

**Second NOAA/NESDIS
Cooperative Research Program Annual Science Symposium**

SATELLITE CALIBRATION & VALIDATION

July 13-14, 2005

**Pyle Center, 702 Langdon Street
University of Wisconsin-Madison
<http://cimss.ssec.wisc.edu/corp/>**

Wednesday Afternoon 13 July 2005

Introduction

Chair: Jeff Key, NOAA

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| 1300 | Introductory Remarks/Logistics/Agenda | Jeff Key, NOAA |
| 1310 | Welcome | Steve Ackerman, SSEC |
| 1320 | The Cooperative Institutes and NESDIS | Al Powell, NOAA |
| 1335 | The Big Picture of Cal/Val | Paul Menzel, NOAA |
| 1400 | Overview of Cooperative Institute Cal/Val Activities | |
| | Cal/Val Activities at CIOSS | Ted Strub, CIOSS |
| | Cal/Val Activities at CIMSS | Steve Ackerman, CIMSS |
| | Cal/Val Activities at CIRA | Don Hillger, NOAA/CIRA |
| | Cal/Val Activities at CICS | Andy Harris, CICS |
| | Cal/Val Activities at CREST | Reza Khanbilvardi, CREST |

1500 Break

Radiance Calibration and Validation

Chair: Tim Schmit, NOAA

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|------|---|-----------------------|
| 1515 | AVHRR Visible Band Calibration/Intercalibration | Andy Heidinger, CIMSS |
| 1530 | MODIS Radiance Calibration | Chris Moeller, CIMSS |
| 1545 | Using AIRS to Assess MODIS Radiances | Dave Tobin, CIMSS |
| 1600 | AIRS/GEO Infrared Intercalibration | Mat Gunshor, CIMSS |
| 1615 | Using Sun Glint and Antarctic Ice Sheets to Calibrate
MODIS and AVHRR Observations of Reflected Sunlight | Bill Tahnk, CIOSS |
| 1630 | Poster Introductions | Poster authors |
| 1645 | Poster Reception | Poster authors |
| 1800 | Banquet – Pyle Center Ameritech Lounge | |

Posters (Wednesday afternoon)

1. Use of Tide Gauges in Altimeter Calibration and Validation: Estimating Altimeter Drift to Estimate Long-Term Sea Level Rise
Ted Strub, CIOSS
2. Improved SST retrieval in tropical regions using GOES-R ABI
Leona Charles, CREST
3. Validation of Satellite-Based NESDIS Rainfall Products
Walid Harrouch, CREST/CUNY
4. Vegetation Effect on Soil Moisture Retrieval from Active Microwave Data
Tarendra Lakhankar, CUNY
5. Capabilities and limitations of neural networks in snow cover mapping from passive microwave data
Juan Arevalo, CREST/CUNY
6. Validation of Satellite-derived Polar Clouds
Xuanji Wang, CIMSS
7. Accuracy of Satellite-derived Temperature Inversions
Yinghui Liu, CIMSS
8. Validation of Coastwatch ocean color products
Sathyadev Ramachandran, NOAA
9. Cloud Detection: Optical Depth Thresholds and FOV Considerations
Steve Ackerman, CIMSS
10. Calibration of Radar Remote Sensing as Applied to Soil Moisture and Vegetation Health Determination
Mairim Ramos, CREST/UPRM
11. Calibration and Validation Fundamentals
Vazjier Rosario, CREST/UPRM
12. Validation of Hydro-Estimator Algorithm for Puerto Rico Region
Beatrice Cruz, CREST/UPRM
13. Validation of Cloud Top Height Retrieval by MODIS and MISR Instruments
Ana Picon, CREST/UPRM
14. Seawifs Validation in Coastal Waters of Western Puerto Rico
Patrick Reyes, CREST/UPRM
15. The effect of Calibration Uncertainties on Cloud Height Retrievals from HIRS
Min Min Oo, CREST
16. A Comparison of High Spectral Resolution Infrared Cloud Top Pressure Algorithms Using S-HIS Measurements
Bob Holz, CIMSS
17. Windsat Vector Wind Accuracy from Buoy and QuikSCAT Comparisons
Mike Freilich, CIOSS
18. Visibility Analysis of Class I Areas Using Multiple Satellite Products and In Situ Ground Based Measurements
Nikisa Jordan, CREST/UMBC
19. GASP Optical Depth Animations and Optical Depth Comparison with an Elastic Lidar
Ray Rogers, CREST/UMBC
20. Windsat Observations of Ocean-Atmosphere Interaction in the Eastern Tropical Pacific
Dudley Chelton, CIOSS

Thursday 14 July 2005

0830 Muffins, tea, coffee

0845 Intro/Logistics

Jeff Key, NOAA

Ocean and Land Applications

Chair: Ted Strub, CIOSS

0900 Using Satellite-Derived PBL Properties to Infer Land Surface Fluxes

Joe Santanello, CICS

0915 SST and Physical Radiance Bias Correction

Andy Harris, CICS

0930 Ocean Color Products: The Challenge of Going From Stocks to Rates

Sam Laney, CIOSS

0945 Coastal Carbon Fluxes from Satellite Ocean Color, SST and Winds

Peter Strutton, CIOSS

1000 Ocean Vector Wind Workshops and the Role of Cal/Val in Preparing for Future Satellite Wind Sensors

Dudley Chelton, CIOSS

1015 Vector Winds and Severe Storms in the Operational Environment

Paul Chang, NOAA

1030 Break

1045 Retrieval of Ocean Properties Using Multispectral Methods

Sam Ahmed, CREST

1100 Discussion

Atmosphere Applications

Chair: Bob Aune, NOAA

1115 Validation of CIRA Tropical Cyclone Algorithms

Julie DeMuth, CIRA

1130 Use of GPS for Validation of Microwave Moisture Retrievals Over Land

Matt Nielsen, CIRA

1145 Satellite-derived Atmospheric Product Validation Using In Situ and Remotely Sensed Data

Wayne Feltz, CIMSS

1200 Lunch – Pyle Center's Lee Lounge

1330 3-Dimensional Validation of Satellite AOD Products and the Numerical Aerosol Forecast Models that Use Them

Ray Hoff, CREST/UMBC

1345 Aerosol Retrieval and Ground Albedo in Urban Areas Using V/NIR and MIR Hyperion Channels

Barry Gross, CREST/CCNY

1400 Improving Correlation of AOD and Surface PM_{2.5} Using Lidar Data, Implications for CALIPSO

Fred Moshary, CREST/CUNY

1415 Cal/val Activities at UPRM

Hamed Parsiani, CREST/UPRM

Climate Applications

Chair: Don Hillger, NOAA

1445 Using Fluctuations in Hyperspectral Satellite Observations to Estimate Climate Sensitivity

Daniel Kirk-Davidoff, CICS

1500 Break

- 1515 On the Validation and Intercomparison of Global Water
Vapor Climate Data Records from Satellites John Forsythe, CIRA
- 1530 Inter-satellite Calibration of HIRS OLR Time Series Hai-Tien Lee, CICS
- 1545 Cloud Climatology Validation Mike Pavolonis, CIMSS
- 1600 Discussion
- 1615 Closing: Did we meet our goals?
- 1630 End of workshop**