



Final Agenda as of October 11, 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)**

<b>8:00am</b>	<b>Registration and Coffee</b>	
<b>8:30am</b>	Brad Doorn, NASA HQ (15 min)	Event Welcome
<b>8:45am</b>	Bill Werkheiser, Associate Director for Water or Jared Bales, Chief Scientist for Water, USGS (15 min)	Welcome to USGS
<b>9:00am</b>	Molly Brown, NASA GSFC (10 min)	NASA Applications Requirements and strategy. Define tutorial objectives
<b>9:10am</b>	Dara Entekhabi, MIT (15 min)	SMAP Mission Overview
<b>9:25am</b>	Gail Skofronick Jackson, NASA GSFC (15 min)	GPM Mission overview
<b>9:40am</b>	Matt Rodell, NASA GSFC (15 min)	GRACE Mission overview
<b>9:55am</b>	Doug Alsdorf, Ohio State University (15 min)	SWOT Mission Overview

### ***Morning Break 10:10am to 10:20am (Please take time to fill out your surveys)***

**Part 1:** Topics provide a brief description of ***existing research requirements*** with focus on the anticipated mission products (current and future) and their potential applications to hydrology and water management. (20 min each).

	<b><i>Client/User/researcher</i></b>	<b><i>Presentation Category</i></b>
<b>10:20am</b>	Faisal Hossain, Tennessee Tech (Talk given by Doug Alsdorf)	<b><i>Hydrology, Transnational River Boundaries and SWOT</i></b>

10:40am	Dean Hively, USGS	Monitoring Evapotranspiration from Irrigated Lands Using Remotely Sensed Data: On-farm Validation in the Mississippi River Floodplain
11:00am	John Fulton, USGS	Continuous-Wave Coherent (CW) Microwave for Measuring Stream Discharge
11:20am	Roland Viger, USGS	Integrating Multiple Data Sources for Continental Scale Watershed Modeling
11:40pm	Paul Kinzel, USGS	Computational Modeling of River Flow with Remotely Sensed Data to Infer Channel Bathymetry
LUNCH from 12:00 to 1:30pm (Posters will be on display until 1:30pm)		
Part 2 Breakout Sessions in four different application groups: (1) Water Management and Hydrology (Auditorium) (2) Weather and Extreme events (Room BA102C) (3) Flooding (Room 1B215) (4) Drought (Room BA102A/B) <ul style="list-style-type: none"><li>Charge to the breakout groups<ul style="list-style-type: none"><li>Identify primary products, institutions, and organizations within application areas that could benefit from satellite observations</li></ul></li><li>Describe research requirements as it applies to Operational Agencies</li><li>Identify data challenges and needs (resolution, format, latency, access, etc)</li><li>Define next steps forward for each application group-Identify potential partners!!!</li></ul>		
1:45-3:45pm	Break Out Groups-by application interests Report to assigned rooms.	
3:45-4:25	<ul style="list-style-type: none"><li>5-10 minute informal (no presentation) summaries from each breakout group lead</li><li>Comments and questions open to all attendees</li></ul>	
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 Program
8:40am	Barry Weiss, NASA JPL	SMAP Data Products and the DAAC (30 min)
9:10am	Erich Stocker, NASA GSFC	GPM Products (20 min)
9:30am	Felix Landerer, NASA JPL	GRACE FO Products (20 min)
9:50am	Philip Callahan, NASA JPL	SWOT Proposed Products (20 min)
10:10am	Mike Jasinski, NASA GSFC	ICESat-2 and the inland water product (20 min)
Morning Break 10:30am to 10:50 am (Please take time to fill out your surveys)		
10:50am	Q&A Panel Discussion with Data/Mission Reps and Attendees (50 min) Barry Weiss, Erich Stocker, Felix Landerer, Philip Callahan, Mike Jasinski and Dara Entekhabi	
11:40am	Vanessa Escobar, NASA GSFC	Logistics and introduction for afternoon session.
LUNCH from 12:00 to 1:00pm (Poster displayed for discussion from 1:00 to 1:30pm)		
Synergistic Efforts. Presentations are given by mission related users and operational application groups 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)		

<b>1:30pm</b>	Christa Peters-Lidard, NASA GSFC	<b><i>Enabling GPM- and SMAP-based land data assimilation at AFWA, USACE, and NOAA with the Land Information System</i></b>
<b>1:50pm</b>	Gary McWilliams, SMAP EA/DoD	<b><i>Military mobility using SMAP data</i></b>
<b>2:10pm</b>	Ed Beighley, FM Global, Insurance	<b><i>GRACE, SMAP and SWOT, Flooding and Insurance</i></b>
<b>2:30pm</b>	Randy Koster, NASA GSFC	<b><i>Soil moisture state for weather models (SMAP and GRACE-FO)</i></b>
<b>2:50pm</b>	Karen Mohr, NASA GSFC	<b><i>Land emissivity needs for GPM retrievals over land.</i></b>
<b>3:10pm</b>	Robert Mason, USGS	<b><i>Real-Time Storm Surge Monitoring and Mapping</i></b>
<b>3:30pm</b>	<b>Q&amp;A Panel Discussion</b> -Identify opportunities and next steps forward. (30 min)	
<b>4:00pm</b>	Brad Doorn, NASA HQ	Concluding comments Final questions from Attendees for NASA HQ
<b>4:15pm</b>	<b>TUTORIAL ADJOURNED</b> <i>Please remember to turn in your survey!</i> <i>Thank you for your attention</i>	