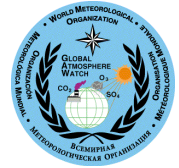




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GAW-CH Conference 2011

Introduction

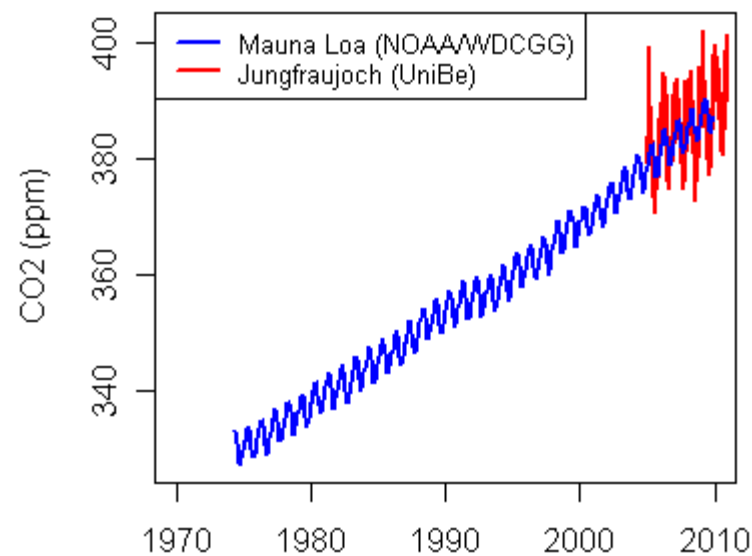
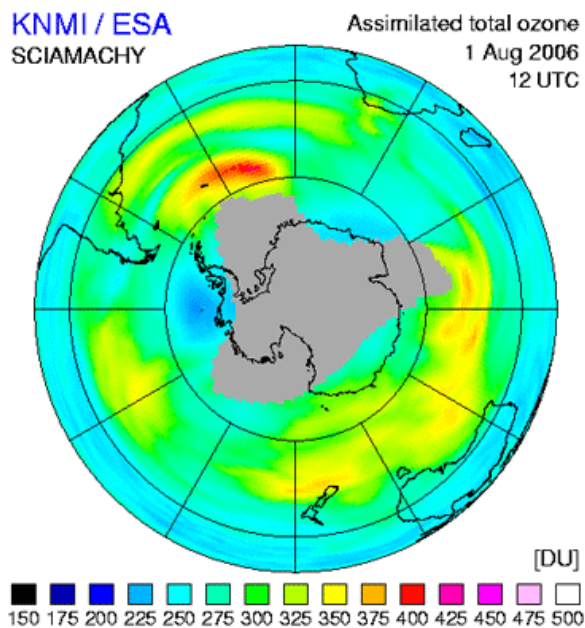
Gerhard Müller

18-19 January 2011, ETH Zurich



Global Atmosphere Watch (GAW)

- Antarctic Ozone Hole
- Greenhouse Gases





Ozone – a problem still unsolved

- “In contrast to the diminishing role of ODSs, *changes in climate* are expected to have an increasing influence on stratospheric ozone abundances in the coming decades. These changes derive principally from the emissions of long-lived greenhouse gases, mainly carbon dioxide (CO₂), associated with human activities. An important remaining scientific challenge is to project future ozone abundances based on an understanding of the complex linkages between ozone and climate change.”

[WMO/UNEP Scientific Assessment of Ozone Depletion: 2010]



The Swiss Contribution to GAW



Components of the Swiss GAW-Programme

- International services
- National monitoring and research programme

Organisation

- Strong cooperation between federal offices and national research institutions involved in atmospheric observations and analysis
- Co-ordination and leadership of the programme by a national steering committee
- Secretariat at MeteoSwiss acting as a national focal point



Goals for International Services and Coordination



Re-inforce international contributions and co-operation especially in relation with

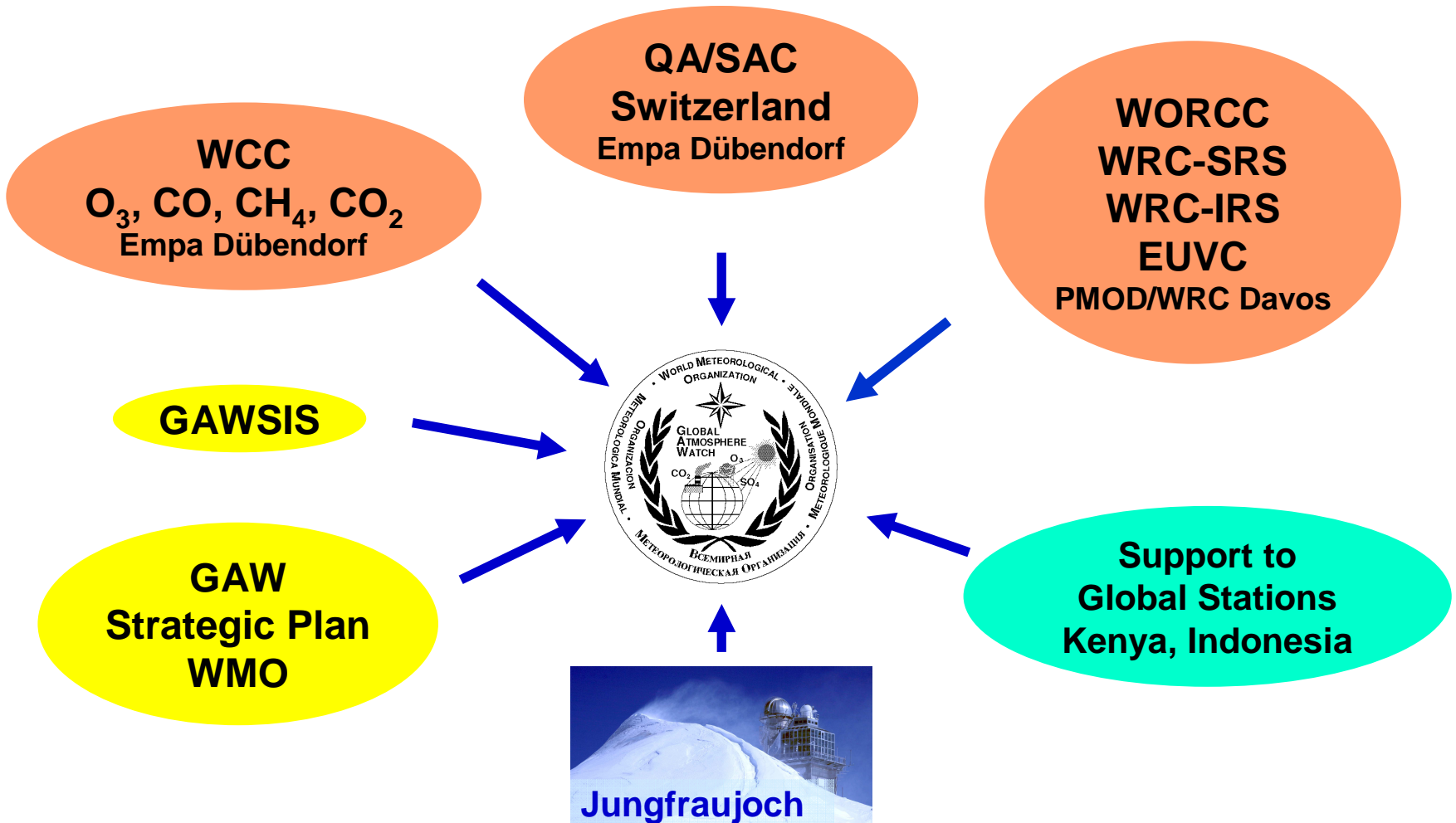
- calibration
- quality assurance
- capacity building

Offer international services

- in line with the needs and priorities of the GAW strategic plan
- where the Swiss participants have a strong and special experience
- which can be maintained on a long-term



GAW-CH International Programme





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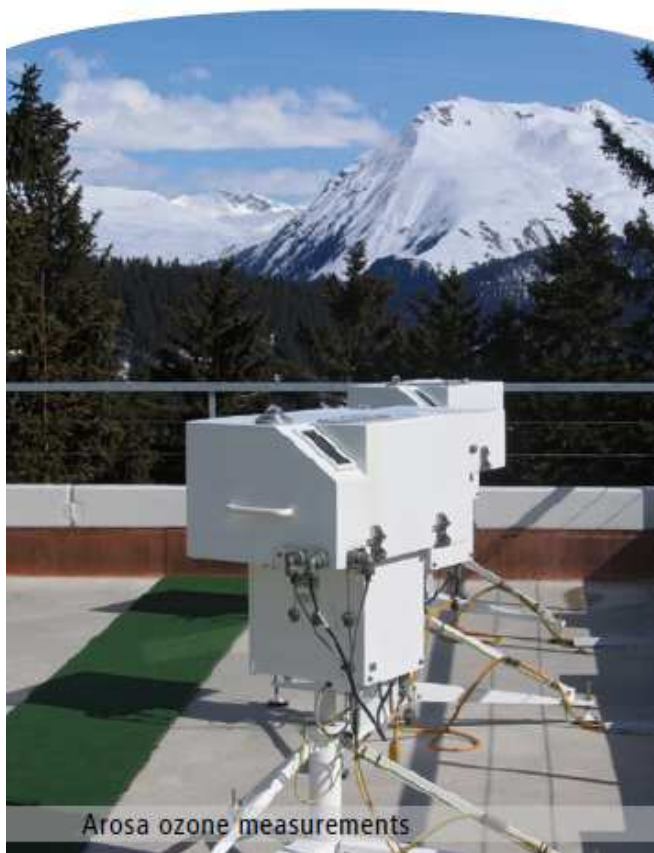
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MeteoSwiss

GAW-CH Conference 18-19 January 2011

Swiss Federal Institute of Technology ETHZ
Auditorium Maximum

Zurich – Switzerland



Arosa ozone measurements

Programme

Tuesday, 18 Jan 2011

Opening and Overview

- 09:45 Introduction
Gerhard Müller, MeteoSwiss
- 09:50 The GAW international activities related to WMO
Liisa Jalanan, WMO
- 10:10 The GAW programme in atmospheric research and in the field of environmental prediction
Oystein Hav, Chair WMO DPAG & JSSC/EPAC
- 10:30 The Swiss GAW Programme
Dominique Ruffieux, MeteoSwiss

Overview

Coffee break

First Session: Gaseous Species

- 11:05 Reactive gases: the beauty and the beast for modeling tropospheric ozone changes
Martin Schultz, Forschungszentrum Jülich
- 11:25 Greenhouse gases: trends and top down regional emissions
Brigitte Buchmann, MeteoSwiss
- 11:45 Better GAW data quality with new analytical techniques
Christoph Zellweger, Empa
- 12:05 Monitoring of greenhouse gases at the Jungfraujoch: a 60-year database
Philippe Demoulin, University Liège

Gases

Lunch

Second Session: Water Vapour and Clouds

- 13:45 Importance of water vapour for GRUAN
Holger Vömel, DWD Lindenberg
- 14:05 Humidity from the ground to the mesopause by microwave radiometry
Thomas Peter, ETH Zurich
- 14:25 Water vapour column integration at Payerne
Rolf Philipona, MeteoSwiss
- 14:45 Cirrus clouds and upper tropospheric humidity
Thomas Peter, ETH Zurich

Water vapour & clouds

Coffee break

Third Session: Ozone

- 15:35 Ozone recovery and the cooling stratosphere
Wolfgang Steinbrecht, DLR Lindenberg
- 15:55 Long-term merged ozone data records and the detection of ozone recovery
Richard Stolarsky, John Hopkins University USA

Ozone I

- 16:15 Ozone monitoring: operational services & science
René Stübi, MeteoSwiss
- 16:35 Long-term total ozone records and trends
Johannes Staehle, MeteoSwiss
- 16:55 Dynamics of stratospheric ozone by microwave radiometry
Klemens Hocke, University Bern

Ozone II

17:15 Ice breaker

20:00 Dinner

Wednesday, 19 Jan 2011

Fourth Session: Aerosols

- 09:30 Why do we measure aerosols at Jungfraujoch?
Urs Baltensperger, PSI
- 09:50 Importance of GAW aerosol data in climate modeling
Ulrike Lohmann, ETH Zurich
- 10:10 Aerosol-cloud interactions
Ernest Weingartner, PSI
- 11:00 The Raman Lidar at Payerne, a new perspective
Bertrand Calgini, MeteoSwiss
- 11:20 Importance of synoptic weather types in aerosol climatology
Martine Collaud Coen, MeteoSwiss

Aerosols

Fifth Session: Radiation

- 11:40 The importance of surface radiation observations in climate research
Martin Wild, ETH Zurich
- 12:00 Uncertainties of solar spectral irradiance: implications for the modeling of the atmospheric chemistry and climate
Eugene Rozanov, PMOD/WRC
- Lunch
- 13:40 UV: studying past evolution & serving future needs
Laurent Vuilleumier, MeteoSwiss
- 14:00 Long-wave radiation at Davos and implications for cloud changes
Julian Gröbner, PMOD/WRC
- 14:20 A century of turbidity measurements at PMOD, Davos
Christoph Wehrli, PMOD/WRC

Radiation

- 14:40 Data management, discovery and retrieval of GAW data
Johannes Staehle, MeteoSwiss

Data management

Summary

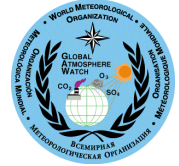
- 15:00 GAW-CH, what we learned and future perspectives
Chairmen/all
- 16:00 End of the conference



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10:40-11:05 Coffee break
