

SYMPOSIUM ON INTEGRATED APPLICATIONS (B5)  
Integrated Applications End-to-End Solutions (1)

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OPERATIONALLY RESPONSIVE SPACE-GROUND INTEGRATION SYSTEM FOR DISASTER  
MONITORING AND MITIGATION**Abstract**

Natural disasters such as earthquakes, floods, and landslides have brought damage to human society. Disasters by their nature are unpreventable, but through disaster monitoring and management it is possible to minimize loss of life and property. Gathering information about accurate disaster position and impact assessment has proven to be essential for making correct decisions for rescue operations. It is known that potential applications of space technologies in the management of emergency situations have been identified and many countries take disaster forecasting and monitoring as main area for space applications. Based on operationally responsive space technology, space-ground integration system that can provide necessary information in emergency situations for disaster monitoring and mitigation are presented. The system is consisted of quick-response launch vehicles, forecasting/imaging/communicating satellites, simplified launch centers, ground stations and decision-making centers. Following information's collecting, transmitting and applying process, the working mode of this system and its functions in disaster monitoring and mitigation are proposed. By applying such system, it is possible to make full use of operationally response space technology to realize quick-response monitoring and detecting necessary information for disaster relief.