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# ***Tour de Table* on Category 1 and Remaining 2008 Category 2, 3, and 4 Actions**

Mary Kicza, SIT Chair  
and  
CEOS Agency Principals

## ***Tour de Table Process***

- Each Agency will be taken in turn, alphabetically, as was done at SIT-21
- Each Agency can provide a brief status of their Category actions with 2008 completion dates (presentations welcome)
- Each Agency will then confirm commitment to accomplishing their actions

# ASI 2008 Action

Unable to attend SIT-22

# ASI

**Agenzia Spaziale Italiana**

## **Category 3 Action:**

- AG-06-01\_1: Contribute to GEO Agriculture SBA Task Team – **CLOSED**

# **BNSC Category 1 Actions**

Presented by:  
Mark Churchyard on behalf of  
British National Space Centre (BNSC)

## The UK leads on one Category 1 Action and is in support in other areas:

### DA-07-01\_3

**Action:** Category 1 Action: Global DEM Interoperability– Development of a set of guidelines and recommendations.

**Status:** Draft Guide Line paper on "Global DEM Interoperability (GDI) for review - Completed in June 2008. Holding of Workshop prior to ISPRS in Beijing - Completed in July 2008. Version 1.0 of guidelines paper on Global DEM Interoperability (GDI) is now in final preparation and the recommendations from the Beijing workshop will be included and be presented at the WGCV Plenary in Avignon next month ready for presentation to GEO IV. Opportunities to support practical implementation will require continuing support from the participating Space Agencies. BNSC will continue to support such activities as it is able

### DA-06-02\_2

**Action:** Category 1 action (ESA lead) Data QA Framework and Guideline

**Status:** WGCV have been focusing on this task over the past year and made significant progress.

### DA-06-02\_3

**Action:** Category 1 action (part of previous action) - GEO-CEOS workshop held in Washington.

**Status:** Complete, successful meeting with the data quality session organised by the UK

## Category 2 actions supported by UK

### **DA-06-02\_4**

**Task:** Category Action 2 - Radiometric Standards – NPL are part of the leading team

**Status:** The work on this is progressing with a draft set of guidelines with the moon selected as the radiometric standard. BNSC will continue to support such activities as it is able

### **DA-06-02\_5**

**Task:** Category Action 2 - Benchmark mission coordination CLARREO/TRUTHS

**Status:** The UK remains supportive and is looking at how to best support the most beneficial coordination between the two missions.

### **DA-06-02\_06**

**Task:** Category Action 2 - Ground Based Cal/Val campaign – a second COES comparison or IR (sea surface temperature radiance) to be organised

**Status:** A joint agency supported meeting is being organised by NPL who are currently looking for sponsors.

# CSA Actions

Presented by:

**Guy Séguin**  
CEOS Principal delegate  
Canadian Space Agency



## Category 1 Actions:

- **DI-06-08\_1**
- **Action:** Establish link between the Disaster SBA team and the virtual constellations
- **Status:** VC POC are involved in the Disaster SBA Team meetings/teleconferences and information exchange exist with the VC teams. **closed**
  
- **DI-06-09\_1**
- **Action:** Develop requirements for a virtual constellation for risk management from UN-SPIDER users requirements inputs and other disaster related tasks and propose a gradual implementation plan based on existing and planned satellites.
- **Status:** Global multi-hazard user requirements for all disaster phases collected and validated; written report to be completed by end of September; architecture requirements drafted (initial draft). Resource from CEOS members required to complete the validation.
  
- **DI-06-09\_3**
- **Action:** Promote demonstration of the four phases of disaster management.  
(mitigation, warning, response & recovery)
- **Status:** Flood management pilot for the Caribbean region was developed and submitted in response of the GEO AIP CFP. NASA GSFC is leading the pilot project. Expected source of satellite data beyond the disaster response of the Disaster Charter are NASA, CSA, ESA.
  
- **No category 2 to 4 actions deliverable in 2008**
- **Category 2-4 actions in 2009 will have to be consolidated under the new GEO 2009-2011 Workplan**
- **DI-06-09 actions will be continued under the 2009-2011 WP**



SIT-22

September 17-18, 2008  
Tokyo International Exchange Center  
Tokyo, Japan



# CNES 2008 Actions

# CSIR 2008 Actions

# **DLR 2008 Actions**

Unable to attend SIT-22

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# **DLR**

## **Deutsches Zentrum für Luft-und Raumfahrt**

### **Category 1 Action:**

- CL-06-01\_9: Reprocess SCIAMACHY Products

### **Category 3 Action:**

- EN-07-03\_1: Capacity Building Committee and Energy SBA Team E&T meeting
  - DLR proposes this action either be closed or transferred to another agency

### **Category 4 Action:**

- EN-07-03\_3: Connect energy databases to support energy policy planning in developing and developed countries
  - DLR proposes CNES be the lead for this action

# **EUMETSAT-Led Category 1 and 2 Actions**

Presented by:  
Mikael Rattenborg  
EUMETSAT Director of Operations

## Category 1 Action:

CL-06-01\_7

**Action:** Reanalyzed global sea ice data (1987/1995-2005). There are 2 relevant milestones:

1. Availability of daily ice concentration products (based on SSM/I data and covering the period 1987-2007) through the OSI-SAF Sea Ice Web Portal (<http://saf.met.no>) in NetCDF format - due date: September 08;
2. Availability of daily ice concentration products (based on SSMR data - period 1978-1987) through the OSI-SAF Sea Ice Web Portal (<http://saf.met.no>) in NetCDF format - due date: December 08.

**Status:** Concerning milestone 1, the 1987-2007 SSM/I orbital data has been reprocessed, together with a first version of the daily gridded products. Work is underway on an improved daily gridding, with the aim of having daily products ready by the end of September => on track

Milestone 2 "Availability of daily ice concentration products (based on SSMR data - period 1978-1987)" is due by December 2008

## Category 2 Action:

CB-07-01b\_1

**Action:** "Identify Best Practices, Gaps and Needs - small team under leadership of EUMETSAT to address the implementation of CB requirements placed upon the GEO Portal, based upon experience with the CEOS WGEdu educational resources Portal. Due Date 31/12/08."

**Status:** The requirements were approved by the CEOS Working Group on Education (WGEdu) last year and agreed with the GEO Capacity Building Committee in Hannover in Feb/Mar 2008. The GEO Secretariat has now forwarded the requirements to the GEO Architecture and Data Committee and the next step is to review the results of the GEO Portal implementation (when they become available) to see if the requirements have been appropriately reflected in the implementation.

**Conclusion** - the action has been completed as far as possible at this stage - further activities await the outcome of the GEO portal implementation. The status of this action will be addressed in more detail under the agenda item "Working Group Chair Reports"



# ESA 2008 Actions

Separate PDF



SIT-22

September 17-18, 2008  
Tokyo International Exchange Center  
Tokyo, Japan



# INPE 2008 Actions

# JAXA 2008 Actions

Separate Presentation

# NASA 2008 Actions

Separate Presentation

# USGS CY 2008 Actions

Presented by:

Timothy Stryker  
On Behalf of CEOS Principal  
U.S. Geological Survey

## Category 1 Action:

### DA-07-03\_5

#### Action:

In support of the LSI Constellation, provide a demonstration of a prototype LSI Constellation Portal

#### Status:

**On schedule.** A beta version of this prototype portal has been developed by WGISS and is undergoing review among key LSI and WGISS team members. LSI team members are incorporating additional information and editing the site's content prior to the 22-26 September WGISS-26 meeting. Prototype portal will be demonstrated in connection with the GEO-V Plenary in November 2008.

## Category 2 Action:

### AG-07-03\_1

#### Action:

Participate in IGOL workshop on cropped areas and in GOFCC/GOLD workshop

#### Status:

**Completed.** A representative from USGS (Jim Verdin) attended the workshop, and its report has been released. USGS (Brad Reed) will represent CEOS at a follow-on meeting of the Community of Practice (COP) for Agricultural Monitoring, in February 2009 in Beijing. This COP has stated its need for the Global Land Survey 2010 (GLS 2010) project, and CEOS member agencies should position themselves to support it through the CEOS LSI Constellation. Intermediate milestones and deliverables are a topic for LSI to address. AG-07-03\_1 may be considered closed and ongoing work transferred to the LSI Constellation. Brad Reed (USGS) will continue his involvement in support of LSI – COP coordination.

# WMO 2008 Actions

Unable to attend SIT-22

# WMO

## World Meteorological Organization

### Category 1 Actions:

- WE-06-02\_2: CEOS SIT and Agencies to review WMO Vision for Space-based component of GOS – **CLOSED**
- WE-06-02\_1: Communicate to CEOS the WMO Vision for Space-based component of the Global Observing System – **CLOSED**

### Category 2 Actions:

- WE-06-02\_4: Confirmation of plans for geostationary hyperspectral sounders
- WE-06-02\_5: Plan for operational IR and MW sounding from early morning orbit



# NOAA 2008 Actions

Presented by:  
Mitch Goldberg

## Category 1 Actions:

### CL-06-02\_1

**Action:** Measurement consistency for MODIS, ATSR, and AVHRR 1-5km sensors.

**Status: CLOSED** –Actions are complete, CCRS workshop report available.

### CL-06-02\_4

**Action:** Greenhouse Gas products (CO<sub>2</sub>, CO, CH<sub>4</sub>) from AIRS and IASI.

**Status: CLOSED** – The IASI level 2 processing is now operational. The products are available from the NOAA archive. AIRS products are available from the NASA DAAC.

### CL-06-02\_5

**Action:** SIT discussion with NPOESS Program Scientist to mitigate CrIS degraded CO products.

**Status: OPEN, In Progress** – Information on the advantages/disadvantages of high spectral resolution in the CrIS SA and MW band has been gathered. High profile issues with the CrIS Instrument's body has made these discussions and resulted in this task being completed at the end of September instead of August. Briefing material has been completed.

### CL-06-02\_9

**Action:** Secure funding for and proceed to implement Jason-3 for launch in late 2012- early 2013 to ensure 6-month overlay with Jason-2.

**Status: OPEN** – NOAA and EUMETSAT have exchanged letters of intent on Jason-3. NOAA will submit the Jason-3 initiative in its FY2010 budget, EUMETSAT Council approved of the Development of Program Proposal for Jason-2 follow-on. Proposal will be approved in Dec 2008.

## Category 1 Actions (Cont'd.)

### CL-06-02\_10

**Action:** Operational implementation of geostationary to LEO intercalibration for all operational geostationary IR imagers.

**Status: CLOSED** – Calibration algorithm was approved in February 2008, and has been implemented at NOAA, EUMETSAT, and JMA – KMA will implement in 2009 and CMA is experiencing delays. Initial implementation has made significant positive impact.

### CL-06-05\_1

**Action:** Generate polar products in real-time at direct broadcast sites in Arctic and Antarctic in support of IPY.

**Status: CLOSED** – New real-time satellite products will be implemented by Oct 2008, reprocessing of historical products will be completed by Sep 2008. Real-time products are available online at <http://stratus.ssec.wisc.edu/db>.

### DI-06-13\_1

**Action:** Present case to SIT for better access to data for fire monitoring, including real-time access to future geostationary satellite data, information on data-pre-processing chains and calibration, access to 3.9 and 11 micron data without filtering or smoothing.

**Status: CLOSED** – Major useful sources of geostationary identified and a letter was sent to CEOS to obtain support for way forward. SIT Chair in June 2006 decided that the follow-on to this action should be passed to CGMS WMO. The new NOAA POC is preparing a working paper to be passed to CGMS in mid-October 2008.

## Category 1 Actions (Cont'd.)

### DA-06-02\_1

**Action:** Create a joint experiment using the Dome C site for cross comparison and evaluate its suitability for climate quality calibration.

**Status: CLOSED** – Historical NOAA has been collected (NOAA-6 to MetOP-a), and new inter-comparison procedures were developed to compare them with MODIS, AVHRR, Hyperion, and AMSR-E data. Preliminary results were presented in July 2008 and are available on the Cal/Val portal. A final report will be issued at WCGV-29 in October 2008.

### WE-07-01\_1

**Action:** Demonstrate the impacts of MetOp-A IASI on the global medium range forecasts.

**Status: CLOSED** – Preliminary demonstrations of IASI impacts in GFS in March 2008 showed neutral (NH) and moderate (SH) positive impacts. Refinement and alternative tests in cloud detection algorithms will be performed on September 30 2008.

### WE-07-01\_2

**Action:** JCSDA will demonstrate the uses of cloudy radiances from microwave instruments in NCEP GFS systems.

**Status: CLOSED** – In June 2008 investigated GFS/GSI minimization process including cloud water profiles. Global 3dvar (GSI) now includes minimization of cloud liquid water. In September 2008 NOAA will investigate prototype uses of microwave sensor cloud-affected radiance in GFS.

### WE-07-01\_4

**Action:** NRL, AFWA and NCEP will begin assimilation of Windsat wind vectors in their forecasts systems.

**Status: CLOSED** – Preliminary Windsat impacts studies were completed with positive impacts on global wind fields near 1000 mb. AFWA and NRL will complete their tests and demonstration in September 2008.

## Category 1 Actions (Cont'd.)

### WE-07-01\_6

**Action:** Develop and test several major radioactive transfer components in NCEP GFS and WRF to develop CRTM version 2, which will include Zeeman splitting, trace gas, and historical instruments.

**Status: Closed -** SSU and MSU components were implemented for historical data assimilation in NCEP re-analysis in November 2007. CRTM including Zeeman splitting components were implemented in January 2008. Trace gas components will be included to the system in September 2008.

## Category 2 Actions:

### AG-07-01\_1

**Action:** Continue research on developing biomass products using GOES-R and other sensors.

**Status: OPEN –** GOES biomass burning product implemented operationally in July, 2008, research continues with MSG

### CL-06-01\_11

**Action:** Workshop on development of AVHRR CDRS, coordinate between different groups on AVHRR calibration, navigation, and product experts to build consensus algorithms.

**Status: OPEN –** Workshop scheduled for November 17-19, 2008 in Camp Springs, MD, USA

### CL-06-02\_8

**Action:** Free and open exchange of MOBY for ocean color vicarious calibration.

**Status: CLOSED -** Available upon request. Website available for easy access late 2009.

## Category 2 Actions (Cont'd.)

### HE-06-03\_6

**Action:** Produce weekly 4-km global maps of Vegetation Health Index (VHI) for the international user community via the internet.

**Status: CLOSED** - Images were delivered to the WEB in May, and digital real time data in September. Images can be obtained from: <http://www.star.nesdis.noaa.gov/smcd/emb/vci/VH/index.php>

### WA-06-02\_1

**Action:** Develop a white paper on a shared vision of the need for ensemble re-analysis and re-forecast from atmospheric models over a continuum of weather and climate time series.

**Status: OPEN** –

### WA-06-02\_2

**Action:** Identify possible sources of funding for HEPEX and NIDIS collaborative activities.

**Status: OPEN** –

### WA-06-7\_6

**Action:** Identify a funding source to support the transition of the global H-E code to an operational platform.

**Status: OPEN** – Global product available via research platform.

### WA-08-01\_5

**Action:** Continue to provide in-situ, remote sensing and global and regional land and coupled assimilation water and energy products at CPPA-CEOP Reference Sites.

**Status: OPEN** -

## Category 2 Actions (Cont'd.)

### WA-06-02\_3

**Action:** Observing System Simulation Experiment (OSSE) to compare operational benefits of various ROS constellation options identified in June 2007 WMO workshop on redesign and optimization of space-based GOS (OPT-2)

**Status: OPEN** – Detailed resource analysis and scope was completed. Need to identify resources.

## Category 3 Actions:

### CL-06-06\_1

**Action:** MERIS ocean color processing for US coastal waters (progress and accessibility report).

**Status: OPEN** - On track for January 2009 operational implementation.

### EC-06-07\_1

**Action:** Contact Doug Muchoney from GEOSEC to identify an appropriate date and location to host a consultative workshop for further collaboration on Phenological Networks. Convene workshops to identify community interests, strategies and potential leads and contributors.

**Status: OPEN** – Doug Muchoney contacted by Brad Reed (USGS) and J. Weltzin (USGS). Reed, Weltzin and M. Schwartz (Univ. Wisc-Milw) prepared new GEO Task Sheet (EC-P08-03) that proposes workshop and implementation document. Date of workshop TBD.

## Category 3 Actions (Cont'd.)

### AR-07-04\_1

**Action:** Generate AVHRR-based system, indices and data products (global assessment of vegetation health, vegetation and temperature conditions, drought, fire risk, land cover and climate-related vegetation tendencies) used operationally and globally for early drought detection, monitoring drought development, intensity and impacts on agriculture, forestry, environment, land cover, human health (vector borne diseases), invasive species (locust).

**Status: OPEN** – Generating indices and real-time product archives is scheduled through 2012. the first round of tasks for 2008 foresee the generation of real-time observations and updated archives of NDVI with reduced noise, BT with reduced noise, 20-year climatology of NDVI and BT, Vegetation Condition Index (VCI), Temperature Condition Index (TCI) and Vegetation Health Index (VHI) by the end of the year, with real time indices online by April 2009.

### DA-07-01\_2

**Action:** Completion of Implementation Arrangement (IAs) for mutual exchange of satellite data (from ISRO: INSAT-3D sensor data, from NOAA: Technology transfer for INSAT-3D product development) for products such as precipitation, aerosols, temperature.

**Status: OPEN** – A draft IA is in the review process and dates are to be confirmed.

## Category 4 Actions:

### EC-07-01\_2

**Action:** Continue development and production of satellite products throughout the life of associated satellites.

**Status: OPEN** – Needs to be rewritten, maybe removed.



## Category 4 Actions (Cont'd.)

### EC-07-01\_3

**Action:** Conduct a Mid-Decadal Global Land Survey in part using the data from these satellites

**Status: OPEN** – Comment - Tri-Decadal Global Landsat Orthorectified data is presently available. These sets are generally available to the user community and may provide the tools for mapping/monitoring ecosystems on a global scale or providing greater spatial resolution.

### EC-07-01\_4

**Action:** Conduct long-term monitoring of the brightness temperatures over the Amazon rainforest.

**Status: OPEN** - Some of the proposed work was done in 2008, part of the results appeared an article published in 2007 (Ohring, G., et al. (2007), Achieving Satellite Instrument Calibration for Climate Change, P51, Eos Trans. AGU, 88(11), doi:10.1029/2007EO110015).

### DA-06-02\_4

**Action:** Identify radiometric reference standards and operational guidelines.

**Status: CLOSED** – Tasks included: 1) Identify fundamental radiometric reference standards and application methods for use in EO. 2) Develop a CEOS/WGCV standards and recommendations handbook. 3) Following the establishment of CEOS reference standards, including the moon, standard deserts and LANDNET test site, WGCV/IVOS will ensure that the accompanying operational guidelines and coordinates will be made available through the GEO/CEOS cal/Val portal.

# Next Steps

- November 2008: GEO-V Plenary
  - Each CEOS SBA Coordinator, Constellation Lead, and WG Chair has proposed one action that deserves to be highlighted in the GEO-V oral report
  - Ivan will provide additional information on this topic tomorrow
- December 2008: 2<sup>nd</sup> CEOS-GEO Remapping Meeting
  - As was done in December 2007, a meeting will convene in Geneva with representatives of the SIT Chair, Vice Chair, CEOS Chair, CEO, CEOS SEO, and members of the GEO Secretariat
  - Goal will be to review updated GEO Tasks and Targets and converge our efforts with the updated GEO 2009–2011 Work Plan and to review the new GEO Tasks and determine where new actions can be developed to support GEOSS
- January 2009: 2<sup>nd</sup> SIT CEOS-GEO Workshop
  - Workshop participants (CEOS SBA Coordinators, Constellation Leads, Working Group Chairs) will refine and prioritize the CEOS-GEO actions