New horizons brought by UAV remote sensing

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Satellite remote sensing always has limitations in timing and area of acquired images. Recent improvement in UAV(Unmanned Areal vehicle) will bring new scope in 'anytime', 'anywhere', and 'easy' remote sensing. We invite recent case studies using UAV remote sensing, and discuss for application from this time on.

9:00 AM - 9:15 AM

Generating an orthophoto from SfM calculation with the low-quality air photographs taken in the 1964 Niigata earthquake

3-min talk in an oral session
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Keywords:structure from motion (SfM), low quality aerial photograph, 1964 Niigata earthquake, ground control point (GCP), orthophoto

This study shows that generating the orthophoto from low quality aerial photographs using structure from motion (SfM).National Research Institute for Earth Science and Disaster Prevention (NIED) is archiving a lot of old aerial photographs and its original roll films. However, some films are deteriorating. One of them is the 1964 Niigata earthquake's film.This deteriorated photographs were taken 50 years ago, nevertheless, the result of SfM calculating were sufficient quality and generated orthophoto with 0.2 m resolution.As a result, low quality aerial photographs are available to utilize for SfM.