

Report activity 3

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Discussion concentrated on WPs running the first 18 months

### **WP3.1.2 Current impact**

### **WP3.3.1 Future impact**

#### **Current emissions (2000):**

RETRO, POET Check if sectors are separable (*Action 1: Peter asks Martin Schultz and/or TNO*)

Sulphate emissions are available at UiO

Black carbon: DLR

If Activity 1 can provide better ones (month 6) those will be used.

**Future scenarios:** for 2030 IASA could be used (realistic)

For 2050 surface (IPCC, needs improvement!) +aircraft (Scenic) are available

Future ships: multiplication factor as first approach

Suggestions for more realistic future ship emissions asked from Act. 1 (e.g. regional differences in growth of traffic). DNV will come up with suggestions.

*Action 2a: prepare draft simulation design (Jos + Ivar+ Peter) – send to participants before mid-June.*

*Action 2b: provide list of desired species to Act. 1 (Peter)*

**Output:** interpolated to a common grid e.g. 2.5x2.5 degr x 1 km (Act 6 has agreed). Time resolution: monthly mean?

This will allow easy evaluation of model ensemble mean ( and range) of perturbations per sector to be provided to climate change Act.

Output will be collected at UiO using the ACCENT infrastructure.

## **WP3.1.1: Evaluation**

ETH-MEG database will be extended with selected obs a.o. Mozaic & Caribic  
It was noted that hardly any obs of ship effects on composition are available, except for planned campaign.

### **Foci of evaluation:**

a. STE – Repeat earlier evaluation (TRADEOFF, 1995-1998) with new model or model versions for one year out of these 4 e.g. 1996 (should include SONEX which had a rather complete set of species).

Other evaluation year might include INTEX 2003 or TOPSE, 2001. Most likely 2003 because many campaigns were performed that year (Act 4)

b. Need for evaluating boundary layer descriptions:  
Suggested : idealised tracer experiments (Action: Didier to distribute paper) following Hess-paper and comparison of the diurnal variation of boundary layer height in the models.  
Diagnostics will be developed jointly for ACCENT (June workshop).

b-c. For convective transport and BL venting: furthermore: check if observational profiles of e.g. NO<sub>x</sub>, NO<sub>y</sub>, CO are available in database, otherwise these may need not be added (Staehelin)

d. Evaluation of wet deposition will be connected to already started ACCENT activity  
using mainly EMEP surface obs. over Europe (**WP 3.1.1**).

*Action: further develop evaluation plan and description runs (Staehelin, Lelieveld)*

### **WP 3.1.3 Effective emissions**

Aircraft effective emissions already available from KNMI

Contact in Act. 3 for effective emissions ships: Didier will talk to Benedicte Cuenot

**Next meeting: 30 June, Oslo after ACCENT-workshop**