Agenda Northeast Regional Operational Workshop XX Albany, New York NanoFab South Conference Center, Room 103, 255 Fuller Road Wednesday, November 6, 2019

8:50 am

Welcoming Remarks & Conference Logistics Raymond G. O'Keefe, Meteorologist In Charge Joseph P. Villani, NROW XX Steering Committee Chair National Weather Service, Albany, New York

Session A – Climatology/Observations/Tropical (9:00 am to 10:20 am)

9:00 am

Understanding Frequent Lightning Environments over the NWS Albany, New York County Warning Area

Christina Speciale NOAA/NWS Weather Forecast Office, Albany, New York Brittany Connelly and Ian Anderson Department of Atmospheric and Environmental Sciences University at Albany, State University of New York, Albany, New York

9:20 am

New York State Mesonet: A Summary of Recent Updates, Case Studies, and Research Collaborations

Jerry Brotzge New York State Mesonet, University at Albany, Albany, New York

9:40 am

The Investigation of Microphysics and Precipitation for Atlantic Coast-Threatening Snowstorms (IMPACTS) Field Program Brian A. Colle

School of Marine and Atmospheric Sciences Stony Brook University, Stony Brook, New York

10:00 am

Forecast Parameters Favoring Systematic Large TC Track Errors in the EC and GEFS Ensembles Nicholas Leonardo School of Marine and Atmospheric Sciences

Stony Brook University, Stony Brook, New York

10:20 am to 10:40 am

Break: SUNY Albany AMS selling Refreshments (Conference Center Rotunda)

<u>Session B – Numerical Weather Prediction and Applications</u> (10:40 am to 12:00 pm)

10:40 am

The Experimental High-Resolution SAR-FV3 Model with Local Forecast Examples Michael Evans NOAA/NWS Weather Forecast Office, Albany, New York

11:00 am

Evaluation and Verification of Boundary Layer Structure in Operational Models Robert G. Fovell

Department of Atmospheric and Environmental Sciences University at Albany, State University of New York, Albany, New York

11:20 am

Investigating the Uncertainties of Forecasting Northeast Cold Season Precipitation in Numerical Weather Prediction Models

Yanna Chen Department of Atmospheric and Environmental Sciences University at Albany, State University of New York, Albany, New York

11:40 am

The Influence of Turbulence Parameterizations on the 2 March 2018 Snowstorm Matthew Vaughan Department of Atmospheric and Environmental Sciences

University at Albany, State University of New York, Albany, New York

12:00 pm – 1:30 pm Lunch

Session C - Research/CSTAR (1:30 pm to 2:50 pm)

1:30 pm

Simulating the Effects of Terrain-Induced Perturbations on Severe Convection Using an Idealized Valley Brian Tang and William Flamholtz Department of Atmospheric and Environmental Sciences University at Albany, State University of New York, Albany, New York

1:50 pm

Single-Parameter Perturbations: Quantifying Microphysical Parameterization Uncertainty in Convection-Permitting Forecasts of the 10–12 December 2013 Lake-Effect Snow Event W. Massey Bartolini

Department of Atmospheric and Environmental Sciences University at Albany, State University of New York, Albany, New York

2:10 pm

Advances in Our Understanding of Lake-Effect Systems from the Ontario Winter Lake-effect Systems Field and Research Program Jim Steenburgh

University of Utah, Salt Lake City, Utah

2:30 pm

Mesoscale Gravity Waves as an Unclassified Type of Storm: A Research to Operations Opportunity for Northeast U.S. Forecasters Anton Seimon Appalachian State University, Boone, North Carolina

2:50 pm to 3:10 pm Break: SUNY Albany AMS selling Refreshments (Conference Center Rotunda)

Session D – Severe Weather (3:10 pm to 4:00 pm)

3:10 pm A Machine Learning Approach to Severe Thunderstorm Downburst Prediction Luke LeBel Department of Atmospheric and Environmental Sciences University at Albany, State University of New York, Albany, New York

3:30 pm

Correlating Trends in Flash Extent Density for Tornadic Supercell Development over the Northeastern United States Michael L. Jurewicz, Sr. NOAA/NWS, Weather Forecast Office, State College, Pennsylvania

3:50 pm to 4:00 pm Break: SUNY Albany AMS selling Refreshments (Conference Center Rotunda)

NROW XX Key Note Presentation #1 (4:00 pm to 5:00 pm)

A Probabilistic Foundation for Winter Decision Support Services Dr. David Novak NOAA/NWS/NCEP, Weather Prediction Center, College Park, Maryland

5:00 pm Wrap up/Adjourn Joseph P. Villani

6:30–9:00 pm

CSTAR Dinner at Brown's Brewing Company (Trojan Room) for participants in UAlbany–NWS CSTAR VI & VII (417 River Street, Troy, New York, 518-273-2337)

Agenda Northeast Regional Operational Workshop XX Albany, New York Nano South Conference Center, Room 103, 255 Fuller Road Thursday, November 7, 2019

8:05 am Opening Remarks Raymond G. O'Keefe, Meteorologist In Charge Joseph P. Villani, NROW XX Steering Committee Chair National Weather Service, Albany, New York

NROW XX Key Note Presentation #2 (8:15 am to 9:15 am)

Celebrating 20 Years of NWS Winter Weather Program Advancements Dr. Louis Uccellini NOAA/NWS Headquarters Silver Spring, Maryland

Session E – Hydrology (9:20 am to 10:40 am)

9:20 am Improving the Detection of Flash Floods in southern New England Lindsay Lawrence Hollings Scholar with NOAA/NWS Weather Forecast Office, Boston/Norton, Massachusetts

9:40 am

Meteorological Model Ensemble Forecast Service (MMEFS) vs. Meteorological Ensemble Forecast Processor (MEFP) Service during Spring 2019 High-Flow Events Erick Boehmler NOAA/NWS Northeast River Forecast Center, Boston/Norton, Massachusetts

10:00 am

A Comparison of New York State Mesonet Precipitation Data against Automated Surface Observing System (ASOS) Precipitation Data across New York State Ronald S.W. Horwood NOAA/NWS, Northeast River Forecast Center, Boston/Norton, Massachusetts

10:20 am

Improving Flash Flood Warning Services for Northern New England Katy Hollinger Department of Atmospheric and Environmental Sciences University at Albany, State University of New York, Albany, New York

10:40 am to 11:00 am Break: SUNY Albany AMS selling Refreshments (Conference Center Rotunda)

Session F - High Impact Events/Messaging (11:00 am to 12:20 pm)

11:00 am

The New York City Metro Area Transportation Apocalypse Event of 15 November 2018 Lance F. Bosart Department of Atmospheric and Environmental Sciences University at Albany, State University of New York, Albany, New York

11:20 am

Communicating Rip Current Risk with a Virtual Reality Video Game Jase Bernhardt Department of Geology, Environment and Sustainability Hofstra University, Hempstead, New York

11:40 am Aviation Impact-Based Decision Support Services – It's about more than just Thunderstorms Scott Reynolds NOAA/NWS Central Weather Service Unit, Nashua, New Hampshire

12:00 pm

The 1 December 2006 Anomalous Severe Weather Event across the Northeast Thomas A. Wasula NOAA/NWS Weather Forecast Office, Albany, New York

12:20 pm – 1:50 pm Lunch

Poster Session - NanoFab South Rotunda (1:50 pm to 2:40 pm)

Recent Examples of Using Specific Differential Phase to Help Predict Severe Thunderstorm Wind Damage

Brian J. Frugis NOAA/NWS Weather Forecast Office, Albany, New York

Tracking the Sherpa Fire Plume: How the Catalina Eddy Transports Pollutants in the L.A. Basin Erin Leghart

Department of Atmospheric and Environmental Sciences University at Albany, State University of New York, Albany, New York

Effects of Latent Heating on Frontogenetic Enhancement in Idealized Atmospheric Rivers

Justin Templer Department of Atmospheric and Environmental Sciences University at Albany, State University of New York, Albany, New York

Use of a GIS Application to evaluate the Accuracy of Forecaster and Model Predictions of Snowfall in eastern New York and western New England

Joseph P. Villani NOAA/NWS Weather Forecast Office, Albany, New York

The Multi-Hazard Severe Event of 21 August 2019 across eastern New York and western New England Thomas A. Wasula NOAA/NWS Weather Forecast Office, Albany, New York

Session G – Winter Weather (2:40 pm to 4:00 pm)

2:40 pm

Forecast Considerations Involving Extreme Snow-to-Liquid Ratios Peter C. Banacos NOAA/NWS Weather Forecast Office, Burlington, Vermont

3:00 pm

Understanding the Interaction between Short-Wave Troughs and Lake-Effect Snow Events off Lake Ontario Ian Beckley Department of Geoscience, Hobart and Williams Smith Colleges, Geneva, New York

3:20 pm

Computing Snowfall Forecast Biases for Warning-Level Lake-Effect Snow Events Downwind of Lake Ontario Jared Klein NOAA/NWS Weather Forecast Office, Binghamton, New York

3:40 pm

New York State Mesonet Snow Network: Review of 2018-2019 Data and Plan for 2019-2020 Junhong (June) Wang New York State Mesonet University at Albany, State University of New York, Albany, New York

4:00 pm – Wrap Up/Adjourn

Joseph P. Villani

NROW XXI is scheduled for November 4-5, 2020