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UTILIZATION OF COMMERCIAL EARTH OBSERVATION SERVICES TO MANAGE NATURAL  
DISASTER RESPONSE

**Abstract**

In the aftermath of a natural disaster, situational awareness is the key to protecting the lives of the affected population and restoring infrastructure. Emergency managers must understand the need for support before first responders and assets can be tasked. In the United States, agencies like FEMA currently rely on aircraft such as state/local government's helicopters or Civil Air Patrol aircraft to provide photographs of critical infrastructure and homes. This paper evaluates the feasibility of using commercial Earth observation satellites to collect imagery of disaster areas including small scale areas, such as individual critical infrastructure targets, as well as large scale areas. Considerations include deliverable cost, response time, target area size, and imagery resolution.