Task Highlights & Progress Summary:

This is the 1st quarterly progress (July 15 – September 15, 2010) report for the 2010 ASAP initiative at University of Wisconsin-Madison CIMSS/SSEC in collaboration with the University of Alabama-Huntsville, MIT, and NCAR. Described are tasks as listed on the NASA LaRC/SSAI CIMSS Statement of Work for ASAP 2010.

Wayne Feltz leads the University of Wisconsin-Madison CIMSS/SSEC effort. The contact information is (608) 265-6283, or wayne.feltz@ssec.wisc.edu. The CIMSS ASAP-project staff also includes: Justin Sieglaff, Tony Wimmers, Mike Pavolonis, Ralph Petersen, Jason Brunner, and Chris Velden. Coordination between John Mecikalski at the University of Alabama-Huntsville, Robert Sharman NCAR, and Marilyn Wolfson/Haig Iskenderian MIT is ongoing.

Coordination, Presentations and Conferences:

Internal ASAP coordination meeting was held on August 11th, 2010 and September 8th, 2010. A telcon was also conducted with Dr. Haig Iskenderian on above dates with regard to satellite-based convective interest field and wind processing development. Other areas of common interests were discussed including turbulence.

Research Progress:

1) Support for JPDO NextGen Involvement (In collaboration with UAH and NASA LaRC)

Wayne Feltz participated in the following coordination conferences and meetings with one of primary goals to make sure satellite-based research applications are connected to operational pathways:

- Participated in GOES-R Proving Ground Pacific region testbed workshop connecting satellite aviation requirements to end user testbeds in Honolulu, Hawaii from July 28-30th, 2010
- Prepared for overview of GOES-R Aviation algorithm linkages with NextGen activities related to turbulence, convection, icing, and volcanic ash at annual EUMETSAT conference in Cordoba, Spain

2) Continue CoSPA validation ASAP research (In collaboration with UAH, MIT, and NCAR)

UW-CIMSS continues to collaborate with MIT/Lincoln Lab and UAH on transition of SATCAST into CoSPA algorithm. Highlights below:
➢ Transitioning atmospheric motion vectors for optimal use with GOES-13
➢ Provided oversight and feedback on using box-average method within SATCAST to speed production time of convective initiation products, Figure 1 shows a comparison between to methods which account for scene to scene motion
➢ Provided ideas on how to account for satellite parallax

![CL Interest from Box Average](image)

Figure 1: Comparison of convective initiation signal using box average vs atmospheric motion vectors to account for cellular movement between consecutive GOES-12 images.

2010 ASAP related Peer-reviewed Papers:


Conferences

GOES-R OCONUS Proving Ground Testbed Workshop, Honolulu, HI, 28-30 July 2010 – Preparing for geostationary testbed to support Pacific region, Focus was on making sure GOES-R Aviation products are connected to NextGen activities