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http://ams.confex.com/ams/FIRE2003/techprogram/programexpanded_160.htm
http://ams.confex.com/ams/FIRE2003/techprogram/paper_67183.htm

J1G.4

Operational Detection of Fires in Brazil with EOS, GOES and NOAA Satellites

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Fire in tropical regions is commonly used in association with agricultural practices, pasture renewal, deforestation, and the removal of vegetation in general. About 20 to 25% of the areas with human activities are purposely burned every year; conservation areas and primary forests are also affected but to a degree that depends on climate patterns. Monitoring of fires with satellites of the NOAA series indicate up to 200.000 fires per year in Brazil; the actual figure is much higher if one considers events not detected.
This paper summarizes many years of operational experience using real-time images of the following sensors/satellites: AVHRR/NOAA, Imager/GOES and MODIS/EOS. Limitations of the 3.7-4.0 um mid-infrared band in the detection and the algorithms based on pixel thresholds in different channels are discussed. Examples of the many products designed for specific users are presented, as well as fire detection statistics for the country obtained from the satellites' data.
Use of the information through an Internet Geographical Information System by many government and private agencies is also available for the products. The coordinates of the fires for any dates or periods can be displayed over backgrounds of high resolution satellite images and information layers. Maps of fire danger analyses and forecasts generated by numerical models are produced as part of the overall effort to minimize the use of fire in the country. Many of the products of this comprehensive fire monitoring system are being produced for other countries in South America, and the experience with their use and implementation is included.
The following Internet site shows most of the results and possibilities indicated above: http://www.cptec.inpe.br/queimadas.

. Joint Session 1G, GIS/Remote Sensing: Part 1 (TRACK VII)
Monday, 17 November 2003, 11:00 AM-5:30 PM

Previous paper **Next paper**
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