USGS science for a changing world

Landsat Update

Volume 6 Issue 3, 2012

The Landsat Data Continuity Mission (LDCM) is scheduled to launch no earlier than February 11, 2013.

Landsat 40th Anniversary

The Landsat satellites have been orbiting since 1972. The first Landsat, formerly known as ERTS-1, was launched as an experimental project to see if satellites could be used to image the landscape and provide useful information regarding land use change. Today these satellites provide invaluable data covering a realm of diverse uses from urbanization to resource management, natural disaster and hazard monitoring to mapping habitat and diversity changes. With the USGS Landsat Archive now downloadable at no cost to users, new innovations are developed regularly with uses for Landsat data. With 40 years of data, change over time is something that can easily be shown with this archive.

Our mission partner, NASA, has created this video, summarizing the value of 40 years of global Landsat data: http://www.youtube.com/watch?v=ZZx1xmNGcXI

The LandsatLook Viewer Now Available

On July 23, 2012, on the 40th Anniversary of the launch of Landsat 1, the USGS Landsat Project rolled out a new tool that enables fast and easy viewing of 3 million Landsat images all around the globe with just a simple web browser. We have made exporting your display and downloading full scenes easy, but the real power of the LandsatLook Viewer is the capability to explore Earth. With a placename search tool or panning and zooming, you can easily navigate the globe. Be sure to check out the 40 years of data over your favorite place!

Whether you are preparing a presentation, teaching kids, educating decision makers, or previewing the full-resolution image prior to downloading the full scenes, the LandsatLook Viewer is a new and exciting way to experience the Landsat archive.

The LandsatLook Viewer can be accessed at: http://landsatlook.usgs.gov

Landsat Stories - The Uses and Benefits of Landsat Data

The 40 year archive of Landsat data is a valuable resource, supporting many different areas of focus for all users. On http://landsat.usgs.gov/Landsat_Stories.php, we have started with stories of two data users, who want to share the benefits of Landsat data - from aircraft runways in the Aleutian Islands in Alaska, to field-level mapping in Brazil and Paraguay.

We invite you to send us your story on how Landsat data has helped with your projects... send your stories to custserv@usgs.gov.

Upcoming Meetings

2012 GSA Annual Meeting & Exposition
November 4-7 2012
Charlotte, North Carolina
http://www.geosociety.org/meetings/2012/

American Geophysical Union (AGU) Fall Meeting
December 3-7 2012
San Francisco, California
http://fallmeeting.agu.org/2012/

Tips and Tricks – Sample LDCM Data Available

Sample Landsat Data Continuity Mission (LDCM) data products are available for download from http://landsat.usgs.gov/LDCM_DataProduct.php.

EROS Authors in Recent Publications

Helder, D.L., Karki, S., Bhatt, R., **Micijevic, E**., Aaron, D., and Jasinski, B., 2012, Radiometric calibration of the Landsat MSS sensor series: IEEE Transactions on Geoscience and Remote Sensing, v. 50, no. 6, p. 2380-2399, article number 6084738.
Also available online at http://dx.doi.org/10.1109/TGRS.2011.2171351

Landsat Image of Interest – Western Wildfires

Wildfires are doing severe damage in a number of western U.S. states. Extremely dry conditions, stiff winds, unusually warm weather, and trees killed by pine bark beetle outbreaks have created a situation in which major fires thrive. 52 active fires in a number of states have destroyed over 900,000 acres. Since the beginning of 2012, 27,000 fires have destroyed 1.9 million acres.

The immediate impact is loss of property and lives. Longer term, the exposed soil profiles, especially in steep-sloped regions, will affect erosion, make the areas vulnerable to potential flooding, and affect water quality.

Landsat satellite data are being used to record the rate of burning, extent of damage, and the results of efforts to control the burns. The data will be used by resource managers to monitor regrowth and rehabilitation after the fires are controlled.

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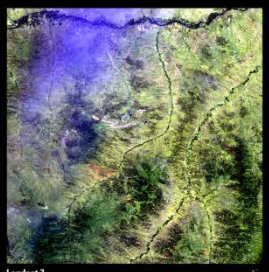
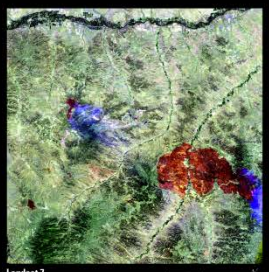
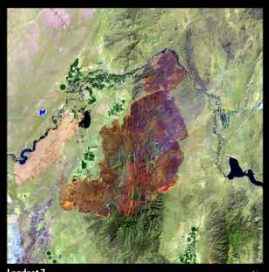
NASA

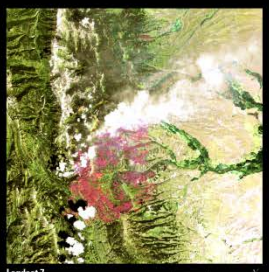




The Ash Creek Complex Fire in Montana has burned over 186,000 acres. The smaller fire is the Horse Creek Wildfire, which has grown to 6,000 acres, and the smaller scar to the southwest was the Bad Horse Fire, which burned 3,000 acres.



The Clay Spring Fire, which started June 27, has burned almost 100,000 acres in central Utah.



The Fontenelle Fire has scorched over 22,000 acres and continues to burn in western Wyoming. The fire is moving rapidly through dead timber and has shut down gas, oil, and helium production, causing significant economic impact.

The Wood Hollow Fire, Utah, has burned 47,000 acres.

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The above examples illustrate the effects of fires in Montana, Utah, and Wyoming.

U.S. Department of the Interior
U.S. Geological Survey