



Tenth International Winds Workshop (IWW10)

22-26 February 2010

Tokyo, Japan

Local host: JMA

Venue: KKR Hotel Tokyo

Workshop co-chairs: Jaime Daniels and Mary Forsythe

Sunday, 21 February 2010

19:00-21:00 Registration, lobby of KKR Hotel Tokyo

Monday, 22 February 2010

9:00-9:30 Registration, in the meeting room "Kujaku"

9:30-9:50 Welcome and workshop opening

9:50-10:10 Johannes Schmetz

Introducing recommendations from CGMS 37 to the 10th International Winds Workshop

SESSION 1: Operational status

Chair: Arthur de Smet

10:10-10:30 Ryo Oyama

Recent upgrades of and activities for atmospheric motion vectors at JMA/MSM

10:30-10:50 Ken Holmlund, Leo van de Berg, Jörgen Gustafsson, Arthur de Smet, Greg Dew

Current status of the EUMETSAT operational atmospheric motion vector products

10:50-11:20 BREAK

11:20-11:40 Hongming Qi, Antonio Irving, William Pennoyer, Jeffrey Augenbaum, Dexin Zhang

Operational wind products at NOAA/NESDIS: a status report

11:40-12:00 Zhang Qisong, Xu Jianmin, Zhang Xiaohu, Wang Sujuan

Status of operational AMVs from FY-2 satellites

12:00-13:20 LUNCH

SESSION 2: AMV derivation

Chairs: Ken Holmlund and Ryo Oyama

13:20-13:40 Angeles Hernandez-Carrascal

A comparative evaluation of scene-selection methods



13:40-14:00 Jaime Daniels, Wayne Bresky

A nested tracking approach for reducing the slow speed bias associated with atmospheric motion vectors (AMVs)

14:00-14:20 Régis Borde, Greg Dew, Arthur de Smet, Jörgen Gustafsson

Improvements to EUMETSAT AMVs

14:20-14:40 Zhang Xiaohu, Xu Jianmin

Two applications of improvements for AMVs of NSMC/CMA – renavigation based on full earth disc image and calculation of radiation transfer using NWP data

14:40-15:00 Régis Borde, Philippe Dubuisson

Sensitivity of AMV height assignment methods to cloud properties using simulated MSG radiances

15:00-15:30 **BREAK**

15:30-15:50 Howard Berger, Chris Velden, Rolf Langland

Recent advances in the processing, targeting and data assimilation applications of satellite-derived atmospheric motion vectors (AMVs)

15:50-16:10 Sanjay Limaye

Winds on Venus from cloud tracking

16:10-16:50 **Plenary discussion on plans to develop a portable AMV processing software package (introduced by Jo Schmetz)**

18:00-20:00 **ICEBREAKER in room “Tanchou” (sponsored by JMA)**

Tuesday, 23 February 2010

Session 3: AMVs in NWP

Chair: Chris Velden

8:30-8:50 Mary Forsythe, James Cotton, Roger Saunders

Improving AMV impact in NWP

8:50-9:10 Alexander Cress

Recent progress in using satellite winds at the German Weather Service

9:10-9:30 Lars Peter Riishojgaard, Jim Jung, Chris Velden

Improving the use of quality controlled AMVs in the NCEP global forecast system

9:30-9:50 James Jung, John le Marshall, Jaime Daniels, Lars Peter Riishojgaard

Investigating height assignment type errors in the NCEP global forecast system

9:50-10:10 Xiujuan Su, John Derber, Dana Carlis and Russ Treadon

The improved use of satellite winds in NCEP global data assimilation and forecast system

10:10-10:40 **BREAK**



10:40-11:00 **Iliana Genkova, Niels Bormann, Peter Bauer**
Atmospheric motion vectors at ECMWF: operational status and research activities

11:00-11:20 **Lars Isaksen, Gabor Radnoti**
Accounting for atmospheric motion vector error correlations in the ECMWF 4D-Var and ensembles of data assimilations

Session 4: Characterising AMVs

Chairs: Mary Forsythe and Jaime Daniels

11:20-11:40 **James Cotton, Mary Forsythe**
AMV monitoring: results from the 4th NWP SAF analysis report

11:40-12:00 **Iliana Genkova, Régis Borde, Johannes Schmetz, Chris Velden, Ken Holmlund, Niels Bormann, Peter Bauer**
Global atmospheric motion vector inter-comparison study: final results

12:00-12:20 **Steve Wanzong, Chris Velden**
Exploring the behaviour of atmospheric motion vector (AMV) errors through simulation studies

12:20-13:40 **LUNCH**

13:40-14:00 **Lars Isaksen, Dingmin Li, Carla Cardinali**
Diagnosing the impact of atmospheric motion vectors in the ECMWF 4D-Var assimilation system

14:00-14:40 **Plenary discussion on collaborative activities**

Session 5: Polar AMVs

Chair: Alexander Cress

14:40-15:00 **Jeffrey Key, David Santek, Richard Dworak, Christopher Velden, Jaime Daniels**
Polar winds: new products, improvements and results

15:00-15:20 **Gregory Dew, Jörg Ackermann**
AVHRR polar winds derivation at EUMETSAT: current status and future developments

15:20-15:50 **BREAK**

15:50-16:10 **Koji Yamashita**
Upgraded usage of MODIS-derived polar winds in the JMA operational global 4D-Var assimilation system

16:10-16:30 **David Santek, Jeffrey Key, Richard Dworak, Michele Rienecker**
A 27-year record of satellite-derived polar winds for retrospective analyses

16:30-16:50 **Matthew Lazzara, Richard Dworak, David Santek, Chris Velden, Jeffrey Key**
High latitude atmospheric motion vectors: applications for Antarctic and Arctic composite satellite imagery

16:50-17:10 **Louis Garand**
Polar winds from highly elliptical orbiting satellites: a new perspective

18:00-21:00 **CONFERENCE DINNER in room "Tanchou" (sponsored by EUMETSAT)**



Wednesday, 24 February 2010

Session 6: Mesoscale

Chairs: John le Marshall and Kazuki Shimoji

8:30-8:50 **Hee-Je Cho, Mi-Lim Ou**

Determining optimal conditions for mesoscale AMVs

8:50-9:10 **Kazuki Shimoji**

The development for MTSAT rapid scan high resolution AMVs at JMA/MSC

9:10-9:30 **Manuel Carranza**

Recent changes in the derivation of atmospheric motion vectors at EUMETSAT

9:30-9:50 **Javier Garcia-Pereda**

New developments in the high resolution winds product (HRW), at the satellite application facility on support to nowcasting and very short range forecasting (SAFNWC)

9:50-10:10 **John le Marshall, Rolf Seecamp, Yi Xiao, J. Jung, Terry Skinner, Peter Steinle, Holly Sims, A. Rea, Tan Le**

High spatial and temporal resolution atmospheric motion vectors – generation, error characterization and assimilation

10:10-10:40 **BREAK**

10:40-11:00 **Koji Yamashita**

An observing system experiment of MTSAT-2 rapid scan atmospheric motion vector for T-PARC2008 using the JMA operational NWP system

11:00-11:20 **Shunsuke Hoshino**

Verification of AMVs in the T-PARC period

11:20-11:40 **Thomas Fiolleau, R. Roca**

A new approach to the detection and tracking of mesoscale convective systems in the tropics using MSG

11:40-12:00 **Renato Galante Negri, Luiz Augusto Toledo Machado, Régis Borde**

A tool to detect inner cloud top dynamics of deep convective systems

12:00-13:00 **Plenary discussion on winds for high resolution NWP**

13:00-14:20 **LUNCH**

14:30- **Optional group excursion**

Thursday, 25 February 2010

Session 7: MISR and ADM

Chair: Roger Davies

8:30-8:50 **Roger Davies, Aaron Herber**

Improvement of stereo-derived CMVs from MISR and comparison against coincident NCEP/NCAR reanalysis data



8:50-9:10 **Aaron Herber, Roger Davies**

Comparison of MISR stereo-derived CMVs with coincident NCEP/NCAR reanalysis data and 10-year trend analysis

9:10-9:30 **Katrin Lonitz, Ákos Hováth**

Comparison of MISR and Meteosat-9 cloud motion winds

9:30-9:50 **Dong Wu, David Nelson, David Diner, Michael Garay, Veljko Jovanovic, Catherine Moroney, Kevin Mueller**

Inner-core dynamics, rotation gradients, and intensity of tropical cyclones as observed by MISR

9:50-10:10 **Jan-Peter Muller, David Walton, Daniel Fisher**

AMVs from ATSR-2-AATSR and the proposed uncooled thermal IR pushbroom MISRLITE constellation

10:10-10:30 **BREAK**

10:30-10:50 **Ad Stoffelen**

Optimization of ADM-Aeolus vertical sampling

Session 8: Open forum and discussion

Chairs: Jo Schmetz and Mary Forsythe

10:50-11:10 **Arthur de Smet and Iliana Genkova**

The art of verifying algorithm improvements

11:10-11:45 **Plenary discussion on process for testing and implementing operational changes**

11:45-12:00 **Charge to working group breakout sessions (Mary Forsythe and Jaime Daniels)**

12:00-13:20 **LUNCH**

13:20-15:00 **Working group sessions**

WG1: AMV derivation (Chairs: Régis Borde and Steve Wanzong)

WG2: AMV data assimilation (Chairs: Iliana Genkova and Lars Peter Riishojgaard)

15:00-15:30 **BREAK**

15:30-17:00 **Working group sessions continue**

<p>Friday, 26 February 2010</p>

Session 9: Surface winds

Chair: Ad Stoffelen

8:30-8:50 **Ad Stoffelen**

Verification of scatterometer winds

8:50-9:10 **Masaya Takahashi**

Operational use of scatterometer winds at JMA



9:10-9:30 **Christophe Payan**
Status on the use of scatterometer data at Meteo-France

9:30-9:50 **Li Bi, James Jung, Michael Morgan, Nancy Baker, Dave Santek**
Impact of Metop ASCAT ocean surface winds on global weather forecasts

9:50-10:10 **Yongxiang Hu**
Sea surface wind speed estimation from space-based lidar measurements

10:10-10:40 **BREAK**

Session 8: Open forum and discussion continued

10:40-11:50 **Working group reports and plenary discussion**

11:50-12:00 **Closing comments – WORKSHOP ENDS**