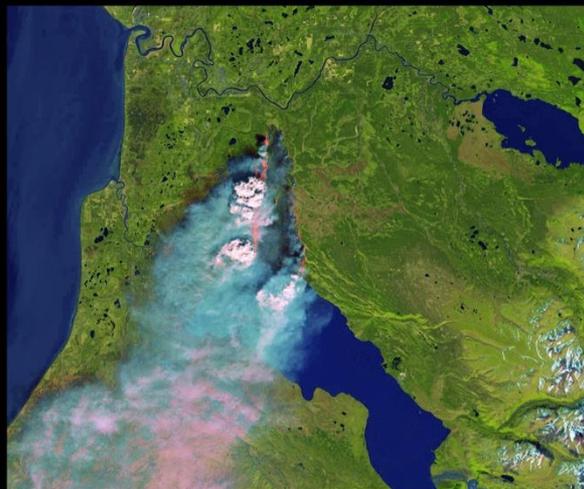


National Geospatial Advisory Committee Meeting June 24, 2014



Landsat 8
May 4, 2014



Landsat 8
May 20, 2014



Landsat 8
June 5, 2014

The Funny River Fire in Alaska was first discovered on May 19, 2014.

Tim Newman

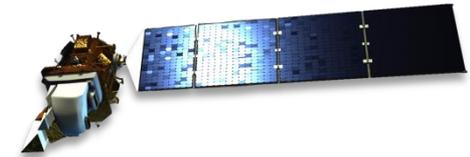
*Program Coordinator
Land Remote Sensing Program
U.S. Geological Survey*



Operational Status

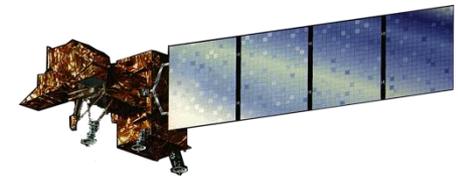
Landsat 8

- Collection increased from approximately 550 to 650 new scenes per day; supports 8-day revisit cycle
- Improvements: better signal-to-noise, new bands (coastal blue, cirrus, thermal)
 - Crisper images; less color saturation
 - Better resolution of snow and ice-covered regions
 - Detection of water-column constituents
 - Better cloud screening



Landsat 7

- Collecting over 400 new scenes per day; about 22% of pixels missing per scene (faulty scan-line corrector)
- L7 collection strategy modified to concentrate on continental coverage; L8 capturing islands & reefs
- Sufficient fuel for a few more years of operation; limited subsystem redundancy



Operational Status

(continued)

Landsat-based Information Products

- Standard orthorectified L1T calibrated radiance Landsat scenes
- LandsatLook (full-resolution JPEGs browse/print images)
- New TM/ETM+ surface reflectance Climate Data Record (CDR) products currently available on-demand for any WRS-2 path/row
- New TM/ETM+ surface temperature CDR products under development; will soon be available for evaluation on-demand for North America
- New OLI surface reflectance CDR in development and will be made available on-demand for any WRS-2 path/row
- New OLI surface temperature CDR in development and will be made available on-demand for North America
- Surface Water Extent, Burned Area Extent Essential Climate Variable (ECV) products available soon for evaluation for CONUS and Alaska
- Snow-covered area ECV due late next year for CONUS and Alaska

2014 Guidance for Landsat Advisory Group (LAG)

Review and update 2012 paper, “The Value Proposition for Ten Landsat Applications”:

- Update and/or add examples
- Refine and expand the list of user applications, within and beyond government agencies
- Enhance the Landsat value summary

USGS provided recent information from Landsat user case studies, a user-community survey, plus a draft report of a pilot project on remote sensing user requirements. Pilot-project report has since been published: Vadnais, Carolyn, and Stensaas, Greg, 2014, National Land Imaging Requirements (NLIR) Pilot Project Summary Report—Summary of Moderate Resolution Imaging User Requirements: U.S. Geological Survey Open-File Report 2014–1107, 46 p., <http://pubs.usgs.gov/of/2014/1107/>

The Status of Sustainability

- NASA, with USGS, is conducting a Sustainable Land Imaging Architecture Study, with an implementation plan due this August to the Administration
- The Congress, the Administration, NASA, and the Department of the Interior/USGS all agree on the importance of land-imaging continuity
 - A government-wide assessment of 132 Earth-observing satellite systems ranked Landsat as having the second-highest societal-benefit impact behind only the GPS system
 - The Senate is calling for a low-risk, near-term launch of a Landsat 8 rebuild, not to exceed \$650M, while non-concurring with foreign-partner or commercial alternatives
 - The Administration, while committed to a 25-year sustainable system, is stating the Senate solution is premature and that \$650M is not feasible for a Landsat 8 rebuild
- The USGS is concerned about the need for near-term data continuity
 - The Landsat 8 thermal sensor design life is exceeded in 2016
 - Landsat 7's fuel supply will expire by 2018; any key component could fail beforehand
 - 8-day coverage capability is lost with only one Landsat on orbit
- The Nation is remarkably close to solving a big problem for users of Landsat data
 - Although the cost cap appears to be in question, the bills will go into conference over the next few weeks and things may change. The outcome is not certain.