National Nuclear Security Administration (NNSA) Graduate Fellowship Program

Class of 2023-2024

Closing Ceremony Posters

May 2024

PNNL-SA-197712

Saadi Al Saadi Bu'alaq
IN-13 Nuclear Materials Information Program

Pacific Northwest NATIONAL LABORATORY

National Nuclear Security Administration

Overview

The Nuclear Materials Information Program was established by Presidential Directive to establish a national resource providing comprehensive, integrated, and coordinated information about worldwide nuclear materials to the Intelligence Community and the rest of the U.S. government.

The Department of Energy's Office of Intelligence and Counterintelligence serves as one of 18 elements that makes up the U.S. Intelligence Community.

Outcomes

As a fellow, I functioned as an intelligence research analyst to contribute to the all-source analysis program within the Nuclear Material Security Division. It required me to become a subject matter expert in nuclear security, materials forensics, and broader nonproliferation issues.

Overall, I helped implement discussion and updates on analytical methodologies that help our team of analysts align our objectives with national security priorities. I was able to develop products ranging from one to several pages, support client briefings, and actively operate in coordination with the rest of the Intelligence Community.

IN-13
Nuclear Material Information Program

"The Fellowship and my team in the Nuclear Materials Information gave me the opportunity to interact with infinite knowledge around the Intelligence Community and Nuclear Security Enterprise. This gave me the skills and knowledge necessary to further develop as an effective national security practitioner and serve the country within the Intelligence Community."

Education
M.A., International Affairs: U.S. Foreign Policy and National Security, The American University
B.A., Global Studies, University of Nebraska-Lincoln

Grey Batie
NA-22 Defense Nuclear Nonproliferation Research and Development (DNN R&D)

Overview

DNN R&D advances technical capabilities in support of the U.S. government's nuclear nonproliferation and nuclear security goals. DNN R&D is composed of the offices of Proliferation Detection (NA-221) and Nuclear Detonation Detection (NA-222), which together fund and oversee research, technology demonstrations, and development of prototypes that meet the needs and requirements of the NNSA.

Batie attending the NA-22 sponsored Workshop on Radiation Detection Materials and Applications (WORDMAp) hosted by Brookhaven National Laboratory.

Outcomes

As an NGFP fellow I supported federal program managers and technical advisors in both NA-221 and NA-222. I evaluated research proposals, edited strategic and technical text, and contributed to the strategy development for various research portfolios including Arms Control Monitoring/Verification, Nuclear Data, Safeguards, and Nuclear Test Detection.

My time and travels as an NGFP fellow drastically broadened my understanding of nonproliferation research, the R&D proposal cycle, the needs and limitations of the sponsors, and how vital collaboration and workforce development are to the advancement of our mission.

NA-22
Defense Nuclear Nonproliferation Research and Development (DNN R&D)

"I look forward to leveraging the lessons I learned in NA-22 in the next stage of my career: working alongside world class researchers at D.O.E. National Laboratories to help solve critical problems of national security interest."

Education
Ph.D., Nuclear Engineering, University of California-Berkeley
M.S., Medical Physics, University of Wisconsin-Madison
B.S., Physics and Nuclear Engineering, MIT

Matthew Bauer
NA-242 Office of Nuclear Export Controls

Overview

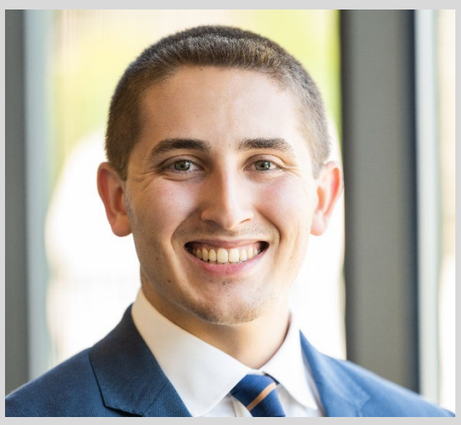
The Office of Nuclear Export Controls' International Nonproliferation Export Control Program (INECP) works to build domestic and global capacity to detect and prevent the illicit or inadvertent transfers of WMD-related materials, equipment, and technology. I supported INECP's international engagements and U.S. Enforcement portfolio.

Matt and the U.S. delegation at the Port of Gdynia, Poland, implementing a joint field operation (JFO).

Outcomes

For INECP's international engagements, I provided support by preparing materials ahead of engagements, attending in-person and virtual meetings, and supporting event development. I also supported the office's U.S. Enforcement portfolio. In this role, I conducted export data analysis to support interagency technical reach back and led a project to identify potential export diversion pathways in free trade zones. Additionally, I supported INECP's Women in Strategic Trade (WiST) initiative, which works to promote the advancement, leadership, and meaningful participation of women in all areas of export controls.

By supporting various spaces in INECP's work, I was able to learn about the importance of export controls in nonproliferation.



NA-242
Office of Nuclear Export Controls

"This fellowship allowed me to expand my knowledge on dual-use commodities, export controls, and nonproliferation. It also provided a great opportunity to network with and work alongside experts in the Nuclear Security Enterprise."

Education
Master of Public and International Affairs, Security and Intelligence Studies, University of Pittsburgh

Joelle Benavidez
NA-LA Los Alamos Field Office

Overview

Los Alamos Field Office (NA-LA) contributes to the NNSA's mission by providing oversight of both design and production activities at Los Alamos National Laboratory (LANL). I supported the Quality Assurance and Program Integration Team who provided oversight for programs, as well as assuring quality of weapons production.

Joelle Benavidez at LANL PF-5 for DOE Diamond Stamping of first production units of power supplies.

Outcomes

My focus during my time at NA-LA was supporting the quality assurance team by assisting in revisal of the NA-LA Quality Assurance Program, as well as reviewal of product data packages and diamond stamping, in order to accept products as weapons quality on behalf of NNSA.

I was able to attend numerous trainings across the complex, learning about the nuclear enterprise, weapons design and production, quality assurance, radiological safety, and more. One workshop of highlight was Nuclear Supply Chain: Assurance Today, Confidence Tomorrow hosted by the Nuclear Energy Agency (NEA) in Paris, France.

NA-LA
Los Alamos Field Office/Quality Assurance

"This fellowship provided me countless opportunities that have expanded my knowledge of the Nuclear Security Enterprise. It has opened doors to a career I never believed possible."

Education
M.S., Biostatistics, University of Louisville
B.S., Biology, New Mexico State University

Savannah Benjamin
NA-193.3 Office of High Explosives and Energetics

Overview

The Office of High Explosives and Energetics (HE&E) ensures the sustained availability of energetic materials for Defense Programs activities. The work I do for my office involves understanding energetic material properties and strategic supply chain efforts, while engaging with the labs, plants, and sites.

Photo source: Benjamin, Savannah

Savannah attends a Pentagon tour led by the former HE&E Director Alan Felser. (2/2/2024)

Outcomes

The management of energetics requires significant recapitalization of facilities and processes. A rewarding part of my time as a fellow has been my inclusion on an effort to stand up a new energetics manufacturing capability. From site tours to technical discussions with engineers, I gained an appreciation for the immense work required to produce the high-quality material needed for the stockpile.

My background in chemistry helped me better understand how we qualify and prioritize certain materials and allowed me to communicate that more effectively to stakeholders in the form of strategic documents.

NA-193.3
Office of High Explosives and Energetics

“The fellowship fosters a culture of learning and professional growth. I’ve appreciated folks’ willingness to sit down with you and explain their piece of the mission and why it’s important.”

Education
Ph.D, Chemistry,
University of Notre Dame

Maria Del Carmen (Maricarmen) Corte

NA-213 Office of Nuclear Smuggling Detection and Deterrence

Pacific Northwest NATIONAL LABORATORY

National Nuclear Security Administration

Overview

The NNSA Office of Nuclear Smuggling Detection and Deterrence (NSDD) engages in strategic partnerships worldwide to mitigate the smuggling of radioactive and nuclear materials, a critical component in combating terrorism. As an NGFP Fellow, I have contributed to global security efforts by enhancing partnerships and overseeing the implementation of advanced radiation detection systems in key regions, including Peru and Central Asia.

Sustainability Visit to the inaugural airport in Samarkand

Outcomes

In my capacity as a fellow coordinating the Central Asia Regional Cooperation, I played a pivotal role with the Tajikistan and Uzbekistan country teams, enhancing our collaborative efforts through strategic meetings with in-country partners. My duties included overseeing the acceptance testing of equipment along the Uzbek borders, coordinating training sessions for officers, and providing briefings to high-level representatives and stakeholders in the region. This groundwork led to my assignment as the Peru Country Manager, where I established a new partnership with the Peruvian National Police and facilitated sustainability projects and training with the Peruvian military. Additionally, I served as the Lead Editorial Coordinator and Graphic Designer for NSDD's internal newsletter*, The Informer*, while also supporting outreach initiatives in Africa.

(Right) Maricarmen and NSDD Uzbekistan Country Team meet with the Ministry of Public Health of the Republic of Uzbekistan

(Left) Table-Top Exercise with Lithuanian State Border Guard

NA-213
Office of Nuclear Smuggling Detection and Deterrence

"Looking back, the fellowship merged as an unexpectedly pivotal chapter in my life. It's a niche I never anticipated exploring, yet now, it's exactly where I belong and envision my future. Surrounded by friends and mentors, I'm excited to evolve in roles I never imagined, in a field that has become my passion."

Education

MALD, International Security, Technology Policy, Humanitarian Affairs, The Fletcher School at Tufts University
B.A., Philosophy, Texas Tech University
B.A., Electronic Media and Communications, Texas Tech University

Julia Anderson Crane
NA-24 Office of Nonproliferation and Arms Control

Overview

The Office of Nonproliferation and Arms Control (NPAC) works to prevent proliferation and ensure nuclear material and capabilities are used only for peaceful purposes, enabling verifiable reductions in nuclear weapons. NPAC leverages technical expertise to inform strategy, engage domestic and international partners in capacity building, conduct analysis, and implement policy and statutory requirements to guide actions across international nuclear safeguards, export controls, verification, and cross-cutting policy issues.

Julia outside P-Tunnel at NNSS during the NGO Visit as part of the NNSA Transparency initiative.

Outcomes

As part of the Action Officer team in the NPAC front office, I managed 1,200 taskers (44% with a turn around time of 8 hours or less) and helped to successfully pitch a restructuring plan for the Action Officer team meant to empower future team members to provide even more valuable contributions to NPAC's mission.

During my year, I supported the Transparency Working Group, an initiative created to increase transparency surrounding NNSA's nonproliferation and subcritical experiments. I supported DNN/NPAC on an NGO visit to Nevada National Security Sites (NNSS) to show, firsthand, the facilities that NNSA uses to conduct these experiments.

Additionally, I was able to observe NPAC's equities at work as part of the U.S Delegation for AUKUS negotiations in San Diego, California.

NA-193.3
Office of Nonproliferation and Arms Control

"The NGFP fellowship has been the most pivotal experience in my career thus far. Being a part of the day-to-day aspects of nonproliferation work has fueled my existing passion for nuclear nonproliferation and solidified my desire to remain in this field."

Education
Master of International Affairs, Columbia University
Master of Public Health, University of Vermont
B.S., Food Science and Microbiology, University of Vermont

Phoebe DeVos-Cole
Policy and Strategic Planning (NA-1.1)

Overview

The Office of Policy and Strategic Planning (NA-1.1) is an essential department that provides valuable support to NNSA leadership. Its primary focus is developing and implementing enterprise-wide strategic plans that align with the enterprise mission objectives. NA-1.1 ensures that NNSA stays on track with its goals and objectives, even in a rapidly changing strategic climate.

The dedicated team at the Office of Policy and Strategic Planning is committed to providing effective guidance and governance to NNSA leadership, enabling them to make informed decisions that advance the organization's mission.

DeVos-Cole at the HAMMER facility during orientation.

Outcomes

Through my work, I have helped to further NNSA's missions by supporting its efforts to enhance its forward-looking, resilient, and anticipatory approaches to national and nuclear security challenges. My contributions have been significant in ensuring that NNSA is well-prepared to handle challenges and can continue to operate efficiently and effectively.

NA-1.1
Office of Policy and Strategic Planning

“Through the fellowship, I gained a deeper understanding of the nuclear security threats facing our nation and the work that NNSA does to meet these challenges and safeguard our nation.”

Education
M.A., Public Policy,
University of Maryland

Adeline du Crest
NA-243 Office of Nuclear Verification

Overview

The Office of Nuclear Verification delivers applied technical solutions, policy options, and implementation capabilities to enable safe, secure, and verifiable reductions and monitoring of threat reduction and strategic stability initiatives.

DOE delegation at the IPNDV Working Meeting in Budapest, Hungary.

Outcomes

I supported this mission by collaborating with national laboratories, the U.S. interagency, and foreign counterparts through the International Partnership for Nuclear Disarmament Verification (IPNDV), which identifies challenges associated with nuclear disarmament verification and develops potential procedures and technologies to address those challenges.

I supported my team in the development and implementation of IPNDV activities, including two international working meetings and regular technical sessions. Looking ahead to the future of IPNDV, I also coordinated preparations for a tabletop exercise with laboratory experts and established potential frameworks for the next phase of the Partnership.

NA-243
Office of Nuclear Verification

“The fellowship provided a unique opportunity to engage with the National Nuclear Security Enterprise and international partners to meaningfully contribute to nonproliferation and arms control. I could not have imagined a more impactful experience this early in my career.”

Education
M.A., Nonproliferation and Terrorism Studies, Middlebury Institute of International Studies at Monterey

Rosie Garcia
NA-91 Office of Infrastructure Lifecycle Management

Pacific Northwest NATIONAL LABORATORY

National Nuclear Security Administration

Overview

The Office of Infrastructure Lifecycle Management (NA-91) mission is to provide world class infrastructure to attract and foster the nation's greatest experts and serve as the foundation for cutting-edge science, engineering, and production capabilities. During my fellowship, I supported the newly established Real Estate Division (NA-913) on policy developments and projects.

Outcomes

Working alongside dedicated public servants from diverse backgrounds and expertise proved immensely rewarding. The challenge of devising innovative solutions to modernize aging facilities from the Manhattan Project and Cold War eras while preserving oversight authority is a pivotal mandate of the office. A significant achievement was formalizing the acquisition processes for NNSA-wide circulation, which led to developing the nontraditional acquisition guidance, currently piloted in the Kansas City Non-Nuclear Expansion Transformation (KC NExT). KC NExT will provide critical manufacturing, office, and other infrastructure needed to meet W93 program timelines.

Secretary Jennifer Granholm host the DOE Annual Holiday Celebration and Reception held on December 13, 2023.

As the office's inaugural fellow, I significantly advanced critical projects, created lasting networks, deepened my understanding of the nuclear security enterprise through trainings and lab/site visits, and enhanced my career trajectory.

NA-91
Office of Infrastructure Lifecycle Management

"I am grateful to learn from an awesome team undertaking incredibly important work for the NNSA and the Nation. The fellowship experience is remarkable. Being a part of seemingly small actions that lead to meaningful, lasting impacts is invaluable."

Education
M.A., Global Security Studies/Intelligence, Johns Hopkins University

Gurcharan Gill
NA-23 Office of Material Management and Minimization

Overview

The Office of Material Management and Minimization's (M3)'s mission is to eliminate the need for, presence of, or production of weapons-usable nuclear material in new civil reactors or for other civil purposes.

Outcomes

As a fellow in M3's front office, I led the coordination of taskers between M3's program offices and Defense Nuclear Nonproliferation. Additionally, I contributed to the redesign of M3's command briefing to better communicate our scope, accomplishments, and vision to NNSA interagency partners and U.S. Congress. Lastly, a highlight of my year was supporting the planning of the IAEA General Conference and International Conference on Nuclear Security 2024.

Touring Kindai University's Research Reactor that was previously converted from highly enriched uranium (HEU) to low-enriched uranium (LEU).

Being relatively new to the industry, my NNSA experience helped me learn what nonproliferation in action looks like, especially within the context of civilian applications which will be incredibly valuable throughout my career.

NA-23
Material Management and Minimization

"The fellowship was an incredibly comprehensive introduction to the Nuclear Security Enterprise from the national labs, to the international partners, industry conferences, technical trainings, networking opportunities, and more."

Education
M.A., International Affairs,
American University School of International Studies

Ryan Hamblin
NA-122.4 Weapon Security and Control Division

Overview

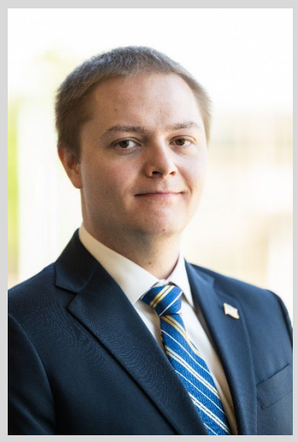
The NA-122.4 Weapon Security and Control Division is responsible for policy, assessments, and technology for security and use control of U.S. nuclear weapons. Within NA-122.4, I worked to support the Technology Implementation Team in programs developing, producing, and fielding the next generation of surety technologies for the enduring stockpile.

Ryan Hamblin and NNSA travel team visiting the Navy Strategic Weapons Facility – Atlantic

Outcomes

During my fellowship, I worked to coordinate and integrate multiple ongoing surety technology projects across the stockpile into to a combined program effort. I developed needed program management planning and sustainment documentation, coordinating with NNSA stakeholders to clarify roles and responsibilities for ongoing and future work scope in this area.

In support of this portfolio, I also took on the direction of a surety technology project, through qualification and production, and into deployment and operational readiness activities. These efforts serve to maintain the absolute requirement of surety of the U.S. nuclear stockpile against threats in an evolving security environment.



NA-122.4
Weapon Security and Control Division

“The NGFP fellowship provided me with a unique opportunity to experience work in the Nuclear Security Enterprise, develop program management skills, and apply my technical expertise in service of a critical mission in national security.”

Education
Ph.D., Chemistry, University of Virginia
B.S., Physics, University of New Mexico

Camden Hanley
NA-232 Office of Nuclear Material Removal and Elimination

Overview

The Office of Nuclear Material Removal and Elimination seeks to prevent an act of nuclear terrorism by eliminating inventories of weapons-usable nuclear materials around the world through removal and disposition in the United States or a third country and in-country disposition using existing facilities or a mobile capability.

Members of NA-232, lab partners, and partners from Kazakhstan pose for a picture outside the IVG hot cells

Outcomes

As a fellow in the Office of Nuclear Material Removal and Elimination, I attended and supported meetings with our partners in Kazakhstan. We toured their facilities to view the upgrades they have made to support interim storage and in-country downblending of their highly enriched uranium (HEU), observed them repackage material into containers to support HEU downblending, and discussed preparations for the material downblending capabilities they are developing.

My fellowship duties also included coordinating with foreign entities on future removal projects, engaging with NNSA's laboratories to better understand the technical requirements for removal efforts, and working on various internal projects to assist the office execute its mission.

NA-232
Office of Nuclear Material Removal and Elimination

"The fellowship has allowed me to learn so much about the nuclear and nonproliferation fields, working with international and domestic partners, and be mentored by respected and experienced leaders in the field."

Education
M.A., National Security and Diplomacy, University of Kentucky

Julia Harisay
DOS/ISN/CTR FIRST Program

Overview

The Foundational Infrastructure for Responsible Use of Small Modular Reactor Technology (FIRST) program provides capacity building support to help partner countries mitigate climate change and meet their energy security needs through the deployment of small modular reactors (SMRs) or other advanced reactors with the highest international standards for nuclear security, safety, and nonproliferation.

Outcomes

As a fellow, I oversaw bilateral and multilateral programmatic activities between the United States and partner countries that culminated in a virtual fellowship engaging 40 Ukrainian scientists; 3 capacity-building workshops in Ghana, Slovakia, and Romania engaging over 150 participants and 15 countries; and support of the Politehnica University of Bucharest's (UPB) integration of a FIRST-provisioned NuScale SMR simulator into their academic curriculum.

Harisay with colleagues and Romanian partners in front of UPB's Faculty of Engineering building

It has been incredibly rewarding to meet with our in-country partners, form relationships, understand their priorities, and craft our capacity-building engagement plans to meet our partner countries' needs.

Department of State, Office of Cooperative Threat Reduction

"The fellowship has been much more than a means to launch my career in nonproliferation. This year has been a unique opportunity to ask questions, learn, and grow. Most of all, this program has provided an invaluable sense of community and introduced me to life-long friends."

Education
Master of International Policy, University of Georgia
B.A., Public and International Affairs, Princeton University

Tiarra Keeton

NA-LA Los Alamos Field Office and NA-CI Office of Congressional and Intergovernmental Affairs

Overview

Los Alamos National Laboratory aligns strategic planning with the priorities set by the Department of Energy's National Nuclear Security Administration (DOE NNSA). The Los Alamos Field Office oversees all LANL activities.

NNSA's Office of Congressional and Intergovernmental Affairs (NA-CI) communicates, promotes, and defends the mission, goals, and budget of the NNSA through proactive outreach and relationship building with federal, state, tribal, and local stakeholders.

Outcomes

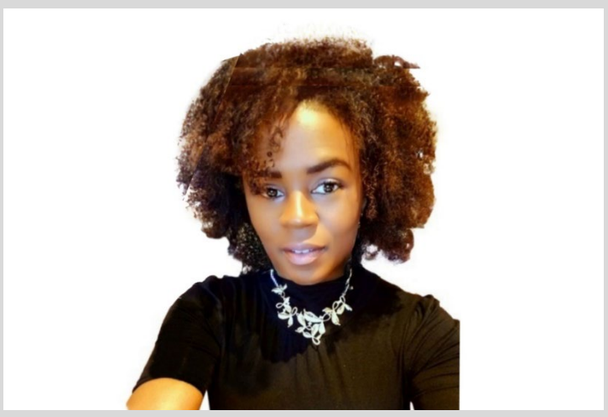
As a member of the E-Team, I worked alongside LANL's Mission Assurance and Infrastructure team, which oversees the Landlord and Stewardship Program (LSP). I facilitated the movement of several projects including the Annual Site Environmental Report (ASER). As a member of NA-CI, I supported NA-18, NA-20, and NA-80. I assisted in securing approvals from NSE equities and stockholders and coordinated projects including the NA-242 Export Control Exchange workplan.

I helped coordinate foreign and domestic interagency cooperation. Assisted with current efforts in nuclear deterrence, nonproliferation, stockpile management, and modernization. Assisted with streamlining protocol for federal, state, tribal, and local stakeholders. Attended conferences and trainings including the U.S. EPA Superfund Radiation Dose Assessment and Nuclear and Industrial Robotics, Remote Systems and Emerging Technology. These efforts afforded me the opportunity to learn more about the Nuclear Security Enterprise.

Tiarra at the 2024 Waste Management (WM) Symposia in Phoenix, Arizona

Tiarra and Fellows at the NGFP Career Fair in Washington, D.C. (Left). Tiarra at HAMMER Federal Training Center at Hanford Site in Washington state (Right).

Holiday festivities with some Washington, D.C. fellows



NA-LA
Los Alamos National Laboratory and
NA-CI
Office of Congressional and Intergovernmental Affairs

"The NGFP fellowship provides training, access, and insight into the Nuclear Security Enterprise. As this opportunity opens the door, you must decide to walk through it. You alone, get to determine who you are."

Education

Ph.D., Social and Behavioral Sciences, Yale University (2027 expected)
M.S., Engineering Management, George Washington University
B.A., Communication, University at Buffalo
A.A., Liberal Arts and Sciences, Erie Community College
A.A.S., Paralegal Studies, Erie Community College

Genevieve Kiernan
NA-NV Nevada Field Office

Overview

The Nevada Field Office oversees all work at the Nevada Nuclear Security Sites and supports the missions of national laboratories. I was assigned to the Assistant Manager of Business and Contracts (AMBC).

Genevieve Kiernan (second from right) visits Sedan Crater at the Nevada National Nuclear Security Site.

Outcomes

The Assistant Manager for Business and Contracts is responsible for oversight of Management and Operations contractor business, contracts, and agreements.

I assisted in the Clean Energy Project as the role of project coordinator. Throughout this process, I attended weekly meetings with high-level Department of Energy (DOE) officials as well as community agencies, stakeholders, and tribes.

The Clean Energy Project aims to repurpose lands owned by DOE for the generation of clean energy. The goal is to assist in achieving the climate goals set out in Executive Order 14057, which sets out requirements for federal agencies to reduce their impact on climate change and the environment.

Office
NA-NV Nevada Field Office

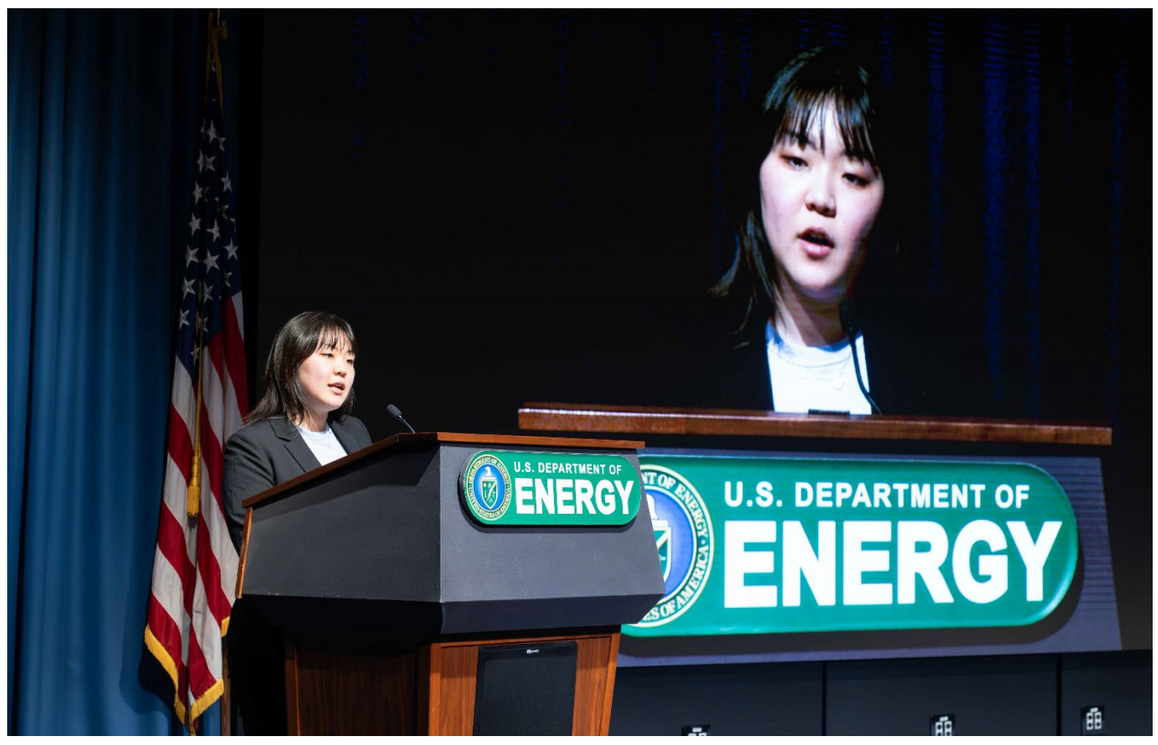
"This fellowship was a great introduction into the roles and responsibilities of federal employees. Working at the Nevada Field Office, I was exposed to a broad range of projects, activities, and duties which all play a role in advancing the NNSA's mission."

Education
J.D., Florida State University College of Law

Esther Ko
NA-1.1 Office of Policy and Strategic Planning

Overview

In the Office of Policy and Strategic Planning, I supported the strategic planning team in developing several enterprise-wide initiatives emphasizing the goals and objectives of the Administrator for our offices at DOE headquarters, and the labs, plants, and sites.



Esther opens the Administrator's Strategy Forum with Administrator Jill Hruby and guest speaker Dr. Andrew Krepinevich.

Outcomes

The strategic planning team in NA-1.1 takes on a variety of projects, ranging from multi-decade enterprise planning initiatives to hosting informative events for the NNSA workforce. I helped with developing guidance for enterprise-wide summits, projects to execute the Administrator's long-term vision for the NNSA workforce, and logistical components of hosting the Administrator's Strategy Forum every month.

Through the breadth of projects I took on in the office, I developed a better understanding of how to support senior leadership at the administrative level and had the opportunity to work with many different offices across the enterprise.

NA-1.1
Office of Policy and Strategic Planning

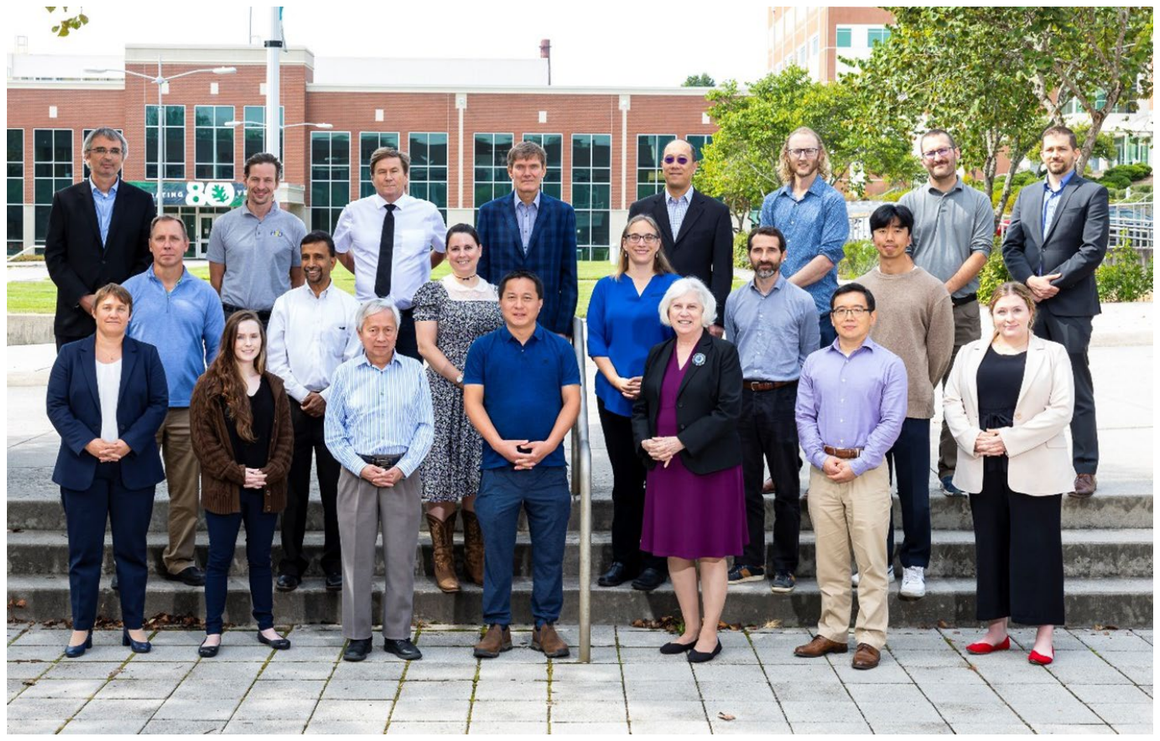
"The fellowship gave me a great first experience in the world of public service and has further motivated me to continue working on nuclear security issues at the federal level."

Education
M.A., Global Policy Studies, LBJ School of Public Affairs
B.A., International Relations and Global Studies, The University of Texas at Austin

Sarah Loftin
NA-241 Office of International Nuclear Safeguards

Overview

The Office of International Nuclear Safeguards works to support the ability of the International Atomic Energy Agency (IAEA) to detect and deter proliferation and undeclared nuclear activities. I supported work ranging from technical program management to outreach development.



Sarah participates in a technical workshop at Oak Ridge National Laboratory (ORNL photo)

Outcomes

The safeguards technology development program supports the development and testing of advanced technologies and tools for ultimate use by the IAEA. I focused on cutting-edge nondestructive assay techniques and assisted with a large inter-laboratory workshop.

International nuclear safeguards are a critical pillar of the nuclear nonproliferation regime. Working in my office, I was able to deepen my knowledge of safeguards and better understand the contemporary challenges facing the nonproliferation world.

NA-241
Office of International Nuclear Safeguards

“The fellowship opened my eyes to the breadth and depth of the nonproliferation mission. The greatest catalyst for my learning and growth, though, was the incredible support I received from mentors, coworkers, and peers in my cohort.”

Education
M.S., Chemistry, Texas A&M University

Wei (Josh) Luo
NA-234 Office of Nonproliferation Construction

Overview

NA-234 is the Program Supports (PS) Office of the Office of Material Management and Minimization (M3 or NA-20) under the Defense Nuclear Nonproliferation (DNN). We provide monthly financial reports detailing the status of the budgets associated with the three offices (NA-231 Convert, NA-232 Remove, and NA-233 Dispose) we support.

Luo (4th from right) during a visit to the Nevada National Security Site as part of the nonproliferation workshop.

Outcomes

My responsibilities usually cover the quarterly newsletters, the monthly base financial reports (BFR), the markups of the relevant bills, and tasker trackers. Through coordination with my supervisor and front office fellows, I was able to improve the efficiency of our tasker trackers. Since I have a more thorough understanding of NA-20's budgetary functions, I will now take over the main monthly financial reports.

The newsletters allow the DNN staff to better understand the key roles played by NA-234 in supporting M3. The BFRs help track the budgets. The NA-234 and M3 tasker trackers allow us to help the directors and analysts at M3 to keep up with their daily, weekly, and monthly tasks. Finally, my trip to the Los Alamos National Lab and the Nevada National Security Site provided a better understanding of the impacts of our daily tasks.

NA-234
Office of Nonproliferation Construction

"I have a great deal of respect for the directors, analysts, and contractors who I work with. By humbly learning-by-doing with them, I now understand the hard work they put in to keep our nation safe."

Education
M.A., Asian Studies, George Washington University
M.S., International Relations, London School of Economics and Political Science
B.A., Diplomacy and World Affairs, Occidental College

Benjamin Madnick
NA-212
Office of Radiological Security Response Team

Overview

NA-212, the Office of Radiological Security (ORS) enhances U.S. and global security by preventing high-activity radioactive materials from being used in acts of terrorism. The ORS Response team provides equipment and training courses to law enforcement, security professionals, and first responders in order to promote a timely, well-prepared and coordinated response to prevent a theft of radioactive materials.

Ben Madnick (second from left) with other fellows at the Oak Ridge Enhanced Technology & Training Center.

Outcomes

The work that I participated in while supporting the ORS Response team was vast and diverse in nature. At headquarters in DC, I mostly worked on projects such as writing policy papers and reviewing other products. ORS and its Response portfolio are very forward-facing programs. Because of this, I travelled quite a bit to engage with first responders on the ground through a variety of activities. Some of my out-of-town work included representing my team at a conference in California, supporting subject-matter experts (SME) with a Special Operations workshop in Texas, observing large-scale tabletop exercises (TTX) in rural Pennsylvania, and participating in a variety of interagency collaboration meetings with several U.S. federal government agencies.

NA-212
Office of Radiological Security

“This fellowship provided me with opportunities to go places, see things, and meet people that I would never have been able to in any other line of work. I am truly grateful for the professional opportunities provided by DOE, NNSA, PNNL, and NGFP.”

Education
M.A., Law and Diplomacy
The Fletcher School of Law and Diplomacy
Tufts University

Molly Martell
NA-212 Office of Radiological Security

Overview

The Office of Radiological Security endeavors to enhance global security by preventing the use of high-activity radioactive materials in acts or terrorism domestically and internationally. I worked on international projects with the goal of reducing the availability and enhancing the security of high-activity radioactive materials.

Molly participates in a meeting between NNSA HQ, a national laboratory, and RadSource in Algiers, Algeria.

Outcomes

The Office of Radiological Security is comprised of three pillars: protect, remove, and reduce. As a member of the Reduce team, I supported both the operational team and the Middle East/North Africa regional portfolio.

I managed international implementation efforts and coordinated international outreach, consisting of monitoring and evaluation of sites, and the planning of the Alternative Technologies Working Group annual meeting with the United States, Germany, and France. My efforts during the fellowship supported the promotion of alternatives to high-activity radioactive materials.

NA-212
Office of Radiological Security

“This fellowship brought me into the world of nuclear security and allowed me to explore where my passions for security lie – I now have a whole new understanding of national security and look forward to future opportunities.”

Education
M.S., Terrorism and Homeland Security Policy, American University

William (Max) Mayo
NA-192.3 Enriched Uranium Modernization Program

Overview

The Enriched Uranium Modernization Program modernizes our nation's enriched uranium capabilities and infrastructure in support of NNSA's defense programs missions. Program activities include investing in current capabilities, developing new process technologies, and constructing new facilities.

NGFP Fellows and I visiting the National Ignition Facility at Lawrence Livermore National Laboratory (LLNL). (Photo by LLNL)

Outcomes

I supported the Program with strategic communications, daily tasking, and oversight of Program work scope at the Y-12 National Security Complex. I am proud of authoring a revision to the Enriched Uranium Modernization Mission Strategy. This effort was a year-long process that incorporated expertise from the across team. The Mission Strategy will articulate the Program's direction for the next several years.

I utilized opportunities to explore the Nuclear Security Enterprise by attending seminars at multiple national laboratories. I was also given the responsibility to produce and deliver a two-part briefing on the Congressional Strategic Posture Commission Report for the larger NA-192 Strategic Materials Production Modernization Program.

NA-192.3
Enriched Uranium
Modernization Program

"The NGFP fellowship is a career jump-start. It centers you within the most existential national security issue of our time, connects you with a vibrant network of science and policy professionals, and empowers you with the resources and opportunities to find your path."

Education
M.A., International Affairs, Columbia University
B.S., Mechanical Engineering, Southern Methodist University

Arlan Meacher
NA-19 Office of Production Modernization & Materials Management

Overview

The Office of Production Modernization & Materials Management is responsible for modernizing the facilities, infrastructure, and equipment that produce materials and components to meet stockpile requirements and maintain the nation's nuclear deterrent.

Pantex Plant in Amarillo, TX

Outcomes

As an NGFP fellow, I performed various roles, which included providing daily in-office support to NA-19 leadership, analyzing and proofreading reports, traveling in support of Defense Programs leadership, and interfacing with the Deputy Administrator Action Group (DAAG) to develop, track, and disseminate official documents, reports, and correspondence.

My Front Office role required me to remain versatile to support the evolving needs of the office and allowed me to contribute to projects and meetings I found most interesting, including the Insensitive High Explosives Summit, the Annual NA-19 Budget Summit, meetings with the United Kingdom, and assisting draft and proofread the Production-Based Resiliency Plan.

NA-19
Office of Production Modernization & Materials Management

"The NNSA Graduate Fellowship not only offers a first-hand look into how the Nuclear Security Enterprise operates but allows fellows to make valuable contributions to the mission starting on day one."

Education
M.A., National Security Studies
California State University, San Bernardino

Ryan Nelson
NA-PAS-315 Office of Partnership and Acquisition Services

Overview

The Office of Partnership and Acquisition Services serves as the contracting arm of the NNSA, providing program management and acquisition services to ensure mission success. During the fellowship, I supported Program Support Acquisition Branch as a contract specialist.

The John A. Gordon Albuquerque Complex Building

Outcomes

The Program Support Acquisition Branch is responsible for executing acquisition functions on supplies and interagency agreements contracts through the full life of the contract. During my time as a contract specialist with the branch, I contributed to the NNSA mission by administering numerous high-value supplies contracts for the Office of Secure Transportation.

Being both a part of the team and the larger NA-PAS, I was able to leverage my expertise in acquisitions to support the development of policy pertaining to supply chain risk management in NA-PAS and the analysis of certain supply chains for NA-183.

"My time in the fellowship has drastically enhanced my understanding of U.S. national security as a whole. In combination with my previous experience at the Department of Defense, I am confident this time spent with NNSA has provided with the knowledge and skills necessary for a successful career in national security."

NA-PAS-315
Office of Partnership and Acquisition Services

Education
M.A., International Studies
University of Denver

Nima Nik Farjam
NA-122.1 Stockpile Services Division

Overview

The Nuclear Security Enterprise project improved financial operations of the NNSA's Office of Stockpile Services Division, NA 122.1. This enhanced data visualization and decision-making for the Multiweapon Systems (MWS) project. Knowledge transfer techniques were developed alongside applying engineering principles to multiweapon integration tasks.

Nima visits the Pentagon to discuss common equities between DOD and NA 122.1

Outcomes

Technical papers on multiweapon integration topics were prepared for stakeholder updates. This included developing a Program Execution Plan (PEP) focusing on MWS across the National Security Enterprise (NSE).

Detailed analysis provided direction regarding workload resolution design challenges while coordinating stockpile management processes with weapon system program engineers and contributed to product development testing qualification production issues resolution between NNSA M&Os.

NA-122.1
Office of Stockpile Services Division

“This fellowship has been a remarkable platform for growth, enabling me to delve into policy formulation and execution while driving strategic decision-making.”

Education
Master of Engineering, Fire Protection and Aerospace Engineering,
University of Maryland, College Park

Kaelee Novich
NA-192.4 Office of Strategic Materials Production Modernization – Depleted Uranium

Overview

The Depleted Uranium Modernization program works to meet weapons deliverables through maintaining feedstock supply chains, modernizing previously lapsed manufacturing process, and deploy new technologies.

Depleted uranium production process at Y-12 National Security Complex. (Photo by Y-12)

NGFP fellows, including Novich, visit Sandia National Laboratories in Livermore, CA.

Outcomes

In NA-192.4, I supported depleted uranium technology maturation efforts by attending technical seminars, participating as a non-voting member on the Radiation Case Steering Committee, and serving as a technical expert to the team when interfacing with labs and sites.

NA-192.4
Office of Strategic Materials Production Modernization – Depleted Uranium

“The fellowship experience has allowed me to explore all aspects of NNSA’s nuclear security enterprise and gain a valuable insight into the importance of modernization.”

Education
Ph.D. Candidate, Materials Science and Engineering, Boise State University

Maggie O'Brien
NA-20 Office of Defense Nuclear Nonproliferation

Overview

During the fellowship, I served as DOE-HQ Deputy Lead for the International Conference on Nuclear Security (ICONS), a major international event at the International Atomic Energy Agency. ICONS is an opportunity for the U.S. Government to showcase its important nuclear security work and focus attention and drive action on our nuclear security priories.

Promotional pamphlet produced by the International Atomic Energy Agency for the International Conference on Nuclear Security

Outcomes

In this role, I worked with the U.S. interagency to produce materials to advanced U.S. strategic objectives and DOE nuclear security goals. I supported ICONS coordination and produced original content for the U.S. booth.

I will lead the process of preparing materials for the Deputy Secretary and Deputy Administrator to use in their bilateral meetings. I look forward to seeing the outcome of my efforts in late May.

"This fellowship allowed me to hone my communication skills and gain experience working under pressure."

NA-20
Office of Defense Nuclear Nonproliferation

Education
Master of International Relations, Strategic Studies, Johns Hopkins School of Advanced International Studies
B.A., Political Science, Northeastern University

Sarah Pate
NA-192.1 Tritium Modernization

Overview

The Office of Tritium Modernization's mission is to provide a domestic source of tritium to meet national security requirements. I supported the Research and Development (R&D) portfolio of the program. The R&D portfolio includes material testing, gas processing activities, and modeling activities.

Outcomes

During the fellowship, I contributed toward the development of multiple programmatic documents, including the development of the NA-192.1 Tritium R&D Plan and updating the Tritium Supply Chain Risk Assessment. I collaborated with national laboratories to receive their input for the Tritium Supply Chain Risk Assessment.

Sarah visited Sandia National Laboratories in Livermore, CA, with other fellows.

I assisted in organizing the first crosscutting meeting to discuss tritium priorities, needs, and future capacities. Stakeholders were present from across the Department of Energy (DOE) complex, including multiple NNSA offices, DOE Office of Science, DOE Isotopes Program, DOE Fusion Energy Sciences, DOE Office of the Under Secretary for Science and Innovation, multiple national laboratories, and commercial nuclear reactors and fuel vendors.

NA-192.1
Tritium Modernization

"This fellowship has been an incredibly rewarding experience. It has shown me more career options post-PhD than I realized existed. I have learned so much about the nuclear security enterprise and made connections that will last a lifetime."

Education
Ph.D., Chemical Engineering, University of Notre Dame
M.S., Chemical Engineering, University of Notre Dame
B.S., Chemical Engineering, University of Alabama
B.S., Mathematics, University of Alabama

Sia N. Paulsen
NA-19 Lithium Modernization

Overview

NNSA's Headquarters Office of Lithium Modernization supports broader Office of Production Modernization and Materials Management, NA-19. I worked on projects throughout my office that corresponded with the Lithium Processing Facility at Y-12.

Sia's day shadowing Deputy Secretary of Energy David Turk.

Outcomes

The domestic team within Lithium Modernization at headquarters and Y-12. Our office is focused on sustaining current capability and modernizing the lithium component processing capability. I helped industry market analysis, the Glovebox Working Group (GBWG), and records management.

These Glovebox Working Group meetings ensure the timely manufacturing and delivery of gloveboxes to modernizing projects, such as the Lithium Processing Facility.

NA-19
Lithium Modernization

"Without participating in the Minority Serving Institution Internship Program, I would never have been exposed to NGFP. Both of which are fantastic stepping stones in my career."

Education
M.A, History, University of Texas at San Antonio

Mikhail Pellegrino
NA-211 Office of International Nuclear Security

Overview

The Office of International Nuclear Security (INS) envisions a world in which effective nuclear security prevents nuclear theft, sabotage, and terrorism. INS works with partner countries to identify their concerns and, through utilizing the expertise of the national laboratories, to develop solutions to their security concerns. Additionally, INS works with U.S. industry to promote security in new reactors.

INSTAR
INTERNATIONAL NUCLEAR SECURITY FOR ADVANCED REACTORS

Outcomes

The Office of International Nuclear Security's Analytics and Innovation Program has developed the International Nuclear Security for Advanced Reactors (INSTAR) program to promote nuclear security. I was afforded the opportunity to work with current industry partners and help develop outreach to other members of the U.S. nuclear industry.

INSTAR's cooperation with industry partners is working, and I believe that this program will promote a safer and more secure nuclear fleet moving forward. It has been amazing to see the expertise of the national laboratories addressing concerns from U.S. industry and watching the collaboration that leads to problem solving.

NA-211
Office of International Nuclear Security

"The fellowship allowed me to understand the critical role that the national laboratories play in addressing nuclear security concerns. Additionally, this fellowship has helped me understand the holistic view that the U.S. government takes when evaluating reactor technology."

Education
J.D., Creighton University
B.A., Theology, The Catholic University of America

Kendall Peterson
NA-MB-812 Weapons Activity Resource Managers Matrix

Overview

NA-MB-812 leads, integrates, and communicates the Defense Program (DP) Budgeting and Financial activities through NNSA's corporate Planning, Programming, Budgeting, and Evaluation (PPBE) processes to deliver the needed financial information and provide NA-MB budget responsibilities across the DP accounts.

Forrestal Building, Washington, D.C.

Outcomes

I supported this mission by collaborating with NA-MB staff and management to create DP's 5-year budget submissions for OMB and Congress and had the opportunity to work cooperatively with other NA-MB and DP staff in building the budgetary chapter of the Stockpile Stewardship and Management Plan.

I have also had the opportunity to work with the offices within DNN by serving as an editor for their monthly internal newsletter "the Informer." I have also gotten to work alongside contract officers from NA-21 to learn more about their work and the recently awarded Counter Nuclear Smuggling Systems deployment contracts, whose combined value equals $1 billion.

NA-MB-812
Weapons Activity Resource Managers Matrix

"The fellowship has given me many opportunities within the NNSA, Department of Energy, and the federal government that are immensely valuable and unique. I would encourage anyone with an interest in careers with the government to consider the program."

Education
M.B.A., Entrepreneurship and Value Creation, Utah State University Huntsman School of Business

Anna Pluff
NA-183 Office of Strategic Planning and Analysis

Overview

NA-183 undertook a key role in advocating for NNSA equities throughout the Environmental Protection Agency's (EPA) prioritization process under the Toxic Substance Control Act (TSCA). I worked on understanding regulations relating to TSCA.

Visiting the National Museum of Nuclear Science and History ahead of the Integrated Planning Group Meeting for the Stockpile Stewardship Management Plan (SSMP) in Albuquerque, NM.

Outcomes

I assisted my office in reviewing regulatory hurdles under the TSCA prioritization process, which evaluates chemical substances pose high- or low-risk. I engaged with working groups and experts to gain insight into how the EPA establishes its rulemaking process for various chemicals of concern and how NNSA must interact with other agencies to determine risk.

Through engagement with a series of working groups, my office was able to better understand how to communicate issues throughout Defense Programs and NNSA. NNSA continues to move forward in creating a communication pathway to provide increased engagement early in the EPA rulemaking process and how to distribute information in a timely manner.

NA-183
Office of Strategic Planning and Analysis

"The fellowship provides unparalleled opportunities to learn about the full spectrum of the nuclear security enterprise."

Education
M.A., History, University of Chicago

Daniel Puentes
NA-MB-92 Office of Analysis and Evaluation

Overview

NA-MB-92's team supports several offices in Defense Programs, including materials and infrastructure modernization development. I was involved in developing products such as a planning study on tritium R&D and a business case analysis Product Realization Infrastructure for Stockpile Modernization (PRISM).

Daniel visited Los Alamos National Laboratory to tour tritium facilities for a planning study.

Outcomes

The tritium R&D planning study was completed with results delivered in a final report. Data from surveys sent out to labs, plants, and sites working on tritium R&D was used to create a dashboard, tracking funding streams, R&D activities, and TRLs for R&D activities. The site visits helped inform the data and helped me understand the capabilities at these locations.

The PRISM business case analysis was completed with an analysis of three options for the non-nuclear laboratory space. I supported the equipment cost estimate as a part the overall cost estimate and presented the results at the annual meeting for the Programmatic Recapitalization Working Group (PRWG).

NA-MB-92
Office of Analysis and Evaluation

"This fellowship was everything and more for me. I'm grateful to visit most of the labs, plants, and sites during the fellowship for mission-critical site visits. I enjoyed participating in courses to develop my expertise in nuclear weapons and policy issues facing the complex."

Education
Ph.D., Physics, Michigan State University

Clifford Pulley III
NA-213 Office of Nuclear Smuggling Detection and Deterrence

Overview

The Office of Nuclear Smuggling Detection and Deterrence (NSDD) works with partner countries to detect, disrupt, and investigate the smuggling of radioactive and nuclear materials that could be used in acts of terrorism.

Outcomes

As a fellow, I assisted foreign affairs specialists to oversee program activities including, but not limited to, relationship management, project management, testing and acceptance, budget and forecasting, procurement, and capacity building for partner countries in the East and South-East Asia and Poland. My most memorable accomplishment as a fellow was successfully executing a proposal and budget.

NSDD
NUCLEAR SMUGGLING DETECTION AND DETERRENCE

The office of Nuclear Smuggling Detection and Deterrence (NSDD) counters nuclear smuggling through comprehensive capacity building and enduring partnerships with international organizations.

The fellowship gave me the opportunity to develop expertise in capacity building programs and participate in various initiatives to prevent nuclear smuggling. Additionally, I was able to leverage my private sector experiences to lead projects, cost analysis, and launch a career in the nuclear security enterprise.

NA-213
Office of Nuclear Smuggling Detection and Deterrence

“The fellowship allowed me to take ownership of projects, forge lasting relationships, work with partners from around the world, and launch a career in the nuclear security enterprise. I am truly thankful for this opportunity, and I want to thank the NNSA and PNNL for allowing me to be a fellow and for running an amazing program.”

Education
M.S. in Foreign Service, Georgetown University

Franchesca Paige Ramirez
NA-LA Los Alamos Field Office

Overview

The Business and Contract Management division in the NA-LA Field Office houses the Intergovernmental and Public Affairs team. Intergovernmental and Public Affairs is committed to proactive outreach and collaboration with federal, state, and local stakeholders and the Pueblos in New Mexico.

Franchesca helped organize and attended the quarterly ATEM at the Pueblo of Jemez

Outcomes

As a fellow supporting Intergovernmental and Public Affairs at the Los Alamos Field Office, I supported the interactions and initiatives with the Four Accord Pueblos, which is the Pueblo of San Ildefonso, Pueblo of Cochiti, Pueblo of Santa Clara, and the Pueblo of Jemez. During the fellowship, I helped organize the Accord Technical Exchange Meetings (ATEM), the Executive Level Meetings with the Accord Pueblos, and the Los Alamos County Council Sessions.

I assisted in the initiatives surrounding economic development, environmental justice, and educational opportunities. I attended two public hearings on the topic of EPCU, developed talking points and scripts with SMEs, assisted in comms plans, attended the NM State Legislature, and attended meeting, trainings, and conferences on Tribal governance.

Most notably, I built the bridge between the Minority Serving Institutions Partnership Program (MSIPP) and the Field Office to support Tribal educational opportunities for local students.

NA-LA
Los Alamos Field Office

“I am grateful for the experiences cultivated throughout the fellowship program. From Feast Days at the Pueblos to formal meetings, I have a greater appreciation toward public service.”

Education
Masters in Public Administration, Texas A&M International University
B.A. in Biology, Texas A&M International University

Maclyn Senear
NA-10 Office of Defense Programs, Front Office

Overview

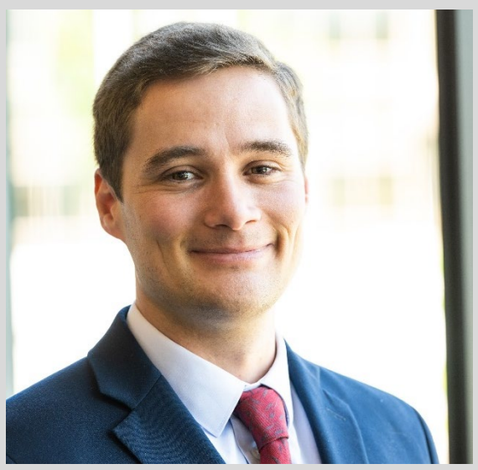
As a member of the high-visible, fast-paced Defense Programs' (NA-10) Deputy Administrator's Action Group, I provided critical strategic communication support for NA-10 leadership spanning nearly all program activities. I reviewed and scheduled over 30 briefings, contributed to leadership remarks used at public events and media interviews, and revised multiple warhead modernization reports, shepherding them through Departmental reviews and delivery to Congress.

Maclyn at the National Museum of Nuclear Science & History in Albuquerque, NM, following a briefing he gave on NA-10 engagement with Congress at Sandia National Laboratories.

Outcomes

As the primary NA-10 front office liaison with the Office of Stockpile Management (NA-12), I managed and facilitated information flows between NA-10 leadership and subject matter experts in the modernization programs. In this role, I coordinated the development of NA-12's legislatively required FY 2024 Selected Acquisition Reports (SARs) to keep Congress informed about DP's modernization programs

This required extensive coordination through multiple rounds of NNSA, DOE, and Office of Management and Budget reviews over a 7-month period. I also contributed to an NNSA-wide initiative to analyze how adopting the recommendations of the Strategic Posture Commission Report would impact NNSA by drafting some of the DP inputs to the final report for NNSA leadership.



NA-10
Office of Defense Programs, Front Office

"The fellowship gave me unparalleled exposure to senior leadership and decision making within the Enterprise, a cohort of similarly driven fellows to motivate me, and a built-in network of NGFP alumni for convenient mentorship—all contributing to a strong foundation for a successful career in nuclear security."

Education
M.S., Foreign Service, Georgetown University
B.A., International Relations, Tufts University

Kelsey Shields
NA-183 Office of Strategic Planning and Analysis

Overview

NA-183 began working on the Nuclear Security Enterprise Industrial Base (NIB) in 2021 following National Defense Authorization Act (NDAA) requirement changes (2021 NDAA Sec. 3153). The NIB team monitors supply chain, workforce, infrastructure, logistics, and transportation.

NA-18 team in front of the entrance to Manzano Mountain (a former nuclear weapon storage location) at SNL.

Outcomes

I have taken a leadership role in the supply chain pillar of the NIB, specifically in regard to microelectronics and the intersection of critical minerals and materials with vital technologies. I have learned about these topics strategically and tactically through interagency working groups, relationships with the labs, plants, and sites, and industry research.

With the assistance of the labs, plants, and sites, I helped author the Strategic Radiation-Hardened Microelectronics Industrial Base Assessment (IBA), the first IBA released out of the NIB. This report serves as the first of many assessing the economic health and strategic opportunities for NNSA's supply chains.

"The fellowship offers professionals access to and opportunities in the foundation of U.S. national security."

NA-183
Office of Strategic Planning and Analysis

Education
Master in International Affairs,
George Washington University, The Elliott School of International Affairs

Jordan Smith
NA-244 Office of Nonproliferation Policy

Pacific Northwest NATIONAL LABORATORY

National Nuclear Security Administration

Overview

NA-244, the Office of Nonproliferation Policy, began a new program in FY23 called the Nonproliferation and Climate Change Program, or NC². NC² is designed to prepare NA-20, Defense Nuclear Nonproliferation, for the myriad of challenges and opportunities that climate change presents to the nonproliferation regime. During my fellowship, I supported the development of this program and helped manage it from headquarters.

Jordan visits the International Atomic Energy Agency for its conference on Climate Change and the Role of Nuclear Power, October 2023.

Outcomes

I was fortunate enough to represent our important work in many different settings, including the IAEA's Conference on Climate Change and the Role of Nuclear Power in October of 2023. Being able to meaningfully represent not only NC² but the USG more broadly at an international conference was an incredible development opportunity.

NC²'s efforts help bring awareness to the challenges that climate change poses to the nonproliferation regime, from the expansion of nuclear energy and new nuclear technologies to geopolitical consequences, such as resource scarcity and increased political tensions. NC²'s work helps ensure that the nonproliferation regime is prepared to navigate these challenges.

NA-244
Office of Nonproliferation Policy

"This fellowship has provided me with amazing opportunities at every turn. From day one I was treated as a full employee and, as such, I was able to learn, grow, and develop as a young professional in the nuclear policy field in a way I never have before."

Education
M.A., International Affairs Policy Analysis, American University
B.A., Political Science, University of North Carolina at Wilmington

Will Smock-Egan
NA-12 Office of Stockpile Management

Overview

The Office of Stockpile Management (NA-12) is responsible for the sustainment and modernization of the United States nuclear deterrent. It ensures the stockpile remains safe, secure, and reliable.

Will shaking hands with John Evans, the Principal Assistant Deputy Administrator for Stockpile Management

Outcomes

During my first quarter in my position, I developed an action tracker that I utilized to ensure tasks were completed by their due dates and nothing was overlooked or forgotten. I shared this tracking system with my office where it became the standard between my coworkers and was improved and expanded, increasing efficiency and communication within our front office.

NA-12 activities include sustaining, modernizing, and dismantling nuclear weapons; maintaining and modernizing production operations; and optimizing the scientific capabilities that underpin these efforts. NA-12 is working on seven modernization programs, the greatest project by the nuclear security enterprise since the end of the Cold War.

NA-12
Office of Stockpile Management

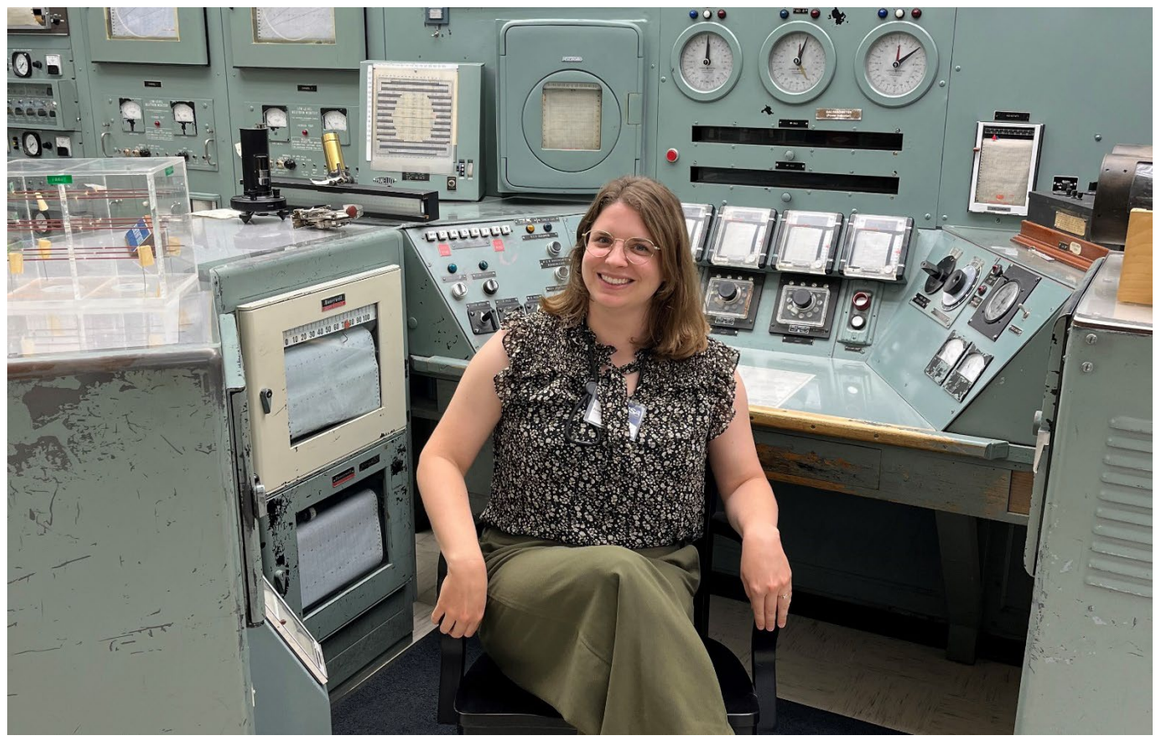
“Through the fellowship I met with, saw, experienced, and interacted with people and places that very few ever have the opportunity to do. Beyond these opportunities, NGFP provided me skills, networks, knowledge, and friends to aid me as I progress in my career.”

Education
M.A., International Security,
University of Denver

Rosemary Spracklin
NA-21 Office of Global Material Security

Overview

The Office of Global Material Security (GMS) works with partners worldwide to build sustainable capacity to secure radioactive and nuclear materials and to interdict and investigate the trafficking of those materials. I worked as an action officer in the GMS front office and provided support to GMS leadership.



Rosemary visits the B Reactor at the Hanford Site in Washington State.

Outcomes

As a fellow in the GMS front office, I assisted with the coordination of taskers between the GMS programs and the Office of Defense Nuclear Nonproliferation. I addressed inquiries and issues related to nuclear and radiological security and counter nuclear smuggling from a variety of sources including senior leaders, Congress, and the broader U.S. interagency.

I had the opportunity to visit multiple national laboratories and witness the breadth and depth of the nuclear security enterprise firsthand. Through supporting various bilateral and multilateral meetings and events, I learned the critical importance of GMS's international partnerships and multilateral collaboration in promoting nuclear and radiological security.

NA-21
Office of Global Material Security

“The NGFP fellowship provided me with a deeper understanding of the nuclear security enterprise and an invaluable opportunity to work with so many dedicated and passionate people.”

Education
M.A. Law and Diplomacy, Tufts University

Carly Strickland
NA-SN Sandia Field Office

Overview

The Sandia Field Office (SFO) is responsible for the oversight of Sandia National Laboratories. In my role with the Operations Group, I worked on oversight and assessment activities to ensure that the laboratory's work for the NNSA was carried out safely and to the necessary high standard.

Sandia National Laboratories[1]

Outcomes

The Operations Group is comprised of the Safety & Health (S&H) team and the Quality Assurance (QA) team. With the S&H team, I helped with facility walkthroughs, observations of potentially hazardous operations, and root cause analysis of abnormal events. With the QA team, I assisted with product acceptance activities—the process required to accept manufactured components as mark quality on behalf of the NNSA.

In addition to fulfilling the SFO's oversight responsibilities, these activities also help build cooperative relationships between the Field Office and the Design Agency. Such relationships are vital for ensuring Sandia Labs continues to fulfill their mission statement of providing excellent service in the national interest.

NA-SN
Sandia Field Office

"This fellowship has given me phenomenal opportunities to deepen my understanding of the nuclear security enterprise. I know that the freedom and support I was given to expand my knowledge base will continue to benefit me in my career with the NNSA."

Education
M.S., Chemical Engineering
University of New Mexico, Albuquerque

[1]Image Source: https://www.energy.gov/nnsa/locations

Anne Talavera
NA-41 Office of Policy, Preparedness, and Readiness Assurance

Overview

NA-41 develops and issues emergency management policy and guidance for DOE and NNSA. As a fellow, I assisted with writing and technical projects, such as the rewrite of DOE emergency management directives and documentation of processes through the development of standard operating procedures.

The NA-41 team at headquarters to discuss developments and accomplishments in the emergency management enterprise.

Outcomes

My projects supported NA-41's mission to provide structure and processes to ensure a comprehensive and integrated approach to emergency management. We are prioritizing the health and safety of staff and the public, while protecting the environment and enhancing the resilience of the department and the Nation.

These efforts improved capacity building through active engagement and collaboration with our partners and stakeholders and implemented effective emergency management programs in compliance with DOE policies.

NA-41
Office of Policy, Preparedness, and Readiness Assurance

"I explored new fields of research, engaged in unique professional development opportunities, and learned how the NNSA mission is implemented across the Nation through collaborative approaches in policymaking and technical expertise. I'm grateful to make an impact on national security initiatives, grow my network, and launch a career in the nuclear security enterprise."

Education
Master of Public Administration,
University of Southern California

Leonidas Tsapatsaris
NA-113 Office of Experimental Sciences

Overview

The Office of Experimental Sciences (OES) provides the expertise and capabilities to perform experiments and gather data required to understand the physics of nuclear weapons performance. I supported our Dynamic Materials Properties subprogram, which designs and executes experiments to understand the fundamental behavior of weapons materials.

NGFP Fellows Leonidas Tsapatsaris (NA-113), Arlan Meacher (NA-19 FO), and Kaelee Novich (NA-192 DU) at the U.S. Department of Energy Complex in Germantown, MD.

Outcomes

I supported the office's studies of high explosives and energetic materials, working closely with staff from LANL, SNL, and LLNL. I helped to develop strategies to address near- and long-term experimental challenges of high explosives research and development. These efforts allowed my office to align its priorities and devote resources effectively.

I am also organizing a workshop dedicated to dynamic compression experiments using high-energy X-rays. This workshop will gather researchers from across the country to discuss this essential OES research program. This workshop will allow my office and our laboratory staff to understand the cutting edge of dynamic compression science and prepare ourselves for its future.

NA-113
Office of Experimental Sciences

"The fellowship taught me how to be assertive and advocate for your program in an ambiguous and constantly shifting environment. Not only did I get to contribute to NNSA's mission, but I became a better leader while doing it."

Education
Ph.D., Chemical Engineering, Stony Brook University
(in progress)

Andrew Walker
NA-181 Office of Policy and Requirements

Overview

The Defense Programs Integrated Modeling and Analysis (DPIMA) effort identifies the models and data required to support data-driven decision-making for Defense Programs and the U.S. nuclear stockpile from a NNSA perspective. It also serves as a communication pathway to connect NNSA labs, plants, and sites' analysis products, while fostering collaboration.

Andrew with other fellows at the Albuquerque Balloon Fiesta

Outcomes

I worked with the NA-181 team and lab, plant, and site collaborators to continue and expand efforts to better analyze NNSA posture to support the needs of the U.S. nuclear stockpile. This included interfacing with various stakeholders and gaining a holistic view of the Nuclear Security Enterprise complex.

Part of the efforts included planning the DPIMA Winter FY2024 summit which brought together representative stakeholders to present on work and collaborate on enterprise-wide challenges. In addition, I presented some of my work and facilitated multiple working group sessions at the summit.

NA-181
Office of Policy and Requirements

"The ability of NGFP to gather individuals with such disparate backgrounds and interests fresh out of academia and forge them into highly competent professionals and a strong network of friends is unmatched."

Education
Master of Data Analytics, Utah State University

Grace Williams
NA-233 Office of Plutonium Disposition

Overview

The Office of Plutonium Disposition (NA-233) is focused on the safe, secure, and permanent disposition of surplus weapons-grade plutonium in support of U.S. nonproliferation and disarmament commitments.

Outcomes

During my fellowship, I supported the strategic planning of the Surplus Plutonium Disposition (SPD) program. I developed communications products for the Environmental Impact Statement public hearings.

Throughout my fellowship, I worked closely with technical and policy experts at NNSA headquarters, national laboratories, and nuclear facilities. I learned about infrastructure challenges and process improvement while supporting a strategic laboratory assessment to increase the efficiency of the SPD program.

The first shipment of downblended plutonium from the Savannah River Site to the Waste Isolation Pilot Plant under the SPD program.

My duties ranged from tracking congressional and legislative requirements to coordinating programmatic materials for leadership engagements with key stakeholders.

I further developed program management skills while coordinating NA-233's multilateral convening meetings with the governments of France, Japan, and the United Kingdom to support responsible plutonium management and disposition.

NA-233
Office of Plutonium Disposition

"The NGFP fellowship provided invaluable insight into the National Security Enterprise. I gained a better understanding of how to strengthen relationships with industry, government, and NGO stakeholders. The fellowship introduced me to leaders in the sector and instrumental opportunities for professional development."

Education
Ph.D. Candidate, Molecular Science and Nanotechnology, Louisiana Tech University