

# Subcommittee on Hydrology (SOH)

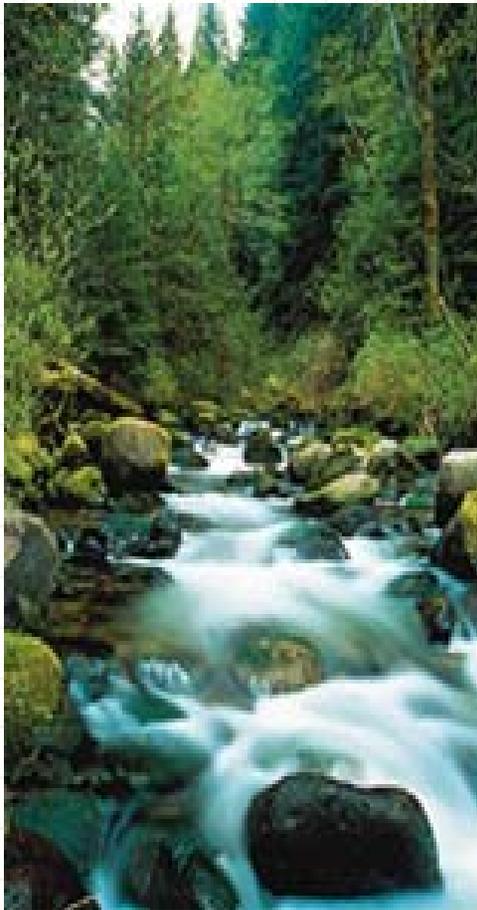
**ACWI-SOH Quarterly**  
**Thursday 04/30/2015**  
**FHWA Turner-Fairbank**  
**Highway Research Center**  
**McLean, VA 22101**

**Victor Hom, SOH Chair**  
**NOAA National Weather Service**

**Robert Mason, SOH Vice-Chair**  
**United States Geological Survey**

## **Remote Participants:**

1. Log-into: <https://global.gotomeeting.com/join/921971461> (Meeting ID: 921-971-461) and
2. dial toll-free line: 1-877-989-4696 with Passcode: 1547347.
3. If PC fails, please download the slides and follow along.



- **Water Information Coordination Program**  
The WICP ensures collaborative efforts among Federal Agencies to improve water information for decision-making about natural resources management and environmental protection.
- **Advisory Committee on Water Information**  
The ACWI represents the interests of water-information users and professionals in advising the Federal Government on Federal water-information programs and their effectiveness in meeting the Nation's water-information needs.

# SOH Member Organizations

1. Agricultural Research Service (ARS)
2. Association of State Floodplain Managers (ASFPM)
3. BECKER
4. Bureau of Land Management (BLM)
5. Bureau of Reclamation (USBR)
6. Environmental Protection Agency (EPA)
7. Federal Emergency Management Agency (FEMA)
8. Federal Energy Regulatory Commission (FERC)
9. Federal Highway Administration (FHWA)
10. Forest Service (USFS)
11. National Aeronautics and Space Administration (NASA)
12. National Hydrologic Warning Council (NHWC)
13. National Science Foundation (NSF)
14. Natural Resources Conservation Service (NRCS)
15. NOAA National Weather Service (NWS)
16. Nuclear Regulatory Commission (NRC)
17. Office of Surface Mining (OSMRE)
18. U.S. Army Corps of Engineers (USACE)
19. United States Geological Survey (USGS)

# Subcommittee On Hydrology

## Purpose

Improve the availability and reliability of surface-water quantity information needed for hazard mitigation, water supply and demand management, and environmental protection.

## Activities

Quarterly Meetings, Workgroups, Workgroup Meetings, Announcements, Conferences.

## Website

<http://acwi.gov/hydrology/index.html>

## SOH Workgroups

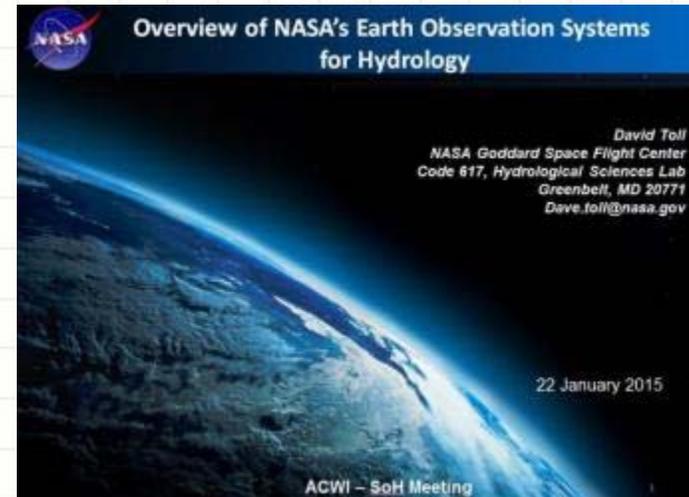
- **Hydrologic Frequency Analysis Work Group (HFAWG)**
- **Extreme Storm Events Work Group (ESEWG)**
- **Hydrologic Modeling Work Group (HMWG)**
- **Satellite Telemetry Interagency Work Group (STIWG)**

## SOH Activities

- Quarterly Meetings hosted by Member Agencies
- Participation by Senior Officials, Advisors, Staff of the Host Agency, SOH Members, and Guests
- Formal Presentation on a Topic of Mutual Interest
- SOH Review of Workgroup Activities
- Member Agency reports
- Cross collaboration with other ACWI Subcommittees

## List of Past Feature Presentations

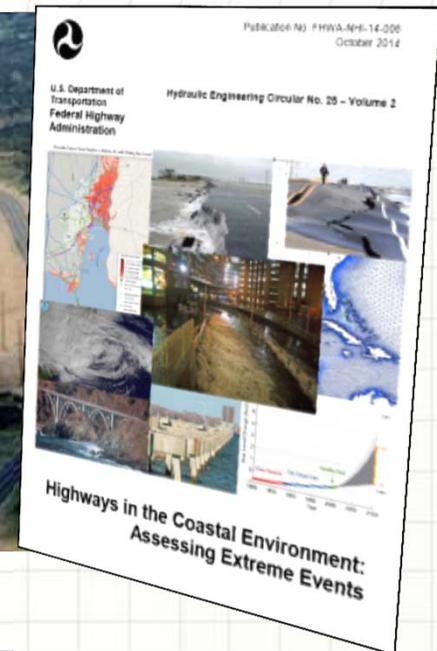
- [NASA's Earth Observation Systems for Hydrology](#)
- [NOAA National Climatic Data Center](#)
- [USGS Streamgaging](#)
- [Impact of Climate Change and Population Growth on the National Flood Insurance Program](#)
- [Engineering Guidance Frame Work for Inland Hydrology Considering Climate Change](#)
- [Climate Change Adaptation and Water Resources](#)
- [National Dam Safety Program and Hydrologic Needs](#)
- [The 2011 Mississippi River Basin Flood - A Perspective on Forecasting, Water Management, and Flood Fight](#)
- [Army Water Footprint](#)



<http://acwi.gov/hydrology/minutes/index.html>

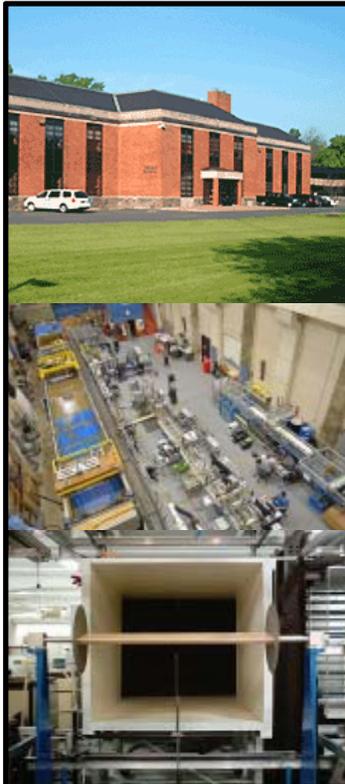
## Feature Presentation

Brian Beucler, FHWA



**FHWA's Approach in Assessing Impacts of Extreme Events to Highways in the Coastal Environment**

## Words From our Host

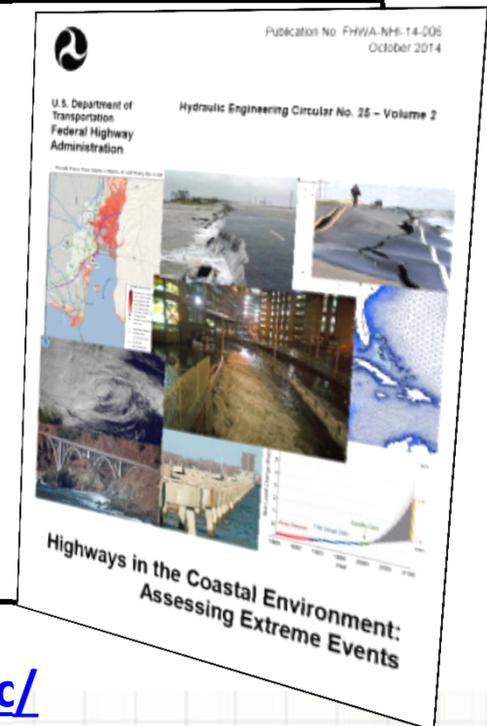


U.S. Department of Transportation  
**Federal Highway Administration**

**Welcome to FHWA  
Turner-Fairbank Highway  
Research Center**

**Key Attendees  
Emergency Procedures  
Facilities**

<http://www.fhwa.dot.gov/research/tfhrc/>



# SOH Quarterly Meeting Agenda

- Welcome and Background on SOH (5 mins)
- Words from our Host (10 mins)
- **Roll-Call** (Remote Participants/In-Person Attendees)
- Review and Approval of Agenda (2 mins)
- Feature Presentation (~60 mins)
  - Brian Beucler
  - [FHWA's Approach in Assessing Impacts of Extreme Events to Highways in the Coastal Environment](#) (1245–130PM)
  - Q&A/Discussion (130–145PM)
- **Announcements** (10 mins)
  - Business Reports*
  - Upcoming Conferences*
- BREAK** (2:00 – 2:15 PM)
- **Review Past Meeting Summary** (5 mins)
- **Review Action Items from Past Meeting** (5 mins)
- **News from SOH Workgroups** (40 mins)
  - HMWG, HFAWG, ESEWG, STIWG*
  - STIWG Terms of Reference*
- **Review Actions and Plans for next SOH meeting** (15 mins)
- **Meeting To Adjourn** (Around 3:30 pm)

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## SOH Hydrologic Modeling Workgroup (HMWG)

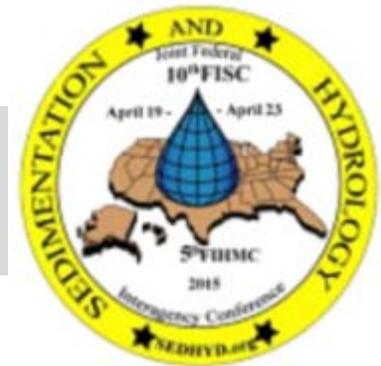
- **Jerry Webb, Chair** US Army Corp of Engineers (USACE)
- **Claudia Hoefts, Technical Chair** 5<sup>th</sup> FIHMC, USDA NRCS

### Purpose and Goals:

- Promote sharing of information on modeling tools and modeling systems in hydrology and water resources.
- Plans, organizes, and promotes the Federal Interagency Hydrologic Modeling Conference every four-five years and
- Engages in other modeling related activities as appropriate.

## SOH Hydrologic Modeling Workgroup (HMWG)

- Jerry Webb, Chair US Army Corp of Engineers (USACE)
- Claudia Hoefts, Technical Chair 5<sup>th</sup> FIHMC, USDA NRCS



### Actions/Accomplishments:

- ❑ SEDHYD 2015 (April 19-23, 2015) - [www.sedhyd.org/2015/](http://www.sedhyd.org/2015/)
- ❑ Joint 10<sup>th</sup> Federal Interagency Sedimentation and 5<sup>th</sup> Hydrologic Modeling Conference.
- ❑ 240 presentations, 31 posters, 11 model demos, 11 short courses, student program, 3 technical field trips, and on-line Proceedings comprise over 2,200 pages.

## SOH Hydrologic Frequency Analysis Workgroup (HFAWG)

- **Will Thomas, Chair** Baker/ASFPM
- **John England, Vice-Chair**, US Bureau of Reclamation (USBR)

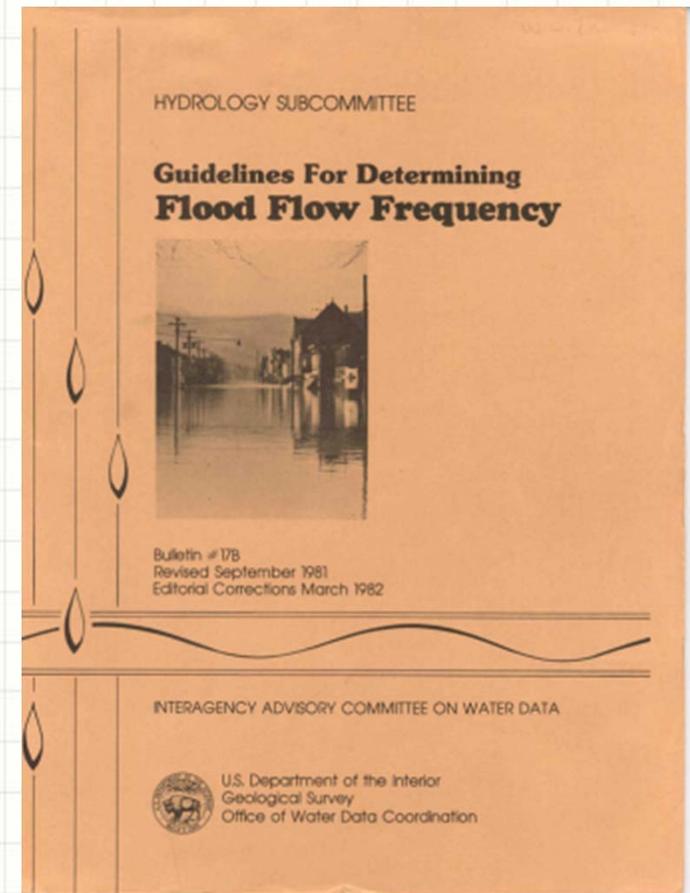
### Purpose and Goals:

- recommend procedures to increase the usefulness of the current guidelines for Hydrologic Frequency Analysis computations,
- evaluate other procedures for frequency analysis of hydrologic phenomena, and
- forward draft papers and recommendations to the Subcommittee on Hydrology of ACWI for appropriate action.

# SOH Hydrologic Frequency Analysis Workgroup (HFAWG)

## Updating Bulletin 17B Guidelines:

- Published in March 1982, based on research from 1960s and 1970s
- HFAWG is updating Bulletin 17B using pertinent research since 1982
- Incorporating new statistical procedures for analyzing historical floods and nonstandard flood data and adjusting for low floods
- [http://water.usgs.gov/osw/bulletin17b/bulletin\\_17B.html](http://water.usgs.gov/osw/bulletin17b/bulletin_17B.html)



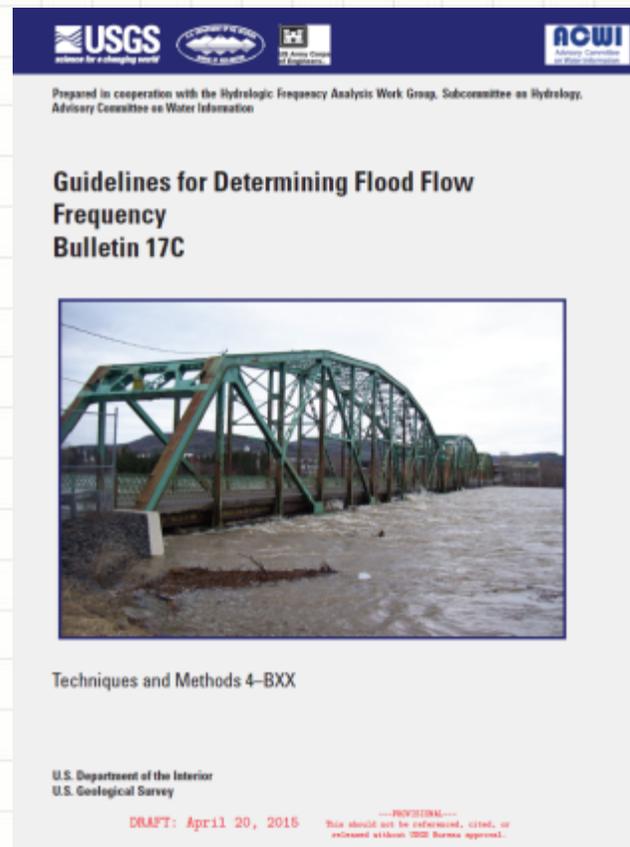
## SOH Hydrologic Frequency Analysis Workgroup (HFAWG)

### Progress since July 2012 ACWI meeting

- \* June 2013 – HFAWG voted to accept recommended revisions to B17B
- \* August 2013 – SOH voted in favor of HFAWG drafting a new B17C
- \* April 2014 – completed the testing report on “Evaluation of Recommended Revisions to Bulletin 17B” – to be published as USGS report
- \* USGS developed PeakFQ 7.0 program that implements EMA/MGB with new confidence intervals
- \* Provided a draft of Bulletin 17C in April 2015
- \* WG Meeting on May 7, 2015 in Alexandria, VA

# SOH Hydrologic Frequency Analysis Workgroup (HFAWG)

**Draft Bulletin 17C**



## SOH Extreme Storm Events Workgroup (ESEWG)

- **Thomas J. Nicholson, Chair** US Nuclear Regulatory Commission (USNRC)
- **Marian E. Baker, Vice-Chair** US Army Corps of Engineers (USACE)

### Purpose and Goals:

- coordinate studies and databases for reviewing and improving methodologies and data collection techniques used to develop design precipitation estimates of large storm events up to and including the Probable Maximum Precipitation (PMP).
- develop a detailed scope of work/plan of study, and
- determine the necessary funding requirements to update the Catalog of Extreme Storms and Hydrometeorological Reports (HMR) for estimating PMP.

## SOH Extreme Storm Events Workgroup (ESEWG)



### Actions/Accomplishments since Jan 2013

- Workshop on Probabilistic Flood Hazard Assessment on January 29-31, 2013 in Rockville, MD
- ESEWG Workshop on May 15, 2014
  - defined needed extreme precipitation products*
  - collected feedback from Federal, State agencies, and member organizations of the ICODS and NDSRB on their user needs for Extreme Storm data and services, and*
  - established ESEWG Proposal Writing Team (PWT)*
- Draft Extreme Rainfall Product Needs (3/2015)
- Uncertainty Analysis for Probable Maximum Precipitation Estimates on May 18, 2015

# SOH Satellite Telemetry Interagency Workgroup (STIWG)

LySanias Broyles, Chair US Army Corps of Engineers (USACE)

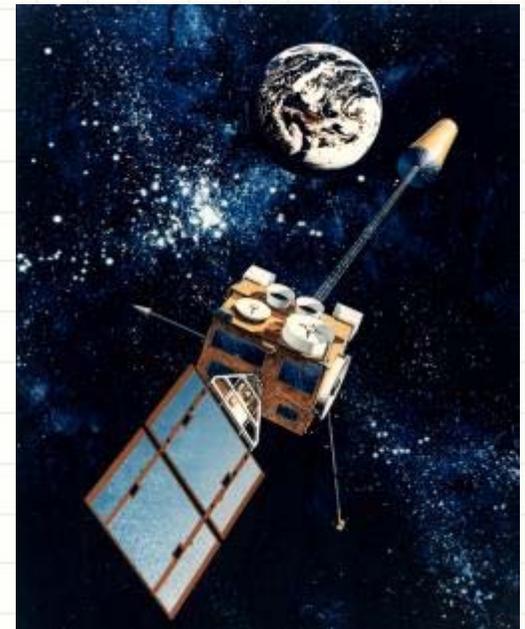
## Purpose and Goals:

- User group for the Geostationary Operational Environmental Satellite (GOES) Data Collection System (DCS).
- Advises NOAA National Environmental Satellite, Data, and Information Service (NESDIS) on matters concerning satellite data relay user requirements
- Undertakes projects to benefit the GOES DCS community

## SOH Satellite Telemetry Interagency Workgroup (STIWG)

### Actions/Accomplishments:

- 118<sup>th</sup> STIWG Meeting - May 2014
  - DCS Administration and Data Distribution System (DADDS)
  - Emergency Data Distribution Network (EDDN)
  - Domestic Communications Satellite (DOMSAT)
- 100 baud DCP Transmitters to be replaced by May 2015
- Low Rate Information Transmission (LRIT) - alternative to DOMSAT
- 119<sup>th</sup> STIWG Meeting - May 2015
- Revise Draft of STIWG Terms of Reference



## SOH Satellite Telemetry Interagency Workgroup (STIWG)

### Update the 2006 Terms of Reference for SOH Review

- STIWG Membership (III B and C)*
- Joint Sponsorship of STIWG with Interdepartmental Committee for Meteorological Services and Supporting Research (ICMSSR)*
- Role of NESDIS and Support from OFCM (III C)*
- Recommendation to Biennial Rotation (III E)*
- Voting (IV C)*
- Some votes were sent via email, let's take a final tally.*

# Plans for Upcoming Meetings

**Thursday July 23, 2015**

- 1230PM-330PM Eastern
- in DC Area – Suggestions? Host?
- Topics (HFAWG and ESEWG Presentations)
- Prep for ACWI Annual Conference
- ACWI-SOH Nominations and Election Plans

2014 ACWI National Meeting Website

<http://acwi.gov/acwi-minutes/acwi2014/index.html>



# SOH References

- SOH Website - <http://acwi.gov/hydrology/index.html>
- SOH Quarterly Meetings - <http://acwi.gov/hydrology/minutes/index.html>
- Joint Federal Interagency Conference April 2015 - [www.sedhyd.org/2015/](http://www.sedhyd.org/2015/)
- SOH HMWG - <http://acwi.gov/hydrology/Hydro-Modeling/index.html>
- SOH STIWG - <http://acwi.gov/hydrology/stiwig/index.html>
- LRIT - <http://www.noaasis.noaa.gov/LRIT/about.html>
- SOH ESEWG – <http://acwi.gov/hydrology/extreme-storm/index.html>
- SOH HFAWG - <http://acwi.gov/hydrology/Frequency/>
- Bulletin 17B - [http://water.usgs.gov/osw/bulletin17b/bulletin\\_17B.html](http://water.usgs.gov/osw/bulletin17b/bulletin_17B.html)
- PeakFQ - <http://water.usgs.gov/software/PeakFQ/>