

# Post-fire Mapping Products: BAER, RAVG, and MTBS

The USDA Forest Service Remote Sensing Applications Center (RSAC) supports three major post-fire mapping programs

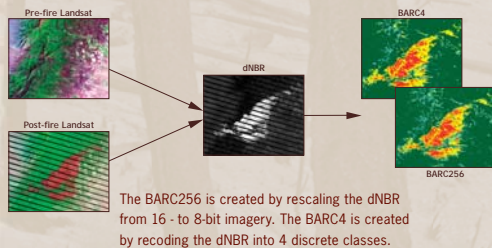
## BAER

(Burned Area Emergency Response)  
[www.fs.fed.us/eng/rsac/baer](http://www.fs.fed.us/eng/rsac/baer)

### DESCRIPTION

The Burned Area Emergency Response (BAER) support at RSAC includes tracking fire progression, satellite overpasses, image acquisition, and Burned Area Reflectance Classification (BARC) creation. The BARC is a GIS layer used by BAER teams as they perform an emergency assessment of the burned area. The BARC is a first approximation at soil burn severity on the burned land.

### MAPPING METHOD



### AUDIENCE

The BARC is delivered to BAER teams. These teams are dispatched to make an assessment of the burned area within seven calendar days from fire containment. One of their first tasks is to create a soil burn severity map. The BARC is used to create that map.

### TIMELINE

1 - 7 days after fire containment

### DELIVERABLES

- Pre- and post-fire satellite imagery
- BARC layers (thematic and continuous)
- Metadata
- 3D image drape

### EXAMPLE

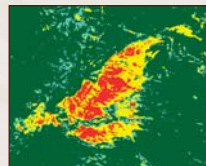
Trigo  
 Ignition: 4/15/2008  
 Contained: 5/11/2008



Perimeter Acres: N/A  
 Assessment Type: Emergency



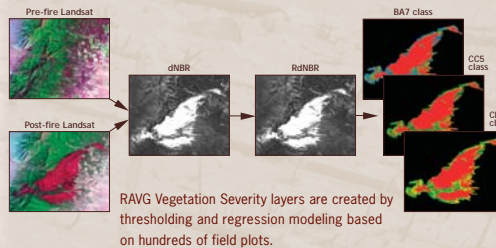
Pre-fire Image Date: 5/21/2007  
 Post-fire Image Date: 5/15/2008



## RAVG

(Rapid Assessment of Vegetation Condition After Wildfire)  
[www.fs.fed.us/postfirevegcondition](http://www.fs.fed.us/postfirevegcondition)

The Rapid Assessment of Vegetation Condition after Wildfire (RAVG) program produces data describing post-fire vegetation conditions on National Forest System (NFS) lands. RAVG produces a suite of geospatial and tabular outputs that include standard vegetation mortality summary tables and maps. The tables and maps are produced by integrating existing vegetation maps and burn severity maps.



The primary audience for RAVG data and products are Regional Silviculturists who need to communicate yearly reforestation and restoration needs to the Washington Office and Congressional decision makers for specific funding requests.

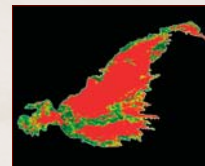
30 - 45 days after fire containment

- Pre- and post-fire satellite imagery
- Fire perimeter shapefile
- dNBR and RdNBR (continuous)
- Composite Burn Index (CBI) layer
- % change in basal area layer
- % change in canopy cover layer
- Summary table and map
- Metadata

Perimeter Acres: 14,297  
 Assessment Type: Initial



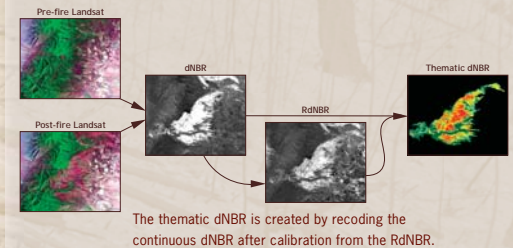
Pre-fire Image Date: 5/21/2007  
 Post-fire Image Date: 5/7/2008



## MTBS

(Monitoring Trends in Burn Severity)  
[www.mtbs.gov](http://www.mtbs.gov)

Monitoring Trends in Burn Severity (MTBS) is a multi-year program designed to consistently map the burn severity and burn area boundaries of fires across all lands of the United States for the period spanning 1984 through 2010. The data generated by MTBS will be used to identify national trends in burn severity, providing information necessary to monitor the effectiveness and effects of the National Fire Plan and Healthy Forests Restoration Act.



The MTBS project serves four primary user groups:  
 1. National policies and policy makers  
 2. Field management units  
 3. Existing databases from other comparably scaled programs  
 4. Research and academic entities interested in fire severity.

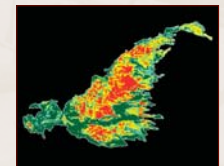
12 - 18 months after fire containment

- Pre- and post-fire satellite imagery
- dNBR and RdNBR (continuous)
- 5-class thematic thresholded dNBR
- Burn area boundaries
- Data summaries
- Metadata
- 3D image drape

Perimeter Acres: 13,855  
 Assessment Type: Extended



Pre-fire Image Date: 7/8/2007  
 Post-fire Image Date: 7/29/2009



Note: MTBS is a joint project between USFS-RSAC and USGS-EROS

CONTACT ■ For more information about any of these programs, please contact the USFS Remote Sensing Applications Center (RSAC) at 801-975-3750