Action list EUCLIPSE WP3 Meeting Toulouse 5-6 April 2012

1. Lagrangians

| D3.2 | Storage of instantaneous 3D LES fields and key | 3 | TUD | 6 | R | PU | 24 |
|------|--|---|-----|---|---|----|----|
| | statistical variables in a public archive | | | | | | |

D3.2.1: Data of DALES have been put on the EUCLIPSE website.

UKMO (Lock) and MPI (Sandu): LES data need to be provided (15 May 2012).

De Roode (**TUD**) will write a report on the data set (**20 April 2012**).

| | D3.3 | Detailed analyses of the LES and SCM results for ASTEX and the two GPCI columns | 3 | TUD | 30 | 0 | PU | 30 |
|---|------|--|---|-----|----|---|----|----|
| ı | | Columns | | | | | | |

D3.3.1: Van der Dussen (TUD) will send a draft of the ASTEX paper to the co-authors (30 April 2012).

D3.3.2: A short paper for the AMS Boundary-Layers and Turbulence on the four Lagrangians will be written by **De Roode (TUD)** and co-authors (30 June 2012).

D3.3.3: Univ Warszaw have run the ASTEX case. **UW**: The other three Lagrangians need to be simulated and all LES results need to be submitted (30 June 2012).

D3.3.4: LES and SCMs use a different value for the roughness length z0 which leads to different surface fluxes. The **KNMI** will run their SCM with the same z0 as the LES. **TUD/Dussen** will run ASTEX with DALES using the Charnock relation for z0 (31 May 2012).

D3.3.5: (KNMI/Neggers, UKMO/Lock, MetFr/Beau, LMD/Lefebvre, MPI/Suvarchal): Confirm to Neggers that SCM based on the operational version is used. Otherwise provide updated results (30 April 2012).

| D3.4 | Identification and comparison of the key | 3 | TUD | 16 | R | PU | 30 |
|------|---|---|-----|----|---|----|----|
| | quantities used in ESM parameterization schemes | | | | | | |
| | with LES results and | | | | | | |
| | observations | | | | | | |

D3.4.1: TUD/Roode quantifies the degree of decoupling following the procedure suggested by Park et al. (2004) and compares them with aircraft observations from Wood and Bretherton (2004). The subcloud layer dynamics have been found to be similar to the clear convective boundary layer. The LES results show that during the night the stratocumulus-topped boundary are close to a quasi-steady state. This will be reported in a short paper for the AMS-BLT conference (**TUD/Roode** and co-authors, **30 June 2012**).

| | D3.5 | SCM equilibrium states in the Hadley circulation | 3 | TUD | 8 | R | PU | 30 |
|---|------|--|---|-----|---|---|----|----|
| ١ | | | | | | | | |

D3.5.1: SCMs will run their models to an equilibrium state in the LTS-free atmospheric humidity phase space. **Del Gasso (KNMI)** will send the case specifics for one test case in a format that is identical to the CGILS experiments. The output will also follow the CGILS data protocol. In the first round a constant (in time) large-scale forcing will be prescribed. The results **(KNMI/Neggers, UKMO/Lock, MetFr/Beau, LMD/Lefebvre, MPI/Suvarchal)** need to be submitted before **15 May 2012**.

As a next step the entire phase space will be simulated (which can be fully automatized after the first test run) and the first results are expected to be delivered **by the end of August** (prior to the Pan-GASS meeting).

D3.5.2: Del Gasso (**KNMI**) will send the case specifics for the radiation intercomparison study including one using a high vertical resolution (**21 April 2012**).

The aim of the second round (submission before 15 May 2012) is to assess the effect of including/excluding aerosols on the computed radiative transfer (KNMI/Neggers, UKMO/Lock, MetFr/Beau, LMD/Lefebvre, MPI/Suvarchal).

| D3.6 | Results at selected grid points (GCPI/CloudNet/ARM/A MMA) | 3 | KNMI | 22 | 0 | PU | 18 |
|------|---|---|------|----|---|----|----|
| | | | | | | | |

D3.6.1: **KNMI/Neggers** analyses the cloud fraction as a function of the inversion jumps for GCM results at selected grid points and compares those with SCM output obtained from the EUCLIPSE Lagrangians (30 June 2012)

D3.6.2 KNMI/Neggers.

- **a)** Evaluation of the five EUCLIPSE CMIP5 models at the three Cloudnet sites. Meteosat/GERB data are needed to study the too few-too bright problem.
- **b)** Multiple-parameter evaluation ("CloudNet+") of the coupled soil-atmosphere model in climate models operated in NWP mode. van het gekoppelde grenslaag-bodem systeem in klimaat modellen in NWP mode. TRANSPOSE-AMIP data are needed (ASAP)

ECHAM : Salzmann
IPSL : Dufresne
EC-Earth : Selten
Arpege : Douville
HadGem : Webb

| D3.7 | Comparison of the hydrological and energy balance and the cloud amount as computed by ESMs | 3 | MF-CNRM | 10 | R | PU | 36 |
|------|--|---|---------|----|---|----|----|
|------|--|---|---------|----|---|----|----|

D3.7:1: AMMA case: EC-EARTH results need to be provided (KNMI), ASAP.