

July, 2005

## Message from the President

So many things are happening with CUAHSI and its programs that it is difficult to pick a time to put out this newsletter. We will release *Update* quarterly in the future to provide at least a snapshot of where we are.

*CUAHSI lives!* Despite set backs on getting prototype observatories on the ground, a vibrant and exciting set of community programs are in the pilot stage and one—the National Center for Hydrologic Synthesis—is slated to be operational this fall. The visions for these facilities laid out in Snowbird, UT over 3 years ago are being realized.

More importantly, CUAHSI is an organization that represents you, our members. We are not just the HydroView program. Funding is tight—that's the reality—but we have resources to continue to develop our community agenda and much work to do.

This issue of *Update* provides a brief status report of the HydroView program. Further information is on our website under the "Programs" tab. ***There are many opportunities for you to get involved!*** See the homepage for details. As always, feel free to contact me with questions and concerns.

—Rick Hooper

## Hydrologic Measurement Facility

**Goals:** The HMF seeks to revolutionize understanding of hydrology through access and development of dramatically superior instrumentation.

**Status:** The HMF is launched! The team (John Selker, PI; Breck Bowden, John

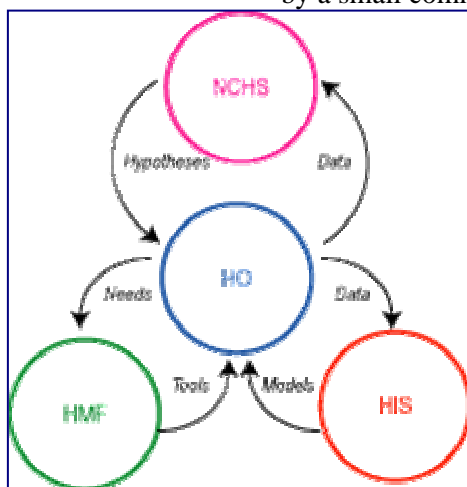
Durant, Jennifer Jacobs, Rosemary Knight, co-PI's) received three years of pilot funding, and is undertaking an ambitious set of parallel activities immediately. A staff scientist (David Robinson) has been hired to oversee the development of three Hydrologic Instrumentation white-papers on the subjects of Geophysics (led by Knight); Direct Physical Measurement (led by Jacobs); and on Biogeochemistry (led by Bowden). Each white-paper will be written by a small committee, and will seek broader input via the web.

The HMF has several other very exciting initiatives. The HMF expects to launch, in conjunction with AGU, a new electronic Hydrologic Methods Handbook (led by Durant), which will provide peer-reviewed new methods as well as review articles. The HMF will also launch the Virtual Hydrologic

Marketplace, which will provide an open exchange of instruments and lab services between universities. Finally, the HMF seeks to open the doors of related national research support facilities to the CUAHSI community. An agreement with the USGS to access their Hydrologic Instrumentation Facility (HIF) is nearly complete, while conversations with the NCAR Earth Observing Laboratory are ongoing to provide the widest access to these services as well.

The opportunities are tremendous, and with the context provided by CUAHSI, we are on our way! For more info see:

<http://www.cuahsi.org/programs/hmf.html>



## National Center for Hydrologic Synthesis

**Goals:** The mission of NCHS is to:

- promote the creation of a vision for the future of hydrologic science,
- cultivate an interdisciplinary research culture of collaboration and cooperation,
- offer new opportunities to cooperate in attacking specific scientific challenges.
- lead the national effort in public outreach and education in hydrology

**Status:** The Synthesis Center proposal has been reviewed by NSF and negotiations on funding levels are underway. We anticipate a launch date sometime this fall. In the interim, CUAHSI has provided the center and PI Yoram Rubin with initial funds to get started. The role of the Synthesis Center is more important than ever with the delay of observatories. This national center will be a platform where scientists and engineers can provide valuable interdisciplinary input.

The Center Website is <http://nchs.berkeley.edu>.

## Hydrologic Information Systems

**Goals:** The HIS has four goals: to provide data services for hydrologists, to support future observatories, to advance hydrologic science and to improve hydrologic education.

**Status:** The HIS group (lead by David Maidment) has been making tremendous progress towards developing a new analytic framework for our field. The tools being developed will dramatically advance our ability to quickly access and analyze data in a uniform manner. A prototype Digital

Watershed has been constructed for the Neuse basin in North Carolina, which will be examined at a workshop to be held at Duke University on 11-13 July. This workshop will clarify the methods by which Digital Watersheds can be constructed elsewhere, and the means by which hydrologic analysis can be undertaken based on Digital Watersheds using the fundamental components of fluxes, flowpaths, residence times and mass balances identified by the Neuse observatory prototype study. For more info see:

<http://www.cuahsi.org/programs/hmf.html>

## Hydrologic Observatories

**Goals:** Each individual site will collect coherent data spanning the entire hydrologic cycle, helping to build a framework for scientific advancement.

**Status:** The path to observatories will be more circuitous than

any of us thought. They will happen; it's just a question of when. There was a meeting of 24 observatory teams in Chicago on June 16<sup>th</sup>, where a dual-track development was discussed. A bottom-up approach will utilize digital watershed concepts of HIS to help pull existing data together into a common framework. A top-down approach focusing on a joint plan with CLEANER facilities will begin in early 2006 after CLEANER and CUAHSI each completes its science plan. CUAHSI is forming a small committee to equitably represent all 26 teams. If you are interested in serving on this committee email [staff@cuahsi.org](mailto:staff@cuahsi.org).

For more info see:

<http://www.cuahsi.org/programs/hos.html>

## Fall Cyberseminar Series

**Jeff McDonnell-** Catchment Hydrology  
3pm ET Friday, October 7.

**Upmanu Lall-** Hydromorphology  
3pm ET Friday, October 21

**Efi Foufoula-** Nat'l Center Earth-surface  
Dynamics 3pm ET Date TBD

## Future Meetings

**Annual Membership Meeting**  
3pm ET Thursday, December 1

**Fall AGU Meeting**  
Special Session and Town Hall  
December 5-9, 2005 Details TBD