

**Contactpersoon**

Pier Siebesma  
 030-2206760  
 siebesma@knmi.nl

**Date minutes**

June 2010

**Minutes secretary**

Pier Siebesma

**Attachement(s)**

Subject Minutes of meeting: Preparation for an observational dataset of European atmospheric profiling stations  
 Place and date of meeting KNMI, De Bilt, Netherlands, 18 June 2010

**Participants:**

**KNMI:** Pier Siebesma (PS), Roel Neggers (RN), Dave Donovan (DD), Fred Bosveld (FB)

**IPSL:** Sandrine Bony (SB), Frédérique Cheruy (FC), Jean-Charles Dupont (JCD), Marjolaine Chiriaco (MC), Martial Haeffelin (MH)

**June 18, 2010**

**ALGORITHM ISSUES:****WATER VAPOR:**

- **\*\*Composite:** from GPS + RS + MWR
- IPSL will propose a short procedure
- KNMI suggest that the IPT algorithm (Water vapor and liquid water content) is not operational enough to be implemented on a routine basis.

**CLOUD FRACTIONS:**

- **\*\*3D Cloud fraction:** CloudNet algorithm. Already implement at Cabauw. Needs to be implemented at SIRTa. **JCD to contact Ewan O'Connor.** JCD may ask Henk and Berts for support.
- **\*\*Total cloud fraction (total cloud area):** IPSL developed a CFBE algorithm (cloud fraction and cloud base height from TSI, radiative fluxes and lidar). CFBE is documented in an ISARS 2010 symposium extended abstract.
- **MSG Nowcasting SAF cloud fraction** and cloud type at 15 min and 5km resolution over Europe.
- **Aqua-train cloud,** water vapor and radiation products: SB to ask the ICARE data center to perform extractions over all CFMIP-5 sites (120 sites around the Globe).
- **GOCCP:** SB to ask LMD to extract GOCCP data over CFMIP-5 sites

**RADIATIVE FLUXES:**

- **\*\*KNMI** to extract MISR and GERB data over SIRTa and Cabauw

**LIDAR:**

- KNMI would like to implement the STRAT algorithm on ALS450 data to perform a cloud, aerosol, BLH mask. **MH to exchange with DD on that.**

**SURFACE FLUXES:**

- **\*\*FB** recommends to perform Closing of Surface flux balance. **FB to send JCD a report or article describing his recommendations**

#### LIDAR and RADAR OBSERVABLES:

- IPSL to introduce ground-based lidar and radar simulators in CMIP-5 models

#### DATABASE:

##### **\*\*Regional variability:** How do we represent spatial variability inside model grid box area?

- Retain the site value measurements (SIRTA, Cabauw): choose one zone
- Add uncertainty bars from regional measurements (e.g. Meteo-France stations around SIRTA)

##### **\*\*Temporal resolution:** model = instantaneous every 30 min. What averaging on observation data (5, 10, 30 min):

- We propose to average all measurement data over one hour.

##### **\*\*File Format:** NetCDF, variable names (ARM CMBE or CMIP-5 or both?):

- We propose to use both and alias
- Naming convention: use CF compliant (climate and forecast conventions). (at IPSL see Sebastien Denvil)
- What should we do with missing data: missing value (e.g. -999.99)? missing periods?

#### **Observation database:**

- **\*\*Action for IPSL/KNMI:** first develop a focused dataset geared towards CMIP-5 by the end of 2010.
- **\*\*Distribution of observation database for CMIP-5:** DKRZ (German database for some EUCLIPSE model output).
- **\*\*RN** to check with FASTER if they plan specific actions for CMIP-5 (beyond CMBE?).
- Observation data could be duplicated on the Gateway between PCMDI and JPL (developed for NASA satellite data): SB will ask JPL and PCMDI for their recommendation on such data archive.
- We will also develop a more comprehensive dataset for further model evaluation (e.g. KPT framework and IPSL parametrization testbed framework).

#### KNMI PARAMETRIZATION TESTBED:

- KNMI to provide SCM forcings over SIRTA from RACMO
- IPSL to contact RN to include SIRTA data in KPT
- FC to contact RN to include LMDZ in SCM mode in KPT.
- IPSL would like to use KPT graphics package for averaging and plotting.

#### **\*\* : PRIORITY ACTIONS FOR CMIP-5**