



## Meeting Minutes

*CUAHSI Board of Directors  
Spring Teleconference  
April 21, 2008*

**Directors Present:** Jay Famiglietti, Efi Foufoula, David Freyberg, Praveen Kumar, Venkat Lakshmi, Jim McNamara, Fred Ogden, Greg Pasternack, Kenneth Potter, Fred Scatena, John Selker, Claire Welty

**Others Present:** Kevin Dressler, David Kirschtel, Rick Hooper

—————> Symbols in the text are placed to draw attention to votes, action items and other priority agenda items.

\*\*Notes for the meeting are recorded by the CUAHSI secretary (Kevin Dressler) as representation of the discussion topics and points and are not the opinion of the secretary

### **Call to Order** – 1:10 pm

1. Approval of Minutes from Meeting, 8 January 2008

—————> Motion to approve: Lakshmi

Second: McNamara

Discussion: No

Approval: Yes

2. Dates of Summer and Fall BoD Meetings
  1. Summer Face-to-Face Meeting Boulder, Saturday, July 12  
Register for Biennial Meeting; SAC meets Sunday, July 13
  2. Fall BoD Meeting: October 20<sup>th</sup>, 4 pm ET
  3. Annual Meeting: December 8<sup>th</sup>, 3 pm ET

### 3. Report from NSF Panel (Efi, Jay, Claire)

- Issues were primarily the line between the purpose of CUAHSI in funding research and doing service to the community
- In general, the panel was supportive
- Majority of raised questions came from NSF staff
- Doug James indicates a report will come back in a few days and then share with his supervisors
  - It will be drawn up as a cooperative agreement

### 4. Modeling activities arising from recent workshops

#### 1. CUAHSI joining OpenMI Consortium (Rick)

- OpenMI is open source and formed as a non-profit organization
  - More widely compatible Java version is set for imminent release
  - Want active engagement in their development, hence their interest in CUAHSI joining
  - The feeling is that joining will go a long way in helping our community for a minimum investment (~100 Euros/year)
  - Must continue to evaluate our relationship in the months to come and keep CUAHSI's options open

—————→ Motion to join the OpenMI association: Potter

Second: Scatena

Discussion: No

Approval: Yes

#### 2. Creation of Hydrologic Working Group as part of CSDMS (Rick, Efi)

- Ogden and Lakshmi currently on the terrestrial working group
- Want to explore how what they are developing is useful in our problems
  - Funds under CSDMS grant would support the Hydrologic Working Group
  - Could this be a sub-group of the terrestrial group?
    - A separate group would be preferred because it will provide focus to the hydrologic aspects of the existing terrestrial group
      - Ogden and Lakshmi to further pursue this with CSDMS and identify participants

—————> Motion to approve setting up a Hydrologic Working Group with Ogden leading the set-up: Lakshmi

Second: Selker

Discussion: No

Approval: Yes

5. Approval of Rick's upcoming travel

1. WATERS proposal preparation meeting, Champaign, IL April 24-25
2. NE Regional Meeting, Durham, NH, May 1-2
3. Senate Commission on Water Research of German NSF (*Deutsches Forschungs Gemeinschaft*) Meeting, June 1-2 (at DFG's expense), Berlin

—————> Motion to approve the above travel items: Foufoula

Second: Ogden

Discussion: No

Approval: Yes

6. Biennial Meeting Report (David)

- Website live
- Of the 14 sessions, there are 12 sessions taken care of in terms of invited speakers (each session has 1-4 invited speakers)
- Registrations are beginning to arrive
- BOD attendees should register soon

7. Community Challenges (Rick)

- Should CUAHSI pose a series of community challenges?
  - CUAHSI could offer a way to get people together to compare results – that is, organize workshops around the challenge and coordinate those who would like to participate
  - The feeling is CUAHSI may already have enough challenges with the renewal activities and the ongoing synthesis, data and modeling activities – Foufoula
    - One thing that CUAHSI could do is develop some metrics for specific areas such as modeling and measurement, etc to set the stage for community advancement in key areas – Selker

8. Selection of Organizer for 2008/2009 Cyberseminar Series

- Deferred

## Executive Session (Directors and Secretary only)

### 9. Acceptance of Evaluation Committee for Rick Hooper

- Committee: Fred Scatena (Chair), Claire Welty, Patricia Maurice
- Hooper had one concern regarding the report
  - One of the main goals for next year was posed as instigating CUAHSI supported seminars at NSF
    - Hooper said he would like to do that but he is not in control of who would like to do these at NSF
    - Hooper agreed to maintain a continuous presence at NSF
- Felt that Hooper and the CUAHSI Chair should set better metrics of what it means to meet a goal or not meet a goal
- Past finding of too much travel that distracts from the main responsibilities
  - Addressed through approvals of travel
- In the evaluation process it would be good to have Hooper write a self-evaluation as well as a vision for the coming year
  - Hooper has provided a self-evaluation to the committee and also discussed with the Chair a vision for the coming year (similar to a progress report for a grant – needs to be specific enough for the following evaluation team to review)
- General discussion was held on salary (related to matching the salary to the job responsibilities) and reviewed annual raises as being cost of living increases
  - Generally, salary itself does not seem to be an issue and it is well-matched
  - Board members are supportive of a bonus, given the whole of the job and the performance

—————→ Motion to approve \$5K bonus on the basis of performance: Famiglietti

Second: Selker

Discussion: No

Approval: Yes

- Overall doing an incredible job and shows a deep knowledge of everything CUAHSI is involved in

**Adjourned:** 3 pm



## CUAHSI Board of Directors Minutes

January 8-9, 2008



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### ***Tuesday, January 8, 2008***

**Call to Order:** 8:30 am (Efi Foufoula)

Introductions/Roll Call (Kevin Dressler)

Role Call of Current Board of Directors: **"X" – Indicates Present**

**Term expires 12/31/2008**

Jay Famiglietti, University of California – Irvine: **X** (By Phone)

Praveen Kumar, University of Illinois:

Venkat Lakshmi, University of South Carolina (Science Plan Liaison):

Greg Pasternak, University of California - Davis (HMF Liaison): **X**

Fred Scatena, University of Pennsylvania: **X**

**Term expires 12/31/2009**

Efi Foufoula, University of Minnesota: **X**

Larry Murdoch, Clemson University (Synthesis Liaison): **X**

Fred Ogden, University of Wyoming: **X** (By Phone)

John Selker, Oregon State University: **X**

Juan Valdes, University of Arizona (HIS Liaison): **X**

**Term expires 12/31/2010**

David L. Freyberg, Stanford University: **X** (By Phone; Tuesday only)

Patricia Maurice, University of Notre Dame:

Jim McNamara, Boise State University: **X**

Kenneth Potter, University of Wisconsin: **X** (By Phone)

Claire Welty, University Maryland - Baltimore County: **X**

**Others**

Brian Waldron, University of Memphis

Paul Thrasher, Accountant (Tuesday only)

Richard Hooper, CUAHSI

David Kirschtel, CUAHSI

Douglas James, NSF (Tuesday only)

**Role of the Board of Directors, Meeting Procedures (Rick)**

- Please refer to the briefing packet

**Three Major Themes of the Overall Board Discussion**

1. **Governance of Projects**
2. **Corporate Goals for 2008**
3. **Engagement of Senior Member of the Community**

**I. Corporate Administration*****Report of Audit Committee (Rick)***

- Received 2006 A133 audit (corporations >\$500K)
- Paul Thrasher has been involved the last two years to update the CUAHSI business system to meet audit requirements
- Auditors want documentation of actions from authorization to the payment
  - For example, someone needs to authorize trips for Richard Hooper
    - Hooper will ask for a motion from the executive committee to approve trips either monthly, quarterly or yearly
- Need documentation of decisions, when, why, etc

### ***General Open Discussion Related to Audits and/or Funds***

- Renewal grant is most likely to be a cooperative agreement with a set overhead rate
  - Decision on award should be made by NSF in March
- Question to Rick Hooper: Have the issues with the time sheets been solved? – Scatena
  - Yes
- Question from McNamara: Who governs the membership funds?
  - The Board
- Point from Foufoula: We should construct a plan that shows integration of activities such as CZOs, HMF, HIS, etc.
- What transpires is very dependent on how visioning is done (PI versus CUAHSI Board)
- One example of group visioning is that the CZOs would support CUAHSI to propose to NCALM that the LIDAR is flown at the CZO sites
  - The Board would authorize that CUAHSI submits such a proposal

### **NSF Business Review and Status of Business Systems (Paul Thrasher)**

- Removed a number of findings from the 2005 audit
  - Need to empower an audit committee that has the ability to evaluate an audit firm (reason being – need to shop around for competing audit firms)
    - Would the board consider people from the private sector?
      - (CDM, other consulting firms)
      - Maybe advice from SAHRA or NCAR
      - Issue with the private sector is that they have to understand government needs/issues
      - AICPA recommends that the audit committee be a subset of the board and have an expert from the outside participate (CPAs, financial division at a university, etc)
- ● Charge is that they review financial statements and that they approve who

the auditing firm is going to be and make themselves available to the auditor for issues that could involve the CUAHSI president

- This committee needs to be in place in early summer 2008
- Most likely will be able to get the expertise at the member universities – see process immediately below

***Process to forming the audit committee (potential make-up; 2 externals, 3 Board members; all volunteers)***

1. Review whom CUAHSI has been doing business with (universities)
  - Hooper to then contact these potential universities
2. Hooper to follow-up with subcontractors
3. Hooper to report progress at the next quarterly Board Meeting
4. The ExCom can then formally appoint them

## **II. Project Oversight**

### **Current Standing Committees, Charges, and Personnel**

- Have activities in all areas that Hydroview encompassed (HIS, HMF, Synthesis, Observatories)
- Following is general discussion on each

#### ***HIS General Discussion***

- Operated 3 years as a pilot and 1 year as a full project
- Rolled out web-services over the last year for the 11 WATERS testbeds; Configured software on the machines and worked with local data managers to populate the ODM for their region
  - CUAHSI needs to explore how to get support to help others (those outside the WATERS testbeds) get their data and metadata on the Hydroseek system
- Question from Scatena: How do standing committees rejuvenate and/or organize themselves?



- ○ CUAHSI staff should formally assist the logistics in scheduling regular standing committee meetings, etc
- Appointed by the Board for a set period
  - Sense is to leave ~2 “at large” members for the committee to nominate and then the Board to approve
- ● Total of 14 members (mixture of academic and agency member, including at large)
  - As a matter of make-up might be good to have an NSF cyberinfrastructure person to provide feedback on NSF needs
- Point from Murdoch: Developing Modeling Platform now and could maybe develop the standing committee in parallel, keeping that in mind

### **Hydrologic Information System Projects, Status and Issues (Hooper and Valdez)**

- Data Services Project (Maidment, Zaslavsky, Tarboton, Piasecki, Goodall)
  - Use of proprietary software for servers and platform dependent tools – standing committee must address this
  - Publishing standards for joining CUAHSI map
    - Need common metadata standards and QA/QC checkboxes so that data issues are addressed
  - Development of digital watershed
  - Delineation between DSP and CHyMP
- Community Hydrologic Modeling Platform workshops (Famiglietti, Murdoch, Lakshmi, and Foufoula)
  - CHyMP representatives met with NSF officers in November and a preliminary scoping workshop (to precede the efforts in the CUAHSI renewal) proposal was submitted in December 2007
  - In terms of WATERS, the sense is that it is best that CUAHSI develop the modeling activities first
    - Then interface with WATERS later to see what benefit these activities would have for WATERS, not the other way around which may risk holding up progress

## **HIS Governance Structure**

### ***Standing Committee, composition and charge***

#### ***Charge of the Committee (HIS)***

*The HIS Standing Committee recommends to the CUAHSI President on HIS policies, activities, and objectives, and assess HIS projects in the context of those policies and objectives. This includes, but is not necessarily limited to, usage, development, services, licensing, financial status, sponsorship, and relations with the private sector. The committee's most important responsibility is to ensure that the needs of the university community are met and that the various HIS projects are responsive to those needs.*

#### ***Proposed Membership***

\*Paul Houser, George Mason University (Chair)

\*Dan Ames, Idaho State

\*Marilyn Kaminski, National Snow and Ice Data Center

\*Ben Domenico, Unidata

\*Mark Servilla, LTER Network Office

\*Judy Cushing, Evergreen State (Database computer scientist)

\*Peter Bajcsy, NCSA

\*Scott Peckham, CSDMS

\*Doug Miller, Penn State

Bob Hirsch [or designee], USGS

Mark Hamilton [or designee], EPA

Sharon Leduc [or designee], NCDC

Deb Hayes [or designee], US Forest Service

Mark Wertz [or designee], ARS

Doug James or Dave Lambert, NSF

CUAHSI Board Liaison

- ■ Sense of the Board is to add some sort of a broad statement of CUAHSI corporate values (CUAHSI's policies relative to data and these type of services) to the HIS Standing Committee Charter & Charge
- Suggestion for CUAHSI to add a follow-up community needs assessment to the overall charge
  - Timing problem here in that the current progress on the initial needs assessment (result was that the community wanted access to the data) is in the process of converting to community use of the products (DASH, Hydroseek)
  - So, a follow-up needs assessment should be postpone for some time
- ■ Add a set of specific questions we want the committee to answer this year (2008 review), for example

***Users Committee, composition and charge***

- Does CUAHSI want to establish a user's committee much like Unidata already has
- An initial draw would be from the WATERS Testbed groups
- One physical meeting/year in conjunction with the standing committee. Do we need synchronization?
- Should the standing committee as part of their charge develop the user's committee?
  - The feeling is that the CUAHSI should set it up because it needs to be done quickly
  - In the future the standing committee should decide on and develop their own reporting sub-groups
- ■ Should, however be separate from the HIS standing committee
  - Make-up should be approximately 4 members

**Education and Outreach**

- Proposal for Year 5 Renewal Proposal Funds
  - Concept is to reprogram \$30K (did not get the graduate student fellowship opportunities together in time) into a editorial board and review structure for

secondary and post-secondary educational modules (Hydrologic case studies for the use in graduate programs)

- Send out a Notice of Opportunity
- ▪ Executive Committee picks someone to execute this effort with a goal of community release by Fall AGU 2008
- This will set up a review and editorial system that accepts submissions, evaluates and publishes
  - The focus initially should however be to make sure that an initial set of case studies gets published and put out there so that CUAHSI can see the interest and what happens from this approach
  - Therefore, this is only a pilot exercise to develop a structure and apply a few case studies for demonstration
- From a comparative value perspective
  - The few students you can educate may go into obscurity
    - Publishing case studies for education may have further reaching impact

***Teleconference with Board Members Who Could not Attend Physically in WDC***

- Phone Participants: Fred Ogden, Ken Potter, David Freyberg
- Quorum reached (need 10): 3 by phone, 8 in person

→ ■ Approval of October 24, 2007 Board Minutes

- Motion to Approve: Welty
- Second: Selker
- Discussion: Juan Valdes was present, Pasternack's name should be corrected for spelling
- Approval: Yes

- Approval of University of Queensland (Australia) Membership (Dr. Jane Hunter, representative; Dr. Eva Abal, alternate)

- ○ Motion to Approve: Foufoula
- Second: Selker
- Discussion: Previous version was signed by a fiscal authority – the new request was signed by an academic person
- Approval: Yes
- Ballot for Elections
  - Identify your choice for chair-elect and then identify two choices for the “at large” executive committee member
- Hydrologic Measurement Facility
  - Module and Node Model
    - Node is defined by a discipline and an activity that is lead by a PI
    - Affiliate nodes volunteer their equipment to be used by the community
  - Geophysics Node
    - Summer 2007 – Four projects
      - Publications to result
    - Paul “Ty” Ferré (U of Arizona) is leading the geophysics proposal to NSF
  - Water Cycle Node
    - → Need to approve move from Ameriflux facility to UNH facility – Russell Kelz (NSF) wants approval

→ *Motion to endorse the movement of the HMF calibration/staging facility from Oregon State to University of New Hampshire in cooperation with the USFS at Durham: Foufoula*

*Second: Scatena*

*Discussion: Write a letter to NSF saying that we voted for this and put the vote into context. This is an award to CUAHSI and a sub-award to UNH. Make sure that people understand that this project is not being heavily taxed by CUAHSI overhead.*

*Approval: Yes*

- WRR Special Issue on Measurement Methods
  - 40-60 potential papers, currently

- HMF Governance Structure (Post Pilot Project Operations)
  - Standing Committee, composition and charge
  
- PI committee
  - Standing committees oversees the working groups and does what the original PI team did so that the PIs of the nodes are ex-officio to the standing committee
    - This standing committee is designed to be more proactive in strategic planning instead of simply judging documents or activities that already exist
      - “Oversight only” also does not energize the committee very well
  - Selker suggests rotating 3-yr terms on the standing committee
  - Selker to work with Hooper and Pasternack to edit the current charge so that the new standing committee starts well
    - Modify charge to amen a matrix of skills needed
    - Call for nominations in February
    - Nominations should be set for the March Board meeting

### ***Synthesis Projects***

- Current status (Murdoch) and assessment (Kirschtel)
  - Two synthesis projects going on (started late spring in 2007)
    - UIUC (Sivapalan) and UNH (Vörösmarty)
- Meeting in September at Illinois (~35 people) – 5 working groups were formed
  - Four of the groups are currently working on white papers
  - UNH group was a part of this meeting
    - Proceeding in a more traditional path that is coordinated internally
- Special session organized by the two groups at Fall AGU
- Six early career fellowships were announced at the CUAHSI reception at Fall AGU
- Assessment – not straight forward projects so there is a need for evaluating the sociology side of it

- Members are queried to evaluate how they interacting and how patterns of work are changing
- Standing Committee, composition and charge
- ○ Suggestion to form standing committee 1 year from now (Spring 2009) to give the synthesis teams proper time to have products and information for the standing committee to consider
- Goal for community workshop to occur in year 3 of the awards

→ Motion that the standing committee begins operation January 2009: Selker

Second: Welty

Discussion: No

Approval: Yes

### ***Observatories***

- Status of Current Activities: WATERS Phase 2, WATERS Testbeds, Critical Zone Observatories,
- WATERS Phase 2 Engagement: Joint Venture vs. CUAHSI re-organization
- WATERS Phase 2 Proposal process: Competitive vs. Collaborative
  - Collaborative
    - Has to be a selection of a PI to do the collaborative path
      - Establish a search committee by January consisting of one member from CUAHSI, AEESP, CZEN, and also Minsker and Hooper to release an NOI for a June 1 submission – the search committee would also consults the PI to select the Co-PIs for the proposal. Search committee members cannot be a PI, excepting Rick Hooper

→ Motion to accept the above process: Welty

Second: Valdes

Discussion: Suppose this fails – do we have a back-up plan?

Approval: Yes

- Proposal – Establishes a set of modeling expertise (teams) and a set of sites, and then apply those teams and models to these sites where there are interesting questions to answer
  - The deliverable of this proposal is a science plan which articulates the need for observatories
    - The modeling exercises that the team executes should develop this plan
- Between now and April 2008, CUAHSI/WATERS/Environmental Engineering and Social Sciences identifies the teams and sites

**Adjourned:** 5:45 pm

***Wednesday, January 9, 2007***

**Call to order:** 8:30 am

### **III. Elections**

#### ***Election of Chair-Elect, Secretary and Treasurer***

- Election was executed by David Kirschtel (CUAHSI Program Manager), as Kevin Dressler has a conflict by running for re-election of secretary
- Jay Famiglietti began with his statement on the phone
- Hooper read Venkat Lakshmi's statement to the directors
- Jay Famiglietti elected to "Chair-Elect" position by a plurality



### ***Election of at-large Executive Committee Member***

- A general, open discussion occurred, addressing all candidate strengths/weaknesses
- Fred Scatena and Juan Valdes elected to “at-large” position by a plurality

***Secretary*** – Kevin Dressler

***Treasurer*** – Brian Waldron

## **IV. Setting the Future Course of CUAHSI**

### **Things we need to know before charting an effective course forward regarding the WATERS effort**

1. Recommendations from the current WATERS design team
2. The next phase for the current testbeds or, at the very least, lessons learned from the first two years of the projects
3. What is the amount of new/real money

### **Critical Zone Observatories**

- Some exposure to HIS and other cyberinfrastructure
- CUAHSI should engage the CZOs by supporting them
  - For example, putting in a proposal to fly NCALM LIDAR at the sites – lay out why the LIDAR is important and lay it out as a community resource for community facility
  - Deploy sensorscope instrumentation – stream that to HIS system and make it community data for the site



Motion to redirect funds from CUAHSI HMF grant (original purpose was workshops) up to \$70K towards the exploration of wireless technologies with the objective of deploying at the current CZO sites and assisting the design and logistics of the 2008 workshop: Welty

Second: Pasternack

Discussion: Need a centralized resource for this issue. Wise to do research and planning before rushing to placement in the field. Need to review the latest technologies. What about an email survey from each member university that describes their experiences in this area and what they have working/not working

Approval: Yes

### **Observatory Standing Committee**

A committee that works in a proactive environment rather than a reactive environment (representatives from testbeds, CZOs, others)

- ■ Motion to direct Fred, Jim and Richard to develop a charge for the Observatory Standing Committee: Welty
- Second: Pasternack
- Discussion: Charge developed by end of January, populated by end of February; Report back by March; Committee to execute a synthesis effort at the July meeting that addresses the current WATERS testbeds and CZOs. Five to seven people.
- Approval: Yes

### **General Discussion (Raising profile at NSF of research needing observations)**

→ Motion to endorse Rick to work with teams of PIs to develop observatory related sub-disciplinary concepts subject that would be useful to the CUAHSI membership: Selker

Second: No

Discussion: Rick Hooper does not need the board's permission here. This is just a discussion point. Rick brought this point up b/c it is slightly contrary to the science plan.

Some sub-disciplines being considered: Hillslope hydrology, groundwater transport, vadose zone, seasonal snowpack, ET, hyporheic. Take advantage of the campaign foci in the renewal proposal.

### **Establishment of Senior Advisory Council**

- Proposed Charge of Committee (refer to briefing book)
  - Remove “informing the ongoing policy debates”
  - Remove the role of ambassador for CUAHSI as this committee may not be ready yet
- Proposed Membership (Rick Anthes, UCAR; Rafael Bras; George Hornberger; Soroosh Sorooshian; W. Brutsaert; Jeff Dozier; EWRI or ASCE representative)
- Invite the advisory council to the July Annual meeting so that they can be updated on CUAHSI activities (Briefing on the Monday of the meeting)

### **Boulder Meeting Planning**

- CUAHSI Board to meet on the 12<sup>th</sup> and the advisory board meets with CUAHSI Board on the morning of the 13<sup>th</sup>
  - Invite the HIS, HMF, etc project leads for Sunday morning with the advisory board
- Invite UCAR public affairs person to give a 15 minute talk
- Name for meeting – CUAHSI Biennial Science Meeting: Resilience & Vulnerability of Natural and Managed Systems
  - Themes – Integrated Observations; Water Cycle Modeling; Advanced Instrumentation; Humans and the Water Cycle
- Invited keynote speakers (2 or 3)
  - Inspiration or a look to the future
  - Respond to the theme/title of the meeting
  - ○ Peter Eagleson Lecture on Hydrologic Science (Efi to ask)
    - If Eagleson cannot attend invite James Dooge
  - Red's Wolman Lecture on Humans and Water (Ken Potter to ask)
    - If Wolman cannot attend invite Tom Dunne
- ■ Invite a European speaker to talk about large efforts elsewhere
  - For example, Marc Parlange
- Free registration for students if they bring a research poster

### **Advocacy**

- Request to be a part of UCAR's email list related to advocacy
- Coalition for National Science Funding
  - Free and CUAHSI just presents what it is doing
- CUAHSI staff talking to senior staffers

### **Engage Universities at Higher Level**

- Send executive summary
- Reprint Volume

### **“Draft” Goals for 2008**

- HMF white paper that lays out a sensor development facility program
- Functioning standing committees (HMF, HIS, audit, Observatory) and advisory council
- CHyMP steering committee, Scoping workshop and document
- Document Achievements
  - For Fall AGU be able to highlight accomplishments
- Resolve Phase 2 Testbedding/Testbeds
  - What we have learned from Phase 1
  - Synthesis/Integration of Testbeds
- Engage Community
- Establish Expertise Pool – “ Education and Advocacy”
- Recruiting additional sites for HIS deployment
- Sub-disciplinary “Next Steps” seminars at NSF
- Operational HMF Water Cycle Node
- Wireless Node Delivery to the Community
- Improved NSF Engagement
  - Lead to NSF engaging CUAHSI when there are water issues at NSF that they want to resolve
    - That is, work towards gaining more standing of CUAHSI at higher levels of NSF

**Adjourned: 2:30 pm**