

**MEETING OF  
ADVISORY COMMITTEE ON WATER INFORMATION'S (ACWI'S)  
SUBCOMMITTEE ON HYDROLOGY (SOH)**

**9:00 am – 12:00 Noon (EDT)**

**January 29, 2009**

*Room 7000B, Department of Interior Building  
1849 C Street, N.W., Washington DC 20240  
Enter from E St Entrance*

**AGENDA**

- |  |                 |
|--|-----------------|
| 1. Welcome and Introductions   | Steve Blanchard |
| 2. Review and Approval of Agenda   | Steve Blanchard |
| 3. Approval of Minutes from October 30, 2008 Meeting   | Steve Blanchard |
| 4. Status of Action Items from October 30, 2008 Meeting  | Steve Blanchard |
| 5. Presentation by Dr. Marina Timofeyeva "Overview of NOAA National Weather Service Climate Services"<br>(Presentation followed by Q&A - total 30-40 min.)   |                 |
| 6. Update on Hydrologic Modeling Work Group ( <i>by phone</i> )  | Don Frevert     |
| 7. Update on Satellite Telemetry Interagency Work Group ( <i>by phone</i> )  | Ernest Dreyer   |
| 8. Update on Hydrologic Frequency Analysis Work Group  | Will Thomas     |
| 9. Update on Hydrologic and Hydraulic GIS Applications Work Group  | William Merkel  |
| 10. Update on Extreme Storms Work Group  | Tom Nicholson   |
| 11. Plans for February 11-12, 2009 ACWI meeting  | Steve Blanchard |
| 12. SOH membership; web pages status   | Steve Blanchard |
| 13. Current Events within Hydrologic Communities   | All             |
| 14. Announcements and Q&A on Business Reports from Member Organizations  | All             |
| • USGS Report "An Evaluation of Selected Extraordinary Floods in the United States Reported by the U.S. Geological Survey and Implications for Future Advancement of Flood Science" Costa, John E.; Jarrett, Robert D. On-line only report at URL: <a href="http://pubs.usgs.gov/sir/2008/5164/">http://pubs.usgs.gov/sir/2008/5164/</a> |                 |
| • "The SOH CONNECTIONS" Newsletter Editor's Report   |                 |
| 15. Plans for Next Meeting in April  | Steve Blanchard |
| 16. Plans for July 2009 Meeting in Las Vegas – Tuesday July 7  | Steve Blanchard |

**Adjourn**

## SUMMARY OF THE MEETING

(Prepared by Mary Greene, USDA - NRCS – National Water and Climate Center)

### PARTICIPANTS

Martin Becker	Defenders of Property Rights (DPR) <i>(by phone)</i>
Steve Blanchard	Geological Survey (USGS)
Christopher Cook	Nuclear Regulatory Commission (NRC)
Ernest Dryer	Geological Survey (USGS) <i>(by phone)</i>
Ted Engman	National Aeronautics and Space Administration (NASA) <i>(by phone)</i>
Don Frevert	Bureau of Reclamation (USBR - Retired) <i>(by phone)</i>
Mary Greene	USDA – NRCS – National Water and Climate Center (NWCC) <i>(by phone)</i>
Steve Haley	American Forests
Claudia Hoeft	Natural Resources Conservation Service (NRCS) <i>(by phone)</i>
John Hunter	Army Corps of Engineers (USACE)
Douglas James	National Science Foundation NSF <i>(by phone)</i>
Sam Lin	Federal Energy Regulatory Commission
William Merkel	USDA Natural Resources Conservation Service
Victor Hom	National Oceanic and Atmospheric Administration (NOAA/NWS)
Tom Nicholson	Nuclear Regulatory Commission (NRC)
John Ostenberg	Bureau of Reclamation (USBR)
Richard Raione	Nuclear Regulatory Commission (NRC)
Gene Stallings	National Hydrologic Warning Council (NHWC) <i>(by phone)</i>
Nancy Steinberger	Federal Emergency Management Agency (FEMA) <i>(by phone)</i>
Will Thomas	Association of State Floodplain Managers (ASFPM)
Marina Timofeyeva	National Oceanic and Atmospheric Administration (NOAA/NWS)
Nebiyu Tiruneh	Nuclear Regulatory Commission (NRC)
Gerald Waddle	Office of Surface Mining (OSM) <i>(by phone)</i>
David Wells	Environmental Protection Agency (USEPA)
Max Yuan	Federal Emergency Management Agency (FEMA) <i>(by phone)</i>

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### **Meeting Highlights**

1. Welcome and Introductions  
Steve Blanchard called the meeting to order at 9:02 AM (EST) and welcomed everyone. Each person introduced themselves and their organizational affiliation. There were 25 participants including 10 attending via phone.
2. Review and Approval of Agenda  
Approved with no changes.
3. Approval of Minutes from October 30, 2008 Meeting  
Accepted with the modification that Steve Haley was present at the meeting rather than attending via phone.
4. Status of Action Items from October 30, 2008 Meeting  
All action items were completed.
5. Presentation by Dr. Marina Timofeyeva presented an Overview of NOAA Climate Change Activities and Data titled, "NOAA National Weather Service Climate Services". The presentation was followed by Q&A. This presentation is available on the SOH website.

Online demo from <http://www.weather.gov/climate/>

Click on any position in the map, chose your product and location, click **go** to get the real time data. Click on the NOWData tab, record extreme, min entire year, click **go** to get the NOAA Online Weather Data real-time for the minimum temperatures. This is a good example of how the cooperation works through the Regional Climate Centers and the National Climatic Data Center.

6. Update on Hydrologic Modeling Work Group (*by phone*) Don Frevert

Don Frevert reported that the work group held its most recent conference call on January 13, 2009.

The primary action item for all members is to distribute the call for papers within their respective member organizations. Additionally the group is reviewing possible short courses to be offered in conjunction with the 2010 conference.

Abstracts will be due on June 30, 2009 and the work group is scheduled to meet at the Riviera Hotel in Las Vegas July 7-9, 2009. Primary tasks for that meeting will include review of abstracts, organizing the technical program and final decisions on field trips and short courses.

SOH member organizations who do not participate in the Hydrologic Modeling Work Group are also asked to circulate the call for papers around their organizations as well.

The next conference call for the work group will be March 17, 2009 at 3:00 pm Eastern time.

7. Update on Satellite Telemetry Interagency Work Group (*by phone*) Ernest Dreyer

The STIWG met on December 4, 2008 in Miami, Florida in conjunction with the GOES Technical Working Group ( GOES TWG ) and NOAA's Satellite Direct Readout Conference. At the meeting a new chairperson and secretary were selected:

- Chairperson: Charles Allen of Bureau of Reclamation
- Secretary: Rich Engstrom of COE

There are three main projects being pursued by the STIWG:

- 1) two data standards,
- 2) two-way communications over the GOES satellite, and
- 3) the Emergency Data Distribution Network(EDDN) at the USGS's EROS data center in Sioux Falls, South Dakota. (The EDDN provides a backup to NESDIS's Wallops Island facility for the reception and distribution of data transmitted over the GOES DCS. )

A status of these projects follows:

#### **Data Standards ( Lead: Charles Kazmir, BLM)**

The STIWG is attempting to develop two data standards: 1) a standard for sharing meta data for GOES DCP configurations, and 2) a binary standard for GOES transmissions. The standard for meta data would allow the configurations for GOES data collection platforms to be shared by users from different agencies. The binary standard for GOES transmissions would allow the use of compression at the remote site and result in shorter transmissions and the use ASCII encoding. After some initial progress on both these standards, there was not much to report at the last STIWG meeting. However, the STIWG wants to revive these efforts because of their importance.

#### **Two-way communications over GOES ( Lead: Mark Bushnell, NOS)**

The STIWG is supporting the project initiated by Mark Bushnell of the NOS to provide affordable, reliable two-way communications over the existing GOES DCS system. The GOES DCS system has an existing "interrogate" channel that can be used for two-way communication. Two-way communications would facilitate the remote management of DCPs including setup and maintenance and facilitate new applications driven by the two-way capability. This should have the considerable advantages of reducing field trips and providing better management of remote GOES DCPs.

Some operations that could be performed remotely are:

- Request missing/additional data.
- Change threshold alarms on the remote DCPs.
- Perform remote diagnostics.
- Adjust assignment settings.

The Sutron Corporation was awarded a SBIR contract (manged by NOS) to produce a feasibility study and a prototype for a DCP receiver. Sutron has completed the feasibility study and will deliver the prototypes by June 2009. The prototypes will be separate stand-alone units with their own antenna, battery, and solar panel. They will connect with a DCP via RS232/RS485. (Note that the DCP has to be upgraded to interact with the receiver – Sutron will have DCPs that can be used to test the prototype.) Later versions of the receiver may be integrated with DCPs.

Sutron has performed some initial testing of their prototype at the GOES Wallops Island facility and successfully transmitted commands to their prototype. Sutron is seeking additional funding to develop:

1. client software to provide user's with access to transmit commands, and
2. a software/hardware system to accept commands from the user client software and control transmissions to remote DCPs.

The client software should be able to run on a PC and communicate with the transmission system via a network connection.

### **GOES Emergency Data Distribution Network (EDDN) at EROS Data Center**

The GOES EDDN is operational. It was reported at the STIWG meeting that the EDDN is functioning well, and that there were no major user problems. In fact, the EDDN has provided backup for several short periods when the GOES DOMSAT link was down. Most major users of the GOES DCS have access to the EDDN.

The GOES TWG meeting was held on the day after the STIWG meeting, and there are two items to report from that meeting:

#### **Status of transition to high-data rate DCPs**

Currently, there are 70 high-data rate channels available, and there are approximately 16000 out of 29000 DCP assignments ( 55%) that are high-data rate assignments.

#### **Future availability of international Channels**

It was reported that 11 3 KH international channels have been freed for local use. International channels were reserved on all GOES-like satellites (GOES, EUMETSAT, etc.) around the world for mobile transmitters. Because these channels have been under-utilized, it has been agreed to make them available for local use. This translates into 22 additional 1.5 KH GOES channels for use by the GOES DCS. NESDIS is still considering how they will be used.

The next meeting of the STIWG will be scheduled in conjunction with the 2009 Conference of the National Hydrologic Warning Council (NHWC). The conference will be in Vail, Colorado from May 18-21.

### 8. Update on Hydrologic Frequency Analysis Work Group

Will Thomas

The testing on the EMA procedure continues. The testing team of John England, Tim Cohn, and Nancy Steinberger have proposed an USGS report titled "Expected Moments Algorithm and Bulletin 17B Flood Frequency Comparisons for Evaluating Potential Changes to Bulletin 17B" to document the EMA testing and computational procedures. On January 27, 2009, the Data Group of the HFAWG provided the following comments to the testing team to clarify the purpose of the USGS report:

- The USGS report should be used to inform decisions about updating Bulletin 17B, not to define those decisions.
- There should be no recommendations regarding the acceptance of the EMA procedure in the USGS report.
- The results of the EMA testing should be fully vetted to the HFAWG before the USGS report is published.
- The HFAWG should not be "colleague" reviewers of the USGS report.

The HFAWG will provide comments on the EMA test results but should not be identified as a colleague reviewer because this may give the hydrologic community the impression that the HFAWG has accepted the EMA procedure as a replacement or update of the existing Bulletin 17B procedures.

Steve Blanchard asked about the schedule for completing the EMA testing and Will commented that he would like to see the testing completed by late March 2009 so that a meeting of the HFAWG could be convened in April 2009.

### 9. Update on Hydrologic and Hydraulic GIS Applications Work Group

William Merkel reported that teleconferences for Work Group members are held regularly. The last one was January 7, 2009 and the next one is scheduled for March 3, 2009. The teleconference minutes are posted at <http://acwi.gov/hydrology/h2gisa/>.

The current focus of the Work Group is to gather information (specific items listed in a questionnaire) for GIS applications in hydrology and hydraulics. Once this information is gathered, the plan is to post it on the internet for those individuals interested in learning about and downloading the various applications. There are currently 13 applications identified (these are listed in the January 7 teleconference minutes).

A Live Meeting demonstration of the ARS model AGWA was held during the January 7 teleconference. The Automated Geospatial Watershed Assessment system is an interface to two models (KINEROS2 and SWAT) which may be used to assess hydrologic response on both large and small watersheds. Basic GIS layers such as elevation, land use, and soil are required. There are about 900 users world-wide.

Involvement with the upcoming 4<sup>th</sup> Federal Interagency Hydrologic Modeling Conference will be discussed. Possible involvement could include submitting a group of abstracts, organizing a session on GIS applications in hydrology and hydraulics, and setting up a short course, computer demonstrations, and/or poster session. There is some interest in offering a short course on GIS Applications in Hydrology and Hydraulics.

#### 10. Update on Extreme Storms Work Group

Tom Nicholson

The inaugural meeting of the Work Group on Extreme Storm Events was held on September 4, 2008 at the U.S. Nuclear Regulatory Commission's (USNRC) Headquarters Building in Rockville, Maryland. Thomas Nicholson, USNRC appointed by Steve Blanchard, SOH Chair to serve as the Interim Chair. The representatives to the Work Group are: John England, Bureau of Reclamation; Eugene Stallings, National Hydrologic Warning Council; Douglas Clemetson, USACE; John Onderdonk, FERC; Nancy Steinberger, FEMA; Christopher Cook, USNRC; Robert Mason, USGS; John McClung, USDA/ARS; and Geoffrey Bonnin, NWS. The first agenda item was review of the SOH-approved Charter lead by John England, Bureau of Reclamation and the principal author of the Work Group Charter (see attached). He discussed the purpose, applicability, scope, and activities of the newly approved work group. John mentioned that many of the items in the charter are highlighted in his abstract (see attached) for presentation at the American Geophysical Union's 2008 Fall Meeting on December 15, 2008.

The second agenda item focused on newly-funded research by the USNRC at the U.S. Department of Interior's Bureau of Reclamation with Dr. John England as the principal investigator. This Interagency Agreement research will assess extreme storm events occurring over the last 35 years to evaluate flood estimates for safety assessments of dams, nuclear power plants, and other high-hazard structures in the U.S. Due to staff shortages at Reclamation, the work will be limited at first to examining storms occurring in the Carolinas. This initial effort focuses on collecting and reviewing extreme storm event data in the Southeastern U.S. that have occurred since Tropical Storm Agnes (1972). John will work with Geoff Bonnin (NWS) to obtain hydrometeorological data from these large storms to update Probable Maximum Precipitation (PMP) estimates presented in the generalized hydrometeorological reports (HMRs). The ultimate scope is to examine all extreme storm data in the U.S., such as the January 1996 storm in Pennsylvania, June 2008 Iowa storms, and Hurricanes Andrew (1992), Floyd (1999), Isabel (2003), Katrina (2005), and to systematically assemble and analyze this data for use in regional extreme storm studies throughout the U.S. John plans to incorporate recent advances in storm maximization, transposition, envelopment, and depth-area duration procedures including radar precipitation data and stochastic storm techniques. Uncertainties and exceedance probability estimates of PMP will be explored. Potential effects of climate variability and change on the PMP will also be investigated.

A national database of extreme storm events related to flooding was discussed. Douglas Clemetson, (USACE), Omaha, Nebraska Office mentioned that he was having a student start on compiling the extreme storm data that the USACE has in the Omaha office files. This work is to initiate the creation of database that can be shared between agencies and updated with additional storm information. The work consists of entering historic storm information into a database including the date of the storm, storm location, scanned images of isohyetal maps, bucket survey data, depth-area-duration relationships, temporal distribution, storm dew points, wind direction, elevation of the storm center, and radar images if available. The isohyetal maps will be digitized into a GIS format for use in future storm transposition studies. Initially, this database will contain about 250 historic extreme storms that have occurred in and around the Missouri River basin. It will also include the previously analyzed storms published in "Storm Rainfall in the United States" which contains extreme storms through 1973. Once the initial database is completed we can add additional storms that have occurred since 1973 for other regions of the US as funding and resources permit. All this information can be placed on a web site for easy access by all agencies and the public, if desired by the work group. Doug hopes to submit a request for additional funding through the USACE dam safety program. If this is approved, he plans to assemble a team of hydrologists and meteorologists

from around the Corps to assist with this effort. To further this work he requested that we facilitate a meeting with John England, Reclamation and Geoff Bonnin, NWS to see what data they can provide so we do not duplicate any effort.

The work group next discussed the National Academies of Science and Engineering's Workshop on Research and Applications Needs in Flood Hydrology Science being held on October 15, 2008 in Washington, DC (see attached agenda). Tom Nicholson, John England, Geoff Bonnin, Nancy Steinberger, and Robert Mason attended the workshop. The four fundamental questions addressed during the one-day workshop were:

1. What should be the underpinnings and motivating science and applications questions in a new science of hydrologic extremes?
2. What can and should be the role of new observing methods, both in situ (including new sensor technologies) and remote sensing? How might approaches to the estimation of hydrologic extremes differ based on the richness of the historic observations?
3. What should be the interface between the science of hydrologic extremes and applications issues, such as the need to replace standard methods, such as Bulletin 17B and other methods that are based on stationary statistical methods? And
4. How can advances in techniques for the accurate analysis of ancient flood events aid estimation of future flood magnitudes and frequency, and understanding of the generative processes for extreme flood phenomena?

The workshop presentations and discussion sessions focused on these questions. The presentations and subsequent discussions will be summarized to the SOH during the October 30, 2008 meeting by Tom Nicholson and the Work Group members that attended. In follow-up discussions with Dr. Eric Wood, Princeton University and NAS/Committee on Hydrologic Sciences, Tom Nicholson invited him and Will Logan, NAS workshop facilitator to discuss their workshop observations and recommendations to the Work Group members at the next meeting.

The next Work Group meeting will be in conjunction with the AGU 2008 Fall Meeting in San Francisco. John Onderdonk, FERC will host the work group meeting at their offices in downtown San Francisco on Tuesday, December 16, 2008 @ 2:00 PST. A tentative meeting agenda and teleconferencing access will be provided prior to the meeting. The principal meeting topics will be the NAS Workshop highlights, Reclamation's progress on their PMP research, and the extreme storm event database being developed by the USACE.

John England, Reclamation, volunteered to serve as Work Group Vice-Chair. No other candidates were identified and/or nominated. John was elected Vice-Chair as per the Charter procedures. No one volunteered or was nominated to serve as Work Group Chair. Representatives were requested to reconsider and to elect a Chair at the next meeting. Tom Nicholson will remain as Interim Chair.

11. Plans for February 11-12, 2009 ACWI meeting Steve Blanchard  
Comments and suggestions for material to include in the presentation were provided to Steve Blanchard and Mary Greene
12. SOH membership; web pages status  
Steve Blanchard reported Gerald Waddle is interested in representing OSM replacing Mary Greene, he is awaiting approval from his supervisors and attended part of today's meeting. Steve has also approached a contact at TVA regarding representation on the SOH.
13. Current Events within Hydrologic Communities All
  - Application Prediction Climate and Hydro – New Orleans Mar 24-29 CPALW
  - National Flood Conference – FEMA – April 19-22 – Boston, MA;  
[http://www.fema.gov/business/nfip/natl\\_fldconf.shtm](http://www.fema.gov/business/nfip/natl_fldconf.shtm)
  - Soil and Water Assessment Tool - SWAT 5th International Conference - Boulder, CO – August 3-7 -  
[http://www.brc.tamus.edu/swat/conf\\_5th.html](http://www.brc.tamus.edu/swat/conf_5th.html)
  - Environmental Modeling – October 13-14 – NRC

#### 14. Announcements and Q&A on Business Reports from Member Organizations

All

**USGS Report** “*An Evaluation of Selected Extraordinary Floods in the United States Reported by the U.S. Geological Survey and Implications for Future Advancement of Flood Science*” Costa, John E.; Jarrett, Robert D. On-line only report at URL: <http://pubs.usgs.gov/sir/2008/5164/>  
Steve Blanchard provided an overview of the highlights of this document which reports on the 30 largest flood that have occurred in the USA based on a range of watershed sizes.

**David Goodrich provided an update on CUAHSI** from David Maidment – available below.

David Goodrich noted the following points of interest:

- For the SOH GIS Subcommittee – progress being made on GIS web services
- Suggested offer that CUAHSI HIS representative make an in person presentation at the next SOH meeting.

Dave [Goodrich]:

In response to your request for an update on CUAHSI HIS for the ACWI Subcommittee on Hydrology, I have queried my colleagues on the HIS team and we have come up with the following items:

- (1) HIS Central -- HIS has made progress towards the establishment of a Water Data Federation as a collection of Water Data Services published using WaterML. The website HIS Central (<http://hiscentral.cuahsi.org/>) has been established as a place where data providers can register and provide metadata about their WaterOneFlow water data services. These data are then indexed and catalogued in the HIS metadata catalogue at SDSC and become searchable through Hydroseek.
- (2) Australian Water Resources Information System (AWRIS) adopts CUAHSI HIS – Tony Boston from the Bureau of Meteorology writes “ We’ve now just about completed our evaluation of CUAHSI HIS. We considered three options for use of HIS within AWRIS: (1) Use of Windows HIS out of the box as is; (2) Migration of HIS to a Linux/Postgres environment; (3) Building an interface to AWRIS that will deliver WaterOneFlow web services. Our decision is to use HIS as is in the short-term (option 1) and in the medium-term to go with option 3 which provides the maximum flexibility allowing us to develop the AWRIS database for our own purposes with the ability to deliver WaterOneFlow web services (and potentially other web services) as well.”
- (3) Fall AGU Meeting – This provided an excellent opportunity to meet with colleagues and discuss HIS. AGU has formed an Earth and Space Sciences Informatics focus group [http://www.agu.org/focus\\_group/essi/index.html](http://www.agu.org/focus_group/essi/index.html) and it is the fastest growing group within AGU. There are now many sessions related to informatics topics at AGU. The growth in activity even since the Fall 2007 AGU meeting was noticeable. The CUAHSI booth provided a further opportunity for 1 on 1 demonstration of HIS functionality to the hydrology community. A CD providing HIS software and illustrative use cases was prepared for and distributed at the AGU fall meeting. The material from this CD is available on the website <http://his.cuahsi.org>
- (4) Forecast Metadata for WaterML – At Fall AGU, the CUAHSI HIS team met with Don Cline and John Halquist from the NOAA NOHRSC in Chanhassen, MN, who are interested in extending WaterML to include a forecast metadata component, necessary if WaterML is to be adopted within the hydrology branch of NWS. It appears that this is a separable set of time series metadata that can be included in the WaterML Get Values function call relatively simply. Discussions are ongoing between the CUAHSI WaterML team in San Diego and NOHRSC about how to accomplish this.
- (5) HIS Desktop -- We have begun the design, prototyping, and development of a new HIS tool to run as a client side desktop application consuming HIS web services and presenting a map based graphical user interface for querying and mining HIS data. This tool, HIS Desktop, will be developed using a shared community participation approach that is common in the open source software world and will be based largely on free and open source tools including the MapWindow GIS components <http://www.mapwindow.org/>. MapWindow development is managed at Idaho State University by Dan Ames and is used by the EPA Basins team for the publication of the open source version of EPA Basins 4.0. Dan Ames has joined the CUAHSI HIS team to manage the software production of HIS Desktop in a similar way. The design of the functionality of HIS Desktop will be led by David Tarboton [david.tarboton@usu.edu](mailto:david.tarboton@usu.edu) of Utah State University, and participation in establishing design requirements is welcomed.

- (6) New Paper Published -- The paper "An integrated system for publishing environmental observations data" by Jeffery S. Horsburgh et al., detailing the CUAHSI Water data publication system has been published in Environmental Modeling and Software (doi:10.1016/j.envsoft.2009.01.002), <http://www.sciencedirect.com/science/journal/13648152>. This paper presents the method for publishing research datasets consisting of point observations that employs a standard observations data model populated using controlled vocabularies for environmental and water resources data along with web services for transmitting data to consumers. This paper describes how these components have reduced the syntactic and semantic heterogeneity in the data assembled within a national network of environmental observatory test beds and how this data publication system has been used to create a federated network of consistent research data out of a set of geographically decentralized and autonomous test bed databases.
- (7) Progress with the Open Geospatial Consortium (OGC) – Significant progress has been made in strengthening the relationship of CUAHSI HIS with the OGC, whose Web Map Service, Web Coverage Service and Web Feature service are standards becoming widely used in the GIS community for exchange of GIS data using web services. A draft charter has been established for a Hydrology Domain Working Group within OGC, and it is possible that this working group will be jointly established with the Commission for Hydrology of the World Meteorological Organization so that data standards work from the hydrology services of other nations can be factored into the process of standardization of WaterML.

I hope that this update is helpful to the ACWI Subcommittee on Hydrology. It may be useful if Rick Hooper or somebody else representing CUAHSI HIS were to speak in person to the next SoH meeting. I think that we are reaching the point where we can outline more precisely what is involved in federal agencies joining the CUAHSI Water Data Federation.

With best regards

David [Maidment]

***“The SOH CONNECTIONS” Newsletter Editor’s Report***

Mary Greene noted the last publication. There was discussion to send the SOH Connections newsletter to professional organizations for publication / distribution

**WaterWatch Demo** – Steve Blanchard provided a quick demo of Waterwatch  
<http://water.usgs.gov/waterwatch/>

15. Plans for Next Meeting in April Steve Blanchard  
**Next SOH meeting is Thursday April 30, 2009**
16. Plans for July 2009 Meeting in Las Vegas – **Tuesday July 7, 2009** Steve Blanchard

**Adjourn**

**SOH January 29, 2009**

**Action Items**

1. **Provide PowerPoint slides for the SOH presentation to ACWI to Steve and Mary immediately - by COB Wednesday February 4, 2009, the presentation is on February 10, 2009.**
2. Distribute the JFIC 2010 Conference – call for papers among your agencies and groups. Circulate it to everyone.
3. Send Workgroup Reports to Mary by Friday, February for inclusion in the meeting minutes.
4. Send Member Reports to Mary by Friday, February for inclusion in the meeting minutes.
5. Submit information for the newsletter to Claudia and Mary by Friday February 27, 2009.
6. Next SOH meeting is Thursday April 30.
7. Save the date, **Tuesday July 7, 2009**, for the July SOH Meeting in Las Vegas in conjunction with the planning meeting for the 2010 JFIC Conference.

**Member Business Reports for SOH Meeting January 29, 2009**  
**Compiled by M. Greene**

**FERC – Sam Lin**

- **ASDSO leaders spoke at FERC dam safety briefing on 12/5/08.** ASDSO President Rob Martinez, President-Elect David Gutierrez and New York ASDSO State Representative Alon Dominitz participated in a technical conference held by the FERC on December 5 in Washington, DC. Conference participants explored major components of the FERC Dam Safety Program, current state and industry assistance efforts, and the challenges facing state dam safety offices to identify needed technical and resource assistance.
- **FERC engineers met with engineers from the Nuclear Regulatory Commission (NRC) in December, 2008.** NRC is conducting a Risk Analysis as part of their relicensing of the Oconee Nuclear Plant which is downstream of the Jocassee Development of FERC P-2503. The meeting was requested by NRC to gain an understanding of the scope of FERC's inspections and engineering analyses that conclude that the Jocassee dam currently meets dam safety criteria.

**USBR – Don Frevert**

- "Bureau of Reclamation Commissioner Robert Johnson retired effective January 3rd, 2009. Pacific Northwest Regional Director Bill McDonald has been appointed acting commissioner until a permanent commissioner is identified by the new administration and confirmed by the senate".

**USGS Business Report – Steve Blanchard**

**USGS Personnel Appointments:**

- Suzzette Kimball, Associate Director for Geology, will serve as the Acting Director of the USGS until a new USGS Director is appointed and confirmed.
- William Werkheiser has been selected as the Eastern Region Director. Bill has served in numerous positions in the USGS, most recently serving as the Acting Chief Scientist for Water. Some of his prior assignments have included Acting Associate Director for Geology, Acting Enterprise Publishing Network Manager, Acting Regional Executive for the Northeastern Water Programs, and the Director of the Pennsylvania Water Science Center. He also led the Hazards Initiative Team and the long-term Hurricane Katrina Response and Recovery Team for the USGS. Bill started his USGS career in 1986 as a hydrologist in the Delaware Water Science Center and has over 25 years of experience with USGS and other agencies working on a variety of environmental and scientific issues. Bill has a bachelor's degree in geology from Bloomsburg University and a master's degree in geology from the University of Massachusetts.
- Stan Ponce has been selected as the Central Region Director. Stan has served in numerous positions in the USGS, most recently as Regional Executive for the South

Central Area. Prior assignments have included Senior Advisor to the Director for Partnerships and Interagency Programs, Chief of Partnerships and External Coordination in the Geography and Geospatial Information Office, Senior Advisor to the Associate Director for the Geospatial Information Office, and Acting Regional Biologist for the Central Region. He has also worked for other Bureaus within the Department of the Interior and the U.S. Forest Service. Stan has over 25 years of experience in working on a variety of scientific research and management of land and water resources issues. He holds bachelor's degrees in watershed science (Oregon State University) and forestry and natural resources (University of Missouri), and a Ph.D. in civil and environmental engineering from Utah State University. An Acting Regional Executive for the South Central Area will be announced shortly.

- Kevin Gallagher has been reassigned to Associate Director for Geospatial Information and Chief Information Officer. Kevin has served in several positions since arriving at the USGS in 2002, including the Chief Technology Officer, the Acting Chief Information Officer, and most recently as the Deputy Associate Director for Geospatial Information. He has also held positions at the Department of Transportation and the Department of the Navy. Kevin has over 25 years of experience working with information technology systems and networks, telecommunications, and information technology security. Kevin received his bachelor's degree in management information systems from James Madison University and his master's degree in information resources management from Syracuse University.
- Bryant Cramer has been reassigned to Associate Director for Geography. Bryant originally joined the USGS as the Executive Advisor for Land Imaging, helping us plan the transition of the Landsat Program from a series of independent single research missions to a truly operational satellite program. Prior to joining the USGS, Bryant worked for more than 30 years in numerous positions at the National Aeronautics and Space Administration, including Goddard Space Flight Center, Johnson Space Center, Langley Research Center, and Headquarters. He has extensive experience in the development, launch, and management of earth science space missions. Bryant has a bachelor's degree in chemistry and a Ph. D. in engineering from Northwestern University.

**New USGS Report** – “Measuring Discharge with Acoustic Doppler Current Profilers from a Moving Boat” Chapter 22 of Book 3, Section A; by David S. Mueller and Chad R. Wagner

The use of acoustic Doppler current profilers (ADCPs) from a moving boat is now a commonly used method for measuring streamflow. The technology and methods for making ADCP-based discharge measurements are different from the technology and methods used to make traditional discharge measurements with mechanical meters. Although the ADCP is a valuable tool for measuring streamflow, it is only accurate when used with appropriate techniques. This report presents guidance on the use of ADCPs for measuring streamflow; this guidance is based on the experience of U.S. Geological Survey employees and published reports, papers, and memorandums of the U.S. Geological Survey. The guidance is presented in a logical progression, from predeployment planning, to field-data collection, and finally to post-processing of the collected data. Acoustic Doppler technology and the instruments currently (2008) available also are discussed to highlight the advantages and limitations of the technology.

More in-depth, technical explanations of how an ADCP measures streamflow and what to do when measuring in moving-bed conditions are presented in the appendixes. ADCP users need to know the proper procedures for measuring discharge from a moving boat and why those procedures are required, so that when the user encounters unusual field conditions, the procedures can be adapted without sacrificing the accuracy of the streamflow-measurement data. The report is available online at: <http://pubs.usgs.gov/tm/3a22/>