Capital Edition



ARCS® MISSION

ARCS Foundation advances science and technology in the United States by providing financial awards to academically outstanding U.S. citizens studying to complete degrees in science, engineering, and medical research.

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Spring 2014

Metropolitan Washington Chapter

From our President

"Productivity is never an accident. It is always the result of a commitment to excellence, intelligent planning and focused effort." Paul J. Meyer

Dear MWC Members,

In the past few years, we have been working to build our outreach in the community while improving our efficiencies. As an all-volunteer organization, my hope is to align our energy and focus with our mission – raising funds to support STEM advancement. We have done a lot of work to improve our productivity and to assure consistency, including: (1) better use of technology (e.g., evites, online distribution of our newsletter, online payments, use of the ARCS website, etc.); (2) use of professional support (e.g., experienced and licensed endowment management, administrative support for mailings, consolidation of our insurance brokers, etc.); (3) MWC Council structure, redesigned to allow broader current engagement of our membership and to create a pipeline for Board succession



in each functional area; (4) and completion of critical policies to assure consistency year-to-year (e.g., investment policies, information governance, etc.). All of this has been a wonderful and significant effort, building a lasting foundation to encourage current productivity and setting a base for future success. Thanks to the many contributors in this effort.

Here are some of our recent highlights:

- The Holiday Party, chaired by Marie Carr, was a lovely occasion, with 125 attendees from our membership. With thanks to our Finance team, led by Karen Stoner, this was the first time we offered online payment.
- Our January Speaker Series was a fabulous event, featuring a stimulating conversation concerning the importance of diversity for STEM advancement. The speakers were Angela Messer, EVP – Booz Allen Hamilton, and Caren Merrick, MWC member/ Partner, Bibury Partners.
- Our development team, led by Doris Pierson and Bev Herrington, continues to build relationships for the benefit of our Chapter. In every regard they are working to advance our engagement with corporate donors, foundations and ARCS/MWC members. We are most grateful for the response from membership on the recent year end appeal—which generated funding for three graduate scholars. Thank you, all!
- Given our successful fund raising last year, our University Relations team, chaired by Aneta Large and Martha Harris, has advised our five supported universities that we will sponsor a total of 25 graduate scholars next year (5 per university). With our Endowment Scholar and undergraduate scholar donations, our total awards will continue to grow.
- Through the engagement of our members and with support from Angie Delaney as VP-Membership, we are honored to have welcomed 6 new members and 2 returning members thus far this fiscal year.
- Thanks to Connie Watts, as Chair of our Nominations Committee, for the fabulous work that continues to build our leadership team for next year.
- As highlighted in our last newsletter, Dr. Wanda Austin, CEO-Aerospace Corporation, will be honored as our 2014 Eagle Award Recipient on Wednesday, May 7. Sincere thanks to Mary Snitch for her leadership with this event (see page 5 for more information).

Again, my appreciation to all who contribute ideas and efforts to make us both more productive and, in turn, more successful. It is setting the stage for our future.

With hopes to see you on May 7!

In Their Own Words: Neil Armstrong Scholars

For the 2013-2014 academic year, ARCS MWC is honored to support three scholars named in memory of Neil Armstrong. The inspiration for these scholar awards was due to Lana and Mike Yaramovych, who relayed that Neil Armstrong was a dear friend and colleague of many of our founding members. Due to the generosity of MWC members, with particular appreciation to Vivian and Pete Teets, funding was raised to support three undergraduate aerospace engineering scholars. It is our pleasure to share the scholars' respective remarks on the meaning of this recognition.



Vincent Wang- Johns Hopkins University

Our research involving a U.S. Navy water-jet pump is progressing well. We are currently processing our particle image velocimetry images, resolving 3-component velocity fields from our data. With the help of these velocity fields, we plan to investigate the tip leakage vortex generated by flow interactions in the clearance between the pump's rotor and casing (tip leakage vortex is the cause of several adverse conditions in turbomachinery, such as reducing efficiency by causing rotating stall and increasing noise). By gaining a better understanding of what happens within their water-jet pump, we can help the Navy improve their turbomachinery designs. I am extremely grateful for the ARCS Foundation's support – it has been invaluable in my undergraduate education at Johns Hopkins University.

Edward (Teddy) Levine - University of Maryland

The ARCS award is a major milestone in my academic career, as it distinguishes my aptitude for science and competence to conduct scientific research with societal impacts. With the assistance of the ARCS Foundation, I have the financial stability to focus chiefly on my research and make significant progress towards my project's completion. I have recently completed the first phase of my project, which was to build a focused Schlieren light source that could be interfaced with NI LabWindows.





Ben Kirschmeier - George Washington University

The award has been a great honor and has helped me achieve my goal of pursuing a PhD. I have already been accepted into two graduate schools, and will hopefully be accepted into a few more. My current research project is developing an active guidance system for a sounding rocket (i.e., running simulations to determine the forces induced from the canards).

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ARCS/MWC Speaker Series

On Thursday, January 23, 2014, Angela Messer, Executive Vice President, Booz Allen Hamilton, was the featured speaker at the annual ARCS Foundation Metro Washington Chapter's (MWC) Speaker Series. Angie has recently been asked to lead Booz Allen's client services related to global threats to include cyber, insider and virtual world threat actors. Booz Allen has been at the forefront of strategy and technology consulting for 100 years. The firm provides services primarily to the U.S. government, and to major corporations, institutions, and not-for-profit organizations. Booz Allen is also a major sponsor of ARCS/MWC. This year's series topic was "Innovation in STEM – Why Diversity Matters." Almost 70 people attended, including MWC members; ARCS scholars; corporate partners; and other ARCS friends and supporters.



Caren Merrick, a co-founder of webMethods, an enterprise software company acquired by Software AG in 2007, and a current partner in Bibury Partners, was the MWC interviewer. Caren started by asking Angie why she chose to study engineering at West Point. Angle said that her family had a history of U.S. military service—her father and grandfather had both served--and that her mother—a first-generation Cuban-American—was extremely proud of the United States. These factors, coupled with the influence of two teachers who were role models, shaped Angie's decision to attend West Point and her early career paths. Fast forward to today. She noted how important science, technology, engineering, and mathematics (STEM) disciplines are to Booz Allen, describing the synergy created by diverse viewpoints within project teams. When asked how today's students could better tackle STEM goals, she highlighted several strategies that resonated with the audience. Angie stressed interweaving traditional values (e.g., family support, and individual and corporate volunteer commitments) with innovative team approaches, supplementing U.S. government and educational system efforts. She also emphasized both the importance of partnerships, citing Booz Allen's many collaborations with universities and professional associations, and the need to continuously promote STEM interaction with students in middle and high schools (even elementary school), using fun, engaging, and relevant approaches. She cited two Booz Allen examples: employees volunteering with Girl Scouts on STEM-related projects; and a company contest for college and high school students, sponsored with university partners, featuring a typical problem the company might face (high school students won, showing the importance of outreach to that age level). To retain STEM expertise within corporations, Angie advised seeking and accepting ideas from all staff, including junior staff, and fostering a "speak up" environment.

In conclusion, Angie reminded us that everyone needs to be personally engaged in promoting STEM and that "it takes a village." She closed to a rousing ovation and was peppered with questions and comments addressing all stages of education, ranging from engaging very young children to considering students' varying social and economic needs in building STEM programs to supporting specific populations within schools (e.g., establishing support programs in colleges for returning veterans who wish to enter (stay in) STEM fields).





Article and pictures courtesy of Elli Nesbitt, ARCS/MWC

Honor Bestowed on Mary D. Kennedy



At the MWC September General Meeting, it was announced that Mary Kennedy has been recognized as the first Life Member of this Chapter. This honor, which was approved by the Board, is a means to acknowledge Mary's exceptional contributions to ARCS. Since joining MWC in 1995, she has been an extraordinary member – facilitating ARCS events (for MWC, for National, and for other Chapters) at the U.S. Supreme Court; providing 10-plus years of leadership for our Embassy Bridge event; and facilitating introductions for ARCS to business and community leaders. In every regard, her engagement has been a valued asset for ARCS.

Mary has always had a passion for education, as evidenced by her degrees and her career. She has an undergraduate degree from University of California–Berkeley and a Masters in Education from Stanford University. For many years, she served as a teacher and/or librarian in the Sacramento public school system.

The Metropolitan Washington Chapter is truly honored by its association with Mary and her tireless contributions to advance science in America!

IN MEMORIAM

Sadly, we bid a fond farewell and pay tribute to Pat Smith (Patricia B. Smith) who passed away November 18, 2013, shortly after a fall. Pat joined our chapter in 1973 and remained a faithful, loyal, and supportive member. For years she helped run our chapter's fashion show. Pat had a great passion for bridge and had attended the Embassy Bridge Event just days prior to her passing. She was sharp and even though she had a hearing deficiency she was most attentive at our general meetings. At the close of the meetings she often would make a comment. We well remember her asking our Smith Barney representatives at last year's May Meeting to please don't call us "you guys." That was our Pat!



Patricia B. Smith

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ARCS Spring Fundraiser - Reaching New Heights for Scholars

The annual MWC spring event will be taking on a completely new look in 2014 as we transition to an evening reception! The "Promoting Partnerships to Advance Science in America" reception will be held Wednesday, May 7th, 6:00-9:00 p.m. at the Rooftop Terrace (101 Constitution Avenue, NW, in Washington, DC—the tented rooftop location above Charlie Palmer's Restaurant). Thanks to the leadership of Mary Snitch, event chair, this promises to be a very special evening. Occasions Caterers is planning a sumptuous "locavore" (MD, VA, and DC) menu paired with wines/spirits donated from area businesses. We are planning to have over 300 attendees during the evening, including ARCS members, scholars and scholar alums, and our MWC Partners in academia, industry, and government.

The highlight of the evening will be the presentation of the 2014 Eagle Award to Dr. Wanda M. Austin, President and CEO, The Aerospace Corporation. It is our Chapter's honor to recognize Dr. Austin, a past MWC member, for her many achievements and her lifetime support of STEM.

Look for your electronic invitation in early March, and be sure to put May 7th on your calendar! Your member event price is \$350 per person. For questions or information on sponsor levels and benefits, please contact either Lynn Dillon or Mary Snitch. Valet parking will be provided and dress is business attire.

DEVELOPMENT UPDATE

The Development Council initiated a membership appeal this year, inviting members to consider an additional donation beyond the membership dues. Many not-for-profit organizations deem this an important annual campaign because it gives opportunity to honor or memorialize events, family, and friends for a variety of reasons throughout the year. One member donated an additional amount in memory and gratitude for the life of their Best Man. Whatever the motivation, members and others have been motivated to contribute, and all gifts received were personally thanked.

While much energy is moving in the direction of the Spring Event on May 7, led by Mary Snitch, do think about honoring special events and people in your lives anytime during the year. It's a doubly good thing! Gifts are gladly received at any time by our Assistant Treasurer, Marlene Bekey, and Development is pleased to report, with much gratitude, the response total of \$47,885 thus far.

ARCS Endowment Scholar

The Washington Metropolitan Chapter of ARCS is delighted to announce the 2014-15 Endowment Scholar. Our Endowment Scholarship Selection Committee has unanimously selected Ms. Erin Adkins, a doctoral candidate majoring in Chemistry at George Washington University. Her research is Laser Diagnostics in Combustion Chemistry. According to the committee, "she has demonstrated a combination of relevant research in an area of high importance on a global scale, academic excellence, recognized publications, and a level of maturity in multiple areas including leadership, mentoring, and collaboration. Her objective of ultimately reducing combustion by product emission (soot) would have a long lasting impact on society." The members also noted her outstanding letters of recommendation. We are deeply indebted to the entire committee for its time and effort and especially thank Mr. Scott Large as Chair. Because of the expertise and proficiency of each member, we are ensured that we are nominating a candidate worthy of being named our ARCS Endowment Scholar.

GWU: VISION 2021

The George Washington University has recently completed a new 10 year strategic plan, entitled "Vision 2021." It outlines key initiatives for the academic and research operations of the university. The plan focuses on four themes: innovation through cross-disciplinary collabora-



tion; globalization of educational and research programs; expansion of programs that emphasize governance and policy in the public and private sectors; and focus on the key themes of citizenship and leadership.

Key elements of the plan are geared to energize STEM initiatives, including the following:

To impact what and how students learn:

- Design a new core curriculum;
- Improve the linkage between academic programs and students' educational experiences outside the classroom; and
- Focus on the quality of education in science, technology, engineering, and mathematics

To advance the goals of GW research:

- Create 8-12 cross-disciplinary institutes with the financial support necessary to undertake research in new fields;
- Hire 50-100 new faculty member in areas of research;
- Improve the infrastructure that supports research; and
- Encourage applied, translational, and policy research that works towards solutions to and new perspectives on significant societal problems.

National Board Meeting Update

At the end of January, the National Board held its meeting in Orange County, CA. It was a busy agenda filled with strategic conversations, a focus on new initiatives, committee work, and networking opportunities. MWC was well represented by Di Alexander, Kristen Bloschock, Angela Diaz, Lynn Dillon, Jackie Henson, Andi Purple, and Mary Snitch. Major headlines are:

- Nancy Spetzler (Phoenix Chapter) presided as the new National President:
- Kristen Bloschock currently serves as Secretary for the National Board;
- The Chicago Chapter has been legally renamed "the Illinois Chapter";
- Lockheed Martin has made a major commitment to support the National Board Endowment Fund (@ \$50,000 pa);

The next National Annual Meeting will be in Salt Lake City, Utah – September 17-20, 2014.

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ARCS Foundation "Partners" with American Institute of Aeronautics and Astronautics (AIAA)

Our Metro Washington Chapter (MWC) has been working this year with the AIAA to identify ways to jointly "advance science in America" and actively engage our scholars and scholar alums. Last Fall, Mary Snitch and Kristen Bloschock joined National ARCS President, Nancy Spetzler, at a meeting focusing on:

- 1. ARCS Alum "networking" events in conjunction with AIAA Forums;
- 2. Expanding awareness of ARCS in AIAA Student Chapters;
- 3. Expanding awareness of AIAA in ARCS Partner Universities (potential growth in student member ship);
- 4. ARCS Alum participation in AIAA Forums (registrant/speaker/panelist/AIAA member) with student discounts for active/current ARCS scholars to AIAA Forums in their region; and
- 5. Website/Communications

That meeting has resulted in a number of positive actions. The most immediate will occur when the AIAA holds its annual Spotlight Awards Dinner on April 30th. The AIAA has invited our current named scholars to this event and the scholars will be seated with their named sponsors—Lockheed Martin, Boeing, and Raytheon—who are also members of the AIAA. In related news, kudos to our own MWC member Dr. Kathie Olsen, who will be honored by AIAA at the April 30th dinner as their 2014 Public Service Awardee!

And, to top it off, the AIAA has already committed to serve as a sponsor to MWC's May 7th "Promoting Partnerships to Advance Science in America" fundraising event.

Many thanks to AIAA and to Merrie Scott, ARCS/MWC member and AIAA Director, Industry Relations, who helped us forge this exciting and important partnership!

ARCS MWC Chapter University Visits 2014

We are delighted to announce the schedule of our annual university visits and invite you to participate. These visits are a highlight of our chapter year and provide a way to interact with ARCS scholars, faculty and officials at the universities we support.

This year we ask that you sign up by sending an email to the coordinator for the visit(s) you want to join. She will organize everything related the visit, including carpools and parking. Please keep in mind that reservations will be first come, first served so sign up now if you want to ensure a spot. Normally, we have a group of approximately 12 members for each visit, but we will take all names and adjust if there are cancellations.

If you have any general questions or know someone who does not get email, please contact Martha Harris, University Relations Council (harris61325@comcast.net or 703-548-1033). Listed are the events, dates, and coordinators:

Georgetown University, Wednesday, March 26 Tina Ayiotis (cayiotis@cox.net)
University of Maryland, Wednesday, April 2 Alice Laning (laning@verizon.net)

George Washington University, Wednesday, April 16 Aneta Large (aelarge@verizon.net)

University of Virginia (Charlottesville), Thursday, April 17 Martha Harris (<u>harris61325@comcast.net</u>)

Johns Hopkins University (Baltimore), Wednesday, April 23 Ronnie Raju (raju.radhi@gmail.com)

MWC Holiday Celebration 2013

On December 15, our Chapter enjoyed a lovely holiday celebration at The Chevy Chase Club. It was an evening filled with the magic of the season – a gorgeous and festive setting, delicious dinner, lovely dance band, and the opportunity to celebrate our ARCS friendships. An added touch – the centerpieces were a fabulous array of wrapped packages and served to send each guest home with a special gift.

With over 125 people attending, this was party was a great success. Sincere thanks to the event chair, Marie Carr, and to all on her committee, including Marlene Bekey, Sally Burns, Holly Coyne, Cynthia Howes, and Patsy Mote.



Mark Your Calendars!!

Wednesday, March 26, 2014	Georgetown University Visit
Wednesday April, 2, 2014	University of Maryland Visit
Wednesday April 16, 2014	George Washington University Visit
Thursday April 17, 2014	University of Virginia Visit
Wednesday April 23, 2014	Johns Hopkins University Visit
Wednesday, May 7, 2014	Promoting Partnerships to Advance Science in America (Evening)