

| FIFTH AMS USERS MEETING -- PROGRAM                                    |       |  |   |   | Final Version       | 30-Sep-04  |  |
|---|-------|--|---|---|---------------------|--|--|
| Georgia Tech, Friday Oct. 8 (7 PM) to Monday Oct. 11 (6:30 PM), 2004. |       |  |   |   |                     |  |  |
| Final Prepared by Tim and Manjula                                     |       |  |   |   |                     |  |  |
| Friday, 8-Oct-04  |       | INTRODUCTION   |   |   |                     |  |  |
| FROM  | TO    | $\Delta t$<br>min                                    | ES&T Building   | Facilitating / Presenting                   | Co-Facilitating     | Comments (green is good, red implies issues)   |  |
| -   | 19:00 | -  | Afternoon off to relax, change focus, take care of other business.                          | Dinner is responsibility of each individual |                     | Give everyone a chance to shake off AAAR, find dinner and find GA ES&T Building where AMS Users Meeting will be held.  |  |
|   |       |  | Welcome   |   |                     |  |  |
| 19:00   | 19:05 | 5  | Welcome to the AMS Users' Meeting   | Doug Worsnop                                |                     | Official start   |  |
| 19:05   | 19:15 | 10   | Welcome to Georgia Tech   | Thanos Nenes                                |                     | Local welcome by Hosting Party.  |  |
| <b>AMS Meeting Introduction and Overview</b>                          |       |  |   |   |                     |  |  |
| 19:15   | 19:30 | 15   | Start of the meeting - Discussion of the Program Logistics                                  | Tim Onasch                                  | Manjula Canagaratna | Discuss change in schedule for this year from last (today, focused on AMS issues, whereas last year was focused on applications). This year AAAR is our presentation platform for science. Need to bring hard copies of schedule and CD's of data set to investigate.  |  |
| 19:30   | 20:30 | 60   | Overview of AMS - Hardware and Software, Introduction to meeting specific issues.           | Doug Worsnop                                | Tim Onasch          | Introduction meant to provide large overview of AMS and AMS community (essential for new comers and helpful for all). Should introduce data set that will be used on Saturday. Overall explanation of what specific issues the AMS faces (CE, RIE, etc.) and how these issues will be discussed/presented at this meeting. |  |
| 20:30   | 21:00 | 30   | Buffer Time / Discussion of Issues brought up this evening                                  | Manjula Canagaratna                         |                     | Have handouts of local restaurants?  |  |
| Saturday, 9-Oct-04  |       | DATA ANALYSIS TUTORIAL, UPDATES ON ANALYSIS SOFTWARE |   |   |                     |  |  |
| FROM  | TO    | $\Delta t$<br>min                                    | ES&T Building   | Facilitating / Presenting                   | Co-Facilitating     |  |  |
| <b>Data Analysis Tutorial</b>   |       |  |   |   |                     |  |  |
| 9:00  | 10:30 | 90   | Data Analysis Tutorial  | Doug Worsnop                                |                     |  |  |
| 10:30   | 11:00 | 30   | Coffee Break - Put up posters in preparation of poster session later in the day.            |   |                     |  |  |
| 11:00   | 12:00 | 60   | Data Analysis Tutorial  | Doug Worsnop                                |                     |  |  |
| 12:00   | 13:00 | 60   | Catered Lunch   |   |                     |  |  |
| 13:00   | 15:30 | 150  | Data Analysis Tutorial  | Doug Worsnop                                |                     |  |  |
| 15:30   | 17:00 | 90   | Coffee Break and Poster Session   | Manjula Canagaratna                         | Tim Onasch          | POSTER SESSION: Results - Field and Lab  |  |
| <b>Data Analysis Software Updates</b>                                 |       |  |   |   |                     |  |  |
| 17:00   | 17:20 | 20   | Update on Data Analysis Software (Igor) since last year & future plans                      | James Allan                                 |                     |  |  |
| 17:20   | 17:50 | 30   | Discussion of analysis software: future & suggestions                                       | James Allan                                 |                     | QMS and TOFMS systems  |  |
| 17:50   | 18:20 | 30   | Buffer Time / Discussion of Issues brought up this afternoon                                | Doug Worsnop                                | James Allan         |  |  |
| 18:20   | 18:30 | 10   | Leave for Restaurant  |   |                     |  |  |
| 18:30   | 20:30 | 120  | Group Dinner at Local Restaurant (# for restaurant = )                                      | Can't start till everyone is there          |                     | Hosted by Aerodyne.  |  |
| Sunday, 10-Oct-04   |       | QUANTIFICATION AND CALIBRATION ISSUES                |   |   |                     |  |  |
| FROM  | TO    | $\Delta t$<br>min                                    | ES&T Building   | Facilitating / Presenting                   | Co-Facilitating     |  |  |
| 9:00  | 9:30  | 30   | Comments on AMS quantification and calibration issues                                       | John Jayne                                  | Doug Worsnop        | Overview about calibration and quantification issues   |  |
| <b>Quantification Issues</b>  |       |  |   |   |                     |  |  |
| 9:30  | 9:35  | 5  | Measuring CE: Beam Width Probe Design   | John Jayne                                  |                     | Hardware and software.   |  |
| 9:35  | 9:45  | 10   | Measuring CE: BWP Modeling  | Alex Huffman                                | Jose Jimenez        | Model of beam width probe and subsequent results and conclusions.  |  |
| 9:45  | 10:20 | 35   | Measuring CE: Experimental Results (Ambient & Lab)  | Tim Onasch                                  |                     | BWP results, PILS and OC intercomparisons, LS results  |  |
| 10:20   | 10:50 | 30   | Coffee Break - Put up posters in preparation of poster session later in the day.            |   |                     |  |  |
| 10:50   | 10:55 | 5  | Particle Transmission Issues  | Leah Williams                               | John Jayne          | Where and how particle losses occur in lens.   |  |
| 10:55   | 11:10 | 15   | Particle Transmission Experiments   | Peter Liu                                   | John Jayne          | Experimental results on particle transmission losses.  |  |
| 11:10   | 11:25 | 15   | Particle Lens Calculations  | Leah Williams                               | John Jayne          | Fluent calculations on new lens designs.   |  |
| 11:25   | 11:40 | 15   | AMS intercomparisons with other instruments (MOUDI etc.)                                    | Hacene Boudries                             |                     | Recent field results on size-dependent comparison with MOUDI system.   |  |
| 11:40   | 12:00 | 20   | SMPS comparisons  | Peter DeCarlo                               | Jose Jimenez        | New model that incorporates AMS and SMPS data for a nearly complete picture of the chemistry and microphysics of ambient particles.  |  |
| 12:00   | 13:00 | 60   | Catered Lunch   |   |                     |  |  |
| 13:00   | 13:20 | 20   | Laboratory RIE and CE experiments   | Brendan Matthews                            | Ann Middlebrook     | Laboratory results on RIE's for different aerosol compositions.  |  |
| 13:20   | 13:40 | 20   | AMS - PILS comparisons  | Nobuyuki Takegawa                           |                     |  |  |
| 13:40   | 14:00 | 20   | AMS - APM comparisons   | Akinori Takami                              |                     |  |  |
| 14:00   | 14:20 | 20   | AMS vaporizer design and issues   | John Jayne                                  |                     | Brief history of the vaporizer designed used in the AMS and a forward look at what the next design may look like...  |  |
| 14:20   | 15:00 | 40   | Summary & discussion of quantification issues - Discuss Future Experimental Work            | Jose-Luis Jimenez                           | Tim Onasch          | Open discussion on the quantification issues of the AMS.   |  |
| 15:00   | 16:30 | 90   | Coffee Break and Poster Session   | Manjula Canagaratna                         | Tim Onasch          | POSTER SESSION: Instrument development, quantification, and specific applications  |  |
| <b>Calibration Issues</b>   |       |  |   |   |                     |  |  |
| 16:30   | 16:55 | 25   | Calibration Procedures: Issues, Practices, and Results of calibrations during field studies | John Jayne                                  | Tim Onasch          | What practices are currently being used for calibration the AMS and how well are these practices working?  |  |
| 16:55   | 17:00 | 5  | New developments in Calibration Procedures  | John Jayne                                  |                     | Update on potential new calibration aerosol sources and procedures.  |  |
| 17:00   | 17:30 | 30   | Calibration Procedures: Recommended Practices and Demonstrations                            | Doug Worsnop                                | John Jayne          | Nova Scotia calibration summary and demonstration of calibration practices (Balzers, EM, and IE).  |  |
| 17:30   | 18:00 | 30   | Buffer Time / Discussion of Issues brought up today   |   |                     |  |  |
| 18:00   | 18:30 | 30   | Leave for Restaurant  |   |                     |  |  |
| 18:30   | 20:30 | 120  | Dinner at Local Restaurant  | Dinner is responsibility of each individual |                     | Potential group dinner (individuals pay) if interested.  |  |

| Monday, 11-Oct-04                              |       |           |   | UPDATES ON HARDWARE AND SOFTWARE, TECHNICAL DEVELOPMENTS AND APPLICATIONS |                     |   |
|--|-------|-----------|---|---|---------------------|---|
| FROM   | TO    | Δt<br>min | ES&T Building   | Facilitating /<br>Presenting  | Co-Facilitating     |   |
| <b>Hardware Updates</b>                        |       |           |   |   |                     |   |
| 9:00   | 9:30  | 30        | Update on Hardware since last year & future plans   | John Jayne  |                     | AMS hardware and future plans.  |
| 9:30   | 9:40  | 10        | Discussion of hardware failures experienced by the different users  | John Jayne  |                     | Anything...   |
| 9:40   | 9:55  | 15        | Users' Suggestions for hardware improvements  | John Jayne  |                     |   |
| 9:55   | 10:25 | 30        | <b>Coffee Break</b>   |   |                     |   |
| <b>Software Updates</b>                        |       |           |   |   |                     |   |
| 10:25  | 10:45 | 20        | Update on Data Acquisition Software since last year & future plans  | Manjula Canagaratna   | Jose-Luis Jimenez   | Changes to AMS acquisition software   |
| 10:45  | 10:55 | 10        | Suggestions of Data Acquisition Software improvements   | Manjula Canagaratna   | Jose-Luis Jimenez   | Questions/Answer - brainstorming session.   |
| 10:55  | 11:10 | 15        | Discussion of the AMS manual and suggestions for improvements   | ??  |                     | Summary of current status and plan for future.  |
| 11:10  | 11:40 | 30        | Summary of AMS Hardware and Software Issues and General Discussion  | John Jayne  | Manjula Canagaratna | Summary session to cover hardware and software issues of users.                                 |
| <b>Technical Developments and Applications</b> |       |           |   |   |                     |   |
| 11:40  | 12:00 | 20        | Aerosol Collector development   | Hacene Boudries   | John Jayne          | New AMS application   |
| 12:00  | 13:30 | 90        | <b>Catered Lunch</b>  |   |                     |   |
| <b>Technical Developments and Applications</b> |       |           |   |   |                     |   |
| 13:30  | 13:50 | 20        | TOF development   | John Jayne  | Jose-Luis Jimenez   | New mass spectrometer design!   |
| 13:50  | 14:10 | 20        | Light scattering module development   | Eben Cross  | Tim Onasch          | New AMS module  |
| 14:10  | 14:30 | 20        | ACSM development  | Tim Onasch  | Jose-Luis Jimenez   | New AMS application   |
| 14:30  | 14:50 | 20        | Aircraft - constant pressure inlet  | Brendan Matthews  |                     | New design for aircraft use of AMS  |
| 14:50  | 15:20 | 30        | <b>Coffee Break</b>   |   |                     |   |
| 15:20  | 15:40 | 20        | Organics - SOA vs POA, TOC, etc.  | Qi Zhang  | Jose Jimenez        | Exciting new analysis of AMS organic signals.   |
| 15:40  | 16:15 | 35        | Multi-campaign analysis   | Jose Jimenez  | Doug Worsnop        | Exciting new analysis of AMS data collected over many different field studies.                  |
| 16:15  | 17:15 | 60        | Update on Ambient Sampling and Laboratory Studies & Data Analysis Since Last Year - Look to future: DISCUSSION, Q&A | Doug Worsnop  | Jose Jimenez        | Overview of the AMS Users Group and discussion of where ARI and Users wish to go in the future. |
| 17:15  | 17:45 | 30        | <b>Buffer Time / Discussion of other issues that may have come up during the meeting</b>                            | Jose Jimenez  |                     |   |
| 17:45  | 18:00 | 15        | <b>Feedback on this Meeting, Discussion of Format for Future Years</b>  | Jose Jimenez  |                     | Plan for next year. Fill out questionnaires after meeting. Your input counts!                   |
| <b>END OF THE MAIN USERS MEETING</b>           |       |           |   |   |                     |   |
| 18:00  | 18:30 | 30        | <b>Leave for Restaurant</b>   |   |                     |   |
| 18:30  | 20:30 | 120       | <b>Dinner at Local Restaurant</b>   | Dinner is responsibility of each individual                               |                     |   |