ASCENDS Workshop
NASA Goddard Space Flight Center
Building 16W, Room N76/N80
18-20 April 2011

Final Agenda

All speakers should allow roughly 1/3 time for questions and discussion

Monday, 18 April 2011

08:00 – 09: 00 Process Entry at NASA Goddard, Registration, and Coffee

09:00 – 09:45 Welcome; Logistics, Comments on Prior Workshops, Including Previous Scientific Questions and Priorities, and Goals of this Workshop – A Plan to Establish Level-One Requirements – Kenneth Jucks, David Crisp, and Berrien Moore

09:30 – 10:45 Airborne Campaigns To-Date
- Overview and Brief Sketch of 2011 Plans – Ed Browell (10 min.)
- LaRC/ITT – Ed Browell (25 min.)
- GSFC – Jim Abshire (25 min.)

10:45 – 11:05 Break

11:05 – 11:30 Airborne Campaigns To-Date (continued)
- JPL – Bob Menzies

11:30 – 12:00 ASCENDS Mission Concept Studies
- LaRC/JPL/GSFC – Wallace Harrison

12:00 – 13:15 Lunch

13:15 – 14:15 Inputs and Considerations for Initial Mission Simulations
- Overview – Jim Abshire (15 min.)
  - Strategy, generic errors, random errors vs. bias errors, dry-air issues
- Global Aerosol/Cloud Characteristics, and Surface Reflectance – Ed Browell (15 min.)
- Sensitivity Analysis, Measurement Precision, and Scaling Approach – Jim Abshire (15 min.)
- Weighting Functions – Ed Browell (15 min.)

14:15 – 15:00 OSSE Studies for A-Scope – Gerhard Ehret or Bob Menzies

15:00 – 15:30 Break

Monday, 18 April 2011 (continued)

15:30 – 16:15	Mission Simulation for Random Errors: CO_2 Mixing Ratio – Peter Rayner and Randy Kawa
16:15 – 17:30	Mission Simulation Roundtable Discussion: Issues and Needed Experiments – Scott Zaccheo (Moderator), Jim Abshire, Ed Browell, Randy Kawa, Bob Menzies, Peter Rayner, others – who from Europe?
17:30 – 18:00	Open Discussion on Issues from the Day: Needed Actions and Commitments – Kenneth Jucks, David Crisp, and Berrien Moore

Tuesday, 19 April 2011

08:00 – 08:30	Process Entry at Goddard and Coffee
08:30 – 09:00	Recap of Yesterday and Refinement of Actions/Support – Kenneth Jucks
09:00 – 09:30	Assimilations and Inversions from Simulated Measurements: Issues, Approaches, and Value – Anna Michalak
09:30 – 10:00	Assimilations and Inversions from Simulated Measurements: Issues, Approaches, and Value – Open Discussion
10:00 – 10:30	Assimilations and Inversions from Simulated Measurements of CO_2 Mixing Ratio: A Pro-Typical Example – David Baker
10:30 – 11:00	Break
11:00 – 11:30	Assimilations and Inversions from Simulated Measurements of CO_2 Mixing Ratio: A Pro-Typical Example – Peter Rayner
11:30 – 12:00	Assimilations and Inversions from Simulated Measurements of CO_2 Mixing Ratio: A Pro-Typical Example – Scott Denning
12:00 – 13:15	Lunch

Tuesday, 19 April 2011 (continued)

13:15 – 13:45 Assimilations and Inversions from Simulated Measurements of CO_2 Mixing Ratio: A Pro-Typical Example – Randy Kawa

13:45 – 14:15 Assimilations and Inversions from Simulated Measurements of CO_2 Mixing Ratio: A Pro-Typical Example – Anna Michalak and Janusz Eluszkiewicz

14:15 – 15:15 Setting the Stage for the Next Round of OSSEs – Important Issues, Including Nonrandom Errors, Biases, Space-Scale Correlations (Posing Problems for the Square Root of N), and Other Topics

- Measurement Bias Considerations and Error Budgets – Bob Menzies (20 min.)
- Space-Scale Correlations – David Baker (20 min.)
- Dry-Air Weighting Functions and Other Issues – Ed Browell (20 min.)

15:15 – 15:45 Break

15:45 – 16:45 Roundtable Discussion: How to Define and Include Bias Considerations in Future OSSEs and Other OSSE topics – David Crisp and Berrien Moore, Moderators; Jim Abshire, David Baker, Ed Browell, Anna Michalak, Bob Menzies, Peter Rayner, others?

- Potential bias errors from the environment (i.e., atmosphere, scattering, WV, spectroscopy, etc.)
- Potential bias errors from the instrument (i.e., offsets, nonlinearities, orbit- or angle-dependent effects)
- What is the easiest way to adapt our emerging "random error simulation capability" to assess these?
- Dry-Air Mass Calculations
- What are the appropriate approaches to determine “how small do the bias errors need to be” to address the/other different candidate science questions? Finally, and importantly, target dates in CY11, to complete various aspects of OSSE studies.

16:45 – 17:30 Next Steps and Schedule for Simulations with Nonrandom Errors: An Open Discussion Led by Jim Abshire, Ed Browell, and Bob Menzies

17:30 – 18:00 Setting the Stage for Tomorrow: Defining Actions – Kenneth Jucks, David Crisp, and Berrien Moore

Wednesday, 20 April 2011

08:00 – 08:30	Process Entry at Goddard and Coffee
08:30 – 09:00	Recap of Yesterday and Refinement of Actions/Support – Kenneth Jucks, David Crisp, and Berrien Moore
09:30 – 10:45	Specific Actions, Timetable, and Commitments – Kenneth Jucks, David Crisp, and Berrien Moore
10:45 – 11:00	Break
11:00 – 12:00	Specific Actions, Timetable, and Commitments (continued) – Kenneth Jucks, David Crisp, and Berrien Moore
12:00	Adjourn
12:00 – 13:30	Steering Group Working Lunch