

2025 TROPICAL CYCLONE OBSERVATIONS AND RESEARCH FORUM (TCORF)

79TH INTERDEPARTMENTAL HURRICANE CONFERENCE

WINTER SEASON WORKING GROUP

AGENDA

12:00 pm - 5:00 pm EST

Monday, March 3, 2025

12:00 pm - 5:00 pm EST	Working Group for Tropical Cyclone Operations and Research (WG-Tropical) WG-Tropical Session Chairs: Michael Brennan & Josh Cossuth	
12:00 pm - 2:30 pm EST	NHOP Agenda Items- Part 1	Michael Brennan & Josh Cossuth
2:30 pm - 3:00 pm EST	Break	
3:00 pm - 5:00 pm EST	NHOP Agenda Items- Part 2	Michael Brennan & Josh Cossuth

8:40 am - 5:30 pm EST

Tuesday, March 4, 2025

	Session 1: Welcome/Overview/ WG-Tropical Report Out Session Lead: David Chorney	
8:40 am - 9:15 am EST	Welcome/Overview	David Chorney
8:40 am - 8:45 am EST		
8:45 am - 9:15 am EST	Report out on NHOP/WG-Tropical Agenda Items	Mike Brennan, WG-Tropical Chair
	Session 2:TC Seasonal Summary Session Lead: David Chorney	
9:15 am - 10:30 am EST		
9:15 am - 9:30 am EST	A Review of the 2024 Hurricane Season and a Look Ahead to 2025	Dan Brown, NWS/NHC
9:30 am - 9:45 am EST	Communicating Helene's Impacts Across the Southern Appalachians	Trisha Palmer, NWS/GSP
9:45 am - 10:00 am EST	Q&A	Session Lead: David Chorney
10:00 am - 10:15 am EST	Central Pacific Hurricane Center Updates	Chris Brenchley, NWS/CPHC
10:15 am - 10:30 am EST	Q&A	Session Lead: David Chorney
10:30 - 10:45 am EST	Break	
	Session 3: TC Modeling Updates Session Lead: David Chorney	
10:45 am - 12:00 pm EST		
10:45 am - 11:00 am EST	Met Office Tropical Cyclone Modelling Update	Julian Heming, UKMET Office
11:00 am - 11:15 am EST	Advancing Operational Hurricane Modeling at NWS/NCEP: Development and Upgrade of HAFS	Zhan Zhang, NWS/EMC
11:15 am - 11:30 am EST	Addressing Next-Generation Hurricane Forecast Needs: The Basin-Centric HAFS Modeling System	Sundararaman Gopalakrishnan, OAR/AOML/HRD
11:30 am - 11:45 am EST	Performance of a Real-Time, High-Resolution Model for Prediction Across Scales (MPAS) Forecast System During HFIP 2024	Clark Evans, NOAA/OAR/GSL
11:45 am - 12:00 pm EST	Q&A	Session Lead: David Chorney
12:00 pm - 1:15 pm EST	Lunch	
	Session 2:TC Seasonal Summary: Part 2 Session Lead: David Chorney	
1:15 pm - 1:30 pm EST		
1:15 pm - 1:30 pm EST	JTWC 2024 Tropical Cyclone Season Review and Interagency Perspectives	Brian Strahl, JTWC
	Session 4: TC Research Topics Session Lead: David Chorney	
1:30 pm - 3:00 pm EST		
1:30 pm - 1:45 pm EST	Criticality of Measurement Accuracy and Consistency for Operational Applications: The SFMR Example	Zorana Jelenak, NESDIS/STAR/UCAR
1:45 pm - 2:00 pm EST	SFMR Developer's Perspective on SFMR Performance at Low (<20 m/s) and High (>20 m/s) Sea Surface Wind Speeds	Ivan Popstefanija, ProSensing Inc.
2:00 pm - 2:15 pm EST	Duration and Directional Shift of Extreme Winds – a focus on building damage	Joel Cline, NIST
2:15 pm - 2:30 pm EST	The National Hurricane Center (NHC) Next Generation Wind Speed Probability (WSP)	Pablo Santos, NWS/NHC
2:30 pm - 2:45 pm EST	Comparing the Satellite Analysis Branch Manual Dvorak Technique to Other Automated Methods	Emily Smail, NESDIS/OSPO/SAB
2:45 pm - 3:00 pm EST	Q&A	Session Lead: David Chorney
3:00 pm - 3:15 pm EST	Break	
	Session 5: TC Research Topics Session Lead: David Chorney	
3:15 pm - 5:15 pm EST		

3:15 pm - 3:30 pm EST	Hurricane and Ocean Testbed (HOT): Overview and Updates	Pablo Santos, NWS/NHC
3:30 pm - 3:45 pm EST	ML cyclone prediction: new opportunities and challenges	Ferran Alet, Google DeepMind
3:45 pm - 4:00 pm EST	Applications of a Machine Learning Model for Estimating Tropical Cyclone Track and Intensity Forecast Uncertainty	Mark DeMaria, CIRA
4:00 pm - 4:15 pm EST	Simple models to estimate radius of maximum wind, minimum central pressure, and wind profile from intensity and 34kt wind radius	Dan Chavas, Purdue Univ.
4:15 pm - 4:30 pm EST	NOAA's APHEX Hurricane Field Program: 2024 Highlights & Plans for 2025	Jason Sippel, OAR/AOML/HRD
4:30 pm - 4:45 pm EST	Study on Air-Sea Coupling with Waves, Turbulence, and Clouds at High winds	Beth Sanabia, Univ. of Washington
4:45 pm - 5:15 pm EST	Q&A / Open Discussion	Michael Brennan & Josh Cossuth
5:15 pm - 5:30 pm EST	Session 6: Hagemeyer Award Mike Brennan	
8:00 am - 5:30 pm EST		
Wednesday, March 5, 2025		
8:00 am - 5:30 pm EST	Joint Sessions of TCORF and WSWG Meeting	
	Session 1: ICAMS Welcome/Recon Aircraft Seasonal Summaries and Aviation Topics Session Lead: David Chorney	
8:00 am - 9:40 am EST		
8:00 am - 8:15 am EST	ICAMS Update	Mike Bonadonna, ICAMS
8:15 am - 8:35 am EST	CARCAH	Warren Madden, CARCAH
8:35 am - 8:55 am EST	53WRS	Gabe Donndelinger, AFRC 53WRS
8:55 am - 9:15 am EST	2024 Hurricane and Winter Season Review and Look Ahead NOAA AOC	Nikki Hathaway, OMAO/AOC
9:15 am - 9:30 am EST	The New ICAMS Working Group for Unmanned Aircraft Systems (WG-UAS)	Steve Feuer, CARCAH & Joe Cione, OAR/AOML/HRD
9:30 am - 9:40 am EST	Q&A	David Chorney
9:40 am - 9:55 am EST	Break	
	Session 2: Observing Strategies and Systems Session Lead: David Chorney	
9:55 am - 11:50 am EST		
9:55 am - 10:10 am EST	Airborne Phased Array Radar (APAR): The Next Generation of Airborne Polarimetric Doppler Weather Radar	Everette Joseph, NCAR
10:10 am - 10:25 am EST	Preparations for processing vertically-scanning Doppler-radar data on the NOAA C-130J aircraft	Paul Reasor, OAR/AOML/HRD
10:25 am - 10:40 am EST	Recapping 2024 and previewing 2025: Developing, testing and transitioning AI drones and microdropsondes to routinely sample the TC boundary layer	Joe Cione, OAR/AOML/HRD
10:40 am - 10:55 am EST	Coordinating CHAOS: A Multi-Platform Air-Sea View within Hurricanes	Lev Looney, OAR/AOML/PHOD
10:55 am - 11:10 am EST	2025 NESDIS Updates	Emily Smail, NESDIS/OSPO/SAB
11:10 am - 11:25 am EST	Dropsonde Observation Developments and New Visualization Tools	Kathryn Sellwood, OAR/AOML/HRD - CIMAS & Sim Aberson, OAR/AOML/HRD
11:25 am - 11:40 am EST	Near-Real Time Airborne Radio Occultation: AR Recon 2025 and perspectives for NHOP and NWSOP	Jennifer Haase, UCSD/Scripps
11:40 am - 11:50 am EST		David Chorney
11:50 am - 1:45 pm EST	Poster Session	
11:50 am - 12:10 pm EST	Poster Previews	
12:10 pm - 1:45 pm EST	Lunch & Poster Presentations	
	Session 3: Modeling Center Updates/AI/DA Session Lead: David Chorney	
1:45 pm - 3:15 pm EST		
1:45 pm - 2:00 pm EST	Global modeling updates from EMC	Vijay Tallapragada, NWS/EMC
2:00 pm - 2:15 pm EST	DA and improved use of observations in operations	Daryl Kleist, NWS/EMC
2:15 pm - 2:30 pm EST	Recent performance and updates from ECMWF	Michael Maier-Gerber, ECMWF
2:30 pm - 2:45 pm EST	Validation of the COAMPS-TC Ensemble Prediction System and a Summary of Recent Upgrades	Jon Moskaitis, NRL
2:45 pm - 3:05 pm EST	Expansion of Ensemble-based Sensitivity to TC Hazard Forecasts	Ryan Torn, U Albany
3:05 pm - 3:15 pm EST	Q&A	David Chorney
3:15 pm - 3:30 pm EST	Break	
	Session 4: Discussion Session Lead: David Chorney	
3:30 pm - 5:30 pm EST		
3:30 pm - 3:45 pm EST	Federal Reports, Audits, and Assessments over the Past Few Years	
3:45 pm - 4:15 pm EST	Challenges of Supporting Operational Recon Aircraft Requests in November and December	Steve Feuer, CARCAH
4:15 pm - 5:15 pm EST	Expanding Weather Recon Aircraft Operations to the Western Pacific	JTWC, representatives from South Korea, Japan, and Taiwan, & Anna Wilson, Scripps/CW3E
5:15 pm - 5:25 pm EST	Joint Working Groups Open Discussion	
5:25 pm - 5:30 pm EST	Joint Working Groups Wrap-up	David Chorney
6:00 pm - 10:00 pm EST	Social Event	

8:45 am - 4:50 pm EST			Thursday, March 6, 2025		
8:45 am - 4:50 pm EST	Winter Season				
	Session 1: Winter Season Working Group Overview/NWS Winter Season Summaries				
8:45 am - 10:05 am EST	Session Lead: David Chorney				
8:45 am - 8:55 am EST	Welcome/Overview		Ashley Lundry, OMAO/AOC. Lt Col Ryan Rickert, 53 WRS, and Rob Handel, NWS/NCO/SDM Team		
8:55 am - 9:10 am EST	The NWS National Winter Weather Program: 2025 Update		Mike Muccilli, NWS HQ/AFS21		
9:10 am - 9:25 am EST	Overview of the 2024-25 Winter Season at the Weather Prediction Center		Tony Fracasso, NWS/WPC/FOB		
9:25 am - 9:40 am EST			Darin Figurskey, NWS/OPC/OBC		
9:40 am - 9:55 am EST	A look at AWC's Turbulence and Icing forecasts		Jason Godwin NWS/AWC		
9:55 am - 10:05 am EST	Q&A		David Chorney		
10:05 am - 10:20 am EST	Break				
	Session 2: Winter Season Field Observations & Program Updates				
10:20 am - 12:00 pm EST	Session Lead: David Chorney				
10:20 am - 10:35 am EST	Update on the Development of a Global Atmospheric River Reconnaissance Program's February 2026 Demo		Marty Ralph, Scripps/CW3E		
10:35 am - 10:50 am EST	Summary of the AR Recon 2025 Season		Sam Babbitt, Scripps/CW3E		
10:50 am - 11:05 am EST	Real World Benefits of AR Recon in USACE Water Management		Cary Talbot, USACE		
11:05 am - 11:20 am EST	ONR's Study of Air-sea Fluxes and Atmospheric River Intensity (SAFARI)		Josh Cossuth, ONR		
11:20 am - 11:35 am EST	NASA's NURTURE Campaign of High-Impact Winter Storms with the Boeing 777		Steven Cavallo, OU		
11:35 am - 11:50 am EST			Martha Schonau & Luca Centurioni, Scripps/LDL		
11:50 am - 12:00 pm EST	Q&A		David Chorney		
12:00 pm - 1:30 pm EST	Lunch				
	Session 3: WS Model/Data Assimilation Systems/NWP Technique Updates				
1:30 pm - 3:10 pm EST	Session Lead: David Chorney				
1:30 pm - 1:45 pm EST	Data Impact Assessment of Atmospheric River Reconnaissance Dropsondes in NCEP GFS Operational Forecasts		Vijay Tallapragada, NWS/EMC		
1:45 pm - 2:00 pm EST	NCEP Ensemble Sensitivity Tool for AR Reconnaissance Mission Planning		Xingren Wu, NWS/EMC - Axiom		
2:00 pm - 2:15 pm EST	Impacts of Atmospheric River Reconnaissance Dropsondes on ECMWF IFS Precipitation Forecasts		Jia Wang, Scripps/CW3E		
2:15 pm - 2:30 pm EST	An Update on CW3E Modeling Efforts Related to AR Recon		Luca Delle Monache, Scripps/CW3E		
2:30 pm - 2:45 pm EST	NRL Atmospheric River Reconnaissance Activities		Jim Doyle & Carolyn Reynolds, NRL/MMD		
2:45 pm - 3:00 pm EST	Sensitivity Synthesis in AR Recon Operations and Data Impacts on AR Forecasts		Minghua Zheng, UC San Diego / SIO / CW3E		
3:00 pm - 3:10 pm EST	Q&A		David Chorney		
3:10 pm - 3:25 pm EST	Break				
	Session 4: Research, Development, and R2O Topics				
3:25 pm - 4:50 pm EST	Session Lead: David Chorney				
3:25 pm - 3:40 pm EST			Jim Nelson, NWS/WPC/DTB		
3:40 pm - 3:55 pm EST			Tomer Burg, NWS/WPC/DTB - CIRES		
3:55 pm - 4:10 pm EST	Logistics of Planning AR Recon Flights from Japan & Updated Flight Planning Techniques		Sam Bartlett, Scripps/CW3E		
4:10 pm - 4:25 pm EST	Atmospheric River Analysis and Forecast System (AR-AFS): Improving Forecasts of Atmospheric Rivers on the US West Coast		Keqin Wu, NWS/EMC - Lynker		
4:25 pm - 4:40 pm EST	Application of Ensemble-based Sensitivity Analysis for Atmospheric Rivers over the Northern Atlantic Ocean		Peyton Capute, Scripps/CW3E		
4:40 pm - 4:50 pm EST	Q&A		David Chorney		
8:30 am - 12:00 pm EST			Friday, March 7, 2025		
	Session 1: Working Group for Winter Season (WSWG)				
8:30 am - 12:00 pm EST	Session Lead: David Chorney				
8:30 am - 10:15 am EST	NWSOP Agenda Items		Ashley Lundry, OMAO/AOC. Lt Col Ryan Rickert, 53 WRS, and Rob Handel, NCO/SDM Team		
10:15 am - 10:30 am EST	Break				
10:30 am - 11:00 am EST	NWSOP Open Agenda Item 21-01 Progress Report: Transitioning from Fixed to Customized Atlantic/Gulf Winter Season Recon Tracks		Steve Feuer, CARCAH & Vijay Tallapragada, NWS/EMC		
	Session 2: Winter Season Discussion				
11:00 am - 12:30 pm EST	Session Lead: David Chorney				
11:00 am - 11:20 am EST	Federal Participation in the North Atlantic Waveguide, Dry Intrusion, and Downstream Impact Campaign (NAWDIC) - Jan.-Feb. 2026		Anna Wilson, Scripps/CW3E		
11:20 am - 11:40 am EST	Winter Season Reconnaissance for the NWS Alaska and Pacific Regions				
11:40 am - 12:20 pm EST	Open Discussion				

12:20 pm - 12:30 pm EST	WSWG Meeting Wrap-up	Ashley Lundry, OMAO/AOC. Lt Col Ryan Rickert, 53 WRS, and Rob Handel, NCO/SDM Team
12:30 pm EST	ADJOURN CONFERENCE	