

**SSEC/CIMSS
Seminar**

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**Toward An Objective Enhanced-V
Detection Algorithm**

The region of coldest cloud tops above thunderstorms sometimes has a distinct V or U shape. This pattern, often referred to as an “enhanced-V” signature, has been observed to occur during and preceding severe weather in previous studies. This talk will describe an algorithm approach to objectively detect enhanced-V features with observations from the Geostationary Operational Environmental Satellite and Low Earth Orbit data. The methodology consists of Statistical (Pearson) correlation of pixels and thresholds of enhanced-V quantitative parameters. A three-tier approach is taken for the detection algorithm. First, overshooting tops are identified, then temperature couplets are detected, finally the algorithm searches for enhanced-V features. The effectiveness of the enhanced-V detection method will be examined using Geostationary Operational Environmental Satellite, MODerate-resolution Imaging Spectroradiometer, and Advanced Very High Resolution Radiometer image data for case studies in the 2003-2006 seasons. The main goal of this study is to develop an objective enhanced-V detection algorithm for future implementation into operations with future sensors, such as GOES-R.

Tuesday, 29 May 2007

10:00 a.m.

Room AOSS 811