



Final Agenda as of October 2, 2012

Hydrology Applications Joint Mission Tutorial for SMAP with GPM, GRACE-FO & SWOT

Hosted by
USGS National Center
12201 Sunrise Valley Dr. Reston, VA 20192

October 17-18, 2012

This unique joint tutorial will explore the collaborative opportunities for the future use of SMAP, GPM, GRACE Follow-On (FO) and SWOT data with existing satellite observation capabilities. This effort will create a platform for joint mission research, prepare users for future mission data, identify collaborators for pre-launch efforts and identify topics where remote sensing data can help improve operational products used for policy, management and decision-making in water resource management.

Goals of the workshop:

- Identify a large target audience for multi sensor Hydrology data.
- Understanding the user requirements for using soil moisture and other NASA data in various fields of Hydrology
- Merge missions in order to leverage research in hydrology and water management
- Identify data models and research where SMAP, GPM, GRACE FO and SWOT can help address climate and hydrology policy questions
- Promote Early Adopter research and collaboration opportunities

DAY 1

Wednesday, October 17, 2012
(Presentations and Break-outs)

8:00am	Registration and Coffee	
8:30am	Jared Entin/Brad Doorn, NASA HQ (15 min)	Workshop Welcome
8:45am	Bill Werkheiser, Associate Director for Water or Jared Bales, Chief Scientist for Water, USGS (15 min)	Welcome to USGS
9:00am	Molly Brown, NASA GSFC (10 min)	NASA Applications Requirements and strategy
9:10am	Dara Entekhabi, MIT (15 min)	SMAP Mission Overview
9:25am	Gail Skofronick Jackson, NASA GSFC (15 min)	GPM Mission overview
9:40am	Matt Rodell, NASA GSFC (15 min)	GRACE Mission overview
9:55am	Doug Alsdorf, Ohio State University (15 min)	SWOT Mission Overview
10:10am	Molly Brown, NASA GSFC (10 min)	Define Joint Tutorial Objectives
Morning Break 10:10am to 10:20am (Please take time to fill out your surveys)		
Part 1: Topics provide a brief description of <i>existing research requirements</i> with focus on the anticipated mission products (current and future) and their potential applications to hydrology and water management. (20 min each).		
	Client/User/researcher	Presentation Category

10:20am	Mike Jasinski, NASA GSFC	<i>Hydrology of inland water using SMAP and ICESat-2 data.</i>
10:40am	Faisal Hossain, Tennessee Tech (Talk given by Doug Alsdorf)	<i>Hydrology, Transnational River Boundaries and SWOT</i>
11:00am	Dean Hively, USGS	<i>Monitoring Evapotranspiration from Irrigated Lands Using Remotely Sensed Data: On-farm Validation in the Mississippi River Floodplain</i>
11:20am	John Fulton, USGS	<i>Continuous-Wave Coherent (CW) Microwave for Measuring Stream Discharge</i>
11:40am	Roland Viger, USGS	<i>Integrating Multiple Data Sources for Continental Scale Watershed Modeling</i>
12:00pm	Paul Kinzel, USGS	<i>Computational Modeling of River Flow with Remotely Sensed Data to Infer Channel Bathymetry</i>
<i>LUNCH from 12:00 to 1:00pm (Poster displayed for discussion from 1:00 to 1:30pm)</i>		
Part 2 Breakout Sessions in four different application groups: (1) Water Management and Hydrology (2) Weather and Extreme events (3) Flooding (4) Drought <ul style="list-style-type: none"> • Charge to the breakout groups <ul style="list-style-type: none"> ○ Identify primary products, institutions, and organizations within application areas that could benefit from satellite observations • Describe research requirements as it applies to Operational Agencies • Identify data challenges and needs (resolution, format, latency, access, etc) • Define next steps forward for each application group-<i>Identify potential partners!!!</i> 		
1:45-3:45pm	Break Out Groups-by application interests <i>Report to assigned rooms.</i>	
3:45-4:25	<ul style="list-style-type: none"> • 5-10 minute informal (no presentation) summaries from each breakout group lead • Comments and questions open to all attendees 	
4:20pm	Transition remarks for Day 2-Brad Doorn	
4:30pm	Day 1 Adjourn	
DAY 2 Thursday, October 18, 2012 (Description of instrument measurements followed by panel discussions)		
8:00am	Registration and Coffee	
8:30am	Vanessa Escobar, NASA GSFC	Welcome to Day 2 Introduction SMAP Early Adopters and Program (15 min)
8:45am	Barry Weiss, NASA JPL	SMAP Data Products and the DAAC (40 min)
9:20am	Erich Stocker, NASA GSFC	GPM Products (20 min)
9:40am	Felix Landerer, NASA JPL	GRACE FO Products (20 min)
10:00am	Philip Callahan, NASA JPL	SWOT Proposed Products (15 min)
10:15am	Q&A Panel between Data Reps and Attendees (25 min)	
<i>Morning Break 10:20am to 10:40am (Please take time to fill out your surveys)</i>		
10:40am	Vanessa Escobar, NASA GSFC	Introduction to SMAP Early Adopters Panel
10:50am-12:00pm	Early Adopter Panel <ul style="list-style-type: none"> • (8-10min overview of each EA research followed by open discussion with attendees) 	
<i>LUNCH from 12:00 to 1:00pm (Poster displayed for discussion from 1:00 to 1:30pm)</i>		

<p>Synergistic Efforts. Presentations are given by mission related users and operational application groups <i>The Goal is to help expand joint uses of potential mission products. Panel discussion will explore future partnerships and collaborations for early mission work. (20 min each)</i></p>		
1:30pm	Christa Peters-Lidard, NASA GSFC	<i>Enabling GPM- and SMAP-based land data assimilation at AFWA, USACE, and NOAA with the Land Information System</i>
1:50pm	Gary McWilliams, SMAP EA/DoD	<i>Military mobility using SMAP data</i>
2:10pm	Ed Beighley, FM Global, Insurance	<i>GRACE, SMAP and SWOT, Flooding and Insurance</i>
2:30pm	Randy Koster, NASA GSFC	<i>Soil moisture state for weather models (SMAP and GRACE-FO)</i>
2:50pm	Karen Mohr, NASA GSFC	<i>Land emissivity needs for GPM retrievals over land.</i>
3:10pm	Q&A Panel Discussion-Identify opportunities and next steps forward. (30 min)	
3:40pm	Brad Doorn, NASA HQ	Concluding comments Final questions from Attendees for NASA HQ
3:50pm	<p>TUTORIAL ADJOURNED <i>Please remember to turn in your survey!</i> <i>Thank you for your attention</i></p>	