National Nuclear Security Administration | Graduate Fellowship Program

ANNUAL REPORT 2022–2023



CLASS OF 2022-2023







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Row 1: Kavough Jernigan, Tristan Skupniewitz, Zach Boykin, Chet Haner, John Lambert, Jon Christian, Chad Ummel. Row 2: Kevin Heaney, Poppy Cox, Samantha Groskritz, Ashley Raster, Marlon Gant, Emmett Armour, Katie Wernke, Francheska Colón-González, Stephanie Miller, Alexis Schlotterback.
Row 3: Sydney Long, Kyle Sallee, Christian Hedge, Brooke Guenther, Kurt Housh, Stephanie (Chinazor) Azubike, Paulina Keim, Emily Morley, Omar Castillo, Ben Lee, Cassara Higgins, Hana Livingston.
Row 4: Abigail Eineman, Susana Herrera, Rayanne Fujimoto, Jenna Gardner, James Foster, Bego Aranguren Barrado, Craig Clark, Jose Veleta, Luis Vidana, Katherine Carson-Seevers, Rebecca Copeland, Victoria Ontiveros, Aritztbe Valladolid, Rebecca Mueller. Row 5: Jax Klein, Jarrett Fisher, Monica Lemmon, Ashley Pica, Caleb Yip, Ethan Boado, Anishka Khosla, Joed Ngangmeni, Ron Koshita, Gregory Wiatrek, Natasha Barqawi, Paige Reed, Jade Fortiner

Table of Contents

P	Message from NNSA Leadership	04
	Executive Summary	05
	Overview	06
	Methodology	11
	Results	14
	Mission Impact	18
	Conclusion	28
NGFP Cla	ss of 2022–2023 By the Numbers	35
Class	of 2022–2023 Fellow Biographies	36

Acronyms

ALCP	Aspiring Leader Certificate Program		
DEIA	Diversity, Equity, Inclusion, and Accessibility		
DNN	Defense Nuclear Nonproliferation		
DP	Defense Programs		
DOE	Department of Energy		
DOS	Department of State		
IAEA	International Atomic Energy Agency		
MSI	Minority Serving Institution		
MSIIP	Minority Serving Institutions Internship Program		
NGFP	NNSA Graduate Fellowship Program		
NNSA	National Nuclear Security Administration		
NSE	Nuclear Security Enterprise		
PNNL	Pacific Northwest National Laboratory		
SSMP	Stockpile Stewardship and Management Plan		
STEM	Science, Technology, Engineering, and Mathematics		

Welcome: A Message from NNSA Leadership



Jennifer Kline Chief Learning Officer National Nuclear Security Administration

At the Department of Energy (DOE) National Nuclear Security Administration (NNSA), our people are our number one asset. We are committed to developing an inclusive professional workforce to protect our nation. The NNSA Graduate Fellowship Program (NGFP) hires, trains, and retains the next generation of diverse and talented, high-potential professionals to maintain the NNSA mission.

For over 25 years, we have been building future NNSA and national security leaders. Since its humble beginnings of three fellows to today's ~60 fellows per year, NGFP has become an institutional talent pipeline and leadership continuum for the Nuclear Security Enterprise (NSE).

In this report, you will read about the Class of 2022– 2023 and their accomplishments. The cohort, which started with 62 fellows, featured 52 fellows from 35 leading universities who served in program, functional, and field offices across our organization and the Department of State (DOS). To secure this team of diverse future leaders, we met with universities, including minority serving institutions (MSIs), student organizations, and affinity groups, to foster an inclusive, engaged, and highly skilled workforce for our nation's security. Our outreach team connected with 68 university partners and hosted 79 in-person and virtual events to attract this diverse and talented pool of candidates.

During their one-year assignments, the fellows learned from experts across the NSE and made valuable programmatic contributions to some of our key efforts, including the following:

• Participating in the Stockpile Stewardship Management Plan (SSMP)—one of our high-profile annual deliverables;

- Providing technical and policy expertise to deliver programmatic mission impact to their offices and international stakeholders;
- Assisting with critical decision, readiness, and project management reviews to advance key projects;
- Advancing innovative approaches and technologies to tackle issues of national importance; and
- Seeking mentorship and career advice from experts across the NSE.

This year, our fellows returned to more in-person engagements, including our first in-person orientation and closing ceremony since 2019, while still connecting with our offices remotely and attending virtual trainings and professional development events where appropriate. Upon completing their fellowships in June 2023, the majority of the class took position with ties to national security, including 23 fellows (44%) who joined our NNSA team as federal employees and an additional 48% of the class who remained within the NSE and National Security Sector (DOS, contractors, etc.). This remains a positive trend in our programmatic outputs, with more than 85% of our 700-plus alumni having exited our fellowship into positions with ties to national security. That is our commitment to the mission!

We hope you find this year's report an informative showcase of how NGFP pursues the valuable mission to build future leaders for nuclear security. Through this program, we keep our top asset—our people—as cutting-edge as our technical solutions. Our fellows' commitment to grow and serve as future leaders reinvigorates our enterprise with agility and diversity. I would like to thank you and all our participants for your support and commitment to serve and uphold the values of this long-standing program.

Executive Summary

For 28 years, NGFP has hired highly motivated graduate and doctoral students to grow as future leaders for NNSA. This annual report showcases activities for the Class of 2022–2023, from outreach in spring of 2021 through assignments that ended in June 2023. Highlights of these activities follow.

Outreach. From a pool of more than 200 applicants, NNSA and DOS personnel selected nearly 140 candidates and conducted approximately 400 virtual interviews.

Future Leaders. The final class featured 52 master's and doctoral-level students with diverse technical and policy backgrounds from 35 different universities. Detailed fellow biographies are available at the end of this report.

Mission Impact. The fellows were placed with 11 different NNSA program, functional, and field offices, plus DOS. There, they gained hands-on experience contributing to technical and policy mission needs, including the following:

- Supported technical exchanges, strategic initiatives, and collaboration with our national security stakeholders both locally and abroad;
- Developed important communications for NNSA leaders including briefing materials, press releases, and correspondence;
- Participated in working groups for Emergency Preparedness and Response, Production Acceleration, Electronics, Gloveboxes, and Forensics Engagement;
- Joined the NNSA Diversity, Equity, Inclusion, and Accessibility efforts;
- Provided technical assistance and oversight support for Los Alamos, Savannah River, and Sandia National Laboratories; and
- Aided in life cycle cost estimates, technical assessments, and important acquisition and project management tasks.

Leadership and Professional Development. Fellows connected virtually and in person with national security counterparts around the world for training, networking, and professional development. **Lasting Commitment.** Approximately 44% of the class accepted federal offers with NNSA, and an additional 48% accepted positions with ties to national security. The Alumni Spotlight at the end of this report also highlights notable alumni who have gone on to serve NNSA, national security, and STEM (science, technology, engineering, and mathematics) missions.





Nuclear Security Enterprise NNSA Other National Security Sector

Class of 2022–2023 Post-Fellowship Employment. Upon completing the fellowship program, over 90% of the fellows pursued employment with ties to national security. In this graph, NNSA represents federal hires; Nuclear Security Enterprise represents fellows hired by DOE, national laboratories, and DOE/NNSA contractors; National Security Sector represents fellows who accepted employment with other national security stakeholders such as DOS; and Other represents fellows who returned to academia or whose employment was unavailable at the time of publication.

To learn more about NGFP or to view this report online visit our website: http://www.pnnl.gov/projects/NGFP

Overview

As a centerpiece of its future leadership strategy, NNSA sponsors and funds NGFP. The program is administered by Pacific Northwest National Laboratory (PNNL), a DOE national laboratory that has successfully administered this program for more than 20 years.

As a model program within NNSA, NGFP identifies and develops exceptional future leaders through a best-inclass program management approach designed to:

- Hire exceptional graduate and doctoral students from universities nationwide,
- Transform and develop students into future leaders to advance NNSA and national security missions, and
- Provide an agile approach to meet dynamic NNSA needs.

Evolution

Since the program's inception in 1995, the demand for fellows has evolved with NNSA's increasing need for leading-edge talent in diverse mission spaces. The program has grown from three fellows in the inaugural class to 52 fellows completing the program in 2023. Launched originally to serve NNSA's Defense Nuclear Nonproliferation (DNN) mission, the program now spans the NSE, placing fellows within DNN; Defense Programs (DP); Counterterrorism and Counterproliferation; Safety, Infrastructure, and Operations; NNSA's site offices; and the DOS.





NGFP Class Size at Completion of the Fellowship. The program has grown from three fellows in 1995 to 52 fellows completing the program in 2023.



History of NGFP. Over the years, the demand for fellows has evolved with NNSA's increasing need for leading-edge talent in diverse mission spaces.

Operations

Along with general program growth, fellows' opportunities for professional growth and leadership development have evolved as well. The annual training, networking, and development agenda has expanded to include a standard suite of opportunities, including the Aspiring Leader Certificate Program (ALCP) provided to all fellows, as well as unique fellow- or office-specific trainings made possible with fellows' allotted travel and training funds. Each year, fellows continue to find exciting new ways to build their skillsets to best serve their office and individual development goals.



Organization

NGFP is managed by NNSA's Office of Management and Budget (blue boxes) and administered by PNNL (gold boxes), with roles shown in the organizational chart. Roles do not represent full-time equivalents.



Life Cycle

NGFP's annual life cycle involves simultaneous planning, administering, and implementing three different fellowship classes: administering the **current class** of fellows, conducting outreach for the **next class**, and planning for the **future class**.



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This fellowship has been everything I hoped it would be and more. I was able to get hands-on experience tackling the most critical national security issues facing the U.S. today with amazing mentors while growing my professional skills and leadership experience. This fellowship has launched my career in export controls.

---Rebecca Copeland, NA-242 Office of Nuclear Export Controls

Responsibilities

The NNSA NGFP Federal Program Manager and PNNL NGFP Program Manager share a unified, best-in-class approach based on a joint vision and framework organized into five program elements, as shown below.

Program Overseeing all aspects of the program, including the budget, strategy, stakeholder engagement, implementation, evaluation, issue resolution, improvements, and reporting. Management Developing and implementing an outreach strategy to meet program objectives. This includes conducting an annual NNSA fellow needs assessment, partnering with universities and professional Outreach associations for outreach, working closely with prospective candidates to facilitate the application process, and maintaining the online application system. Selection Preparing applications, coordinating interviews, onboarding fellows, and processing fellows' security clearance applications. and Hiring Orientation Conducting extensive orientation and leadership development activities to prepare fellows for and Training their assignments and roles in the federal environment. Introducing fellows to career growth opportunities through interactive sessions with professionals Career in the nuclear security field. Development

Program Responsibilities

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The NGFP fellowship gave me incredible access and insight to the Nuclear Security Enterprise. Through this experience I gained the skills and connections necessary to grow my career. As a result, I feel incredibly motivated to join a national laboratory and seek leadership opportunities."

-Ethan Boado, NA-22 Defense Nuclear Nonproliferation Research and Development

Methodology

NGFP conducted outreach to universities nationwide to connect with eligible students interested in nuclear security technology and policy careers.

Outreach

For the Class of 2022–2023, NGFP sought to attract a quality pool of candidates for a targeted class size of 65 fellows. University Relationship Managers (URMs) executed 79 in-person and virtual events with 68 university partners, including 20 MSIs.

In addition to the events with university partners, NGFP hosted six general information sessions open to all universities, two sessions targeted toward MSI students, and two panel events showcasing the day-to-day work of NGFP fellows. The outreach team advertised the fellow-ship through a variety of online university job boards,

resulting in over 420 university postings on Handshake, with additional on other commonly used platforms such as Symplicity, GradLeaders, and 12twenty. In addition, the outreach team hosted six virtual information sessions to promote the fellowship to students from non-partner universities and to respond to questions from interested applicants.

To expand outreach, diversity, and inclusion efforts, URMs engaged with university faculty and staff and leveraged student organizations and affinity groups to boost event attendance. Student groups included the Society for Hispanic Professional Engineers, the Society of Women Engineers, and the National Society of Black Engineers. NGFP staff also participated in the American Nuclear Society Student Conference, the National Society for Black Engineers Annual Conference, and the Women of Color Advancing Peace and Security Conference.

Join Our Outreach Team!

Would you like to promote NGFP to your alma mater or organization? NGFP has launched the NGFP Ambassadors initiative, open to all alumni and program stakeholders. NGFP Ambassadors utilize personal and professional networks to help grow awareness of the program and encourage future leaders to apply. To make it easy, Ambassadors have access to exclusive resources and training to help effectively communicate the value of the program to potential applicants. Best of all, by sharing your passion for the NGFP, you will help us continue to identify and develop the top talent needed to tackle our nation's critical security missions. So, what are you waiting for? Sign up today to become an NGFP Ambassador and help shape the future of national security leadership: current and past fellows and other stakeholders.



The majority of applicants hailed from areas near NNSA and DOE sites.

Applicants

A total of 201 students completed applications. The greatest number of applications came from states near locations home to an NNSA or DOE office or laboratory, including the Washington DC area, Texas, and California.

Policy-focused applicants (political science, public/ international policy, etc.) comprised the largest percentage of the applicant pool at 63%. Technical students comprised the next largest percentage of the applicant pool, with 27% of applicants holding technical (STEM) degrees. Multidisciplinary applicants (those with both a technical and policy degree in their educational history) totaled 4% of the applicant pool. The 6% Other category included degrees not categorized in the previous definitions, such as Juris Doctor or Business Administration.



Candidate Selections

Ultimately, NNSA and DOS personnel selected nearly 140 candidates and conducted approximately 400 virtual interviews over two weeks. Offers were extended to candidates in December for positions that began in June 2022.

Commitment to Diversity, Inclusion, Equity, and Accessibility



In establishing the Class of 2022–2023, NGFP remained committed to building a diverse, engaged, and highly skilled workforce in STEM, policy, and project management fields fit to serve NNSA's complex nuclear security missions.

The program evolved its strategy to reach more diverse student populations and build its reputation and relationships in new communities, professional societies, and student groups. This effort focused on fostering relationships with MSIs to build awareness of the fellowship in communities that were historically overlooked in the program's outreach and building stronger relationships with academic advisors and students. To that end, the Class of 2022–2023 was one of the most diverse classes in NGFP history, with 40% of the fellows identifying as minorities and 58% identifying as female.

Fellows also have an important role in NNSA's Diversity, Equity, Inclusion, and Accessibility (DEIA) efforts. For example, fellow Kyle Sallee joined NNSA's DEIA Council. The council works to enhance NNSA's DEIA to new and continuing NNSA employees. Kyle participated in the DEIA Council's Working Groups, including Employee Experience and Culture, Retention and Career Advancement, and Recruitment and Hiring. Additionally, several fellows and alumni were featured in NNSA DEIA spotlights throughout the year. See the Alumni Spotlight at the end of this report for details.



The quality of a product is the only determining factor of worth. The only thing keeping us safe is the quality put in.

---Craig Clark, NA-LA Mission Assurance and Infrastructure

Results

Through a proven outreach, interview, and selection process, NNSA and DOS hiring managers handselected the Class of 2022–2023. Highlights from the fellows selected for this class included the following:

- Graduate degrees completed or in pursuit at 35 universities with advanced degrees spanning the technology and policy spectrum, including 17 doctoral candidates.
- Assignments spanning 11 different program, functional, and field offices across NNSA, plus DOS.
- Language skills in Russian, Spanish, French, Japanese, German, Polish, Korean, and Chinese.
- Previous experience with the Departments of Energy, Defense, Justice, State, and Veterans Affairs; and the Argonne, Brookhaven, Idaho, Lawrence Livermore, Los Alamos, Oak Ridge, and Pacific Northwest national laboratories.



Fellow Universities

The Class of 2022–2023 had 40% of its fellows with a technical background and 58% with a policy background.

The table below highlights fellows' universities and the number of fellows hired from each. Partner universities are shown in bold; MSIs are italicized. Of the fellows hired, a majority originated from partner universities. This further highlights the value of NGFP's continued relationships with faculty, advisors, staff, and students, and the importance of information sessions to educate and prepare applicants for program requirements, interviews, and selection.

UNIVERSITY	FELLOWS
American University	5
California State University, Fullerton	1
Clemson University	2
Colorado State University	1
Emory University	1
Florida International University	1
George Washington University	1
Georgetown University	4
Harvard Kennedy School	2
Howard University	1
Indiana University	1
Johns Hopkins School of Advanced International Studies	4
Kennesaw State University	1
Middlebury Institute of International Studies at Monterey	1
Missouri State University	1
North Carolina Agricultural State University	1
Rutger's University	1
Texas A&M University	1
Texas Tech University	1
Tulane University	1
University of Arizona	1
University of California, Berkley	1
University of Denver	2
University of Georgia	2
University of Idaho	1
University of Michigan	2
University of Missouri at Columbia	1
University of Nevada, Las Vegas	1
University of North Carolina, Greensboro	1
University of Notre Dame	1
University of Puerto Rico	1
University of Texas at El Paso	1
University of Virginia	2
University of Washington	1
Virginia Tech University	2

Leadership and Professional Development

With many pandemic-era restrictions eased, operations for the Class of 2022–2023 included a mix of in-person and virtual operations, allowing fellows to deliver meaningful programmatic contributions to their offices across the NNSA enterprise.

Orientation

In June 2022, fellows attended the first in-person orientation since 2019. Orientation was held at the PNNL campus in Richland, WA, for one week with opportunities for fellows to learn about basic program operations, roles, and responsibilities, policies and procedures, and expectations of the fellowship. Fellows also attended individual sessions with their team leads who shared best practices for succeeding in the fellowship. During the event, fellows toured the Laser Interferometer Gravitational-Wave Observatory, a national facility for gravitational-wave research, and participated in handson radiological detection training at the HAMMER facility.



During orientation, fellows participated in hands-on radiation detection training at the HAMMER training facility.

After the Richland orientation, fellows participated in site-specific, in-person onboarding activities. They had virtual sessions with NNSA managers and mentors to learn more about NNSA's mission, operations, and organization. Fellows also attended panels with program alumni, who shared their firsthand NGFP experiences. The sessions included a series of alumni panels where former fellows shared insights for navigating the fellowship and the NSE. Panels and panelists included:

- Recent Fellowship Perspectives: Class of 2021– 2022 alumni Solomon Greene, Yoojin Park, and Corinne Kuebler
- Mid-Career Perspectives: Andrew Brown (Class of 2015–2016), Jennifer Ward (Class of 2017–2018), and Taissa Sobolev (Class of 2010–2011)
- Careers within the Nuclear Security Enterprise: Douglas Dyer (Class of 2004–2005), Mark Walker (Class of 2018–2019), and Jessica Lillo (Class of 2015–2016)



During virtual orientation sessions, fellows connected with a range of NNSA personnel and alumni.

Trainings, Workshops, and Conferences

Fellows coordinated deliverables and participation in key events such as the:

- Annual Nuclear Deterrence Summit
- International Atomic Energy Agency (IAEA) General Conference
- Waste Management Symposia
- International CBRN (Chemical, Biological, Radiological and Nuclear) Safety and Security Conference
- Carnegie International Nuclear Policy Conference.

Fellows also bolstered their skills and networks through conferences, training, and other opportunities like:

- Participation in professional organizations like the Project on Nuclear Issues, World Institute for Nuclear Security, Institute of Nuclear Materials Management, and Health Physics Society;
- Travel around the world to over 35 countries;

- Completion of foreign language training in Arabic, Chinese, and Russian as well as Plain Language training;
- Certification in Project Management Professional and Six Sigma programs; and
- A wealth of leadership development trainings available through the NNSA Learning Nucleus.

Aspiring Leader Certificate Program

In the fall, fellows began their participation in NNSA's ALCP with sessions focused on building leadership and trust skills. ALCP is a year-long program that provides fellows foundational exposure to leadership skills and competencies essential for individual and organizational success. This structured program engages participants in a variety of learning activities that include virtual and classroom training, development opportunities, senior leader interviews, and shadow assignments that will prepare fellows to continue to add value to their organization and the success of the federal workforce. During the event, fellows participated in a leadership question and answer session with Under Secretary for Nuclear Security and NNSA Administrator Jill Hruby and Principal Deputy Administrator Frank Rose.



The Aspiring Leader Certificate Program brought fellows together in a structured approach to focus on growth and development.

National Security Enterprise Event

Fellows attended the National Security Enterprise event, which included tours of the DOS, Remote Sensing Laboratory, and Capitol building; leadership panels with program alumni; and briefings on nuclear science, Congress, and the federal budget.

Throughout the year, fellows also participated in diverse learning and development sessions with national security stakeholders, including:

- A series of virtual information sessions providing an in-depth introduction to NNSA offices and other program stakeholders. The sessions included a series of alumni panels where former fellows shared insights for navigating the fellowship and the NSE.
- A panel with students from Stanford's Honors College and Rose Gottemoeller, former Under Secretary for Arms Control and International Security at the DOS, to share about NGFP and their experience in the fellowship. Fellows also attended a lunch and learn with Steve Amundson, from the International Safeguards Project Office at Brookhaven National Laboratory, to learn about opportunities at the IAEA.
- An information session with NGFP alum Angelina Loverde (Class of 2017–2018) who shared her experience and career journey with NNSA, from DNN to the Office of Management and Budget.



Throughout the fellowship year, fellows attended various engagements with leaders from across the national security community.

Career Development Events

The fellows participated in several career development events during the fellowship to prepare them with the skills and perspectives needed to pursue their postfellowship career. In October, fellows participated in the Federal Hiring Seminar, a new event that focused on guidance and skills needed to prepare for the NNSA federal hiring process. The seminar included sessions on navigating USAJobs and resumé writing with Nancy Segal from Solutions for the Workplace, LLC, as well as briefings on federal benefits and other topics of interest with NNSA Human Resources. The seminar also included a panel discussion on federal career benefits with NGFP alumni Gregory Jack (Class of 2021–2022), Alexander Godinez-Robinson (Class of 2019–2020), and Annelise Atkinson (Class of 2019–2020), during which the panelists discussed their experience navigating the federal hiring process and pursuing their post-fellowship careers.

In January, the program hosted a suite of career development activities to help fellows prepare for the next phase in their fellowship journey. Activities included:

- One-on-one consultations with PNNL Human Resources consultants Emily Denslow and Timothy Babcock, who provided fellows feedback on their resumés, interview skills, and LinkedIn profiles.
- Career mapping with PNNL's Leesa Duckworth and Matthew Taubman. Career mapping uses an agile process to guide fellows through experiential exploration of their career aspirations.

In February 2023, fellows attended the annual Career Development Workshop and Career Fair in Washington, DC. The events were designed to help fellows connect with leaders from across the NSE and gain career advice for succeeding in the field of national security.

The Career Development Workshop also featured a suite of presentations and panels about navigating, negotiating, and networking in national security, including:

- "Selecting Your Path in the Nuclear Security Enterprise" with alumni Jessica McNutt (Class of 2013–2014), Jere Freeh (Class of 2016–2017), and Zachary Diamond (Class of 2021–2022).
- Negotiation seminar with NGFP Program Manager and Class of 2015–2016 alum Tom Gray.
- Networking with PNNL's Matthew Taubman, physicist and staff development specialist.
- "How to Make the Most out of a Career Fair" with Simón Arias (Class of 2019–2020).

The two-day event culminated in the NGFP Career Fair, which welcomed representatives from federal government, contractors, national laboratories, and nongovernmental organizations to connect with fellows about potential employment opportunities. Fellows participated in speed networking and individual interviews. The event connected over 40 fellows and nearly 30 employers from across the national security community.



The NGFP Career Fair connected over 40 fellows with nearly 30 employers from across the national security community.

Closing Ceremony and Alumni Reception

To honor the Class of 2022–2023, the program held a closing ceremony and alumni reception that welcomed nearly 400 participants. The first in-person closing ceremony since 2019, the event convened fellows, their supervisors, and alumni from across the enterprise. During the event, fellows spoke about their experience in the program and shared posters showcasing their assignments. Key speakers included NNSA's Associate Administrator for Management and Budget Frank Lowery, Chief Learning Officer Jennifer Kline, Administrator Jill Hruby, and PNNL Chief Human Resources Officer April Castañeda. With this class, the NGFP alumni network totals more than 700 spanning the NNSA and broader national security community.



The Class of 2022–2023 closing ceremony and alumni reception welcomed nearly 400 participants.

Mission Impact

Fellows delivered meaningful programmatic contributions to their offices across the NNSA enterprise. Fellows used their allotted travel and training funds to participate in virtual and in-person events, trainings, and international meetings with their offices.

The following are highlights from fellows' assignments. For more information, see the fellows' posters from the closing ceremony, which are available online at https://bit.ly/43bAP1I.

Begona Aranguren Barrado, NA-241 Office of Inter*national Nuclear Safeguards,* assisted her office on the Advanced Reactor International Safeguards Engagement program and the Safeguards Technology Development Program by executing program management tasks, planning, and technical reviews.

Emmett Armour, NA-ESH-11 Packaging and Transpor*tation Division,* worked on the recertification of old containers that are in use and the certification of new containers that are coming online to ensure that both the old and new containers are safe for transporting hazardous materials.



Chinazor Azubike, NA-195 Office of Secondary Stage Production Modernization, Lithium Modernization, worked on projects directly supporting the Lithium Team, such as writing the FY 2023 Stockpile Stewardship and Management Plan, standing up lithium-specific technology one-pagers, and creating weekly leadership read-out reports.



Natasha Barqawi, NA-212 Office of Radiological Security - International, worked on projects focused on reducing the global reliance on high-activity radioactive sources through the promotion of viable nonradioisotopic alternative technologies.

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This fellowship taught me that prior knowledge of nuclear weapons is not a prerequisite to work at NNSA anyone can succeed here."

> ---Chester Haner, NA-183 Office of Systems Engineering and Integration

Ethan Boado, NA-22 DNN Research and Development, supported a variety of oversight activities with an emphasis on NA-22's Near-Field Detection, Emergency Response, and Weaponization Detection portfolios, including collaborating with project leaders, joining independent assessments, and giving inputs on project updates.



Zach Boykin, NA-193 High Explosives and Energetics Program, worked alongside the Environmental Protection Agency and NNSA sites to address the use of open burning and open detonation of DOE waste. **Omar Castillo, NA-122.1 Stockpile Services Division,** supported the completion of complex assignments related to stockpile planning, sustainment, and security activities.



Jon Christian, DOS ISN/CTR U.S. Department of State, Bureau of International Security and Nonproliferation, Office of Cooperative Threat Reduction, through the Foundational Infrastructure for Responsible Use of Small Modular Reactor Technology program, oversaw bilateral and multilateral programmatic activities between the United States and partner countries to help partners fight climate change and meet their energy needs.





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The NGFP fellowship has been an insightful and wonderful opportunity. Being part of the Nuclear Security Enterprise with my office allowed me to experience firsthand the impact of the world coming together for the common goal of safety and security.

----Natasha Barqawi, NA-212 Office of Radiological Security -- International

Francheska Colón-González, NA-233 Office of Material Disposition, worked on development of a user-friendly measurement and tracking system in which tactics, actions, and dates can be easily accessed through a dashboard and that assists the office in identifying personnel requirements.



Rebecca Copeland, NA-242 Office of Nuclear Export Controls, supported her office's mission in a variety of ways including providing policy and technical analysis to export control licensing reviews, participating in weekly interagency meetings on licensing cases and escalations, and creating briefing materials and research for international regime work and National Security Council meetings.

Poppy Cox, NA-234 Office of Nonproliferation Con*struction and Program Analysis,* worked on various projects supporting the Program Support team and joined the Mobile Packaging team on an exercise.



Abigail Eineman, NA-23 Office of Material Management and Minimization, supported the office's mission by facilitating new initiatives on surplus plutonium disposition and highly enriched uranium minimization in a partner country.



Jarret Fisher, NA-20 DNN Front Office (Office of the Deputy Administrator), served as control officer for the U.S. head of delegation for the India Global Centre for Nuclear Energy Partnership during the 8th Joint Working Group meeting in New Delhi, India.



Jade Fortiner, NA-10 Office of Defense Programs, developed communications materials and managed the NA-19 Office of Production Modernization portfolio.



James Foster, *NA-ESH-23 Office of Worker Safety and Health Services*, assisted the health physicists in NA-ESH-23 on radiation protection assessments at several sites.



Marlon Gant, NA-MB-42 Office of Management and Budget, worked on knowledge preservation efforts under the Technical Qualification Program to initiate technical knowledge capture and transfer, including co-developing two websites that displayed resources on technical areas of interest and archives of historical documents.



Jenna Gardner, NA-81 Office of Nuclear Incident Policy and Cooperation, developed an exercise that focuses on increasing understanding of different types of threats that include the use of radiological/nuclear materials and the assets essential to responding to this type of emergency within NNSA and interagency partners.



Samantha Groskritz, NA-195 DU Office of Secondary Stage Production Modernization – Depleted Uranium Modernization, supported projects such as writing the FY 2023 Stockpile Stewardship and Management Plan, updating the DU Mission Strategy, and creating manufacturing briefs.



Brooke Guenther, NA-CI Congressional and Intergov*ernmental Affairs,* assisted on over 20 communications plans as a liaison between NA-CI/PA, NNSA Program Offices, and Field Offices, organizing the rollout of notifications to congressional, tribal, state, and local stakeholders, as well as the public and media.



Chester Haner, NA-183 Office of Systems Engineering *and Integration,* served as program manager for the Committee on Foreign Investment in the U.S. for NNSA Defense Programs, working with laboratories, plants, and sites to mitigate the impact of foreign investments on strategic national interests.



Haley Harrison, NA-MB-92 Office of Analysis and

Evaluation, supported Analysis of Alternatives projects valued at over \$100 million and explored ways to incorporate equity and environmental justice through meaningful metrics for the Analysis of Alternatives process.

Kevin Heaney, NA-1.1 Office of Policy and Strategic Planning and NA-81 Office of Nuclear Incident Policy and Cooperation, supported efforts to reengage with Kazakhstan on nuclear/radiological emergency preparedness and response, including preparing a joint statement that was signed by Administrator Hruby and visiting Kazakhstan to engage with government and nongovernmental partners on emergency response capacity building.



Christian Hedge, NA-MB-812 Weapons Activities Resource Managers Matrix, worked to meticulously edit budget narratives for Defense Programs priorities from across the enterprise.



Susana Herrera, NA-LL Livermore Field Office, worked on the synthesis and characterization of actinide particle feedstocks for additively manufactured analytical standards and nuclear reaction targets and on developing advanced manufacturing of Galfenol doped with rareearth elements with high magnetostriction properties.



Cassara Higgins, NA-NV Nevada Field Office, worked with fire protection subject matter experts at the Nevada Field Office to evaluate the proposed fire suppression systems for existing and new subcritical experiments at the U1a Complex.



Kurt Housh, NA-212 Office of Radiological Security – Domestic, supported domestic efforts to reduce the use of radioactive source-based devices and associated risks of radiological terrorism.



Kavough Jernigan, NA-911 Office of Infrastructure Planning and Integration, liaised with personnel from across the enterprise to support development of the annual facilities disposition report that is sent to Congress.



Paulina Keim, NA-192 DUE Tritium and Domestic Uranium Enrichment Program Office, represented NA-192 at NNSA-wide Integrated Planning Group meetings at Y-12, Livermore, and the Savannah River Site.



Anishka Khosla, NA-24 Office of Nonproliferation and Arms Control, addressed inquiries and issues related to international nuclear safeguards, nuclear export controls, nuclear verification, and nonproliferation policy from a variety of sources including senior leaders, U.S. Congress, media, and the broader U.S. interagency.



Jax Klein, NA-21 Office of Global Material Security,

supported the Office of Global Material Security front office as an action officer and primarily worked on the multilateral, China, Russia, and Ukraine portfolios.



Ron Koshita, NA-114 Office of Advanced Simulation and Computing and Institutional and Research and Development, worked with another fellow on a white paper discussing the intersection of artificial intelligence/ machine learning and nuclear physics as a literature review and glossary of technical terms that could provide beginners with introductory material.



John Lambert, NA-122.2 Office of Stockpile Sustain-

ment, provided program analysis for weapon alteration programs and program initiatives to improve security for over-the-road weapon transportation and coordinated with experts to identify the resources required to support stockpile programs.

Benjamin Lee, NA-213 Office of Nuclear Smuggling Detection and Deterrence, assisted foreign affairs specialists to oversee program activities including relationship management, project management, equipment deployment, testing and acceptance, and capacity building for partner countries in Indo-Pacific Asia and the Balkans.



Monica Lemmon, NA-84 Office of Nuclear Incident Response, Consequence Management, helped the technical advisor identify research and development priorities that align with the future goals of the consequence management program.



Sydney Long, NA-LA Los Alamos Field Office, helped administer the Advanced Recovery and Integrated Extraction System Program and participated in key trainings such as the U.S. Nuclear Detonation Detection System Orientation and the 151st Nuclear Nonproliferation Workshop.



Erin McLaughlin, NA-211 Office of International Nuclear Security, supported the planning of and attended the first in-person INFCIRC/908 International Working Group steering committee meeting, held in Brussels, Belgium, and will continue to support the planning team in carrying out various events and meetings leading up to the 2024 International Symposium on Insider Threat Mitigation.



Stephanie Miller, NA-10.1 Office of Strategic Partner*ship Programs,* helped publish a calendar that highlights key technology transfer accomplishments at the national laboratories, plants, and sites.

Emily Morley, NA-213 Office of Nuclear Smuggling Detection and Deterrence, worked with country managers on capacity-building projects in Tajikistan, Uzbekistan, Bulgaria, Estonia, and the Philippines, and supported international nuclear forensics engagements with the Investigation Support team.



Rebecca Mueller, NA-125.4 W87-1 Modification Pro*gram,* supported the Nuclear Integrated Project teams to aid in maintaining the nuclear deterrent of the United States as the aging American nuclear stockpile is modernized and updated.



Joed Ngangmeni, NA-114 Office of Advanced Simulation and Computing, wrote a white paper with another fellow on generalizing artificial intelligence/machine learning and physics terms to help introduce people to the technical concepts they need related to the mission space. Victoria Ontiveros, NA-242 Office of Nuclear Export

Controls, supported the development and implementation of the International Nonproliferation Export Controls Program's international engagements with foreign partners.



Sam Potier, NA-MB-92 Office of Analysis and Evaluation, assisted with multiple cost estimates, planning studies, and other technical projects and participated in site visits to Los Alamos National Laboratory, Sandia National Laboratories, and the Nevada National Security Site.

Paige Reed, NA-191 Plutonium Program Office, established and led the Savannah River Plutonium Processing Facility Program Acceleration Working Group, which developed a schedule for the first production unit and processed development plans for the high-fidelity training and operations center.



Kyle Sallee, NA-231 Office of Conversion, supported the international conversion portfolio, engaging with experts from the national laboratory system and international partners in Europe and Asia.



Alexis Schlotterback, NA-19 Office of Production Modernization, aided NA-19 leadership by interfacing with program directors, managing the daily prep book, and compiling talking points for high-level meetings with the laboratories, plants, and sites.



Tristan Skupniewitz, NA-MB-82 Management and Budget for DNN, liaised with the Office of Emergency Operations and the Office of Counterterrorism and Counterproliferation to provide budgetary assistance to enable satisfactory outcomes for program work.



Chad Ummel, NA-113 Office of Experimental Sciences, led a project identifying diagnostic components experiencing (or at risk of) supply chain issues at the nation's three inertial confinement fusion facilities.



Jose Veleta, NA-22 DNN Research and Development, supported federal program managers and technical advisors with technical expertise, especially in the Nuclear Forensics and Warhead Verification and Monitoring portfolios.



Luis Vidana, NA-90 Office of Infrastructure, assisted the Acting Director for Infrastructure Modernization Division on the NNSA Albuquerque Complex Project, which sought to replace outdated facilities and collocate 1,200 NNSA employees and contractors. Kathryn Wernke, NA-10.2 Office of Defense Programs, International Programs, worked on projects related to the U.S./UK mutual defense agreements, the U.S.-NATO ATOMAL Agreement, and export control questions on Defense Programs technology and export content.



Gregory Wiatrek, NA-10 Office of Defense Programs, conducted various vendor analyses, identifying risks and opportunities to ensure NNSA maintained a reliable stockpile supply chain.



Caleb Yip, NA-10 Office of Defense Programs, supported senior Defense Programs leadership by assigning and tracking hundreds of correspondence items on eDOCS, including reports to Congress, Nuclear Weapons Council vote packages, and interagency communications as an action officer for the NA-10 front office.

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This fellowship has given me the opportunity to work alongside passionate and driven leaders who all stand behind a vital mission.

-Zach Boykin, NA-193 High Explosives and Energetics Program

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It has been an absolute honor working with everyone across the entire enterprise, as well as a pleasure to be around people who believe in the mission and have devoted their professional careers to public service. It is a privilege to have the opportunity to learn from them and grow alongside them.

—Omar Castillo, NA-122.1 Stockpile Services Division

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It is a very strange feeling when your supervisor lets you know that the Vice President of the United States wants to announce a project you are overseeing. I have worked with the greatest people in the world on work that can reverse climate change. We are changing the world.

—Jon Christian, DOS ISN/CTR U.S. Department of State, Bureau of International Security and Nonproliferation, Office of Cooperative Threat Reduction

66

This fellowship gave me an understanding of the NNSA complex and its mission. The fellowship gave me an opportunity to meet many wonderful people.

—Emmett Armour, NA-ESH-11 Packaging and Transportation Division

Conclusion

In 2022–2023, NGFP remained a premier program for bringing passionate and talented graduate-level students into the NNSA and the NSE. To date, over 85% of alumni have secured employment with ties to national security after their fellowship.

Where Are They Now

After completing their assignments, approximately 90% of the Class of 2022–2023 accepted positions where they continue to support the global security mission within government, industry, private sector, or academia. The following list indicates the fellows' status as of the summer of 2023.



Nuclear Security Enterprise NNSA Other National Security Sector

Upon completing the fellowship program, Over 90% of the Class of 2022–2023 fellows pursued employment with ties to national security. In this graph, NNSA represents federal hires; Nuclear Security Enterprise represents fellows hired by DOE, national laboratories, and DOE/ NNSA contractors; National Security Sector represents fellows who accepted employment with other national security stakeholders such as DOS Defense Threat Reduction Agency; and Other represents fellows who returned to academia or whose employment was unavailable at the time of publication.

NNSA

- Emmett Armour, NA-LA
- Omar Castillo, NA-122.1
- Jade Fortiner, NA-191
- James Foster, NA-ESH-23
- Marlon Gant, NA-ESH-12
- Jenna Gardner, NA-84
- Brooke Guenther, NA-CI
- Chester Haner, NA-183
- Haley Harrison, NA-MB-92
- Kevin Heaney, NA-IM
- Susana Herrera, NA-40
- Kurt Housh, NA-MB-91
- Paulina Keim, NA-121.2
- Ron Koshita, NA-115
- John Lambert, NA-10
- Sydney Long, NA-LA
- Stephanie Miller, NA-1.1
- Joed Ngangmeni, NA-121.2
- Sam Potier NA-MB-92
- Kyle Sallee, NA-231
- Luis Vidana, NA-90
- Kathryn Wernke, NA-10.2
- Caleb Yip, NA-122

National Security Sector

- Francheska Colón-González, Nuclear Regulatory Commission
- Christian Hedge, U.S. Army
- Emily Morley, Department of Defense
- Victoria Ontiveros, Department of Homeland Security

Other

- Chinazor Azubike, Not available at publication
- Zach Boykin, Walter P Moore
- Rebecca Mueller, Colorado State University
- Gregory Wiatrek, Treasury Department

Nuclear Security Enterprise

- Begona Aranguren Barrado, MELE Associates, Inc.
- Natasha Barqawi, Hunatek
- Ethan Boado, Lawrence Livermore National Laboratory
- Jon Christian, Culmen International
- Rebecca Copeland, MELE Associates, Inc.
- Poppy Cox, Hunatek
- Abigail Eineman, MELE Associates, Inc.
- Jarret Fisher, MELE Associates, Inc.
- Samantha Groskritz, TechSource
- Cassara Higgins, Los Alamos National Laboratory
- Kavough Jernigan, Project Enhancement Corporation

- Anishka Khosla, MELE Associates, Inc.
- Jax Klein, Project Enhancement Corporation
- Benjamin Lee, Culmen International
- Monica Lemmon, HunaTek
- Erin McLaughlin, Culmen International
- Paige Reed, Los Alamos National Laboratory
- Alexis Schlotterback, PotomacWave Consulting
- Tristan Skupniewitz, Project Enhancement Corporation
- Chad Ummel, Lawrence Livermore National Laboratory
- Jose Veleta, PNNL

This fellowship provided me substantial insight into nuclear security and nonproliferation topics where I acquired key skills that will be essential for my career path and development.

—Francheska Colón-González, NA-233 Office of Material Disposition

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This program allowed me to hone my writing and briefing skills. Working in the Front Office allowed me to learn both the specific components of nonproliferation and how nonproliferation serves as a key pillar of the Department of Energy's overall mission.

> —Jarret Fisher, NA-20 Front Office of the Deputy Administrator for Defense Nuclear Nonproliferation

Alumni Spotlight

Alumni at the Helm. During the 2022–2023 class year, NGFP welcomed alum Alexander Godinez-Robinson to the role of Federal Program Manager. Alexander participated in the 2019–2020 cohort, working in the front office of the Office of Material Management and Minimization. At the end of his fellowship, he was hired into the Office of Management and Budget Learning and Career Management, where he has worked as both the NNSA NGFP Operations Manager and Deputy Federal Program Manager. In addition to his own fellowship experience, Alexander brings to his new role extensive experience working with leadership development programs both inside and outside of the NNSA. He also serves as the Federal Program Manager for the Minority Serving Institutions Internship Program (MSIIP) and works regularly with high school leadership students, teaching seminars on inclusive language, effective communication and collaboration, ethical leadership, and work styles.

The program also named Class of 2015–2016 alum **Tom Gray** the PNNL NGFP Program Manager. Tom is a Research Line Manager at PNNL, managing the NNSA Leadership Development Group and previously served as the program's operations manager. As the PNNL NGFP Program Manager, Tom is responsible for technical leadership of the NGFP fellows and PNNL staff members supporting the program. Prior to taking on the Program Manager role, Tom has been fortunate to work on a variety of topics related to nuclear technology and policy, first as a nuclear submarine officer in the U.S. Navy, then later as an NGFP fellow, and most recently as a junior professional officer at the International Atomic Energy Agency, Division of Nuclear Security. During his fellowship, Tom served in the office of the Deputy Administrator for DNN.

Advancing the NNSA Mission. Many fellows go on to help NNSA advance its mission in unique and exciting ways. Alum Savannah Blalock (Class of 2018–2019) was recently highlighted in an NNSA news article announcing how \$10 million (€10 million) no longer needed for the IAEA Low-Enriched Uranium Fuel Bank would support peaceful uses assistance and fight cancer.

"The United States is seeking to expand access to peaceful uses. It is a critical benefit that can help states meet the UN Sustainable Development Goals and enable progress worldwide," said Savannah at the Treaty on the Non-Proliferation of Nuclear Weapons RevCon in New York. "Cancer affects us all and we support the expansion of therapeutic programs that support treatment around the world."

During her fellowship, Savannah supported the NA-24 office. Today, she is an NNSA Foreign Affairs Specialist. To learn more, see NNSA reallocates \$10 million at IAEA to support peaceful uses and help fight cancer around the world.







Spotlight on Women in Nonproliferation. The NNSA's Women in Nonproliferation Series featured Class of 2021–2022 alum Victoria Vardanega, who worked with Material Management and Minimization within DNN. Her work supported programs in the International Conversion portfolio working on the conversion of highly enriched uranium fuel and targets to low enriched uranium fuel. This work helps reduce the risk that hostile states or non-state actors will acquire weapons-usable nuclear material. "I am excited to continue to learn and grow at the NNSA as I pursue a career in the nuclear security enterprise," Victoria said. Read more about Victoria's path to fellowship and beyond.

Alumni Selected for Mansfield Fellowship. Alumni Angelina Loverde (Class of 2017–2018) and Dr. Lance Garrison (Class of 2015–2016) were chosen to participate in the Mansfield Fellowship Program. Established by the U.S. Congress in 1994, the fellowship program cultivates a corps of federal employees with practical, firsthand knowledge about Japan and its government. The program is sponsored by the U.S. Department of State's Bureau of Educational and Cultural Affairs, with funding provided by the U.S. government, and is administered by The Maureen and Mike Mansfield Foundation. Read more in Angelina Loverde and Dr. Lance Garrison Selected for Mansfield Fellowship.

40 Under 40. Alicia Swift (Class of 2012–2013) recently received the 40 under 40 Award from the University of Tennessee for her work in nuclear nonproliferation. The program annually honors and recognizes 40 alumni under the age of 40 who have excelled personally and professionally since completing their degree at the University of Tennessee Knoxville. **Read NE Graduates Recognized in Volunteer 40 Under 40 Event** to learn more.

Leaders Out in Front. Kyle Pilutti (Class of 2018–2019) and **Kevin Heaney** (Class of 2022–2023) were named among the National Security and Foreign Policy LGBTQIA+ 2023 Out Leaders in National Security list, celebrating their contributions to advancing peace and security. Led by Out in National Security and New America, the list honors over 40 LGBTQIA+ experts in U.S. national security and foreign policy, including experts currently serving in government,

the military, think tanks, academia, and non-governmental organizations. See the list at https://www.outinnationalsecurity.org/2023-out-leaders/.











This fellowship has given me the opportunity to work alongside passionate and driven leaders who all stand behind a vital mission.

—Zach Boykin, NA-193 High Explosives and Energetics Program

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The fellowship position with NA-ESH-23 has allowed me to explore the 'depth' of our nuclear security enterprise...literally. It still surprises me every day the scope of work that is being undertaken.

—James Foster, NA-ESH-23 Office of Worker Safety and Health Services

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The NGFP fellowship has been the perfect introduction to nuclear security and learning about its importance. This opportunity has allowed me to develop critical skills and work in a field that I am passionate about.

—Poppy Cox, NA-234 Office of Nonproliferation Construction and Program Analysis



Honoring NNSA's Diverse Workforce

Throughout the year, NNSA featured several alumni, fellows, and the diversity of thought, culture, and backgrounds they bring to the organization. The alumni self-nominated to be included in these profiles, which are showcased on the NNSA website.

Black History Month

David Etim (Class of 2016–2017) – Now a federal program manager at the NNSA Office of Advanced Simulation and Computing and Institutional Research and Development, David found his passion for computer science and engineering during high school. https://www.energy.gov/nnsa/articles/ nnsa-defense-programs-spotlight-black-history-month-edition-david-etim

Kavough Jernigan (Class of 2022–2023) – A recent fellow in the NNSA Infrastructure Planning and Integration Division, Kavough credits his interest in national security and nuclear security to growing up next to Homestead Air Reserve Base and within 10 miles of the Turkey Point Nuclear Power Plant. https://www.energy.gov/nnsa/articles/nnsa-office-infrastructure-spotlight-black-history-month-edition-kavough-jernigan



Women's History Month

Annelise Atkinson (Class of 2019–2020) – A self-proclaimed political science geek, Annelise's career path took her from small-town lowa to graduate studies in nonproliferation and terrorism and landed her in the Office of Nuclear Material Removal. https://www.energy.gov/nnsa/articles/spotlight-nonproliferation-womens-history-month-edition-annelise-atkinson

Chinazor S. Azubike, PhD (Class of 2022–2023) – A recent fellow in the Office of Secondary Stage Production Modernization's Lithium Modernization team, Chinazor credits a diverse team of women leaders, professors, and mentors for inspiring her throughout her career. https://www.energy.gov/nnsa/articles/nnsa-defense-programs-spotlight-womens-history-month-edition-chinazor-s-azubike-phd

Paulina Keim (Class of 2022–2023) – A recent fellow supporting Domestic Uranium Enrichment, Paulina reminds women that the NSE can be a place to be audacious and take bold risks. https://www.energy.gov/nnsa/articles/ nnsa-defense-programs-spotlight-womens-history-month-edition-polly-keim



Asian American, Native Hawaiian, and Pacific Islander Heritage Month

Anagha Iyengar (Class 2014–2015) – Having immigrated to the U.S. from India at a young age, growing up between two cultures helped Anagha assimilate into two very different environments, open mindedness, and tactics to bridge communication gaps that come with a multicultural upbringing—which ultimately shaped her career. https://www.energy.gov/nnsa/articles/spotlight-nnsa-nonproliferation-aapi-heritage-month-edition-anagha-iyengar

Ron Koshita (Class of 2022–2023) – His parents immigrated from Japan to the United States looking for a brighter future for their family; this gave way to Ron's journey that has spanned from New York to NNSA. https:// www.energy.gov/nnsa/articles/nnsa-defense-programs-spotlight-aanhpimonth-edition-dr-ryuhei-ron-koshita

Ben Lee (Class of 2022–2023) – Ben's experience as a secondgeneration Korean American sparked his interest in international security and in U.S.- China relations. https://www.energy.gov/nnsa/articles/ spotlight-nnsa-nonproliferation-aapi-heritage-month-edition-benjamin-lee

Reema Verma (Class of 2017–20218) – Her experience as a first-generation Indian American woman shaped her interest in pursuing a career focused on policy and international affairs and fostered her approach to be open and network/learn from individuals from all backgrounds. https://www.energy.gov/nnsa/articles/ spotlight-nonproliferation-aapi-heritage-month-edition-reema-verma

Caleb Yip (Class of 2022–2023) – Being born in Hong Kong and immigrating to Pittsburgh, PA, at age 8 shaped Caleb's motiv tion to dedicate his career to public service and ensure others get the same opportunity. https://www.energy.gov/nnsa/articles/ nnsa-defense-programs-spotlight-aanhpi-month-edition-caleb-yip

Pride Month

Jesse Altum (Class of 2021–2022) – Serving as communications director for the PRIDE employee resource group, Jesse shares his pride in service and by empowering others across the enterprise through storytelling, visibility, and community. https://www.energy.gov/nnsa/articles/ profiles-counterterrorism-and-counterproliferation-pride-month-edition-jesse-altum

Alexander Godinez-Robinson (Class of 2019–2020) – Now the NGFP Federal Program Manager, Alexander brings his values for building diverse and inclusive teams to leading NGFP and MSIIP. https://www.energy.gov/ nnsa/articles/profiles-management-and-budget-pride-month-edition-alexander-godinez-robinson









Andy Hallock (Class of 2009–2010) – From an NGFP fellow to a nuclear security attaché at the U.S. Mission to International Organizations in Vienna, Andy's passion for fostering diversity in the nuclear security community has spanned the globe. https://www.energy.gov/nnsa/articles/nnsa-spotlight-pride-month-edition-andy-hallock

Kyle Pilutti (Class of 2018–2019) – Meeting and engaging with people involved in nonproliferation issues across the world helped Kyle recognize the nuclear security field requires a lot of different types of experience, perspectives, and opinions to be as effective as possible. https://www.energy.gov/nnsa/articles/ profiles-nonproliferation-pride-month-edition-kyle-pilutti

Brian Rabaey (Class of 2020–2021) – Brian's passion for community and public service has spanned the Boy Scouts to the Corps of Cadets and the Army and all the way to NNSA's Office of Radiological Security. https://www.energy.gov/nnsa/articles/ profiles-nonproliferation-pride-month-edition-brian-rabaey

Adam Stratz (Class of 2017–2018) – Having held roles in NNSA, the Department of Homeland Security, and the Association for Advancement of Science, and having worked in 50 countries worldwide, he embraces the value diversity brings to ways of thinking and connecting with foreign counterparts. https://www.energy.gov/nnsa/articles/ spotlight-nonproliferation-pride-month-edition-adam-stratz



Simón Arias (Class of 2019–2020) – With diverse family roots tracing back to Venezuela, Spain, and Poland, Simón has a passion for leadership and professional opportunities that empower young Hispanics and Latinos to take on experiences that challenge them and help them grow. https://www.energy.gov/nnsa/articles/hispanic-heritage-month-highlight-simon-arias

Tiberius Moran-Lopez (Class of 2013–2014) – A trilingual nuclear engineer, Tiberius's journey spanned from Mexico to Texas to Michigan before landing him at NNSA, where he is now a federal program manager in NNSA Defense Programs' Office of Research, Development, Test, and Evaluation. https://www.energy.gov/nnsa/articles/ hispanic-heritage-month-highlight-dr-tiberius-moran-lopez







Continuous Improvement

To enhance its program management approach and deliver a productive experience for fellows and the offices they serve, the program maintains numerous touchpoints between fellows, their supervisors, their team leads, and the PNNL NGFP management team, including post-event, mid-year, and year-end surveys and lessons learned sessions to elicit opportunities for continuous improvement. Together, these tools—both quantitatively and qualitatively—evaluate program effectiveness while identifying evidence-based best practices, enhancement opportunities, and recommendations for future actions.

Best practices and new approaches this year, resulting from the evaluation process, include:

- Maintaining monthly meetings with fellows and the Federal Program Manager to provide an open forum for discussion.
- Evaluating outreach opportunities that have increased reach to students at MSIs.
- Launching the NGFP Ambassador program to better leverage the alumni network to enhance outreach opportunities.
- Organization of a Federal Hiring Seminar focused on providing fellows with the information needed to prepare for the NNSA federal hiring process, which included drafting a federal resume, benefits of federal careers, experiences from former fellows on federal offers, and an exercise on career negotiations.
- Increasing communication with NNSA supervisors, providing regular updates on fellowship status and needs.
- Maintaining and continuously improving tools and opportunities to share program information more effectively with the fellows.
- Continuing to adjust activities to better engage fellows in the hybrid environment.

In its ongoing effort to evolve and enable a productive experience for fellows and the offices they serve, the program is always open to building new relationships with new nuclear and national security leaders, universities, student organizations, and industry partners. If you are interested in learning how you can engage with NGFP, contact ngfp@pnnl.gov.

Looking Forward

As the Class of 2022–2023 departed on its post-fellowship journey, the Class of 2023–2024 came aboard in June 2023 with a cohort of 59 fellows, who are diverse in background and aspirations. They represent 36 universities, including eight MSIs and 34 educational majors, ranging from Asian studies to chemistry to public administration. These fellows were hand selected from a pool of over 150 candidates and approximately 400 virtual interviews. Stay tuned for more about this cohort in the 2023–2024 annual report!
NGFP ClassBy theof 2022-2023Numbers



APPENDIX: Fellow Biographies



Begona Aranguren Barrado

NA-241 Office of International Nuclear Safeguards–Washington, DC

Experience

- Graduate Research Assistant, Texas A&M Engineering Experiment Station
- Intern, Idaho National Laboratory
- Intern, Becara Sociedad Limitada
- Research Assistant, Texas A&M Engineering Experiment Station Nuclear Engineering and Science Center

Accomplishments

- Served as the president of the Institute of Nuclear Materials Management Texas A&M University Student Chapter. Organized events including tours of nuclear and other training facilities, emergency response training exercises, lectures from guest speakers, and connections to other student chapters.
- Awarded the 2021 Graduate Student of the Year from the Texas A&M University Nuclear Engineering Department.
- Conducted extensive research on, developed, and performed different tests on an experimental Nuclear Thermionic Avalanche Cell unit for PhD dissertation.
- Awarded the Texas A&M University Nuclear Security Science and Policy Initiatives Graduate Certificate in Nuclear Security.
- Interned at Idaho National Laboratory on the Nuclear Systems Design and Analysis team. Conducted Monte Carlo N-Particle
 studies on the feasibility of utilizing the Transient Reactor Test (TREAT) facility with TREAT Upgrade program fuel assemblies
 containing higher uranium concentrations.
- Worked with detector systems, including Nal and HPGe detectors. Work included system calibration and identification and quantification of radioactive sources. Conducted a campus-wide radiation sweep for training purposes.
- Experienced in Spanish and working knowledge of French.

Education

- Doctor of Philosophy, Nuclear Engineering, Texas A&M University
- Bachelor of Science, Nuclear Engineering, Texas A&M University



William E Armour IV

NA-ESH-11 Packaging and Transportation Division-Albuquerque, NM

Experience

- Graduate Research, University of Idaho
- Undergrad Research, University of Idaho

Accomplishments

- Performed experiments to test the heat and radiation resistance of stainless steel nanoparticles and stainless steel thin films for generation IV reactors.
- Used Aspen HYSYS to model NuScale's small modular reactor. Modeled the natural circulation flow in the primary loop and the thermodynamic flow in both the primary and secondary loops.
- Wrote a review paper on molten salts and their applications for clean energy use. This included nuclear applications, thermal energy storage, corrosion problems, and the future of molten salts.
- Worked with a group on design of Uranyl Nitrate Natural Circulation Micro-Reactor for Medical Isotope Production. This covered the structural design, neutronic analysis, natural circulation analysis, RELAP analysis, corrosion, chemical behavior, and autonomous control. Patent pending for the design of this reactor.
- Studied the German language.

- Master of Science, Nuclear Engineering, University of Idaho
- · Bachelor of Science, Physics, University of Idaho



Chinazor S Azubike

NA-195 Lithium Program Office, Office of Secondary Stage Production Modernization–Washington, DC

Experience

- Intern, Office of Secondary Stage Production Modernization, NNSA
- Chair, Early Career Network, Education and Outreach Working Group, International Partnership for Hydrogen and Fuel Cells in the Economy
- Intern, Hydrogen and Fuel Cell Technologies Office, Department of Energy (DOE)
- Adjunct Instructor, Department of Environmental, Earth, and Geospatial Sciences, North Carolina Central University
- Intern, Office of Energy Policy and Systems Analysis, DOE

Accomplishments

- Developed a research report on nuclear manufacturing capabilities related to production modernization. Conducted interviews with vendors and subject matter experts at production and DOE laboratory sites to understand their capabilities and how they directly and indirectly support the NNSA.
- Contributed to the establishment and served as the first Chair of the International Partnership for Hydrogen and Fuel Cells in the Economy (IPHE) Education and Outreach Working Group's Early Career Network with over 130 members globally.
- Interned at DOE's Hydrogen and Fuel Cell Technologies Office, developed a record on the production of hydrogen from nuclear power, and attended the IPHE Virtual Global Hydrogen Forum.
- Interned at DOE's Office of Energy Policy and Systems Analysis and created solar census maps using ArcGIS software to analyze residential solar panel distribution in the United States.
- Authored and coauthored peer-reviewed articles and presented research at several national and international scientific research conferences.
- Served as the president of the Graduate Student Advisory Council at North Carolina Agricultural and Technical State University, leading a cohort of graduate students from over 41 graduate degree programs, sitting as a member on the Graduate School Council, and reporting graduate concerns to the Graduate College.
- Volunteered and studied abroad in Segovia, Spain.

Education

- Doctor of Philosophy, Applied Science and Technology, North Carolina Agricultural and Technical State University
- · Master of Science, Earth Science, North Carolina Central University
- · Bachelor of Science, Biology, Bioinformatics, Tennessee State University



The NGFP fellowship affirmed my interest in a federal career path and has set me up with a number of opportunities. Getting to experience a great team and new city was such a learning experience for me.

---Chinazor Azubike, NA-195 Office of Secondary Stage Production Modernization, Lithium Modernization



Natasha Barqawi

NA-212 Office of Radiological Security - International-Washington, DC

Experience

- Research Intern, National War College, National Defense University
- Graduate Teaching Assistant, Josef Korbel School of International Studies
- Postdoctoral Fellowship Program Coordinator, University of Colorado Anschutz Medical Campus

Accomplishments

- Interned at the National War College, analyzing academic and practical readings regarding strategic leadership and national security specifically on China, the Horn of Africa, and Southeast Asia. Identified key points in the literature for use in pertinent policy issues and composed succinct summaries of course material for the academic year.
- Assisted an undergraduate course on international politics and theory at the Josef Korbel School of International Studies. Graded written and multiple-choice assignments for students, including research papers, midterms, and quizzes. Held weekly office hours to engage with students and answer questions related to coursework.
- Conversed in Arabic (Levantine dialect) during bi-weekly language cafés at Colorado State University. Attended French club
 weekly to hone French-speaking skills and engage with Francophone cultures.
- Coordinated four postdoctoral fellowships simultaneously at the University of Colorado Anschutz Medical Campus in the Department of Psychiatry. Assembled quarterly and annual course surveys and consolidated feedback for supervisors. Verified, interviewed, and hired candidates in association with the Administrative Assistant Recruitment Committee.
- Achieved a coveted spot in the Colorado Ambassadors Orchestra playing violin and traveled across Western Europe to conduct concerts in different venues representing the United States.

Education

- Master of Arts, International Security, University of Denver, Josef Korbel School of International Studies
- Bachelor of Arts, International Studies and Political Science, Colorado State University



Ethan Boado

NA-22 Defense Nuclear Nonproliferation Research and Development-Washington, DC

Experience

- Graduate Researcher, University of California (UC), Berkeley
- Academic Co-Op Program Member, Lawrence Livermore National Laboratory
- Graduate Summer Research Internship, Lawrence Livermore National Laboratory
- Undergraduate Student Researcher, UC Irvine

Accomplishments

- Developed additive manufacturing feedstock printing and processing methodology to manufacture technical ceramics such as boron carbide and uranium carbide through a reactive precursor process.
- Designed and built experimental testing setup of collimated neutron imager based on design generated by a UC Berkeley collaborator. Characterization of this imager was published in "Characterization of a collimated neutron imager for low-rate fast neutron imaging" in Nucl. Instr. Meth. A.
- Rebuilt toroidal volume ion source for a Pelletron ion accelerator and created a reconstruction plan with Sandia National Laboratories staff for a prospective beamline at UC Berkeley.
- Developed technique for quantifying parts-per-million concentrations of copper for use in separative technique analysis of
 irradiated targets using ultraviolet-visible spectrophotometry.
- Managed and instructed UC Berkeley Master of Engineering students in proper use of experimental metal additive manufacturing techniques.
- Participated in the Boot Camp on Nuclear Security Policy at George Washington University, an intensive two-week course on nuclear security and energy policy with visits to the U.S. Department of State, Nuclear Regulatory Commission, and Capitol Hill.

- Doctor of Philosophy, Applied Science and Technology, UC Berkeley (in progress)
- Bachelor of Science, Chemical Engineering, University of California, Irvine



James Z Boykin

NA-193 High Explosives and Energetics Program–Washington, DC

Experience

- Research Assistant, Department of Civil and Environmental Engineering, Virginia Tech
- Teaching Assistant, Department of Civil and Environmental Engineering, Virginia Tech
- Corresponding Member, Members of Society Advancing An Inclusive Culture for American Society of Civil Engineers

Accomplishments

- · Completed graduate work on infrastructure design, security, and sustainability.
- Published author in the Brookings Institute FixGov blog, "What security lessons did we learn from the Capitol insurrection?"
- Instructed 40-60 students on the fundamentals of construction engineering and management.
- Served as the chapter president of the Construction Management Association of America from 2020 to 2021.
- Selected as a Gates Millennium Scholar in 2015, fully funding a bachelor's, master's, and doctorate degree.

Education

- Doctor of Philosophy, Civil Engineering, Virginia Tech (in progress)
- Master of Science, Civil Engineering, Virginia Tech
- Bachelor of Science, Civil Engineering, Clemson University



Omar Castillo

NA-122.1 Stockpile Services Division–Washington, DC

Experience

- Technical Qualifications Program Intern, Office of Learning and Career Management, NNSA
- Consumer Relations Manager, Appfolio
- Archaeological Assistant, California Coastal Archaeology, University of California, Santa Barbara
- Research Assistant, Ancient Egyptian and Nubian Ceramics Laboratory, University of California, Santa Barbara

Accomplishments

- Led the creation of the Knowledge Preservation Initiative aimed at capturing and transferring federal oversight knowledge for NNSA.
- Created and produced a safety oversight podcast that highlighted site incidents across the national nuclear enterprise to promote safety culture and increase awareness of occupational safety hazards.
- Created a real-time facial emotion recognition and detection system using Python and various open-source libraries to advance human relations and improve emotional intelligence.
- Received the Appfolio Blue Crystal Cube Award for leading consumer relations team in outstanding leadership and performance.
- Two-time recipient of the Project Vista scholarship award designed to increase graduate enrollment in professional and STEM fields of study.
- Presented an original research paper on U.S.-Mexico Economic Relations and Economic Policy at California State University, Channel Islands.
- Received the Citizen of the Year Award for outstanding leadership and citizenship within the community, awarded by Congressman Howard "Buck" McKeon, U.S. House of Representatives.

- Master of Science, Software Engineering, California State University, Fullerton
- Master of Business Administration, California State University, Channel Islands
- Bachelor of Arts, Anthropology, University of California, Santa Barbara



Jon W Christian

DOS ISN/CTR U.S. Department of State, Bureau of International Security and Nonproliferation, Office of Cooperative Threat Reduction–Washington, DC

Experience

- Director of Research and Outreach, Global America Business Institute
- Graduate Assistant, University of Georgia

Accomplishments

- Graduated with a Master of International Policy.
- Researched the effects of sanctions on the Democratic People's Republic of Korea's advanced weapons program and human rights abuses.
- Participated in Nuclear Nonproliferation, Safeguards, and Security in the 21st Century course offered by Brookhaven National Laboratory.
- Founded a hiking club for hiking enthusiasts in Korea.
- Travel proficient at speaking, reading, and writing Korean.

Education

- Master of International Policy, University of Georgia
- Bachelor of Arts, Music Education, University of West Georgia



Francheska M Colón-González

NA-233 Office of Material Disposition–Washington, DC

Experience

- Graduated Biotechnology Co-Op Student, AbbVie Biotechnology Ltd.
- Lead Scientist, Innovative Wide-Area Sensing/Mitigation Technologies for Countering WMD
- Remote Intern, Sandia National Laboratories
- Co-Op Student, Eli Lilly and Company
- Research Scientist, Center for Chemical Sensors and Chemical Imaging and Surface Analysis Center

Accomplishments

- Completed a master's thesis studying Raman scattering and multivariate analysis to evaluate the viability of high explosives detection on strands of human hair to develop forensic tools that can be used in the field. Work published in Optical Engineering Journal titled "Raman Scattering Detection of High Explosives on Human Hair" (https://doi.org/10.1117/1. 0E.59.10.107103).
- Researched at the Center for Chemical Sensors and Chemical Imaging and Surface Analysis Center, researching the use
 of spectroscopic techniques to detect and identify chemical and biological threats that could affect national security.
- Presented research work in the ALERT Industrial Advisory Board Meeting at the Northeastern Innovation Campus in Burlington, MA.
- Interned remotely at Sandia National Laboratories, researching materials and components for thermal and pressure cycling of supercritical CO2.
- Awarded by Dow Chemical at Class of 2021 Great Minds in STEM Scholars.
- Worked as a teaching assistant for the Fundamentals of Organic Chemistry and Biochemistry Laboratory and General Chemistry Laboratory and assisted in Physical Chemistry Laboratory for Raman scattering experiments.
- Bilingual in Spanish and English languages.

- Doctor of Philosophy, Chemistry of Materials, University of Puerto Rico, Mayagüez Campus (in progress)
- Master of Science, Biochemistry, University of Puerto Rico, Mayagüez Campus
- Bachelor of Science, Chemistry, University of Puerto Rico, Mayagüez Campus



Rebecca M Copeland

NA-242 Office of Nuclear Export Controls–Washington, DC

Experience

- Research Assistant, Center for Global Health Science and Security, UN Secretary General's Mechanism, Biological Weapons Convention, Georgetown University
- Digital Projects Senior Analyst, U.S. Department of State English Language Programs, Georgetown University

Accomplishments

- Developed digital mapping methodology and system to codify disparate international legal instruments on exports, imports, terrorism, and biological and pathogen samples for federal stakeholders to better understand legal barriers to investigations.
- Contributed as an analyst to a six-country simulation of a scientific investigation into alleged chemical or biological weapon use in Spring 2022 with federal and international partners.
- Represented the communications and outreach team at the U.S. Department of State Africa Midyear Conference in Zanzibar, Tanzania to provide professional development to English Language Programs Fellows in the field.
- Selected for and completed the Nuclear Nonproliferation, Safeguards, and Security course with Brookhaven National Laboratory, obtaining knowledge in the International Atomic Energy Agency safeguard system and current nonproliferation issues and participating in a safeguards complementary access simulation.
- Created a new program for the U.S. Department of State English Language Programs to support alumni engagement and enhance program operations.

Education

- Master of Arts, Security Studies, Georgetown University
- · Bachelor of Science, Communications and Journalism, Suffolk University



Poppy Cox

NA-234 Office of Nonproliferation Construction and Program Analysis–Washington, DC

Experience

- Student Coordinator, University of Michigan
- Volunteer, Michigan Refugee Assistance Program
- Development Intern, Center for the Education of Women

Accomplishments

- Participated in the year-long Young Women in Nonproliferation Initiative mentorship program to increase knowledge of nonproliferation and national security.
- Conducted virtual teach-ins over Zoom for students, University of Michigan faculty, and community members to educate
 communities about current inequalities local, national, and international displaced peoples face and how they can help.
- Developed information campaigns on Instagram and Facebook to increase local awareness regarding resources available to refugees and to assist in raising funds to support local families.
- Developed community outreach plans as an intern for the Center for the Education of Women, increasing their marketing outreach across the county.
- Constructed framework for and completed the Center for the Education of Women's first annual report by collecting primary research data to outline the center's impact in the Ann Arbor community.
- Served as a liaison between supervisors and administrative staff working toward identifying issues with normal operating procedures and individually solved problems or referred them to staff in higher positions as necessary.
- Worked throughout the pandemic to manage COVID-19-related problems across recreational sports facilities on campus.

- Master of Business Administration, Management, Ross School of Business
- Bachelor of Arts, Political Science, University of Michigan



Abigail Eineman

NA-23 Office of Material Management and Minimization-Washington, DC

Experience

- Research Assistant, Wisconsin Project on Nuclear Arms Control
- Research Intern, Center for a New American Security
- Paralegal, U.S. Department of Justice
- Contractor, U.S. Mission to the United Nations
- Student Intern, U.S. Mission to the United Nations

Accomplishments

- Researched and wrote profiles of entities involved in nuclear, missile, and military activity for use in private sector due diligence and government export screening.
- Created two sanctions databases combining designations from the United States, European Union, and United Nations.
- Built an educational website on dual-use technology and export controls for customs authorities and the private sector.
- Wrote case studies on illicit technology procurement networks operating in Europe, North America, and shipping hubs in Asia.
- Conducted research to assist Foreign Service Officers in renewing missile treaties at the United Nations.
- Conducted financial data analysis and legal research for international currency manipulation trials.

Education

- Master of Public Administration, Policy Analysis, Indiana University
- Bachelor of Arts, International Relations, University of Southern California



Jarret Fisher

NA-20 Office of Defense Nuclear Nonproliferation Front Office (Office of the Deputy Administrator)– Washington, DC

Experience

• Graduate Intern, Bureau of International Security and Nonproliferation, U.S. Department of State

Accomplishments

- Competed for DePaul University's Division I women's tennis team; previously trained at the John Newcombe Tennis Academy in Texas.
- Participated in U.S. Department of State exchange programs in South Korea and Japan.
- Through the Center for Strategic and International Studies Project on Nuclear Issues, completed the Nuclear Scholars Initiative in 2021 and presented at the Fall 2020 conference on "Female Leadership in the Global Nuclear Weapons Policy Regime."

Education

- Master of Arts, American Foreign Policy, Johns Hopkins School of Advanced International Studies
- Master of Business Administration, DePaul University
- · Bachelor of Science, Finance, DePaul University

66

The fellowship opened so many doors for me. I was able to meet leaders across the nuclear security enterprise, who gave me excellent advice on how to have a successful career in public service.

-Abigail Eineman, NA-23 Office of Material Management and Minimization



Jade Fortiner

NA-10 Office of Defense Programs-Washington, DC

Experience

- Data Records Assistant, University of Georgia
- Intern, Athens-Clarke County Government Department of Economic Development
- Research Assistant, University of Georgia
- Student Assistant, University of Georgia
- Student Worker, U.S. Department of Veterans Affairs

Accomplishments

- Traveled to Stellenbosch, South Africa, to study the lasting implications of Apartheid-era policies on development. Studied the political and economic factors leading to World War II while in Italy.
- Worked alongside a local government to develop and distribute a wage and benefits survey to local employers; the data were compiled into a study report dispensed throughout the county.
- Created and managed a budget in excess of \$1 million for a large organization; served as a voting member of the board, overseeing operations and renovations.
- Completed an undergraduate thesis on the relationship between gross domestic product per capita and political terror.
- Awarded the President's Volunteer Service Award.

Education

- Master of Public Administration, Public Budgeting and Financial Management, University of Georgia
- Bachelor of Arts, Economics, University of Georgia
- · Bachelor of Arts, International Affairs, University of Georgia



James C Foster

NA-ESH-23 Office of Worker Safety and Health Services–Albuquerque, NM

Experience

- Graduate Research Assistant, Clemson University
- Teaching Assistant, Clemson University
- Chemist Co-op, Parker Hannifin
- Undergraduate Researcher, Clemson University

Accomplishments

- Conducted doctoral studies on the creation of rapid detection and isotopic screening tools.
- First-authored three scientific articles and presented research nationwide to several notable conferences.
- Winner of Clemson University's Three-Minute Thesis Competition and represented the university at two regional competitions.
- Winner of the 2021 Innovations in Nuclear Technology R&D Award for universities with less than \$600 million in research and development expenditures.
- Established the first safety officer and social chair positions for the Chemical Engineering Graduate Student Organization.

Education

- · Doctor of Philosophy, Chemical and Biomolecular Engineering, Clemson University
- Bachelor of Science, Chemical and Biomolecular Engineering, Polymeric Materials, Clemson University



Marlon D Gant

NA-MB-42 Office of Management and Budget–Oak Ridge, TN

Experience

- Research Assistant, Emory University
- Manufacturing Operation Associate, Dendreon Corp.
- Chemistry Peer Supplementary Instructor, Georgia Gwinnett College

Accomplishments

Research Fellow for Laney Graduate School - Summer Opportunity for Academic Research at Emory University, researching
industrial sites associated with slag found in Atlanta's Westside community.

Education

- Master of Science, Environmental Sciences, Emory Laney Graduate School (in progress)
- Bachelor of Science, Biology, Georgia Gwinnett College



Jenna M Gardner

NA-81 Office of Nuclear Incident Policy and Cooperation-Washington, DC

Experience

- Teaching Assistant, Texas Tech University
- Research Assistant, Texas Tech University

Accomplishments

- Completed a research project selecting indicators for an increase in international terrorism threat level in a post-9/11 era.
- Completed a research project understanding the role of executive leader tenure and regime type on the timing of an international terrorist attack.
- Participated in a research project examining the importance of international cooperation in a post-9/11 era of state identity crises.
- Competed in poster competitions presenting current research projects against other top scholars in their respective fields.
- Built custom dataset combining prominent datasets in terrorism and international security studies.
- Gained elementary-level fluency in Japanese.

Education

- Master of Arts, Political Science, Texas Tech University
- · Bachelor of Arts, Political Science, Texas Tech University



Samantha M Groskritz

NA-195 Office of Secondary Stage Production Modernization - Depleted Uranium Modernization-Washington, DC

Experience

- Consultant, Booz Allen Hamilton
- Graduate Admissions Assistant, American University Washington College of Law
- Operations Support Specialist, MassMutual Life Insurance Company

Accomplishments

- As a consultant at Booz Allen Hamilton, conducted compliance audits of federal, private, and commercial contracts and subcontracts. Developed a new process to assess data integrity across a platform.
- Maintained three customer relationship management databases and served as the first point of contact for hundreds of
 prospective international law students at American University.
- As a graduate student, worked on a team to produce a memorandum detailing policy proposals regarding the future of U.S. security assistance to Mexico and the Northern Triangle countries for the Office of Policy Planning at the State Department.
- Represented the operations team at MassMutual in several regional conferences and led tutorials on using a new client medical information database.

- Master of Arts, U.S. Foreign Policy and National Security, American University
- · Bachelor of Arts, Spanish, Southern Connecticut State University



Brooke Guenther

NA-CI Congressional and Intergovernmental Affairs – Washington, DC

Experience

- Special Projects, Semper Fi and America's Fund
- Graduate Research Assistant, Virginia Polytechnic Institute and State University
- Intern, Tragedy Assistance Program for Survivors International
- Student Athletic Trainer, University of Notre Dame

Accomplishments

- · Completed graduate coursework with a focus on global security, critical geopolitics, intelligence, and veterans' affairs.
- Conducted primary document research of over 6,000 sources in online archives and subsequently created a database for document analysis for coauthored paper on the relationship between the Executive Branch and the Intelligence Community presented at the 2021 International Studies Association conference.
- Worked within a small, specialized group to produce nine bi-annual newsletters and documents for donor development, community outreach, and public relations and marketing teams within the nonprofit Semper Fi and America's Fund.
- Assisted in planning a virtual conference for the Ukrainian government in Dnipro and local Ukrainian nonprofit organizations by
 organizing speakers from the U.S. government alongside nongovernmental organizations to provide insight on veterans' affairs.
- Conducted research for the International Working Group as a part of Geneva Peace Week 2021.
- First to be awarded the Storozynski Junior Research Fellowship in the Reilly Center Program in Medicine and the Liberal Arts at Notre Dame to fund research conducted in London, England for undergraduate thesis.

Education

- Master of Arts, Public and International Affairs, Virginia Polytechnic and State University
- Bachelor of Arts, History and Pre-Health Sciences, University of Notre Dame



Chester Haner

NA-183 Office of Strategic Planning and Analysis–Washington, DC

Experience

- Fellow, Harold W. Rosenthal Fellowship in International Relations
- Civil Affairs Officer, U.S. Army
- Aviation Officer, U.S. Army

Accomplishments

- Program Manager for the NNSA Defense Programs Committee on Foreign Investment in the United States.
- Interned at the Office of the Secretary of Defense for Policy.
- Served as the senior U.S. Special Operations Forces Liaison in Mali in charge of planning, synchronizing, and executing activities across the Sahel.
- Commanded a medical mission leading six different allied nations, treating 300 civilians in Mauritania.
- Completed various deployments to East Africa as the lead political, economic, social, and cultural expert for the Special Operations East Africa Command Team.
- Served as a U.S. Army Blackhawk pilot.
- Proficient in Mandarin Chinese.

- Master of Public Administration, International and Global Affairs, Harvard Kennedy School (in progress)
- Bachelor of Science, Mechanical Engineering, West Point



Haley B Harrison

NA-MB-92 Office of Analysis and Evaluation–Washington, DC

Experience

- Analyst, Postdoctoral Fellow, RTI International
- Intern, Department of Energy
- Materials Scientist, BNNT LLC
- Graduate Research Assistant, University of North Carolina at Greensboro

Accomplishments

- Interned at the Department of Energy with the NNSA in Defense Programs, researching laser capabilities and limitations at different national laboratories.
- Published: Haley B. Harrison, Jeffrey R. Alston, "Functionalization of Boron Nitride Nanomaterials via Ultrasonication in Solution" MRS Advances (2020) DOI: 10.1557/adv.2019.487.
- Published: Haley B. Harrison, Jason T. Lamb, Kyle S. Nowlin, Andrew J. Guenthner, Karman B. Ghiassi, Ajit D. Kelkar, Jeffrey R. Alston, "Quantification of hexagonal boron nitride impurities in boron nitride nanotubes via FT-IR spectroscopy" Nanoscale Advances (2019), DOI: 10:1039/c8na00251g.

Education

- Doctor of Philosophy, Nanoscience, The University of North Carolina at Greensboro
- Master of Science, Earth Science, North Carolina Central University
- · Bachelor of Science, Physics, North Carolina Central University

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Kevin Heaney

NA-1.1 Office of Policy and Strategic Planning, NA-81 Office of Nuclear Incident Policy and Cooperation– Washington, DC

Experience

- Graduate Research Assistant, University of Virginia National Security Policy Center
- Graduate Course Assistant, University of Virginia Frank Batten School of Leadership and Public Policy
- Graduate Policy Fellow, National Security Innovation Network/U.S. Department of Defense
- Training and Exercise Coordinator, New Jersey Office of Homeland Security and Preparedness

Accomplishments

- Named one of two inaugural Duke-Richards National Security Fellows at the University of Virginia Frank Batten School of Leadership and Public Policy.
- Served as lead editor for Foreign Policy and National Security for the Virginia Policy Review.
- Completed applied policy capstone project evaluating the National Guard's State Partnership Program for the Office of the Under Secretary of Defense for Policy's Cyber Policy Office.
- Authored, developed, or narrated nine online-delivery courses on topics in counterterrorism and violent extremism for New Jersey first responders and law enforcement.
- Taught New Jersey Regional Intelligence Academy students as an instructor/evaluator for Methods of Instruction and Intelligence Writing/Briefing courses.
- Operated in the Simulation Cell for four full-scale active shooter exercises involving multiple law enforcement and first responder agencies, including across New Jersey/Pennsylvania state lines, following the Federal Emergency Management Agency Homeland Security Exercise and Evaluation Program doctrine.

- Master of Arts, Public Policy, University of Virginia
- Bachelor of Science, Homeland Security, St. John's University



Christian J Hedge

NA-MB-812 Weapons Activities Resource Managers Matrix–Washington, DC

Experience

- Research Assistant, Product Knowledge
- Simultaneous Member (Military Intelligence), Maryland Army National Guard
- · Cadet, Georgetown Army Reserve Officers Training Corp
- Research Analyst, The Potomac Advocates

Accomplishments

- Supported the integration of cutting-edge technology for U.S. warfighters at the tactical level such as autonomous systems, Internet-of-Things, and advanced cyber capabilities by leveraging military experience.
- Developed product strategy and commercialization for business partners to expedite the lengthy defense acquisition cycle and secure U.S. Department of Defense procurements.
- Collected all-source intelligence data for pertinent and actionable information and disseminated relevant analysis by briefing commanding officers, policymakers, and intelligence community executives.
- Conducted tactical military training at Fort Knox, KY, to include mission planning and execution in an austere environment by leading a 40-person platoon.
- Participated in congressional hearings and committee work with the Senate Armed Services Committee.
- Compiled industry contacts at top aerospace companies to form partnerships that would eventually support the U.S. Space Force for acquisition and procurement.

Education

- Master of Arts, Security Policy Studies, George Washington University (in progress)
- Bachelor of Arts, Political Science, Mississippi State University



Susana Herrera

NA-LL Livermore Field Office-Livermore, CA

Experience

- Graduate Research Assistant, Florida International University
- NNSA Minority Serving Institution Partnership Program Intern, Sandia National Laboratories

Accomplishments

- Conducted graduate research on the design and synthesis of mixed-metal coordination complexes of iron-indium oxides to
 optimize synthetic procedures for iron-actinide coordination complexes.
- Interned at Sandia National Laboratories, analyzing megaelectronvolt ultrafast electron diffraction data to study the rates
 of competing C-S and S-S bond dissociation of dimethyl disulfide.
- Conducted undergraduate research on synthesis, characterization, and reactivity of dinuclear copper complexes that mimic the active center of certain enzymes.
- Authored a research paper on indium monomers, polymers, and polynuclear coordination complexes with pyrazolate ligands (in progress) and coauthored a paper on dinuclear copper catalyst for the oxidation/oxygenation of hydrocarbons (in progress).
- Trained in single crystal X-ray diffraction methods for characterization of coordination complexes.
- Received Nuclear Regulatory Commission Graduate Fellowship Grant.
- Fluent in Spanish.

- Doctor of Philosophy, Chemistry, Radiochemistry Track, Florida International University
- Masters, Chemistry, Florida International University
- Bachelor of Science, Chemistry, Florida International University
- · Bachelor of Science, Biological Sciences, Florida International University



Cassara J Higgins

NA-NV Nevada Field Office-Las Vegas, NV

Experience

- Graduate Research Assistant, University of Nevada, Las Vegas
- George Washington University, Nuclear Security Policy Bootcamp Participant
- Undergraduate and Graduate Intern, Idaho National Laboratory
- Participant, American Chemical Society Nuclear Chemistry Summer School
- Undergraduate Research Assistant, University of Northern Iowa

Accomplishments

- Doctoral research resulted in three patents: "Conversion of Uranium Hexafluoride and Recovery of Uranium for Ionic Liquids, Publication Number W0/2020/204879," "Stoichiometric Recovery of UF4 from UF6 Dissolved in Ionic Liquids, Publication Number, W0/2021/178751," and "Lithium Recovery From Lithium Salts Dissolved in Ionic Liquids, Publication Number W0/2021/178748."
- Awarded Top 25 Outstanding Papers at the 2020 International Youth Nuclear Congress in Sydney, Australia. Presented in person in March 2020, "The Reduction of Uranium Hexafluoride with a Room Temperature Ionic Liquid (1-methyl-1-propylpiperidinium bis(trifluoromethylsulfonyl)imide)."
- Interned at Idaho National Laboratory as an undergraduate and graduate student working on two different projects involving separations of actinides and lanthanides.
- Gained extensive hands-on experience working with up to 10-gram quantities of solid UF6 in a glovebox.
- First-generation college student, daughter of an lowa family farmer and a restaurateur.

Education

- Doctor of Philosophy, Radiochemistry, University of Nevada, Las Vegas
- Bachelor of Science, Chemistry and Physics, University of Northern Iowa



Kurt Housh

NA-212 Office of Radiological Security - Domestic-Washington, DC

Experience

- Postdoctoral Scientist, Nubad
- Graduate Research Assistant, University of Missouri

Accomplishments

- Conducted research to better understand damage within DNA by radiolabeling oligonucleotides with phosphorus-32 to analyze reactions that can take place within DNA.
- Leading author on a publication in the Journal of American Chemical Society. Author on other publications in journals such as DNA Repair and Chemical Research in Toxicology.
- Received the University of Missouri Department of Chemistry Graduate Teaching Award (2020).
- Received the Missouri Southern State University Glenn Dolence Leadership Award (2016).
- Received the Missouri Southern State University Outstanding Biochemistry Graduate (2015).

- Doctor of Philosophy, Chemistry, University of Missouri
- Bachelor of Science, Biochemistry, Missouri Southern State University



Kavough T Jernigan

NA-911 Office of Infrastructure Planning and Integration–Washington, DC

Experience

- Black Student Achievement Program Liaison, Howard County Public School System
- Office Assistant, Florida A&M University Housing

Accomplishments

- Conducted graduate research focused on intelligence, national security, and peacebuilding, with particular focus on nuclear policy and proliferation.
- Served as the vice president of the Florida A&M University chapter of Progressive Black Men Incorporated and the president
 of the Gamma Chi chapter of lota Phi Theta Fraternity Incorporated.
- Fellowed at the Men4Choice Organization where advocacy, leadership, and allyship skills are developed in the fight to protect and expand reproductive freedom.
- Completed various graduate research courses forced on nuclear terrorism, international nuclear postures, and international nuclear treaties.
- Conducted intensive graduate research on the dissemination of nuclear technologies and weaponry to non-nuclear states.

Education

- Master of Arts, International Affairs, American University, School of International Service (in progress)
- · Bachelor of Science, Political Science, Florida A&M University



Paulina M Keim

NA-192 Office of Domestic Uranium Enrichment–Washington, DC

Experience

- · Research Intern, National Security Policy Center
- Strategy Analyst/Team Lead, University of Virginia Innovating for Defense
- Teaching Assistant, Frank Batten School of Leadership and Public Policy
- Strategy Analyst/Team Lead, University of Virginia Hacking for Defense
- Research Assistant University of Virginia

Accomplishments

- Conducted research for the newly created U.S. Space Force, collaborating on a team of 20 people. Recommendations were
 incorporated into a brief for Chief of Space Operations General Raymond. Managed all social media accounts.
- Led a multidisciplinary team of five graduate policy, engineering, and law students on a project for Air Force Operational Energy to understand the barriers to adopting large-scale sustainable aviation fuels.
- Created and implemented the course and syllabus for Diplomacy in Practice. Oversaw hands-on policy simulations, created training materials, and provided constructive feedback for 75 students.
- Led a team of four students on a project for the Defense Security Cooperation Agency to assess how geopolitical and climatechange-driven migration impacts the delivery of humanitarian assistance. Developed and presented the final proposal to clients and key officials at the Pentagon.
- Developed international experience by studying policy and economics abroad at Oxford University during the summer of 2019
 and conducted humanitarian aid research in Tel Aviv, Israel during the summer of 2021.
- Served as the president of the University of Virginia International Relations Organization and oversaw a club of 200-plus students, managed a \$50,000-plus budget, and chaired the executive board with 13 members. Managed multiple branches of the club: three Model United Nations conferences, the Model United Nations travel team, global studies podcast, and international affairs journal.
- Coordinated the logistics of 500-plus exit polls in the midterm election of Virginia's 5th Congressional district to develop a
 research study about how messages about local politics and community can boost local news interest.

- Master of Public Policy, University of Virginia
- Bachelor of Arts, Political Economy, University of Virginia



Anishka A Khosla

NA-24 Office of Nonproliferation and Arms Control-Washington, DC

Experience

- Summer/Fall Intern, Association of Diplomatic Studies and Training
- Admissions Assistant, Master of Science in Foreign Service Admissions Office, Georgetown University
- · Learning Spaces Peer Consultant, University of California, San Diego
- Intern, World Affairs Council
- Administrative Assistant, Mission Heritage Medical Group

Accomplishments

- Interned at the Association of Diplomatic Studies and Training, researching and editing national security topics for Country and Subject Reader Series.
- Crafted post-war lesson plans for 9-12th graders that analyzed the use of nuclear power in war in accordance with the Virginia Board of Education.
- Contributed to ongoing research projects focused on arms control and nonproliferation.
- Worked on a research project to develop recommendations for the Deputy Assistant Secretary of Defense for Western Hemisphere Affairs at the U.S. Department of Defense to implement measures in the Northern Triangle.
- Lived in Kenya for 12 years. Proficient in Swahili, Hindi, and Punjabi.

Education

- Master of Science, Foreign Service, Global Policy and Security, Georgetown University
- Bachelor of Arts, Political Science, International Affairs, University of California, San Diego



Jacqlynn (Jax) Klein

NA-21 Office of Global Material Security-Washington, DC

Experience

- · Secretary of the Senate Staff, Georgia General Assembly
- Student Assistant, Kennesaw State University Division of Global Affairs
- Intern, Georgia Legislative Internship
- Role Player, Federal Law Enforcement Training Center

Accomplishments

- Completed undergraduate studies focused on intelligence, national security, global security, and diplomatic competencies, with a particular focus on radical terrorism and counterterrorism studies.
- As a Secretary of the Senate staff member and intern for the Georgia General Assembly, engaged in legislative tracking and
 assisted in services to expedite the day-to-day operations of the Georgia Senate body. Operated as a messenger between the
 Georgia House of Representatives and the Georgia Senate.
- As a role player, assisted in teaching potential federal agents the importance of the state and local law, their agency's jurisdiction, officer safety, and situational awareness through verbal and life-like scenarios. Assisted in training over 87 different federal agencies through role-playing real-life scenarios.
- Trained in tactical situational response, state and federal law, state and federal jurisdiction, agency jurisdiction, firearms safety, firearm tactics, interview scenarios, active shooter and bomb threat situational awareness, and hands-on response.
- Skilled in advanced and technical Chinese language and basic conversation in French, Spanish, and Japanese languages.

- Master of Science, International Policy Management, Kennesaw State University (in progress)
- · Bachelor of Arts, International Affairs, Kennesaw State University



Ron Koshita

NA-114 Office of Advanced Simulation and Computing and Institutional Research and Development– Washington, DC

Experience

- Graduate Researcher, Tulane University
- Teaching Assistant/Laboratory Instructor, Tulane University
- Community Advisor, Iowa State University
- Undergraduate Research Assistant, Fermi National Accelerator Laboratory
- · Supplemental Instruction Leader, Iowa State University

Accomplishments

- Developed analytics for understanding transport and eigenstate properties of molecular aggregates, namely light-harvesting systems in green sulfur bacteria, for PhD dissertation research at Tulane University.
- Competed in the 2020 Three-Minute Thesis Competition at Tulane University, learning how to communicate scientific research with a broad audience.
- Served as the president of the Graduate Studies Student Association at Tulane University, representing ~850 graduate students in the Schools of Science and Engineering and Liberal Arts to the university administration for one year.
- · Received the Louisiana Board of Regents Fellowship (2017) at Tulane University.
- Served as community advisor of Barton Hall, Tappan House at Iowa State University, bringing a community of ~50 residents together over the 2016-2017 academic year.
- Working programming skills in Fortran, Python, Mathematica, MATLAB, and C++.
- Native in speaking Japanese; continued learning in Italian, Spanish, and French.

Education

- · Doctor of Philosophy, Physics, Tulane University of Louisiana
- Master of Science, Physics, Tulane University of Louisiana
- Bachelor of Science, Physics, Iowa State University of Science and Technology



John Lambert

NA-122.2 Office of Stockpile Sustainment-Albuquerque, NM

Experience

- NATO Liaison Officer, U.S. Army
- Intern, U.S. Nuclear Regulatory Commission (NRC)
- Program Manager, Department of the Army
- Instructor, Trident Training Facility, U.S. Navy
- Navigation Supervisor, USS Nebraska, U.S. Navy

Accomplishments

- Served as the U.S. Army Liaison Officer to NATO Multinational Division Northeast headquarters in Poland. Coordinated with
 aviation, logistics, maneuver, and military intelligence communities across NATO and framework nation states to support
 the Enhanced Forward Presence mission in Poland.
- Interned at the NRC, leading an organization-wide project to revise competency models for each core position within the NRC and source recommendations for professional development activities.
- Completed thesis work on the decline of civil nuclear power programs in the Post- Fukushima Era and the role state-owned enterprises hold in civil nuclear program success.
- Obtained hands-on experience working within the Strategic Systems Program, operating and maintaining ballistic nuclear missiles, related launching systems, navigation subsystems, and electrostatically supported gyro navigators.
- Supervised the operation, repair, and maintenance to enable readiness of the strategic navigation subsystem onboard the USS Nebraska.
- Delivered specialized training and assessed 16 submarine crews' navigation divisions per year at the Trident Training Facility. Developed course curriculum for and instructed two classes of the Navigation Supervisor School.
- Intermediate language proficiency in Spanish and German; beginner language proficiency in Russian and Polish.

Education

- Master of Arts, International Studies, Peace and Security, University of Washington
- Master of Public Administration, Public Financial Management, University of Washington
- Bachelor of Arts, Political Science, University of Washington



Benjamin C Lee

NA-213 Office of Nuclear Smuggling Detection and Deterrence–Washington, DC

Experience

- Project Manager, The National Bureau of Asian Research
- Fulbright Scholar, Nanjing University
- Junior Fellow, Carnegie Endowment for International Peace
- Research Intern, Congressional-Executive Commission on China

Accomplishments

- Developed the Chinese Language Fellowship Program and assisted with the National Asia Research Program, a major
 national research and conference program designed to reinvigorate and advance the policy-relevant study of contemporary
 Asia.
- Conducted research on security issues in the Indo-Pacific such as territorial disputes in the South China Sea, North Korean nuclear weapons program, and tensions in the Taiwan Strait.
- Prepared a congressional hearing on May 24, 2017, titled "The Long Arm of China: Global Efforts to Silence Critics From Tiananmen to Today."
- Audited a masters-level class on Taiwan's political and economic development from 1949 to present and conducted independent research on cross-Strait relations.

Education

- Master of Arts, International Economics and Strategic Studies, Johns Hopkins School of Advanced International Studies (in progress)
- Bachelor of Arts, International Studies, Chinese, University of Washington



Monica R Lemmon

NA-84 Office of Nuclear Incident Response, Consequence Management–Washington, DC

Experience

- Graduate Research Assistant, James Martin Center for Nonproliferation Studies
- Intern, Los Alamos National Laboratory

Accomplishments

- Served as president of the Institute of Nuclear Materials Management club chapter at the Middlebury Institute of International Studies in Monterey from 2021 to 2022. Organized club meetings, activities, and discussion groups.
- Presented an independent research project at the 2020 Global, National, and Human Security Symposium at the University of New Mexico. Presented to Congresswoman Debra Haaland and her staff.
- Proficient in Russian language. Completed an intensive Russian language program in Bishkek, Kyrgystan in 2019.

- Master of Arts, Nonproliferation and Terrorism Studies, Middlebury Institute of International Studies
- Bachelor of Arts, Global and National Security Studies, University of New Mexico



Sydney Long

NA-LA Los Alamos Field Office-Los Alamos, NM

Experience

- Graduate Intern, North American Aerospace Defense Command (NORAD) and U.S. Northern Command (N&NC)
- Graduate Fellow/Research Assistant, North American and Arctic Defence and Security Network (NAADSN)

Accomplishments

- Researched Arctic security operations in Russia and China, which advised NORAD on current behavior in the Arctic.
- Supported N&NC J39 Information Operations Directorate with the Arctic eTalks by conducting storyboards, analyzing data, and attending events that aided the command's leaders supporting diplomatic relations between the U.S. and foreign allies.
- Conducted research tasks relevant to the Arctic that aided projects in support of NAADSN.
- Developed a paper regarding "Russian Arctic Council Strategic Narrative Messaging," which will be published by NAADSN and the Watch Magazine.
- Attended events by NAADSN that gave invaluable insight into Canadian strategic competition, the view of the Arctic from Canada, and diplomatic experience.

Education

- Bachelor of Arts, Spanish Translation, Missouri State University
- Master of Arts, International Studies, Homeland Security/Intelligence, University of Denver



Erin S McLaughlin

NA-211 Office of International Nuclear Security-Washington, DC

Experience

- Program Coordinator and Research Assistant, Nuclear Policy Program, Carnegie Endowment for International Peace
- Revenue Coordinator, Westin DC City Center
- Intern, National Consortium for the Study of Terrorism and Responses to Terrorism
- Richard B. Russell Security Leadership Scholar, Center for International Trade and Security
- Intern, U.S. House of Representatives

Accomplishments

- Acted as administrative planning lead for the 2017, 2019, and 2021 (virtual) Carnegie International Nuclear Policy Conferences. Managed logistics for over 60 high-profile speakers, 800 attendees, and 45 staff volunteers. Managed the event budget and associated grants and oversaw advertising and publicity for the three-day conferences.
- Provided research support to senior scholars at the Carnegie Endowment for International Peace on an array of topics related to nuclear policy including deterrence, arms control, and nonproliferation issues.
- Conducted open-source research at the National Consortium for the Study of Terrorism and Responses to Terrorism and created profiles of criminal and terrorist organizations to determine threats posed by possible actors trafficking radiological or nuclear material in the United States. Profiles were coded to assemble an interactive database, which was presented to senior officials at the U.S. Department of Homeland Security.
- Participated in the simulation-based course Nuclear Nonproliferation, Safeguards, and Security in the 21st Century at Brookhaven National Laboratory.
- Selected from a highly competitive applicant pool for the Richard B. Russell Security Leadership program for a fellowship focused on nonproliferation and strategic trade controls. Paired with and produced research for senior associates at the Center for International Trade and Security, including profiles of nuclear incidents along with memoranda and analyses on UN Security Council Resolution 1540, chemical/radiological/biological/nuclear terrorism, and the safety and security of radioactive materials for their use.
- Served in the fourth cohort of fellows for the N Square Innovators Network, an organization dedicated to welcoming new
 people, ideas, and resources into the nuclear threat field to assist in tackling nuclear challenges in new ways.

- Master of Arts, Security Studies, Georgetown University (in progress)
- Bachelor of Arts, International Affairs, University of Georgia



Stephanie Miller

NA-10.1 Office of Strategic Partnership Program–Washington, DC

Experience

- Laboratory Residency Graduate Fellow, Sandia National Laboratories
- Graduate Research Assistant, University of Michigan
- Teaching Assistant, University of Michigan

Accomplishments

- Awarded the Laboratory Residency Graduate Fellowship from NNSA.
- Conducted thesis research studying the laser preheating stage of magnetized inertial fusion at the University of Michigan and Sandia National Laboratories.
- First-authored a peer-reviewed journal article and presented this research at numerous national and international conferences including an invited talk at the International Conference of High Energy Density Sciences in Oxford, England.
- Received "Best Poster Award" at a Stewardship Science Academic Programs Symposium.
- Completed a week-long training course in nuclear safeguards at Oak Ridge National Laboratory.

Education

- Doctor of Philosophy, Nuclear Engineering and Radiological Sciences, University of Michigan (in progress)
- Master of Science, Nuclear Engineering and Radiological Sciences, University of Michigan
- Bachelor of Science, Nuclear Engineering and Radiological Sciences, University of Michigan



Emily C Morley

NA-213 Office of Nuclear Smuggling Detection and Deterrence-Washington, DC

Experience

- Intern, Institute for the Study of War, Indo-Pacific Portfolio
- Business Consultant, Clarabridge, Inc.
- Intern, U.S. Department of State, Embassy Singapore
- Intern, U.S. Department of State, Consulate General Shanghai
- Program Assistant, University of Maryland, Office of China Affairs

Accomplishments

- Interned at the Institute for the Study of War and researched cross-strait relations, People's Liberation Army modernization, Indo-Pacific coalition building, China in Afghanistan, and Sino-Indian border disputes.
- Advised portfolio of clients on designing customer experience analysis studies and creating data reporting frameworks. Derived timely and actionable insight findings from client datasets and briefed stakeholders on a weekly basis.
- Interned with the U.S. State Department and compiled a weekly Mandarin-language media analysis to monitor current events, including coverage of U.S.-China relations and Indo-Pacific security issues.
- Wrote a graduate capstone on "Active Defense at the Borders: China's Basing Arrangements, Security Cooperation, and Dual-Use Infrastructure Development along its Western Border" and an undergraduate capstone on "Development Ideologies in China's Efforts to Aid its West: Tibetan Nomad Resettlement Program and New Socialist Villages."
- · Completed two semesters on exchange at Peking University in Beijing, China.
- Participated in National Security Language Initiative for Youth summer and academic-year language immersion programs in Jiaxing and Changzhou, China.
- Advanced proficiency in Mandarin Chinese and Spanish.

- Master of Arts, Strategy, Cybersecurity, and Intelligence, Johns Hopkins School of Advanced International Studies
- Bachelor of Arts, Foreign Affairs and Global Development Studies, University of Virginia



Rebecca Mueller

NA-125.4 W87-1 Modification Program–Albuquerque, NM

Experience

- Graduate Student, Los Alamos National Laboratory, Actinide Analytical Chemistry
- Research Assistant, Colorado State University, Department of Radiological Health Sciences
- President, Colorado State University Student Health Physics Society Chapter
- Higher Education Research Experience Intern, Oak Ridge Associated Universities

Accomplishments

- Organized and moderated a session of the Fall 2021 American Chemical Society Meeting and technical sessions of the Central Rocky Mountain Chapter of the Health Physics Society.
- Was a Seaborg Summer Fellow at Los Alamos National Laboratory in 2021.
- Experienced in development of actinide separations methods, including solvent extraction, extraction chromatography, and ion exchange methods.
- Received Uranium One Scholarship at Colorado State University.
- Completed graduate coursework in radiochemistry, chemistry, radiation dosimetry, and radiological physics.
- Presented at five conferences and technical sessions and coauthored a peer-reviewed publication on radiochemical methods.
- Attained intermediate language proficiency in Russian.

Education

- · Doctor of Philosophy, Radiological Health Sciences, Colorado State University (in progress)
- Bachelor of Science, Chemistry, University of Kentucky



Joed Ngangmeni

NA-114 Office of Advanced Simulation and Computing-Washington, DC

Experience

- Scrum Master, Cigna
- Research and Development Intern, Ellucian
- Lead Researcher, Cigna
- Research Assistant, University Of Alabama

Accomplishments

- Led two teams in program increment planning.
- Coordinated and led demonstrations spanning the entire Cigna organization.
- Awarded a full scholarship for PhD in artificial intelligence with a focus on machine learning.

Education

- Doctor of Philosophy, Artificial Intelligence, Howard University (in progress)
- Bachelor of Science, Computer Science, Howard University

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I have learned so much about the wider Nuclear Security Enterprise and was able to see so many laboratories, plants, and sites related to the enterprise in both Research and Development and production capacities.

—Rebecca Mueller, NA-125.4 W87-1 Modification Program



Victoria A Ontiveros

NA-242 Office of Nuclear Export Controls-Washington, DC

Experience

- Research Assistant, Harvard University Belfer Center
- Course Assistant, Harvard Kennedy School
- Research Assistant, Harvard University Belfer Center

Accomplishments

- First-authored a playbook for an independent Major Cyber Incident Investigation Board. The report offers guidance on setting up an independent board to investigate cybersecurity incidents; published through the Harvard University Belfer Center.
- Selected as a Presidential Management Fellowship finalist.
- Conducted year-long research on China's investment in Africa's telecommunications infrastructure and developed policy recommendations for the United States; received credit toward Master in Public Policy degree completion.
- Contributed to research for a report on how the cybersecurity community can draw lessons learned from past cyber incidents; published through the Harvard University Belfer Center.
- Researched Chinese government domestic messaging on China's claims to the South China Sea islands and its implications for U.S.-China foreign policy; completed as part of East Asian studies honors thesis at Johns Hopkins University.
- Awarded the National Security Education Program Boren Scholarship for International Study; studied abroad in Shanghai and Beijing, China.

Education

- Master in Public Policy, Harvard Kennedy School (in progress)
- Bachelor of Arts, International Studies, Economics, East Asian Studies, Johns Hopkins University



NA-MB-92 Office of Analysis and Evaluation–Washington, DC

Experience

- · Graduate Research Assistant and Teaching Assistant, Department of Physics, University of Notre Dame
- Collaborating Graduate Researcher, Johns Hopkins Applied Physics Laboratory
- Collaborating Graduate Researcher, Air Force Research Laboratory
- Co-President, The Science Policy Initiative at Notre Dame, University of Notre Dame

Accomplishments

- Completed dissertation research funded by the National Science Foundation Graduate Research Fellowships Program on novel wavefront sensor technologies, which have direct applications to the field of national security.
- Collaborated with researchers at the Air Force Research Laboratory. Developed MATLAB code to produce non-repeating aero-optic phase screens to better simulate the atmosphere's effect on jet-based imaging.
- Collaborated with researchers at the Johns Hopkins Applied Physics Laboratory. Compared the performances of the apodized pupil Lyot and standard top-hat coronagraphs given specific contrast constraints.
- Acquired high proficiency in the MATLAB and C++ programming languages through simulation-focused dissertation research.
- Was a 2021-2022 co-president of the Science Policy Initiative at Notre Dame, a graduate student group focused on teaching graduate students about science policy and how to get involved.
- Volunteered with the Meals on Wheels program in Milwaukee, Wisconsin during the COVID-19 pandemic, delivering weekly meals to the community's impoverished elderly.

- Doctor of Philosophy, Physics, University of Notre Dame
- Master of Science, Physics, University of Notre Dame
- Bachelor of Arts, Physics and Mathematics, St. Norbert Colleg





Paige Reed

NA-191 Plutonium Program Office–Washington, DC

Experience

- Physical Scientist, U.S. Customs and Border Protection
- Analytical Chemist, SURVICE Engineering
- Graduate Student Researcher, Clemson University
- Undergraduate Student Researcher, West Virginia University
- Supplemental Instruction Leader, Cuyahoga Community College

Accomplishments

- Completed a professional certificate in nuclear security fundamentals.
- Author of a formal, internal report discussing the advantages and disadvantages of certain portable mass spectrometers in chemical/illegal drug field operations.
- Completed a master's thesis on "Analytical Applications of Pyrolyzed Cellulose Materials: Protein Adsorption and Electrochemical Detection."
- Coauthored cover article in Analytical Methods (DOI 10.1007/s00216-015-8785-0) discussing the use of pre-packaged carbon tape for multiplexed electrochemical detection of sugar, ethanol, and polyphenols in alcoholic beverages.
- Interned at NASA Jet Propulsion Laboratory researching novel capillary electrophoresis methodologies for the detection
 of cations aboard the International Space Station.

Education

- Master of Science, Nuclear Energy Technology Management, Thomas Edison State University (in progress)
- Master of Science, Analytical Chemistry, Clemson University
- Bachelor of Science, Chemistry, West Virginia University



Kyle J Sallee

NA-231 Office of Conversion-Washington, DC

Experience

- Partnerships in Proliferation Prevention Intern, The Stimson Center
- Nuclear Security Intern, The Stimson Center
- International Fuel Cycle Strategies Intern, The Nuclear Threat Initiative
- Research Fellow, Center for Security, Innovation, and New Technology
- · Research Assistant Intern, The Partnership for Global Security

Accomplishments

- Achieved the American Council on the Teaching of Foreign Languages advanced- intermediate rating for Russian language skills through intensive study in the Portland State University Russian Flagship Program and the Middlebury College Intensive Summer Russian Program.
- Researched American nuclear power exports, identifying critical market opportunities for nuclear exporters to expand their
 production and exports, which culminated in published research with the Center for Security, Innovation, and New Technology.
- Utilized Russian language skills to translate critical nuclear commodity briefs, export licenses, and nuclear reactor safety
 reports for the Partnership for Global Security's Global Nexus Initiative Report.
- Presented original research at the Center for Strategic and International Studies Project on Nuclear Issues Winter Conference, which focused on the risks posed to American nuclear power plants by domestic violent extremists and accelerationist paramilitary organizations.
- Collaborated with a team of graduate students to re-establish the American University Journal of International Service and to co-found the independent Journal of Nuclear and Emerging Technologies.
- Contributed an original report detailing the importance of the responsible disposal of radioactive waste to the International Nuclear Security Forum's Nuclear Security Policy Menu.
- Served as a member of the Secretariat in the International Partnership for Nuclear Disarmament Verification's July 2021 tabletop exercise while interning with the Nuclear Threat Initiative.

- Master of Arts, International Relations, American University, School of International Service (in progress)
- · Bachelor of Arts, Political Science and History, Portland State University



Alexis Schlotterback

NA-19 Office of Production Modernization–Washington, DC

Experience

- Academy Administrator, National Institute for Deterrence Studies
- Junior Analyst, Lockheed Martin Government Affairs
- Student Trainee, Defense Contract Management Agency
- Research Intern, American Foreign Policy Council

Accomplishments

- Supported the legislative affairs team for Lockheed Martin's Strategic, Missile Defense, and Technology Government Affairs
 programs that include the Trident II missile; the Next-Generation Interceptor; the Orion Spacecraft; Nuclear Command, Control,
 and Communications; and others.
- Analyzed Arizona defense contractor data for invoicing, receipt, and acceptance of products from vendors for Defense Contractor Management Agency.
- Interned at a leading foreign policy think tank working closely with the Vice President for Operations and Director of Defense Technology Programs by updating the Defense Technology Monitor and researching U.S. space policy initiatives.
- Presented a paper at the U.S. Strategic Command Academic Alliance Conference and Workshop on the necessary tools to deter state-sponsored nuclear terrorism.
- Participated in a wargaming exercise with the Center for New American Security that simulated a crisis between NATO and Russia with an emphasis on gray-area conflict and disinformation tactics.
- Appeared on the local Phoenix news channel 3TV with Senator Jeff Flake to discuss federal budgetary issues for upcoming generations.

Education

- Master of Science, Defense and Strategic Studies, Missouri State University
- · Bachelor of Science, Political Science, Arizona State University



Tristan Skupniewitz

NA-MB-82 Management and Budget for Defense Nuclear Nonproliferation–Washington, DC

Experience

- Field Organizer, Progressive Turnout Project
- Manager, Echo Tap
- · Conference Coordinator, University of Wisconsin-Madison
- Research Assistant, University of Wisconsin-Madison

Accomplishments

- Provided comprehensive resource and management support to all Defense Nuclear Nonproliferation offices while being the primary liaison to NA-40 and NA-80.
- · Conducted research projects for master's courses.
- Managed restaurant including maintaining strict regulatory compliance and high-quality customer relationships to increase restaurant value.
- Coordinated conferences by collaborating with conference sponsors, campus, and university housing partners.
- Created programming in residence by collaborating with resident assistants, campus staff, and university housing partners, and advising hall organizational chairs.
- Coordinated events to encourage networking between students, university staff, and prominent figures in the political science realm.
- Experienced with programs such as Adobe Suite, Google Suite, Microsoft Suite, R, and Python.
- Experienced in Chinese, French, and Spanish languages.

- · Master of Arts, International Affairs, American University
- · Bachelor of Arts, Political Science, University of Wisconsin-Madison



Chad Ummel

NA-113 Office of Experimental Sciences-Washington, DC

Experience

- Stewardship Science Graduate Fellow, Rutgers University/NNSA
 - Teaching Assistant, Rutgers University
 - Graduate Assistant in Areas of National Need Fellow, Rutgers University/U.S. Department of Education
- Student Assistant, University of California, Berkeley
- Nuclear Forensics Undergraduate Scholar, University of California, Berkeley/U.S. Department of Homeland Security

Accomplishments

- Led the analysis of measurements of the 134Xe(d,pg)135Xe and 134Te(d,pγ)135Te reactions with the coupled GODDESS (Gamma array-ORRUBA: Dual Detectors for Experimental Structure Studies) detectors at Argonne National Laboratory, which resulted in the discovery of four previously unobserved excited states in 135Xe.
- Performed two multi-experiment campaigns with GODDESS at Argonne and developed new software to enable analysis of these experiments.
- Built a complete Geant4 Monte Carlo simulation package of the Detector for Advanced Neutron Capture Experiments at the Los Alamos Neutron Science Center and used the newly written simulation package to visualize and quantify the effects of an enhanced prompt gamma-ray background from an upgraded spallation target.
- Designed, performed, and analyzed an experiment measuring the 13C(d,ng)14N cross- section at Oak Ridge National Laboratory's Multicharged Ion Research Facility.
- Served as a Nuclear Forensics Undergraduate Scholar for the U.S. Department of Homeland Security and led the development
 of Dynamic Analysis Environment, a graphical analysis software suite.
- Designed and built two solid debris collectors used in an experiment investigating laser- induced nuclear-plasma interactions at the GEKKO XII laser facility at Osaka University.
- Designed a Langmuir probe to characterize deuterium plasma generated in a multi-cusp ion source at the High Flux Neutron Generator at University of California, Berkeley.

Education

- · Doctor of Philosophy, Physics, Rutgers University
- · Bachelor of Arts, Physics, University of California, Berkeley



Jose M Veleta

NA-22 Office of Defense Nuclear Nonproliferation Research and Development–Washington, DC

Experience

- Graduate Research Assistant, The University of Arizona
- Teaching Assistant, The University of Arizona
- · Research Assistant, The University of Texas at El Paso
- Research Assistant, Texas A&M University
- Research Assistant, Massachusetts Institute of Technology

Accomplishments

- Conducted graduate research focused on the synthesis, computational studies, and applications of triarylcarbenium ions as Lewis acids in Frustrated Lewis Pair chemistry and as photoredox catalysts in low-energy red light-mediated reactions.
- Presented research at different national and regional scientific meetings, including the American Chemical Society, Society for Advancement of Chicanos/Hispanics and Native Americans in Science, and University of Arizona's department symposia. Coauthored scientific publications in the Journal of American Chemical Society, Chemical Science, American Chemical Society Applied Energy Materials, Dalton Transactions, Inorganica Chimica Acta, and other peer-reviewed journals.
- Received the Galileo Circle Scholar, Victor P. Thalacker, and Graduate Access fellowships at the University of Arizona, and Campus Office of Undergraduate Research Initiatives and Minority Access to Research Careers fellowships at The University of Texas at El Paso.
- Taught chemistry courses including honors general chemistry, inorganic preparations, and organic structural analyses laboratories.
- Held leadership roles at the University of Arizona including president and health and safety officer of the Alpha Chi Sigma, Beta Tau chapter, and member of the Program to Advance Women in Science, departmental peer-mentoring, and diversity, equity, and inclusion initiatives.
- Fluent in English and Spanish.

Education

- Doctor of Philosophy, Inorganic Chemistry, The University of Arizona
- Master of Science, Environmental Sciences, The University of Texas at El Paso
- Bachelor of Science, Chemistry, The University of Texas at El Paso



Luis A Vidana

NA-90 Office of Infrastructure–Albuquerque, NM

Experience

- Research Assistant, The University of Texas at El Paso
- National Oceanic and Atmospheric Administration Center for Atmospheric Science Weather Camp Director, The University of Texas at El Paso
- Teaching Assistant, University of Texas at El Paso
- Computer System Technician, The University of Texas at El Paso
- · Head Swim Coach, Desert Sharks Swim Club

Accomplishments

- Created a computational code for calculating light scattering for asymmetrical aerosol particles under the presence of humidity.
- Received the outstanding instructor award for the National Oceanic and Atmospheric Administration Center for Atmospheric Sciences 2019 weather camp.
- Led the atmospheric sciences team during Earth science week to bring radiosonde capability to The University of Texas at El Paso.
- Co-created the society of minority students in physics.
- Proficient in MATLAB, Python, C++, and Fortran.
- Advanced language proficiency in Spanish.

Education

- Master of Science, Physics, The University of Texas at El Paso
- Bachelor of Science, Physics, The University of Texas at El Paso



Kathryn Wernke

NA-10.2 Office of Defense Programs, International Programs-Washington, DC

Experience

- Project Associate, CRDF Global
- Intern, CRDF Global
- · Research Intern, The Committee for Human Rights in North Korea (HRNK)

Accomplishments

- Conducted and coordinated training on research security in science and emerging technology fields for international
 participants as a member of the research integrity and security team at CRDF Global.
- Assisted in coordinating trainings on cybersecurity and counterproliferation finance as a member of the UN sanctions compliance and counterproliferation team at CRDF Global.
- Completed a 3-month nuclear program research project, including a satellite imagery map with location data to be included in an upcoming report published by HRNK.
- Published two articles on North Korean human rights violations and strategies to combat them through HRNK's Young Professionals Writing Program.
- Completed a semester-long capstone research project on inter-Korea relations, South Korean domestic politics, and their effects on the U.S.-Korea alliance.
- Specialized in Korean language, history, and politics.

- Master of Arts, International Relations, Johns Hopkins School of Advanced International Studies
- · Bachelor of Arts, International Studies, Miami University



Gregory Wiatrek

NA-10 Office of Defense Programs-Washington, DC

Experience

- Foreign Policy Intern, U.S. Senate Foreign Relations Committee
- Political and Security Affairs Intern, Asia Society Policy Institute
- Public Policy Intern, Office of Senator John Cornyn

Accomplishments

- Briefed Senate Political-Military Affairs staff on the possible ramifications of AUKUS and a U.S. ratification of the Comprehensive Nuclear-Test-Ban Treaty.
- Researched the Biden administration's nominees for various ambassadorial positions, specifically their views on sole purpose, no first use, and nuclear deterrence.
- Coauthored talking points on the ethical and legal frameworks guiding artificial intelligence's present and future military use.
- Investigated private and public sector investments in emerging technologies like 5G, facial recognition software, smart city surveillance systems, and next-generation unmanned aerial vehicles.
- Researched foreign economic espionage in the American defense industry.
- Estimated total Chinese foreign investments in developing African economies.

Education

- Master of Arts, U.S. Foreign Policy and National Security, American University
- Bachelor of Business Administration, Marketing, Texas A&M University



The opportunity to support various missions within NNSA provided me invaluable insight into the domestic and international challenges and opportunities facing the United States. I am grateful for such an opportunity and will apply what I learned throughout the rest of my career.

—Gregory Wiatrek, NA-10 Office of Defense Programs



Caleb Yip

NA-10 Office of Defense Programs-Washington, DC

Experience

- Global Nuclear Policy Intern, Nuclear Threat Initiative
- Global Classrooms DC Program Assistant, UN Association of the National Capital Area
- Intern, Bureau of International Security and Nonproliferation, U.S. Department of State

Accomplishments

- Conducted a comprehensive review of nuclear weapon states' progress toward disarmament in preparation for the upcoming Non-Proliferation Treaty Review Conference, including a high-level analysis of the state of disarmament today.
- Closely monitored the Biden administration's upcoming Nuclear Posture Review by tracking developments regarding nuclear weapon systems and produced a policy memorandum on their history and implications for arms control and strategic stability.
- Drafted and edited content explaining a new nuclear nonproliferation initiative launched by the United States to readers unfamiliar with U.S. foreign policy and nuclear nonproliferation for the U.S. Department of State's DipNotes blog.
- Compiled daily news digests of nuclear-related issues to be shared with all Bureau of International Security and Nonproliferation staff, including the Office of the Assistant Secretary for Nonproliferation, and disseminated special reports for real-time tracking of sensitive issues.
- Selected for the Center for Strategic and International Studies Project on Nuclear Issues' Nuclear Scholars Initiative, with a forthcoming publication on Russian nuclear escalation management strategies in the aftermath of the war in Ukraine.
- Recognized by Georgetown University as an inaugural Pelosi Scholar, part of a highly selective cohort of public service-minded undergraduates; also recognized as a Rumsfeld Graduate Scholar.
- Professionally proficient in French, with certification in international relations; intermediate proficiency in Russian.

Education

- Master of Arts, Security Studies, Georgetown University
- Bachelor of Science, Foreign Service, Georgetown University

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This fellowship gave me an incredible opportunity to immerse myself in the Nuclear Security Enterprise and to meet some of the dedicated men and women who work to uphold the nuclear deterrent. I am thankful for the opportunity to jump-start my career at NNSA.

—Caleb Yip, NA-10 Office of Defense Programs

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Learn about the NNSA Graduate Fellowship Program online at http://www.pnnl.gov/projects/ngfp

Program Administered by Pacific Northwest National Laboratory

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Tom Gray

NGFP Program Manager Pacific Northwest National Laboratory tom.gray@pnnl.gov

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