

GEMS GRG
observational data

structure of GRG sessions on obs data

Tuesday afternoon, 15.30 - 17.00 technical issues of data assessment

Discussions on

- which data sets are available, which will be used ?
- which contacts have been / have to be established ?
- who will be in charge as GEMS contact

- 3 short **presentations**:

Christiane Textor, CNRS

overview of data sets and possible overlaps within GEMS

Andreas Minikin, DLR

data available via DLR

Martin Suttie, ECMWF, GEMS-PRO

obs data used in GEMS theme PRO

Wednesday morning 9.00 - 10.00 methodologies for model evaluation

Discussion & Definition of parameters / campaigns / strategies

- 2 short presentations

Jean-Pierre Cammas, LA, GEMS-GRG

model evaluation with MOZAIC

Claire Granier, Fadoua Eddounia, UPMC

MOZART evaluation using GOME

Workpackages in GRG

1. Assimilation of gas-phase chemical species in the stratosphere and troposphere
2. Implementation of state-of-the-art global chemistry transport models in the ECMWF operational system
3. Development of Prototype User Services
4. **Evaluation of reanalysis simulations**

WP 4 - Evaluation of reanalysis simulations

Tasks: (LA, SA)

1. Inventory of community-accessible data sets
2. Definition of parameters for model evaluation
3. Preliminary evaluation of reanalysis runs
4. Definition and preparation of case studies

WP 4 - Evaluation of reanalysis simulations

Milestones and expected results:

- **Month 3: Contacts with representatives of observation networks established**
- **Month 6: Inventory of community-available surface and in-situ datasets compiled**
- **Month 12: Compiled datasets for selected species/stations available and quality checked,
Methodologies for model validation available,
Preliminary model outputs available (from WP_GRG_2).**
- **Month 18: Case studies defined,
preliminary evaluation of first reanalysis runs available**

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Christiane Textor, CNRS

Questions to be discussed

- which data sets are available, which will be used ?
- which contacts have been / have to be established ?
- who will be in charge as GEMS contact
- data agreements / protocols

Table of all data to be used in GEMS

- Data Source
- Parameters
- Contact for data base
- Email of data base contact
- Web site
- Availability
- Data agreement
- GEMS contact
- GEMS contact email
- Provided data format
- Converted to data format
- Available period
- Available Temporal resolution
- Available Horizontal resolution
- Available Vertical resolution
- Real time access

For all sub projects

GHG, GRG, AER, RAQ,
PRO

- > avoid redundant work

- definition of a common GEMS contact to data basis
- establishment of common GEMS data agreement / protocol
- development of common model validation tools?

Overlaps of obs data used in GEMS

Overlaps						
	GHG	GRG	AER	RAQ	PRO	GEMS contact
GAW/WMO	X	X	X			Harald Berresheim DWD
NDSC		X	X			
SCIAMACHY	X	X			X	
HIRDLS	X	X	X			
SEVIRI		X (O3)	X (aerosols)			
MLS	X	X				
MIPAS	X	X				
IASI	X	X				
AIRS	X	X				
MOPITT	X	X			X	
TES	X	X			X	
CrIS	X	X				
CMDL	X	X				
EMEP			X	X		
MODIS			X		X	
GOME		X			X	
MOZAIC		X		X (vertical profs)		Jean Pierre Cammas LA

Available data sets GRG

Ground based station data

- WMO/GAW global stations
- WMO/GAW World Data Centre for Greenhouse Gases (WDCGG)
- WMO/GAW regional stations
- WMO/GAW World Ozone and Ultraviolet Radiation Data Centre (WOUDC)
- CMDL

selected supersites (e.g. Hohenpeissenberg)

- NDSC
- WMO/GAW
- EMEP

Available data sets GRG

Regular aircraft flights

- MOZAIC

Aircraft campaign

- Falcon - airborne lidar

various other research flights

- CONTRACE 1 and 2

mediterranean obs

- North Atlantic Regional Experiment (NARE)

Sondes

- SHADOZ
- WMO/GAW
- NILU
- NDSC
- NDSC

Available data sets GRG

Satellites

- SCIAMACHY
- GOMOS
- MIPAS
- GOME
- GOME-2
- SEVIRI
- IASI
- AIRS
- TOMS
- OMI
- HIRDLS
- MLS
- TES
- SBUV-2
- CrIS
- MOPITT