

Themed Joint Session Title	Host Conference	Lead Conference Focal Point(s)	Partnering Conference	Partnering Conference Focal Point(s)	Session Focus
Applying Machine Learning Techniques for Information Processing	26th Conference on Environmental Information Processing Technologies (EIP7)	Vallappa Lakshmanan@moa.gov	11th Conference on Artificial and Computational Intelligence and its Applications to the Environmental Sciences (AI)	Amy McGovern, amcgovern@moa.edu	This session will bring together researchers in artificial intelligence, data mining, statistics, and information processing technologies. As the size and scale of environmental datasets increases, it has become increasingly important to apply data mining and machine learning techniques such as decision trees, neural networks and fuzzy logic to extract key information from data and present it to decision makers. This session will include a discussion of: <ul style="list-style-type: none"> Existing artificial intelligence applications for information processing Identification of the need for new machine learning techniques Societal impacts of such data mining such as targeted marketing and privacy Comparison of heuristic methods with objective methods
Decision Making using Advanced Technology: Risk-based Decisions and Risk-informed Communication for the Water Information Customer	26th Conference on Environmental Information Processing Technologies (EIP7)	Dr. Larry Brazill, larry.brazill@veriside.com Dr. George Smith, george.smith@veriside.com	27th Conference on Hydrology	Andy Wood, andy.wood@moa.gov	One of the great advances of twentieth-century hydrologic science and technology was development of the ability to forecast future watershed and river conditions and to process the forecast information for the benefit of decision makers and end users. Decisions protecting the land property, agricultural and water supply, agricultural and water supply, agricultural and water supply, agricultural and water supply, and individual well-being are now made based on the accuracy and clarity of presentation of these forecasts. These forecasts range from minutes to days to months to address flash flood, river flow, and seasonal water availability decisions, as well as predictions of expected conditions associated with seasonal to interannual climate variability and interannual climate change. We seek papers describing advances in risk-based predictive capabilities and communication of those predictions to support water resource decision makers. Topics of interest include the current status and plans for understanding uncertainty in observation technologies and forecasts, and approaches to provide risk informed water information to decision makers, as well as mechanisms to integrate customer needs and science and technology advances across Federal, state and local government agencies, universities, and international and private/economic sectors.
Drought Prediction and Applications from a Hydrological Science Perspective	27th Conference on Hydrology	Andy Wood, andy.wood@moa.gov Mr. John Elyander, john.e.elyander@usace.army.mil Dr. Michael Ek, Mike.Ek@noaa.gov	25th Conference on Climate Variability and Change (CVC) 20th Conference on Applied Climatology (OAP/CLUM)	ZSVC: Hai Lin, hai.lin@noaa.gov OAP/CLUM: Barbara Mayer Boutsed, barbara.mayer@noaa.gov, Steven Quiring, squiring@tamu.edu	This session invites papers that focus on scientific and operational, practical issues related to predicting and defining drought and reducing drought impacts. While most interest is aimed at sub-humid environments, drought can occur anywhere and anytime, even in deserts and arctic climates. The impacts and causes of drought, the indices and indicators used to monitor and analyze drought, and even the definition of drought varies across these diverse climates. This variation is a significant challenge for drought research, analysis, modeling, monitoring, and prediction, and complicates the response of state, regional, national, and international programs, especially in a changing climate. Topics of interest include the formulation and use of drought indices and definitions, and the characterization of drought impacts across the diverse climates of North America and the world. In particular, we welcome presentations spanning a range from drought analysis and prediction to management activities for high-impact drought events, on statewide to continental scales, and including applications such as drought early warning systems.
Water Resources Applications of Hydrometeorological Analysis and Predictions	27th Conference on Hydrology	Andy Wood, andy.wood@moa.gov Mr. John Elyander, john.e.elyander@usace.army.mil Dr. Michael Ek, Mike.Ek@noaa.gov	29th Conference on Environmental Information Processing Technologies (EIP7), 20th Conference on Applied Climatology	ZHEIP7: Dr. Larry Brazill, larry.brazill@veriside.com and Dr. George Smith, george.smith@veriside.com OAP/CLUM: Barbara Mayer Boutsed, barbara.mayer@noaa.gov, and Steven Quiring, squiring@tamu.edu	This session seeks presentations highlighting scientific or technological advances in water and watershed management stemming from new or improved weather and climate analysis and prediction, hydrologic forecasting, uncertainty-based approaches, or other relevant areas. Water management concerns may include single or multi-sector effects toward improving decisions regarding energy, flood or drought mitigation, agriculture, navigation and recreation, and other resources management challenges. We welcome papers focusing on work across the spectrum of time (hourly to seasonal and interannual) and space scales (local to global), and presentations that highlight new theory, methods or findings from case studies. Members of the research, operational and stakeholder or user communities are all encouraged to contribute their perspectives.
Flood Prediction, Analysis, Decision Support and Management	27th Conference on Hydrology	Andy Wood, andy.wood@moa.gov Mr. John Elyander, john.e.elyander@usace.army.mil Dr. Michael Ek, Mike.Ek@noaa.gov	Probability and Statistics Special Symposium	Scott Seliars, scott.seliars@jhu.edu Barbara Brown, bbrown@ucar.edu	This session will be oriented toward prediction and decision support, highlighting cutting-edge efforts to advance short to medium range flood prediction systems in support of flood prevention operations and management. A broader date of flood related topics are also of interest, including the characterization of observed flood events, estimation of flood risk, hydrologic and geomorphologic changes associated with floods, flood analysis and simulation, and flood related physical processes and phenomena such as rain on snow, snowmelt, atmospheric rivers and tropical conceptions. The session also invites contributions related to the management of floods, such as emergency response activities, including case study presentations of reports, high-impact events.
Determining the Uncertainty of Climate Predictions and Projections and Best Practices for Users of Climate Information	28th Conference on Climate Variability and Change	Hai Lin, Hai.Lin@noaa.gov	Symposium on the Role of Statistical Methods in Weather and Climate Prediction	Dan Collins, Dan.Collins@noaa.gov	We are seeking papers for this session which focus on recent advances and the state of knowledge in the uncertainty of climate predictions and projections and best practices for the use of information on uncertainty. Emphasis will be given to determining cascading uncertainty in user derived climate products in areas such as hydrological prediction, the likelihood of extreme, coastal inundation and drought prediction, as well as downstream impacts, such as health and economics. Topics of interest include current state of the art probabilistic predictions, advances in methodologies for determining uncertainty, as well as best practices for expression of uncertainty in climate services and incorporating uncertainty in user models. The session is convened jointly as part of the Symposium on the Role of Statistical Methods in Weather and Climate Prediction and 25th Conference on Climate Variability and Change, so presentations that concern the crossover of probability and statistics with climate variability and change are invited.
Aerosol-Cloud Interactions in Weather Forecasting	18th Conference on Planned and Inadvertent Weather Modification	Daniel Rosenfeld, daniel.rosenfeld@jhu.edu	5th Symposium on Aerosol-Cloud-Climate Interactions	Jiwen Fan, jiwen.fan@pnnl.gov	In this session, the annual meeting theme of improving the predictability is linked to questioning the extent to which knowledge of aerosols can add to the prediction skill at all scales. Recent findings show that radiative impacts of heavy aerosols can stabilize the lower troposphere and lower the surface temperatures, reduce winds and suppress the formation of convective clouds. The microphysical effects of aerosols can redistribute the precipitation in time and space, affect the self-organization of convective clouds into small cells and super-cells, and hence modulate the intensity and phenomena of severe convective storms and tropical cyclones. On a regional scale, aerosols can modify weather systems by their direct and indirect effects on clouds, which in turn affect weather and climate, when integrated over large regions. The emerging awareness to the sensitivity of weather to aerosols means that predictions might be improved when including aerosol-cloud interactions in the numerical weather models. We are seeking papers that describe the sensitivity of numerical weather predictions and their accuracy to the incorporation of aerosol-cloud interactions, parameterization of aerosol effects in the operational models, and the observed weather modification evidence. The scales can be from the single cloud cluster, through synoptic scale systems, to global.
Adversarial Climate Modification: Technical, Scientific, and Ethical Issues	18th Conference on Planned and Inadvertent Weather Modification	Alan Robock, robock@envsci.rutgers.edu	25th Conference on Climate Variability and Change	Ben Sendeel, ben.sendeel@noaa.gov	Geoengineering schemes have been proposed to temporarily counteract global warming, as nations work to implement preferred mitigation strategies - namely, reductions in greenhouse gas emissions. As the AMS Statement on Geoengineering says, "the threat of climate change is serious. Mitigation efforts to date have been limited in magnitude, and insufficient for slowing climate change enough to avoid potentially serious impacts. Even aggressive mitigation of future emissions cannot avoid dangerous climate changes resulting from past emissions, because elevated atmospheric CO2 concentrations persist in the atmosphere for a long time. Furthermore, it is unlikely that all of the expected climate change impacts can be managed through adaptation. Thus, it is prudent to consider geoengineering's potential benefits, to understand its limitations, and to avoid its uncontrolled deployment." This session focuses on climate modification through the manipulation of solar energy input to earth, called solar radiation management. This session invites papers describing the feasibility, risks, costs, policy implications, and ethical and political dimensions of global radiation intervention. While proposed engineering projects may assume regional or global scales, all of the local and worldwide impacts are open to consideration, including predictions of changes in climatological, biological, and social parameters. Results of the GeoMIP experiments are particularly welcome. Presentations of well-developed designs for laboratory or field experiments relevant to the topics outlined above are also welcome.
Cause and effect: Detecting planned and inadvertent changes in the weather	18th Conference on Planned and Inadvertent Weather Modification	Dan Bredt, bredt@ucar.edu	Probability and Statistics Special Symposium	Barb Brown, bbrown@ucar.edu	The AMS statement on weather modification states that a statistical evaluation is needed for establishing that a significant change resulted from a given cloud seeding activity. This is commonly achieved through the design and statistical evaluation of randomized seeding experiments. However, rarely are sufficient resources set aside for instrumenting, operating, and evaluating randomized experiments. Therefore, how does one detect and evaluate changes due to operational seeding activities, for example, that are designed to affect precipitation processes such as cloud microphysics, precipitation, and hydrological effects? Even more "uncontrolled" are inadvertent effects of aerosol loading, dust or volcanic episodes, land use changes, and other weather perturbations on long-term changes. How does one detect and ascribe effects to such inadvertent and uncontrolled causes? The focus of this session is to shed light on these and related questions regarding the detection of planned and inadvertent changes in clouds and the weather. In addition, papers describing experiences or research in communicating to the lay person the nuances of cause and effect, from a statistical viewpoint, are encouraged.
Urban Impacts on Thunderstorms and weather extremes	18th Conference on Planned and Inadvertent Weather Modification	Bob Bensen, rbensen@hotmail.com	AMS Board on the Urban Environment	Dev Niyogi, devniy@purdue.edu	We are seeking papers for this session that focus on urban impacts on thunderstorms and weather extremes, such as regional heat waves. The motivation for this session is recent developments of capabilities leading to improved forecasting and forecasting for urban areas during these severe weather conditions. Emphasis will be given to recent developments in remote sensing systems for observations of thunderstorm structure over urban areas, advanced thermal stress indices that incorporate urban heat island (UHI) observations, and applications of urbanized meteorological models. Topics of interest include climatological and case study analyses of observational data and modeling results in a changing climate, effects from urban precipitation on hydrologic cycle, and health impacts from regional heat wave interactions with nighttime and daytime UVs.
Observing Strategies, Platforms, and Impacts on Analysis and Forecasts of Tropical Cyclones, Tropical Waves, and Tropical Rainfall	17th Conference on Integrated Observing and Assimilation Systems for Atmosphere, Oceans, and Land Surface (IOANS-ADSL)	Sharan Majumdar, smajumdar@romsui.miami.edu	Special Symposium on the Next Level of Prediction in Tropical Meteorology: Techniques, Usage, Support, and Impacts	Patrick Harp, pharp@noaa.gov	High impact tropical weather phenomena typically occur over regions in which traditional observation systems are sparse. However, research results from many special observing campaigns that focused on the gathering of observations related to tropical circulations and precipitation systems have indicated that observations over traditionally data sparse regions improve diagnosis and forecast accuracy. This joint session focuses on integrated observation and assimilation systems for tropical weather systems that vary over a range of spatial and temporal scales, and their integration systems that support operational analysis and forecasting. In keeping with the theme of the 2013 Annual Meeting, special emphasis is placed on advances related to observing platforms, sampling strategies, assimilation systems, and their integration for diagnosis and prediction. Additionally, reports on new approaches applied to traditional observing systems are sought.
Accelerating the Transition of Research to Operations in Environmental Models and Analysis	17th Conference on Integrated Observing and Assimilation Systems for Atmosphere, Oceans, and Land Surface (IOANS-ADSL)	Ken Carey, kcarey@noaa.gov	3rd Conference on the Transition of Research to Operations (3R2O)	James Yoe, James.G.Yoe@noaa.gov	The theme of the 3rd AMS Annual Meeting is "Taking Predictions to the Next Level: Expanding Beyond Today's Weather and Climate Forecasts and Projections." In support of this theme, this session requests papers describing recent developments to accelerate the transition of research observations, algorithms, assimilation techniques, and modeling of the atmosphere, ocean, and land surface processes into operational weather, ocean, hydrology, and climate models.
Atmospheric Chemistry at the Climate / Policy Interface	15th Conference on Atmospheric Chemistry/5th Symposium on Aerosol-Cloud-Climate Interactions	Julie Fry, jrfry@reed.edu	25th Conference on Climate Variability and Change (CVC) 8th Symposium on Policy and Socioeconomic Research (PSC-8) 5th Symposium on Aerosol-Cloud-Climate Interactions	ZSVC: Hai Lin, hai.lin@noaa.gov PSC-8: Randy Peppler, peppler@noaa.gov, and Kim Klockow, kim.klockow@gmail.com	The 2013 meeting will also feature a joint session sponsored by Atmospheric Chemistry, Climate Variability and Change, and the Policy Symposium. Papers are solicited highlighting policy-relevant research and efforts to connect science and policy in this area, in keeping with this meeting's thematic emphasis on "accelerating the transition of research results into operations." We are seeking papers for this session which focus on policy-relevant scientific studies in atmospheric chemistry / climate, or on policy studies related to climate science. We hope to address the meeting theme by connecting research to policy outcomes.
Chemistry Aerosol-Cloud/Climate Interactions: From Ocean to Continents	15th Conference on Atmospheric Chemistry	Nicole Molden, nmolden@lsu.edu	5th Symposium on Aerosol-Cloud-Climate Interactions Robert A. Duce Symposium	Renly Zhang, renly.zhang@tamu.edu	Human activities have impacts not only on the amount of aerosols emitted but also on the amount of aerosols formed as they alter the amount of precursor emissions. Precursor emissions from biogenic sources also change due to anthropogenically initiated land-use changes (deforestation, change in agricultural practices, etc.). In addition, precursor emissions from natural sources change in response to altered local climate conditions and hence land-cover change and/or emissions from the ocean surface.
The application of Artificial Intelligence in the field of Aviation, Range, and Aerospace Meteorology	11th Conference on Artificial and Computational Intelligence and its Applications to the Environmental Sciences (AI)	Amy McGovern, amcgovern@moa.edu Haig Iskenderian, haig@lmit.edu	16th Conference on Aviation, Range, and Aerospace Meteorology	Mathias Steiner, msteiner@noaa.gov David Pace dave.pace@noaa.gov	This joint session solicits papers in laboratory, field and modeling studies related to the impacts of aerosol formation in response to emission changes, including the direct and indirect effects, and its impacts on the long-term scale. The goal of the conference is to highlight applications of artificial intelligence techniques to operational activities in aviation, range, and aerospace meteorology. Papers for this session are solicited on all aspects of artificial intelligence applications that support operational interests in general, commercial, unmanned, and military aviation, launch and recovery of space vehicles, and missile testing. Topics for the conference include (but are not limited to) weather forecasting, decision support, data mining and knowledge discovery, optimization of weather forecast and decision support systems, and assessing uncertainty in weather forecasts and decision support systems.
Application of AI to the Climate System	11th Conference on Artificial and Computational Intelligence and its Applications to the Environmental Sciences (AI)	Amy McGovern, amcgovern@moa.edu Michael Hutchinson, mhutchinson@noaa.gov	25th Conference on Climate Variability and Change	Hai Lin, Hai.Lin@noaa.gov	Research in climate variations, climate impacts, climate diagnosis or climate change that uses approaches such as neural networks, random forests, support vectors, k-nearest neighbor algorithms, naive Bayes classifiers, decision trees, mixture models, or other AI techniques.
Computing the Forecast: Decision Making under Uncertainty	11th Conference on Artificial and Computational Intelligence and its Applications to the Environmental Sciences (AI)	Amy McGovern, amcgovern@moa.edu John Williams, jwilliams@ucar.edu	1st Symposium on the Weather and Climate Enterprise	Laura Furgone, laura.furgone@noaa.gov	This session invites papers describing efforts to "complete the forecast" by creating automated systems that utilize information from weather and climate forecasts, along with their associated uncertainty, to support decision making. Papers may address novel approaches to decision making under uncertainty, including the use of decision support systems, tools and techniques for linking weather, climate and other modules together to form a decision support system; development of standards for interfaces, data models, and data transmission protocols that support integration and re-use of system modules; database design, maintenance and semantic technologies for queries; and novel approaches to visualizing the relationships between weather and climate information, weather impacts, decision options, and decision outcomes. Applications areas may include renewable energy, water resources, climate services, human health, ecosystem management, transportation, social sciences, and others. Broadly applicable methodologies, original applications, and descriptions of systems that are nearing operational implementation are particularly welcome.
Using Data Mining to Improve Our Understanding of the Connections between Health, the Environment, and Weather	11th Conference on Artificial and Computational Intelligence and its Applications to the Environmental Sciences (AI)	Amy McGovern, amcgovern@moa.edu Jeffrey Basara, jbasara@noaa.gov	4th Environment and Health (HEALTH) 20th Conference on Environmental Information Processing Technologies (EIP7)	ZHEALTH: Wendy Thomas, wthomas@metec.org ZHEIP7: Nazila Mearzi, lzabla@noaa.gov	This panel session will bring together researchers in artificial intelligence, data mining, statistics, and health and the environment. Our focus will be on how we can apply data mining to health and environmental prediction problems. This will include a discussion of: <ul style="list-style-type: none"> Existing data mining applications to health and environmental issues Potential applications and/or existing health and environmental data where data mining can be helpful Potential issues of privacy Methodologies and approaches Access stories and failures Value of using this approach over others
Contemporary Regional Water and Drought Issues through the Lens of History	11th History Conference	Jean Phillips, jean.phillips@se.wisc.edu	27th Conference on Hydrology	Andy Wood, andy.wood@noaa.gov	We are seeking papers for this session which focus on contemporary regional water and drought issues with analysis from a historical perspective - how history has illuminated and informed present decision-making and science. This should include but not be limited to: 1) great droughts of the 1850s and 1930s and recent drought; 2) Texas and regional dust bowl history; 3) historical flooding events of the region; 4) water issues resulting from a shared international border; and 5) the development of water research tools. All of these issues have current and historical intersection with agricultural, social, and economic sectors.
Climate Trends and Projections in the Coastal Environment	11th Symposium on the Coastal Environment (CE)	Hyndee Seo, hseo@whoi.edu Darko Koranic, Darko.Koranic@del.edu	25th Conference on Climate Variability and Change (CVC)	Algoio Dai, aldaio@ucar.edu	Many open questions in characterizing the climate of the ocean, atmosphere, and land are further emphasized by their interlink in coastal regions. Decadal projections of the coastal environment remain highly uncertain due to time temporal and spatial scale interactions among the physical, biological and hydrological processes, calling for an interdisciplinary and mesoscale approach in observational and modeling studies. While observations provide insights in current and past trends and variabilities, regional modeling fills the gap between the future projections by the global climate models and the growing demand for adaptation and mitigation strategies at highly resolved scales. This session's focus is to assess the capability, biological and hydrological environment of the global climate variability and change. We encourage observational papers addressing the variability and trends in the coastal environment. Studies are welcome that focus on building and testing of the capacity for decadal hindcasts and projections in the coastal environment using regional scale and integrated Earth system models, including the efforts for coupling of atmospheric, oceanic, hydrologic and ecological models. We also emphasize the development of tools for assessing uncertainty estimates of the predictions at coastal scales and the provision of physical and ecological decision assistance, tools and applications.

Ocean, Atmosphere, Hydrosphere, and Land Surface Interaction in the Coastal Environment	11th Symposium on the Coastal Environment (CE)	Frank Alkman, frank.alkman@noaa.gov	17th Conference on Integrating Observing and Assimilation Systems for the Atmosphere, Ocean and Land Surface (IOAS-AOLS) Satellite Meteorology, Oceanography and Climatology (SMOC) Committee	There are many open questions in characterizing the interaction of the ocean, atmosphere, hydrosphere, and land surface, especially at their interface in coastal regions. Characterizing these interactions in the coastal environment remains highly uncertain due to the temporal and spatial scale interactions among the physical, biochemical, and land processes, calling for an interdisciplinary approach in observational, data assimilation and modeling studies. While observations provide insights into current and past trends and variability, regional coastal modeling and data assimilation fills the gap between global models and the growing demand for better information and predictions at much more highly resolved scales in the coastal environment. This session will focus on the critical importance of accurate coupling the atmosphere, ocean, hydrosphere and land surface for modeling, research and operational prediction, with an emphasis on the essential importance of satellite derived data for monitoring, modeling and data assimilation. Studies are encouraged that include efforts for the coupling of oceanic, atmospheric, hydrologic and land surface models from global and basin scales to regional coastal scales. We encourage observational papers addressing the variability and trends in the coastal environment. We also emphasize the development of tools for assessing uncertainty estimates of the predictions of coastal scales.
Satellite Ground Data Processing System Transitions from Research to Operations	9th Annual Symposium on Future Operational Environmental Satellite Systems	Gary McWilliams, Gary.McWilliams@noaa.gov	3rd Conference on Transition of Research to Operations (SR2O)	Wayne Blackwood, Wayne.Blackwood@noaa.gov George Serafini, George.Serafini@noaa.gov
Research to Operations Pathway for Satellite Data Retrieval Algorithms	9th Annual Symposium on Future Operational Environmental Satellite Systems	Gary McWilliams, Gary.McWilliams@noaa.gov	3rd Conference on Transition of Research to Operations (SR2O)	Mike Kall, Mike.Kall@noaa.gov Al Powell, Al.Powell@noaa.gov
Use of Total Lightning Data to Improve Short Term Prediction of Severe and High Impact Weather	9th Annual Symposium on Future Operational Environmental Satellite Systems	James Gurka, james.gurka@noaa.gov	6th Conference on Meteorological Applications of Lightning Data	Timothy Lang, tlang@noaa.gov
Assimilation of Satellite Observations to Improve Numerical Models in Global and Regional Models	9th Annual Symposium on Future Operational Environmental Satellite Systems	Michael Jamilkowski, mjamilkowski@raytheon.com	17th Conference on Integrating Observing and Assimilation Systems for Atmosphere, Oceans, and Land Surface (IOAS-AOLS)	Sharan Majumdar, smajumdar@rmas.miami.edu
Economic Impacts and Value of Improved Forecast Information	8th Symposium on Policy and Socioeconomic Research	Randy Peppler, rpeppler@ou.edu	29th Conference on Environmental Information Processing Technologies (EPT)	Randall Bass, Randall.Bass@weather.com
Impacts of anthropogenic aerosols on clouds, precipitation circulation, and severe storms.	26th Symposium on Aerosol-Cloud Climate Interactions	Jiwen Fan, jiwen.fan@pnl.gov	19th Conference on Planned and Inadvertent Weather Modification	Daniel Rosenfeld, daniel.rosenfeld@huji.ac.il
Climate Applications and Projections for the Health Sector	4th Environment and Health	Wendy Marie Thomas, wthomas@ametsoc.org	20th Applied Climatology	Barbara Myers Boustead, Barbara.myers@noaa.gov Steven Quiring, squiring@ama.edu
Earth Observations for Public Health Models and Decisions	4th Environment and Health	Wendy Marie Thomas, wthomas@ametsoc.org	17th Integrated Observing and Assimilation Systems for Atmosphere, Oceans, and Land Surface (IOAS-AOLS)	Robert Atlas, Robert.Atlas@noaa.gov
Water, Food Security, and Human Health	4th Environment and Health	Wendy Marie Thomas, wthomas@ametsoc.org	27th Conference on Hydrology	Andy Wood, andy.wood@noaa.gov
The Toll of Extreme Weather on Mental Health, Safety, and Healthcare Buildings	4th Environment and Health	Wendy Marie Thomas, wthomas@ametsoc.org	8th Symposium on Policy and Socio-Economic Research and MPACTS: Major Weather Events and Impacts of 2012	8th Policy: Randy Peppler, rpeppler@ou.edu MPACTS: Tanja Franzen, tanja.franzen@noaa.gov
Medium-range, Sub-seasonal and Seasonal-scale Forecast Techniques and Modeling for Energy Demand	4th Conference on Weather, Climate, and the New Energy Economy	Steve Bennett, Stephen.Bennett@EarthInTech.com	25th Conference on Climate Variability and Change (CVC) 11th Conf on Artificial and Computational Intelligence and its Applications to the Environmental Sciences Symposium on Prediction of the Madden-Julian Oscillation (MJO)	ZSVC: hai.lin@ec.gc.ca LINTEL: Amy McGovern, amcgovern@ou.edu MJO: Duane Walliser, duane.walliser@jpl.nasa.gov
Tools for making use of climate predictions and earth systems analysis: GPC, OpenClimateGIS, Python	3rd Python Symposium	Johny Liu, jliu@noaa.gov	29th Information Processing Technologies (EPT), 27th Conference on Hydrology, 25th Conference on Climate Variability and Change, 20th Conference on Applied Climatology	29th EPT: Nuzia Merati, lulala@u.edu
Panel Session on Improving the research to operations transition process	3rd Conference on Transition of Research to Operations (SR2O)	John Schattell, john.schattell@noaa.gov Tim Hall, Timothy.Hall@noaa.gov	1st Symposium on the Weather and Climate Enterprise	Matt Parker, matt.parker@onli.edu.gov
Historical Impacts on Predictions and the Decision-Making Process in Tropical Meteorology	Special Symposium on the Next Level of Prediction in Tropical Meteorology: Techniques, Usage, Support, and Impacts	Patrick Harr, paharr@hps.edu	11th History Symposium	Jean Phillips, jeanph@sec.wisc.edu
The Verification of Hydrometeorological Predictions: Theory, Methods and Case Studies	Probability and Statistics Special Symposium	Scott Sellars, scott.sellars@ou.edu	27th Conference on Hydrology	Andy Wood, andy.wood@noaa.gov
Use of Probabilistic and Statistical Information in Hydrological Forecast Verification: Next Generation Hydrological Forecast Verification: The Use of Probability and Statistics.	Probability and Statistics Special Symposium	Scott Sellars, scott.sellars@ou.edu	27th Conference on Hydrology	Andy Wood, andy.wood@noaa.gov