

EIGHTH INTERNATIONAL WINDS WORKSHOP

**BEIJING, CHINA
24 - 26 APRIL 2006**



WORKSHOP PROGRAMME



Eighth International Winds Workshop

24-28 April 2006

Beijing, China

Host: National Satellite Meteorological Center

Location: Science and Technology Building, 1st floor

Workshop Co-Chairs: Kenneth Holmlund and Christopher Velden

Sunday, 23 April 2006

14h00 - 17h00 **Registration, in the lobby of the Xiyuan hotel**

Monday, 24 April 2006

08h00 - 08h45 **Registration**

SESSION I

Operational Data Producer Status Reports

Chair: Xu Jianmin

08h45 - 09h00 **Welcome and Workshop Opening**

09h00 - 09h20 **Xu Jianmin, Zhang Qisong, Zhang Xiaohu, Wang Sujuan, Lu Feng**
Status of operational AMVs from FY2C

09h20 - 09h40 **Takahito Imai**
Status of Atmospheric Motion Vectors in JMA

09h40 - 10h00 **Eun Ha Sohn, Mi Jin Jang, Myoung Hwan Ahn**
Current status of AMV system at KMA

10h00 - 10h20 **Ken Holmlund, A. de Smet, J. Gustafsson, G. Dew**
Status report on the operational derivation of Atmospheric Motion Vectors at EUMETSAT

10h20 - 10h40 **Break**

10h40 - 11h00 **Jaime Daniels, C. Velden, W. Bresky, K. Turner, Yi Song**
Operational satellite wind product processing at NOAA/NESDIS. A status report

11h00 - 11h20 **Ramesh Bhatia, Devendra Singh**
Use of Meteosat-5 derived winds for operational weather forecasting

SESSION II

Global NWP and Data Assimilation

Chair: Lars Peter Riishojgaard

- 11h20 - 11h50** **Jean-Noël Thépaut, N. Bormann, C. Delsol**
Impact of Atmospheric Motion Vectors on global numerical weather prediction
- 11h50 - 12h10** **Claire Delsol, N. Bormann, J-N. Thépaut**
Status of Atmospheric Motion vectors at ECMWF
- 12h10 - 12h30** **Niels Bormann, C. Delsol, J-N. Thépaut**
Challenges and plans for the assimilation of Atmospheric Motion Vectors at ECMWF
- 12h30 - 14h00** **Lunch**
- 14h00 - 14h20** **Wei Han, Jishan Xue, Jianmin Xu, Qisong Zhang**
Assimilation of FY2C AMVS in grapes
- 14h20 - 14h40** **Alexander Cress, C. Köpken, H.W. Bitzer**
Impact of Atmospheric Motion Vectors from Meteosat 8 on the analyses and forecasting system of DWD
- 14h40 - 15h00** **Roger Randriamampianina**
Investigation of the AMV data derived from Meteosat-8 in the ALADIN/HU data assimilation system
- 15h00 - 15h20** **Koji Yamashita**
Assimilation of Hourly MTSAT-1R AMV into JMA-MSM
- 15h20 - 15h40** **Mary Forsythe, R. Saunders**
AMVs at the MetOffice: Status, results and future plans
- 15h40 - 16h00** **Break**

SESSION III

AMV Characteristics (Quality Control, Height Assignment) and Validation

Chairs: Régis Borde and Chris Velden

- 16h00 - 16h20** **Christophe Payan**
Quality control of winds from Meteosat 8 at Meteo France: Some results
- 16h20 - 16h40** **J. LeMarshall, T. Zapotocny, C. Redder, J. Jung, M. Dunn, R. Seecamp, L.P. Riishojgaard, A. Rea, Jaime Daniels, D. Santek, C. Velden, W. Bresky**
Error characterization and use of Atmospheric Motion Vectors at the JCSDA
- 16h40 - 17h00** **Howard Berger, C. Velden, J. LeMarshall**
New quality indicators for GOES derived winds and their potential effect on NWP data impact experiments
- 19h00 - 21h00** **Icebreaker (Xiyuan Hotel, Banquet Hall, 1st floor)**

Tuesday, 25 April 2006

09h00 - 09h20 **Jörgen Gustafsson**

The use of statistics to analyze AMV performance. Representativity in space and time for MSG AMVs. Some early results from MSG-2

09h20 - 09h40 **Luiz Machado, R. Galante, W.F.A. Lima, S.R. Macedo, S.H.S. Ferreira**

CPTEC Atmospheric Motion Vectors: Validation, assimilation and characteristics

09h40 - 10h00 **Greg Dew**

Introduction of the recursive filter function in MSG MPEF environment

10h00 - 10h20 **Jaime Daniels, W. Bresky, C. Velden,**

Characterization of tracer height assignment errors: A recurring theme for satellite-derived Atmospheric Motion Vectors

10h20 - 10h40 **Break**

10h40 - 11h00 **Arthur de Smet**

AMV Height assignment with Meteosat-8: current status and future developments

11h00 - 11h20 **Régis Borde**

AMV height assignment methods with Meteosat-8

11h20 - 11h40 **Mary Forsythe, M. Doutriaux-Boucher, A. García-Mendez**

What can we learn from the NWP SAF AMV monitoring?

11h40 - 12h30 **Plenary discussion on AMV characteristics. Is height assignment still the primary error source?**

(Leads: Mary Forsythe and Chris Velden)

12h30 - 14h00 **Lunch**

14h00 - 14h40 **Visit to FY-2 SOCC to follow live reception of full resolution global image**

SESSION IV

Research Methods and Applications

Chairs: Ken Holmlund and Jaime Daniels

14h40 - 15h00 **Lu Feng, W.P. Menzel, C. Velden, Xu Jianmin, S. Wanzong, Li Jun**

Attempts to improve GOES image navigation

15h00 - 15h20 **Liu Jian, Xu Jianmin**

An automated, dynamic threshold cloud detection algorithm for FY-2C images

15h20 - 15h40 **Wang Zhenhui, Xu Jianmin, He Huiqing, Zhang Hong, Zhang Lejian**

An experiment to derive cloud motion vectors from satellite images with 2-D Fourier phase analysis technique

15h40 - 16h00 **Break**

16h00 - 16h20 **Wayne Bresky, Jaime Daniels**

The feasibility of an optical flow algorithm for estimating atmospheric motion

16h20 - 16h40 **Alexander Nerushev, E.K. Kramchaninova**
Studies of regions with intense turbulent motions based on MSG data

16h40 - 17h00 **Jim Purdom**
Satellite-derived winds in the severe storm environment: now and in the future

19h00 - 21h00 **Workshop dinner (Peking Roast Duck restaurant)**

Wednesday, 26 April 2006

09h00 - 09h20 **Steve Wanzong, C. Velden, D. Santek, J. Otkin**
Wind vector calculations using simulated hyperspectral satellite retrievals

09h20 - 09h40 **Iliana Genkova, C. Velden, S. Wanzong**
Satellite wind vectors from GOES sounders moisture fields

09h40 - 10h00 **Roger Davies**
Report on the progress and status of cloud motion vector retrieval by MISR on the Terra satellite

10h00 - 10h40 **Break**

10h40 - 11h00 **Jo Schmetz, R. Borde, K. Holmlund, M. König, H.J. Lutz**
Upper tropospheric divergence in tropical convective systems from Meteosat-8

11h00 - 11h20 **André Szantai, E. Mémin**
Comparison of atmospheric motion vectors and dense vector fields calculated from MSG images

11h20 - 11h40 **Liu Jian**
The international geostationary laboratory (IGEOLAB)

11h40 - 12h00 **Lars Peter Riishojgaard, B. Atlas, D. Chesters, K. Holmlund, J. Key, S. Kidder, A. Krueger, P. Menzel, J-N. Thépaut, C. Velden, T. Vonder Haar**
An update of the Molniya orbit imager

Wednesday Afternoon: Lunch and Group Excursion (Forbidden City)

Thursday, 27 April 2006

SESSION V
Microwave / LIDAR Studies
Chair: Alexander Nerushev

09h00 - 09h20 **Paul Ingmann, Anne Grete Straume**
Status report on the Doppler wind Lidar profiling mission ADM-Aeolus

09h20 - 09h40 **Ad Stoffelen, G-J. Marseille, J. Barkmeijer**
SOSE: Sensitivity Observing System Experiment

09h40 - 10h00 **Ad Stoffelen**
EUMETSAT Satellite Application Facility Scatterometer Activities

10h00 - 10h20 **S. Lehner, J. Schulz-Stellenfleth, Thomas Koenig, G. Song**
Remote sensing of extreme wind and ocean wave fields

10h20 - 10h40 **Break**

SESSION VI
Regional and Mesoscale Applications
Chair: Ramesh Bhatia

10h40 - 11h00 **Massimo Bonavita, L. Torrisi**
Characterization and use of MSG AMVs in the Italian weather service regional NWP system

11h00 - 11h20 **Bjarne Amstrup**
Recent OSEs with Atmospheric Motion Vector wind data in the DMI-HIRLAM 3D-Var data analysis system

11h20 - 11h40 **Devendra Singh, V.R. Rao, L.R. Meena, R.C. Bhatia**
Recent developments in Cloud Motion Vectors derived from KALPANA 1 and INSAT 3A satellites and their impact on NWP model

11h40 - 13h10 **Lunch**

13h10 - 14h40 **Plenary Discussion: Recommendations from CGMS-33 and a fresh look at AMV research and development (Leads: Jean-Noël Thépaut and Johannes Schmetz)**

14h40 - 15h00 **Break**

15h00 - 17h00 **Working Group Sessions**
Working Group 1: AMV Extraction Methods (Chairs: Szantai/Davies)
Working Group 2: AMV Data Assimilation (Chair: Cress)
Working Group 3: AMV Characterization (Chairs: DeSmet/Wanzong)

Friday, 28 April 2006

- 09h00 - 09h20** **Munmun Das Gupta, Raghavendra Ashrit, J.P. George, A.K. Mitra, A.K. Bohra**
Impact of satellite winds on simulation of tropical cyclone over Indian seas
- 09h20 - 09h40** **Javier García-Pereda, J.M. Fernández Serdán**
Description and validation results of the high resolution wind product from HRVIS MSG channel at the EUMETSAT Nowcasting SAF (SAFNWC)
- 09h40 - 10h00** **J.M. Fernández-Serdán, Javier García-Pereda**
Objective use of high resolution winds product from HRVIS MSG channel for nowcasting purposes
- 10h00 - 10h20** **Y.V. Rama Rao, H.R. Hatwar, S.R. Kalsi, R.C. Bhatia, Devendra Singh**
Impact of Satellite data on limited area model analysis and forecast system in IMD
- 10h20 - 10h40** **Break**

SESSION VII

Polar Winds

Chair: Niels Bormann

- 10h40 - 11h00** **Lars Peter Riishojgaard, M. Sienkiewicz, Guang Ping Lou**
The impact on forecast skill of water vapor and window channel winds from MODIS
- 11h00 - 11h30** **Jeff Key, W. Straka, D. Santek, C. Velden**
Satellite-derived winds at direct broadcast sites in the polar regions
- 11h30 - 11h50** **David Santek, Jeff Key, C. Velden**
A visualization of the impact of MODIS-derived polar winds on global forecasts
- 11h50 - 13h30** **Lunch**
- 13h30 - 15h00** **Working Group Reports**
Working Group 1: AMV Extraction Methods (Chairs)
Working Group 2: AMV Data Assimilation (Chairs)
Working Group 3: AMV Characterization (Chairs)
- 15h00 - 15h30** **Plenary Discussion**
- 15h30** **Closing Ceremony - WORKSHOP ENDS**
- 15h30 - 16h00** **Programme Committee Meeting**