



### Quick Links

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### Upcoming Meetings:

- **Wed, April 22nd—Barr Engineering presents Prevention & Detection of Leakage from Dams & Reservoirs**
- **Wed, May 27th—Joint Meeting with ASFPM**
- **Wed, June 24th**

### Frequently Used Links:

- National website at [www.same.org](http://www.same.org)
- Post website at [www.same-msp.org](http://www.same-msp.org)
- Listing of [Post Leaders](#)
- Listing of [Post Sustaining Members](#)

### Next Meeting Presentation

**Wednesday, March 25th, 2015**

## Mapping Rivers and Lakes for Highways: Applications of Hydrography in Transportation

**Petra DeWall**  
Waterways Engineer, MnDOT

1-PDH

### Presentation Synopsis:

A river's contours are a mystery until they're mapped. Even then, the river moves and changes with high flows and debris. Lakes, though less changeable, are unknowable without depth mapping. This presentation will provide an overview of river and lake hydrography projects done by the Minnesota Department of Transportation Bridge Hydraulics-Waterways group.

MnDOT's Bridge Hydraulics/Waterways group has mapped rivers and lakes for 16 years with survey-grade depth-sounders and an Acoustic Doppler Current Profiler (ADCP). Depths, flow rate, velocity and direction are measured, mapped in ArcGIS and CADD and applied to project requirements. Challenged by floods and low water alike, our equipment has been adapted to a wide variety of waterways, and we'll share that experience. Recently, we acquired a 3D sonar scanner device and will discuss what we have done to date and some exciting prospects for the future.

### Speaker Bio:

Petra DeWall is the Waterways Engineer for MnDOT. She attended The University of Minnesota where she received her Bachelors degree in Civil Engineering and a Masters degree in Infrastructure Systems Engineering. Petra heads up the Waterway Unit in Hydraulics which issues hydraulic reports on all new bridge projects, manages the scour program and works with the local units of government assisting with technical guidance on hydraulic and scour issues. When not in the office, Petra likes to go camping with her husband Craig and son Bobby.

### Meeting Location:

Fort Snelling Officer's Club at 395 Minnesota 5, St Paul, MN 55111. See map at [http://www.same-msp.org/\\_images/934thOfficersClub.jpg](http://www.same-msp.org/_images/934thOfficersClub.jpg)

### Agenda:

Joint Meeting with ASCE—Social time and lunch (if you so desire) will be from 11:30 AM to 12:30 PM in the dining room of the Officers Club. Post Meeting and Presentation will be from 12:30 PM to about 2:00 PM in the ballroom of the Officers Club.

The Club's cafeteria-style lunches are typically \$10.00 or less; people who partake in the cafeteria-style lunch will pay the Officers Club directly. If you come only for the presentations, there is no charge. Please RSVP with your intent to either partake in the cafeteria-style lunch or to come for the presentation only; this will help the Officers Club staff to ensure that an adequate amount of food is prepared. Either leave a message with Michelle Larson at **651-290-5632**, click the RSVP button in the left-hand column of page 1, or send an email to [Michelle.J.Larson@usace.army.mil](mailto:Michelle.J.Larson@usace.army.mil)

## Highlights of the Previous Meeting



February's MSP-SAME post luncheon was a joint luncheon with the student chapter at the University of St Thomas. The Post welcomed Colonel John Olson PhD, vice president of the Sierra Nevada Space Systems and global expert on space and aeronautics. John's focus was on leadership, sharing his lessons-learned in his career in the space industry. Colonel Olson began his presentation with these 2 mottos: "Dare to Dream" and "Go Boldly." John described advances in space travel during his lifetime and reminded us that engineers are the future. The US lags behind Europe and China in the numbers of graduates with degrees in science, technology, engineering, and mathematics (STEM). We live in a competitive world, and we need big dreams to inspire the next generation. This is the dawn of a new era in US Air and Space Enterprise. Cooperation between nations, research and development, and investing in the future will be key.

John's talk revolved around the following 10 points:

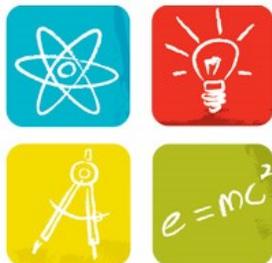
1. **Dreams Passion and Fun—Do what you love. Aim High.**
2. **Plans, Priorities and Persistence**
3. **Attitude - Be hopeful and optimistic**
4. **Innovation and Imagination - Think ahead of the jet. Think in perspective and from different perspectives.**
5. **Change Evolves and Revolutionizes - Respect the past. Make history yourself. Change is inevitable yet humans are resistant to change.**
6. **Think in simple and digestible steps**
7. **Time - Is the most valued resources.**
8. **Communication -Bring people together with visions and vectors.**
9. **People - People power the dream.**
10. **Life Long Learning.**

John used examples from his career to reinforce the importance of these points. He pointed out how the images of earth from space help to put things in perspective. We need to think about how we are interacting with the planet and how we are preserving critical resources. He pointed out that the International Space Station is one of the greatest international achievements, highlighting engineering and the cooperation that can be achieved between nations, when we are unified by a common vision and dream.



*Pictured above (L to R): MSP SAME President, Chris Erickson, Colonel John Olson, and UST SAME President, Justin Eayrs.*

## Volunteers Needed for Explore Engineering



# STEM

science • technology  
engineering • math

The Minneapolis-St Paul Post of the Society of American Military Engineers (SAME) is sponsoring a Science, Technology, Engineering, and Mathematics (STEM) themed event that will take place at Willow Lane Elementary School in White Bear Lake, MN. The event, called Explore Engineering, will include a gymnasium full of hands-on STEM activities plus demonstrations from two local robotics groups.

Volunteers from the Post are sought to help make this a fun and exciting learning experience for the students and their families. If you would like to help with this event, please contact **Rachel Pichelmann** at 651-490-2000 or [rpichelmann@sehinc.com](mailto:rpichelmann@sehinc.com).

**Date:** Thursday, April 9, 2015

**Time:** 6-8 PM (Volunteers are asked to arrive at 5:30 PM)

**Location:** Willow Lane Elementary, 4855 Bloom Ave, White Bear Lake, MN

## High School Students Engineering Camps Announcement—EXTENDED DEADLINE

SAME offers high school freshman, sophomores, and juniors the opportunity to attend a one week camp. They learn leadership, engineering and construction skills, and have fun with students from all over the world. The Minneapolis-Saint Paul Post would like to sponsor a high school student to attend either one of the following summer camp opportunities. The Post will pay the Registration Fee and and ½ of the Airfare; the student's family is responsible for the remainder of the airfare. High school students that are interested in this opportunity should:

- 1) Review the camp website(s) and the links to eligibility requirements and application forms so that all requirements are clearly understood, and
- 2) Contact **Peter Allen** [peter.allen@stantec.com](mailto:peter.allen@stantec.com) or **651-604-4801** to submit your name as being interested in this opportunity.

Students interested in applying for one of the camps should start by reviewing the information on the SAME Camp web page at <http://samecamps.org/>. The next step is to notify Peter Allen about your interest in being considered for this opportunity. From the qualified respondees, the Post will select one attendee and one alternate; the alternate may be able to attend if the primary selectee is unable to attend or if additional space becomes available at the camps. Once the Post has selected an attendee and an alternate, the selectees will be given additional instructions for submitting the required applications. Applications must be submitted to **Peter Allen** by **March 27th, 2015**.

Dates and locations for this year's camps are:  
**SAME / US Air Force Academy** Colorado Springs, CO June 25 - July 1, 2015  
**US Marine Corps Camp** Lejeune, North Carolina June 21-27, 2015

### February Lunch Winners

And the winners are...

**Bill Holman, PE—Stanley  
Consultants**

**David Majeski—Portable Barge  
Service, Inc.**

Congratulations Bill and David!

### Professional Credentialing Reimbursement

One of SAME's goals is to encourage and support the professional development of our members. SAME supports professional development in general and professional registration in particular, is through its Credentialing Achievement Award Program (CAAP). CAAP provides financial support, in the form of reimbursement of young members and NCO's professional exam registration fees. Applicants must be an NCO (any age) or a young member (39 or younger) who have taken and passed one of many covered professional exams, including PE or EIT, LEED, and PMP. The next deadline for applying is April 3rd, 2015. Applications, and more information, can be found at: <http://www.same.org/index.php/events/credentialing-achievement-awards-program>

### SAME Educational Grant for Math and Sciences 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 2015-2016 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...* The Minneapolis - St Paul Chapter of SAME 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 3, 2015. At the completion of the 2015-2016 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://www.same-msp.org/grants/grants.htm>. For a listing of the historical grants awarded go to [http://www.same-msp.org/grants/Summary\\_Awarded\\_Educational\\_Grants\\_2009-2014.pdf](http://www.same-msp.org/grants/Summary_Awarded_Educational_Grants_2009-2014.pdf)

### Small Business Corner

The U.S. Small Business Administration (SBA) is proposing to amend its regulations to implement provisions of the Small Business Jobs Act of 2010 and the Nat'l Defense Authorization Act for Fiscal Year 2013. The proposed rule would establish a Government-wide mentor-protégé program for all small business concerns, consistent with SBA's mentor-protégé program for Participants in SBA's 8(a) Business Development (BD) program. The proposed rule would also make changes to the mentor-protégé provisions, amend the current joint venture provisions, and make other changes to current size, HUBZone regulations, changes in primary industry, standards of review and interested party status for some appeals. Comments must be received on or before April 6, 2015. Link to the FR and full description: <http://www.gpo.gov/fdsys/search/pagedetails.action?granuleId=2015-01548&packageId=FR-2015-02-05&acCode=FR>

SOCIETY OF  
AMERICAN  
MILITARY  
ENGINEERS  
MINNEAPOLIS-  
SAINT PAUL POST

c/o US Army Corps of Engineers  
St. Paul District  
180 East Fifth Street, Suite 700  
St. Paul, MN 55101

Chris Erickson,  
Post President

christopher.r.erickson@usace.army.mil

## SAME Post Scholarship Applications Now Available

The Scholarship Application Forms are now available on the [Grants & Scholarships](#) page of the web site, as well as via the links below. The form can be downloaded as either a MS Word file or as a fillable PDF form. There will again be three **\$1,500** scholarships available. The deadline for submitting scholarship applications is **Friday, April 3<sup>rd</sup>, 2015**.

Two scholarships are planned to be awarded in what is called Category I, which is for high school seniors and Post-secondary students who are 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. Applicants must be registered as full-time post-secondary students in the fall of the year of selection.

One scholarship is planned to be awarded in what is called Category II, which is for all 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. This scholarship will be a multi-year (4-yr max) renewable scholarship. The scholarship in this category will be awarded to a student in an engineering, science, or technology-related field.

A committee of Post members evaluates the applications. All applications are kept confidential, and only the winners are announced. For additional information, please contact [Paul Dierking](#) at [paul.dierking@hdrinc.com](mailto:paul.dierking@hdrinc.com) or 763.591.5473. Scholarship Application Packages can be downloaded from the Post's website at:

[http://www.same-msp.org/PDF/Scholarship\\_AppInst\\_2015.docx](http://www.same-msp.org/PDF/Scholarship_AppInst_2015.docx) or  
[http://www.same-msp.org/PDF/Scholarship\\_AppForm\\_2015.pdf](http://www.same-msp.org/PDF/Scholarship_AppForm_2015.pdf)

[www.same-msp.org](http://www.same-msp.org)