NASA Carbon Monitoring Scoping Study
Workshop Concept & Agenda

13-14 July 2010
Boulder Outlook Hotel, Boulder CO

Workshop Concept:

The primary objective of this workshop is to provide background, context, and input for NASA's Carbon Monitoring System strategic development, both in the near and long term. A particular focus will be to report on information that will integrate the agency's efforts related to carbon decision support. NASA established a Scoping Study effort to provide coordinated input to agency strategy development on the topic of carbon monitoring. This workshop will establish the basic structure & process for a 20 page whitepaper to be completed by Sept 2010. A community review/feedback workshop will be held in the Washington, D.C. area in the Fall/Winter 2010. As background and motivation for the workshop a "notional vision" five page whitepaper will be presented by the CMS Scoping Study team to participants at the start of the workshop to help set context & scope. Secondary objectives include gaining a common understanding: a) key challenges for carbon decision-support and b) roles and capabilities of other agencies.

This Scoping Study is intended to provide input to agency strategic development. No assessments or recommendations from this study including any report generated by it will constitute an agency decision or policy.

Finally, the Scoping Study is intentionally focused on potential roles for NASA in supporting GHG/carbon monitoring efforts by the US and/or international community. The description of overarching challenges and priorities described in this whitepaper are intended to offer context and background, not propose new directions for NASA.

Logistically, the participants should plan on two 8-hour days with at least half the time devoted to breakout discussions & writing.

Agenda

DAY 1	**Tuesday 13 JULY 2010**	
0800-0830	Introductions, motivation, objectives & process.	Doorn
0830-0900	Relevance to NASA carbon programs (10 minutes each terrestrial, ocean & atmo)	Jucks, Griffith
0900-0920	Status of U.S. Carbon Cycle Science Plan	Michalak
0920-0935	Morning coffee Break	
0935-1000	Summary of NRC panel findings	Decola
1000-1020	Overview of first 2 CMS pilot projects (Global CO2 flux map & US biomass map)	Pawson/Saatchi/Tucker
1020-1100	National context & carbon policy scenarios (discuss 5 pager & introduce the 4 carbon policy scenarios)	Duren
1045-1130	Carbon from space & 3 focus areas (observations, modeling/data assimilation, decision support)	Freeman/Tucker
1145-1300	Lunch/NASA CMS	Kaye
1300-1330	Directions for breakout groups (plan for day 1, plan for day 2, & initial 20 pager structure)	Doorn
1330-1730	Breakout: 4 carbon policy scenarios	
1500-1530	Afternoon coffee break	
DAY 2	**Wednesday 14 JULY 2010**	
0800-0930	Plenary: report-outs from day 1 breakout groups & discussion	
0930-0945	Morning coffee break	
0945-1200	Breakout: 3 focus areas	
1200-1300	Lunch	
1300-1330	Plenary: report-outs from day 2 breakout groups & discussion	
1330-1430	Plenary: synthesis of 20 pager outline with key themes	Duren/Sheffner
1430-1445	Afternoon coffee break	
1445-1700	Plenary: writing assignments & plan for closure on 20 pager	Doorn/Sheffner
1700-1715	Closing and Adjourn	Doorn

Breakout Group Organization

For the Day 1 afternoon breakout sessions we will divide into four carbon policy scenario groups:

1. GHG emissions from area sources (regional & country-level).
2. GHG emissions from "urban domes."
3. Carbon stocks & stock-changes (forest & soil carbon offsets).
4. Ocean carbon fluxes.

Tentative assignments for the groups will be made prior to the workshop based on participant expertise– with an opportunity to adjust provided at the workshop. Groups will have balanced representation by the carbon-cycle disciplines of atmosphere, terrestrial ecosystems, and oceans.

On Day 2, during the morning plenary report-outs from the 4 groups we will identify specific themes for follow-up in the day 2 breakouts. For the Day 2 breakout sessions we will divide into three "focus area" groups:

1. Observations: priorities for measurements from space, air, and surface (and their attributes) - including level 0/1 data products.
2. Modeling & Data Assimilation: model/data fusion including tracer transport inversion and contributing models (atmospheric transport, terrestrial ecosystem carbon, ocean carbon, etc); model inter-comparison; error characterization & propagation; including level 2/3 data products.
3. Decision-Support: definition of requirements for policy-relevant information; analysis and tools to synthesize, compare and reconcile top-down and bottom-up emission estimates; including level 4/5 data products

During the plenary synthesis effort that follows we will start fleshing out the draft 20 pager. We will close with assignments for subsequent writing efforts (identifying a lead and members for each and a schedule for completion).