



2005 EUMETSAT METEOROLOGICAL SATELLITE CONFERENCE

DUBROVNIK, CROATIA
19 - 23 SEPT 2005



**DRAFT CONFERENCE
PROGRAMME**

**16:00 -
19:00**

REGISTRATION

DUBROVNIK PALACE HOTEL

**19:00 -
20:30**

WELCOME DRINK

DUBROVNIK PALACE HOTEL

SUNDAY 18 SEPTEMBER

08:00 Registration continued

OPENING

09:15 Welcome Address
Representative, President of Croatia

09:20 Welcome Address
Minister of Croatia

09:25 Welcome Address
Mr. Ivan Čačić, Director of the Meteorological and Hydrological Service of Croatia

09:35 Welcome Address
Dr. Lars Prahm, Director-General of EUMETSAT

SESSION 1

CURRENT AND FUTURE SATELLITE PROGRAMMES AND SYSTEMS

CHAired BY PIERO VALABREGA, EUMETSAT

09:45 Introduction
Piero Valabrega, EUMETSAT

09:55 EUMETSAT geostationary and low Earth orbit programmes: Status and plans
Ernst Koenemann, EUMETSAT

10:10 Global cooperation aspects of NOAA's operational environmental satellite systems
Gregory Withee, NOAA/NESDIS

10:25 The WMO space programme and the Global Earth Observing System of Systems (GEOSS)
Donald Hinsman, WMO

10:40 - 11:15 COFFEE BREAK

11:15 Status of MTSAT-1R and recent activities in MSC
Yoshihiko Tahara, Meteorological Satellite Center, JMA, Japan

11:25 The application of FY-2C meteorological satellite in China
Jiashen Zhang, National Satellite Meteorological Center, China Meteorological Administration

11:35 Remote sensing products and applications: Roshydromet programme
Vassily Asmus, SRC Planeta, Russian Federation

11:45 Current and future satellite programmes and systems in India
Bhukan Lal, India Meteorological Department

11:55 Introduction to the COMS program and its application to Meteorological Services of Korea
Mi-Lim Ou, Korea Meteorological Administration

12:05 Discussions / Questions from the audience

12:30 – 14:00 LUNCH BREAK

**SESSION 1 (CONTINUED)
CURRENT AND FUTURE SATELLITES PROGRAMMES
AND SYSTEMS**

CHAired BY MARIANNE KÖNIG, EUMETSAT

- 14:00 Keynote Presentation**
Polar and geostationary satellite systems synergy: Toward optimum utilization
James Purdom, CIRA, Colorado State University, USA
- 14:30 Airs radiometric and spectral calibration validation and application to IASI and CRIS**
Hartmut Aumann, Jet Propulsion Laboratory (JPL), USA
- 14:45 Future passive microwave radiometry missions: Elliptical orbits, a novel solution**
Janet Charlton, Sula Systems, United Kingdom
- 15:00 GPS based atmospheric sounding with CHAMP: Results achieved after four years**
Jens Wickert, Geoforschungszentrum Potsdam (GFZ), Germany

15:15 – 16:00 COFFEE BREAK

- 16:00 Observation of extreme weather events - Analysis of new satellite-based measurement techniques**
Chung-Chi Lin, ESA/ESTEC
- 16:15 MSG-2 ready for launch - The second of a new generation of meteorological geostationary satellites**
Hendrik R. Stark, ESA/ESTEC
- 16:30 Medium Earth Orbit (MEO) as a venue for future NOAA satellite systems**
Gerald Dittberner, NOAA/NESDIS
- 16:45 Potential impact of the spaceborne line-of-sight wind observations in the tropics**
Nedjeljka Zagar, University of Ljubljana, Slovenia

EVENING PROGRAMME

- 17:15** Departure from Dubrovnik Palace Hotel for Guided Tour and Icebreaker Cocktail
- 17:45 –**
- 18:45 Guided Tour of Dubrovnik on foot**
(sponsored by City of Dubrovnik)
- 19:00 –**
- 20:30 Icebreaker Cocktail**
(sponsored by City of Dubrovnik and VCS Aktiengesellschaft)

MONDAY 19 SEPTEMBER

**SESSION 2
METEOROLOGICAL APPLICATIONS**

CHAIRIED BY PIRKKO PYLKKÖ, FINNISH METEOROLOGICAL INSTITUTE

- 09:00 Keynote Presentation**
The NWP SAF: what can it do for you?
John Eyre, Met Office, United Kingdom
- 09:30 Using synthetic satellite images for automatic monitoring of NWP fields: Operational applications**
Bernhard Reichert, Deutscher Wetterdienst
- 09:45 M8 AMV data assimilation studies with the NWP HIRLAM model**
Carlos Geijo Guerrero, Instituto Nacional de Meteorología, Spain
- 10:00 Meteosat Second Generation: Future meteorological products**
Marianne König, EUMETSAT
- 10:15 Validation of SAFNWC/MSG cloud products with one year of SEVIRI data**
Hervé Le Gléau, Météo-France

10:30 – 11:15 COFFEE BREAK

- 11:15 Adaption of an error decomposition method in the verification of cloud forecasts using satellite data**
Christoph Zingerle, Finnish Meteorological Institute
- 11:30 Comparison of air stability derived from satellite data with convection development and storm occurrence**
Piotr Struzik, Institute of Meteorology and Water Management, Poland
- 11:45 Does satellite data have a potential for forecasting and monitoring of extreme convective events as, for example, tornadoes over Europe?**
Thomas Böhm, Deutscher Wetterdienst
- 12:00 Verification of Nowcasting-SAF clear air products over central Europe**
Jochen Wagner, Deutscher Wetterdienst

12:15 – 13:45 LUNCH BREAK

13:45 – END OF AFTERNOON

<p>POSTER SESSION</p> <p>13:45 – END OF AFTERNOON</p>	<p>EUMETSAT WORKSHOPS (IN THE AUDITORIUM)</p> <p>13:45 – 16:00 EPS DISSEMINATION SERVICES Chaired by Ernst Schaffner, EUMETSAT</p>
<p>16:00 – 16:30 COFFEE BREAK</p>	
<p>POSTER SESSION Continued</p>	<p>16:30 – 18:00 + EUMETSAT ATOVS Retransmission Service (EARS) Chaired by Anders Soerensen, EUMETSAT</p>

EUMETSAT Dinner for Chairpersons, Keynote Speakers and Organisers

SESSION 2 (CONTINUED)
METEOROLOGICAL APPLICATIONS

CHAired BY SALLY WANNOP, EUMETSAT

- 09:00** Impact of SEVIRI IR radiances in Météo-France's operational 3D-VAR assimilation system for weather forecasting at regional scale
Thibaut Montmerle, Météo-France
- 09:15** Probability of precipitation estimation using SEVIRI data and artificial neural networks
Davide Capacci, University of Ferrara, Italy
- 09:30** Forest fire severity index from remote sensed atmosphere parameters
Otto Hyvärinen, Finnish Meteorological Institute
- 09:45** Rainfall and lightning characteristics as seen by TRMM satellite over some climatic regions of Africa
Ishiyaku Ibrahim, Nigeria Meteorological Agency (NIMET)
- 10:00** GRAS SAF radio occultation processing center
Kent Lauritsen, Danish Meteorological Institute
- 10:15** MODIS stability product in Finland - A feasibility study
Sauli Joro, Finnish Meteorological Institute

10:30 – 11:00 COFFEE BREAK

SESSION 3
TRAINING

CHAired BY IVAN ČAČIĆ, METEOROLOGICAL AND HYDROLOGICAL SERVICE OF CROATIA

- 11:00** **Keynote Presentation**
Computer Assisted Learning - A way ahead for Europe
David Bennetts, Met Office College, United Kingdom
- 11:30** **Overview of EUMETSAT's recent training activities**
Henk Verschuur, EUMETSAT
- 11:45** **Training within the virtual laboratory for satellite data utilization - A new era and a new paradigm: Electronic notebooks**
James Purdom, CIRA, Colorado State University, USA
- 12:00** **Training of forecasters at the DWD: Present and future**
Wilfried Jacobs, Deutscher Wetterdienst
- 12:15** **Interpretation guide to MSG water vapour channels**
Christo Georgiev, National Institute of Meteorology and Hydrology, Bulgaria

12:30 – 14:00 LUNCH BREAK

WEDNESDAY 21 SEPTEMBER

SESSION 3 (CONTINUED) TRAINING

**CHAired BY NATAŠA STRELEC MAHOVIĆ, METEOROLOGICAL AND
HYDROLOGICAL SERVICE OF CROATIA**

- 14:00 A four continent training demonstration**
Moderator: Jochen Kerkmann, EUMETSAT
HansPeter Roesli, on behalf of EUMETSAT
Tony Mostek, NOAA
Jeff Wilson, Bureau of Meteorology, Australia
Name TBD, South African Weather Service
- 14:45 EUMeTrain - Status report and first results**
Veronika Zwatz-Meise, Zentralanstalt für Meteorologie und Geodynamik, Austria
- 15:00 EUMETCAL - The European Virtual Organisation on Meteorological Training**
Carola Sundius, Finnish Meteorological Institute
- 15:15 Web-enabling scientific software - The DLR virtual scattering and remote sensing LAB**
Jochen Wauer, DLR, Germany

15:30 – 16:15 COFFEE BREAK

SESSION 4 LAND SURFACE APPLICATIONS

**CHAired BY CARLOS DA CAMARA, INSTITUTO DE
METEOROLOGIA, PORTUGAL**

- 16:15 Keynote Presentation**
Title to be submitted
To be determined
- 16:45 Validation of the LSA SAF FVC and LAI prototype algorithm with Polder/Adeos data over western Europe**
Javier Garcia-Haro, University of Valencia, Spain
- 17:00 The Land-SAF surface albedo and downwelling shortwave radiation flux products**
Bernhard Geiger, Météo-France
- 17:15 Land-surface emissivity maps based on MSG/SEVIRI information**
Leonardo Peres, ICAT-FCUL, University of Lisbon, Portugal

EVENING PROGRAMME

GALA DINNER

Advance registration essential
(with a financial contribution by Kongsberg Spacetec A/S)

SESSION 4 (CONTINUED) LAND SURFACE APPLICATIONS

**CHAired BY CARLOS DA CAMARA, INSTITUTO DE
METEOROLOGIA, PORTUGAL**

- 09:15** Monitoring wildfire activity over Portugal using MSG and NOAA/METOP information
Teresa Calado, CGUL-FCUL, University of Lisbon, Portugal
- 09:30** Intercomparison of Meteosat-8 derived LST with MODIS and AATSR similar products
Isabel Trigo, Instituto de Meteorologia, Portugal
- 09:45** Diurnal variability of validated surface energy flux densities inferred from meteorological satellite data
Franz Berger, Deutscher Wetterdienst
- 10:00** Monitoring snow cover over Europe with Meteosat SEVIRI
Peter Romanov, NOAA/NESDIS

10:15 – 10:45 COFFEE BREAK

SESSION 5 CLIMATE OBSERVATIONS

CHAired BY THOMAS BÖHM, DEUTSCHER WETTERDIENST

- 10:45** **Keynote Presentation**
Can we measure from satellites the cloud effects on the atmospheric radiation budget?
Ehrhard Raschke, formerly GKSS-Forschungszentrum, Germany
- 11:15** **Operational climate monitoring from space: The Satellite Application Facility on Climate Monitoring (CM-SAF)**
Jörg Schulz, Deutscher Wetterdienst
- 11:30** **The GERB project: Status and results**
John Harries, Imperial College, United Kingdom
- 11:45** **SEVIRI narrowband-to-broadband conversions**
Nicolas Clerbaux, Institut Royal Météorologique, Belgium
- 12:00** **A new approach for satellite based climate radiation modelling**
Richard Müller, Deutscher Wetterdienst
- 12:15** **Surface radiation budget in HadGAM1: Comparison with SRB derived from satellite data**
Alejandro Bodas-Salcedo, Met Office, United Kingdom

12:30 – 14:00 LUNCH BREAK

THURSDAY 22 SEPTEMBER

**SESSION 5 (CONTINUED)
CLIMATE OBSERVATIONS**

CHAired BY DONALD HINSMAN, WORLD METEOROLOGICAL ORGANISATION

- 14:00** Towards reduced uncertainty in methane emissions using SCIAMACHY-ENVISAT observations
Jan Fokke Meirink, Koninklijk Nederlands Meteorologisch Instituut, Netherlands
- 14:15** A new AVHRR cloud climatology
Andrew Heidinger, NOAA/NESDIS
- 14:30** Tools and data services from the NASA Earth satellite observations for climate applications
Gilberto Vicente, NASA Goddard Space Flight Center, George Madison University, USA
- 14:45** Use of passive and active microwave satellite data at the National Ice Center
Pablo Clemente-Colón, National Ice Center, USA
- 15:00** Satellite altimetry: Current status and perspectives
François Parisot, EUMETSAT

15:15 - 16:00 COFFEE BREAK

**MSG TALKSHOW
(IN THE AUDITORIUM)**

16:00 – 17:15

MODERATORS:

Volker Gärtner, EUMETSAT
Marianne König, EUMETSAT

KEYNOTE PRESENTATION:

John Morgan, Former EUMETSAT Director

17:15 – 17:30

BEST CONFERENCE POSTER AWARD

**EUROPEAN METEOROLOGICAL SOCIETY (EMS)
YOUNG SCIENTIST AWARD**

FREE EVENING

THURSDAY 22 SEPTEMBER

**SESSION 6
CLOUDS, AEROSOLS AND ATMOSPHERIC
COMPOSITION FROM SATELLITES**

CHAired BY VOLKER GÄRTNER, EUMETSAT

- 09:00 Keynote Presentation**
Clouds, Aerosols, and Atmospheric Composition from Satellites
Michael King, NASA Goddard Space Flight Centre, USA
- 09:30 Observing cloud-aerosol interactions with Meteosat-8**
Daniel Rosenfeld, Hebrew University of Jerusalem
- 09:45 Remote sensing of inhomogeneous clouds with MSG**
Tobias Zinner, DLR, Germany
- 10:00 Some observations of the lifecycle of marine stratocumulus and tropical deep convection from Meteosat-8**
Philip Watts, EUMETSAT
- 10:15 Validation of cloud top pressure derived from SEVIRI observations through a comparison with independent observations**
Rene Preusker, Freie Universität Berlin, Germany
- 10:30 MSG observations of deep convective storms**
Martin Setvák, Czech Hydrometeorological Institute, Czech Republic
- 10:45 – 11.15 COFFEE BREAK**
- 11:15 Remote sensing of cloud albedo from backscattered sunlight in cloudy atmosphere**
Anja Hunerbein, Freie Universität Berlin, Germany
- 11:30 Atmospheric influence on satellite derived sea surface temperatures: A case of the Adriatic sea**
Tanja Trosic, Rudjer Boskovic Institute, Croatia
- 11:45 Analysis of winter dust activity off the coast of West Africa using a new 24-year-over-water AVHRR satellite dust climatology**
Andrew Heidinger, CIMSS, University of Wisconsin-Madison, USA
- 12:00 Comparison of cloud properties derived from ERS-2/GOME and MSG/SEVIRI data: a case study for Europe**
Diego Loyola, DLR, Germany
- 12:15 Monitoring volcanic activity from space: Retrieval of sulphur dioxide plumes from ERS-2/GOME backscatter data**
Werner Thomas, Deutscher Wetterdienst
- 12:30 – 13.45 LUNCH BREAK**
- 13:45 Towards operational data assimilation of satellite-based aerosol observations in a chemical transport model for air quality monitoring**
Marion Schroedter-Homscheidt, DLR, Germany
- 14:00 New user-derived mission requirements for operational atmospheric composition monitoring**
Hennie Kelder, Koninklijk Nederlands Meteorologisch Instituut
- 14:15 Global mapping of atmospheric greenhouse gas concentrations and air quality indicators by satellites**
Heinrich Bovensmann, University of Bremen, Germany
- 14:30 The introduction of clouds and aerosols in the ECMWF fast radiative transfer model for the Infrared Atmospheric Sounding Interferometer**
Marco Matricardi, ECMWF

FRIDAY 23 SEPTEMBER

14:45 Comparison of microwave and optical cloud liquid water path estimates from TMI, MODIS, and MISR

Akos Horvath, Caltech, Jet Propulsion Laboratory, USA

15:00 EarthCARE- A new mission providing global cloud and aerosol profiles

Paul Ingmann, ESA/ESTEC

15:15 CONFERENCE FORUM

15:45 END OF CONFERENCE

AFTERNOON PROGRAMME (OPTIONAL)

16:00 BOAT TRIP AND DINNER

Advance registration essential

Departure from Dubronvnik Palace Hotel ca. 16h00

FRIDAY 23 SEPTEMBER

NOTE

The programme remains in a dynamic state and regular updates will be issued before the conference on the EUMETSAT website www.eumetsat.int.

It will be updated daily during the Conference.

MEMBERS OF THE SCIENTIFIC PROGRAMME COMMITTEE

Ivan ČČačić ć, Meteorological and Hydrological Service of Croatia
Carlos Da Camara, Instituto de Meteorologia, Portugal
Volker Gärtner, EUMETSAT
Marianne König, EUMETSAT
Pirkko Pylkkö, Finnish Meteorological Institute
Nataša Strelec Mahović, Meteorological and Hydrological Service of Croatia

CONFERENCE SPONSORS

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