



Spatially Speaking

FGDC Monthly Update

VOLUME 2, ISSUE 7

JULY 2008

JULY EVENTS

FGDC Coordination Group Meeting July 1

FGCS meeting July 15

Metadata Training for the Earth Science Information Partners July 15

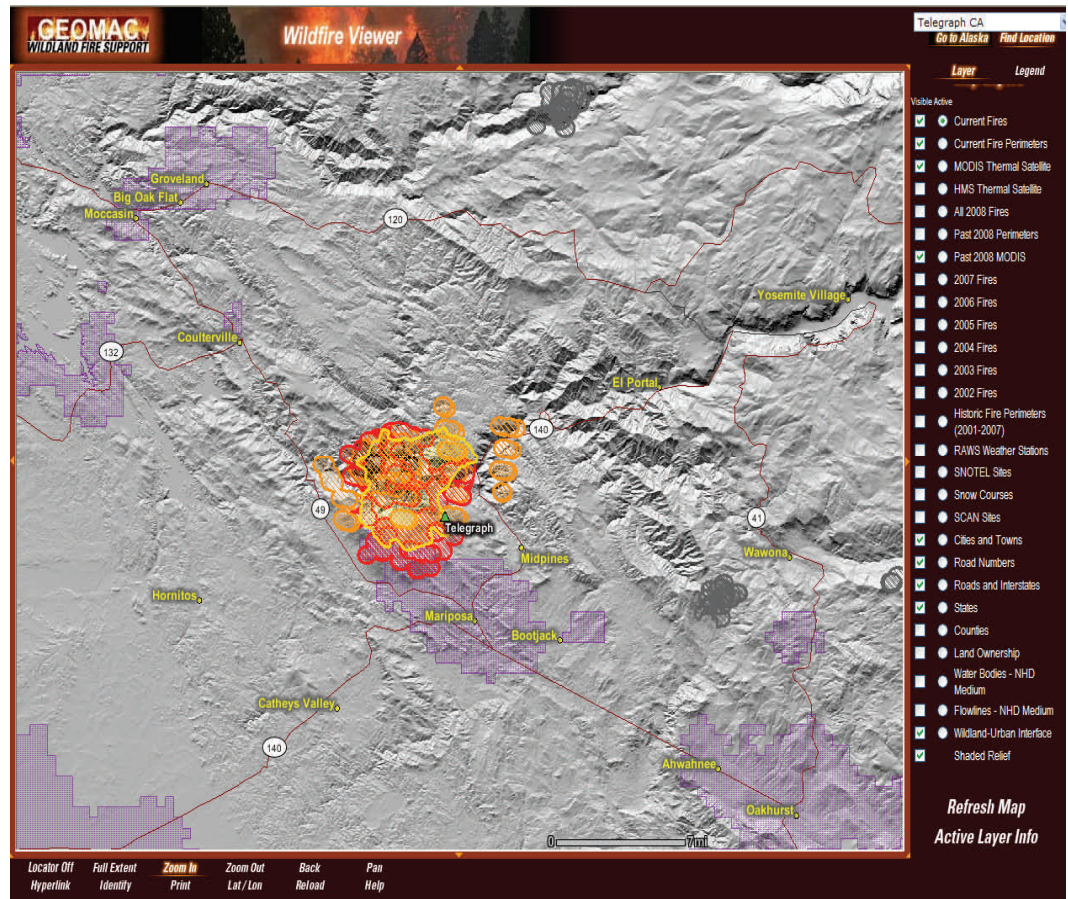
FGDC Metadata Training for GMU July 22

For more information on FGDC events view the calendar at:

<http://www.fgdc.gov/calendar>

Geospatial Multi-Agency Coordination - GeoMAC

The GeoMAC is an internet-based mapping application designed to allow Fire Managers and the public access to dynamically displayed online maps of current or historic fire locations and fire parameters in the continental U.S. and Alaska. The GeoMAC is an indispensable tool for aiding fire—personnel by displaying the most current forest-fire information available from a web browser. In order to give fire managers near real-time information, fire perimeter data is updated daily from input from incident intelligent sources, GPS, infrared imagery from fixed wing and satellite platforms. This web site allows users to manipulate map information displays, zoom in and out and display information at various scales and detail. So far, this fire season has led to 32.6 million user requests as a result of the fires in California and approximately 4,102 perimeters for viewing and downloading have been added this season.



View the FGDC website at: www.fgdc.gov

GeoMAC continued

The GeoMac team is a multi-agency group with technical and subject matter expertise from the Department of the Interior's fire management agencies—the Bureau of Land Management, National Park Service, and the Bureau of Indian Affairs with the Department of Agriculture, U.S. Forest Service. The U.S. Geological Survey hosts and maintains the GeoMAC website. Other partners include the National Interagency Fire Center, U.S. Department of the Interior's Office of Wildland Fire Coordination, and the National Ocean and Atmospheric Administration. For more information contact Elizabeth Lile at ellile@usgs.gov or go to <http://geomac.gov>

LIDAR— Derived Elevation Data Helps Mitigate Iowa Flooding

During the Iowa flooding in June 2008, there are several instances of LIDAR- (Light Detection and Ranging) derived elevation information being used in the flood fighting efforts. In the Johnston area of Polk County north of Des Moines, LIDAR acquired in 2005 for the National Governor's Conference was used in conjunction with survey-grade GPS readings. Flood heights were expected to reach 1993 levels so sandbagging efforts guided by the survey measurements were used to construct small temporary dikes around a housing development built after the 1993 floods. Flood damage to many homes were avoided in this area due to the city's efforts.

Other towns in Iowa used LIDAR-derived elevation information including Decorah and Iowa City in their flood fighting activities. LIDAR was used for calculating the number of pumps needed to remove a specific volume of water, predicting flood extent from flood stage data, and identifying areas to evacuate should those areas be exceeded. As the flood waters recede, efforts will focus on prevention of damage from future hazard events. LIDAR will be used to create new floodplain delineations and new models to predict areas of flood inundation based on river stages. It became apparent that during a large scale event such as this one, the floodplain delineation maps provided only limited guidance as to the placement of resources to protect properties. The result will be an emphasis to create dynamic models that can predict inundation areas based on specific

conditions including back-flows from tributaries into already flooded receiving streams, contributions from impervious urban surfaces, and new developments in floodplains. In these many capacities, LIDAR data will more than pay for itself in preparations for the new flooding that many believed would never happen again (15 years after the Great Flood of 1993). For more information contact Bob Lemen at rlemen@usgs.gov.

LIDAR for the State of IOWA

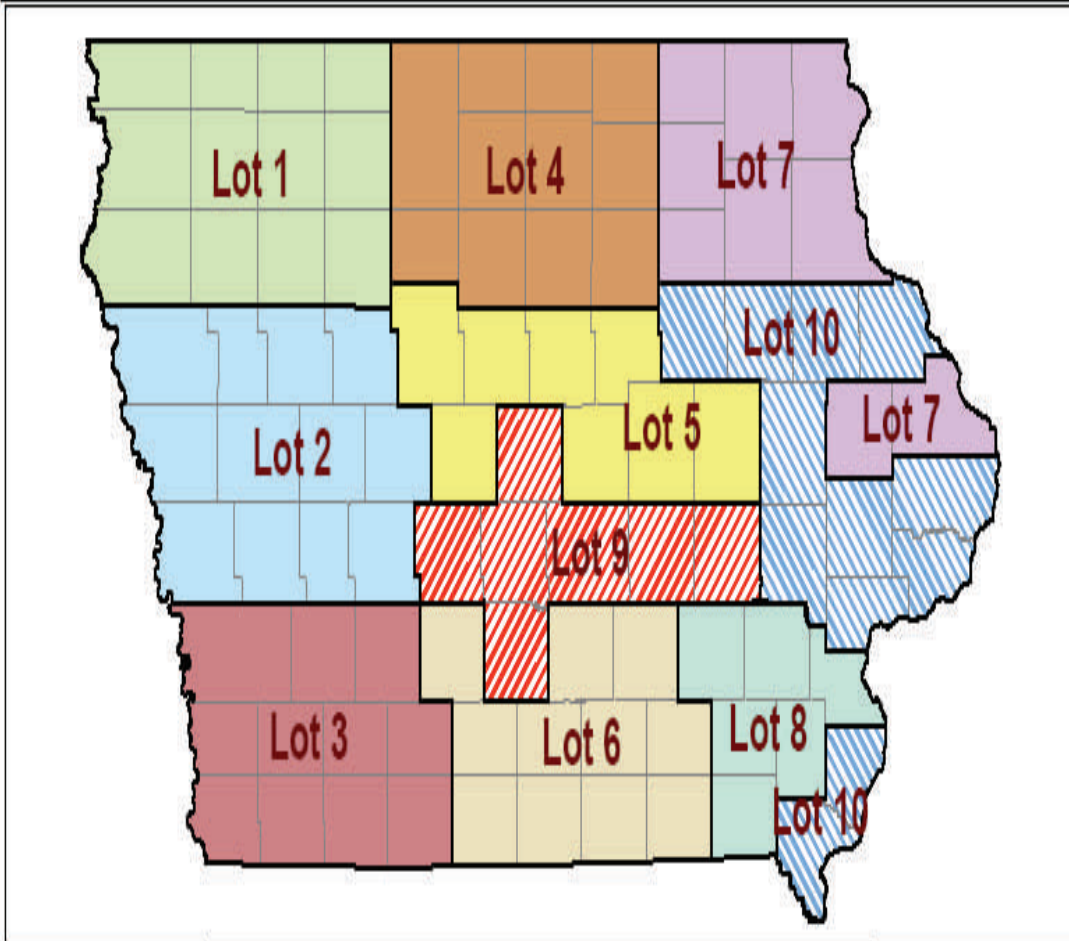
In July of 2006 the US Geological Survey and the Iowa Department of Natural Resources (IADNR) entered into a cooperative agreement for the production of high accuracy, bare-earth processed LIDAR data for the entire state of Iowa. This \$4.4 million project encompasses approximately 55,869 square miles. LIDAR data will be collected with the "Standard" production options for approximately 44,819 square miles of the State, and collected with the "FEMA" production specification for the remaining approximately 11,050 square miles. (See attached diagram.) The project was contracted using the Geospatial Products Services Contract administered by the USGS National Geospatial Technical Operations Center in Rolla, MO. The USGS will perform a quality assurance inspection of the data. IADNR will use this data primarily for watershed modeling, storm water planning, floodplain determination, and structure design and estimation. Additional uses for this data by other agencies within the State include roadway design, wetland restoration, and conservation practice design, placement, and estimating. The USGS will use this data to update the National Elevation Dataset. This 2-year project was started in the Winter of 2006 with the acquisition of the data tentatively scheduled to be completed by the end of 2008. This LIDAR project was one of the first such large-scale projects that encompassed the acquisition and production of LIDAR on a State-wide basis, and has set a precedence for other States seeking to enter into similar projects. The highly visible project is the result of successful coordination and continued partnership between IADNR and the USGS. The acquisition and sharing of this data plays an important role in advancing the goals of implementing the National Spatial Data Infrastructure.

"Spatially Speaking" is designed to provide updates on the activities of the FGDC. Subcommittees, workgroups, and other FGDC participants are urged to submit updates to Pat Phillips at paphillips@usgs.gov.

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IOWA LiDAR DELIVERY DIAGRAM



STANDARD LiDAR SPECIFICATIONS										FEMA SPECIFICATIONS	
Lot 1	Lot 2	Lot 3	Lot 4	Lot 5	Lot 6	Lot 7	Lot 8	Lot 9	Lot 10		
Lyon	Woodbury	Pottawattami	Kossuth	Webster	Madison	Adair	Washington	Story	Dubuque		
Osceola	Ida	Cass	Winnebago	Hamilton	Mahaska	Winneshek	Keokuk	Dallas	Delaware		
Dickinson	Sac	Adair	Mitchell	Hardin	Marion	Howard	Louisa	Iowa	Buchanan		
Emmet	Calhoun	Mills	Worth	Grundy	Wapello	Chickasaw	Henry	Polk	Black Hawk		
Sioux	Monona	Montgomery	Hancock	Benton	Clarke	Clayton	Jefferson	Poweshiek	Linn		
O'Brien	Crawford	Adams	Cerro Gordo	Tama	Lucas	Fayette	Van Buren	Jasper	Clinton		
Clay	Carroll	Union	Floyd	Boone	Monroe	Bremer		Warren	Cedar		
Palo Alto	Greene	Premont	Humboldt	Marshall	Davis	Jackson			Johnson		
Plymouth	Harrison	Page	Wright		Decatur	Jones			Scott		
Cherokee	Shelby	Taylor	Franklin		Wayne				Muscatine		
Buena Vista	Audubon	Ringgold	Butler		Appanoose				Des Moines		

What's Happening