2021 IOVWST Meeting

Start times for discussions are
Midnight JST, 8:30 PM IST, 4 PM CET, 3 PM GT, 10 AM EST, 7 AM PST

Feb. 24th 10:00 AM to 11:30 AM ET
Session: How can we make improvements to the constellation and what can we do with it?
10:00 Statement from the session Chairs
5 m Stefanie Linow and Raj Kumar
10:05 Importance of high quality coastal wind measurements
5 m Raj Kumar, Paul Chang, Stefanie Linow, Ad Stoffelen
10:10 WMO CGMS Ocean Vector Winds Task Team (Invited talk) (invited talk)
5 m Ad Stoffelen (KNMI)
10:15 The Future of Satellite Microwave Radiometers for Measuring Ocean Winds
5 m Frank Wentz (Remote Sensing Systems), Thomas Meissner, Lucrezia Ricciardulli
10:20 Group Discussion

March 3rd 10:00 AM to 11:30 AM ET
Session: User guidance on the different climate records; where do OVW products agree, disagree, and how to make this visible?
10:00 Statement from the session Chairs
5 m Ad Stoffelen and Frank Wentz
10:05 Intercalibration Of ASCAT Scatterometers on METOP-A, -B, And -C For A Stable Wind Climate Data Record (invited talk)
5 m Lucrezia Ricciardulli (Remote Sensing Systems) and Frank Wentz
10:10 Hurricane Ocean Wind Speeds (Invited talk)
5 m Ad Stoffelen (KNMI), Gert-Jan Marseille, Weicheng Ni, Alexis Mouche, Federica Polverari, Marcos Portabella, Wenming Lin, Joe Sapp, Paul Chang, Zorana Jelenak
10:15 Strengths and weakness of using multi-instrument, multi-mission climate data records to understanding how the Earth System is changing (invited talk)
5 m Svetla Hristova-Veleva (Jet Propulsion Laboratory),
10:20 Group Discussion
March 10th 10:00 AM to 11:30 AM ET

**Session: Air-Sea Fluxes and their impacts on the Ocean and Atmosphere**

10:00 Statement from the session Chairs
5 m Mark Bourassa and xx

10:05 The Submesoscale Ocean Dynamics Experiment (S-MODE)
5 m Tom Farrar (Woods Hole Oceanographic Institution)

10:10 Objectives of an Air-Sea Interaction Observing Strategy: If we can't close the ocean heat budget, what can we do? (invited talk)
5 m Sarah Gille, Meghan Cronin, Chelle Gentemann, Carol Anne Clayson, Mark Bourassa, Shannon Brown, Tom Farrar, Tong Lee, Kelly Lombardo, Rhys Parfitt, Hyode Seo, Aneesh Subramanian, and Victor Zlotnicki

10:15 Butterfly: revealing the ocean's impact on our weather and climate (invited talk)

10:20 Distributed system solutions for NASA air-sea coupling (invited talk)
5 m Nadya Vinogradova Shiffer

10:25 Group Discussion
Asynchronous Presentations

Atmosphere and Ocean Coupling

**Effects of spatial resolution and temporal offset of air-sea boundary-layer variables on turbulent heat flux estimates**
Tong Lee (Jet Propulsion Laboratory), Chelle Gentemann, Carol Anne Clayson, Mark Bourassa, Shannon Brown, J. Thomas Farrar, Kelly Lombardo, Sarah Gille, Rhys Parfitt, Hyoda Seo, Aneesh Subramanian, and Victor Zlotnicki

**Evaluating the role of air-sea interactions in Bering Sea warming**
Emily Hayden (Oregon State University -- CEOAS), Melanie R. Fewings, Larry W. O'Neill

Impact of Global Ocean Surface Flux Product, J-OFURO3
Kunio Kutsuwada (School of Marine Science and Technology, Tokai University), Hiroyuki TOMITA, Shin'ichiro KAKO, Tsutomu HIHARA, Masahisa KUBOTA

Anchoring of the Gulf Stream Convergence Zones by the storm track and sea surface temperatures
Niklas Schneider (University of Hawai'i at Mānoa), Ryusuke Masunaga, Bruce Cornuelle, Larry O'Neill, Thomas Kilpatrick, Masami Nonaka, Justin Small and Shang-Ping Xie

**Observed Wind and SST Variability off the California Coast during Summertime High Wind Events**
Weiguang (Roger) Wu (MIT-WHOI Joint Program), Ana Beatriz Villas Bôas (Scripps Institution of Oceanography, UC San Diego), Professor Sarah Gille (Scripps Institution of Oceanography, University of California San Diego),

**The Seasonal Cycle of Significant Wave Height in the Ocean: Local vs Remote Forcing**
Luke Colosi (Scripps Institution of Oceanography), Ana B. Villas Bôas, and Sarah Gille

**Development of offshore surface roughness length parameterization over deep seas**
Alberto Rabaneda (Barcelona Expert Centre (BEC), Institute of Marine Sciences (ICM-CSIC)),


Current and Future Ocean Vector Wind Mission Updates

Present Status of GCOM-W/AMSR2 and GOSAT-GW/AMSR3
Naoto Ebuchi (Hokkaido University), Misako Kachi, Marehito Kasahara, Hideyuki Fujii, Rigen Shimada, Keiichi Ohara, Takashi Maeda, Kazuya Inaoka, Yasushi Kojima

Status of EUMETSAT scatterometer missions
Stefanie Linow (EUMETSAT), C Anderson

The European Next Generation Scatterometer (SCA) - Status of Processing and Products
Craig Anderson (EUMETSAT), J.J.W. Wilson, S. Linow, F. Ticconi

Compact Ocean Wind Vector Radiometer on ISS Mission Status
Shannon Brown, Sidharth Misra, Amarit Kitiyakara, and Mary Morris

Canary, a New Concept for a Small, Low-Cost Scatterometer
Patrick Walton (Brigham Young University), David G. Long, Alex Laraway

Time-varying empirical probability densities of Southern Ocean surface winds: Leading modes linked to SAM, the annual cycle, and product differences
Momme Hell (UCSD/SIO), Bruce D. Cornuelle, Sarah T. Gille, Nicholas J. Lutsko

The impact of high-frequency wind variability on mixed-layer physics
Natalie Freeman (University of Colorado Boulder), Donata Giglio, Sarah Gille, Momme Hell

Waves, Currents and Ice

Tracking Iceberg A68 on a Collision Course with South Georgia Island
Professor David Long (Brigham Young University),
New Products and Applications

**A New Dataset of Tropical Cyclone Winds from Microwave Radiometers**
Andrew Manaster (Remote Sensing Systems), Thomas Meissner, Lucrezia Ricciardulli

A land-corrected ASCAT coastal wind product
Jur Vogelzang (KNMI), Ad Stoffelen

An evaluation of the latest NOAA CyGNSS wind product in the tropical cyclone environment
Faozi Said (Global Science & Technology/National Oceanic and Atmospheric Administration), Zorana Jelenak, Paul S. Chang

**Status on the wind processing of CFOSAT scatterometer**
Wenming Lin (Nanjing University of Information Science and Technology), Xiaolong Dong, Marcos Portabella, Shuyan Lang, Jianqiang Liu

**NWP Ocean Calibration for the CFOSAT wind scatterometer and wind retrieval evaluation**
Zhen Li (Royal Netherlands Meteorological Institute), Ad Stoffelen, Jeroen Verspeek, Anton Verhoef

**Wind field from SAR over the Venice lagoon, Italy**
Stefano Zecchetto (National Research Council of Italy), Andrea Zanchetta

**On Improved UHR Ambiguity Selection Algorithms**
Professor David Long (Brigham Young University), and Greg Schachterle

**Wind direction retrieval from SAR images using ResNet**
Andrea Zanchetta (Hong Kong Baptist University), and Stefano Zecchetto

**HY-2B and HY-2C winds and services from the OSI SAF**
Anton Verhoef (KNMI Royal Netherlands Meteorological Institute), Ad Stoffelen, Rianne Giesen, Juhong Zou, Zhixiong Wang, Simon Elliott, and David Long

**Discrete Band-Limited Signal Reconstruction from Irregular Samples**
Professor David Long (Brigham Young University)

Recent Update on Operational Use of Scatterometer Winds in JMA’s Global NWP System
Shin Koyamatsu (Japan Meteorological Agency)

**PO.DAAC Data in the Cloud: Current Status and Strategic Direction**
David Moroni (JPL)

Estimating Sea Surface Vorticity from the RapidScat Scatterometer Ku-Band NRCS by Using Coincident Sub-Footprint Scale Winds and Dual Polarization Analysis
David E. Weissman (Hoffstra University)
**Meteorological Applications**

**Evaluating the Detection of Mesoscale Outflow Boundaries using Scatterometer Winds at Different Spatial Resolutions**
Georgios Priftis (University of Alabama in Huntsville), Timothy J. Lang, Garg Piyush, Richard Lindsley, Stephen W. Nesbitt and Themis Chronis

Noel Chawang (Indian Institute of Space Science and Technology (IIST), Valiamala) and Govindan Kutty

Regional effects of scatterometer sampling and weather in ERA* performance through Monte-Carlo simulations
A. Trindade (Universitat Politècnica de Catalunya), M. Portabella, A. Stoffelen

Monte-Carlo simulations Impact of INSAT-3D AMVs in WRF-HYBRID (ENSEMBLE-3DVAR) data assimilation system for the simulation of monsoon over the month of July 2016
Rekha Bharali Gogoi (North Eastern Space Applications Centre), Govindan Kutty and Arup Borgohain

**Scatterometer Winds in the Lee of the Hawaiian Islands**
Professor David Long (Brigham Young University), Nolan Hutchings, and Thomas Kilpatrick

The Diurnal Cycle of Tropical Oceanic Mesoscale Cold Pools from NASA RapidScat and Buoy Network
Piyush Garg (University of Illinois Urbana-Champaign), Stephen W. Nesbitt, Timothy J. Lang, and George Priftis

Utilization of SCATSAT-1 scatterometer observations for Vegetation and soil moisture studies
Manoj Kumar Mishra (Space Physics Laboratory, Vikram Sarabhai Space Centre, ISRO), and C. Suresh Raju

Towards triple collocation analysis of 4D wind observations
Federico Cossu (Barcelona Expert Centre, Institute of Marine Sciences, CSIC), Marcos Portabella, Wenming Lin, Ad Stoffelen, Gert-Jan Marseille, Jur Vogelzang, and Isabel Monteiro

Understanding the Physics of Extreme Winds with Implications for Remote Sensing
Professor Stephen Guimond (UMBC and NASA/GSFC), Sydney Sroka, Devin Protzko, Joe Sapp, Paul Chang and Zorana Jelenak

**Comparing Winds near Tropical Oceanic Precipitation Systems with and without Lightning (powerpoint)**
Timothy Lang (NASA MSFC)
Warning for Oceanic Extra-tropical Storms of Hurricane Force Strength – a Twenty Year Perspective
Joseph Sienkiewicz (NOAA Ocean Prediction Center)

A Newly Developed Form Drag Derived from Sea Spray Influenced Surface Wind Stress at Hurricane Force Winds
Renee Richardson (Florida State University (FSU)/Center for Ocean-Atmospheric Prediction Studies (COAPS)), Mark A. Bourassa, Steven L. Morey

An Analysis of the Near-Surface Layer in Hurricanes Using Dropsondes
Daniel Wallace (Florida State University COAPS & EOAS), Mark Bourassa, and Heather Holbach

Analyzing Gaps in Hurricane Rain Coverage to Inform Future Satellite Proposals
Justin P. Stow (Florida State University), Mark A. Bourassa, and Heather M. Holbach

SFMR Algorithm Updates
Heather Holbach (FSU, NGI, NOAA/AOML/HRD)

UMass Simultaneous Frequency Microwave Radiometer (USFMR) instrument description, current and future work
Jezabel Vilardell Sanchez (UMass Amherst MIRSL), Joseph W. Sapp, Zorana Jelenak, Paul S. Chang, and Stephen J. Frasier

Steps Toward Incorporating Nonlinear Mean Flow Model in Tropical Cyclone Surface Pressure Retrieval
Ralph Foster (University of Washington),
**Oceanographic Applications**

Rain and SST correction to the Scatsat-1 derived winds  
Abhisek Chakraborty (Space Applications Centre, Indian Space Research Organization), Atul Kumar Varma and Raj Kumar

Modeling and Analysis of the Ka-band Ocean Surface Radar Cross Section Using the Doppler Scatterometer Measurements from the Air Sea Interaction Tower Experiment  
Federica Polverari (Jet Propulsion Laboratory, California Institute of Technology), Alexander Wineeet, Ernesto Rodriguez, Dragana Perkovic-Martin, Paul Siqueira, J. Thomas Farrar, and J. Max Adam, James Edson

Quadruple collocation analysis of buoy, scatterometer, and NWP winds  
Jur Vogelzang (KNMI), and Ad Stoffelen

**A Comparasion Of Quality Indicators for Ku-Band Wind Scatterometry & For Typhoons Lekima and Krosa**  
Xingou Xu (National Space Science Center, Chinese Academy of Sciences), Ad Stoffelen, Marcos Portabella, Wenming Lin, and Xiaolong Dong

**Coastal Working Group contributions**

**Towards QuikSCAT coastal winds at OSI-SAF**  
Giuseppe Grieco (Institute of Marine Sciences (ICM), CSIC ), M. Portabella, A. Stoffelen, A. Verhoef, and J. Vogelzang

**Marine heat waves in the Chile-Peru Eastern Boundary Upwelling System: rates of change in sea-surface temperature anomalies near a major upwelling center**  
Kylene Cooley (Oregon State University, College of Earth, Ocean, and Atmospheric Sciences), Melanie R. Fewings, James Lerczak

**Seasonality in the Ocean Warming Response to Wind Relaxations off the Western United States**  
Melanie Fewings (Oregon State University), Kevin S. Brown (Oregon State University), and Carlos Moffat (University of Delaware)

**Along-shore structure of marine heat wave events along the California Current System**  
Gwendolyn Larson (University of Delaware), Carlos Moffat, Melanie R. Fewings, and Kevin S. Brown
Climate Data Record Development and Analysis

The JPL SCATSAT Climate Quality Data Product
Alexander Fore (Jet Propulsion Laboratory), Bryan Stiles, Sermsak Jaruwatanadilok, and Ernesto Rodriguez

Toward a consistent C- and Ku-band scatterometer ocean vector wind data record
Bryan Stiles (Jet Propulsion Laboratory), Alexander Fore, Svetla Hristova-Veleva, and Alexander Wineteer

Improvements to the Cross-Calibrated Multi-Platform (CCMP) analysis
Carl Mears (Remote Sensing Systems), Tong Lee, Susan Wijffels and Frank Wentz

Characterizing Buoy Wind Speed Error in Extreme Conditions with ASCAT and ERA5 (powerpoint)
Ethan Wright (COAPS Florida State University) and Mark Bourassa

How can we make improvements to the constellation and what can we do with it?

The Future of Satellite Microwave Radiometers for Measuring Ocean Winds
Frank Wentz (Remote Sensing Systems), Thomas Meissner, and Lucrezia Ricciardulli

Hurricane Ocean Wind Speeds
Ad Stoffelen (KNMI), Gert-Jan Marseille, Weicheng Ni, Alexis Mouche, Federica Polverari, Marcos Portabella, Wenming Lin, Joe Sapp, Paul Chang and Zorana Jelenak

Climate Working Group contributions

Creating an extended and consistent ESDR of the ocean surface winds, stress and their dynamically-significant derivatives for the period 1999-2022 - a MEaSUREs-funded proposal: Developing and evaluating the harmonized retrievals of wind and stress
SVETLA HRISTOVA-VELEVA (Jet Propulsion Laboratory), Mark Bourassa, Alexander Fore, Thomas Kilpatrick, David Moroni, Larry O'Neill, Ernesto Rodriguez, Bryan Stiles, F. Joseph Turk, Douglas Vandemark, Alexander Wineteer, Shang-Ping Xie, P. Peggy Li, Brian Knosp, Quoc Vu, Philip Callahan, Roy S. Dunbar, Marc Emond, Ethan Wright, Robin Vane, and Joseph Jacob

Distinct impacts of short- and long-time fluctuations of Indian Ocean surface wind fields on Indian summer monsoon rainfall at regional scales
Yangxing Zheng (Center for Ocean-Atmospheric Prediction Studies, Florida State University), Mark A. Bourassa, and M. M. Ali