



(U.S. Navy photo by MC3 Patrick Dionne)

The Honorable Jack R. Borsting Inducted Into NPS Hall of Fame

by MC3 Patrick Dionne

The Honorable Jack R. Borsting became the 22nd person to be inducted into the NPS Hall of Fame, April 27. Borsting's decades-long career in academia and federal service was celebrated during a ceremony with friends, family and colleagues, followed by his official induction into the university's prestigious collective by his wife Peggy, son Eric Borsting, and NPS President retired Vice Adm. Ronald A. Route.

"On behalf of the Borsting family, I would like to thank Admiral Route and NPS for bestowing this honor on my late father," said Eric Borsting. "NPS had a special place in my father's heart, and I know as he looks down at us today he would be truly touched and honored by this recognition.

"Dad started his career here at this school, and he truly treasured the friends and colleagues he made here," Borsting continued. "We are happy that many of them are here today to celebrate this event, and hope his spirit will live on for those that follow."

Borsting served NPS in several capacities over his distinguished career. He joined the faculty of NPS' Department of Operations Research in 1959, where he remained for 15 years before becoming university Provost in 1974. Following six years as NPS Provost, Borsting became the Asst. Secretary of Defense (Comptroller) from 1980-1982, appointed by both Presidents Carter and Reagan. Borsting's career in academia then took him to universities in Miami, Florida and southern California, but his commitment and leadership to NPS remained, serving on the institution's Board of Advisors for more than 20 years.

Borsting's tenure as Provost came at a critical time in the university's history. In the three years leading up to his appointment as Provost, the student body at NPS dropped from approximately 1,800 students to 1,200, with a potential further drop to 900 students within two years. Under Borsting's leadership and savvy understanding of the Pentagon, the student population had risen back to about 1,400 when he left the position in 1980.

"Jack Borsting was an expert in face-to-face diplomacy and truly understood how to not only work with top leaders, but also with the people below," said Provost Emeritus Richard Elster. "Jack had incredibly strong characteristics. He was trustworthy, honest and incredibly energetic, and people trusted his vision. I think the best way for us to honor him is to keep doing what he did ... focus on quality, focus on mission, and love your students."



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ASIAN AMERICAN AND
PACIFIC ISLANDER
HERITAGE MONTH

May 2017

CNO Keynotes Monterey's Annual Submarine Ball

By MC1 Lewis Hunsaker

Chief of Naval Operations Adm. John M. Richardson served as the keynote speaker for the 117th Submarine Birthday Ball in the Naval Postgraduate School's Barbara McNitt Ballroom, April 22.

"It's a pleasure to be here. It's really a pleasure to be out of Washington, D.C.," Richardson opened with a smile.

"Of all the places to be, this is a wonderful spot to share a very special night with all of you," he continued. "It's like being in a family, everyone comes back and you get that terrific feeling, rekindling old memories over a nice meal."

Richardson thanked various distinguished guests in attendance, and offered a special thanks to NPS faculty for the global impact they impart on the force. He then continued with the focus of his presentation for the ball, discussing how the force has changed from generation to generation over the years.

"If you go back 117 years, this was our first generation. This is a generation of pioneers with the purpose of doing very fundamental things. We needed to figure out how to get a ship made of metal, full of people, to submerge, and then surface again on command while keeping everyone alive in the process," said Richardson.

It took about 40 years, but all these requirements came together in the late 1930s to early 1940s with the Gato-class submarine, he continued.

"Many of these pioneers gave their lives for this endeavor," said Richardson. "The Gato-class submarine came together just in time. On December 7, 1941 everything changed ... On that day, the order came down to execute unrestricted submarine warfare. Throughout the submarine force, commanding officers looked at the message and said, 'What do I do with this?'"

The submarine force was unprepared for this order, Richardson continued.

"We had been too narrow in our thinking. We didn't think about night time service attacks. We didn't think about going into harbors and attacking there. We didn't even think to test the weapons. So, we started World War II well behind in our thinking and in our

systems," he said. This, he noted, paved the way for the second generation, the warfighters.

"[The warfighter generation] made up for it," Richardson said. This group got their act together quickly, in about three years, troubleshooting multiple problems, and at the same time, forming a "new generation of commanding officers with new weapons, new tactics, and they were amazingly effective."



Chief of Naval Operations Adm. John M. Richardson addresses attendees of the 117th Submarine Birthday Ball in the Naval Postgraduate School's Barbara McNitt Ballroom, April 22. (U.S. Navy photo by MC1 Lewis Hunsaker)

"At the end of WWII, the submarine force comprised about six percent of the U.S. Navy, and had sunk about 55 percent of the enemy's tonnage," Richardson said proudly.

The warfighters generation built on what the pioneer generation had accomplished, and then they turned their knowledge over to the third generation, the 'cold warriors.'

"With this generation, we had a revolution in technology with the advent of nuclear propulsion ... This changed everything about submarines. We could literally stay underwater essentially forever. We lived in the oceans for long periods of time," said Richardson. "Nuclear propulsion gave rise to a whole new generation of sciences that we still study here at the [Naval] Postgraduate School."

During this time even more tactics emerged, Richardson said, along with the quietest and newest classes of submarines.

"As before, nothing came off the plate. We took the work of the pioneers, we took the work of the warfighters, the cold warriors and added on to that ... It's getting more and more complex," said Richardson. "Which brings us to the fourth generation, and I'm not sure what to call them."

The Navy's senior officer then noted that it was up to the current generation of submariners to define their own generation. But, he added, there are some characteristics that cross all generations of the Navy's silent service.

"We demand you to learn the lessons of the past and be better than we were. So, when the fight comes we will not be unprepared. You will be trained and equipped and ready in every respect to fight and win," Richardson concluded.

"Update NPS" is a monthly publication for students, faculty and staff of the Naval Postgraduate School produced by the Public Affairs Office. For additional copies, comments, or to suggest story ideas, contact the editorial staff at pao@nps.edu

Around the World in Four Hours

By Javier Chagoya



Thanks to the efforts of NPS' International Executive Committee, the university's academic quadrangle looked more like an international bazaar, April 22, where visitors could taste-test authentic munchies from just about every continent during one of NPS' longest-standing traditions, International Day. Part food festival, part cultural exposition, the annual event always seems to exceed



expectations, especially in the food column. According to IEC co-chair Lt. Col. Raja Majeed, it's much more than simply sharing food that makes the event fun and festive. "The important thing I see that's happening here is it shows how similar our countries really are," Majeed said.



But International Day is not only about sharing culture through cuisine, with several authentic performances from nations around the world throughout the day, from the Yamamoto Hula Ohana Troupe to a rousing Pakistani ghazal. It was then the Del Monte Brass' turn to treat attendees' ears with a whimsical tune.



"The most memorable thing for me about International Day is the whole process of putting it together ... The spirit of the people who participate, and share in the spirit of the IEC members who work so hard to make this event a success," said Majeed.

FACULTY news & notes

NPS Department of National Security Affairs Assistant Professor Naazneen Barma officially became a naturalized U.S. citizen after 25 years of residency in the United States during a ceremony at Cesar Chavez Library in Salinas, Calif., March 31.

"I was born and raised in Hong Kong, and it was such a vibrant and multicultural place with so many people with interesting stories to tell," said Barma. "My family is ethnically Indian and my mother grew up in India, but my father's family has lived in Hong Kong for five generations, so we had a lot of strong family roots there, and it really felt like home to me."

Barma moved to the U.S. in 1992 to attend Stanford University at the age of 17.

She went on to earn a bachelor's degree in international relations and politics there and her doctorate in political science from the University of California, Berkeley.

Capt. James "Jim" Hitt was honored with an end of service Legion of Merit award during his retirement ceremony in Ingersoll Hall, April 5.

During his time at NPS, Hitt wore many hats, one of them being Military Associate Dean of GSBPP as well as Chair of the End Strength Working Group during a critical time in NPS' history.

"All of the references towards my bio and awards are missing one thing, my wife, Stephanie," said Hitt. "She took care of our daughter and the home front while I have been gone and has been my greatest supporter."

Have a story to share?
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NPS Hosts the Naval Research Working Group

By MC2 Michael Ehrlich

The annual three day Naval Research Working Group (NRWG) kicked off April 18, providing the opportunity for DOD research sponsors and NPS faculty to discuss thesis and research opportunities for NPS students, faculty and staff.

NPS Dean of Research, Dr. Jeff Paduan has seen the impact of the NRWG in creating opportunities for the DOD to better utilize NPS, while university students get to tackle the DOD's most critical issues.

"The NRWG is the annual event for the NPS Naval Research Program (NRP). It is a critical step in the program timeline because it brings topic sponsors from many operational Navy and Marine Corps offices to campus to meet with NPS faculty and students," said Paduan.

"NRP itself is a unique program because it provides funding for operational studies and thesis topics," he continued. "The operational topic sponsors associated with the program are not the same sponsors that support basic research projects, such as the Office of Naval Research. Because of this, NRP complements the broader NPS research portfolio.

"NRWG kicks off the process of creating and prioritizing projects for the following year. At the end of that process, results from the funded studies feed directly back to the operational Navy and Marine Corps. The entire process serves to educate NPS faculty about operational problems, provide relevant thesis topics for NPS students, and provide critical solutions to a range of topic sponsors," Paduan added.

Modeling, Virtual Environments, and Simulation (MOVES) Faculty Associate Perry McDowell agreed, seeing the impact the NRWG has had on his own research field of Live, Virtual and Constructive (LVC) simulation.



Modeling, Virtual Environments, and Simulation (MOVES) Institute Faculty Associate Erik Johnson discusses a virtual drone swarm simulator as the Naval Research Working Group (NRWG) event kicks off on campus, April 18. (U.S. Navy photo by MC2 Michael Ehrlich)

"MOVES has a lot of good ideas on how we can help the fleet, and the fleet has a lot of problems that need to be solved," said McDowell. "NRWG brings a lot of people together to accomplish both. Sometimes the fleet doesn't have the money to solve its problems and by providing the funding, it gives a huge return on investment for the DON."

The simulation that MOVES Institute Faculty Associate Erik Johnson and McDowell presented during the first day of the event resembles a video game, where multiple players are equipped with an array of tools to accomplish a mission.

The difference this simulation has to a typical video game is the tools are being designed to resemble the actual capabilities of small drones. The operators are also given realistic controls, mirroring how an operator would utilize these tools in the field.

"A lot of the components of the gaming industry are moving into military training," said McDowell. "For most simulations, you are going to put a few people into it and still require lots of people supporting the training of those one or two people. Now a six-year-old can put a video game into an Xbox and play it without any problems, and I think the DOD is moving towards that simplicity."

NSAM Welcomes Its Regional Commander

By Melinda Larson, NSAM Public Affairs

Rear Adm. Yancy Lindsey, Commander, Navy Region Southwest, visited Naval Support Activity (NSA) Monterey, April 6-7.

It was his first visit since taking command of the region in September.

"It is a special treat to visit the installation, to walk the property, talk to the people, and get a good understanding of your priorities," Lindsey told some 15 NSA Monterey program managers during a roundtable discussion.

A former commanding officer of Naval Base Coronado now responsible for 10 Navy installations, Lindsey shared his installation management philosophy with the staff.

"Creativity and innovation bridge the gap between limited resources and the mission. I want you to have the flexibility to achieve your mission by relying on you to set your priorities. Things work better in the Navy when authority aligns with responsibilities," Lindsey said.

Lindsey toured two NSA Monterey sites to observe security operations at entry control points, and material conditions throughout the installation and its Annex complex. Public Works presented a facility project overview at the future site of a campus quad area.

"Make sure you get what you need during the design process," Lindsey advised Chef Loveday Camille as they reviewed the campus quad plans that include changes to the Café Del Monte managed by Camille.

Ceremony Recognizes Faculty Awarded Promotion and Tenure for AY2017

By MC2 Victoria Ochoa

NPS faculty members, listed to the right, were honored during the institution's annual Promotion and Tenure Ceremony in M.E. Auditorium, April 20.

"It is such a great day to be here with you and celebrate with you these promotions," said NPS President retired Vice Adm. Ronald A. Route during the ceremony. "Today, we actually look to the future of the Naval Postgraduate School, and the future of these gifted men and women and dedicated faculty members.

"Scholarship and service demands can be daunting, but you have proven yourself in the classroom and among the colleagues and experts in your field," Route continued.

Eight NPS professors were awarded with tenure, with an additional eight others who were promoted, were recognized during the annual ceremony.

"Today, we celebrate NPS mission accomplishment, and today and in the days to come, we will continue our strategic planning for the future of NPS," said Route. "Make no mistake about it, you are our future."

BOA on Campus for Annual Meeting

By MC2 Michael Ehrlich

The Board of Advisors (BOA) gathered on campus to discuss the role NPS can and should play in an ever-changing national security environment, April 26-27.

BOA's mission is to understand the issues facing the DOD and advise NPS on how the institution can help solve them through its graduate education and research programs.

BOA member retired Vice Adm. David E. Frost led the meeting with opening remarks highlighting changing threats in the world, and the pressing need for innovative thinking to emerge from the Navy's graduate universities.

"We are at a point right now in national security where things are changing substantially," said Frost. "We are coming out of a period where we have been focused on counter terrorism and regional wars, and now we are facing a different kind of world that we are not entirely prepared for. We have to factor in that nuclear weapons are back on the table,

and we have let our national strategic thinking go in a direction where we are almost starting from scratch."

Frost also noted that each branch of service will have to reflect on past and future roles and missions within a context of change. Missions, such as the Navy providing air support in Eastern Europe, and protecting sea lanes for commerce in the Pacific, are changing in scope with the inclusion of unmanned systems. And beyond the traditional mission set of the sea services are new missions, such as the growing demand for cyber operations.

"Change is coming. I say that as a preamble to our board meeting because the Naval Postgraduate School has resources that can contribute to the reshaping of national security studies," said Frost. "We have a tremendous amount of resources here, and we, the board members, are all here genuinely to support the NPS mission, and we want to help to do everything we can to make this institution thrive and survive."

Award of Tenure

Augier, Mie, GSBPP
Hartmann, Latika, GSBPP

Promotion to Professor

Dew, Nicholas, GSBPP
Eger, Robert, GSBPP
Radko, Timour, OC
Romano, Marcello, MAE
Shattuck, Nita, OR
Shore, Zachary, NS

Promotion to Associate Professor and Award of Tenure

Aten, Kathryn, GSBPP
Barma, Naazneen, NS
Cunha, Jesse, GSBPP
Strawser, Bradley, DA
Sullivan, Ryan, GSBPP
Thulasiraman, Preetha, ECE

Promotion to Research Associate Professor

Singham, Devaushi, OR

Promotion to Senior Lecturer

Adams, Christopher, MAE

Promotion to Faculty Associate, Education

Harrigan, Sean, CHDS

CAMPUS news & notes

The Acquisition Research Program (ARP) is soliciting innovative proposals from NPS faculty for defense acquisition management and policy research to be conducted during FY 2018.

The phrase "defense acquisition management and policy research" refers to investigations in all disciplines, fields, and domains that (1) are involved in the acquisition of products and/or services for national defense, or (2) could potentially be brought to bear to improve defense acquisition. It includes but is not limited to economics, finance, financial management, information systems, organization theory, operations management, human resources management, and marketing, as well as the "traditional" acquisition areas, such as contracting, program/project management, and systems engineering management.

Preference will be given to and that: involve NPS students, reflect collaboration between tenure track and non-tenure track faculty. Of particular interest here would be the potential for multiple deliverables (e.g., both scholarly products (e.g., refereed journal submissions) as well as practitioner-oriented products (e.g., trade journal submissions)).

NSA Monterey's Command Religious Program will observe the annual National Day of Prayer with two events May 4.

At 7:15 a.m., there will be a gathering for Christian prayer at the O'Connor Chapel, building 300.

At noon, Lt. Cmdr. John Van Dyke and Ken Stewart will conduct "A Dialogue on Christian and Muslim Prayer," in classroom 1 at building 300.

Send your campus news and notes to pao@nps.edu

Marine Corps Combat Development Lead Offers Latest SGL

By MC1 Lewis Hunsaker

NPS welcomed U.S. Marine Corps Lt. Gen. Robert S. Walsh, Commanding General, Marine Corps Combat Development Command, and Deputy Commandant, Combat Development and Integration, to discuss his views and perspectives with NPS students, faculty and staff during a Secretary of the Navy Guest Lecture (SGL) in King Auditorium, April 18.

"I have been on campus for a few days in conjunction with the Naval Research Working Group (NRWG) and I can't tell you how impressed I am each time I get to come to NPS. As I look at this group today, I see a very intellectual and intimidating group," said Walsh. "Everyone here is tackling some of the major challenges we have across the Navy and Marine Corps."

Walsh's role at the Marine Corps Combat Development Command, he says, is to look at the future operating environment and decide where the Marine Corps is going – the needs of the force, how the new force will fight, how it will train, and future capabilities to complete the mission.

"One of the things that I'm tasked with is to modernize the force, which is not an easy task considering the fiscal environment. The future operational environment and capabilities is what really brings me here today to connect with you, and learn from what you are doing, while at the same time connecting you with topic sponsors on where we are trying to go in the future," Walsh said.

Walsh discussed three key areas in regards to how best to utilize student, faculty research here at NPS. He discussed how operational and capability gaps can drive graduate level research, in addition to maximizing the alignment of the research with the most pressing capability gaps. Third, he noted that leadership must also consider the potential for unseen applications and attributes of the research.

"We have to look at all the domains of today in a contested environment," Walsh

said. "One of the things that our concept writers are working on with the Army is a multi-domain battle concept of how we are going to operate in the future."

Walsh continued his discussion with using what he called the 4-plus-1 plan – referring to Russia, China, North Korea, Iran and violent extremist organizations – to help understand Marine Corps capability gaps and needs.



U.S. Marine Corps Lt. Gen. Robert S. Walsh, Commanding General, Marine Corps Combat Development Command, and Deputy Commandant, Combat Development and Integration, discussed his views and perspectives with NPS students, faculty and staff during a Secretary of the Navy Guest Lecture (SGL) in King Auditorium, April 18. (U.S. Navy photo by MC1 Lewis Hunsaker)

"Russia across the board has updated their capabilities and is operating in different places since the Cold War. No longer are they an embarrassed rusted Navy. They have completely changed and we can see that in operations," said Walsh. "Who would have thought they would have been launching surface-to-surface-missiles in the Caspian Sea? We wouldn't have even given that a thought a few years ago."

China could be the U.S.'s greatest threat as we project out 10 years, Walsh continued, due to the modernization of their military. "They are determined to undermine our alliances and develop anti-access capabilities," he said.

Walsh continued the discussion of his 4-plus-1 plan, discussing North Korea's unpredictability due to a mixing of intercontinental ballistic missiles and nuclear capabilities. He also noted Iran's role in creating friction throughout the Middle East.

The difficult question becomes, Walsh continued, how much does the U.S. put towards each of these threats?

"We view you as a key part of solving these problems, probably more so than you think," Walsh said. "One of the problems we have struggled with is deferred modernization ... There has been a lot of effort to work quickly and that is an area where your research will help us, and find ways to move faster."

"I'm confident that you will be able to take us to new levels, innovatively, within the academic world, with industry, and within the operating forces," he concluded.

Focus On ... Course Development

A Monthly Look at Names and Faces on Campus

With the help of several senior cyber program faculty, Cyber Academic Group (CAG) Associate Chair Sharon Runde is applying principles of Design Thinking to the development of a new course for university students. NPS is leading the creation of a full, four-section general cyber course to begin in summer 2017, in conjunction with the Naval War College and the U.S. Naval Academy.

NPS' CAG has been developing the pilot course that will deliver a

general cyber program to educate naval officers on the three primary domains of cyber – computation and data analytics; science and technology; and strategy, policy and ethics – integrating cyber awareness with their particular specialties. Chairs from each of NPS' four schools have pulled together a roster of leading experts within their pool of faculty to teach the new program set to begin this summer.

"The overarching goal is to provide cyber awareness, and to educate

officers on how to practice their profession in a cyber age while conducting safe cyber operations," said Runde.

NPS is leading the charge in getting the general cyber pilot course off the ground, and is all part of the Navy's effort to have its higher education network of schools on the same page with regard to cyber education. Officials leading the effort say NPS is on schedule to deliver the technically-focused curriculum.



Cyber Academic Group Associate Chair Sharon Runde

Any Day at NPS ...



The NPS enlisted staff take a command photo after completing a dress whites inspection near the Roman Plunge Reflecting Pool, April 21. (U.S. Navy photo by Javier Chagoya)



Dr. Brij Agrawal, left, and Dr. Jae Jun Kim, stand in front of their control moment gyroscope (CMG) test bed in Halligan Hall, April 13. The two Graduate School of Engineering and Applied Sciences faculty, along with Military Faculty member Air Force Col. Timothy Sands, were recently awarded a patent on a method to propel and maneuver satellites in a quick fluid motion using CMG technology. (U.S. Navy photo by MC2 Victoria Ochoa)



Dr. Ray Buettner, Director of the Consortium for Robotics and Unmanned Systems Education and Research (CRUSER), welcomes students, faculty, staff and guests to its annual Technical Continuum (TechCon) 2017 in Ingersoll Hall, April 11. CRUSER's yearly open forum seeks to broaden the awareness of NPS student, faculty research in robotics and unmanned systems both on campus and beyond. (U.S. Navy photo by MC1 Lewis Hunsaker)



Assistant Professor of Hebrew, Capt. Avner Even-Zohar from the Defense Language Institute (DLI) speaks to the audience during the annual Holocaust Remembrance Day ceremony in the Mechanical Engineering Auditorium, April 24. (U.S. Navy photo by MC2 Victoria Ochoa)



Royal Australian Navy Lt. Sam Crawford salutes a wreath honoring those who fell in the line of duty, during the ANZAC Day remembrance ceremony, April 25. (U.S. Navy photo by MC2 Michael Ehrlich)

STUDENT voice

U.S. Marine Corps Maj. Tom Kulisz, Chairman of the President's Student Council

Faculty and Fellow Students, Paul and I have truly enjoyed our time at the helm of the PSC and this month we are writing to ask for your help in finding our replacements to keep the momentum going and the quality of life improving. We will both be turning over our positions in June, but don't yet know who the students are that will take the lead for the next six-month term. Please reach out to us at tkulisz@nps.edu with any recommendations.

With May comes the rush of theses piling into the Thesis Processing Office, the Big Sur Marathon and countless other adventures. While you are embarking on those adventures, don't forget that our time, research, and effort at NPS goes well beyond the Calhoun server. We have the opportunity to work with industry leaders and top-level think tanks to help make NPS the DoD's top research and advanced learning institution not just for today's challenges, but for those of the future. Are you interested in getting out of your comfort zone and seeing what else is out there? Let us know! We would love to advocate on your behalf and make you wildly successful.

Our next meeting will be Tuesday, May 9, in Room 263A of the library; if you can't make it then reach out to your school reps and join us in June for our final meeting before the end of the quarter. As always, if you're interested in helping and want to represent your schools or departments, contact us and we will tie you in to the PSC. The more feedback we provide to the leadership, the better we can make our collective experience at NPS.

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On Campus this Month

ASIAN AMERICAN AND PACIFIC ISLANDER HERITAGE MONTH

May 5

Defense Energy Seminar,
Improving Sun Energy Harvesting
with Dr. Sherif Michael
1:00 p.m. in M.E. Auditorium

May 10

Naval Research Program Brown Bag
12:00 p.m. in Reed Hall, room 103

May 15-19

JIFX 17-3
Camp Roberts, Calif.

May 18

Secretary of the Navy Guest Lecture
with Gen. John E. Hyte, USAF
3:00 p.m. in King Auditorium

May 19

Defense Energy Seminar,
The Electric Grid Part I
with Dr Merwin Brown
1:00 p.m. in M.E. Auditorium

May 29

Memorial Day

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Historical Highlights

RESUME OF GARY ARLEN KILDALL

Gary A. Kildall was born in Seattle, Washington, on 19 May 1942. He attended the University of Washington in Seattle where he majored in mathematics. He received the degree of Bachelor of Science in June 1967.

He attended Officer Candidate School in Newport, Rhode Island, and was commissioned in August 1967. He received a delay in reporting for active duty to pursue graduate study.

Remaining at the University of Washington, he did research in areas of computer science, including artificial intelligence, information retrieval, compiler design, and operating systems design. He received the degree of Master of Science in Computer Science in December 1968.

In January 1969 he reported for active duty at the Naval Postgraduate School, Monterey, California, where he taught in the Department of Mathematics.

Upon release from active duty in January 1972 he returned to the University of Washington where he received the degree of Doctor of Philosophy in June 1972. His research in the area of compiler code optimization was under the direction of Professor Hellmut Golde.

In March 1972 he joined the faculty of the Mathematics Department of the Naval Postgraduate School, Monterey, California. He is presently teaching in the Computer Science Group. His current research is in micro-computer organization and applications.

He is a member of the Association for Computing Machinery.



Historical Highlights are provided by the Dudley Knox Library.