



2008 NASA Ocean Vector Wind Science Team Meeting  
19-21 November 2008  
Seattle, WA



**AGENDA**

Talks will take place in the Belmont C Room of the Crowne Plaza Hotel, and poster sessions will be in the Windsor C room.

**Wednesday Morning, 19 November 2008**

**7:30a Coffee, Continental Breakfast; Registration, Poster set-up**

**Introductory Session**

**Chair: Mark Bourassa**

- 8:00 *Words from the Local Hosts*  
Kathryn Kelly (University of Washington) and Ralph Foster
- 8:05 *Welcome and Meeting Goals*  
Mark Bourassa (Florida State University/COAPS) and Ernesto Rodriguez
- 8:15 *NASA Headquarters Overview*  
Eric Lindstrom (NASA Headquarters)
- 8:35 *JPL and QSCAT Status*  
Rob Gaston (JPL)

**Plans for a Post-QSCAT Era Session**

**Co-Chairs: Ernesto Rodriguez and Zorana Jelenak**

- 9:00 *Status of GCOM and Expectation for Microwave Scatterometer*  
Keiji Imaoka (Earth Observation Research Center/JAXA), Misako Kachi, Tamotsu Igarashi, Keizo Nakagawa, Naoto Ebuchi, Taikan Oki, and Haruhisa Shimoda
- 9:20 *QuikSCAT Follow-on Efforts at NOAA: Progress in Designing the Next-Generation Scatterometer*  
Ernesto Rodriguez (JPL/Caltech), Robert Gaston, Zorana Jelenak, and Paul Chang
- 9:35 Break & Snack (30 minutes, poster viewing)**
- 10:05 *QuikSCAT Follow-on Efforts at NOAA*  
Paul Chang (NOAA/NESDIS/STAR), Zorana Jelenak, Ernesto Rodriguez, and Robert Gaston
- 10:20 *Introducing the WHOI OAFIux Global 0.25-degree Ocean Vector Wind Analysis (1987-Present)*  
Lisan Yu (WHOI)
- 10:35 *Wind Vector Retrievals under Rain with Passive Microwave Radiometers*  
Thomas Meissner (Remote Sensing Systems) and Frank Wentz
- 10:50 *The TropSat Mission: An Observatory for Mesoscale Convective System Processes in the Global Tropics*  
David G. Long (Brigham Young University), Ralph F. Milliff, Ernesto Rodriguez.
- 11:05 Discussion (25 minutes)

**Cal/Val and Definitions Session**

**Co-Chairs: Ralph Milliff and Naoto Ebuchi**

- 11:30 *Improving Satellite Wind Measurements*  
Frank Wentz (Remote Sensing Systems)

**Wednesday Morning (continued), 19 November 2008**

11:45 *Analysis of the ASCAT Wind Inversion Residual: Towards an Improved C-band Geophysical Model Function*  
Marcos Portabella (Unidad de Tecnologia Marina - CSIC), Ad Stoffelen, Maria Belmonte, Anton Verhoef, Jeroen Verspeek, and Jur Vogelzang

**12:00p Lunch (90 minutes, on own)**

**Wednesday Afternoon, 19 November 2008**

1:30 *Cross-Validating QuikSCAT and ASCAT*  
Ernesto Rodriguez (JPL/Cal Tech), Svetla Veleva, R. Scott Dunbar, and Bryan Stiles

1:45 *Calibration and Validation of ASCAT Backscatter*  
Julia Figa-Saldana (EUMETSAT), C. Anderson, J. Wilson, H. Bonekamp, A. de Smet, C. Duff

2:00 *Evaluation of ASCAT Wind Vectors*  
Naoto Ebuchi (Hokkaido University)

2:15 *IWRAP - Observations from Hurricane Ike and Status of Data Products and Availability*  
Stephen Frasier (University of Massachusetts), Tao Chu, Joe McManus, Robb Contreras, Paul Chang, Zorana Jelenak, Dragana Perkovic, and Daniel Esteban-Fernandez

2:30 *Error Characteristics of Scatterometer-Derived Vorticity as a Function of Spatial Scale*  
Mark A. Bourassa (Florida State University/COAPS)

2:45 *Characteristics of High Resolution Winds from Synthetic Aperture Radar Measurements*  
Michael Caruso (CSTARS)

**3:00 Break & Snack (30 minutes, poster viewing)**

3:30 *The Scatterometers+ Contribution to PBL Theory and Modeling*  
Bob Brown (University of Washington)

3:45 *Stress or Wind: Definitions and Biases*  
Mark A. Bourassa (Florida State University/COAPS), Barry Vanhoff, and David E. Weissman

4:00 *Validation of High Resolution Coastal Winds*  
Barry Vanhoff (Oregon State University), and Michael Freilich

4:15 *High-Resolution ASCAT Scatterometer Winds Near The Coast*  
Ad Stoffelen (KNMI), Anton Verhoef, and Marcos Portabella

4:30 Discussion (45 minutes)

5:15 End of topics for Wednesday

**Thursday Morning, 20 November 2008**

**7:30a Continental breakfast**

**International Collaboration Session**

**Chair: Tim Liu**

- 8:00 *Proposal for the Ocean Surface Vector Wind Virtual Constellation*  
Stan Wilson (EUMETSAT), Hans Bonekamp, and B. S. Gohill
- 8:20 *Quantifying QuikSCAT Value-Added in Estimates of the Surface Wind Field over the Mediterranean Sea on Ocean Forecast Timescales*  
Ralph Milliff (NWRA, CoRA Division), Nadia Pinardi, Alessandro Bonazzi, Christopher K. Wikle, and Jeremiah Brown
- 8:35 *Overview Of and Developments In The EUMETSAT Wind Products*  
Ad Stoffelen (KNMI), Anton Verhoef, Jur Vogelzang, Marcos Portabella, and Maria Belmonte
- 8:50 *Metop-B Orbit Phasing Proposal*  
Hans Bonekamp (EUMETSAT), J.J Wilson, J. Figa-Saldana, and C. Anderson

**Oceanography Session**

**Co-Chairs: Steve Morey and Tony Lee**

- 9:10 *Intraseasonal Latent Heat Flux Based on Satellite Observations*  
Semyon Grodsky (University of Maryland), Abderrahim Bentamy, James A. Carton, and Rachel Pinker
- 9:25 *Improving ENSO Forecasts by Adding Weather Regimes Observed from QuikSCAT in Oceans/Atmosphere Climate Models*  
Claire Perigaud (Caltech/JPL), Joseph Dureau, Serena Illeg, and Christophe Cassou
- 19:40 *Evaluating Ocean Wind Products for Short-Range Forecast Analyses of Wind-Driven Surface Currents*  
John Gunn (Earth & Space Research), Kathleen Dohan, Gary S.E. Lagerloef, and Fabrice Bonjean

**9:55 Break & Snack (25 minutes; poster viewing)**

- 10:20 *Indian Ocean Intraseasonal Sea Surface Temperature Variability During Boreal Summer: Madden-Julian Oscillation Versus Submonthly Forcing and Processes*  
Weiqing Han (University of Colorado at Boulder) and Benet Duncan
- 10:35 *Observations and Modeling of Coupled Ocean-Atmosphere Interaction Over the California Current System*  
Dudley Chelton (Oregon State University), Xin Jin, and Tracy Haack
- 10:50 *Wind-Driven Transport of the Apalachicola River Plume as a Connectivity Mechanism between Terrestrial Precipitation Variability and Offshore Oceanic Properties*  
Steve Morey (Florida State University/COAPS), Mark Bourassa, and Dmitry Dukhovskoy
- 11:05 *Wind Stress Measurements from the QuikSCATADEOSS-II Tandem Mission and the Impact on an Ocean Model*  
Tony Lee (JPL), Ou Wang, Wenqing Tang, and W. Timothy Liu
- 11:20 *Uncertainties in OVW Stress Estimations from Scatterometers and Ocean/Climate Consequences*  
Claire Perigaud (Caltech/JPL) and Abderrahim Bentamy

**Qualities of Level 3 and 4 Products Session**

**Chair: Mark Bourassa**

- 11:35 *Biases Related to Stress and Rain*  
Mark Bourassa (Florida State University/COAPS)
- 11:40 *Sampling-Related Uncertainties and Biases*  
Dudley Chelton (Oregon State University)

**Thursday Morning (continued), 20 November 2008**

- 11:45 *European Approaches to L3 and L4 Validation*  
Ad Stoffelen (KNMI)
- 11:50 *Possible Metrics for Noise and Smoothing at as a Function of Spatial and Temporal Scales*  
Ernesto Rodriguez (JPL/Cal Tech)
- 11:55 Discussion, part I (15 minutes)
- 12:10p Lunch (80 minutes, on own)**

**Thursday Afternoon, 20 November 2008**

- 1:30 Discussion, part II (45 minutes)

**Meteorology Session**

**Co-Chairs: Bob Atlas and Ralph Foster**

- 2:15 *Incorporation of New Nonlinear Similarity PBL Model in Ocean Vector Wind Surface Pressure Retrievals*  
Ralph Foster (APL, University of Washington), Jerome Patoux, and R. A. Brown
- 2:30 *From El Niño to Atlantic Niño: Pathways as Seen in the QuikScat Winds*  
Rong Fu (Jackson School of Geosciences, University of Texas at Austin)
- 2:45 *Applications of Sea Level Pressure Retrieval from Scatterometer Winds*  
Jerome Patoux (University of Washington), Ralph C. Foster, and Robert A. Brown
- 3:00 *Hurricane Force Extratropical Cyclones as Observed by QuikSCAT*  
Joseph Sienkiewicz (NOAA/NWS/NCEP Ocean Prediction Center), Joan Von Ahn, Michael J. Brennan, Khalil A. Ahmad, and Cadet Shea G. Winterberger
- 3:15 Break & Snack (45 minutes, poster viewing)**
- 4:00 *On the Sensitivity of Numerical Simulated Mesoscale Air-sea Coupling*  
Qingtao Song (Oregon State University), Dudley Chelton, and Steve Esbensen
- 4:15 *Deep Atmospheric Structure Anchored by Surface Wind Convergence near Major Ocean Fronts*  
Shang-Ping Xie (IPRC, University of Hawaii), Hiroki Tokinaga, Shoshiro Minobe, and Fumiaki Kobashi
- 4:30 *Application of Satellite Surface Wind Data to Ocean Surface Wind Analysis and NWP*  
Robert Atlas (NOAA/AOML), J. Ardizzone, J.C. Jusem, R.N.Hoffman, M.Leidner, S. Majumdar, S.Chen, and B-W. Shen
- 4:45 *The Impact of Atmospheric Boundary Layer Stability on the 2-6.5 day Variability of the 10m Meridional Winds*  
Jimmy Booth (University of Washington Department of Atmospheric Sciences), LuAnne Thompson, Kathie Kelly, Jerome Patoux, Suzanne Dickinson
- 5:00 Discussion of science for senior review
- 5:20 End of topics for Thursday

**Friday Morning, 21 November 2008**

**7:30a Continental breakfast**

**High Winds and Rain Session**

**Chair: David Long**

- 8:00 *Surface Wind/Stress Structure under Hurricanes*  
W. Timothy Liu (JPL) and Wenqing Tang
- 8:15 *A Dual Frequency Scatterometry Approach for Obtaining Wind Speeds in Hurricanes*  
Bryan Stiles (JPL), Svetla Hristova-Veleva, R. Scott Dunbar, Samuel Chan, Daniel Esteban-Fernandez, Stephen L. Durden, Ernesto Rodriguez, W. Lee, Poulsen, Robert W. Gaston, and Phil Callahan
- 8:30 *Rain Influences on High Wind Speed Backscatter*  
David Weissman (Hofstra University) and Mark A Bourassa
- 8:45 *Combined Active and Passive Microwave Remote Sensing of High Ocean Winds*  
Simon Yueh (JPL/Caltech) and Julian Chaubell

**Other Science and Operations Session**

**Chair: Paul Chang**

- 9:00 *Operational Evaluation and Use of Satellite Ocean Surface Vector Wind Data at the National Hurricane Center and Central Pacific Hurricane Center*  
Michael Brennan (NOAA/NWS/NCEP National Hurricane Center), Richard D. Knabb, Paul S. Chang
- 9:15 *The Usage of Scatterometer Data at ECMWF*  
Hans Hersbach (ECMWF) and P.E.A.M. Janssen
- 9:30 *Overview and Status of ASCAT Products and Services*  
Julia Figa-Saldana (EUMETSAT), H. Bonekamp, C. Ponsard, C. Anderson, J. Wilson, A. de Smet, C. Duff and L. Butenko
- 9:45 *Status and Plans of Using the Scatterometer Winds in JMA's Data Assimilation and Forecast System*  
Masaya Takahashi (Numerical Prediction Division/Japan Meteorological Agency) and Yoshihiko Tahara
- 10:00 *Oceanic Origin of Precipitation Jump in the Sahel*  
W. Timothy Liu (JPL), Xiaosu Xie, and Kristina Katsaros

**10:15 Break & Snack (20 minutes, poster viewing)**

**New Products Session**

**Chair: David Weissman**

- 10:35 *Near Real-Time ASCAT Wind Vectors at NOAA*  
Zorana Jelenak (NOAA/NESDIS/STAR-UCAR), Paul Chang, Seubson Soisuvann, Qi Zhu, Jeffrey Augenbaum, Gene Legg, Stephen Frasier, and Tao Chu
- 10:50 *Progress in Ultra High Resolution Wind and Rain Estimation*  
David Long (Brigham Young University)
- 11:05 *Improved OVW Retrievals in Extreme Wind Events*  
Linwood Jones (Central FL Remote Sensing Lab), Pete Laupattarakasem, and Christopher C. Hennon
- 11:20 Discussion of outstanding issues & wrap up (30 minutes)

## Posters

Chair: Jerome Patoux

- 1) *Mult-Satellite Gridded Ocean Surface Wind Product*  
Paul J. Hughes (Florida State University/COAPS) and Mark A. Bourassa
- 2) *Ocean Precipitation Measurements using SeaWinds*  
Linwood Jones (Central FL Remote Sensing Lab) and Khalil Ahmad
- 3) *Validation of QuikSCAT Radiometer Brightness Temperatures*  
Linwood Jones (Central FL Remote Sensing Lab) and Rafik Hanna
- 4) *Preliminary Evaluation of ASCAT Ocean Surface Vector Wind (OSVW) Retrievals at NOAA Ocean Prediction Center*  
Khalil Ahmad (NOAA/NESDIS/STAR), Joseph Sienkiewicz, Zorana Jelenak, and Paul Chang
- 5) *Determining Tropical Storm Eye Location from QuikSCAT Ultra High Resolution Wind Fields*  
David Long (Brigham Young University) and Faozi Said
- 6) *Near-Coastal QuikSCAT Wind Products*  
David Long (Brigham Young University) and Michael P. Owen
- 7) *QSCAT Observations of Intense Mid-Latitude Storms*  
Ryan Maue (Florida State University/COAPS)
- 8) *An ENSO Warm Event Precursor Signal in Sea Level Pressure and Surface Winds on the Southern Hemisphere*  
Ralph Milliff (NWRA, CoRA Division), and Jan Morzel
- 9) *Documenting and Enhancing QuikSCAT Utility for NWS Weather Forecast Office Operations*  
Ralph Milliff (NWRA, CoRA Division), Peter A. Stamus, and John S. Snook
- 10) *Service Oriented Data Distribution: A Focus on Level 3 Products*  
David Moroni (JPL/PO.DAAC)
- 11) *Biweekly Oceanic and Atmospheric Tropical Instability Waves: are they forced? coupled? or resonant with the Moon?*  
Claire Perigaud (Caltech/JPL)
- 12) *Systematic Geographic Differences between ASCAT and QuikSCAT: Instrument, Algorithm, or Geophysical?*  
Ernesto Rodriguez (JPL/Cal Tech) and Svetla Veleva
- 13) *Redevelopment of a Scatterometer Model Function Using Nine Years of QuikScat Data*  
Deborah Smith (Remote Sensing Systems), Lucrezia Ricciardulli, and Frank Wentz
- 14) *Validation of ASCAT Wind Vectors with Buoy, Radiometer and Model Data*  
Deborah Smith (Remote Sensing Systems), Kyle Hilburn, and Frank Wentz
- 15) *ASCAT Normalized Radar Cross Section Validation*  
Seubson Soisuvann (NOAA/NESDIS/STAR), Zorana Jelenak, and Paul Chang
- 16) *Use of Scatterometer Winds in Marine Forecasting*  
Michelle Stewart (ImpactWeather) and Dorri A. Breher
- 17) *Google Earth Visualization of High Resolution Combined QSCAT/ADEOS-II Scatterometer Winds*  
R.G. Stockwell (NWRA, CoRA Division)