

### 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









 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 spacebased 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)











2<sup>nd</sup> through 4<sup>th</sup> 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

#### 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



Climate Research and Earth Observations from Space Climate Information for Decision Making

Prince Georg's Garden, Darmstadt



Darmstadt, Germany 13-17 October 2014

Climate Research and Earth **Observations from Space** 

Climate Information for Decision Makin

HOME **ABOUT** 

**SPONSORS** 

**ATTENDEES** 

**PROGRAMME** 

WATCH ONLINE

Search

#### 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 (ARS) 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!

