

SIXTH WMO WORKSHOP ON THE IMPACT OF VARIOUS OBSERVING SYSTEMS ON NWP

**Shanghai, China
10-13 May 2016**



Programme
(Updated 12 May 2016)

Tuesday 10 May 2016

08:00	Continental breakfast and registration	
09:00	Welcome and opening remarks (<i>Moderator: Lars Peter Riishojgaard, WMO</i>) Mr. Heng ZHOU, Director-General, Dept. of International Cooperation, CMA Mr. Yinmin YANG, Deputy Director-General, Shanghai Meteorological Service Dr. Yoshiaki Sato, Science Organizing Committee, JMA Dr. Wenjian ZHANG, Director, WMO Observing and Information Systems Department	
10:00	Break	

Session 1: Global forecast impact studies

Co-chairs: Carla Cardinali and John Eyre

10:15	John Eyre, Met Office, UK	WS6-2016-022 Impact studies with satellite observations at the Met Office
10:40	Simon Pellerin, Meteorological Service of Canada	Global data impact studies using Canadian 4DEnVar system
11:05	David Groff, NCEP/EMC, USA	WS6-2016-021 Infrared and Microwave Data Addition Observing System Experiment Impacts Using the NCEP Global Forecast System
11:30	Sid Boukabara, NOAA/NESDIS, USA	WS6-2016-034 Impact Assessment of Potential Gaps in the Satellite Constellation on NOAA's Global NWP
11:55	Lunch	
13:00	Niels Bormann, ECMWF, UK	WS6-2016-030 All-sky assimilation of microwave sounder radiances (v2)
13:25	Keyi Chen, Department of Atmospheric Sciences, Chengdu University of Information and Technology, China	WS6-2016-010 Assimilating MWHS-FY-3B data over land
13:50	Cristina Lupu, ECMWF, UK	WS6-2016-012 The impact of satellite observations over land and sea-ice surfaces within the ECMWF system
14:15	Chris Burrows, Met Office, UK	WS6-2016-008 Radio occultation and its use in NWP
14:40	Break	
15:10	Lidia Cucurull, NOAA	WS6-2016-025 Global OSSEs to Assess New Sensors Potential Impacts on NOAA Systems

15:35	Jun LI, University of Wisconsin, Madison	WS6-2016-060 Value-added Impact from FengYun-4 hyperspectral IR sounder observations on regional NWP
16:00	Philippe Chambon, Météo-France/ CNRS, CNRM/GAME, France	WS6-2016-087 Data impact of a microwave sounder onboard a geostationary satellite through Observing System Simulation Experiments
16:25	Jae-gwan Kim, KMA/NMSC, Republic of Korea	Current Maximization Impact of the COMS Data Assimilation on the KMA NWP System
16:50	Georg Grell, NOAA	The impact of aerosols on numerical weather prediction and the importance of assimilating atmospheric composition data to get it right
17:15	John Eyre, Met Office, UK and Lars Peter Riishojgaard, WMO	Potential impact of changes to WMO radiosonde launch schedules
17:40	Visit SMS	
19:00	Welcome dinner hosted by Ms. JIAO Meiyun, Deputy Administrator of CMA (Jianguo Hotel)	

Wednesday 11 May 2016

Continuation of Session 1

09:00	Ralph Petersen, University of Wisconsin-Madison, Cooperative Institute for Meteorological Satellite Studies, USA	WS6-2016-032 Impact Tests of Aircraft Moisture Observations in several Global-Scale NWP systems
09:25	Discussion session 1	
10:50	Break	

Session 2: Regional forecast impact studies

Co-chairs: Ron Gelaro and Jiandong Gong

11:20	Alexander Cress, Deutscher Wetterdienst, Germany	WS6-2016-011 Global and Regional Impact Studies at the German Weather Service (DWD)
11:45	Olivier Caumont, CNRM/GMME/MICADO, Meteo France	WS6-2016-057 Assimilation of humidity and temperature observations retrieved from ground-based microwave radiometers into a convective-scale NWP model
12:10	Lunch	
13:10	Poster Session (poster area outside the conference room)	<i>The poster viewing time is joint for all three sessions; poster contributions are listed at the end of the program</i>
14:45	Break	
15:05	Jean-Francois Mahfouf, CNRM/GMAP/OBS, Meteo France	WS6-2016-085 Recent experience at Météo-France on the assimilation of observations at higher temporal frequency
15:30	David Simonin, Met Office, UK	WS6-2016-014 Assimilation of weather radar observations at the UK Met Office
15:55	Hong LIANG, CMA, China	WS6-2016-020 Meteorological applications of precipitable water vapour measurements retrieved by the national GNSS network of China
16:20	Volker Wulfmeyer, University of Hohenheim, Germany	New Observations of Lower Tropospheric Water-Vapor and Temperature Fields and Their Impact of Short-Range Weather Forecasting
16:45	Wenjian Zhang, WMO	Vision for the space-based component of WIGOS in 2040

17:45 Adjourn

Thursday 12 May 2016

Continuation of Session 2

09:00	Yoshiaki Sato, JMA/NPD, Japan	WS6-2016-041 Global and regional impact studies at JMA
09:25	Eric Wattrelot, CNRM/GMAP/OBS, Meteo France	WS6-2016-086 Higher density radar assimilation in the operational AROME model at 1.3 km of horizontal resolution
09:50	Zhifang XU, National Meteorological Centre, China (presented by Dr. Jiandong GONG)	WS6-2016-076 Extra Radiosonde Observations at 06UTC in China Mainland and Their Impact Study on Mesoscale Numerical Weather Prediction
10:15	Jianxia GUO, CMA, China	WS6-2016-018 Implementation of RRR in China
10:40	Break	
11:10	Kefeng Zhu, Nanjing University, China	WS6-2016-023 Initial Assessment of Traditional and Meso-scale Network Datasets Impact on the NJU Real-time Forecasts During May - August 2015 Warm Season over China
11:35	Min SUN, Shanghai Central Meteorological Observatory, Shanghai Meteorological Service, China	WS6-2016-047 Observation Strategy on Yangtze River Delta Region and Its Impact Study
12:00	Lunch	
13:00	Luiz Fernando Sapucci, INPE/CPTEC, Brazil	Assessing observation impacts on the INPE/CPTEC global data assimilation system
13:25	Discussion session 2	
14:50	Break	

Session 3: Sensitivity forecast impact studies

Co-chairs: Jochen Dibbern and Thibaut Montmerle

15:20	Carla Cardinali, ECMWF, UK	WS6-2016-005 FSOI diagnostic tool with an observation-based objective function
15:45	James Cotton, Met Office, UK	WS6-2016-024 "Comparing Data Denial Trials to FSOI Results: Reduced Russian Radiosonde Reports"
16:10	Chris Tingwell, Bureau of Meteorology Research & Development Branch	WS6-2016-009 Forecast Sensitivity to Observations in ACCESS
16:35	Thomas Auligne, USA	WS6-2016-081 Forecast Sensitivity and Observation Impact (FSOI) Inter-comparison Experiment
17:00	Stan Benjamin, Earth Modeling Branch, NOAA, USA	Observation sensitivity experiments with the hourly rapid refresh (RAP) using hybrid-ensemble/variational data assimilation

17:25	Simon Pellerin, Environment Canada, Canada	WS6-2016-028 Forecast sensitivity to observations in the Canadian global EnVar as computed with an ensemble-variational approach to FSOI
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17:50 Adjourn

Friday 13 May 2016

Continuation of Session 3

08:45	Elizabeth Weatherhead, University of Colorado, USA	Designing the Climate Observing Systems of the Future
09:10	David Groff, NCEP/EMC, USA	Observing System Forecast Impact for the FY16 GFS Based on Ensemble Forecast Sensitivity to Observation (EFSO) Calculations
09:35	John Eyre, Met Office, UK	WS6-2016-033 Steps towards evaluating the cost-benefit of observing systems
10:00	Roger Randriamampianina, MET Norway	Observing system experiments and observing system simulation experiments using mesoscale model in Arctic
10:25	Yuhei Takaya, Climate Prediction Division, JMA, Japan	Observation requirements for sub-seasonal to decadal predictions
10:50	Break	
11:10	Andras Horanyi, ECMWF, UK	WS6-2016-003 The impact of observations in the ECMWF latest reanalysis system
11:35	Peng ZHANG, National Satellite Meteorological Centre/CMA (presented by Dr. Lei YANG)	WS6-2016-058 Fengyun-3E: An early morning orbit mission and its impacts on NWP
12:00	Lunch	
13:00	Volker Lehmann, Germany	Overview on wind profiler networks worldwide and review of impact results
13:25	Discussion session 3	
14:50	Break	
15:20	Discussion, overall Workshop conclusion and recommendations	
16:20	Closure	

16:30 Adjourn

POSTER PRESENTATIONS

1	Agnes Lim, Cooperative Institute for Meteorological Satellite Studies, USA	WS6-2016-001 Development of An OSSE Framework in Support of Impact Analysis of LEO Hyperspectral Sounder Field of View Size on Forecast Performance
2	Byung-Ju Sohn, Seoul National University, Republic of Korea	WS6-2016-004 New IASI channel selection for Unified Model data assimilation system
3	Baode CHEN, Shanghai Typhoon Institute of CMA, China	WS6-2016-015 Applying radar and satellite observations in the physical (cloud) initialization for convection permitting NWP models
4	Yunchang CAO, CMA, China	WS6-2016-019 Quality control and quality assessment of the surface observations from China Automatic Surface Observation Network
5	Ruixia LIU, National Satellite Meteorological Center, CMA, China	WS6-2016-026 The Influence of Initial cloud Condition Adjustment using FY-2 Satellite Data on Precipitation Forecasting
6	Maria Eugenia Dillon, University of Buenos Aires, Argentina	WS6-2016-027 Toward the implementation of an Ensemble based Data Assimilation System including satellite retrievals over Southern South America
7	Novvria Sagita, Indonesian Agency for Meteorology, Climatology and Geophysics (BMKG)	WS6-2016-031 Using The Atmospheric Boundary Layer Height As The Peak Height Of Weather Research And Forecasting (WRF) Model For The Analysis Of Tornado Events In Bogor
8	Sue Grimmond, University of Reading, UK	WS6-2016-035 Boundary Layer Observations in the Shanghai area to inform high resolution NWP
9	Jie TANG, Shanghai Typhoon Institute, CMA, China	WS6-2016-036 Preliminary Evaluation of the First Rocket-Deployed Dropsonde Observations in an Offshore Typhoon: A Project EXOTICA Case Study in STY Mujigae (1522)
11	Hong WANG, Guangzhou Institute of Tropical and Marine Meteorology, China	WS6-2016-038 Application of the dual-polarization radar data in numerical model: Construction of simulator (NB same as 066)
12	Juxiang PENG, Institute of Heavy Rain, CMA, China	WS6-2016-039 Variational Assimilation of Cloud Optical Depth and Its Impact on NWP

13	Yali WU, Guangzhou Institute of Tropical and Marine Meteorology, CMA, China	WS6-2016-040 On use of LHN method to assimilate the intensified surface precipitations for GRAPES Meso model initialization (NB same as 069)
14	Yasutaka Ikuta, JMA, Japan	WS6-2016-042 Impact of appropriate consideration of observation time in the meso-scale hybrid 4D-Var system
15	Yuefei ZENG, Meteorological Institute of Ludwig Maximilian University of Munich, Germany	WS6-2016-043 Assimilating radar volume data into the COSMO model using an LETKF approach
16	Min SUN, Shanghai Central Meteorological Observatory, Shanghai Meteorological Service, China	WS6-2016-048 Nowcasting and Short-term Heavy Rain Forecast of Typhoon Fitow (2013) using GSI with Radar Radial Wind Assimilation
17	Hongli LI, Institute of Heavy Rain, Wuhan, CMA, China	WS6-2016-049 Application of FY stationary satellite data in the cloud analysis of a heavy rainfall
18	Jihang LI, Key Laboratory of Regional Numerical Weather Prediction, Guangzhou Institute of Tropical and Marine Meteorology, China	WS6-2016-050 Utilizing Doppler Radar Observations with the Preferred-Multi-Scale/Block Batch-wise Variational Data Assimilation for Super Typhoon Rammasun Initialization and Prediction
19	Nan SAN, Meteorological Observation Center, CMA, China	WS6-2016-054 Comparative Analysis on Errors of Temperature Advection Between T639 Model and Wind Profile Radar
20	Qiyun GUO, Meteorological Observation Center, MA, China	WS6-2016-055 The development and test of sounding system of the stratosphere
21	Yang LI, Meteorological Observation Center, CMA, China	WS6-2016-056 Comparative analysis of air sampling equipment of unmanned helicopter with ground sampling
22	Jianmin XU, National Satellite Meteorology Centre, CMA, China(Introduced by Dr. Xiaohu ZHANG)	WS6-2016-059 FengYun-2 Atmospheric Motion Vectors Data Quality Improvement and their Impact Study
23	Qifeng LU, China	WS6-2016-061 FY-3 evaluation in NWP: overview from CMA, ECMWF and UKMO

24	Heng HU, China	WS6-2016-064 Analysis on the effect of precipitation from ground-based GPS for the numerical forecast
25	Jiqin ZHONG, Institute of Urban Meteorology, CMA, China	WS6-2016-067 Research on quality control and assimilation of ground-based GPS ZTD in North China
26	Xubin ZHANG, Key Laboratory of Regional Numerical Weather Prediction, Institute of Tropical and Marine Meteorology, CMA, China	WS6-2016-068 Impacts of assimilating wind-profiling-radar data on QPF during SCMREX-2013
27	Xiaolong CHENG, Institute of Plateau Meteorology, CMA, China	WS6-2016-071 A comparative experimental study of an extreme rainstorm caused by the Southwest China vortex during the intensive observation period
28	Duming GAO, Institute of Plateau Meteorology, China Meteorological Administration, China	WS6-2016-072 Influence of southwest radiosonde data assimilation on the prediction of a vortex precipitation in Sichuan Basin
29	Xiumei MA, Institute of Desert Meteorology, CMA, China	WS6-2016-073 A Study of the Application of C-band Radar Observation in Numerical Forecasting System in Xinjiang Region
30	Xinghua BAO, State Key Laboratory of Severe Weather, Chinese Academy of Meteorological Sciences, China	WS6-2016-074 Assimilation of Doppler Radar Observations with an Ensemble Kalman Filter for Convection-permitting Prediction of the Mesoscale Convective System over South China on 8 May 2013
31	Xiangde XU, State Key Laboratory of Severe Weather, Chinese Academy of Meteorological Sciences, China	WS6-2016-075 The Warning and Prediction of downstream weather by Assimilating Plateau Observational Data
32	Xingying ZHANG, National Satellite Meteorological Centre, CMA, China	WS6-2016-077 Study on satellite aerosol observation and assimilation to improve air quality forecast in CMA
33	Lily LIU, Tianjin Meteorological Service, China	WS6-2016-080 The Research of the Distribution of the Ocean Meteorological Observation Stations Over the Bohai Sea and Yellow Sea
34	Bin WANG, Institute of Heavy Rain, CMA, Whuan, China, HE Wenhuan, Xianning Meteorological Bureau, CMA, China	WS6-2016-082 Analysis of characteristics of precipitation vertical structure detected by a C-POL radar in a Mei-yu frontal heavy rainfall case

35	Muyun DU, Hubei Key Laboratory for Heavy Rain Monitoring and Warning Research, Institute of Heavy Rain, CMA, China	WS6-2016-083 Image Identification of Downbursts with WSR-88D Doppler Weather Radar
36	Chunguang CUI and Rong WAN, Institute of Heavy Rain, CMA, Hubei Key Laboratory for Heavy Rain Monitoring and Warning Research, China	WS6-2016-084 The Mesoscale Heavy Rainfall Observing System (MHROS) over the Middle Region of the Yangtze River in China
37	David Crisp, JPL, USA	Space Based Surface Pressure Estimates from the Orbiting Carbon Observatory-2
38	Xy ZHANG, Chinese Academy of Meteorological Sciences, China	WS6-2016-078 Observational data application in Haze-fog and SDS forecasts in CMA
39	Xudong LIANG, China	WS6-2016-063 Wind profiler network and data assimilation in China
40	Neville Smith, Co-Chair TPOS 2020 SC, Australia	The Tropical Pacific Observing System and NWP
41	Andras Horanyi, ECMWF, UK	WS6-2016-002 The global numerical weather prediction impact of mean sea level pressure observations from drifting buoys
42	Anne-Lise Doerenbecher, Meteo-France	WS6-2016-097 Impact on weather prediction of in-situ atmospheric observations at the surface of Northern Atlantic Ocean