

Enclosure 2

WG 1 expert meeting on the LAUTLOS campaign at Lindenberg, August 24-27, 2004.

A. Meeting place and time:

Lindenberg (Meteorological Observatory Lindenberg, Am Observatorium 12, D-15848 Tauche/OT Lindenberg, Germany)

For the participants is reserved the Hotel/Gasthof Simke in 1 km distance of the Observatory.

B. Topics:

1. Presentation and discussion of the state of art of the LAUTLOS data base.
2. Presentation of the final (preliminary final) corrected data for each instrument flown/measured during the LAUTLOS-campaign which will be used as basis for instrument comparisons.
3. Agreements on different time and vertical height resolutions [10 s (50 m), 20 s (100 m), or 1 hour, 1 day (for microwave), 1-2 km].
4. Agreements on the graphs of the differences between the methods/instruments
5. Agreements for the corrections, working ranges and claimed accuracy and total uncertainty
6. Agreements on further research work related to the scientific aims of the LAUTLOS-experiment¹
7. Agreements on planned publications
8. Agreement on further activities next LAUTLOS-Meeting in 2005

¹ Scientific aims of LAUTLOS-experiment

1. Improvement/validation of research-type hygrometers/radiosondes like Meteolabor Snow White hydr., NOAA frostpoint hydr., CAO Flash Lyman alpha hydr., Lindenberg FN sonde, Vaisala RS90 routine sonde. The aim is to define an optimal working range (related to temperature, water vapor mixing ratio and relative humidity, pressure) for each of the participating hygrometers/radiosondes.
2. Creation of a "standard water vapor mixing ratio profile" by in-situ measuring hygrometers/radiosondes in the height range 300 to 10 hPa over Sodankylä in the time between 11 to 25 February, 2004.
3. Validation/improvement of the solar radiation correction of the RS90 latest version, RS80 and Snow White SRS-C34 temperature sensors. Day and night ascents are planned.
4. Study of the influence of the balloon wake on the temperature measurements, mainly for stratospheric day and night conditions (see Tiefenau and Gebbeken, 1988).
5. Study of relative humidity of Arctic stratus on ice supersaturated conditions related to the investigation of the frequency of the liquid and the ice phase in undercooled clouds.
6. Study of relative humidity on PSC-events in a height range 100 to 30 hPa.
7. Study of water vapor budget in the northern stratosphere; first data for a meridional cross section between Ny-Alesund (78°N), Sodankylä (68°N) and Lindenberg (52°N).
8. Start of climatological long-time studies based on improved/corrected upper air humidity measuring techniques for the station Ny-Alesund, Sodankylä and Lindenberg.

C. Draft Agenda COST 723 WG 1 expert meeting on the LAUTLOS campaign:

Place: Meteorological Observatory Lindenberg (German Weather Service)
Date: August 24: 16:00-19:00
August 25: 09:00-18:00
August 26: 09:00-15:00
August 27: 09:00-11:00

Tuesday, August 24, 2004 Arrival of the participants (It will possible to pick up the participants from the airports Berlin-Tegel, Berlin-Tempelhof, Berlin-Schönefeld or from the railway station Fürstenwalde (40 min of the Berlin center))

16:00	Welcome	Ulrich Leiterer
16:15	Update of the topics, amendments of Agenda	all
17:00	LAUTLOS data base, overview	Alexandre Kats
19:00	Close	

Wednesday, August 25, 2004

09:00	Data presentation, introduction	Ulrich Leiterer
09:15	NOAA/CFH-hygrometer	Holger Vömel
10:15	Coffee	
10:30	FLASH-hygrometer	Vladimir Yushkov
11:30	FN-method	Ulrich Leiterer
12:30	Lunch	
13:30	Snow-White-hygrometer	Paul Ruppert
14:30	RS92	Ari Paukkunen
15:30	Coffee	
15:45	RS80A/RS80H/RS90	Rigel Kivi/Tuomo Suortti
16:45	Microwave	Dietrich Feist/Niklaus Kämpfer
17:45	Close	

Thursday, August 26, 2004

09:00	AWI-Spitzbergen group	Roland Neuber/Marion Müller
10:15	Coffee	
10:30	Satellite validation (AMSU)	Viju Oommen John
11:30	Satellite validation (CHAMP)	Jens Wickert
12:30	Lunch	
13:30	Satellite validation (other satellites?)	NN
14:30	LAUTLOS host	Esko Kyrö
15:30	Coffee	
15:45	Agreements on:	all
	- time and vertical resolution	
	- graphs and differences	
	- corrections, claimed accuracy's and total uncertainties	
	- further research work	
17:00	Close	
18:00-21:00	Social event (ship cruise at Lake Scharmützelsee)	

Friday, August 27, 2004

09:00	Agreements on planned publications
10:15	Coffee
10:30	Agreement on further activities
11:00	Close

D. **Participants** responsible for following topics/instruments/methods

topic/instrument/method	name	status of financing
1. LAUTLOS data base	Alexander Kats/Russia	1. invited expert
2. NOAA/CFH-hygrometer	Holger Vömel/USA	2. invited expert
3. FLASH-hygrometer	Vladimir Yushkov/RUSSIA	3. invited expert
4. FN-method	Ulrich Leiterer /Germany Horst Dier/Germany	—— ——
5. Snow-White-hygrometer	Paul Ruppert/ Switzerland	1. COST 723
6. RS92	Ari Paukkunen/Finland	——
7. RS80A/RS80H/RS90	Rigel Kivi/Finland Tuomo Suortti/Finland	2. COST 723 ——
8. Microwave	Dietrich Feist/Switzerland Niklaus Kämpfer/Switzerland	3. COST 723 ——
9. AWI Spitzbergen Group	Roland Neuber/Germany Marion Müller/Germany	4. COST 723 ——
10. Satellite validation (AMSU-instrument)	Viju Oommen/Germany	5. COST 723
11. Satellite validation (CHAMP-instrument)	Jens Wickert/Germany	——
12 LAUTLOS host	Esko Kyrö/Finland	6. COST 723

The financing is limited to 1.200,00 € for the air tickets. The participants will be reimbursed the travel cost, 4x107,-€ for 4 nights +the appropriate amount of meals. The other invited participants should organize the participation on own costs.