

**NASA Land-Cover and Land-Use Change Science Team Meeting**  
**UMUC Inn and Conference Center**  
**October 10 – 12, 2006**

***Day 1 Tuesday, October 10<sup>th</sup>, 9.00AM – 5.20PM***  
***General Session Room 1123***

**Gutman (NASA HQ) LCLUC Program Status**  
**Justice (UMd) Strategic Issues for LCLUC**

***10.00 – 10.20 Programmatic Presentation***

**Entin (NASA HQ) The NASA Water Cycle Focus Area**

***10.20 – 10.40 Break***

***10.40 – 12.00 Science Presentations Water Cycle Emphasis (20 minutes each)***

**Fisher (UMCES) Responses of Coastal Waters to Terrestrial Inputs of Elemental CNP in Urbanizing Coastal Regions**

**Goetz (WHRC) Urban Growth Impacts on Surface Hydrology and Stream Ecology in Watersheds of the Mid-Atlantic and New England**

**Bounoua (NASA GSFC) Development and Validation of Process Algorithms of Urbanization for Water Cycle, Data Assimilation and Climate**

**Townsend (UW) Spatial Patterns of Forest Disturbance and Consequences for Regional Water Quality**

***12.00 – 12.50 Lunch in Ft. McHenry Room, 1<sup>st</sup> Floor***

***12.50 – 1.50 Invited Poster Session, Rooms 1101 & 1109/1111***

***1.50 – 3.10 Programmatic Presentations (20 minutes each)***

**Covington (NASA GSFC) The Mid Decadal Global Land Survey Project: Phase 1**

**Covington (NASA GSFC) The Mid Decadal Global Land Survey Project: Phase 2**

**Grigsby (NASA HQ) The NASA-USGS Data Gap Study**

**Irons (NASA GSFC) LDCM Status**

***3.10 – 5.20 Breakout Discussion Groups***

**1) Mid Decadal Global Land Survey (Goetz/Hansen) Room 1101**

**2) Land Measurement Teams – Land Cover Products (Justice/Bounoua) Room 1109/1111**

**Day 2 Wednesday, October 11<sup>th</sup>, 9.00 – 5.00**  
**General Session Room 1123**

**9.00 – 10.20 Science Presentations Water Cycle Emphasis (20 minutes each)**

**Hope (SDSU)** Regional Hydrologic Response of Semi-Arid Mediterranean Climate Watersheds to Land-Cover/Land-Use Variability: Predictive Models Based on MODIS Products

**Zhou (GA Tech)** Using MODIS Data to Characterize Climate Model Land Surface Processes and the Impacts of Land-Use/Cover Change on Surface Hydrological Processes

**Fox (EWC)** The Role of Land-Cover Change in Montane Mainland Southeast Asia in Altering Regional Hydrological Processes Under a Changing Climate

**Anderson (USDA)** Multi-scale Remote Assessment of Land-Surface Hydrologic Response to Stress

**10.20 – 10.40 Break**

**10.40 – 11.30 Breakout Groups Report Back and Discussion**

1) Mid Decadal Global Land Survey (**Goetz/Hansen**)

2) Land Measurement Teams – Land Cover Products (**Justice/Bounoua**)

**11.30 – 12.30 Programmatic Presentations (20 minutes each)**

**Tupas (USDA)** CCSP LULCC and LUIWG: Focus on Water Cycle

**Friedl (NASA HQ)** NASA Applications Related to Water Cycle

**Questions to Program Managers (20 minutes)**

**12.30 – 1.30 Lunch in Ft. McHenry Room, 1<sup>st</sup> Floor**

**1.30 – 2.00**

**Margerin/Gubbels (SSAI)** SAXTA Demo: A High Resolution Data Dissemination System

**1.30 – 2.00 Invited Poster Session, Rooms 1101 & 1109/1111**

**2.00 – 2.20 Programmatic Presentation**

**Shiklomanov (UNH)** Water Cycle Aspects of NEESPI

**2.20 – 5.00 Science Presentations NEESPI Hydrology Emphasis (20 minutes each)**

**Henebry (SDSU – sub for Gitelson)** Land Cover Land Use Change Effects on Surface Water Quality: Integrated MODIS and SeaWiFS Assessment of the Dnieper and Don River Basins and Their Reservoirs

**Aizen (UI)** Estimation of Seasonal Snow Cover and Glacial Area Changes in Central Asia (Tien Shan) During the Last 50 Years Using NASA ESE Products and In-Situ Data

**Henebry (SDSU)** Evaluating the Effects of Institutional Change on Regional Hydrometeorology: Assessing the Vulnerability of the Eurasian Semi-Arid Grain Belt

**3.20 – 3.40 Break**

**Zeng (UA)** Relationship between Land Cover/Land Use Change and Surface Hydrology over Arid and Semiarid Regions

**Chen (UT)** Effects of Land Use Change on the Energy and Water Balance of the Semi-Arid Region of Inner Mongolia

**Geerken (Yale)** Ecological Monitoring in Semi-Arid Central and West Asia: Drivers and Trajectories

**Shiklomanov (UNH)** Role of Land Use/Land Cover Change in Water Budget and Water Use Across Central Asia: An Interactive Data Compendium for Hydrological Analysis

**Day 3 Thursday, October 12<sup>th</sup>, 9.00 – 12.00**  
**General Session Room 1123**

**9.00 – 10.40 Science Presentations Water Cycle Emphasis**

**Eshleman (UMd)** Exacerbation of Flooding Responses Due to Land Cover/Land Use Change: A Comparative Study

**Imhoff (NASA GSFC)** Global Distribution of Human Appropriation of Fresh Water: An Earth Observation-supported Strategy Linking Biophysics and Socio-economics for Addressing Water Vulnerability

**Beltran (UC-Boulder)** Integrated Regional Climate Study with a Focus on the Land Use Land Cover Change and Associated Changes in Hydrological Cycles in the South Eastern United States

**Brown (UM)** Changing Responses of Land Dynamics and Vulnerability to Flooding Under Policy and Environmental Change near Poyang Lake, China

**Coe (WHRC)** Interactions of Edaphic and Land Use Factors on Water Budgets in Cerrado and Semi-Arid Caatinga Region of Brazil

**10.40 – 11.00 Break**

**11.00 – 12.00 Concluding Remarks, Program Direction and Future Funding**

**Gutman (NASA HQ)/Justice (UMd) OPEN DISCUSSION**

**LUNCH in Mount Clare Café, 1<sup>st</sup> Floor**

**Poster Session (Posters will remain up for first two days ONLY in rooms 1101 & 1109/1111)**

**Bowling (Purdue) Poster 1:** An Integrated Understanding of the Terrestrial Water and Energy Cycles Across the NEESPI Domain through Observations and Modeling

**Poster 2:** Multi-Sensor/Multi-Scale Assessment of Urban Impacts in the Great Lakes Region

**Poster 3:** Diagnosis and Prognosis of Changes in Lake and Wetland Extent on the Regional Carbon Balance of Northern Eurasia

**Chen (UCAR)** Atmospheric Responses to Land Surface Forcing and Their Impact on Precipitation Processes in the Southern Great Plains

**Darmenova (GA Tech)** Understanding the Role of Changes in Land-Use/Land-Cover and Atmospheric Dust Loading and Their Coupling on Climate Change in the NEESPI Study Domain Drylands

**Fet (MU)** ASTER Image Processing for Forestry Applications in Tien-Shan Mountains

**Hansen (Montana)** Vulnerability of US National Parks to Land Use and Climate Change and Variability

**Jasinski (NASA GSFC)** A Satellite-Derived Database of Vegetation Momentum Roughness for Global Hydrology and Climate Studies

**Kling (ISU)** Drivers of Land-Use/Land-Cover Change in Agricultural Areas: Climate and Land-Manager Choices

**Lefebvre (WHRC)** Integration of Land Use, Fire, and Carbon Flux in Critical Amazon Landscapes: The Xingu River Headwaters and the BR163 Highway Corridor

**McDonald (NASA JPL)** A Satellite-Based Landscape Surface Resistance Measurement for Improved Assessment of Land-Atmosphere Water and Energy Transfer

**Munroe (OSU)** A Comprehensive Statistical Analysis System to Associate Local Land-Cover/Land-Use Change and Regional Aerosol Composition and Concentration

**Nickeson (NASA GSFC)** LPV Working Group

**Ozdogan (NASA GSFC)** Continental US Irrigated Area Mapping From MODIS and Ancillary Data

**Peters-Lidard (NASA GSFC)** NASA Model and Observation Products for the Study of Land Atmosphere Coupling and its Impact on Water and Energy Cycles

**Rodell (NASA GSFC)** Integration of Energy and Water Cycle Research Products in a Global Land Surface Modeling and Assimilation System

**Romanov (NOAA)** Continuous Fields of Snow Cover Characteristics Derived through Coupling Satellite Data with Snowpack Model: Application in the River Runoff Modeling over NEESPI Domain

**Romanovsky (UAF) Poster 1:** Permafrost Dynamics within the Northern Eurasia Region and Related Impacts on Surface and Sub-Surface Hydrology

**Poster 2:** Current Climate Changes over Eastern Siberia and Their Impact on Permafrost Landscapes, Ecosystem Dynamics, and Hydrological Regime

**Velicogna (CU)** The Eurasian Fresh Water Cycle from GRACE and In-situ Hydrologic Networks: Distinguishing Water Behavior in Permafrost and Non-permafrost Regions

**Vinas (MSU)** Giant Panda Habitat Dynamics (1994-2001) Inside and Outside Nature Reserves in the Qionglai Mountain Range, China

**Walker (UAF)** Application of Space-Based Technologies to Examine Land-Cover/Land-Use Change Along a Transect on the Yamal Peninsula and Novaya Zemlya, Russia

**Wang (UC-Boulder)** Continental-Scale Calibration of Surface Albedo in CSU Unified Land Surface Model Using Remote Sensing Data and Parameter Estimation Model

**Wolfe (NASA GSFC)** MODIS Collection 5 Update