The Climate Symposium 2014

13-17 October
Darmstadt GERMANY

Climate Research and Earth Observations from Space

Climate Information for Decision Making

480 participants already registered, only 120 places left!

Register online: www.theclimatesymposium2014.com
The Climate Symposium 2014

• Organized by **EUMETSAT** and WCRP with support from the European Commission

• Sponsored by: ESA, NOAA, JAXA, CNES, GFCS, GEO, DLR, City Darmstadt, Airbus and Thales Alenia Space/ OHB System
OBJECTIVES

• Take stock of the current state of climate science and the existing climate observing system
• Open up a dialogue between scientists and providers of space-based climate data to identify gaps and objectives for climate monitoring in the future
• Create a joint action plan for an international space-based climate observing system evolving from existing activities
• Help climate-related risk management on the development of responsible and affordable climate change mitigation and adaptation options
EXPECTED OUTCOMES

• A unique forum for global space agencies, scientists and decision and policy makers to engage in dialogue
• A step forward in defining the space-based Earth observation system of the future (CEOS/CGMS Working group on climate – space-based architecture)
• Research priorities for detection and attribution of causes and consequences of climate changes with emphasis on space-based climate observations
• A join action plan for international space-based climate observing responsive to the emerging needs in the context of GFCS and FE
PROGRAMME ELEMENTS

• The daily themes are organizing around the WCRP Grand Challenges
• Plenary Orals and Poster Presentations
• Panel Discussion: Climate Information for Decision Makers
• Exciting activities for ECS and Students + Awards
• Final Statement on 10 year vision for space-based observations for climate science and services
• Daily networking/social events
First Day (Monday, 13 October 2014):

- Welcome session: David Carlson (WCRP Director), Julia Slingo (Science chair of Symposium), Alain Ratier (DG of EUMETSAT), Jochen Partsch (Mayor of Darmstadt)
- High-level introduction: B. Zypries (German State Secretary for Economic affairs & energy); EU commissioner in charge of climate change; M. Jarraud (WMO Secretary-General), Barbara Ryan (Director of GEO)
- Talks ‘Setting the scene’:
- EC representative tbc, M. Jarraud (WMO/GFCS), Thomas Stocker (IPCC WG I)
- Observational capabilities: A. Simmons (GCOS), G. Stephens (JPL)
- Science perspectives: O. Boucher (CNRS), C. Jakob (Monash Univ.), n.n.
- Services + reanalyses: E. Källen (ECMWF), K. Onogi (JMA), J. Schulz (EUM), L. Goddard (Columbia Univ.), A. Busalacchi (Univ. Of Maryland)
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2nd through 4th day (Tuesday – Thursday)

Science talks and posters in 6 sessions around the six Grand challenges of the World Climate Research Programme (WCRP):

1. Clouds, circulation and climate sensitivity
2. The changing water cycle
3. Cryosphere in a warming world
4. Ocean circulation and regional sea level rise
5. Prediction and attribution of extremes
6. Regional climate variability and change: Enabling climate services

➤ Final day: Summary of science sessions + Q&A, ‘Architecture for climate monitoring from space’, Panel on ‘Future directions and responses from space agencies’, Symposium Statement + 10-year vision (Julia Slingo)
Evening events:

• Monday: Icebreaker by city of Darmstadt
• Tuesday: 1815 – 2000h: Panel discussion on ‘Climate Information for Decision Makers’ with panellists from industry, global insurance company, energy sector and government + Q & A / followed by a reception
• Wednesday: 1815 – 1845h: Climate Change Initiative (CCI) session / followed by Symposium dinner (ESA)
• Thursday: Meeting of YESS community (Young Earth System Scientists) tbc / followed by a reception
The Climate Symposium 2014

The symposium will take place in the futuristic Darmstadtium Science and Congress Centre, located in the heart of the city of Darmstadt, just 30km south of Frankfurt am Main in Hesse. It is just a short 20 minute drive from Frankfurt airport, one of Europe's major hub airports. For more information on Darmstadt and its surroundings, please visit the symposium website (www.theclimatesymposium.com).

The symposium will provide a forum for discussing the current state of climate science and climate observations by taking account of recent achievements, ascertain critical objectives to be achieved with satellite-based climate information, and identify gaps in the current space-based component of the climate observing system. An important topic that will be discussed is the proposed Architecture for sustained Climate Monitoring from Space that has been developed under the auspices of the Committee on Earth Observation Satellites (CEOS), the Coordination Group for Meteorological Satellites (CGMS) and the World Meteorological Organization (WMO).

Beyond the monitoring of the current state of the Climate System, the conference will consider how Earth observation contributes to future developments in climate research, modelling and prediction, and science-based climate services for global development.

Expected outcomes

The symposium and the follow-on activities are expected to contribute to a better understanding of climate impacts, vulnerabilities and risk assessment and management, and to support the development of climate change adaptation options. A key aspect will be the discussion of research priorities for detection and attribution of causes and consequences of climate change and variability on sea level, water resources, cryosphere, and high impact weather phenomena at the regional level.

3 and prediction by putting in motion a process for creating a joint action plan for the planning and development of an international space-based climate observing system that will be responsive to the current and emerging needs in the context of the Global Framework for Climate Services (GFCS) and Future Earth: Research for Global Development.

Prince Georg's Garden, Darmstadt

Building the Next Generation of Leaders

Students and Early Career Scientists will have the opportunity of contributing to the conference outcomes and vision. The presence of young researchers and students will be enhanced in a variety of initiatives throughout our conference.

Youth Corner: A Unique Forum for Young Scientists

Graduate students and early career professionals will have the opportunity to interact among themselves and network with leading scientists in an area allocated for them in the conference venue. This area is designed to facilitate networking discussions on common interests and future partnerships.

Outstanding Post-graduate Student and Early Career Researcher Awards

In recognition of the achievements of the young participants attending the conference, awards will be given for the most outstanding post-graduate (PhD/Masters) by students and early career researchers (those who received their last degree in 2009 or later).

Your Ideas Matter

The young participants will have the opportunity to meet on Thursday, 16 October (day 4), at 18:00 and provide input to the Symposium Statement that will be presented on Friday morning during the concluding session.

Contact: Roberta Boscolo, WCRP, rboscolo@wmo.int

Executive committee

- Ghassem Asrar, Joint Global Change Research Institute, PNNL (USA)
- David Carlson, WCRP
- Mauro Facchini, European Commission
- Mike Freilich, NASA (USA)
- Mark Paese, NOAA (USA)
- Volker Liebig, ESA
- Alain Ratier, EUMETSAT
- Barbara Ryan, GEO
- Shizuo Yamamoto, JAXA (Japan)

Science committee

- Julia Slingo, Chair, Met Office (UK)
- Olivier Boucher, CNRS (France)
- Antonio Busalacchi, University of Maryland (USA)
- Anny Cazenave, CNES (France)
- Mark Dowell, Joint Research Centre, European Commission
- Greg Flato, Canadian Centre for Climate Modelling and Analysis (Canada)
- Erland Källén, ECMWF
- Teruyuki Nakajima, University of Tokyo (Japan)
- Zhang Peiqun, China Meteorological Administration (China)
- Roger Saunders, Met Office (UK)
- Byung-Ju Sohn, Seoul National University (Republic of Korea)
- Johannes Schmetz, EUMETSAT
- Bjorn Stevens, MPI Hamburg (Germany)

Organising committee

- Roberta Boscolo, WCRP
- Paul Counet, EUMETSAT
- Rowanna Comerford, EUMETSAT
- Vladimir Ryabinin, WCRP
- Roberta Lupis, European Commission
Welcome to The Climate Symposium 2014

Satellite observations are a key element in an integrated and sustained climate observing system and have been critically important for monitoring and understanding the Earth’s climate system during the past several decades. The expected completion of the IPCC Fifth Assessment (AR5) in 2013-2014 makes it timely to discuss these achievements, to assess future opportunities and challenges with satellite derived climate information, and to provide guidance on future priorities.

The symposium will be an important step towards defining requirements, and the further development of an efficient and sustained international space-based Earth observing system. This symposium is intended to bring together the international experts in climate observations, research, analysis and modelling to present and discuss results from their studies, with a particular emphasis on the role of space-based Earth observations in improving our knowledge of the current climate at global and regional scales, and in the assessment of models used for climate projections.

Abstract submission is now closed!