

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
	What gaps limit the utility of the present observing system?	
0940	What issues are driving the need for this workshop?	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 UNFFCCC	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

Group #1	Brief presentations by Melissa Free, Seth Gutman, Mark McCarthy, Sam Oltmans, Frank Schmidlin, Alex Sterin, June Wang, Betsy Weatherhead Climate Process Studies and Modeling	Chair: Neville Nicholls
----------	--	-------------------------

Group #2	Brief presentations by Alex Sterin, June Wang Satellites and Radiative Transfer Models	Chair: June Wang
----------	---	------------------

Group #3	Brief presentations by Dan Birkenheuer, Tony Reale	Chair: John Christy
----------	--	---------------------

Reanalyses and Climate Predictions

Group #4	Brief presentations by Chris Rocken, Oleg Pokrovsky (tentative)	Chair: Randy Dole
1500 - 1530	Coffee Break	
1530 - 1700	Breakout Groups: Prepare initial set of observational requirements	

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