NOAA/GCOS Workshop to Define
Climate Requirements for Upper-Air Observations

NOAA - David Skaggs Research Center
325 Broadway, Boulder, Colorado
Rooms GC402 (plenary sessions) & GB124, 3B809, 3C404 (breakout groups)

Tuesday, 8 February 2005

Morning Session - Chair: Sandy MacDonald

0730 - 0830 Registration and Continental Breakfast

Setting the Stage

0830 Workshop goals
Chet Koblinsky

0845 Greetings from workshop hosts
Sandy MacDonald, Susan Avery

0900 Plans for achieving workshop goals and follow-on activities
Dian Seidel

0915 Introductions around the room

Scientific Background

0920 How have upper-air observations been used for climate research and monitoring?
Mike Wallace

0940 What gaps limit the utility of the present observing system?
Rick Rosen

1000 - 1030 Coffee Break

Related International and NOAA Activities

1030 Group on Earth Observations
Tom Karl

1050 GCOS implementation in support of the UNFCCC
Paul Mason

1110 GCOS Atmospheric Observation Panel for Climate activities
Peter Thorne

1130 US GCOS activities
Howard Diamond

1150 - 1300 Lunch (on your own)

Afternoon Session - Chair: Dave Hofmann

Requirements for monitoring and detecting climate variability and change

1300 Linkage between upper-air observations and NOAA's strategic plan; Tropospheric and stratospheric temperature and humidity
Tom Karl

1340 Tropopause characteristics
Bill Randel

1410 Atmospheric composition (particularly ozone)
Sam Oltmans, John Ogren

1440 Atmospheric Circulation
Jim Hurrell

1510 - 1530 Coffee Break

1530 Understanding feedback processes
Brian Soden

1600 Testing model parameterizations
Andrew Gettelman

1630 Evaluating climate models
Ants Leetmaa

1730 - 1900 Workshop Reception - Science on a Sphere

Wednesday, 9 February 2005

Morning Session - Chair: Kevin Schrab

Requirements for climate process studies and climate modeling

0830 The Importance of Complementary Upper-Air Observations for Satellite Remote Sensing and their Synergistic Benefits
Mitch Goldberg

0900 Process studies to improve radiative transfer models
Bob Cahalan

Requirements for reanalyses and climate prediction

0930 Anchoring reanalysis and "around ongoing analysis" products
Phil Arkin

1000 Seasonal and interannual climate prediction
Jim Laver

1030 - 1050 Coffee Break

Findings of related recent workshops

1050 "Emerging Science Applications of Measurements from GPS/GNSS and GPS-like Signals: Recent Results and Future Possibilities"
Jim Anderson

1110 "Utilization of Unmanned Aerial Vehicles for Global Climate Change Research"
Sandy MacDonald

NOAA Observing System Architecture

1130 Existing upper-air requirements for climate and guidance on refining them
Pam Taylor

1200 - 1315 Lunch (on your own)

Afternoon Session

1315 - 1500 Breakout Groups: Gather information and discuss issues affecting requirements

- Climate Monitoring
  Brief presentations by Melissa Free, Seth Gutman, Mark McCarthy, Sam Oltmans, Frank Schmidlin, Alex Sterlin, June Wang, Betsy Weatherhead
  Chair: Neville Nichols

- Climate Process Studies and Modeling
  Brief presentations by Alex Sterlin, June Wang
  Chair: June Wang

- Satellites and Radiative Transfer Models
  Brief presentations by Dan Birkenheuer, Tony Reale
  Chair: John Christy

- Reanalyses and Climate Predictions

Thursday, 10 February 2005
Thursday Session - Chair: Chet Koblinsky

0830 - 1000  Plenary: Breakout groups report on progress. Identify and resolve areas of confusion or conflict, within or between breakout groups
1000 - 1030  Coffee Break
1030 - 1200  Breakout Groups: Complete work on requirements
1200 - 1315  Lunch (on your own)
1315 - 1600  Final plenary: Obtain consensus on requirements and workshop report outline
1600 - 1630  Next Steps
1630         End of Workshop for all but drafting team

Friday, 11 February 2005

0800 - 1200  Drafting team prepares workshop report
1200         Drafting team adjourns