

NASA CMS Applications Workshop 2019: Lessons Learned & Impact of CMS Data Products to Stakeholder's Organizations

Scripps Seaside Forum, La Jolla, CA

Tuesday, November 12, 2019

NASA Carbon Monitoring System (CMS) Applications Workshop

Goals of the CMS Applications Workshop:

- *Understanding of stakeholders needs for carbon monitoring and Measurement, Reporting and Verification (MRV).*
- *Identify the challenges/needs of communities that are interested in carbon measurement, reporting and verification (MRV), biomass, Lidar applications and related activities.*
- *Provide information on value of CMS products for MRV and related applications – including exploration of key “what?” and “how?” questions for carbon data.*
- *Link CMS community to active policy end users, decision makers and regulatory agencies to ensure maximum benefit of the projects to society.*
- *Identify CMS products that are relevant and ready for use by stakeholders and decision makers.*
- *Identify CMS data products that align with stakeholders. (Identify potential impact case studies).*

Expected Workshop Outcome:

- *Expose the Science Team members to decision makers and regulatory data users.*
- *Provide stakeholders an opportunity for communication and collaboration with CMS community.*
- *Discuss lessons learned from end users on the diverse applications and uses of CMS data products.*
- *Define a community of CMS scientists who are willing to serve as collaborators with future CMS impact studies.*
- *Identify potential stakeholders to demonstrate how CMS products may impact decision processes or what CMS products are needed in terms of carbon data at their facilities.*
- *Identify opportunities for supporting carbon MRV with CMS efforts.*

Tuesday, November 12, 2019
(Location – Samuel H. Scripps Auditorium)

8:00am	CMS Applications Meeting Registration & Check-in (Samuel H. Scripps Auditorium)	
8:30am	Meet and Greet / CMS Hyperwall Background Presentation	
9:00am	Kenneth Jucks & Hank Margolis, <i>NASA Headquarters</i>	Welcome, Introduction of carbon cycle and CMS congressional direction
9:10am	Peter Griffith, <i>Chief Scientist of NASA Carbon Cycle & Ecosystems Office</i>	Welcome & Code of Conduct

9:15am	George Hurtt , <i>CMS Science Team Leader</i>	NASA Carbon Monitoring System Overview
9:30am	Stephanie Uz , Applied Sciences Manager, <i>NASA Goddard Space Flight Center</i> (Remote)	NASA Applied Sciences Overview: Integrating Applications Users in NASA Earth Science Mission Development
9:40am	Edil Sepulveda Carlo , CMS Applications Coordinator, <i>NASA Goddard Space Flight Center</i>	Overview of CMS applications efforts
9:50am	Brief around-the-room introductions facilitated by Edil Sepulveda Carlo , CMS Applications Coordinator <ul style="list-style-type: none"> • Introduction of all stakeholders in the room • Stakeholders state their need/desired outcome(s) for CMS engagement • Define the work you do and the decision you are trying to make. How/What type of carbon data from the CMS (potentially) provides decision support? <i>Goals & Objectives for the Day (Edil Sepulveda Carlo & George Hurtt)</i> 	
10:05am	Morning Break	
Session for Stakeholders supporting CMS Products at the U.S. Local Scale		
	Speaker	Topic
Time	Stakeholder , Title, <i>Organization</i>	Presentation Title , <i>CMS Project Engaged</i>
10:20am	Karen Gaffney , Conservation Planning Manager, and Allison Schichtel , Senior Conservation Planner, <i>Sonoma County Agricultural Preservation and Open Space District</i>	CMS Data for Climate Action and Extreme Event Resiliency – Sonoma County, CA <i>Dubayah (CMS 2013)</i>
10:40am	Jorn Herner , Branch Chief of Research Planning, Administration, & Emissions Mitigation Branch, <i>California Air Resources Board</i>	Current and Future use of Satellite Remote Sensing Data at the California Air Resources Board <i>Duren (CMS 2015 & 2018)</i>
11:00am	Lauren Lurkins , Director of Environmental Policy, <i>Illinois Farm Bureau</i>	Illinois Farmer Views and Uses of CMS Data <i>Guan (CMS 2016)</i>
11:20am	Elliott Campbell , Director of the Center for Economic and Social Science, <i>Maryland Department of Natural Resources</i> , and Alex Rudee , Research Analyst, <i>World Resources Institute</i>	Utilizing NASA CMS Forest Carbon Data for State Climate Action Planning <i>Hurtt (CMS 2014 & 2016)</i>
11:40am	Questions & Discussion Panel for applications and uses of U.S. local-scale products Feedback and recommendations moving forward	

12:00pm	Break for Lunch (Pick up Pre-Ordered Lunch Onsite in Room 155) Data Access Tutorial for CMS Stakeholders by NASA Data Active Archive Centers (DAACs) 12:20-1:20pm	
Session for Stakeholders supporting CMS Products at the U.S. Regional or National Scale		
	Speaker	Topic
1:30pm	Kevin Halverson , Information Technology Specialist, <i>USDA Forest Service Intermountain Region</i>	Applications of Carbon and Biomass data in the USDA Forest Service <i>Hudak (CMS 2014 & 2018)</i>
1:50pm	Melissa Weitz , Physical Scientist, <i>U.S. Environmental Protection Agency</i>	Methane Data in EPA's GHG Inventory <i>Jacob (CMS 2014 & 2016)</i>
2:10pm	Ritesh Gautam , Senior Physical Scientist, <i>Environmental Defense Fund (Remote)</i>	Characterizing methane emissions from the largest oil producing basin in the US <i>Worden (CMS 2018) & Jacob (CMS 2014 & 2016)</i>
2:30pm	<i>Questions & Discussion Panel for applications of U.S. regional or national-scale products Feedback and recommendations moving forward</i>	
2:50pm	Afternoon Break	
Session for Stakeholders supporting CMS Products at an International or Global Scale		
3:05pm	Enrico Yopez , Associate Professor, <i>Instituto Tecnológico de Sonora</i> , and Representative of Mexican Carbon Program (<i>Mexico</i>)	Developing a carbon monitoring system in Mexican ecosystems: challenges and opportunities relaying on NASA CMS <i>Vargas (CMS 2016)</i>
3:25pm	Asmadi Saad , Professor, <i>University of Jambi</i> , and Member of <i>Indonesia's Peatland Restoration Agency (Indonesia)</i>	Using NASA CMS products to evaluate the effectiveness of peat fire prevention measures in Indonesia's peatland restoration projects <i>Cochrane (CMS 2015 & 2018)</i>
3:45pm	Deborah Gordon , Senior Fellow at Watson Institute for International & Public Affairs, <i>Brown University (Global)</i>	Oil Climate Index + Gas (OCI+): Using CMS Data to Model Global Petroleum Sector GHGs and Develop Climate Mitigation Strategies

		<i>Worden (CMS 2018), Elvidge (CMS 2015), Jacob (CMS 2016)</i>
4:05pm	Sylvia Wilson , Physical Scientist, <i>USGS Land Resource Mission Area and SilvaCarbon Steering Committee Co-Chair (Global)</i>	Potential use of NASA CMS products in national forest monitoring systems for carbon emissions reporting in the tropics <i>Healey (CMS 2016), Olofsson (CMS 2015 & 2018)</i>
4:25pm	<i>Questions & Discussion Panel for applications of international or global-scale products Feedback and recommendations moving forward</i>	
4:45pm	Break for Group Photo	
5:00pm	Plenary Discussion: Stakeholder Engagement Efforts Moving Forward	
5:15pm	Edil Sepulveda, George Hurtt, and Peter Griffith, <i>CMS Applications & CMS Leadership</i>	<i>Summary of workshop and actions moving forward.</i>
5:25pm	George Hurtt, <i>CMS ST Lead</i>	<i>Tangible outcomes and actions for CMS based on workshop feedback. Closing remarks.</i>
5:30pm	<p><i>Meeting adjourn</i></p> <p><i>CMS Applications Social and Dinner at THE LOT La Jolla. Reservations for 7:30pm</i></p> <p><i>Shuttle services available from hotels 7:00-7:30PM, and pick up is 9:30-10:00PM from THE LOT.</i></p> <p><i>Please sign up for the Social at the registration desk on Tuesday morning!</i></p>	