



An Integrated Satellite System for fire detection and prioritization

Giuseppe Mazzeo (1), Antonio Lanorte (1), Alfredo Falconieri (1), Carolina Filizzola (1), Teodosio Lacava (1), Francesco Marchese (1), Fortunato De Santis (1), Nicola Pergola (1), and Valerio Tramutoli (2)

(1) National Research Council of Italy - Institute of Methodologies for Environmental Analysis , (2) University of Basilicata - School of Engineering

In the framework of project "Development of a platform for innovative services based on Earth Observation data" (SPOT), an Integrated Satellite System (ISS) for fire detection and prioritization, based on RST-FIRES technique has been developed. The system, analyzing EOS-MODIS, NOAA-AVHRR, MSG-SEVIRI data, is capable of generating thermal anomaly products in Near Real Time (NRT), related to fires occurring in Italy providing information also about fire danger and vulnerability of the monitored area. Satellite products (ASCII, KML, shapefile) are generated in a promptly way to be ingested in the most common Geographic Information System (GIS). In this study, we present some preliminary results provided by the ISS system showing its potential in supporting fire management activities for better mitigating impact of thermal anomalies like fires on populated areas, infrastructures and environment.