

## The information collection immediately after the disaster by the high-resolution satellite imagery

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Recent years, practical application of high-resolution satellite imagery and digital cameras for aero-mapping is progressing in various fields of detailed investigation. This report shows the example which applied the high-resolution satellite imagery based on the American commercial satellite IKONOS to investigation of damage of the Mid Niigata Prefecture Earthquake in 2004 and the 2004 Eruption of Asama Volcano.

IKONOS imagery with one-meter ground resolution is not enough for the determination of small-scale damage on each building or cracks on the surface of road in earthquake disaster. Also, detection of volcanic ejecta itself is not easy. However, it enabled us to estimate the generated phenomenon of the disaster by carrying out macroscopic and specific interpretation of slope failures, landslides, blockade points of road or river, and the distribution of impact craters of volcanic bomb greater than three meters in diameter. Moreover, by getting some additional information, such as local damage report, interpretation of IKONOS imagery is more effective to estimate the general disaster image promptly.

Therefore high-resolution satellite imagery is considered to be practical enough as a method of information-gathering immediately after disaster. And it is excellent in the ease of overview of a wide damaged area, promptness of interpretation, and quickness of digitalized data circulation compared with the aerial photograph interpretation.