

# JFSP Project Highlight Newsletter

## Research Supporting Sound Decisions

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The JFSP, a partnership of six federal wildland fire and research organizations, provides scientific information and support for fuel and fire management programs.

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### Field Measurements for the Training and Validation of Burn Severity Maps from Spaceborne Remotely Sensed Imagery

#### Principle Investigators:

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#### Co-Investigators:

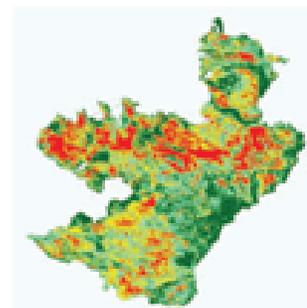
- Rob Sohiberg – University of Maryland
- Annette Parsons – USFS Remote Sensing Applications Center



This JFSP project provided support for scientists to collect geo-referenced field observations pertaining to burn severity and vegetation condition for the purpose of refining and validating satellite image-derived Burned Area Reflectance Classification (BARC). During the 2002 fire season, the project team collected 202 field observations for six wildland fires in four States and provided BAER teams with BARC data for a variety of fires that were visited.

The advantages of utilizing BARC data to derive burn severity maps for Burn Area Emergency Response (BAER) teams include rapid availability of the BARC products and an unbiased and repeatable methodology.

Single scene and multi-date BARC image classification methods were investigated and two methods of accuracy assessment performed. Based on these two sources of data (field observations and BARC classification) overall accuracies between 50% and 60% were achieved. Accuracies were typically highest for high severity and unburned areas (66% to 83%), and lowest in the low burn severity class.



The field data collected by this project provided valuable input for the refinement and classification methods and assessment of BARC maps. The accuracy of BARC products were found to be sufficient for providing BAER teams with a foundation for the development of a final burn severity map, which is always derived using additional field observations and interpretation by BAER teams. An important advantage of using BARC data and maps is they facilitate a more consistent method for mapping burn severity regardless of land ownership.

For further information about this project, please read the final report or visit the project website at:

[http://www.fs.fed.us/eng/rsac/baer/final\\_report\\_01B-2-1-01.pdf](http://www.fs.fed.us/eng/rsac/baer/final_report_01B-2-1-01.pdf)

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