## SOS Data Analysis Workshop Agenda for the Nashville 99 Portion

# Wednesday March 8

## Session No. 1 Perspectives for the Workshop – Jim Meagher

8:30 8:45 8:55 9:10 9:30 9:50	Introduction (outline for meeting, chemical climatology during study) Discussion of Synoptic Meteorology During the Field Study Variations In Upper Atmosphere O <sub>3</sub> as Seen with the Daily O <sub>3</sub> Sondes A Comparison of VOC Measurement Performed at Cornelia Fort Airpark (CFA) A Comparison of <i>In Situ</i> and Long-Path Measurements of NO <sub>2</sub> Comparison of Aerosol Mass and Chemical Composition Data from CFA	Jim Meagher Dick McNider Mohammed Ayoub  Eric Apel Ron Cohen Roger Tanner		
10:10	Break Session No. 2 PBL dynamics, mixing, and transport – Richard	McNider		
10:40 11:00 11:20 11:40	Surface Energy Balance and Ozone Deposition Measurements Boundary Layer Height Derived from Profiler Measurements Measures of Vertical and Horizontal Transport Comparison of Observed and Modeled Surface Energy Balance	Tilden Meyers Allen White Wayne Angevine Bob Zamora		
12:00	Lunch Break			
1:00 1:20	The Effect of Surface Temperature on Model Performance Characteristics of the Nighttime and Daytime Boundary Layers as Revealed by Lidar and Other Sensors	Dick McNider Bob Banta		
Session No. 3 Insights from the ground-based chemistry network – Steve Bertman				
1:40 2:00 2:20 2:40 3:00	Overview of the Dickson Experiment Analysis of Long Range Transport of CO and Other Key Pollutants from Anthropogenic Sources And From Remote Boreal Forest Fires Towards the SOS95 Study Region. Nitrogen Partitioning at Dickson Isoprene Chemistry at Dickson A Fuel-Based Assessment of Motor Vehicle Emissions in Nashville	Steve Bertman  Gerhard Wotawa John Grossenbacher Dennis Barket Rob Harley		
3:20	Break	·		
3:50 4:10 4:30	The Speciation and Distribution of VOCs in the Nashville Urban Area Preliminary Analysis of Photochemical Reactivity at Level II Stations. Emissions, Measurements, and Power Plant Plumes: Insights from Photochemical Models	Bill Lonneman Ken Olszyna Sandy Sillman		
4:50	Adjourn			

## **Thursday March 9**

#### Session No. 4 Results from the Cornelia Fort ground site – Eric Williams

8:30	Ozone and Aerosol Measurements with the NOAA Ground-Based Lidar	Christoph Senff		
9:10 9:30 9:50	The Structure of the Wind Field and Turbulence Characteristics Measured with the Mini-MOPA Doppler Lidar Semi-Continuous Aerosol Speciation at CFA (SO <sub>4</sub> , NO <sub>3</sub> , and Carbon) TNMOC and Speciated VOCs at CFA Fast-Response VOC and Organic Nitrate at CFA	Lisa Darby Susanne Hering Hunter Daughtrey Armin Hansel		
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10:10	Break			
10:40 11:00	The Partitioning of Reactive Nitrogen at CFA Photochemical and Depositional Inferences from Formaldehyde Measurements at CFA	Eric Williams Brian Wert		
11:20 11:40	HO and HO <sub>2</sub> Measurements in an Urban Environment NO <sub>3</sub> And HONO at CFA	Monica Martinez Jochen Stutz		
12:00	Lunch Break			
1:00 1:20	Relationships Among Isoprene, MACR, MVK and MPAN At CFA Anthropogenic vs Biogenic VOCs and Ozone Formation Inferred from	Craig Stroud		
1.40	Measurements Of PAN, PPN, and MPAN	Jim Roberts		
1:40 2:00	Aerosol Size Distribution and Chemical Speciation for CFA Comparison of Ozone Production Rates Inferred from NO/NO <sub>2</sub> Chemistry	Len Stockburger		
2.00	and from $RO_2+HO_2$ Observations.	Ron Cohen		
2:20	Direct Measure of OH Decay	Tom Kovacs		
2:40	0-D Photochemical Modeling of Various Compounds at CFA	Greg Frost		
3:00	Break			
Session No. 5 Measurements using instrumented aircraft – Fred Fehsenfeld				
3:30 3:50 4:10 4:30	Overview of the Airborne Lidar and Radiometer Measurements Helicopter Measurements in Nashville 99: Analyses of Plume Chemistry Crosswind Structure of Gas and Particle Species in Power Plant Plumes Preliminary Results from the G-1 Observations Taken During Nashville '99	Christoph Senff Roger Tanner Bob Imhoff Peter Daum		

#### 4:50-7:00 Poster session and general discussion

This session will begin immediately after the last oral presentation on Thursday. The posters on display (the boards are 4' x 8') will include those from the Atlanta SuperSite and the Nashville-related ones listed below. We plan to provide *hors d'ourves* and a cash bar during this session. During this time, you will be able to view the posters and engage in discussions with other researchers in a relaxed and informal atmosphere.

## Posters – Nashville 99

Ground-Based Photolysis Frequency Measurements During SOS 1999  Sam Hall Comparison of VOC Measurements on the NOAA P-3  Model Simulation of Power Plant Plume Dispersion Instrumentation, and Data Acquisition and Reduction for TVA's Instrumented Helicopter  DOAS Measurements at CFA Inferring Sources at CFA with CO, SO <sub>2</sub> , NO <sub>y</sub> , And O <sub>3</sub> Data NO <sub>x</sub> /NO <sub>y</sub> Monitoring Using Modified/Unmodified Commercial Instrumentation Behavior of Peroxides at CFA and Relationships with $HO_x$ and $NO_x$ Tom Jobson Ozone Instrument Intercomparison Overview of NOAA P-3 Flights  Gerhard Hübler
Model Simulation of Power Plant Plume Dispersion  Instrumentation, and Data Acquisition and Reduction for TVA's Instrumented  Helicopter  DOAS Measurements at CFA  Inferring Sources at CFA with CO, SO <sub>2</sub> , NO <sub>y</sub> , And O <sub>3</sub> Data  NO <sub>x</sub> /NO <sub>y</sub> Monitoring Using Modified/Unmodified Commercial Instrumentation  Behavior of Peroxides at CFA and Relationships with HO <sub>x</sub> and NO <sub>x</sub> Tom Jobson Ozone Instrument Intercomparison  Overview of NOAA P-3 Flights  Stu Mckeen  Ray Valente  Ray Valente  Tom Jehron Hereid  Keith Kronmiller  Tom Jobson  Eric Williams  Gerhard Hübler
Instrumentation, and Data Acquisition and Reduction for TVA's Instrumented Helicopter Ray Valente DOAS Measurements at CFA Bjørn Alicke Inferring Sources at CFA with CO, $SO_2$ , $NO_y$ , And $O_3$ Data Dan Hereid $NO_x/NO_y$ Monitoring Using Modified/Unmodified Commercial Instrumentation Keith Kronmiller Behavior of Peroxides at CFA and Relationships with $HO_x$ and $NO_x$ Tom Jobson Ozone Instrument Intercomparison Eric Williams Overview of NOAA P-3 Flights
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Ozone Profiles from Daily Sondes Mohammed Ayoub
Moving Your Data to the NARSTO Archive  Les Hook
Light Non-Methane Hydrocarbon Measurements at CFA  Valerie Young
The Methanalyzer - Ambient HCHO Measurements with 10 Minute Resolution Bill McClenny
A Comparison of VOC Measurement Performed at CFA  Dan Reimer
Hydrocarbon Distributions at Dickson, Polk, and CFA Paul Doskey
Assessment of Effects of Ozone on Ecological Systems in the Southeast Walter Heck
Season - Long Perspective on Ozone/Precursors Interaction Among Seven Sites
Near Nashville, TN. McMichael
Forecasting Ozone with Yesterday's Data and Meteorological Data in the
Charlotte Metropolitan Area. Harrington
Relative Abundances and Radical Reactivity of the n-Aldehyde Series at Dickson  Julie Hurst

# Friday March 10

## Session No. 5 (continued) – Fred Fehsenfeld

8:30	Tracer Relationships in the SOS 1999 P-3 Measurements	Dave Parrish
8:50	Spatial and Temporal Distributions of Selected VOCs Measured Aboard the NOAA P-3 Aircraft	Paul Goldan
9:10	Formaldehyde Measurements Aboard the NOAA P-3	Yin-Nan Lee
9:30	Using CO <sub>2</sub> as a Conserved Tracer in Power Plant Plumes	Rich Dissly
9:50	Ozone Production Efficiency in Power Plant Plumes	Tom Ryerson
10:10	Break	
10:40	Preliminary Results from PAN Measurements During SOS Nashville 99	Andy Weinheimer
11:00	The Fast-Response, Airborne Measurement of HNO <sub>3</sub> Using Chemical	
	Ionization Mass Spectrometry	Greg Huey
11:20	Formation of Fine Particles in the Southeast as Determined from	
	Measurements Aboard the P-3	Chuck Brock
11:40	Ozone Production in Urban Plumes	Michael Trainer
12:00	Workshop Concludes	