GOALS:
1. Update on NASA perspective and goals
2. Presentation and assessment of CMS (2012 and 2013 projects) Science Team Results
3. Introduction of new CMS (2014 projects) team members and projects
4. Advance and share working group progress
5. Development and prioritization of science team goals and action items for 2014-2015

AGENDA:

**Wednesday November 12**

Applications Workshop (see separate agenda document) – *Grand Ballroom C/D*

**Thursday November 13**

*Plenary – Grand Ballroom C/D*

8:30 Welcome – *Peter Griffith*

8:35 HQ Perspective – *Diane Wickland, Ken Jucks*

8:45 CMS Science Team – *George Hurtt*

9:00 2012 Project Reports (15 min each in 3 parallel sessions)
*Projects in presentation order attached*

10:30 Break

10:45 Working Groups Progress Reports (10 min each)

- Biomass-Flux – *Jim Collatz*
- Algorithm Assessment/Inter-comparisons – *Cristina Milesi*
- Uncertainties – *Robert Kennedy*
- Atmospheric Validation – *Heather Graven*
- MRV – *Richard Birdsey*
- System Framework – *Kevin Bowman*
- External Communications – *Molly Brown*
- Data Management – *Kathy Hibbard*

12:30 Lunch and Poster Session on 2012 Projects
*Harmony Room*
2:00 Working Group Breakout Session 1

Grand Ballroom C/D – Atmospheric Validation
Lavender Room – Uncertainties
Juniper Room – Biomass-Flux
Jasmine Room – Data Management

3:30 Break

4:00 Working Group Breakout Session 2

Grand Ballroom C/D – System Framework
Lavender Room – External Communications
Juniper Room – MRV
Jasmine Room – Algorithm Assessment/Inter-comparisons

5:30 Summary Discussion

6:00 Adjourn

Friday November 14

Plenary – Grand Ballroom C/D

8:30 Project Support – Peter Griffith

9:00 2013 Project Reports (15 min each in 3 parallel sessions)
  *Projects in presentation order attached

10:45 Break

11:00 2014 Project Reports (5 min each) – Plenary
  *Projects in presentation order attached

12:30 Lunch and Poster Session on 2013 and 2014 Projects
  Harmony Room

2:00 Working Groups Plenary Report Back /Future Plans (10 min each)

  Biomass-Flux – Jim Collatz
  Algorithm Assessment/Inter-comparisons – Cristina Milesi
  Uncertainties – Robert Kennedy
  Atmospheric Validation – Heather Graven
  MRV – Richard Birdsey
  System Framework – Kevin Bowman
  External Communications – Molly Brown
  Data Management – Kathy Hibbard
3:30 Break

4:00 Summary Discussion

5:30 Science Team Leader and HQ Reflection

6:00 Adjourn

Guide to Presenters

CMS-2012 and CMS-2013 Project Oral Presentations
CMS-2012 and CMS-2013 presentations will be each given in oral format. Each presentation will have a 15 min limit. Presentations must be submitted in PowerPoint or PDF format and loaded onto the CMS File share page by 9:00 PM Wednesday. Filename should be composed of presenter's last name and project award year (for example SMITH-2012.pdf). Sign in to your CMS website account to find the link to the file sharing page.

CMS-2014 Project Oral Presentations
CMS-2014 project presentations will be in speed-talk format. Each presentation will have a 5 minute, 3 chart limit. Presentations must be submitted in PowerPoint or PDF format and loaded onto the CMS File share page by 9:00 PM Thursday. Filename should be composed of presenter's last name and project award year (for example SMITH-2014.pdf). Sign in to your CMS website account to find the link to the file sharing page.

Working Group Progress Reports
Working group progress reports will each be given in oral format. Each presentation will have a 10 min limit. Presentations must be submitted in PowerPoint or PDF format and loaded onto the CMS File share page by 9:00 PM Wednesday. Filename should be composed of presenter's last name and working group id (for example SMITH-GROUPNAME.pdf).

Poster Presentations
Each project is encouraged to prepare and present one project poster. Posters should be printed and formatted 48” x 48”. Posters should be hung any time on Wednesday morning in the Harmony Room on the second level.
2012 Project Reports

Session 1 – Grand Ballroom C/D

9:00 North American Regional-Scale Flux Estimation and Observing System Design for the NASA Carbon Monitoring System – Arlyn Andrews

9:15 High Resolution Carbon Monitoring and Modeling: A CMS Phase 2 Study – Ralph Dubayah


10:00 Estimating Global Inventory-Based Net Carbon Exchange from Agricultural Lands for Use in the NASA Flux Pilot Study – Julie Wolf

10:15 In Situ CO2-Based Evaluation of the Carbon Monitoring System Flux Product – John Miller

Session 2 – Lavender Room

9:00 Continuation of the Carbon Monitoring System Flux Pilot Project – Kevin Bowman

9:15 Integrating and Expanding a Regional Carbon Monitoring System into the NASA CMS – Robert Kennedy

9:30 GEOS-CARB: A Framework for Monitoring Carbon Concentrations and Fluxes – Lesley Ott

9:45 Towards a 4Dp Var Approach for Estimation of Airp Sea Carbon Dioxide Fluxes – Dimitris Menemenlis

10:00 Reduction in Bottom-Up Land Surface CO2 Flux Uncertainty in NASA’s Carbon Monitoring System Flux Project through Systematic Multi-Model Evaluation and Infrastructure Development – Kevin Bowman
Session 3 – Jasmine Room

9:00 Development of Regional Fire Emissions Products for NASA’s Carbon Monitoring System using the Wildland Fire Emissions Information System – Michael Billmire

9:15 Spatially Explicit Sources and Sinks of Carbon from Deforestation, Reforestation, Growth and Degradation in the Tropics: Development of a Method and a 10 Year Data Set 2000-2010 – Alessandro Baccini

9:30 Prototyping MRV Systems Based on Systematic and Spatial Estimates of Carbon Stock and Stock Changes of Forestlands – Steve Hagen

9:45 A Global Forest Biomass Inventory Based upon GLAS Lidar Data – Chris Woodall

10:00 The Forest Disturbance Carbon Tracking System -- A CMS Pilot Project – Tatiana Loboda

2013 Project Reports

Session 1 – Grand Ballroom C/D

9:00 Applications of the NASA Carbon Monitoring System: Engagement, Use, and Evaluation – Molly Brown

9:15 Improving and extending CMS land surface carbon flux products including estimates of uncertainties in fluxes and biomass – Jim Collatz

9:30 Understanding user needs for carbon monitoring information – Riley Duren


10:00 Quantification of the sensitivity of NASA CMS Flux inversions to uncertainty in atmospheric transport – Thomas Lauvaux
Session 2 – Lavender Room

9:00 Filling a Critical Gap in Indonesia’s National Carbon Monitoring, Reporting, and Verification Capabilities for Supporting REDD+ Activities: Incorporating, Quantifying and Locating Fire Emissions from Within Tropical Peat-swamp Forests – Mark Cochrane

9:15 Development of a Prototype MRV System to Support Carbon Ecomarket Infrastructure in Sonoma County – Ralph Dubayah

9:30 Quantifying fossil and biospheric CO2 fluxes in California using ground-based and satellite observations – Heather Graven

9:45 A data assimilation approach to quantify uncertainty for estimates of biomass stocks and changes in Amazon forests – Michael Keller

10:00 A Joint USFS-NASA Pilot Project to Estimate Forest Carbon Stocks in Interior Alaska by Integrating Field, Airborne and Satellite Data – Doug Morton

10:15 A framework for carbon monitoring and upscaling in forests across Mexico to support implementation of REDD+ – Richard Birdsey

Session 3 – Jasmine Room

9:00 An Historically Consistent and Broadly Applicable MRV System Based on Lidar Sampling and Landsat Time-series (Tested in the US, and applied to the US NGHGI reporting system) – Warren Cohen

9:15 Off-the-shelf Commercial Compact Solar FTS for CO2 and CH4 Observations for MRV – Manvendra Dubey

9:30 Operational multi-sensor design for national scale forest carbon monitoring to support REDD+ MRV systems – Steve Hagen

9:45 Time Series Fusion of Optical and Radar Imagery for Improved Monitoring of Activity Data, and Uncertainty Analysis of Emission Factors for Estimation of Forest Carbon Flux – Josef Kellndorfer

10:00 Prototype Monitoring, Reporting and Verification System for the Regional Scale: The Boston-DC Corridor – Thomas Nehrkorn

10:15 Developing Statistically Rigorous Sampling Design and Analysis Methods to Reduce and Quantify Uncertainties Associated with Carbon Monitoring Systems – Steve Stehman
2014 Project Reports
Grand Ballroom C/D

11:00 Regional Inverse Modeling in North and South America for the NASA Carbon Monitoring System – Arlyn Andrews

11:05 A Global High-Resolution Atmospheric Data Assimilation System for Carbon Flux Monitoring and Verification – David Baker

11:10 Continuation of the CMS-Flux Pilot Project – Kevin Bowman

11:15 Total Carbon Estimation in African Mangroves and Coastal Wetlands in Preparation for REDD and Blue Carbon Credits – Lola Fatoyinbo


11:30 Prototyping A Methodology To Develop Regional-Scale Forest Aboveground Biomass Carbon Maps Predicted From Landsat Time Series, Trained From Field and Lidar Data Collections, And Independently Validated With FIA Data – Robert Kennedy

11:35 High-Resolution Carbon Monitoring and Modeling: Continuing Prototype Development and Deployment – George Hurtt

11:40 High-Resolution Constraints on North American and Global Methane Sources Using Satellites – Daniel Jacob

11:45 An Integrated Terrestrial-Coastal Ocean Observation and Modeling Framework for Carbon Management Decision Support – Steve Lohrenz

11:50 Long-Term Carbon Consequences of Amazon Forest Degradation – Doug Morton

11:55 GEOS-Carb II: Delivering Carbon Flux and Concentration Products Based on the GEOS Modeling System – Lesley Ott

12:00 Direct Measurement of Aboveground Carbon Dynamics in Support of Large-Area CMS Development – Wayne Walker


12:10 Linking Satellite and Soil Data to Validate Coastal Wetland 'Blue Carbon' Inventories: Upscaled Support for Developing MRV and REDD+ Protocols – Lisamarie Windham-Myers