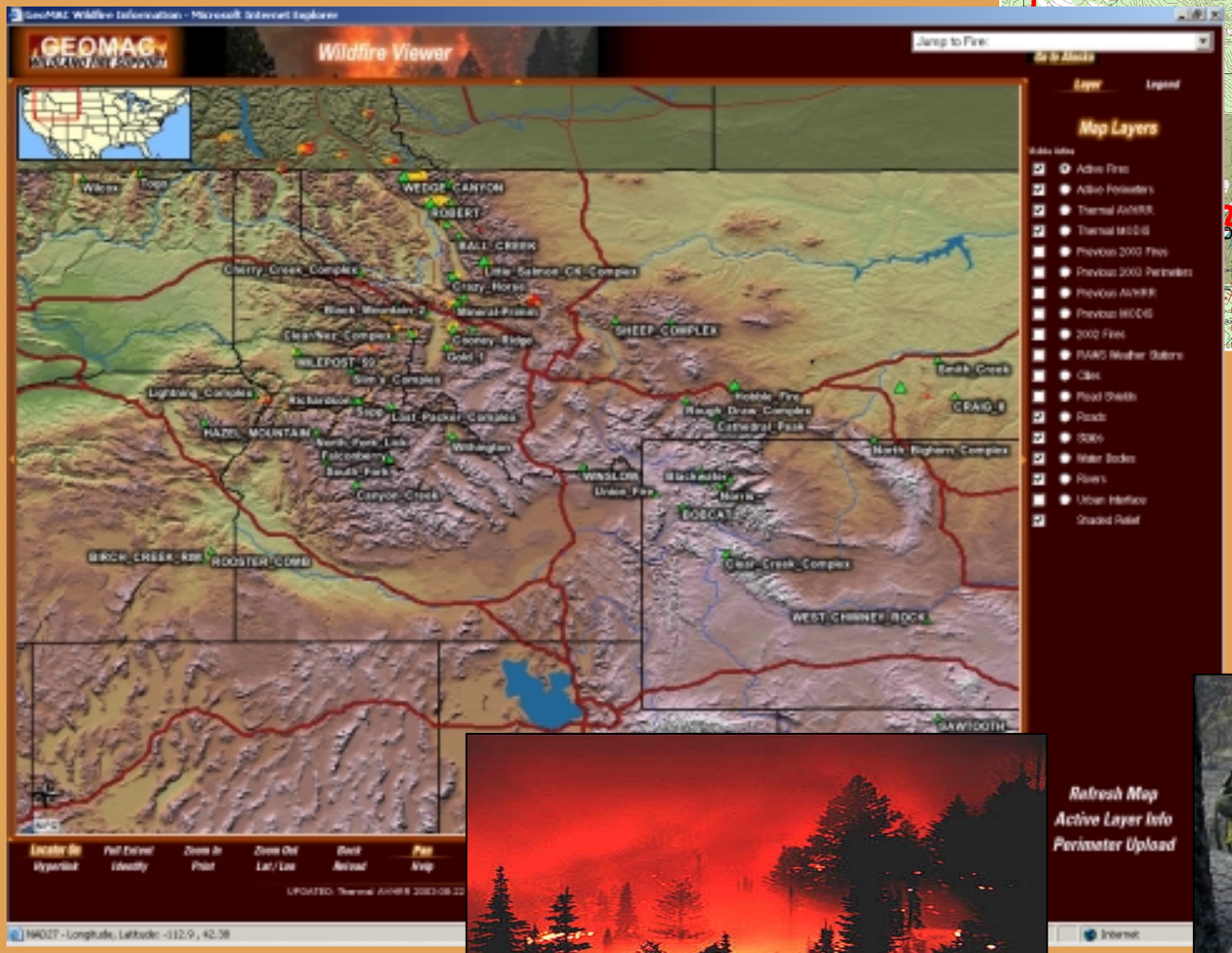
http://waterdata.usgs.gov/nwis

Wildfires





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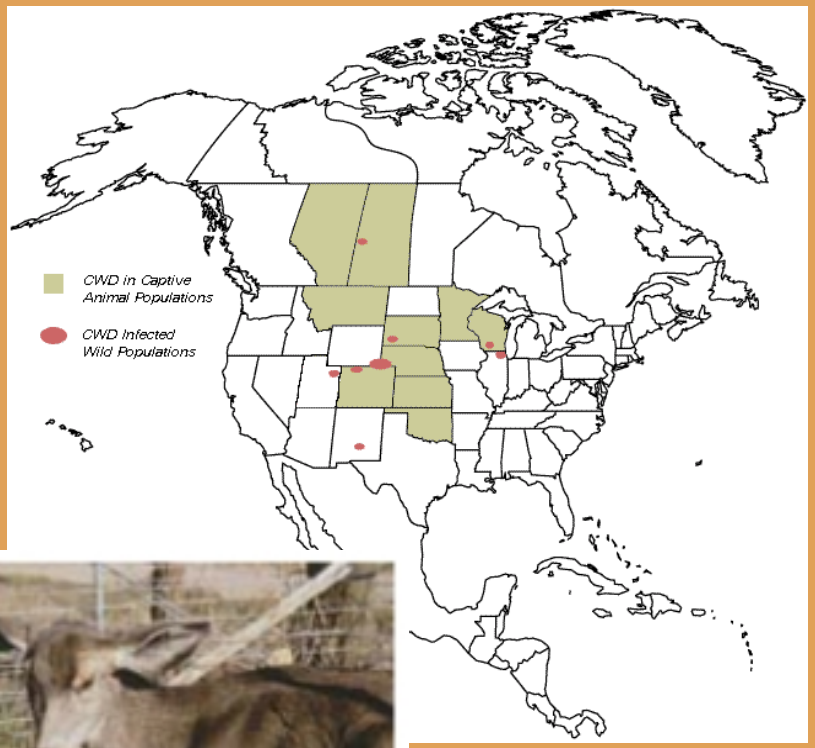
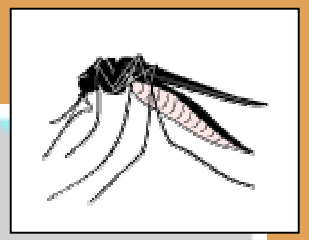
http://www.usgs.gov/hazards/wildfires/

Biological Diseases



Infected mule deer. Photo courtesy of National Park Service.



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http://www.nbii.gov/portal/server.pt

Emergency Operations

- Geospatial information coordination
- Liaison support – DHS, NGA, CIA, DOI, etc
- National Security Special Events
- Homeland Security/Defense requirements gathering and planning
- Support for deployed geospatial experts
- Custom and sensitive products

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Partnerships: Geospatial Liaison Role

- Partner engagement
- Targeted TNM data acquisition plan for each State
- Data discovery and documentation
- Implementation of best practices
- Data and information alignment
- Feedback from partners and users about products and services

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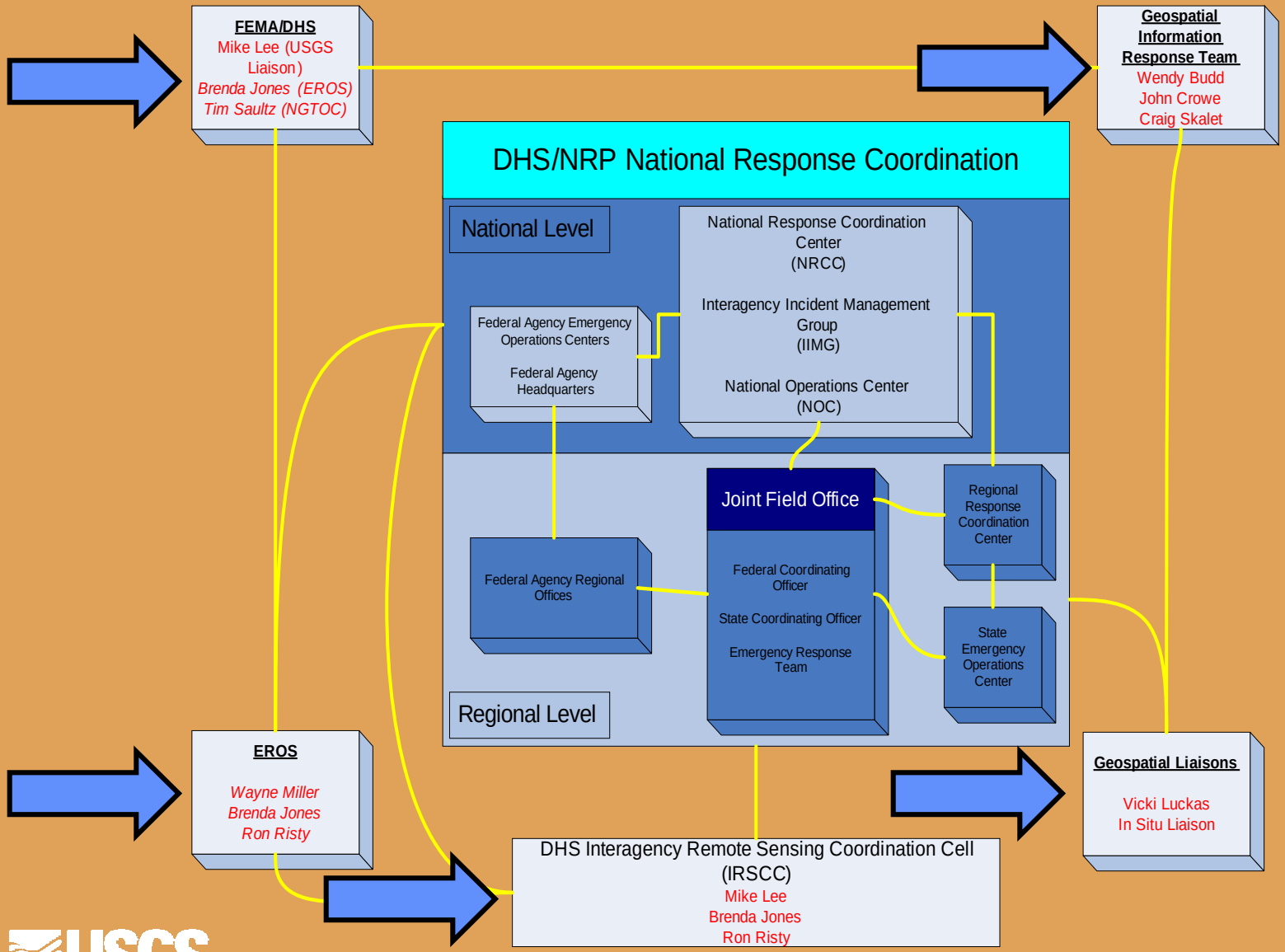
FEMA/DHS/NRP


FEMA/DHS
Mike Lee (USGS Liaison)
Brenda Jones (EROS)
Tim Saultz (NGTOC)
Geospatial Information Response Team
Wendy Budd
John Crowe
Craig Skalet
DHS/NRP National Response Coordination
National Level
National Response Coordination Center (NRCC)
Interagency Incident Management Group (IIMG)
National Operations Center (NOC)
Federal Agency Emergency Operations Centers
Federal Agency Headquarters
Joint Field Office
Federal Coordinating Officer
State Coordinating Officer
Emergency Response Team
Regional Response Coordination Center
State Emergency Operations Center
Federal Agency Regional Offices
Regional Level
EROS
Wayne Miller
Brenda Jones
Ron Risty
Geospatial Liaisons
Vicki Luckas
In Situ Liaison
DHS Interagency Remote Sensing Coordination Cell (IRSCC)
Mike Lee
Brenda Jones
Ron Risty
USGS

Key Organizational Links:

National Response Framework
http://www.fema.gov/emergency/nrf/mainindex.htm
NOAA National Weather Service
http://www.nws.noaa.gov/
Federal Emergency Management Agency
http://www.fema.gov
DOI Emergency Management
http://www.doi.gov/emergency/index.html
USGS Emergency Management
http://www.usgs.gov/emergency/
USGS GIRT Website
http://ngtoc.usgs.gov/girt/
FEMA Incident Response
http://www.fema.gov/emergency/reports/index.shtm
International Charter
http://www.disasterscharter.org/
USGS NSDI State Liaisons
http://nmcatalog.usgs.gov/crreps/faces/crreps.jspx

USGS

Key Data Links:

USGS Emergency Operations Portal
http://hdds.usgs.gov/EO/
USGS The National Map Seamless Server
http://seamless.usgs.gov/
USGS RMGSC Hazards Site
http://nhss.cr.usgs.gov/nhss/viewer.htm
USGS Rapid Data Delivery System (RDDS)
http://firedata.cr.usgs.gov/
GEOMAC
http://geomac.usgs.gov/

USGS

Thank You!

Craig Skalet

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cdskalet@usgs.gov

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