

BEOBAL and the UFS* Schneefernerhaus

- preliminary ideas for Specific Support Action Measures

BEOBAL Methodological and Coordination Workshop
Oct. 22-26, 2005, Blagoevgrad, Bulgaria

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Managing Director UFS Ltd.

*** UFS = UmweltForschungsStation**
(Environmental Research Station)





Alt. 2.650 m a.s.l.

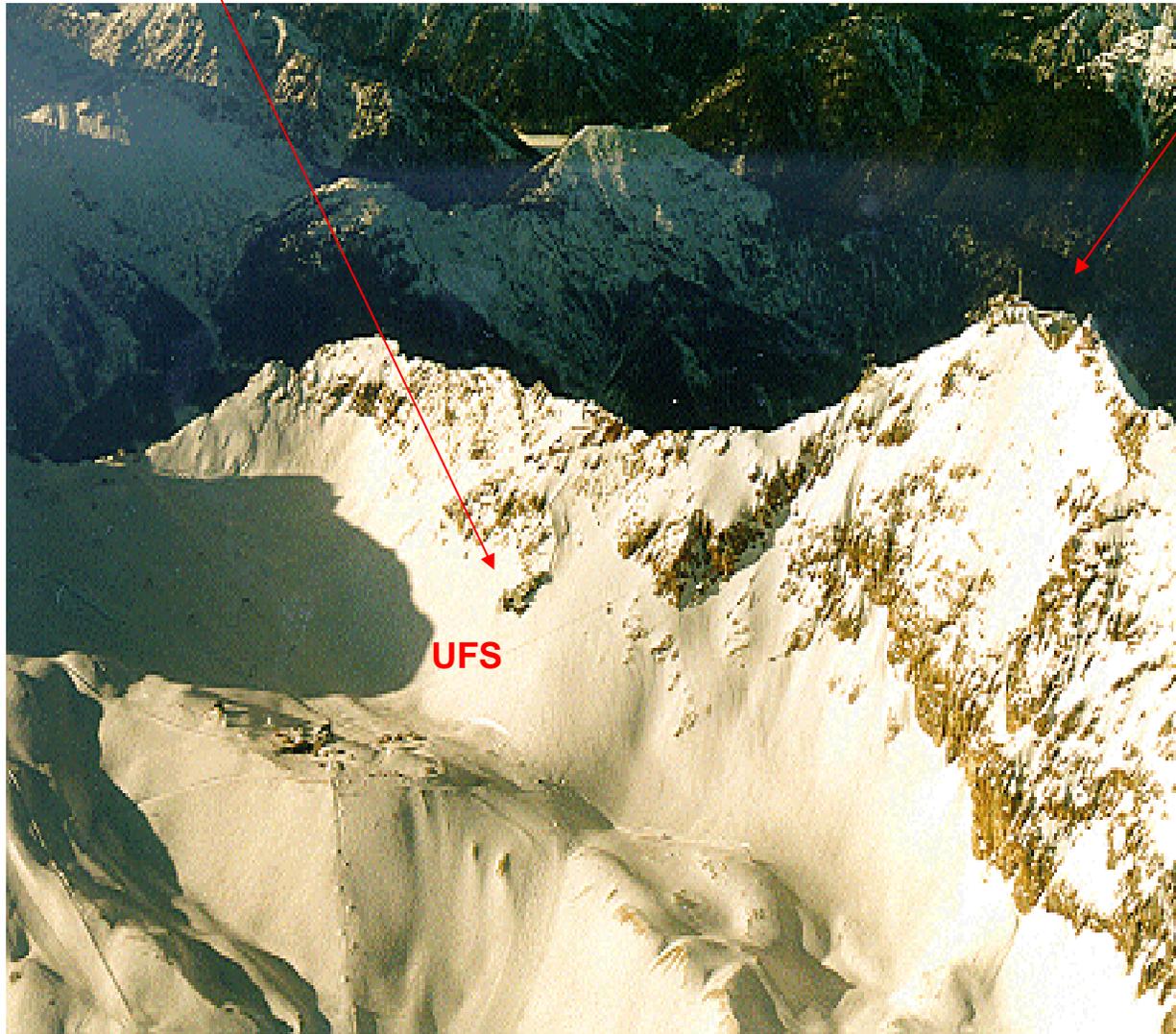
Long. E 10° 58,9'

Lat. N 47° 25,0'



UFS

Mt Zugspitze



Umweltforschungsstation Schneefernerhaus (UFS)



Transportation

Heavy loads and special passenger trains (for workshops, conferences, etc) **reach the UFS directly and independent of weather conditions** by a subsurface track siding of the cogwheel train.



Total usable area: 2.550 m²



Specific Support Action (SSA) measure 4

“Workshops, conferences: in order to diffuse and to exploit research results”

Partner

for hosting a workshop ...

UFS Schneefernerhaus Ltd.

Conference facilities

200 m²

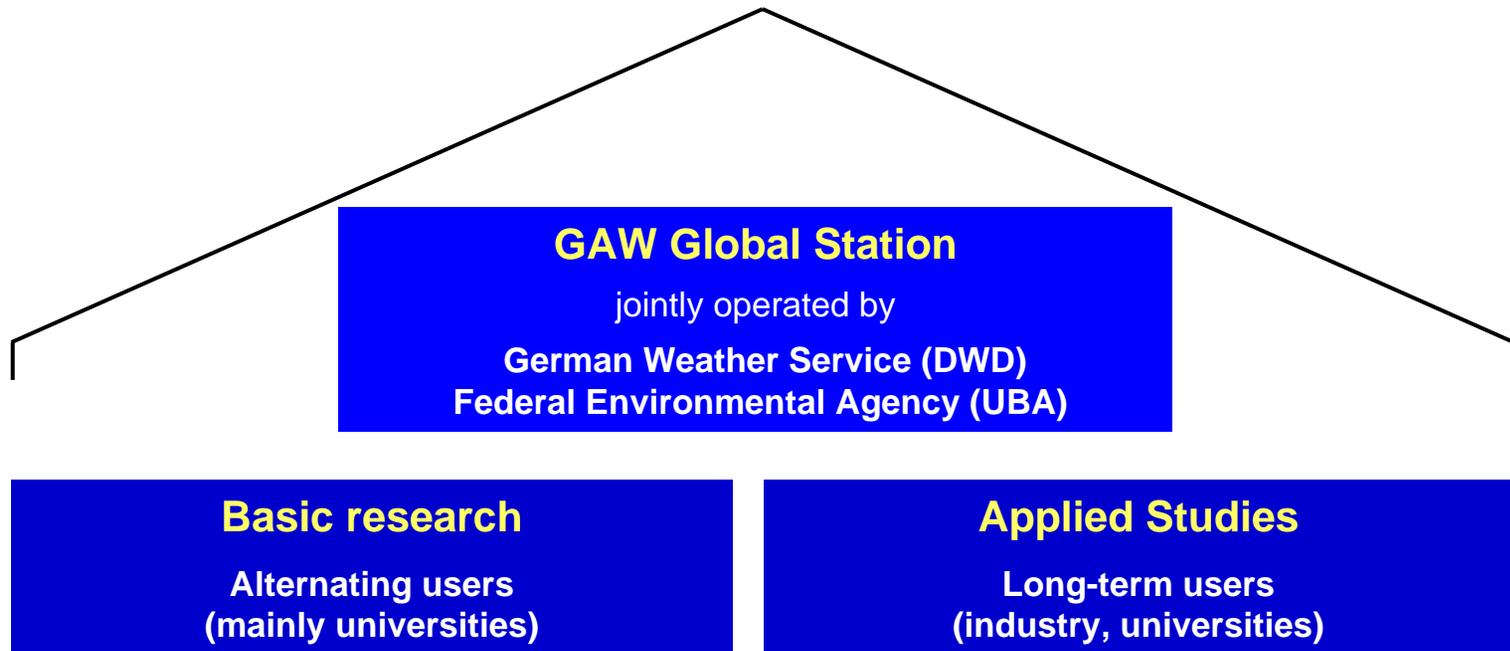
Overnight capacity

44 beds



Concept:

Integration of scientific research and practice-oriented studies into the continuity of an 'observatory'



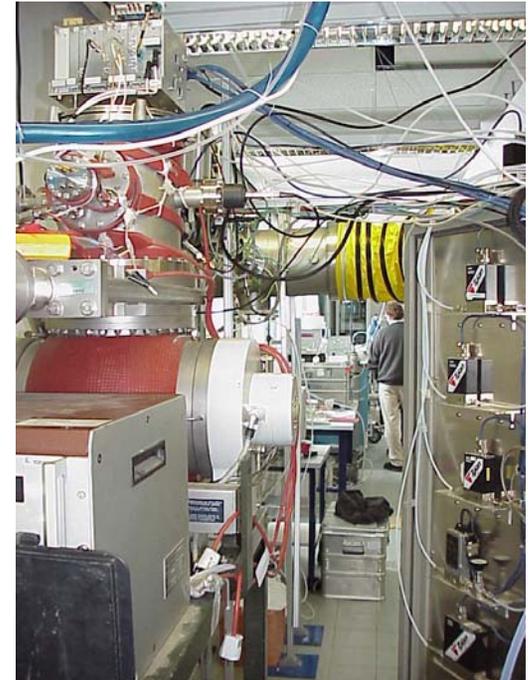
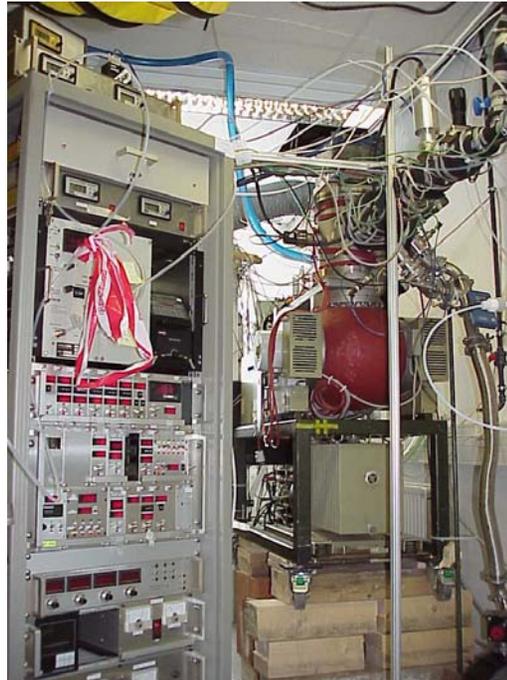
Research Priorities

- **GAW Monitoring & Research**
- **Atmospheric Physics**
- **Atmospheric Chemistry**
- **High Altitude Medicine**
- **Satellite ground truthing**





Typical experimental set-up
during SCAVEX



Examples

Vertical profiles (up to 15 km) of atmospheric water vapor

Active probing by LIDAR

Solar-terrestrial interactions (cosmic ray measurements)

Neutron flux measurements by multisphere spectrometer

Mesopause (80 km) temperature measurements for satellite validation

Passive probing by radiation spectrometer



Ground truthing: Mesopause temperature measurements (DLR)

Specific Support Action (SSA) measure 3

“Training for Ph.D. students and/or post-doctoral researchers: sending scientists from the centre for short stays to labs abroad, either for specialised training or to carry out a specific research experiment” (14 days and 3 month stays)

Possible partners

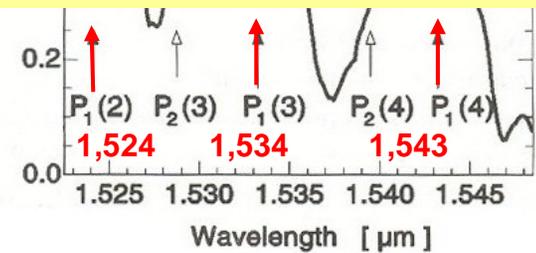
High Atmosphere

German Air & Space Center (DLR Oberpfaffenhofen)

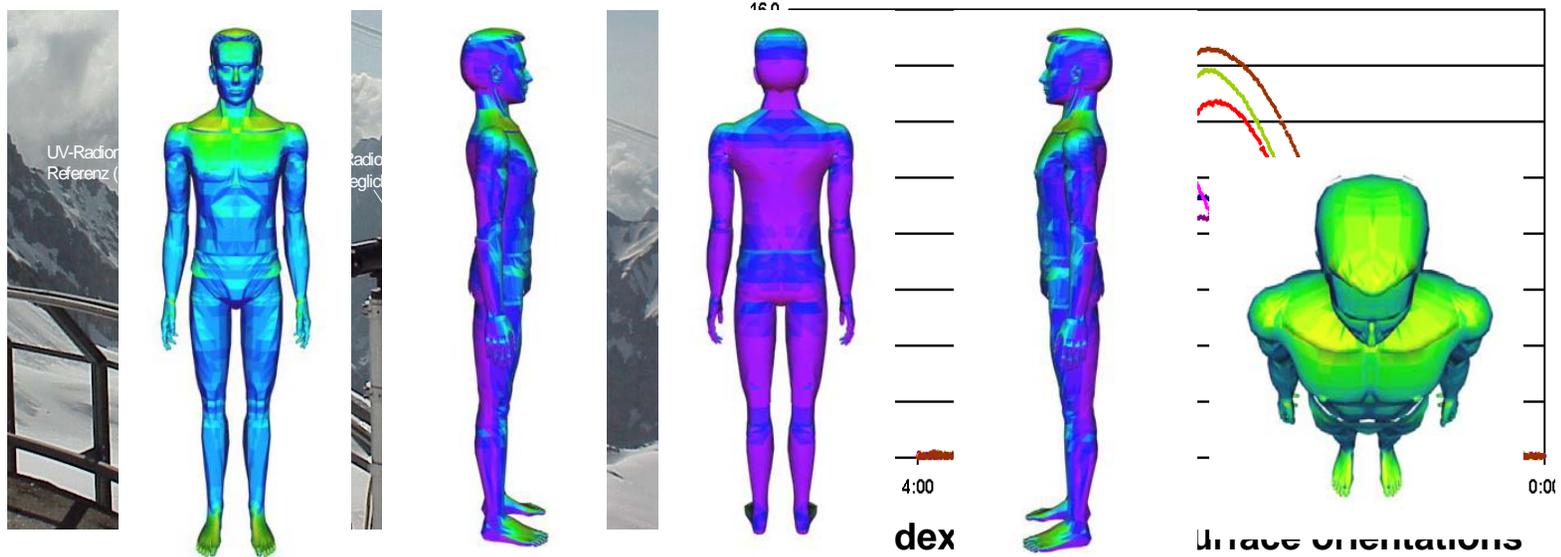
Cosmic radiation

GSF Neuherberg

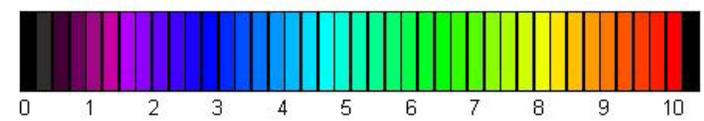
Continuous nightly measurements
by IR spectrometry



Measuring and modeling UV exposition



Farbkeil UV-Index



Looking north

12.6.2001, 13:30 h,
Zugspitze



After take-off ...



... you are at the UFS !

where ambient pressure = min. IATA cabin pressure

High altitude medicine

Alt.	p	P _{O2}
(m)	(hPa)	(hPa)



Specific Support Action (SSA) measure 3

“Training for Ph.D. students and/or post-doctoral researchers: sending scientists from the centre for short stays to labs abroad, either for specialised training or to carry out a specific research experiment” (14 days and 3 month stays)

Possible partners

UV radiation

Met. Institute, Univ. of Munich



High-altitude Medicine

Med. Clinic (Pneumology), Univ. of Munich



Alternating users

- BayLA f. Umweltschutz
 - DLR Oberpfaffenhofen
 - GSF Oberschleißheim
 - Inst. f. Troposphärenforschung, Leipzig
 - MPI für Chemie, Mainz
 - MPI für Kernphysik, Heidelberg
-
- international users (besides GAWTEC)
from A, BOL, CH, E, F, N, NL, RUS, USA
- FU Berlin
 - TU München
 - Univ. Bochum
 - Univ. Bremen
 - Univ. Frankfurt
 - Univ. Heidelberg
 - Univ. Leipzig
 - Univ. Mainz
 - Univ. München
 - Univ. Trier
 - Univ. Tübingen
 - Univ. Wuppertal

Total use 2004

- 19 projects
- 2.017 working days (research)
- 1.440 working days (excursions/workshops)
- 1.563 overnight stays

