Captain Jessica Gustafson will be speaking about her engineering career in the air force.

Capt. Jessica Gustafson is an Assistant Professor of Aerospace Studies and the Operations Flight Commander at the Air Force ROTC Detachment 410, University of St. Thomas, St. Paul, MN. She is responsible for recruiting, educating, and training students from among fifteen universities and colleges for commissioning into the Air Force as second lieutenants.

Capt. Jessica Gustafson commissioned through AFROTC Detachment 250 at Iowa State University in May of 2009. After completing the Air and Space Basic Course at Maxwell AFB, she began her Air Force career as a Developmental Engineer at the 5th Space Launch Squadron (5SLS) out of Cape Canaveral Air Force Station, FL. Shortly after reporting to the 5SLS, she attended Undergraduate Space Training at Vandenberg AFB, CA. While stationed at the Cape, Capt. Gustafson served as an evaluator, tour guide and vehicle engineer for several high visibility satellite launches, including launches for the National Reconnaissance Office (NRO), National Oceanic and Atmospheric Administration (NOAA), and the Global Positioning System (GPS) constellation. Capt. Gustafson’s next assignment was to the Airborne Warning and Control System (AWACS) Joint Test Force out of Boeing Field International in Seattle, WA. There she served as a Flight Test Engineer and Test Director on many Airborne Early Warning and Control upgrade programs. To become a non-rated aircrew member as a Developmental Engineer, she attended SERE ground and water survival courses and completed several flight training courses. While working with the Joint Test Force, she led multiple US and international AWACS programs including major upgrades for Japan, France, Saudi Arabia and NATO.

Meeting Location:

**LOCATION CHANGE:** UST—Wolfe Alumni Hall #ASC 387N, UST. Parking at Anderson Parking Facility at 2115 Summit Ave, St. Paul

**Agenda:**

Social time and lunch (if you so desire) will be from 11:30 AM to 12:30 PM. Lunch is $10/person and a buffet consisting of Yankee Pot Roast, Gravy, Chef’s Choice of Vegetables, House Entrée Salad, Dinner Rolls, Mashed Potatoes, Fruit Punch and Water will be offered. Presentation will be from 12:30 PM to about 1:30 PM.

Please RSVP no later than Friday, February 19th, with your intent to either partake in the lunch or to come for the presentation only; this will help 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
During SAME’s January meeting, Mr. Paul Kivisto, Bridge Construction Manager of the MN Department of Transportation, discussed the current progress of the new bridge being constructed across the St. Croix River near Stillwater, MN.

The St. Croix River Bridge Project required an Act of Congress due to the impact to a National Wild and Scenic River. The project has been in development for the last 50 years and is now under construction.

The bridge is an “extradosed bridge” which is a hybrid of a cable-stayed structure and a box girder structure. An exampled of a cable-stayed bridge is the Midtown Greenway pedestrian bridge over Hiawatha Ave., compared to the new I-35W bridge being a box girder structure, both in Minneapolis. Over 14,000 cubic yards of high strength (<6,000 psi) concrete has been used. The length of strand placed end-to-end would stretch from the project site down the Mississippi River to the Gulf of Mexico and back. The old Stillwater Lift Bridge will become part of the Loop Trail (4.7 mile pedestrian and bicycle trail). The project is slated to be completed by the end of 2017. For more information, please visit: http://www.dot.state.mn.us/stcroixcrossing/

A Note From the President

Readers,

Our friends at the University of St. Thomas (UST) Student Chapter are hosting this month’s meeting and I encourage all members to attend and show your support. The UST students are doing great things for SAME and for our Post, of which the Post is very proud. The students are bringing visibility to SAME with other student organizations and are very active with community service by participating in Habitat for Humanity and Explore Engineering, amongst others. Thank you to the Student Chapter their efforts. A quick note on another front, SAME published their strategic plan for 2020 (see http://www.same.org/Discover-SAME/About-SAME) and the Post leadership is going to be focusing more energy on developing a strategic plan for our Post, so look for new developments in the coming months. Thank you for reading and I look forward to seeing you at this month’s meeting.”

-Jon Gustafson, Post President
SAME MSP Post Scholarship Applications Are Now Available!

The 2016 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 three $1,500 scholarships available. The deadline for submitting scholarship applications is Friday, April 1st, 2016.

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. There are two categories of scholarships described as follows:

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 and be majoring in an accredited engineering, science, math, or technology-related field and / or disciplines that will specifically support these fields of study.

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 or 763.591.5473. Scholarship Application Packages can be downloaded from the Post’s website at: http://same-msp.org/grants-and-scholarships/

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 2016-2017 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: 1) creativity and quality of proposed project, 2) demonstrated demand or need for the project, 3) support of the Minnesota or Wisconsin math and/or science academic standards.

The deadline for the educational grant is March 31st, 2016. At the completion of the 2016-2017 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 contact Chris Erickson at christopher.r.erickson@usace.army.mil or 651-290-5437 or go to http://same-msp.org/grants-and-scholarships/ For a listing of the grants that have been previously awarded go to http://same-msp.org/wp-content/uploads/2016/01/Summary_Awarded_Educational_Grants_2009-2015.pdf. For the grant application go to http://same-msp.org/wp-content/uploads/2016/01/SAME_School_Grant_K-12_2016.pdf

Exciting Small Business News—HDR wins SAME National 2015 Large Business Award!

HDR was awarded the SAME National 2015 Large Business Award at the SAME National Small Business Conference in New Orleans on November 6, 2015. The Large Business Award honors a DOD prime contractor for commitment to the development and support to Small Business relationships through mentoring and training, ensuring successful performance on Federal contracts, and excellence in Small Business utilization. Jackie Hacker, HDR National Small Business Program Director and Michael Brainard, HDR Sr. Vice President and National Compliance Director accepted the award. HDR, headquartered in Omaha, Nebraska was founded in 1917. HDR is an employee-owned, full-service architecture, engineering and consulting firm with nearly 10,000 professionals in 225 locations worldwide. Locally, HDR has over 175 professionals in Minnesota, and Paul Dierking serves as the point of contact for federal small business interests. He can be reached at paul.dierking@hdrinc.com or 763.591.5473.
Future City Competition

The Minnesota Regional Future City Competition was held on Saturday, January 23, 2016 at the Dunwoody College of Technology in Minneapolis, Minnesota. Again this year, the Post sponsored one of the special awards, the focus of which was for the team that best addressed “Readiness for Natural and Manmade Disasters”. The team that won the post’s award was Scott Highlands Middle School (Rosemount-Apple Valley-Eagan) for their city named “Nouveou”. Thanks to the five volunteers we had as judges, Peter Allen, Terry Zien, Nathan Meisgeier, Matthew Redington, and Wayne Wambold. Congratulations to Scott Highlands Middle School for their comprehensive understanding of natural and manmade disasters and their enthusiasm with their presentation. This competition truly brings out the creative side of today’s youth as they work together to explore engineering and how it impacts all of us on a daily basis.

Engineering Camps Announcement

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 airfare and ½ the registration fee; the student's family is responsible for the remainder of the registration. High school students that are interested in this opportunity should:

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

From the qualified responders, 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 April 1, 2016. Please contact Peter Allen with any questions.

Dates and locations for this year’s camps are:

- **US Army Camp**
  Vicksburg, Mississippi June 19 – 25, 2016

- **US Air Force Academy**
  Colorado Springs, CO July 7 – 13, 2016

- **US Marine Corps Camp**