

When Fire Damage Threatens Humans, Landsat Provides Answers

*"A vision
to observe
Earth for
the benefit
of all..."*

Interior Secretary
Stewart Udall, 1966

Rain on a mountainside scorched by a wildfire can quickly turn ash into mudslides, and endanger nearby homes and residents with debris flows. Landsat satellites help anticipate and prevent that danger.

Landsat's multi-spectral capabilities, including its Shortwave Infrared (SWIR) band, enhances how quickly federal emergency response teams can map fire damage and provide guidance on stabilization efforts.

- The SWIR band looks at moisture content in soil and vegetation. With a Landsat Near-Infrared (NIR) band that is sensitive to growing vegetation, the two can accurately produce burn scar images.
- Landsat sensors acquire infrared data on a burn site at least every 8 days. USGS fire science staff can process it and deliver burn-mapping products in less than 24 hours after acquisition.
- Burn-severity maps help rehabilitation managers focus post-fire mitigation activities.
- In 2015, USGS staff mapped 2.5 million acres of burn area on Department of Interior-managed lands.



A vision to observe Earth...
50th Anniversary Celebration

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