



# 2010 International Ocean Vector Winds Meeting Agenda

Tuesday Morning, 18 May

## Introductory Session

chair: Marcos Portabella

- 8:30 Introduction from the organizing committee  
Mark Bourassa (FSU), Marcos Portabella, Ernesto Rodriguez, and Ad Stoffelen
- 8:35 Words from the Local Host, Marcos Portabella
- 8:40 Dr. Alberto Palanques (Director of CMIMA)
- 8:45 Dr. Juan José Dañobeitia (Director of UTM)
- 8:50 The NASA Perspective  
Peter Hacker (NASA HQ)
- 9:00 The EUMETSAT Perspective  
Hans Bonekamp (EUMETSAT)

## Future Missions

chair: Mark Bourassa

- 9:15 Design And Performance Simulation Of A Ku-Band Rotating Fan-Beam Scatterometer  
Dr. Xiaolong Dong (Center for Space Science and Applied Research, Chinese Academy of Sciences), Wenming Lin, and Di Zhu
- 9:30 Effect of rain on Ku band fan beam Ku band scatterometer  
Dr. Jean Tournadre (IFREMER) and Y. Quilfen
- 9:45 On Performance Measures for Spaceborne Wind Sensors  
Dr. Ad Stoffelen (KNMI), Maria Belmonte Rivas (UCAR), and Jos de Kloe (KNMI)
- 10:00 **Break & Snack (30 minutes, poster viewing)**
- 10:30 Reprocessing the 10-year QuikSCAT Climate Data Record and Future Scatterometer Mission Prospects  
Dr. Ernesto Rodriguez (Jet Propulsion Laboratory/Cal Tech), Bryan Stiles, Alexandra Chau, Robert W. Gaston, Svetla Hristova-Veleva, Scott Dunbar, and Joe Turk
- 10:45 The Status of GCOM-W1 and W2  
Prof. Haruhisa Shimoda (Tokai University)
- 11:00 The CEOS Ocean Vector Wind Virtual Constellation: Current Status and Challenges  
Dr. Stan Wilson (NOAA Satellite & Information Service), Hans Bonekamp (EUMETSAT) and B.S. Gohil (ISRO)

## International Collaboration

chair: Hans Bonekamp

- 11:20 Status of scatterometer ocean wind vector data assimilation in Environment Canada's global variational analysis and forecast system  
Dr. Robert Tardif (Data Assimilation and Satellite Meteorology, Environment Canada), Stéphane Laroche, Mateusz Reszka, and Judy St-James

- 11:35 Status of EUMETSAT ASCAT products and services  
Ms. Julia Figa (EUMETSAT), H.Bonekamp, C.Anderson, J.Wilson, L.Butenko, C.Duff, C.Ponsard, A.de Smet, J.Lerch (EUMETSAT), A.Stoffelen, A.Verhoef (KNMI), W.Wagner, and Z.Bartalis (IPF TU-Wien)
- 11:50 Latest Developments for PO.DAAC's OVV Products  
Mr. David Moroni (Jet Propulsion Laboratory)
- 12:05 Discussion (15 minutes)
- 12:20 **Lunch Break (85 minutes)**

## Tuesday Afternoon, 18 May

### New Products

chair: Ernesto Rodriguez

- 1:45 Wind Retrieval and GMF Development Activities for Oceansat-2 Scatterometer  
Dr. Bhawani Singh Gohil (Scientist), B.S. Gohil, R. Sikhakolli, R.K. Gangwar, R.K. Sharma, A. Sarkar, A.S. Kiran Kumar and R.R. Navalgund
- 2:00 The RSS WindSat Version 7 All-Weather Wind Vector Product: Radiative Transfer Model, Algorithm and Validation  
Dr. Thomas Meissner (Remote Sensing Systems), Lucrezia Ricciardulli and Frank Wentz
- 2:15 A Neural Network Technique for Improving the Accuracy of QuikSCAT Winds in Rainy Conditions as Compared with NDBC Buoys  
Dr. Bryan Stiles (JPL) and Dr. R. Scott Dunbar
- 2:30 ASCAT sea ice modelling and detection  
Dr. Ad Stoffelen (KNMI), Maria Belmonte Rivas (UCAR) and Jeroen Verspeek (KNMI)
- 2:45 Stress Related Improvements in Surface Turbulent Heat Fluxes – A DFS Application  
Professor Mark Bourassa (Florida State University)
- 3:00 Discussion (15 minutes)

### Meteorology

co-chairs: Jerome Patoux and Paul Chang

- 3:15 Hurricane Dynamic and Thermodynamic Balances as Revealed by the Azimuth Asymmetry of Wind-stress  
Dr. W Timothy Liu (Jet Propulsion Lab., Caltech ) and Wenqing Tang
- 3:30 Assimilation of ocean surface wind vectors into global and regional models of tropical cyclones: present and future  
Professor Sharanya Majumdar (University of Miami), R. Atlas, J. S. Whitaker, T. M. Hamill, R. D. Torn, S. M. Leidner and J. V. Ardizzone
- 3:45 **Break & Snack (30 minutes, poster viewing)**
- 4:15 Applications of OVV-derived Surface Pressures in Tropical Storms  
Ralph Foster (APL/University of Washington), Jerome Patoux, and R.A. Brown
- 4:30 Observational Evidence of SST Influence on the Troposphere over the Gulf Stream  
Professor Dudley Chelton (Oregon State University), Jack F. Dostalek, Mark DeMaria and Brian McNoldy
- 4:45 Study of Wind Field Distribution within Hurricane Force Extratropical Cyclones in North Pacific Using QuikSCAT and ASCAT Scatterometer Measurements  
Dr. Zorana Jelenak (NOAA/NESDIS/STAR-UCAR), Dr Khalil Ahmad, Mr Joseph Sienkiewicz and Dr Paul Chang
- 5:00 Synthetic Aperture Radar Wind Field Retrieval With Respect to Cyclones  
Dr. Jochen Horstmann (NATO Udersea Research Center), and Silvia Falchetti
- 5:15 On the use of Doppler shift for SAR wind retrieval  
Dr. Fabrice COLLARD (CLS), Alexis MOUCHE (CLS), and Bertrand CHAPRON (IFREMER)
- 5:30 Multi-Platform Analyses of Surface Convergence and Atmospheric Convection in the Tropical Indo-Pacific on Sub-Daily Timescales  
Dr. Ralph Milliff (NWRA/CoRA Division) and Dr. Jeremiah Brown
- 5:45 Discussion (15 minutes)
- 6:00 Close for the day

## Wednesday Morning, 19 May

### Calibration/Validation and Definitions

chair: Ad Stoffelen

- 8:30 ASCAT scatterometer quality control  
Dr. Marcos Portabella (Unidad de Tecnología Marina (UTM - CSIC)), Ad Stoffelen, Anton Verhoef, and Jeroen Verspeek
- 8:45 Calibration and Validation of ASCAT Backscatter  
Dr. Craig Anderson (Eumetsat), Hans Bonekamp, Julia Figa, Julian J Wilson, Arthur de Smet, and Colin Duff
- 9:00 Quality of high-resolution scatterometer winds  
Dr. Jur Vogelzang (KNMI), Ad Stoffelen, and Anton Verhoef
- 9:15 Improved ASCAT wind retrieval using NWP ocean calibration  
Mr. Jeroen Verspeek (KNMI), Ad Stoffelen, Anton Verhoef and Jur Vogelzang
- 9:30 Cross-validation of scatterometer measurements via sea-level pressure retrieval  
Dr. Jerome Patoux (University of Washington), Ralph C. Foster and R.A. Brown
- 9:45 Analysis of Small-scale Coastal Wind Features Using Scatterometers and Synthetic Aperture Radars  
Mr. Michael Caruso (University of Miami/CSTARS)
- 10:00 Improving QSCAT Retrievals of High Winds  
Dr. Lucrezia Ricciardulli (Remote Sensing Systems) and Frank Wentz
- 10:15 **Break & Snack (30 minutes, poster viewing)**
- 10:45 A comparison of QuikSCAT winds to in situ observations in the Western Boundary Current regions  
Dr. Jessica Kleiss (University of Washington), Kathryn A. Kelly, LuAnne Thompson, and Suzanne Dickinson
- 11:00 SST-Induced Surface Wind Response: Comparison of QuikSCAT and ASCAT depiction of the phenomenon.  
Dr. Svetla Hristova-Veleva (Jet Propulsion Laboratory) and Ernesto Rodriguez
- 11:15 Estimation of Level-1B & Level-2A Sigma0 parameters for Oceansat-2 Scatterometer Payload  
Mr. Kirti Padia (Space Applications Centre (ISRO)), Santanu Chowdhury, Jalpa Modi and Dinesh Jain
- 11:30 Cal/Val Activities and Initial Assessment for Oceansat-2 Scatterometer  
Dr. RAJ KUMAR (ISRO), Suchandra A Bhowmick, Sanjib K Deb, B S Gohil, Abhijit Sarkar, A S Kiran Kumar and Ranganath R Navalgund
- 11:45 Discussion (30 minutes)
- 12:15 **Lunch Break (90 minutes)**

## Wednesday Afternoon, 19 May

### Oceanography

co-chairs: Tony Lee and Emili Garcia-Ladona

- 1:45 Studies Of the Influence Of Rainfall Upon Scatterometer Estimates For Sea Surface Stress: Applications To Boundary Layer Parameterization And Drag Coefficient Models Within Tropical Cyclone Environments  
Dr. David Weissman (Hofstra University), Henry Winterbottom, and Mark Bourassa
- 2:00 The CMOD5 wind data and the TCNNA algorithm can distinguish between Surfactants and Low Wind in Synthetic Aperture Radar (SAR) imagery.  
Dr. Oscar Garcia-Pineda (Florida State University), Ian MacDonald, Xiaofeng Li, and William Pichel.
- 2:15 Vertical Structure in Satellite Wind Derived Ocean Currents  
Dr. Kathleen Dohan (Earth and Space Research)
- 2:30 Warming of the South-Pacific Ocean associated with the 2009-10 El Nino  
Dr. Tong Lee (JPL & CalTech)
- 2:45 Role of point-wise scale invariance in geophysical turbulence: applications in oceanography  
Dr. Antonio Turiel (Institut de Ciències del Mar, Barcelona), Baptiste Mourre, Jerome Gourrion, Joaquim Ballabrera-Poy, and Marcos Portabella
- 3:00 Bi-static L-band scatterometry  
Dr. Estel Cardellach (ICE/CSIC-IEEC), and Dr. Joseph Tenerelli (CLS)
- 3:15 **Break & Snack (30 minutes, poster viewing)**
- 3:45 Interannual Variability of Synoptic Scale Winds over the Northern West Florida Shelf from SeaWinds and ASCAT  
Dr. Steven Morey (Florida State University), Dr. Mark Bourassa and Mr. Austin Todd
- 4:00 Ocean Surface Wind and Wave Retrieval Using C- and X-Band SAR  
Dr. Thomas König (German Aerospace Center (DLR)), Xiao-Ming Li, Stephan Brusch and Susanne Lehner
- 4:15 Discussion (30 minutes)

### Operations

chair: Hans Hersbach

- 4:45 Impact of the Loss of QuikSCAT on NOAA NWS Marine Warning and Forecast Operations  
Mr. Joseph Sienkiewicz (NOAA Ocean Prediction Center), Dr. Michael J. Brennan, Dr. Richard Knabb, Dr. Paul S. Chang, Mr. Hugh Cobb, Dr. Zorana J. Jelenak, Dr. Khalil A. Ahmad, Dr. Seubson Soisuvann, Mr. David Kosier, and Mr. George Bancroft
- 5:00 NOAA/NESDIS High Wind C-band Model Function and its Impact on Detection of Hurricane Force Winds in Extratropical Storms  
Dr. Zorana Jelenak (NOAA/NESDIS/STAR-UCAR), Dr Seubson Soisuvann, Dr Khalil Ahmad, Dr Paul S Chang, Mr Joseph Sienkiewicz and Mrs Qi Zhu
- 5:15 Discussion (30 minutes)
- 5:45 Close for day

## Thursday Morning, 20 May

### Other Issues

chair: Naoto Ebuchi

- 8:30 On the Symbiotic Association Between Wind Scatterometry and the Planetary Boundary Layer Models  
Robert Brown (University of Washington)
- 8:45 Ocean Monitoring Using L-Band Microwave Radiometry and GNSS-R Observations  
Prof. Adriano Camps, Xavier Bosch-Lluis, Isaac Ramos-Perez, Juan F. Márchan-Hernández, Nereida Rodriguez, Enric Valencia, and Jose M. Tarongi
- 9:00 Ultra High Resolution ASCAT Winds and Land/Ice Imaging  
Professor David Long (Brigham Young University),
- 9:15 Discussion (15 minutes)

### Gridded Products

chair: Ralph Foster

- 9:30 The usage of Scatterometer data at ECMWF  
Dr. Hans Hersbach (ECMWF), P.A.E.M. Janssen
- 9:45 Operational use of Scatterometer Winds in the JMA Data Assimilation System  
Mr. Masaya Takahashi (Numerical Prediction Division/Japan Meteorological Agency),
- 10:00 Break & Snack (30 minutes, poster viewing)**
- 10:30 Evaluating QuikSCAT Wind and Stress Products Against Buoy Winds Using a Taylor Diagram  
Professor Kathryn Kelly (University of Washington), and Suzanne Dickinson
- 10:45 Two decades of satellite-based ocean vector wind time series  
Dr. Lisan Yu (Woods Hole Oceanographic Institution),
- 11:00 Wave and Anemometer-based Sea-surface Wind (WASWind) dataset for climate change analysis: Comparison and validation against satellite wind observations  
Dr. Hiroki Tokinaga (IPRC/University of Hawaii), and Shang-Ping Xie
- 11:15 Global surface wind product J-OFURO V2: Drake Passage Oscillation Index (DPOI) and its correlated wind field over the Antarctic Ocean  
Dr. K Kutsuwada (Tokai University), Mikio Naganobu and Junya Kondo
- 11:30 Oceansat-2 Scatterometer Data Products Software  
Mr. Kirti Padia (Space Applications Centre (ISRO)), Santanu Chowdhury, BS Gohil, Devang Mankad and Suresh Gurjar
- 11:45 Discussion (15 minutes)
- 12:00 Closing discussion (15 minutes)
- 12:15 End of meeting

## Posters

### Gridded Products

Spectral Analysis of Gridded Wind Products  
Professor Mark Bourassa (Florida State University), and Paul J. Hughes

Determining the Error Characteristics of H\*Wind  
Mr. Steven DiNapoli (Florida State University), and Mark A. Bourassa

Comparison of ASCAT with QSCAT  
Professor Masahisa Kubota (School of Marine Science and Technology, Tokai University), and Shin'ichiro Kako

### New Products

Arctic and Boreal Surface Water Cover Variability as Observed by QuikSCAT  
Dr. Nicole Smith-Downey (UT Austin), and Rong Fu

### Meteorology

Assessment of Surface Heat Fluxes in North Atlantic Storms Modeled by WRF  
Professor Kathryn Kelly (University of Washington), Susan Bates, Jimmy Booth, LuAnne Thompson and Suzanne Dickinson

Altimeter microwave surface observations in extreme events  
Dr. Yves Quilfen (IFREMER), B. Chapron, and D. Vandemark

The influence of variability in the sea surface temperature and surface heat fluxes on midlatitude storm cyclogenesis in the Gulf Stream region in the ERA-40 reanalysis.  
Mr. James Booth (University of Washington), Kathryn Kelly, Jerome Patoux, and LuAnne Thompson

### International Collaboration

A monthly climatology of mesoscale turbulence calculated from 10 years of QuikSCAT winds over the Pacific Ocean  
Dr. Gregory King (Centro de Geofisica - IDL, University of Lisbon), and Robert M. Kerr

### Calibration/Validation and Definitions

Validation of QuikSCAT wind vectors by dropwindsonde data from Dropwindsonde Observations for Typhoon Surveillance Near the Taiwan Region (DOTSTAR)  
Professor Sharanya Majumdar (University of Miami), K.-H. Chou, C.-C. Wu, and P.-H. Lin

Assessing Representation Error of In Situ Wind Related Variables for Comparison to Satellite Data  
Ms. Jackie Rauch (Florida State University) and Mark A. Bourassa

## Other Issues

Characteristics of sea ice in the Okhotsk coastal polynyas revealed by QuikSCAT/SeaWinds with AMSR-E, ice-profiling sonar, and digital camera observations

Professor Naoto Ebuchi (Hokkaido University), Sohey Nihashi, and Shuhei Takahashi

Developing CALIPSO Ocean Surface Product for Complimenting Scatterometer Studies

Dr. Yongxiang Hu (NASA LaRC)

## Operations

Status on the use of scatterometer data at Meteo-France

Mr. Christophe Payan (Meteo-France and CNRS),

Workshop on the use of scatterometer and altimeter wind and wave data in marine forecasting - a report

Ms. Julia Figa (EUMETSAT), Stan Wilson, Zorana Jelenak (NOAA), Henk Verschuur, Hans Bonekamp (EUMETSAT), and Ad Stoffelen (KNMI)

## Oceanography

Investigating the impacts of surface currents on scatterometer-derived wind retrievals in a marginal sea

Ms. Amanda Plagge (University of New Hampshire), Dr. D. Vandemark, Dr. D. Long, and Dr. E. Rodriguez

Comparison of QuikSCAT Wind Products versus In Situ and NWP Model Data in the North Sea and Baltic Sea

Ms. Ioanna Karagali (Risoe DTU), Charlotte B. Hasager, Merete Badger, and Andrea Hahmann