



Third THORPEX International Science Symposium TTISS

Monterey California
14-18 September 2009

Program Booklet



Monday, 14 September 2009

Opening Session

Chair: David Burridge

- 09:00-09:05 Simon Chang (Superintendent, NRL Marine Meteorology Division): Welcome to Monterey
- 09:05-09:30 Dave Parsons (WMO, Director of WWRP): THORPEX
- 09:30-09:50 Overview Huw Davies (ETH Zurich): Extra-tropical flow dynamics and THORPEX: Some core aspects Model development, process studies and the THORPEX mission
- 09:50-10:10 Patrick A. Harr (NPS) and James Moore (NCAR): The THORPEX Pacific Asian Regional Campaign (TPARC)/Tropical Cyclone Structure-08 (TCS-08) and affiliated program over the Western North Pacific: Objectives, strategies, and accomplishments
- 10:10-10:30 Yucheng Song: The Winter Component of T-PARC

Coffee

Session: RCCCRT–A T-PARC/TCS-08

Chair: Dave Parsons

- 11:00-11:15 Tetsuo Nakazawa et al. (MRI, Japan): Impact of extra sonde observations for typhoons during T-PARC 2008
- 11:15-11:30 Elizabeth Sanabia and Patrick Harr (NPS): The impact of Typhoon Sinlaku on the Northern Hemisphere midlatitudes during T-PARC
- 11:30-11:45 Martin Weissmann et al. (DLR, Germany): Overview of T-PARC Falcon operations and first results from ECMWF data denial experiments
- 11:45-12:00 Peter Black (NRL, Monterey): Overview of WC-130J storm-scale observations during T-PARC/TCS08
- 12:00-12:15 Yoichiro Ohta and Takuya Komori (JMA): Total energy singular vector guidance in JMA for T-PARC 2008
- 12:15-12:30 Byoung-Joo Jung et al. (Yonsei U., Korea): Real-time adaptive observation guidance and observation system experiments for Typhoons observed in T-PARC

Lunch

- 14:00-14:25 Richard Swinbank et al. (UK Met Office): The THORPEX Interactive Grand Global Ensemble
- 14:25-14:45 Laurence J. Wilson and Anna Ghelli (Environment Canada): Verification of multi-model ensemble forecasts using the TIGGE dataset
- 14:45-15:00 Wen Chen and Xiefei Zhi (Nanjing U., China): Multimodel superensemble forecasts of the surface temperature in the Northern Hemisphere

Coffee & T-PARC/TCS08, RCCCRT and PDP-A Poster Sessions

Session: PDP–A PDP in the Tropics

Chair: Sarah Jones

- 16:30-16:45 Michael T. Montgomery (NPS): Tropical cyclogenesis within a tropical wave critical layer: Easterly waves. Physical basis and high resolution numerical simulations
- 16:45-17:00 Rahul Mahajan and Greg Hakim (U. Washington): Ensemble sensitivity analysis applied to tropical cyclones
- 17:00-17:15 Russ Elsberry, Mary Jordan (NPS) and Frederic Vitart (ECMWF): Predictability of tropical cyclone events on intraseasonal timescales with the ECMWF monthly forecast model
- 17:15-17:30 Ann Shelly, Nick Savage and Sean Milton (UK Met Office): Predictability and systematic error growth in Met Office MJO predictions
- 17:30-17:45 Jim Caughey (WMO): THORPEX Africa–Plans and Priorities
- 17:45-18:00 Hai Lin et al. (Environment Canada): Interactions between the Madden–Julian Oscillation and the North Atlantic Oscillation
- 18:30-20:30 [Icebreaker at the Monterey Peninsula Yacht Club](#)

Monday, 14 September 2009 Poster Sessions

T-PARC/TCS-08 Poster Session

- Florian Harnisch and Martin Weissmann (DLR): Observation impact of dropsonde data
- Jeffrey Hawkins (NRL, Monterey) and Christopher Velden (U. Wisconsin): Integrating satellite data and products for mission support and science applications in T-PARC
- William Komaromi (U. Miami), Eric Rappin, Sharan Majumdar, Chris Velden, Rolf Langland, Sim Aberson, and David Nolan: Challenges in numerical predictions of the structure of Typhoon Sinlaku
- Koji Yamashita (JMA), Yoichiro Ohta, Takuya Komori, Kiyotomi Sato, and Tetsuo Nakazawa: Observing system experiments using the operational NWP system of JMA with special observations targeted for Typhoon Sinlaku and Jangmi
- Carolyn Reynolds and Rolf Langland (NRL, Monterey): Naval Research Laboratory global model adaptive observing during T-PARC/TCS-08
- James D. Doyle (NRL, Monterey), Clark Amerault and Carolyn A. Reynolds:
Aspects of tropical cyclogenesis predictability: perspectives from T-PARC/TCS-08
- Andrew Snyder and Zhaoxia Pu (U. Utah): NOGAPS ensemble prediction of tropical cyclone genesis: Evaluation during T-PARC/TCS-08
- Hiroyuki Yamada (JAMESCT): Observation and simulation of the genesis of Typhoon Fengshen (2008) in the Tropical Western Pacific
- Hyun Mee Kim and Sung-Min Kim (Yonsei U.): Characteristics of total energy singular vectors for tropical cyclones observed in T-PARC
- Michael M. Bell and Michael T. Montgomery (NPS): Development of a persistent low-level circulation in pre-depression Hagupit observed during TCS-08.
- Arwen Twitchett (U. Leeds), Michael Morgan and Cornelia Schierz: Adjointbased sensitivities of potential vorticity streamer formation during the THORPEX Pacific Asian Regional Campaign
- Kotaro Bessho (JMA), Tetsuo Nakazawa and Martin Weissmann: Dropsonde operation of Falcon in T-PARC and the analysis of surrounding environment of typhoons
- R. L. Elsberry (NPS), M. T. Montgomery, D. Raymond, P. Black, J. Hawkins, P. A. Harr, C. Velden, E. A. Ritchie, W. C. Lee, M. Bell, D. Eleuterio and R. Ferek: The Tropical Cyclone Structure-2008 (TCS-08) program: objectives on tropical cyclone formation, intensification, and structure change
- Tetsuo Nakazawa (JMA), C.-C. Wu, M. Weissmann, S. Majumdar, C. Reynolds, J. Doyle, S. C. Jones, H.-S. Lee, D. Richardson, M. Yamaguchi, F. Harnisch, and D. Parsons: The THORPEX Pacific Asian Regional Campaign (TPARC) objective on targeted observations associated with tropical cyclones over the Western North Pacific

Patrick A. Harr (NPS), S. C. Jones, D. Anwender, M. Bell, C. Davis, R. L. Elsberry, J. Evans, C. Kiemle, N. Kitabatake, W. C. Lee, R. McTaggart-Cowan, E. R. Sanabia, C. Velden and M. Weissmann: The THORPEX Pacific Asian Regional Campaign (T-PARC) objective on the extratropical transition of tropical cyclones: structure and downstream impacts

Rolf Langland (NRL, Monterey), Chris Velden, Sharan Majumdar, H. Berger, and Carolyn Reynolds: Data impact experiments for targeted observations during T-PARC (2008-2009)

Eun-Hee Jeon (NIMR, Korea), Yeon-Hee Kim, Dong-Eon Chang and Hee Sang Lee: Observing system experiemnts using T-PARC 2008 dropsonde observations

Zhaoxia Pu and Lei Zhang (U. Utah): Mesoscale numerical simulations of T-PARC/TCS08 typhoons with assimilation of satellite and airborne observations

Alexander Kats (Central Aerological Observatory, Russian Federation): Russian upper-air network–experience of organizing additional/adaptive radiosonde ascents

Steven Businger, Antti Pessi, Nick Demetriades and Edward Treiber (U. Hawaii): Lighthing observations during T-PARC/TCS-08

Christian M. Grams and Sarah Jones (U. Karlsruhe): The interaction of Typhoon Jangmi (2008) and the midlatitude jet

Leonhard Scheck (U. Karlsruhe): Goal oriented adaptivity for Tropical Cyclones

Eric Rappin (U. Miami): A hierarchy of vortex initialization methods for tropical cyclones

Elizabeth Sanabia and Patrick Harr (NPS): The impact of Typhoon Sinlaku on the Northern Hemisphere midlatitudes during T-PARC

Yi Jin (NRL, Monterey): Comparison of COAMPS-TC simulations with and without ocean coupling of Super-Typhoon Jangmi to T-PARC/TCS08 aircraft and satellite observations

Girmaw Bogale (Ethiopia): Rainfall prediction performance of the WRF model over complex terrain of Ethiopia

Ron McTaggart-Cowan (Canada), M. Riemer, Carolyn Reynolds, and Richard Moore: The evolution of a low-latitude summer trough over the western North Pacific

Richard Moore (NPS): Potential vorticity streamers as precursors to Tropical Cyclone genesis

Byoung Joo Jung (Yonsei U., Korea), Hyun Mee Kim, Fuqing Zhang and Chun-Chieh Wu: Impacts of targeted dropsonde observations on typhoon Sinlaku using an ensemble Kalman filter

Jenni L. Evans (PSU), Francesca Chiaromonte, Prabhani Kuruppumulage Don and Sarah Jones: Partitioning ensemble forecasts of tropical cyclone evolution

Yeon-Hee Kim, Eun-Hee Jeon, Dong-Eon Chang and Hee Sang Lee: Impact on typhoon track forecasts of dropsonde observations from DOTSTAR

RCCCRT Poster Session

Andreas Doernbrack (DLR), Axel Amediek, Andreas Fix, Christoph Kiemle, Stephan Rahm, Rudolf Simmet, Andreas Schöfler, Martin Wirth and Jon-Egill Kristjansson: Simultaneous airborne wind and water vapor lidar measurements during IPY-THORPEX.

Peter Knippertz and A. H. Fink (U. Mainz): Prediction of dry-season precipitation in Tropical West Africa and its relation to forcing from the extratropics

M. Riemer (NPS) and Sarah C. Jones: Baroclinic wave amplification in idealized scenarios of Extratropical Transition of Tropical Cyclones

Rosalind Cornforth and Brian Hoskins (U. Reading): Understanding and forecasting African Easterly Waves using moist singular vectors

PDP-A Poster Session

T. Salami, O. S. Idowu (Nigerian Meteorological Agency), and E. E. Balogun: West African weather systems in the Development of Tropical Cyclones

Amare Babu (National Meteorological Agency, Ethiopia): The impact of Pacific sea surface temperature on the Ethiopian Rainfall

Girmaw Bogale (Ethiopia): Rainfall prediction performance of the WRF model over complex terrain of Ethiopia

Tuesday, 15 September 2009

Session: PDP-B Theoretical aspects of ensemble forecasting and adjoint based sensitivity analysis Chair: Craig Bishop

- 09:00-09:15 Olivier Talagrand and Guillem Candille (LMD): Important challenges for ensemble forecasting—a theoretical prospective
- 09:15-09:30 Elizabeth Satterfield and Istvan Szunyogh (Texas A&M): Local predictability of the performance of an ensemble forecast system
- 09:30-09:45 Stephane Vannitsem (Roy. Met. Int. Belgium): Dynamical properties of Model Output Statistics (MOS): The impact of initial condition and model errors
- 09:45-10:00 Joao Teixeira (JPL): Stochastic parameterization: From satellite observations to ensemble prediction
- 10:00-10:15 Brett T. Hoover and Michael C. Morgan (U. Wisconsin): Application of adjoint-derived sensitivity gradients to targeted observations for tropical cyclone steering and extra-tropical transition: an improved methodology
- 10:15-10:30 Simon Lang et al. (U. Karlsruhe): The structure of singular vectors associated with extratropical transition of tropical cyclones

Coffee

Session: DAOS—A Data Assimilation Techniques, Chair: Florence Rabier

- 11:00-11:25 Andrew Lorenc (UK Met Office): Success and challenges in 4D-Var
- 11:25-11:45 Mark Buehner et al. (Environment Canada): Comparison of the performance of different combinations of the ensemble-based and variational data assimilation approaches in the context of deterministic NWP
- 11:45-12:00 Craig Bishop and Daniel Hodyss (NRL Monterey): Data assimilation using modulated ensembles
- 12:00-12:15 Tom Hamill (NOAA, ESRL): Ensemble-based Kalman filter data assimilation
- 12:15-12:30 Jeff Whitaker (NOAA, ESRL): The main results and future challenges identified by the NOAA THORPEX ensemble-based data assimilation inter-comparison project

Lunch

Session: TIGGE–B Hydrological applications and the TIGGE archive,
Chair: Zoltan Toth

- 14:00-14:15 John Schaake (NOAA): Proposed THORPEX/HEPEX Hydrological Applications Project
- 14:15-14:30 Tian Fuyou (NMC, China): Predicted rainfall estimation in the Huaihe river basin based on TIGGE
- 14:30-15:00 Baudouin Raoult et al. (ECMWF): Joint presentation of the international TIGGE archive

Coffee & PDP-B, DAOS- A and TIGGE-A Poster Sessions

User demonstration of how to access the TIGGE archive, by representatives of the 3 TIGGE data centers

Session: RCCCRT–B IPY, HyMeX and T-NAWDEX, Chair: Gilbert Brunet

- 16:30-16:50 TBA: The WWRP-THORPEX IPY Cluster
- 16:50-17:05 Florence Rabier et al. (Meteo France): Concordiasi: satellite data assimilation at high latitudes
- 17:05-17:20 Jon Egill Kristjensson (Norwegian Meteorological Institute): Observations and modeling of polar lows and arctic fronts: early results from the Norwegian IPY-THORPEX
- 17:20-17:35 Olivier Nuissier et al. (Meteo France): HyMeX, and experimental program (2010-2020) dedicated to the hydrological cycle in the Mediterranean
- 17:35-17:55 Sarah Jones (U. Karlsruhe):T-NAWDEX–The THORPEX North Atlantic Waveguide and Downstream Impact Experiment: Outline and scientific background
- 18:00-19:30 GIFS-TIGGE Working Group meeting (Location: Driftwood I)

Tuesday, 15 September 2009 Poster Sessions

PDP-B Poster Session

Jan Keller (U. Bonn): The GME-EFS ensemble forecast system

Mozheng Wei, Zoltan Toth, Yuejian Zhu, Richard Wobus and Malaquias Pena (NCEP/NOAA): ET based initial perturbations and analysis error estimation for the NCEP global ensemble forecast system

Warren Tennant (UK Met Office): A Stochastic Kinetic Energy Backscatter (SKEB2) algorithm

Dingchen Hou (NCEP/NOAA): A stochastic perturbation scheme to represent model-related forecast uncertainty

Matthew Hoffman (U. Maryland): Bred vectors in a global ocean model

Tony Eckel (NPS): Estimating ambiguity in ensemble forecasts

Ann Shelly and Sean Milton (UK Met Office): Resolution studies in 1-15 day predictions with the Met Office Unified Model

Laurent Descamps and Carole Labadie (CNRM-GAME) PEARP, the Meteo France Ensemble Prediction System

Eric Wenke (Charlotte, USA): Weather forecasts

Ming Xue (U. Oklahoma) and Fanyou Kong: Convective resolving ensemble and deterministic forecasts: Spring forecast experiments over continental United States and initial assessment

DAOS-A Poster Session

Jian-Wen Bao, E. D. Grell, G. A. Grell, J.S. Whitaker, T. Hamill, S. A. Michelson (NOAA/ESRL): Physics-Based Ensemble Generation in the Global Forecast System (GFS)

Daniel Hodyss and Craig H. Bishop (NRL): An Adaptive Ensemble Covariance Localization Tool for the Local Ensemble Transform Kalman Filter

Loik Berre, Gerard Desroziers, L. Raynaud, R. Montroty and Florence Rabier (Meteo-France): The Ensemble variational assimilation of Meteo-France

W. Campbell (NRL, Monterey): Theoretical and practical problems of Houtekamer's localization method for ENKFs assimilating satellite radiances

Xuguang Wang (U. Oklahoma), Tom Hamill, Jeff Whitaker, and Craig Bishop: A Comparison of the Hybrid and EnSRF Analysis Schemes in the Presence of Model Errors due to Unresolved Scales

Xuguang Wang (U. Oklahoma), Jeff Whitaker, Tom Hamill: Bias correction in the ensemble-based data assimilation system for the NCEP GFS model

Hong Li (Shanghai Typhoon Inst.), Eugenia Kalnay, and Takemasa Miyoshi: Simultaneous estimation of covariance inflation and observation errors within an ensemble Kalman filter

Hong Li (Shanghai Typhoon Inst.), Eugenia Kalnay, Takemasa Miyoshi, and Christopher M. Danforth: Accounting for Model Errors in Ensemble Data Assimilation

Shu-Chih Yang (Taiwan Nat. Central U.) and Eugenia Kalnay: How can EnKF handle nonlinearity and non-gaussianity?

Altug Aksoy, Sim D. Aberson, Frank D. Marks Jr. (NOAA/AOML/HRD), and Fuqing Zhang: Development of the Ensemble Kalman Filter Data Assimilation Component for the Hurricane Research System at NOAA/AOML/HRD

A. Carrassi, S. Vannitsem, and C. Nicolis (Roy. Met. Belgique): Model error and sequential data assimilation: A deterministic formulation.

Junjie Liu (Berkeley): Online estimated inflation and observation error in realistic ensemble data assimilation system.

Malaquias Pena (NCEP/NOAA): Controlling noise in ensemble data assimilation schemes

Chun-Chieh Wu (Nat. Taiwan U.), Kuo-Yuan Lien, and Fuqing Zhang: A New Approach for Tropical Cyclone Initialization Based on EnKF

Bin Wang (Beijing, China): 4D-Var...

TIGGE-A Poster Session

Craig H. Bishop (NRL) and K.T. Shanley: Bayesian Model Averagings problematic treatment of extreme weather and a paradigm shift that fixes it

Andre Montani, C. Marsigli, T. Paccagnella (ARPA-SIM): Limited-area ensemble activities at the Hydro-Meteorological Weather Service of Emilia-Romagna, ARPASIM

Mio Matsueda (Met. Res. Inst., Japan): Can MCGE outperform the ECMWF ensemble?

Yong Wang (ZAMG, Austria): Dealing with the uncertainties related with LAMEPS

Ma Xulin (NUIST), Xue Jishan, Chen Dehui, Chen Jing, Zhang Lihong, and Chen Chaoping: An Experiment to Identify Sensitive Areas of a Heavy Rainfall Event Based on TIGGE Data

Jingwen Xu (China): GRAPES

J. Flowerdew, N.E. Bowler, R. Swinbank and K.R. Mylne (UK. Met office): Recent developments to MOGREPS: improving the calibration of ensemble spread

Hua Tian (NMC, Beijing): Upgrading of Global Medium Range Forecast System

Susanna Corti (ISAC-CNR): Weather regime dependent calibration of TIGGE ensemble forecasts

B. Cui, Z. Toth, D. Hou, Y. Zhu (NCEP/NOAA), and A. Methot: A study of the effect of bias correction and downscaling on the performance of ensemble forecast systems

Normand Gagnon (CMC/MSC), Guillem Candille, and Stephane Bearegard: Bias removal of multi-model ensemble forecast: NAEFS experience

Yuejian Zhu (NCEP): Upgrade of the North American Ensemble Forecast System (NAEFS)

Glenn Rutledge (NOAA): The NOAA Operational Model Archive and Distribution System (NOMADS)

Wednesday, 16 September, 2009

Observation Impact Studies

Chair: Carla Cardinali

- 9:00-09:15 Florence Rabier et al. (Meteo France): Data assimilation experiments for AMMA, using radiosonde observations and satellite observations over land
- 09:15-09:30 Takeshi Enomoto et al. (JAMSTEC): Observing system experiments using the AFES–LETKF data assimilation system
- 09:30-09:45 Emma Irvine and Suzanne Gray (U. Reading): Impact of targeted dropsondes on European forecasts
- 09:45-10:00 Ron Gelaro (NASA GSFC) and Rolf Langland (NRL Monterey): Results from the THORPEX observation-impact inter-comparison project
- 10:00-10:15 Qoosaku Moteki (JAMSTEC): Propagation of the impact signal of the additionally-assimilated observations over the Indian Ocean through tropical waves
- 10:15-10:30 Doris Anwender et al. (U. Karlsruhe): Data denial experiments for extratropical transition

Coffee

Session: PDP–C PDP in the Extratropics,

Chair: Greg Hakim

- 11:00-11:15 Edmund K. M. Chang (SUNY Stony Brook): Predictability issues associated with explosive cyclogenesis in the North-West Pacific
- 11:15-11:30 Maxi Boettcher and Heini Wernli (U. Mainz): A case study of an explosively deepening, diabatic Rossby-wave induced cyclone: the influence of environmental conditions
- 11:30-11:45 Gwendal Riviere (Meteo France): A kinetic energy budget of the winter storm “Klaus”
- 11:45-12:00 Gwendal Riviere and Jean-Baptiste Gilet (CNRMGAME): Nonlinear baroclinic dynamics of surface cyclones crossing a zonal jet
- 12:00-12:15 Mio Matsueda (MRI, Japan), Masayuki Kyouda, Zoltan Toth, Takemasa Miyoshu, Hiroshi L. Tanaka and Tadashi Tsuyuki : On the predictability of a blocking occurred on 15th December 2005
- 12:15-12:30 Sarah Jones et al. (U. Karlsruhe): The PANDOWAE Research Group

Lunch

14:00-14:15	Istvan Szunyogh (Texas A&M): Introduction
14:15-14:35	Rolf Langland (NRL Monterey): The Assessment of the DAOS WG on observation targeting
14:35-14:55	Zoltan Toth (NCEP/NOAA): Experience accumulated in the Winter Storm Reconnaissance Program of NOAA
14:55-15:15	Chun-Chieh Wu et al. (NTU, Taiwan): Targeted observations and its impact in DOTSTAR under T-PARC 2008
15:15-16:30	Panel Discussion

Coffee & PDP-C and DAOS-B Poster Sessions.

User demonstration of how to access the TIGGE archive, by representatives of the 3 TIGGE data centers

18:30-20:30 DAOS Working Group meeting (Location: Driftwood I)

Wednesday, 16 September 2009 Poster Sessions

PDP-C Poster Session

S. Argence, D. Lambert, E. Richard, J. P. Charboureau (U. Toulouse), P. Arbogast, and K. Maynard: Improving the numerical prediction of a cyclone in the Mediterranean by local potential vorticity modifications

Giacomo Masato, Brian J. Hoskins and T. J. Woollings: Atmospheric blocking: development and predictability for the Northern Winter Hemisphere

Andreas Schefler (DLR), Heini Wernli, Andreas Doernbrack, Christoph Kiemle, Stephan Rahm and Martin Wirth: Evaluation of warm conveyor belt forecasts using airborne lidar observations

Michael Ziemianski (IMWM, Poland): TBD

Yafei Wang (China): An extratropical air-sea interaction over the North Pacific in association with a preceding El Nino episode in early summer

Ilona Tuerschmann (U. Mainz): The role of a long-lived Rossby wave train in the Elbe flooding on 10-12th of August 2002.

Arwen Twitchett (U. Leeds) and Cornelia Schwier: The role of dynamical precursor features in UK heavy precipitation events

Thomas Spengler (ETH Zurich): The modulation of mid-latitude flow and wave breaking by the Madden Julian Oscillation

Olivier Nuissier (Meteo-France): An ensemble forecast approach for evaluating the convective-scale predictability of Mediterranean heavy precipitation

Heini Wernli and Jana Campa: A climatological analysis of diabatic processes associated with extratropical cyclones

Lars Wiegand and Peter Knippertz (U. Mainz): Upper-level disturbances over the low-latitude North-Atlantic: Forecast quality, predictability and dynamics

Manoel Alsonso Gan, Everson Dal Piva and Dirceu Luis Herdies (CPTEC, Brazil): Energetics of a cutoff-low over the South Pacific Ocean

Lynn McMurdie, Joe Casola and Garrett Wedam (U. Washington): Predictability in the Pacific Northwest: The effects of weather regimes and ensemble Kalman filter initial condition sensitivity

DAOS-B Poster Session

Mu Mu (CAS, Beijing): Conditional nonlinear optimal perturbation (CNOP)

Yucheng Song and Zoltan Toth (NCEP/NOAA): The Winter Storm Reconnaissance (WSR) Program

Yungi Ni (CAS, Beijing): SChEREX-2008 and its preliminary results

Oleg Pokrovsky (Main Geophysical Observatory, Russian Federation): Optimal location of new radiosonde and adaptive observations in SubArctic area of East Siberia

Chunguang Cui, Wan Rong and Wang Bin: An introduction of observing system of mesoscale heavy rainfall and the preliminary application of observations

A. Doerenbecher, O. Pannekoucke (Meteo-France), N. Verdier, C. Basdevant, and C. Fesquet: BAMED and HyMeX: Adaptive observation with balloons

Sharan Majumdar (U. Miami), Kathryn Sellwood, Daniel Hodyss, Yucheng Song and Zoltan Toth: Properties of ETKF targets for medium-range forecasts of winter weather

Ji-Sun Kang, Eugenia Kalnay (U. Maryland), Hong Li and Kayo Ide: Adaptive estimation of inflation and observation errors in a simulated carbon cycle data assimilation

Ji-Sun Kang, Eugenia Kalnay (U. Maryland), Junjie Liu, Inez Fung and Ning Zeng: Comparison of multivariate and univariate data assimilation for carbon cycle using Local Ensemble Transform Kalman Filter

Simon Pellerin (Environment Canada): Observation impact of the new Canadian mesostrato global forecast system

Xiaowei Tan (Beijing, China): Methodology of identifying sensitive areas with conditional nonlinear optimal perturbation

Junjie Liu (UC Berkeley): TBD

Thursday, 17 September, 2009

- 09:00-09:15 Mathias Rotach et al. (MeteoSwiss), M. Arpagaus, M. Dominger, C. Hegg, A. Montani and R. Ranzi: On the way to ensemble hydrological forecasts: lessons learned from MAP D-PHASE
- 09:15-09:30 Duan Yuxiao (Beijing Meteorological Bureau): Assessment of the impact of an improved forecast system during the Beijing 2008 Olympic Games
- 09:30-09:45 Peter Chen (WMO Secretariat) and Eugene Poolman (South African Weather Service): Lessons from the Southern African Severe Weather Forecast Demonstration Project
- 09:45-10:00 Jacques Andre Nidon (Centre du Suivi Ecologique, Senegal): Improved understanding of Rift Valley Fever etiology and outbreaks in relation to intra-seasonal rainfall variability
- 10:00-10:15 Eric Gruit (3TIER Inc.): Barriers to the use of uncertainty information in weather-driven renewable energy forecasting applications
- 10:15-10:30 TBA

Coffee

Session: RCCCRT–C Weather, climate and Earth-system, Chair: Tetsuo Nakazawa

- 11:00-11:15 Mel Shapiro (U. Colorado, U. Bergen, Norway and NCAR): A weather, climate and Earth-system initiative for the 21st century
- 11:15-11:30 Gilbert Brunet (Environment Canada): Toward a seamless process for the prediction of weather and climate: the advancement of sub-seasonal to seasonal prediction
- 11:30-11:45 Mitchell Moncieff (NCAR): Year of Tropical Convection (YOTC)
- 11:45-12:00 Phil Arkin and John Janowiak et al. (U. Maryland) An evaluation of tropical precipitation forecasts from the NCEP global model (GFS)
- 12:00-12:15 Hiroyuki Yamada (Jap. Agency Marine-Earth Sci.Tech.): Observation and simulation of the genesis of Typhoon Fengshen (2008) in the Tropical Western Pacific
- 12:15-12:30 Chris Thorncroft (SUNY, Albany) and Jean-Luc Redelsperger: An overview of AMMA

Lunch

Session: TIGGE{C Plans for the Global Interactive Forecast System,
Chair: Richard Swinbank

- 14:00-14:30 Zoltan Toth (NCEP/NOAA) An outline for the Global Interactive Forecast System
- 14:30-14:45 Jennifer Adams and Brian Doty (IGES/COLA) Distribution and access of TIGGE data via OpenDAP using the GrADS data server
- 14:45-15:00 Ken Mylne (UK Met Office) Operational considerations for TIGGE research and developments of GIFS

Coffee & DAOS-C, TIGGE-B, and SERA Poster Sessions.

Discussion of plans for GIFS Focus Groups from 15:30 to 16:30 in Driftwood I

Session: DAOS–C Satellite Observations/ OSSEs/, Chair: Rolf Langland

- 16:30-16:45 Roger Saunders (UK Met Office) Current and future challenges in the use of satellite observations to improve NWP forecasts
- 16:45-17:00 Carla Cardinali (ECMWF) Impact of extra-assimilated radiances in sensitive areas
- 17:00-17:15 Howard Berger and Chris Velden (U. Wisc.-CIMSS) Recent advances in the processing, targeting and data assimilation of satellite-derived atmospheric motion vectors (AMVs)
- 17:15-17:30 Lars Peter Riishojgard (JCSDA) The Joint OSSE project
- 17:30-17:45 Pierre Gauthier (U. Quebec) Summary of DAOS Working Group activities
- 18:45 Buses leave the hotel for the dinner location
- 19:00-22:00 [Dinner at the Monterey Bay Aquarium](#)

Thursday, 17 September 2009 Poster Sessions

DAOS-C Poster Session

Young-Joon Kim, William Campbell, and Steven Swadley (NRL): Improved Use of Satellite Radiance Data for Global Atmospheric Prediction Systems

Brian Kahn (JPL/NASA): Observations and simulations of small-scale variability of temperature, water vapor, and cloud liquid and ice water content

Michiko Masutani (NCEP/NOAA): Observing system impact assessments using OSSEs

Kaustubha Bhattacharya (NCMRWF): Role of scatterometer in tropical cyclone analysis and prediction

Roger Saunders and Adrian Semple (UK Met Office): What can we learn comparing Met Office and ECMWF analyses and forecasts?

Gang Ma (CMA, China): Assimilation of FY3A VASS radiance in CMA NWP models

TIGGE-B Poster Session

Chen Yun (NMC, Beijing), Shu Ying, He Lifu, and Li Qiang: Applied Research on Potential Forecast of Severe Convective Weather in China Using Regional Ensemble Forecasting Products

Martin Sharpe (UK. Met Office): A Bayesian method for updating event probabilities, given a series of forecasts

Wanchang Zhang, Jingwen Xu, Yonghe Liu, Jiongfeng Chen, Yuehong Shao, and Zhongwei Yan (CAS, Beijing): A Watershed Level Early Flood Warning Approach by Using Grand-ensemble Weather Predictions: Verification and Application for a Case Study in the Linyi Watershed, Shangdong, China

Jingwen Xu (CAS, Beijing): Coupling XXT Hydrological Model with GRAPES for Flood Prediction Based on TIGGE Data

Munehiko Yamaguchi, Sharan Majumdar (U. Miami), Melinda Peng and Carolyn Reynolds: Intercomparison of ensemble predictions of typhoons using TIGGE data

Peter Finocchio and Sharan Majumdar (U. Miami): Evaluating ensemble track forecasts of tropical cyclones

Jana Campa and Heini Wernli (U. Mainz): Extratropical cyclone tracks in the TIGGE data set

M. Fuentes (ECMWF): ECMWF technical developments in support of THORPEX activities

Piers Buchanan, Christine Johnson, Ken Mylne, Robert Neal, Richard Swinbank, Helen Titley and Caroline Woolcock (UK. Met Office): Ensemble forecast applications for forecasters and external customers at the UK Met Office

Xia Jiangjiang (Inst. Atm. Phys. , Beijing), Han Jiarui, Yan Zhongwei, and Zhao Linna: User-oriented evaluation of summer rainfall forecast in the Huaihe basin, eastern China, based on TIGGE products

Pedro L. Silva Dias (NLSC, Brazil), Demerval S. Moreira, and America M. Espinoza: The MASTER Super Model Ensemble System (MSMES):4 years of experience

John A. Knaff (NESDIS), Mark DeMaria and Charles R. Sampson: Strategies for providing tropical cyclone wind probability products from ensemble forecast systems

SERA Poster Session

Jim Hansen (NRL, Monterey): Confidence guidance: streamlining the forecast process through the use of ensemble-based uncertainty and sensitivity information

Xun Li (BWIS, Beijing), Xun Li Deping and Ding Qian Ye: The analysis of end user need and benefits evaluation for FDP application

Sadibou Ba (ANAMS, Senegal), Abdou Aziz Diop and Mamina Kamara: Case study: weather-media, a tool more requested in Senegal

Oleg Pokrovsky (MGO, Russian Federation): Decision making for NWP forecast economical efficiencies based on operational research approach

Djibrilla Ariaboncana Maiga (DNM, Mali): Meteorological services: A tool for sustainable development: The case of Mali

Brian Mills (Environment Canada): Weather information and surface transportation in Canada: the long and winding road

Duan Yuxiao (BMB, Beijing), Wang Yingchun and Ye Qian: Assess the impact of improved forecast system in Beijing 2008 Olympic Games weather service

Aminata Ndiaye (FLSG-Ucad, Senegal) Policies and strategies of adaptation to the climatic vulnerability in Senegal

Jorge-Luis Vazquez Aguirre (U. East Anglia) and Juan Cervantez-Perez: Status of SERA for weather and climate information in Mexico

Yan Zhongwei (Inst. Atm. Phys., Beijing), Han Jiarui, Xia Jiangjiang, Tu Kai and Zhao Linna: Formation of an interactive user-oriented forecast system experience from application of TIGGE rainfall data in Linyi, eastern China

Om Prakash Singh (New Delhi, India): Indian THORPEX Programme

Martina Suaya (Buenos Aires, Argentina): Southern Hemisphere THORPEX Programme

