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Media Contact
Doug Olsen
olsen@aero.und.edu
701.777.2490

Before and After Satellite Snapshot of Red River Valley Storm Damage

Grand Forks, ND – Severe hail and wind storms July 15th caused widespread damage to crops in southeastern North Dakota. Now, satellite imagery showing before and after scenes of the devastation is available from University of North Dakota to quantify the extent of the damage.

Researchers at the Upper Midwest Aerospace Consortium (UMAC) and the Northern Great Plains Center for People and the Environment captured imagery of the storm damage using data from multiple sensors and spacecraft, and processing them with advanced software. The satellite images were acquired before the storm on June 25th and after the storm July 19th. The before and after images can be viewed on the UMAC website at www.umac.org/about/news.

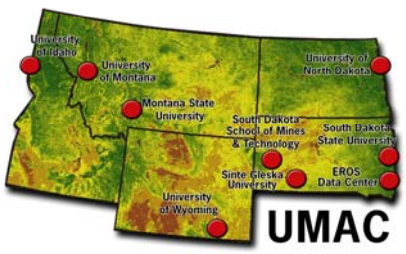
The July 19th image clearly shows an area of destroyed vegetation, stretching in an arc across the whole western fourth of Cass County, as well as portions of Steele and Ransom counties. While some crop growth is detectable over the 24 day period between scenes, there is a stark contrast between farm fields before and after the storm.

The "before" scene was taken at 15 meter resolution using ASTER, a Japanese sensor onboard NASA's Aqua spacecraft; while the "after" scene was taken at 30 meter resolution using the Enhanced Thematic Mapper onboard NASA's Landsat spacecraft. In addition, imagery from the MODIS sensor, which takes lower spatial resolution imagery at 250 meters, was also analyzed to provide independent confirmation of the detected problem areas.

The Center's advanced Geospatial Analysis Laboratory enabled rapid acquisition of data from whatever orbiting spacecraft was available, an essential capability that helps overcome cloud cover problems.

"Our ability to provide individuals and decision makers with valuable environmental data from space is our basic commitment, and this storm was a good example," said Dr. George Seielstad, Center Director. "Some events can only be comprehended by the kind of overview available from satellites."

For more information, contact Doug Olsen at 701.777.2490, or olsen@aero.und.edu.



Upper Midwest Aerospace Consortium

Northern Great Plains Center for People & the Environment
4149 University Avenue, Stop 9011
300 Clifford Hall, University of North Dakota
Grand Forks, ND 58202-9011
Tel. 701.777.2490 • Fax 701.777.2940