

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

**12:00 p.m. – 3:00 pm, Eastern Time
April 19, 2012**

**Federal Energy Regulatory Commission - 888 First Street, NE, Meeting Room 3M-1
Washington, DC 20426**

**For callers inside DC Area, please dial 202-502-6888 or
For those outside DC, dial 1-877-857-1347
(No password is needed. The meeting ID is 1822.)**

FINAL MINUTES

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| 1. Welcome and Introductions | Richard Raione |
| 2. Review and Approval of Agenda | Richard Raione |
| 3. Approval of Minutes from January 19, 2012 Meeting | Richard Raione |
| 4. Status of Action Items from January 19, 2012 Meeting | Richard Raione |
| 5. Feature Presentation #1:
<i>Status of Hydrologic Frequency Analysis Work Group</i> | Will Thomas |
| 6. Feature Presentation #2:
<i>Status and Research for the Extreme Storms Work Group</i> | Thomas Nicholson/
John England
Doug Clemetson |
| Comments on Extreme Storm Analysis for Dam Safety | Dave Gutierrez |
| 7. Review of Work Group Reports and Q&A | |
| a) Hydrologic Modeling Work Group | J. Webb/D. Gleason |
| b) Hydrologic Frequency Analysis Work Group | Will Thomas |
| c) Hydrologic and Hydraulic GIS Applications Work Group | William Merkel |
| d) Extreme Storms Work Group | Tom Nicholson |
| e) Satellite Telemetry Interagency Work Group | |
| 8. ACWI-SOH Assessment:
<u><i>Assessing Agency Needs and ACWI SOH Priorities</i></u> | Richard Raione and
SOH Members |
| • Re-examine purpose of the Assessment | |
| • Review Survey Feedback from FEMA and USGS | |
| • General Comments from other SOH Members | |
| 9. Standard Procedures for Invited Guests (See attached) | Richard Raione |
| 10. Current Events within Hydrologic Communities | All |
| 11. Announcements and Q&A on Business Reports from Member Organizations | All |
| a) Business Reports | |
| b) "The SOH CONNECTIONS" Newsletter Editor's Report | |
| c) Other? | |
| 12. Review Action Items | Richard Raione |

13. Plans for Next Meeting (July 9, 2012, from noon to 3:00 pm EST, U.S. EPA Headquarters)
Richard Raione

Adjourned (4:15 pm EST)

ATTENDEES

Subcommittee on Hydrology Members

Representative	Organization/Agency	<i>Participation</i>
Martin Becker	Defenders of Property Rights (DPR)	<i>(phone)</i>
Brian Beucler	U.S. Dept. of Transportation, Federal Highway Admin.	<i>(phone)</i>
Doug Clemetson	U.S. Army Corps of Engineers (USACE)	<i>(phone)</i>
Jerry Coffey	Consultant, Mathematics and Statistics (formerly OMB)	<i>(phone)</i>
Wade Crow	U.S. Dept. of Agriculture, Agricultural Research Service	<i>(phone)</i>
Michael Eberle	U.S. Forest Service	<i>(phone)</i>
Beth Faber	U.S. Army Corps of Engineers (USACE)	<i>(phone)</i>
Ian Ferguson	U.S. Bureau of Reclamation (USBR)	<i>(phone)</i>
David Gutierrez	California Division of Safety and Dams	<i>(phone)</i>
Joe Kanney	U.S. Nuclear Regulatory Commission (USNRC)	<i>(phone)</i>
Jerry Stedinger	Civil and Environmental Engineering, Cornell University	<i>(phone)</i>
Nancy Steinberger	U.S. DHS, Federal Emergency Management Agency	<i>(phone)</i>
Kevin Stewart	National Hydrologic Warning Council (NHWC)	<i>(phone)</i>
Jerry Webb	U.S. Army Corps of Engineers (USACE)	<i>(phone)</i>
Tim Cohn	U.S. Geological Survey (USGS)	
John England	U.S. Bureau of Reclamation	
Ted Engman	National Air and Space Administration (NASA)	
Siamak Esfandiary	U.S. DHS, Federal Emergency Management Agency	
Lee Koss	U.S. Bureau of Land Management (USBLM)	
Samuel Lin	Federal Energy Regulatory Commission (FERC)	
Robert Mason	U.S. Geological Survey (USGS)	
Mary Mullusky	NOAA / National Weather Service	
Tom Nicholson	U.S. Nuclear Regulatory Commission (USNRC)	
Chandra Pathak	U.S. Army Corps of Engineers (USACE)	
Richard Raione	U.S. Nuclear Regulatory Commission (USNRC)	
Will Thomas	Association of State Flood Plain Managers (ASFPM)	
David Wells	US Environmental Protection Agency (USEPA)	
Donald Woodward	Global Ecosystem Center (GEC)	

MINUTES

1. Welcome and Introductions

The April 19th meeting of the ACWI SOH was well attended. Dr. Ferguson was welcomed as the new USBR representative. A sign-in sheet was provided to those participants attending in person and all participants over the call-in identified themselves.

2. Review and Approval of Agenda

The agenda was reviewed with no major revisions. Agenda was approved “as is”.

3. Approval of Minutes from January 19, 2012, Meeting

Draft minutes were circulated prior to the meeting on April 19 and were approved.

4. Status of Action Items from January 19, 2012, Meeting

See Action items listed on page 4.

5. Feature Presentation #1.

Will Thomas, Chair, Hydrologic Frequency Analysis Work Group (HFAWG) provided a presentation entitled “*Status of Hydrologic Frequency Analysis Work Group*”. *See Item 9 for details on this presentation (copies of the slide presentation are attached also).*

6. Feature Presentation #2. Thomas Nicholson, John England and Doug Clemetson provided a presentation entitled “*Status and Research for the Extreme Storms Work Group*” along with a follow-up discourse as this topic relates to dam safety provided by Dave Gutierrez (their slide presentation is attached).

7. Work Group Activities

Due the time devoted to the feature presentations, this SOH agenda item was abbreviated (there was no need to further discuss the HFAWG and Extreme Storms Work Group since these were covered during the feature presentations). The SOH received an update for the Hydrologic and Hydraulic GIS Applications Work Group from Dr. William Merkel.

- **Hydrologic and Hydraulic GIS Applications Work Group**

Dr. William Merkel stated that a status report of the activities and progress of this work group from the time it was formed in 2007 to present is in progress. Such a report is called for in the original Charge to the Work Group. A draft report will be submitted about two weeks before the next meeting of the SOH on July 9, 2012.

- **Satellite Telemetry Interagency Work Group**

No members present. Note from the Chair (post-meeting): A status report from this work group was requested and this report will be sent to SOH members under separate cover.

- **Hydrologic Modeling Work Group (last report from January 2012)**

Mr. Jerry Webb provided an update on the plans for the 2014 conference. The conference name is now changed to the 2014 Federal Interagency Sedimentation and Hydrologic Modeling Conference (SEDHYD) to better relate to the intent of the conference in its title name. The three sites being considered include Las Vegas, Reno, and New Orleans. The use of WEBEX is being considered

8. Assessing Agency Needs and ACWI SOH Priorities

Due to the lively conversation, questions and interest from Agenda Items 5, 6 and 7, the planned Agenda Items 8, 9 and 10 were tabled for discussion at a later time. As a refresher, an assessment of agency needs and priorities were provided to the SOH and summarized during the January 2012 meeting. Feedback was provided by EPA, FERC, FEMA, NWS, ACE, and USGS (see pages 8 -21). All representatives thought that this was a needed task.

The agency POCs provided more details about the feedback from their respective agencies. The dialogue centered around the agency priorities and their suggestions on how ACWI SOH could better align within the needs of all stakeholders commensurate with ACWI SOH's purpose and scope.

Some of the comment themes include:

- *The need for scientists to better understand the engineers who use the hydrologic data for operational and regulatory uses.*
- *The acknowledgment of the challenges which scientists are having with respect to climate change/modeling and the lack of data stationarity to support scientific analyses*
- *The impact of these scientific challenges to the engineering community.*
- *Guidelines*
- *Advisory Role*

The reports are attached to the minutes beginning on page 11. Agencies who have not submitted their feedback were urged to complete the SOH Survey Form by February 17th.

In addition, SOH Members asked background history about the formation of ACWI as it relates to OMB and the Water Information Coordination Program (WICP). Mr. Will Thomas provided the following background:

The Water Information Coordination Program (WICP) of the Department of Interior and the USGS began in 1964 under the Office of Management and Budget (OMB) Circular A-67. In those days, there were two coordination groups, one for the Federal agencies (IACWD) and one for the public sector (ACWDPU). In addition to these two groups, there was also the U.S. Water Resources Council (WRC).

In the 1960s and 1970s, the development of flood frequency guidelines was under the auspices of the WRC. There was a Hydrology Committee under WRC. This Hydrology Committee composed of Federal Employees, produced Bulletin 15 in 1967, Bulletin 17 in 1976, Bulletin 17A in 1977 and Bulletin 17B in 1981. There were a number of typographical errors in the 1981 version of Bulletin 17B. The Reagan Administration disbanded the WRC in 1982. Bulletin 17B was republished in March 1982, under the auspices of the Interagency Advisory Committee on Water Data (IACWD) since the WRC the original sponsoring agency no longer existed.

The authorization for IACWD and ACWDPU was continued in 1992 under OMB M-92-01. The IACWD and ACWDPU were combined into the Advisory Committee on Water Information in 1996 to comprise of both Federal agencies and the public.

In summary, the USGS Water Information Coordination Program (WICP) began in 1964 long before OMB M-92-01. Additional info can be found at <http://acwi.gov/acwihist.html>.

9. Standard Procedures for Invited Guests (tabled, will cover in a later SOH meeting, see page 22)

10. Current Events within Hydrologic Communities (tabled, will cover in a later SOH meeting and in the SOH Newsletter)

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

Will Thomas gave a powerpoint presentation on the “**Status of the Hydrologic Frequency Analysis Work Group**” at the April 19, 2012 meeting of the Subcommittee on Hydrology. The major objective of this presentation was to describe the testing and evaluation of the Expected Moments Algorithm (EMA) in comparison to current Bulletin 17B procedures and to describe recommendations for updating Bulletin 17B. The recommended changes in Bulletin 17B were provided to the Subcommittee on Hydrology (SOH) as background information prior to the meeting in a report from the Chair of the HFAWG dated April 18, 2012.

The April 19, 2012 presentation included a description of the following topics:

- Accomplishments of the HFAWG during 2000 to 2005,
- Major techniques employed in Bulletin 17B with emphasis on the historical weighted moments and conditional probability adjustments,
- Plans and procedures for evaluating EMA in comparison to the current Bulletin 17B procedures developed during the period 2005 to 2009,
- Test results comparing EMA and Bulletin 17B for observed and simulated data were provided to the HFAWG in a report titled “Updating Bulletin 17B for the 21st Century” on March 5, 2012,
- An all-day meeting of the HFAWG was held on March 19, 2012 to discuss the EMA-Bulletin 17B test results,
- Recommended changes in Bulletin 17B as developed by the U.S. Geological Survey, Bureau of Reclamation and U.S. Army Corps of Engineers (see April 18, 2012 report from the Chair of the HFAWG to the SOH for more details),
- Reasons for adopting the recommended changes in Bulletin 17B including limited test results for the observed and simulated data,
- Concerns expressed by some HFAWG members about adopting the recommended changes in Bulletin 17B,
- Discussion of software issues for implementing EMA, and
- HFAWG plans for moving forward (see April 18, 2012 report from the Chair of the HFAWG to the SOH for more details).

There was significant discussion during and after Will’s presentation. It was agreed after the presentation that the SOH would vote at the next meeting on July 9, 2012 on whether to approve the HFAWG recommendations for updating Bulletin 17B. However, subsequent discussions after the April 19 meeting among HFAWG and SOH members resulted in the plan to delay any SOH vote on adopting the recommendations until the HFAWG completed a few remaining tasks.

Biennial NHWC Conference to take place from June 3 -6, 2013 in Jacksonville, FL

a) Business Reports

Gentle Reminder: Please send reports two weeks prior to the meeting for inclusion into the agenda and meeting notes.

b) “The SOH CONNECTIONS” Newsletter Editor’s Report

Richard will coordinate with Joe and Peter to send reminders.

c) Other ... - NONE –

12. Review Action Items

See Action items listed on this page.

13. Plans for Next Meeting

EPA or USGS will host. The next meeting will be on July 9th from noon to 3PM (EST).

Post SOH Meeting comment: EPA will host the July 9th meeting.

Action Items

Actions	Status	Due Date
All members: Submit respective Agency SOH Survey to Richard and Victor.	Closed	February 17
Richard Raione: Establish ACWI SOH presentation date and notify SOH members of the location	Completed	End of June
David Wells: Check for conference meeting room and logistic support for April 19 th SOH Meeting at EPA - closed	Meeting to be moved to FERC -	February 23
Richard Raione: Arrange for guest speaker in June	ongoing	Early July
All Working Group Chairs: Submit ACWI presentations	ongoing	June 28
All members: Review Terms of Reference, History, and Membership List posted on ACWI SOH website at http://acwi.gov/hydrology/index.html and submit any suggestion for changes to Richard and Victor.	ACWI SOH members did a great job on the membership roster. Victor received no other related comments, but will provide his review of the website and webpages.	March 1
Victor Hom: Coordinate with Dr. Tomlinson on his availability to present at upcoming ACWI SOH meeting.	Deferred.	March 1
Richard Raione/Victor Hom: Discuss ACWI SOH’s purpose and its role as it relates to ACWI, OMB, 92-01, and any other related authorizations with Wendy Norton.	Completed, work group terms of reference to be honored and	April

	updated as needed.	
All members: Submit current events and business reports on FY12Q3 activities to Richard and Victor in preparation for July 9 th meeting.	-	June 28
All members: Submit newsletter articles to ACWI SOH editors: Joe Giacinto and Peter Chaput.	-	As received
Work Group chairs: Send Work Group status reports to Richard and Victor in preparation for July 9 th meeting.	-	June 28
Claudia Hoeft: Draft a standard procedure regarding welcome to meetings and expectations / needs of guests who wish to attend SOH meetings (completed, see page 26).	Claudia provided draft; discuss at July meeting.	July 9
Kevin Stewart: Identify NHWC/Washington DC representative for ACWI SOH.	Members are to submit recommendations to Glenn and Kevin	June 9
John Osterberg: Identify Dr. Ian Ferguson will be USBR Primary representative for ACWI SOH.	Completed - Dr. Ian Ferguson will be a welcome addition	completed
Dan Schwitalla: STIWG draft statement of concern regarding bandwidth sell off impact on hydrology and hydraulic data collection and availability.	Carried forward	No date assigned
Completed Actions from Prior Meeting	Status	Due Date
Claudia Hoeft: Investigate what is required for a final report and dissolving a work group.	Claudia emailed Wendy Norton with questions regarding dissolution of Work Groups on 01-18-2012.	Completed