An Introduction to Bulletin 17C:
Guidelines for Determining Flood Flow Frequency

Garrett Blomstrand, PE
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Speaker Bio:
Garrett Blomstrand is a licensed professional engineer in the state of Minnesota. He has a Master of Science degree in Civil Engineering from the University of Minnesota and a Bachelor of Science degree in Civil Engineering from North Dakota State University. Mr. Blomstrand has worked for the U.S. Army Corps of Engineers Saint Paul District in the Water Management and Hydrology section since 2012. He specializes in hydrologic engineering and his interests include hydrologic modeling, statistical hydrology, and climate change impacts to inland hydrology.

Presentation Synopsis:
Accurate estimates of flood frequency and magnitude are a key component of any effective nationwide flood risk reduction program. In addition to accuracy, methods for estimating flood risk must be uniformly and consistently applied because management of the Nation’s water and related land resources is a collaborative effort involving multiple stakeholders. The basis for generating flow-frequency guidelines was initially established within Bulletin 15 in 1967. This document was revised several times, including the currently adopted Bulletin 17B: Guidelines for Determining Flood Flow Frequency (1982). In 2013 the Hydrologic Frequency Analysis Work Group drafted a revision to Bulletin 17B called Bulletin 17C. This presentation outlines the important changes between Bulletin 17B and Bulletin 17C.

Meeting Location:
LOCATION: Grumpy’s Bar and Grill, 2801 Snelling Avenue, Roseville, MN 55113
Free parking is available adjacent to the restaurant.

Agenda:
Social time and lunch (if you so desire) will be available from 11:30 AM to 12:30 PM with presentation from 12:30 PM to 1:30 PM.
A lunch at a cost of $20 will be available. Lunch will consist of a pasta buffet and includes Caesar salad, garlic bread, and a beverage. Please RSVP no later than Wednesday, February 21st, 2018, with your intent to either partake in the lunch or to come for the presentation only.
Please click the RSVP button in the left-hand column of page 1 or use the following Eventbrite link to RSVP: https://www.eventbrite.com/e/february-professional-development-meeting-tickets-42769657196

Have an idea for future meeting topics or tours?
Please contact Matt Redington with your ideas at matthew.redington@hdrinc.com or 763-591-5487!
Highlights of the January Meeting

Steve Grannes, the MVP ACE-IT Operations Officer, gave a presentation at our January meeting that included a brief history of computer advances, why it is important to understand risk and security in a digital world, and actions that we can and should take immediately to protect ourselves.

We rely heavily on data to have integrity, to be available when we need it, and to be available to only those who are authorized to see or use it. Many computer systems and people are unprepared to address the risks that we face. Some of the threats that we face are inadvertent such as accidental deleting of files, hardware malfunctions, or electric surges damaging equipment. Others are deliberate such as virus', trojan's, keyboard loggers, email phishing, website redirects, and network attacks. Steve emphasized that it is important to understand the level of risk and likelihood of threat occurrences, and that we should take action to mitigate reasonable risks. He recommended the following security actions for the audience:

- Have a disaster recovery plan in place which allows you to recover ‘lost’ files (it is not a matter of “if” but “when”)
- Update your software
- Use a firewall and Wi-Fi passwords
- Use anti-virus software
- Review your financial accounts regularly

He also provided the following specific and implementable actions that we can take at home immediately to reduce our risks:

- Use the Windows 10 autosave feature to allow recovery to previous versions of files
- Set computer passwords at home so that children don’t have ‘administrator’ privileges
- Press and hold the power button if you have been directed to a webpage that you don’t trust. The action of moving your mouse too close windows can initiate nefarious computer code.
- Never open or run attachments unless you are sure of the origin
- Turn off your computer when not in use
- Disable scripting features in email programs

Thanks Steve for a great presentation! If you would like more information you can contact Steve directly at sgrannes@gmail.com.

SAME-MSP Post Scholarship Applications Available

The 2018 Scholarship Application Forms are now available on the Grants & Scholarships page of the web site, as well as via the links below. It is anticipated that there will again be up to three $1,500 scholarships available. The deadline for submitting scholarship applications is Friday, April 6th, 2018.

If you know someone who is deserving of a scholarship, please urge the young person to apply for one the Post's scholarships. Applicants are rated in a number of areas including academics, school activities, and community activities. High school seniors and Post-secondary students are eligible if they are either:

- Children, grandchildren, or siblings, of members of the Minneapolis-Saint Paul Post. Sponsoring members must be a SAME Minneapolis-Saint Paul Post member for the current year and have been a member of the Post for a minimum of at least one year prior to the current year.
- Student Members of the SAME Minneapolis-Saint Paul Post who will be registered as full-time post-secondary students in the fall of the year of selection. Applicants under this category must be registered through SAME as a Student Member; student memberships are free for full-time undergraduates at an accredited college or university, or high school students.

Applicants must be registered as full-time post-secondary students in the fall of the year of selection and be majoring in an accredited engineering, science, math, or technology-related field and/or disciplines that will specifically support these fields of study.

A committee of Post members evaluates the applications. All applications are kept confidential, and only the winners are announced. For additional information, please contact Erin Krug at Erin.E.Krug@usace.army.mil or 651.290.5576. Scholarship Application Packages can be downloaded from the Post’s website at: http://same-msp.org/grants-and-scholarships/
February 2018

Sign Up Today for Habitat for Humanity Event!

The SAME-MSP Post is looking for 10-13 volunteers to help with our annual Habitat for Humanity event. The event will take place on March 10th, 2018, at 798 Geranium Ave E, St. Paul, MN. Volunteers will be needed from 8:30 AM to 4 PM. Lunch will be provided. Please contact Rebekah Hudson at rebekah.hudson@jedunn.com to sign up!

Sustaining Member Presentations at Future SAME-MSP Post Meetings

The SAME MSP Post is looking for our sustaining members to give a brief 5 minute presentation about your company prior to the monthly presentations. This is a great networking opportunity to tell others about your company’s services, small business information, etc. We currently have openings for June and September, see schedule below. Please email Sherry Van Duyn at svanduyn@landmarkenv.com or Dave Ausdemore at dave@hssciences.com with which month you would like to present.

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<tr>
<td>February</td>
<td>Bill Holman, Stanley Consultants</td>
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<td>April</td>
<td>Mark Angelo, Stantec</td>
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SAME Educational Grant for Math and Science Grades K-12

The Society of American Military Engineers (SAME) is offering educational grants for up to $3,000.00 for elementary and secondary schools for the upcoming 2018-2019 school year for schools in the thirteen-county metro area. One fundamental goal of SAME is… To promote an understanding of, and appreciation for, the engineering related disciplines and to help the young people in our communities be better prepared to become our future engineers… SAME-MSP is requesting applications from schools and classroom teachers who are committed in supporting the math and sciences that support future engineering-related career opportunities. We are encouraging all grade levels to participate.

Applications for these grants will be reviewed on the following criteria:
• Creativity and quality of proposed project
• Demonstrated demand or need for the project
• Support of the Minnesota or Wisconsin math and/or science academic standards

The deadline for the educational grant is April 6, 2018. At the completion of the 2018-2019 academic year members of SAME would like to learn from the students on what they learned as a result of the grant. Elementary and secondary teachers / schools that are promoting the math and sciences in the thirteen county metro areas are encouraged to apply. For more information, please go to http://same-msp.org/grants-and-scholarships/

See the following feedback from one of 2017’s grant recipient:

“The addition of the Replicator+ has been great! 3D printers are great, but they take time. The Replicator+ is faster than the old 3D printers that I have access to and I love the fact that it is in the engineering room, so the students have the ability to print things as soon as one print is complete. The other piece that it has done for us is to print larger parts. The build plate size is just about perfect for the parts that the engineering students are designing. One of the limitations of the old printers was size; the students had to limit their designs due to size.

The biggest impact that I have seen is how creative students can get when they have access to a 3D printer like the one the grant allowed us to buy. You can see by the pictures attached that some of the students have gone crazy with their designs. I have to ask some students to leave because all they want to do is sit on CAD and design parts for their robots. It is a great problem to have, and it is exciting to see the students’ CAD skills and reasoning skills grow. I think it is so important to continue to get these tools in our students’ hands so that they can learn how to use them and foster their passion for engineering. I have been amazed by how quickly students have picked up on the art of design and 3D printing. Having the 3D printer in the class and allowing students the freedom to work with it has been awesome! The 3D printer has allowed me to get just about every student excited about the engineering program. It has also challenged me to change the requirements of the robots to include additional 3D printed parts and in some cases a 100% 3D printed vehicle versus a hybrid of Legos™ and 3D parts.

Thank you so much for providing grants to help schools like SLP!”

~ Mr. Mark Miller