Tuesday, March 14
Poster Session

Radiometric Calibration of the AWiFS Sensor and a Cross Calibration Enhanced Vicarious Calibration Technique

David Aaron, South Dakota State University

Using vicarious calibration validation of moderate resolution sensors such as AWiFS is complicated by requiring more land area to ensure proper registration and sufficient pixel numbers. A trial AWiFS calibration was performed on a grass site that consisted of two dramatically different grass heights. Ground truth data was collected over relatively small areas representing only a few pixels. The radiometric gain results for each of these areas will be reported. To enhance this analysis, since a near coincidence high resolution image was collected, the high resolution data was effectively resized to produce pixels comparable to AWiFS and the atmospheric model was used to produce a top of canopy radiance map. Multiple uniform vegetated areas of several radiances were then identified and subsequently propagated to the top of atmosphere viewpoint of the moderate resolution (AWiFS) satellite. The radiometric gain was then calculated based on the vendor high resolution satellite gains (for the 3 bands with comparable wavelengths). Band-to-band conversion was performed assuming a hyperspectral reflectance based on the standard vegetated site. The initial comparison produces AWiFS radiometric gain values that agree to better than 10% of the values measured using the standard vicarious gain technique.

Automated Ground-Based Vicarious Calibration

John Buchanan, University of Arizona

Implementation of the Commercial Remote Sensing Space Policy

Thomas Cecere, U.S. Geological Survey

The U.S. Geological Survey (USGS) is a leading U.S. Federal civil agency in the implementation of the civil aspects of the Commercial Remote Sensing Space Policy (CRSSP). The USGS is responsible for collecting interagency near-term requirements, establishing an operational infrastructure, and supporting the policy and other Federal agencies. The agency accomplishes these tasks by collecting Federal civil agency remote sensing data requirements to help support funding strategies and procurement options; by providing an interface for acquiring commercial remote sensing data from commercial vendors; and by developing an infrastructure to store, manage, and distribute previously acquired commercial remote sensing data.