The sudden collapse of the I35W Bridge over the Mississippi in Minneapolis on August 1, 2007 generated a lot of interest and concern among many politicians, engineers, and among the general population. Actually, bridge collapses are a very rare occurrence. This presentation will examine the causes of bridge failures by looking at a number of historical collapses, and it will draw some conclusions about the prevention of future such events. The most dangerous period for failures occurs during construction. The lecture will discuss the two failures of the Quebec Bridge in Canada, and the collapse of one of the approach spans of the Westgate Bridge in Melbourne, Australia. Of more concern to the general public is when a bridge that has been in long-term service suddenly and unexpectedly disintegrates while traffic is on its span. The presentation will consider the history of the failure of the following three bridges: The Firth of Tay, The High Point Bridge, and the I35W Bridge.

*1 PDH will be offered for this presentation.

Speaker Bio:
Theodore (Ted) V. Galambos is emeritus professor of structural engineering in the University of Minnesota in Minneapolis, MN. He received the BSCE and MSCE degrees from the University of North Dakota in Grand Forks in 1953 and 1954, respectively, and the Ph. D. in Civil Engineering from Lehigh University in Bethlehem, PA in 1959. He had an academic research and teaching career at Lehigh University (1959 – 1965), at Washington University in Saint Louis (1965 – 1981) and at the University of Minnesota. His research areas are: the behavior and design of steel structures, the reliability of structures, structural design standards, and the stability of steel structures. He is author of several technical books and of scores of published articles. He is an honorary member of the American Society of Civil Engineers, and a member of the National Academy of Engineering, the Structural Stability Research Council and the International Association of Bridge and Structural Engineering. He is a registered professional engineer in Minnesota, and Missouri. He holds honorary doctorates from the Technical University of Budapest, the University of North Dakota, and the University of Minnesota. He is one of the 2002 recipients of the ASCE OPAL Award.
Highlights of the Previous Meeting

Post Vice-President Chris Erickson (r) thanks Dr. Bob Grenier for his detailed presentation about Leadership Lessons from the South Pole.

The University of St. Thomas SAME Student Post graciously hosted the last meeting at the Anderson Student Center.

Dr. Grenier spoke about how the late 19th and early 20th centuries marked the great age of polar exploration. There were many expeditions and many celebrated leaders. The mysteries of the Antarctic continent attracted leaders such as Roald Amundsen, Robert Falcon Scott, and Sir Ernest Shackleton to name a notable few.

The focus of Dr. Grenier’s presentation was how vastly different leadership styles affected the outcome of the expeditions.

Links to videos with more information on Shackleton:
http://www.youtube.com/watch?v=R55nyP07A18
http://www.youtube.com/watch?v=IhuVDH9s-H0
http://www.youtube.com/watch?v=zDnGENgiF9k

2013 Streamer Results (as of February 28, 2014)

The SAME-MSP was awarded the following streamers:

- Education and Training (with Distinction)
- Leadership and Mentoring
- Emergency Preparedness and Infrastructure Resilience
- Relationships and Recognition (with Distinction)
MFESTS E-Week Celebration and Awards Banquet

Jon Gustafson (l) receives award from Steve Merriman, MFESTS Representative.

The Minnesota Federation of Engineering, Science, and Technology Societies (MFESTS) held its annual Engineer’s Week Celebration and Awards Banquet at the University of St. Thomas Anderson Student Center on February 22, 2014. The Society of American Military Engineers, Minneapolis-St. Paul Post (SAME-MSP) nominated Post Director Jon Gustafson for the 2013 Minnesota Young Science and Technology Professional of the Year.

Nominees are judged on the basis of educational and collegiate achievements; professional society activities; technical society activities; civil and humanitarian activities; continuing competence; engineering achievements; and professional experience.

MFESTS selected Jon as the recipient of this award.

Time to Apply for Post Scholarships

The Scholarship Application Form 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 fill-able PDF form. There will again be three $1500 scholarships available. The deadline for submitting scholarship applications is Friday, March 21st.

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. At least one of the scholarships in this category will be awarded to a student in an engineering, science, or technology-related field.

A committee of Post members evaluate the applications. All applications are kept confidential, and only the winners are announced. For additional information, please contact Jane Flewellen [Jane.M.Flewellen@usace.army.mil]. Scholarship Application Packages can be downloaded from the Post’s website at:

http://www.same-msp.org/PDF/Scholarship_Applnst_2014.doc or
http://www.same-msp.org/PDF/Scholarship_AppForm_2014.pdf
Educational Grants for Teachers—Applications now Available

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 2014-2015 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 Post 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 4, 2014**. At the completion of the 2014-2015 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 about the Post’s Grant program, go to [http://www.same-msp.org/grants/grants.htm](http://www.same-msp.org/grants/grants.htm).


Explore Engineering—Looking for Volunteers

**What:** Explore Engineering, a fun event where K-5 students and their families participate in activities to learn about science, technology, engineering and math.

**When:** Thursday, May 8, 6-8 pm (volunteers would arrive 15 minutes early.)

**Where:** Rice Lake Elementary School, 575 Birch St, Circle Pines, MN

**Who:** K-5 students of Rice Lake Elementary

**Why:** Rice Lake Elementary received an education grant from the SAME-MSP Post in 2011. This event provides a way for the SAME-MSP Post to continue to support the school by encouraging education and careers in the STEM fields.

We are looking for volunteers to lead activities (all materials and instructions will be provided.) Those interested in getting more information or being a volunteer at the event should contact Rachel Pichelmann at [rpichelmann@sehinc.com](mailto:rpichelmann@sehinc.com).
Habitat for Humanity
By Gina Merth, Peter Allen, and Beth Keister

The 2014 SAME sponsored Habitat for Humanity Volunteer event was a success! On Saturdays, February 15th and 22nd, our Battalions volunteered for the rehab of a home located at 2800 78th Ave North, Brooklyn Park. Each group worked from 8:30 am to 4:00 pm, completing the interior finish-out on the home. The event was successfully organized by URS Corporation, with support from several “recruiters,” including SAME member Chris Erickson, who garnered enough support to give us a full complement of volunteers on the 22nd, although, due to the cold weather and icy road conditions, we lost a couple volunteers on the 22nd. On the 15th, our Student Chapter recruited seven volunteers—thanks to Ethan Podritz, Thomas Tincher and the outstanding St. Thomas ROTC and Student Chapter support. We were lucky enough to be hosted again by the same Habitat Foreman, Chad Formo, and we had many repeat volunteers who made the events run very smoothly both days. Each of the Battalions was very productive and completed many tasks at a variety of skill levels. Two rooms were near completion by the end of the work days.

The 4-Level, 4-bedroom, 2-bath, single-family home is being rehabbed for a young family of 7. Homeowners are required to complete 300 to 500 hours of “sweat equity” on their home before they can move in. We are all looking forward to the open-house upon the completion of the home, planned to be held this summer.

Twin Cities Habitat for Humanity (TCHFH) has rehabbed or re-built 60 homes in the twin cities area this year including Energy Star Rated homes and Leed Rated Homes. Habitat’s 0% mortgage helps save families hundreds of dollars each month and Habitat’s mortgage counselors helped 61 families avoid foreclosure. Volunteers worked 27,895 days on TCHFH projects in 2013 and tithing from Twin Cities Habitat helped Habitat Affiliates around the world build 47 homes for families this year. TCHFH was also awarded Yellow Ribbon recognition for their commitment to Veterans.

The 15th Battalion (see photo to Right)
- Installed drywall on walls and ceilings
- Painted entire rooms
- Painted interior doors- lots of them!
- Installed laminate floors
- Protected the flooring with temporary floor covers
- Cleaned-up and organized storage and other areas of the house for future work

Top Row: (H4H volunteer), Erica Zimmerman, Molly Amundson, Stephanie Westrum, Thomas Tincher, Ethan Podritz
Middle Row: Tom Crump, Clay Hudson, Joshua Server, Cole Harris, Benjamin Waterfield, (H4H volunteer), (H4H volunteer)
Bottom Row (kneeling): Rebekah Sheffield, Beth Keister

Behind Camera: Chad Formo (Habitat foreman)

The 22nd Battalion (see photo to right)
- Demo’d & Installed drywall on walls and ceilings
- Reset drywall screws that were not screwed in far enough
- Painted entire rooms
- Scraped off popcorn ceiling finish
- Installed laminate floors (entire family room and hallway)
- Protected the flooring with temporary floor covers
- Cleaned-up and organized storage and other areas of the house for future work

Top Row: Tosin Agboola (Corps), Megan Allen (URS), Peter Allen (URS), Eric Rundell (URS), Chris Erickson (Corps), Cliff Sheirk (URS), Bill Holman (Corps), Daniel (Habitat Assistant Supervisor)
Bottom Row: Gina Merth (URS) & Shua Xiong (Corps)

Behind Camera: Teri Alberico (Corps)
Meeting Information—Continued from Page 1

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

Agenda and Luncheon Menu:
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 1:30 PM in the ballroom of the Officers Club.

RSVP Info:
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 voice mail message with Ann Banitt at 651-290-5541, or click the RSVP button in the left-hand column, or send an email message to ann.m.banitt@usace.army.mil.

Winners of the Drawing for a Free Lunch
At the February Meeting— No Drawing
At the January Meeting — Roger Clay, Sustainable Water Group PLLC
                         Perry Ryan, Burns & McDonnell
At the December Meeting — Christine Af Dahl, USACE St. Paul District
                         Keith Anderson, HR Green
At the November Meeting — Omid Mohseni, Barr Engineering
                            Matt Redington, HDR Engineering
At the October Meeting — Ted McCaslin, HR Green
                        Steve Alm, Stantec
At the September Meeting — Paul Hegre, SEH Inc
                       Dave Anderson, Anderson Engineering of Minnesota