



Agenda  
NASA Applied Sciences Program, Water Resources Meeting

NOAA Center for Weather and Climate Prediction (NCWCP), College Park, MD  
March 3-4, 2015

**Web conferencing url:**

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Meeting Number: 992 229 065

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**Tuesday, March 3rd**

8:30 Registration

9:00 NOAA CWCP Welcome

Brad Doorn (NASA HQ) Applied Sciences Program Water Resources Updates

**Hydrological Decision Support I: U.S. / Domestic**

9:45 Tom Painter (NASA JPL) Integration of precision NASA snow products with the operations of the Colorado Basin River Forecast Center to improve decision making under drought conditions

9:55 Jennifer Jacobs (UNH), Satellite Enhanced Snowmelt Flood Predictions in the Red River of the North Basin

10:05 Jeff Dozier (UC Santa Barbara) and Robert E. Davis (ACOE), Monitoring the Snowpack in Remote, Sparsely Gauged, Snow-Dominated Mountains

- 10:15 Cynthia Rosenzweig (NASA GISS) Adaptation Planning for Climate Change Impacts using Advanced Decision Support and Remote Sensing: Irrigated Agriculture in California's Central Valley
- 10:25 Gerald Day (Riverside Tech Inc) Advancing Water Supply Forecasts in the Colorado River Basin for Improved Decision Making
- 10:35 Discussion
- 10:45 Lawrence Friedl (NASA) Impact Assessment and the Value of Remote Sensing
- 11:15 Lunch – Rachael McDonald (ICBA): Partner/Stakeholder Perspective
- 12:15 John Bolten (NASA GSFC) ASP Water Resources Outreach and Communication
- Forrest Melton (NASA ARC) Water Resources Program Website Review and Walkthrough

### **Agriculture and Food Security Applications**

- 12:45 Brian Wardlow / Mark Svoboda (Univ. of Nebraska), [Quick Drought Response Index \(QuickDRI\): A Composite Index for Monitoring Rapid-Onset Agricultural Drought](#)
- 12:55 Jim Verdin (USGS) Fallowed Area Mapping for Drought Impact Reporting and Decision Making
- 1:05 Forrest Melton (NASA ARC) Mitigation of Drought Impacts on Agriculture through Satellite Irrigation Monitoring and Management Support
- 1:15 Inbal Becker-Reshef (Univ. of Maryland), The GEO Global Agriculture Monitoring Task: Supporting the GEOSS vision for an Agricultural Monitoring System of Systems
- 1:25 John Bolten (NASA GSFC), Enhancing the USDA Global Crop Production Decision Support System with NASA Soil Moisture Active Passive (SMAP) Satellite Observations

1:35 Christa Peters-Lidard (NASA GSFC) Predicting Middle Eastern and African Seasonal Water Deficits using NASA Data and Models

1:45 Discussion

1:55 Break (Posters)

## **Hydrological Decision Support II: International**

2:25 Benjamin Zaitchik (Johns Hopkins Univ.), Project Nile: Distributed hydrological information for water management in the Nile basin

2:35 Ashutosh Limaye (NASA MSFC), SERVIR - Connecting Space to Village

2:45 Charon Birkett (Univ. of Maryland), The Global Reservoir and Lake Monitor (G-REALM): Expansion and Enhancement of Water Height Products

2:55 Mekonnen Gebremichael (UCLA) Optimizing Reservoir Operations for Hydropower Production in Africa through the use of Remote Sensing Data and Seasonal Climate Forecasts

3:05 Faisal Hossain (UW) Towards Operational Water Resources Management in South Asia Exploiting Satellite Geodetic and Remote Sensing Technologies

3:15 Rick Lawford (Morgan State University), GEOSS Water Strategy Report

3:25 Christine Lee (NASA JPL) Overview/Discussion: NASA's international water activities strategy

3:35 Lauren Childs (NASA LaRC) DEVELOP Program overview and opportunities

3:45 Break (Posters)

4:10 Breakout Groups

Topic 1 – Agriculture and Food Security

Topic 2 – Hydrological Decision Support National

Topic 3 – Drought Forecasting, Monitoring, and Mitigation

Topic 4 – International Applications

Topic 5 – Water Quality

5:30 Adjourn

6:30 Gather for Social

## **Wednesday, March 4th**

8:30 Breakout Group Report Out

### **Water Quality Applications**

9:15 John Lehrter (EPA), Testing the Waters: Remote Sensing Applications to Water Quality Management in Florida

9:25 Blake Schaeffer(EPA)- CyAN (cyanobacteria network) Project

9:35 Benjamin Stanford (Hazen Sawyer, P.C.) Decision Support System (DSS) to Enhance Source Water Quality Modeling and Monitoring using Remote Sensing Data

9:45 Larry Liou (NASA GRC) – Great Lakes Remote Sensing of Water Quality Workshop summary

9:55 Discussion

10:05 Break (Posters)

10:25 Jared Entin (NASA HQ), Update from the NASA Water and Energy Cycle Program

### **Drought Forecasting and Mitigation**

10:35 Chris Hain (Univ. of Maryland / NOAA), Development of a Multi-Scale Remote Sensing Based Framework for Mapping Drought over North America

10:45 Ben Zaitchik (NASA GSFC), Integrating GRACE and GRACE Follow On Data into Flood and Drought Forecasts for the Continental U.S.

10:55 Amir AghaKouchak (UCI) Advancing Drought Onset Detection and Seasonal Prediction Using a Composite of NASA Model and Satellite Data

11:05 Discussion

11:15 Lunch

12:15 Ana Prados / Amita Mehta (NASA GSFC) NASA's Applied Remote Sensing Training (ARSET) Program

12:30 Discussion: transition strategies, training and capacity building

### **Water Cycle Missions for the Next Decade**

12:40 Paul Houser/Venkat Lakshmi Water Cycle Missions for the Next Decade --  
Workshop Findings

1:10 Decadal Survey Breakout Sessions

3:10 Report Out Breakout Sessions

3:40 Break

4:00 Concluding Remarks

4:30 Meeting Adjourned