







# National Nuclear Security Administration (NNSA) Graduate Fellowship Program Class of 2024-2025 Closing Ceremony Posters

May 2025 PNNL-SA-210702

# Mikeclinton Agejo NA-NV Nevada Field Office





#### **Overview**

As part of my role at the Nevada National Security Site, I conducted comprehensive safety walkdowns and risk assessments at nuclear facilities. I helped identify potential safety hazards, evaluated compliance with U.S. Department of Energy (DOE) regulations, and collaborated with Facility Representatives to implement corrective actions.

### Outcomes

I supported Emergency Management Oversight by developing lines of inquiry and assessing emergency exercises, ensuring compliance with DOE Orders. I also participated in operational readiness activities through Plan of the Day and Plan



Mikeclinton and NGFP Fellows visit Lawrence Livermore National Laboratory in Livermore, California.

These roles helped ensure high-risk operations adhered to safety protocols and regulatory requirements. This also strengthened the sites preparedness, directly enhancing our ability to respond to emergencies.

#### of the Week meetings.



Office NA-NV Nevada Field Office "The fellowship has given me a broad understanding of nuclear security and its many components. Seeing firsthand how headquarters' directives are carried out at field sites has deepened my perspective on the connection between policy and operations."

#### Education

Master of Science, Chemical Engineering, Clemson University

# Dozie Anazia NA-70 Office of Security Operations and Special Security Programs





### Overview

NA-70 is responsible for leading, developing, and implementing the National Nuclear Security Administration's security program. I was tasked with proposing a methodology to implement artificial intelligence (AI) into the government enterprise.



### **Outcomes**

The bulk of the research efforts was to outline a process to spearhead how to integrate AI tools into our defense systems. I had to do market research on counter unmanned arial systems and computer vision consumer off-the-shelf systems to find intersections of AI and physical security. I wrote a comprehensive testing and evaluation plan on how computer vision algorithms would improve our video management systems.

We were able to realize AI is in its infancy and is a valuable tool, but the velocity of its own efficiency hasn't properly matured yet. We're only a few years away from a mass adoption across the landscape once we have more historical research data.



"The fellowships gave me avenues into supercharging my upskilling process while working on fulfilling projects which help to fortify my resume for the future."

**Office** NA-70 Office of Security Operations and Special Security Programs

#### **Education**

M.S. Applied Computer Science, American University

# Juliana Arana-Santiago NA-84 Office of Nuclear Incident Response





## Overview

The Operations and Exercises Program within the NA-84 Office of Nuclear Incident Response designs and conducts training and exercises to simulate nuclear and radiological emergencies worldwide in support of DOE/NNSA's Nuclear Emergency Support Team (NEST).

My biggest project to date has been leading the design of a Power Business Intelligence (BI)-based visual aid to analyze asset utilization across exercises and operations.

# Outcomes

This visual aid aims in providing leadership with data-driven insights into asset utilization, optimizing resource allocation, and enhancing preparedness for nuclear emergency response events. It also aims to increase data transparency, ensuring realtime accessibility for better planning and execution.



Screenshot of Power BI Visual, "NEST Activity Map"

Designing this project has expanded my technical skills in data analysis and the use of Excel and Power BI, along with gaining better familiarity with NEST asset and readiness management software.

It has also improved my understanding of nuclear incident response and my ability to communicate complex data.



**Office** NA-84 Office of Nuclear Incident Response "My fellowship has provided me with hands-on experience in areas I never imagined I would work on, expanding my skills and shaping my career in ways I hadn't anticipated."

#### **Education**

Master of Arts in International Studies University of Washington, Seattle

# Rachelle Austin NA-242 Office of Nuclear Export Controls





#### Overview

The Office of Nuclear Export Controls Export Control Review Compliance and Interdiction (ECRC/I) Program provides technical support to the U.S. government on export license review and issues related to nonproliferation and export controls. I worked on projects throughout ECRC/I and had a focus on Foreign Engagement Proposals with U.S. Department of Energy (DOE) labs and technical reviews of semiconductor licenses.

### Outcomes

I managed and performed export control reviews of Foreign Engagement Proposals with DOE labs and supported interagency licensing adjudication meetings. I performed technical reviews of dual-use export licenses in support of national security.



Rachelle visits the Pacific Northwest National Lab with Team Aluminum during Orientation in Richland, Washington.

These efforts helped to improve national security by preventing the proliferation of nuclear and dual-use technology using export controls.



**Office** NA-242 Office of Nuclear Export Controls "This fellowship provided a great introduction to the world of nonproliferation and arms control. My fellowship has enhanced my understanding of complex national and international export regulations."

**Education** Ph.D. Physical Chemistry, Colorado State University

# Laurel Baker NA-10 Front Office, Deputy Administrator's Action Group (DAAG)





# Overview

The DAAG supports and executes NA-10 leadership direction, coordinating materials and engagements among seven program offices with equities across the Nuclear Security Enterprise's (NSE's) labs, plants, and sites (LPS), as well as with international, interagency, and industry partners. In addition to preparing dozens of programmatic taskings, I frequently drafted talking points for NA-10 leadership appearances and media requests.

# Outcomes

I consistently translated subject-matter experts' technical insights into strategic communications packages, meeting due-outs, high-profile correspondence items, and other deliverables for interagency/policy audiences and industry stakeholders. Highlights include reviews and inputs for the annual Stockpile Responsiveness Program Report, Nuclear Deterrence Summit, LPS Voice of the Customer sessions, NNSA leadership LPS visits, El Capitan rollout, and NNSA Innovation Day.



UGM-96 Trident I/C-4 submarine-launched ballistic missile on display at the National Museum of Nuclear Science & History in Albuquerque, NM, seen following visits to Los Alamos and Sandia National Laboratories.

Complementary to learning about the LPS' contributions to commercial tech transfer, enterprise workforce pipelines, and planetary defense, I developed a bird's-eye view of the NSE's infrastructure and associated experimental, computing, and tech maturation capabilities buttressing stockpile stewardship. Between helping to create issue/transition papers, composing slides for official briefings, and reviewing internal and congressional reports, I was fortunate to survey the key themes, headwinds, and accomplishments shaping the future U.S. nuclear arsenal.



**Office** NA-10 Defense Programs Front Office, DAAG "I am confident the professional network, technical knowledge, and project/program management skills I gained liaising with NA-10 offices will prove invaluable throughout my career. Being a part of the discussions and administrative mechanisms undergirding policy implementation offered vital insight into enterprisewide decision-making."

#### Education

Master of Arts in Russian, East European, and Eurasian Studies, Stanford University

# Daniel Basilio-Jimenez NA-95 Los Alamos Acquisition and Project Management Office





### **Overview**

In the Los Alamos Acquisition and Project Management Office I was able to contribute to multiple infrastructure projects.

### Outcomes

Working closely with experienced federal project directors and engineers significantly improved my understanding of large-scale project delivery. I was able to play a role in analyzing technical documentation, reviewing design packages, and identifying potential engineering and integration issues.



Daniel with the people in the best office in the NNSA, NA-95.

I provided engineering expertise that supported risk-informed decision-making, cost and schedule analysis, and technical reviews, which ultimately helped keep projects aligned with performance baselines and mission objectives.



**NA-95 Office** Los Alamos Acquisition and Project Management Office "Knowing that my contributions supported this critical mission gave my work greater purpose and deepened my commitment to public service in the technical space."

#### **Education**

M.S. Mechanical Engineering, San Jose State University



# Alex Belles NA-113 Office of Experimental Sciences





### **Overview**

The Office of Experimental Sciences manages the Nation's inertial confinement fusion (ICF) facilities. In addition to helping formulate the Office's Artificial Intelligence strategy, I led a report providing a high-level overview of the ICF program. This report looks at the future of the program following the breakthrough of fusion ignition in 2022.

#### **Outcomes**

The ability to produce 100+ megajoules (MJ) of fusion yield in a laboratory environment is a key capability for supporting the stockpile. This report identifies the current capabilities of the facilities, capability gaps that exist, what future planned upgrades will enable, and the need for a future high energy



Alex visits the Saturn accelerator at Sandia National Laboratories.

This work will aid in communicating with internal stakeholders about the importance of the inertial confinement fusion program in supporting the mission of nuclear deterrence through the delivery of a safe, secure, and reliable stockpile.

density facility capable of producing high yields.



**Office** NA-113 Office of Experimental Sciences "NGFP has been a great opportunity to see firsthand how scientific expertise is being used to solve some of the Nation's most difficult challenges in this exciting era of nuclear modernization."

#### Education

Ph.D., Astronomy and Astrophysics, Pennsylvania State University

# Stephen Borrelli NA-COMM Office of Communications





### **Overview**

The Office of Communications (NA-COMM) develops and implements effective messaging strategies for external and internal audiences, so that NNSA stakeholders better understand and assess the fundamentals of nuclear security, NNSA's role in preserving them, and NNSA's core mission objectives and priorities.

### **Outcomes**

In the Office of Communications, I led the execution of enterprise-wide public notifications regarding issues including M&O contract extensions, National Environmental Policy Act (NEPA) actions, weapons modernization programs, and NNSA reports. I also successfully transferred the Nuclear Nexus platform from Idaho National Laboratory's to NNSA's website, streamlining access and enhancing user experience across the enterprise.



Stephen and other NGFP fellows at the Nuclear Emergency Support Team (NEST) 50<sup>th</sup> Anniversary Ceremony.

My work in aligning messaging from DOE headquarters and the labs, plants, and sites (LPS) ensured NNSA was able to deliver on numerous key initiatives. It also assisted in bringing attention to NNSA's incredible capabilities and scientific knowledge at our national laboratories.



**Office** NA-COMM Office of Communications "This fellowship gave me opportunities and opened doors that I never could've imagined when applying. It has been an honor to learn from and work with such brilliant and patriotic colleagues."

#### Education

Master of Arts in International Affairs, U.S. Foreign Policy and National Security, American University

# Samantha Cooper NA-212 Office of Radiological Security





### **Overview**

The mission of the National Nuclear Security Administration (NNSA) Office of Radiological Security (ORS) is to enhance U.S. and global security by preventing high-activity radioactive materials from being used in acts of terrorism. As an NNSA Graduate Fellow, I worked to support this mission.

#### **Outcomes**

During my time in the fellowship, I focused on strengthening bilateral relationships between the U.S. and foreign partners in the Middle East, North Africa, and Republic of South Africa to strengthen radiological security. One project in this space was acting in my office's delegation to the *Bilateral Engagement Meeting Between the Libyan Atomic Energy Establishment* 



Samantha Cooper briefs the Libyan/U.S. Bilateral Cooperation Program Committee and International Atomic Energy Agency (IAEA) representatives.

(Libyan/U.S. Bilateral Cooperation Program Committee) and Global Material Security (GMS) which reestablished bilateral relations between GMS and the Libyan regulatory authority.



**Office** NA-212 Office of Radiological Security "This fellowship has been instrumental in shaping my career trajectory, equipping me with the expertise to contribute meaningfully to the future of nuclear and radiological security."

#### **Education**

Master of Arts, Security Policy Studies George Washington University

# Forrest Dallas-Fuge NA-81 Office of Nuclear Incident Policy and Cooperation





### **Overview**

The NNSA Office of Nuclear Incident Policy and Cooperation (NIPC) develops and implements policy, provides technical solutions, and builds capacity to strengthen domestic and international capabilities in counterterrorism and counterproliferation and international nuclear incident capabilities.

#### **Outcomes**

In my capacity as a fellow, I supported the NNSA Ukraine Task Force as well as NA-81, with projects including overseeing the creation of a Radiological Response Handbook for use by emergency responders. Additionally, I assisted with efforts to train, equip, exercise, and



Meeting with State Emergency Service of Ukraine partners in Krakow, Poland

Key outcomes of my fellowship included supporting NIPC and Ukraine Task Force efforts to support international partners and better prepare for and respond to nuclear incidents.

ultimately improve the capabilities of responders around the world.



**Office** NA-81 Office of Nuclear Incident Policy and Cooperation "This fellowship gave me an incredible opportunity to contribute to impactful work and support a life-saving mission. Working at NNSA headquarters has deepened my understanding of emergency management and given me experience in the Nuclear Security Enterprise."

#### **Education**

M.A. International Security Studies, University of Denver

# Omar Dominguez NA-SN Sandia Field Office





### **Overview**

The Sandia Field Office oversees the management and operations of Sandia National Laboratories (SNL). In the Programs office, I worked on the Laboratory Directed Research and Development program and engaged in multiple weapon activities, overseeing daily activities and collaborated on various SNL projects.

#### **Outcomes**

I successfully directed performance and managed contract administration for various technical activities at SNL, ensuring alignment with NNSA and U.S. Department of Energy (DOE) objectives. I effectively liaised with NNSA Program Managers to enhance program readiness and resolve



Tonopah Test Range

Visiting multiple national security sites has greatly enhanced my professional development and has deepened my understanding of interagency interactions and the critical roles each stakeholder plays in national security. As the oversight entity, this experience has been crucial in helping me navigate the complexities of NNSA's initiatives while appreciating the collaborative efforts that underpin our defense strategies.

complex cross-laboratory activities.



**Office** NA-SN Sandia Field Office "My fellowship experience was all about networking and getting to know different programs across the enterprise. Searching for my interest and engaging in every possible activity was insightful and developmentally fulfilling."

#### Education

Master of Science in Mechanical Engineering The University of Texas at El Paso

# Molly Grace Doyle NA-183 Office of Strategic Planning and Analysis





### **Overview**

The Office of Strategic Planning and Analysis is a support office that coordinates the Stockpile Stewardship Management Plan (SSMP) and the industrial base monitoring program. In addition to the SSMP and IB directives, the NA-183 team also manages the Getting the Job Done List (GTJDL) and the Committee on Foreign Investment in the United States (CFIUS).

#### **Outcomes**

I had the opportunity to navigate a range of projects with a hands-off approach. This allowed me to develop a strong sense of initiative as assignments were presented with freedom of direction. I was the lead integrator on the Stockpile Research, Technology, and Engineering chapter of the SSMP. I explored legislative issues related to the health of the industrial base. I took over the GTJDL, a project dedicated to tracking defense program goals.



Molly Grace and Fellows at a tour of the Pentagon organized by Defense Programs

As the lead on the GTJDL, I was able to facilitate a meeting between the Acting Deputy Administrator for Defense Programs with the Principle Assistant Deputy Administrators. I learned a lot throughout the course of my fellowship, but the most important thing I learned was success in the fellowship is about being in the right place at the right time and keeping a positive attitude while you wait for the luck.



""Being an NGFP isn't about being the smartest person in the room. It's about bringing your unique perspective, working hard, and staying open to learning. Don't be discouraged by the success around you; just focus on what you bring to the table, and opportunities through the fellowship will follow."

**Office** NA-183 Office of Strategic Planning and Analysis

#### Education

Master of Arts, International Affairs and Nuclear Policy, George Washington University.

# Sam Faulstich NA-LL Livermore Field Office





### **Overview**

The National Atmospheric Release Advisory Center (NARAC) at Lawrence Livermore National Laboratory (LLNL) is a national support center providing mapping of the atmospheric release of hazardous materials. NARAC's rapid response time means that they are often first to deliver scientific analysis that can help decisionmakers in an emergency. I worked on high-fidelity modeling of historical nuclear tests.

### Outcomes

Being embedded with NARAC at LLNL gave me the opportunity to contribute to cuttingedge scientific knowledge in atmospheric transport. I worked to combine several atmospheric modeling tools to provide updated estimates of fallout dispersion that were then compared to historical records of atmospheric testing in the 1950s.



Faulstich attends an NIF tour at LLNL during the Nuclear Emergency Support Team Consequence Management Core meeting.

This work improves our modeling capacities by comparing model results to real-world data, improving our emergency response and stockpile stewardship capabilities.



**Office** NA-LL Livermore Field Office

"The fellowship has been so rewarding. I learned more than I ever thought, and it has been one of the most valuable experiences of my life. Though it was challenging, I'm not sure I would've learned as much if it were easier. As the emperor from Mulan says: 'The flower that blooms in adversity is the most rare and beautiful of all.""

#### Education

Ph.D. Candidate, Chemical Engineering, University of Utah

MS. Atmospheric Science, University of Nevada, Reno

# Rickey Frazier NA-122.2 Office of Stockpile Sustainment/Ballistic Missile Weapons Division





## **Overview**

The Ballistic Missile Weapons Division (BMWD) directly supports the sustainment activities for Intercontinental Ballistic Missiles (ICBM) and Submarine-Launched Ballistic Missiles (SLBM), which are two thirds of the nuclear triad. BMWD also supports the 1958 United States (U.S.)-United Kingdom (UK) Mutual Defense Agreement (MDA). I developed charters to improve communication and clarity on specific topics under the MDA, ensuring alignment among stakeholders and enhancing collaboration.

# Outcomes

The charters established clear roles, responsibilities, and objectives, improving coordination and understanding between U.S. and UK partners. By creating a structured framework, they enhanced decision-making processes and streamlined information sharing, ultimately strengthening collaboration under the MDA.



An Unarmed Minuteman III ICBM test launches from Vandenberg Space Force Base, California.

During my fellowship, I supported daily operations and documentation processes for the ICBM, SLBM, and UK teams. This experience deepened my understanding of nuclear deterrence and program management, while strengthening my skills in technical communication and cross-agency collaboration.



"The fellowship has been an invaluable experience deepening my understanding of nuclear deterrence and stockpile sustainment, preparing me for future roles in national security."

#### Office

NA-122.2 Office of Stockpile Sustainment/Ballistic Missile Weapons Division

#### Education

Master of Engineering, Systems Engineering, Arizona State University

# Logan Gafner NA-192.5 Lithium Modernization Program





#### **Overview**

NNSA's Lithium Modernization Program supports NA-19 Office of Production Modernization. I worked on a variety of independent projects within the program, supporting lithium processing, technology maturation, and a potential lithium processing facility.



Lithium Team Offsite

### Outcomes

Working closely with the Y-12 facility, NA-192.5 strives to support a safe worker environment with modernized technologies and processing operations. I helped initiate and complete multiple independent projects,

These efforts support NNSA Defense Program's mission of ensuring the nation's safe and reliable deterrent.

as well as support long lead procurement, all to ensure timely completion of necessary program milestones.



**Office** NA-192.5 Lithium Modernization Program "The fellowship gave me a phenomenal opportunity to shift my career to supporting national security and to do so alongside the best people."

**Education** Master of Arts, International Security University of Denver

# Jazmine Gardner NA-181 Office of Policy and Requirements





### **Overview**

I supported NA-181 and NA-183 Office of Strategic Planning and Analysis. NA-181 leads Weapons Activities Risk Management (WARM), an enterprise risk management initiative that integrates risk management across programs to provide leadership with a comprehensive risk picture. NA-183 monitors the Nuclear Industrial Base (NIB), assessing the resilience of the supply chain for the nation's nuclear stockpile.

### Outcomes

In NA-181, I contributed to WARM by helping plan and execute bi-annual risk summits, which foster cross-communication, information sharing, and leadership engagement. These summits are essential for enhancing risk management practices across the enterprise, and my role helped contribute to their continued success as platforms for collaboration and process improvement.



Jazmine visits Y-12 to learn more about Y-12's enterprise risk management program.

U.S. companies to identify strategic risks to supply chains across the Nuclear Security Enterprise (NSE). I collaborated with teams across multiple labs, plants, and sites (LPS) to assess vulnerabilities, improving leadership's awareness of foreign influence on critical technology and infrastructure. I also helped author the workforce development chapter of the Stockpile Stewardship and Management Plan (SSMP), which analyzes workforce trends and challenges.

In NA-183, I supported the Committee on Foreign Investment in the United States (CFIUS) by analyzing foreign acquisitions of



"Through my fellowship, I've had the chance to learn from experts, explore complex challenges, and witness the incredible work happening behind the scenes. This experience has provided me with insights and opportunities I never thought possible, shaping my career in ways I never imagined."

**Office** NA-181 Office of Policy and Requirements

#### Education

Master of Arts, International Security and Intelligence, University of Kentucky Patterson School of Diplomacy

# Brett Gillispie NA-CI Office of Congressional and Intergovernmental Affairs





### **Overview**

NA-CI effectively communicates, promotes, and defends the mission, goals, and budget of NNSA through proactive outreach and sustainable relationship building with federal, state, tribal, and local partners. During my fellowship, I worked with the Office of Radiological Security (NA-212), providing intergovernmental affairs support to the Cesium Irradiator Replacement Program (CIRP).

### Outcomes

CIRP assists and incentivizes hospitals, universities, and other research and medical institutions in replacing cesium blood irradiators. The irradiators can be unsecure sources of radioactive material which may pose a security risk as they are often located in high traffic areas. NA-212 removes old devices and through cost sharing, helps institutions replace them with new X-ray devices that perform the same function.



Brett meets (former) Secretary of Energy Jennifer Granholm

In support of CIRP, I arranged and facilitated meetings between NA-212 and local municipal governments to brief them on the program and gain their support to encourage local facilities to participate in the program. I also leveraged my state government experience to provide engagement strategy recommendations for state and local participants.



#### Office

NA-CI Office of Congressional and Intergovernmental Affairs

"NGFP helped me hone my skills as a public policy professional and gave me an exciting window into the Nuclear Security Enterprise. I've gained valuable insight into how local, state, and federal policymakers collaborate to advance U.S. national security."

#### **Education**

Master of Public Administration, University of Kentucky B.A., Political Science, Asbury University

# Derrik Graham NA-122.3 Air-Delivered Systems





#### **Overview**

NA-122.3 Air Delivered Weapons Division provides governance that is critical for national security. My efforts included assisting the surveillance team, supporting specific weapon systems, working on special projects, and presenting at the NA-12 Budget Summit. The best part of the fellowship has been learning from and working with many exceptional people.

### Outcomes

NA-122.3 afforded me the opportunity to support NNSA's contribution to the U.S. strategic deterrent; team with NNSA and their labs, plants, and sites on the execution of air-delivered weapon systems; shadow senior leadership at Defense Programs; brief program requirements to the Nuclear Security



<u>B2</u>: One of the United States most capable bombers

"Derrik has been a pivotal part of the Air Delivered Weapons team, providing coverage and programmatic continuity during times of extended leave of two team

Enterprise; and partner with Department of Defense (DoD) counterparts to create stronger programmatic governance.

members." - Chelsea Fuchs



**Office** NA-122.3 Air-Delivered Systems *"The NGFP fellowship has been dynamic, challenging, exciting, heavy, important, and a place to grow and hone my skills."* 

#### Education

Ed.D. Leadership Development, Liberty University MBA-STEM, Rochester Institute of Technology BS, Chemistry & Biology, University of the Pacific

# Steven Guerrero NA-192.4 Depleted Uranium Modernization





### **Overview**

The Depleted Uranium Modernization (NA-192.4) Program's mission is to ensure the production capability of strategic material will meet current and future deterrence demands. This is achieved by securing reliable supply chains, modernizing legacy manufacturing processes, and inserting new technologies to improve production efficiency.

### **Outcomes**

To maintain the nation's nuclear deterrent requires the modernization of facilities, infrastructure, and equipment that supports the production of strategic materials. My focus was overseeing the General Manufacturing Modernization (GMM) portfolio where holistic and risk-based management strategies led to successful manufacturing capabilities in support of the weapon delivery mission.



Steven visits the Hanford Volpentest Hazardous Materials Management and Emergency Response (HAMMER) Federal Training Center during Orientation in Washington

Through my projects and duties, I have had the opportunity to attend numerous trainings across the various national laboratories and develop a deeper understanding of collaboration within the complex in

advancing the NNSA's mission.



**Office** NA-192.4 Depleted Uranium Modernization *"The fellowship provides an invaluable opportunity as you gain first-hand experience working alongside experts and professionals in the Nuclear Security Enterprise."* 

#### **Education**

Master of Arts in International Security George Mason University, Virginia

## Becca Hage NA-40 Office of Emergency Management





### **Overview**

Within NA-40, I supported the Office of Policy, Preparedness and Readiness Assurance. I worked with the Readiness Assurance Team and supported the development of an annual report, internal site fact sheets, standard operating procedures, and the Emergency Readiness Assurance Plan form.

#### **Outcomes**

NA-40's vision is to build capacity through partnerships to create the most effective and efficient emergency management and continuity enterprise for the Department. My projects contributed to this vision through building internal resources, fostering relationships, and reporting on the status and health of the U.S. Department of Energy (DOE)/NNSA emergency management enterprise.



Becca visits Oak Ridge National Laboratory in November 2024 for the annual DOE/NNSA Emergency Management Fall Leadership Forum.

My projects and the various activities from the Readiness Assurance Team helps ensure a safe and secure DOE/NNSA enterprise by improving readiness and managing risk. Overall, it has been a rewarding experience to see how NA-40 enables the NNSA mission.



"This fellowship gave me the opportunity to build rewarding professional relationships while contributing meaningfully to public service."

**Office** NA-40 Office of Emergency Management

**Education** Master of Public Policy American University



# Farrah Harris NA–10.1 Technology & Partnerships Office





### Overview

The mission of the Technology and Partnerships Office (NA-10.1) is to ensure the continued economic security and research security of the U.S., pertaining to nuclear weapons' technologies, and to ensure that U.S. preeminence is maintained in key science, technology, engineering, and mathematics fields that are essential for the stewardship of nuclear weapons.

#### **Outcomes**

Throughout my fellowship, I have embraced a transformative journey, honing my technical acumen and leadership ability. I managed the production of the 2025 Technology Transfer calendar. For the Technology Transfer program, I supported foreign engagements and reviews of the labs, plants, and sites.



Photo 1: Farrah Harris attends Pentagon Tour; Photo 2: NGFP Class of 2024-2025 Fellows at the Aspiring Leaders Certificate Program and National Security Event, with former NNSA Administrator Jill Hruby and former Acting Principal Deputy Administrator Corey Hinderstein.; Photo 3: NA – 10.1 2025 Technology Transfer Calendar Cover

For the Planetary Defense program, I authored and delivered briefs, fostered collaborations between

supported laboratories and NNSA, and contributed to strengthening risk mitigation strategies for the planetary defense efforts.



**Office** NA-10.1 Technology and Partnerships Office "This fellowship has been an enlightening experience, sharpening my technical and leadership skills while expanding my professional horizons. It has opened doors to new career opportunities, deepened my expertise in national security, and connected me with an incredible network of colleagues and mentors. The knowledge I've gained and the friendships I've built will continue to shape my journey for years to come."

#### Education

Master of Science, Geophysics, Stanford University Bachelors of Science, Physics, Fisk University

# Landin Hayter NA-241 Office of International Nuclear Safeguards





# Overview

NA-241 supports ongoing research and training for nondestructive assay (NDA) analysis of nuclear materials. These trainings help instruct both domestic and international nuclear safeguards experts on the science and technology used by the International Atomic Energy Agency and state regulatory authorities around the world to perform gamma-ray spectroscopy and neutron detection analyses.

# Outcomes

NA-241's International Nuclear Safeguards Engagement Program (INSEP) sponsored a Fundamentals of Nondestructive Assay course at Los Alamos National Laboratory for various state regulatory authority professionals from around the world. I attended to represent our office, meet the other course participants, and report back.

I deepened my knowledge on the technical and practical applications of the R&D we support, as well as the backgrounds, needs, and challenges of our international partners. The participant's objectives in the course varied but included obtaining a deeper knowledge for administrative purposes, expanding their analytical skills, and networking with other safeguards professionals.



Fundamentals of Nondestructive Assay for International Safeguards Training course participants and instructors at Los Alamos National Laboratory

Participating Countries:

- Azerbaijan
- Democratic Republic of the Congo
- Costa Rica
- Sri Lanka
- Turkmenistan
- Czech Republic
- Argentina
- South Africa
- Thailand



**Office** NA-241 International Nuclear Safeguards "My experience this past year with NA-241 has been pivotal for my career development within the Nuclear Security Enterprise. Every day, I am surrounded by incredible technical and policy experts and participate in nonproliferation programs with profound and tangible impacts."

#### Education

Master of Arts, Nonproliferation and Terrorism Studies, Middlebury Institute of International Studies at Monterey

# JJ Henkin U.S. Department of State





#### Overview

The U.S. Department of State Office of Cooperative Threat Reduction conducts programming to establish and promote the safe and secure deployment of novel small modular nuclear reactor technologies under the highest standards of nonproliferation. In my role, I supported programs to advance this effort in Ukraine, Kazakhstan, Philippines, and across the western hemisphere.

### Outcomes

The Department of State's Foundational Infrastructure for the Responsible Use of Small Modular Reactor Technology (FIRST) program implements capacity building programs in cooperation with both advanced and developing nations, from every corner of the globe, as they seek greater energy independence and security through the exploration of safe and secure nuclear power technologies.



Harry S. Truman State Department Building, U.S. Diplomacy Center Visual Rendering Source: diplomacy.state.gov

During my time serving this office, our team has provided critical technical advisory services and subject matter expertise to dozens of countries, helping them move closer to functional deployments of advanced nuclear power technologies. This effort advances U.S. nuclear and national security interests by ensuring partner countries consider nonproliferation from the outset, and not as an afterthought, as they pursue advanced new energy solutions.

#### Office

Department of State, Bureau of International Security & Nonproliferation, Office of Cooperative Threat Reduction "The most impactful aspect of this program is the other fellows. They are strong, resilient, and smart. To work with them, and to call them friends, is to keep the highest quality of company."

#### Education

M.Eng., Nuclear Engineering, UC Berkeley MPP, International & Global Affairs, Harvard University BA, Astrophysics, University of Colorado

# Jordan Herder NA-191.2 Savannah River Site Plutonium Modernization





#### **Overview**

The Office of Savannah River Plutonium Modernization manages the establishment of the Savannah River Plutonium Processing Facility to provide a safe and reliable source of new pits. These pits, in addition to those made at Los Alamos National Lab, will ensure the reliability and adaptability of the nuclear stockpile.

#### Outcomes

I utilized my technical background to prepare briefing materials and speak to various aspects of the pit production mission, including resources needed to establish pit production capability. My focus was on technological maturation and efforts to incorporate modern industrial practices and lessons learned from previous pit production facilities to more efficiently execute mission scope at Savannah River Site (SRS). I also facilitated the exchange of multiple monthly reports, so the program stayed informed of SRS activities.



Jordan in front of Schooner Crater at the historic Nevada Test Site, known today as the Nevada National Security Sites. The crater was formed during research of the peaceful use of nuclear explosives during Project Plowshare.

My efforts resulted in multiple internal resources that will serve as reference documents and provide knowledge preservation for the program. I also engaged SRS personnel to improve reporting of technology maturation to support NNSA leadership and subject matter experts in managing the pit production mission.



"NGFP has provided insight into the complex nature of nuclear security administration and allowed fellows to immerse ourselves in the broader mission of NNSA. The program highlights not only importance of the mission but the dire need for committed professionals to execute it."

**Office** NA-191.2 Savannah River Site Plutonium Modernization

#### **Education**

Ph.D. Chemistry – The George Washington University

# Joseph Herlihy NA-1.1 Office of Policy and Strategic Planning





#### **Overview**

The Office of Policy and Strategic Planning (NA-1.1) provides a central, cross-cutting analysis and integration capability for the NNSA Administrator and senior leadership. NA-1.1's enterprise-wide focus enables NNSA to anticipate mission requirements and deliver integrated responses—building advantages for the United States.



Joseph and NGFP Fellows visit Sandia National Laboratories in Albuquerque, NM.

### Outcomes

Throughout my time in NA-1.1, I helped advance NNSA missions by supporting strategic assessments, cross-cutting studies, and rapid-response analyses that enhance NNSA's anticipatory and resilient approaches to nuclear security challenges. These efforts prepare NNSA to efficiently deliver its mission in an evolving security environment. My collaboration with the labs, plants, and sites (LPS) was especially valuable, as I helped ensure that the entire enterprise is well-prepared to execute the

#### mission.



**Office** NA-1.1 Office of Policy and Strategic Planning "The fellowship helped me gain a deeper understanding of how NNSA delivers its nuclear security mission to protect the nation. I am especially grateful to have worked with such intelligent, dedicated, and driven colleagues."

#### **Education** M.A., Security Studies, Georgetown University



# Fatiha Hijazi NA-213 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 nuclear and radioactive material before it can be used in acts of terrorism to protect the homeland, American citizens, and our interests abroad.

#### Outcomes

I assisted program foreign affairs specialists to oversee program activities including project management, equipment deployment, testing and acceptance, and capacity building for partner countries in the



U.S. delegation meets with Polish border guard.

#### Baltics, Southeast Asia, and Central Asia.



#### Office

NA-213 Nuclear Smuggling Detection and Deterrence "The fellowship helped me learn about the nuclear enterprise and gave me a greater insight into the many facets of nuclear security. Working at NSDD gave me an understanding of how headquarters collaborates with the national labs, the interagency, and various stakeholders to accomplish the mission and keep the United States safe."

#### Education

M.A. International Security, George Mason University

# Sophie Hitson NA-243 Office of Nuclear Verification





### **Overview**

Nonproliferation and Arms Control's Office of Nuclear Verification (ONV) leverages technical expertise to deliver monitoring and verification solutions for a variety of current and potential negotiated treaty or agreement frameworks for arms control, risk reduction, and denuclearization.

#### Outcomes

Sophie supports ONV's technical monitoring and verification (M&V) projects. In October 2024, ONV hosted an M&V scenario at Lawrence Livermore National Laboratory. Sophie developed the exercise inspection plan and created a dashboard to support project management. Her efforts benefit the long-term investments of ONV, including a follow-on, high-fidelity exercise in August 2025. Throughout her fellowship, Sophie gained experience working with the labs and skills in effective communication of technical topics.



Sophie Hitson at Lawrence Livermore National Lab testing a piece of nuclear verification equipment with arms control experts from across the enterprise.

- Advised on over 60 R&D proposals for the fiscal year 2025 funding period.
- Ensured timely delivery of tasks by coordinating cross-office response.
- Reviewed technical deliverables from labs, plants, and sites.
- Assisted in office duties to support leadership during various transitions.



**Office** NA-243 Office of Nuclear Verification "NGFP provided opportunities to work with a top-notch team, to learn about federal funding processes, and to become a more welldeveloped professional. I'm thankful for this experience, and I'm confident that it opens exciting doors for the trajectory of my career."

#### Education

MS, Nuclear Engineering, University of Tennessee

# Catherine Hodgson 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 development of enterprise-wide analysis and planning products to advance NNSA Administrator, senior leadership, and Departmental national security priorities.

The Strategic Planning Team acts as a key integrator for high-priority and multidecadal enterprise initiatives such as the *Enterprise Blueprint*. Through the development of integrated planning guidance, the team ensures strategic alignment and drives improvements across the enterprise.

### Outcomes

I contributed to various strategic planning projects to enhance enterprise-wide coordination. These include the *Enterprise Blueprint, Collaboration Initiative,* and *Integrated Strategic Priorities List.* I provided logistical and planning support for the annual *November Planning & Integration Meeting,* which is led by NA-1.1 and attended by senior leadership from across the enterprise.



November Planning & Integration Meeting (2024)

The Strategic Planning Team plays a central role in analysis of lab, plant, and site strategic plans. I analyzed the *2024 Site Strategic Plans* with a focus on areas of collaboration and contribution to core capabilities. NA-1.1's analysis was distributed to senior leadership to guide future planning and programming efforts.

Through NA-1.1's varied portfolio, I developed a better understanding of the valuable role of



**Office** NA-1.1 Office of Policy and Strategic Planning strategic planning in formulating guidance, coordinating approaches, and evaluating progress across a variety of stakeholders and with long time horizons.

"Through the fellowship I saw firsthand how different elements of the enterprise uniquely contribute to the mission. I gained a greater appreciation for the importance of coordination and long-term planning in NNSA and in complex enterprises more broadly."

**Education** M.S., Foreign Service, Georgetown University



## Buzz Jassawalla NA-234 Office of Program Support





### Overview

NA-234 Program Support (PS) helps the Office of Material Management and Minimization (M3) to implement and maintain effective internal controls, financial management, records management, risk management and all aspects of the Planning, Programming, Budgeting, and Evaluation (PPBE) process.

### Outcomes

As a fellow for the Office of Program Support, my role involved various activities aimed at enhancing the efficiency and effectiveness of the office's operations. My responsibilities encompassed the following key areas: briefings preparation, tracking taskers, reviewing/editing budget-related deliverables, and monitoring Congressional language.



Buzz (second on the left) touring one of the many projects at the Savannah River site (SRS).

I had the opportunity to travel to Japan and the Savannah River Site, which enhanced my understanding of the NNSA's mission. This fellowship also provided valuable facetime with key NNSA leadership, enabling direct learning from experienced professionals. These experiences enriched my perspective and commitment to national security efforts.



**Office** NA-234 Office of Program Support "Embarking on this fellowship has been a journey far beyond my initial expectations. Through this experience, I have seen the intricate ways in which our support contributes to making the world a safer place. It's a remarkable feeling to be part of a mission that holds such global significance."

#### Education

M.S., Finance, Virginia Commonwealth University B.S., Finance, Virginia Commonwealth University

# Jack Kaltreider NA-232 Office of Nuclear Material Removal and Elimination





### **Overview**

NA-232 seeks to prevent nuclear weapons proliferation and reduce the risk of nuclear terrorism by preventing bad actors from acquiring highly enriched uranium (HEU) and plutonium. NA-232 has the underlying expertise and unique capabilities to safely and securely remove and/or eliminate these materials to reduce risks to U.S. national security.

#### Outcomes

As a fellow in NA-232, I was tasked with managing the collaboration between the Savannah River National Laboratory (SRNL), NNSA HQ, and an international partner on the Mobile Melt-Consolidate (MMC) project. I drove progress on system testing at SRNL; coordinated a safety and safeguards planning workshop with the partner country and the International Atomic Energy Agency (IAEA); and advanced contractual arrangements for the shipment of the MMC system abroad.



Jack Kaltreider and Ian Kapuza (MMC PM) outside the MMC system at SRNL.

My work on MMC culminated with the observation of the first small-scale melt using radioactive material at the partner's facility. I also helped coordinate a future shipment of nuclear material from a partner country to the U.S. and co-led a workshop with six national laboratories to discuss the most promising options for the development of a next generation downblending capability. This workshop generated a technical document that will guide the development of this capability, enabling the elimination of additional inventories of HEU.



outside of my area of expertise with curiosity and tenacity. It also provided a well-rounded introduction to nuclear material transportation and management."

**Office** NA-232 Nuclear Material Removal and Elimination

#### **Education**

Master of Arts, Applied Economics and International Studies University of Washington, Seattle

"The fellowship challenged me to approach problems

# Matthew Kegley NA-84 Office of Nuclear Incident Response





### Overview

I worked as part of NEST Consequence Management (CM). ALGE3D is a water contaminant modeling software for NEST, developed by Savannah River National Laboratory. I helped modelers develop and partially operationalize the software for nuclear emergency scenarios. ALGE3D was used in Cobalt Magnet 2025, NNSA's largest exercise series, for information requests.

### Outcomes

ALGE3D represents a new capability for NNSA's response to nuclear scenarios. Its preparation and use in Cobalt Magnet revealed technical and logistical opportunities for improvement. Based on my work, the software will develop and transition into an NNSA asset to answer health- and



Matthew observes the Federal Radiological Monitoring and Assessment Center (FRMAC) with his team during Cobalt Magnet 2025 in Ypsilanti, MI.

ALGE3D's progress is included in written reports and a Power BI dashboard that I made for the office. The reports provide instructions to continue the software's development. The dashboard summarizes the office's technology development. Working on ALGE3D taught me how to plan and document technology development for operation.

#### safety-related questions involving water.



**Office** NA-84 Office of Nuclear Incident Response "The fellowship helped me get more comfortable to lead. It taught me that making relationships leads to progress. I was able to establish connections to labs and sites in the nuclear emergency mission space."

#### **Education**

Master of Science, Applied Physics Johns Hopkins University

# James Kennedy NA-ESH-11 Packaging and Transportation Division





### **Overview**

Los Alamos National Laboratory (LANL) is increasing operations to support the pit production mission. I am supporting the movement of excess material from the Plutonium Facility (PF)-4 facility, specifically MOX fuel rods stored in the facility, to further improve operational capability.

### Outcomes

I assisted with researching and evaluating multiple packaging and transportation options for the removal of the mixed oxide (MOX) fuel. This included reviewing the historical documentation for the FS-65 container to determine its capability as a transportation option.

I was also responsible for developing process flowcharts and projected timelines for this project, informed decisions on the most efficient transportation option based on multiple factors.



FS-65 Storage and Shipping Container being moved (LA-UR-12-25870)

Removal of the MOX fuel rods directly supports NA-ESH-10's strategic priority to coordinate enterprise-wide efforts for lifecycle management of nuclear materials. These efforts will increase the operational

capability of LANL's PF-4 facility.



**Office** NA-ESH-11 Packaging and Transportation Division "This fellowship has been a great experience to learn about to the NNSA and its mission. Through my office, I've had the opportunity to work with and learn from many amazing people across the enterprise. I hope to continue supporting the mission in the future."

#### Education

Master of Science, Nuclear Engineering Sciences University of Florida

# Safa Kholghy NA-PAS Office of Partnership and Acquisition Services





### **Overview**

The mission of the Office of Partnership and Acquisition Services (PAS) is to provide NNSA with the people, systems, and processes that NNSA needs to succeed in delivering its unique mission capabilities. During the fellowship, I supported the Program Support Acquisition Branch as a contract specialist.

### Outcomes

I worked with the Supplies and Interagency Agreements Team, who provide contract support to the Office of Secure Transportation and all organizations within NNSA. I assisted the team by analyzing various forms to ensure correctness of interagency agreements. I had the opportunity to learn how the mission relies on the efforts of different organizations, offices, and people.



Visit to the Trinity Site to see the remnants of the first nuclear detonation.

With the combined efforts of the team, services to assist the mission were done on time despite the many challenges we faced. I was able to leverage my expertise in teaching by creating a presentation on management and operating contracts for the workforce to understand how and why the NNSA operates the way it does.



NA-PAS-315 Office of Partnership and Acquisition Services "This fellowship provided me with the opportunity to meet amazing people dedicated to the mission of the NNSA. Every day I became more inspired to learn the history and current nuclear challenges."

#### Education

M.A., Curriculum, Instruction, and Teaching University of Denver

Ally Kurland IN-15 Office of Intelligence and Counterintelligence, Energy Security Division





#### Overview

The Office of Intelligence and Counterintelligence's Energy Security Division (ESD) informs senior government officials and the Intelligence Community about global and regional trends in energy. I worked on various projects in ESD on a broad range of energy topics, including critical minerals and energy technologies.

#### Outcomes

As a fellow, I contributed to the office's allsource analysis mission as an intelligence research analyst. During my time, I was able to author my own products, assist coworkers on regional portfolios, and attend meeting across the intelligence community and with senior officials.



The Office of Intelligence and Counterintelligence is one of the 18 members of the Intelligence Community.

Overall, I helped further analysis on important energy topics and issues that align with national security objectives. My time in ESD has broadened my knowledge on a

range of technical energy topics.



#### Office



DOE- IN-15 Office of Intelligence and Counterintelligence, Energy Security Division "The fellowship has expanded my horizons on a number of energy security related issues I hadn't thought about before. It has also given me an incredible community of people that I have enjoyed getting to know over the past year."

#### **Education**

Master of International Policy, University of Georgia

# Matthew LaFond NA-10.2 Office of International Programs





# Overview

NA-10.2's main responsibility is the management and execution of NA-10 activities under Mutual Defense Agreements (MDAs) and for oversight of atomic information exchange with the United Kingdom (UK) and North Atlantic Treaty Organization (NATO) through the Joint Atomic Information Exchange Group (JAIEG). The office is also the single point of contact within Defense Programs for international technical exchanges and policy activities, including exports of Atomic Energy Act Controlled items and technology under NNSA Policy (NAP) 476.1.

# Outcomes

During my fellowship, I managed our office's database that tracked US-UK exchanges under the MDA. I served as the primary contact for our office in an international, crosslab effort to overhaul the entire video teleconference (VTC) tracking system. In this role, I troubleshooted beta versions of the new tracking system for Sandia National Laboratories, coordinated with our counterparts in Washington, DC, and Albuquerque to ensure readiness for the new



Matthew (first on left) during a NGFP fellows tour of Lawrence Livermore National Laboratory.

system's implementation, and developed an updated tracking database for our office that is easier to use, quicker to update, and more compatible with the cross-lab visits system.

I also helped coordinate the planning, logistics, and execution for major NA-10.2-hosted events, such as a cross-lab Operational Workshop and the Complex Orientation Program, a joint US-UK development program for mid-career professionals in the Nuclear Security Enterprise.



"This fellowship is an unparalleled introduction into the Nuclear Security Enterprise. The knowledge I've gained, skills I've developed, and connections I've built will serve me well in my future career endeavors. The work that I've done to support our nation's security has been incredibly rewarding."

**Office** NA-10.2 Office of International Programs

#### **Education**

M.A., International Relations, Johns Hopkins School of Advanced International Studies

# Viveka "V" Lakhwani NA-772 Office of Security Operations and Special Security Programs





# Overview

I worked on the NNSA Insider Threat Program community of interest portal to share insider threat best practices and help develop NNSA Insider Threat Program policy and resources.

### Outcomes

I surveyed and received feedback from eight NNSA sites – regarding Insider Threat programmatics. This information has been utilized in discussions with senior executives, Assistant Managers of Safeguards and Security, and leadership in various offices.



V after briefing Savannah River Site's Local Insider Threat Working Group (LITWG)

These efforts promote positive, productive, and secure information-sharing across the enterprise. I have had the opportunity to brief the community of interest portal to each site's local insider threat working group and encourage the lateral exchange of ideas.



"The fellowship has transformed my professional growth by enhancing my expertise in national security – specifically – Insider Threat. My commitment to help others has been strengthened by my belief in the mission; to deter, detect, and mitigate."

**Office** NA-772 Office of Security Operations and Special Security Programs

#### Education

Master of Arts in Global Affairs, Globalization and Security Florida International University

# Jack LeFavour 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, as well as for other civil purposes.

### **Outcomes**

As M3's front office fellow, I managed the coordination of time sensitive daily requests and tasks from U.S. Department of Energy (DOE)/NNSA senior leadership, Congressional Affairs, and Public Affairs. I also helped lead the preparation of M3's strategic planning off site. In addition, I edited and coordinated M3's documents and bilateral memos for NNSA leadership participation in the 2024 International Atomic Energy Agency General Conference.



M3 Fellows visiting Kindai University's Research Reactor.

The ability to travel abroad and see M3's work in action greatly increased my understanding of the importance of our work and the broader NNSA mission. During the fellowship, I had the opportunity to operate a research reactor at Kindai University in Japan.



"The fellowship is an excellent pathway into the nuclear security enterprise and public service in general. As a fellow, you are placed in positions where you can impact national security and make the world a safer place. I am extremely grateful for the mentorship I have received during the fellowship and the opportunity to have shared this experience with the next generation of public servants."

**NA-23** Office of Material Management and Minimization

#### **Education**

Master of Public Service & Administration, Texas A&M University B.A., International Studies, Baylor University

# Tahir Mehmood Rana NA-LA Los Alamos Field Office





#### **Overview**

The NA-LA Field Office (FO) Mission Assurance & Infrastructure (MA&I) division safeguards the nation's interest, leveraging the Los Alamos legacy of superior science and technology and through excellent contract management, oversight, and stewardship. I supported the NA-LA Field Office MA&I Environmental program to ensure compliance of the regulatory site and support stockpile sustainment and modernization in a safe, compliant, and efficient manner.



NNSA ALCP professional development in Washington, DC

# Outcomes

The NA-LA FO MA&I division oversees mission and readiness programs at Los Alamos National Laboratory (LANL). The division provides oversight of LANL project management, landlord/infrastructure These efforts helped to improve the strategic plan of NA-LA-FO and MA&I by reviewing the policies and management plans for better implementation at the lab level. I have taken the Resource Conservation and Recovery Act (RCRA) and Waste Management courses and training and used them to enhance the mission, especially related to radioactive materials handling.

activities, waste management, program integration, and the Quality Assurance program.

"This fellowship gave me a great insight into the NNSA, and working at a National Laboratory Field Office gave me an understanding of how headquarter missions are implemented at sites to achieve the mission."

**Office** NA-LA Los Alamos Field Office

#### Education

Master of Environmental Engineering Texas A&M University Kingsville Texas



# Ben Mueller NA-114 Advanced Simulation and Computing (ASC)





### Overview

The Advanced Simulation and Computing (ASC) office supports NA-11 and the broader NA-10 mission by building supercomputers and developing advanced physics and engineering simulations to run on them. Other offices can then leverage our capabilities to help answer scientific and technical questions.

#### **Outcomes**

From day one, I was able to sit with my office and directly engage with the full scope of our work and how it interfaces with the broader nuclear enterprise. Since so many different parts of the organization leverage high-performance computing, I had the opportunity to further deepen my direct knowledge in a diverse range of topic areas.



Visiting Nevada National Security Site (formerly the Nevada Test Site)

By drafting a technical roadmap for my office and engaging with the editing, review, and revision process, I was able to "see how the sausage is made" in federal program management. This gave me insight into the unique culture of each plant, lab, and site, necessitating a tailored approach to each unique challenge.



**Office** NA-114 Advanced Simulation and Computing (ASC) "The NNSA Fellowship is a special opportunity both for those experienced in and new to the nuclear field, bringing together a multidisciplinary class and enabling them to apply their skills to sustain and improve the nuclear enterprise and nonproliferation mission."

#### Education

MA, Nonproliferation and Terrorism Studies, Middlebury Institute of International Studies at Monterey

# Raneen Nassar NA-242 Office of Nuclear Export Controls (ONEC)





### Overview

Office of Nuclear Export Controls' International Nonproliferation Export Control Program (INECP) aims to strengthen efforts to prevent proliferation of weapons of mass destruction related materials, equipment, and technology on a domestic and global level. I supported international engagements with Europe and Asia.

#### Outcomes

INECP allowed me the opportunity to attend and participate in international engagements, provide ongoing implementation support to the INECP Program Director and country project managers, including attending interagency and internal NNSA meetings and contributing to event planning, logistics, and



Raneen with the rest of Team Aluminum during NGFP Orientation in Richland.

ONEC Weekly Export Controls Newsletter. Being part of INECP has broadened my understanding of the potential civilian and military applications of dual-use commodities, emerging technologies, and strategic goods of proliferation concern.

#### coordination. In addition, I co-authored



**Office** NA-242 Office of Nuclear Export Controls *"My experience with NGFP has been exceptional. It has been a rewarding journey, offering numerous fantastic opportunities to start my career in the national security field."* 

#### **Education**

Master of Professional Studies, Security and Intelligence Studies, Northeastern University

# Isaai Ortega **NA-MB-812 Defense Programs Resource & Matrix Team**





### **Overview**

NA-MB-812 leads, integrates, and communicates the Defense Programs (DP) **Budgeting and Financial activities across** NNSA. As a fellow, I worked on the Committee on Foreign Investments in the United States (CFIUS) supporting NA-183 Office of Strategic Planning & Analysis.

#### Outcomes

My work on the CFIUS team allowed me to analyze multiple, billion-dollar foreign acquisitions of U.S. companies to address strategic-level gaps and risks in the supply chain across the Nuclear Security Enterprise (NSE). While working on the team, I communicated with eight labs, plants, and sites to collect specialized information for case transactions.



Isaai in front of the Defense Nuclear Weapons School in Albuquerque, NM.

During the fellowship, I had the opportunity to visit multiple national laboratories to gain a firsthand experience on the depth of the NSE. I also was able to attend trainings relevant to the NSE.



Office

Team

NA-MB-812 Defense **Programs Resource & Matrix** 

"The fellowship provides a valuable firsthand experience on working within the Nuclear Security Enterprise and provides the opportunity to work with so many passionate and dedicated individuals within the field."



**Education** 

Master of Public Administration, University of Texas at San Antonio

# Joey Persico NA-233 Office of Plutonium Disposition





### Overview

The Office of Plutonium Disposition's primary mission is to support U.S. nonproliferation objectives by permanently disposing of surplus weapon-grade plutonium.

#### **Outcomes**

I supported a varied portfolio of projects. Eventually, I was selected as the project manager for both the Strategic Laboratory Assessment (SLA) project and Advanced Recovery and Integrated Extraction System (ARIES) plutonium oxide conversion at Los Alamos National Laboratory (LANL). As SLA project manager, I led the team through the completion and handover of several products designed for the Surplus Plutonium Disposition (SPD) program.



Joey takes part in a tour of a JAEA facility in Tokai, Japan.

Supporting NA-233's LANL scope gave me the opportunity to manage a large capital project, interface with lab management, and collaborate with lab staff to ensure our projects were successful. I also supported work with the International Atomic Energy Agency (IAEA) to put U.S. material under international safeguards, hosted several international forums, and engaged with partners across the DOE complex.



"The fellowship has been an amazing opportunity to challenge myself and grow professionally. I have gained a tremendous amount of technical knowledge and deepened my understanding of the Nuclear Security Enterprise."

Office NA-233 Office of Plutonium Disposition

#### **Education**

Master of International Affairs University of California, San Diego

# Nhi Quach NA-LL Livermore Field Office





#### **Overview**

Worked on hand-on research within the Materials Science Division at Lawrence Livermore National Laboratory. Explored interesting additions to soft materials within a 3D printing scope for enhancing strength of the flexible part.



Nhi asking a question at ICMENs conference.

#### **Outcomes**

The Materials Science Division has many broad scopes in which I contributed to only a small fraction. I created a part, wrote standard operating procedures, and gained a better understanding of how polymers are a part of the nuclear security enterprise. These efforts contribute to the scientific understanding for laboratory benefit and the broader scientific community within the scope of the national nuclear security.



Office NA-LL Livermore Field Office "The science from the national laboratories and the policy at headquarters go hand-in-hand, and this fellowship helped me understand why each part is important."

#### Education

Ph.D. Materials Science and Engineering University of California, Irvine

# Gabriela Quintanilla NA-233 Office of Plutonium Disposition





# Overview

Office of Plutonium Disposition (NA-233) is responsible for permanently disposing of 34 ton (MT) of surplus weapon-grade plutonium to meet U.S. nonproliferation objectives.

### **Outcomes**

During my fellowship, I supported the tasker process for NA-233, developing both tracking and communication processes, serving as the primary action officer for the office.

I managed multiple technical programs; gaining deeper familiarity with program management and technical concepts.



Gabriela tours Waste Isolation Pilot Plant (WIPP) underground.

I had the opportunity to visit multiple national laboratories, deepening my understanding of the Nuclear Security Enterprise and NA-233, whose efforts are focused on the removal of plutonium from the state of South Carolina to meet legal requirements.



**Office** NA-233 Office of Plutonium Disposition "The fellowship has provided me an invaluable opportunity to truly engage with the depth of the Nuclear Security Enterprise. There is immense support and opportunities to grow as an early career professional."

Education

M.A., Public Policy, University of California, San Diego

# Hannah Richstein NA-MB-92 Office of Analysis and Evaluation





### **Overview**

NA-MB-92 is a team comprised of scientists, engineers, and operations research analysts who use analytics to help NNSA leadership make data-driven decisions. There are four sub-offices: Studies and Decision Analyses (NA-MB-921), Infrastructure Modernization Support (NA-MB-921), Enterprise Data and Modeling (NA-MB-922), and Stockpile Modernization Support (NA-MB-923).

### **Outcomes**

As a Fellow, I mainly supported two of the four sub-offices in NA-MB-92. Working with the Office of Studies and Decision Analyses, I contributed to Business Case Analyses for two different offices in Defense Programs. Within the Office of Enterprise Data and Modeling, I explored cost growth by Work Breakdown Structure (WBS) element using Earned Value Management (EVM) data.



Visiting the National Museum of Nuclear Science and History ahead of a Stockpile Stewardship training in Albuquerque, NM.

Like megaprojects worldwide, capital projects executed by NNSA tend to experience cost growth in all phases of development. I used the EVM data to track cost growth across different WBS elements of NNSA projects over multiple years of postbaseline execution. The results will support root cause analysis and lead to improved cost estimating models.



**Office** NA-MB-92 Office of Analysis and Evaluation "This fellowship has given me the opportunity to use the skills I developed in graduate school to support the critical mission of the Nuclear Security Enterprise. I am grateful to have had the chance to learn so much while growing my career in such a supportive environment."

#### Education

Ph.D., Astronomy, University of Virginia M.S., Astronomy, University of Virginia

# Meagan Roberts NA-1.1 Office of Strategic Partnerships and Engagements





### **Overview**

The NNSA Office of Policy and Strategic Planning (NA-1.1) serves as a central resource to the Under Secretary of Nuclear Security and NNSA Administrator, as well as NNSA senior leadership, on strategic planning, governance and management, and crosscutting policy issues. Additionally, the office coordinates with Strategic Partnership Projects (SPP) that delivers scientific, technical, and engineering innovation to strengthen the national security mission.

### Outcomes

During my appointment, I organized and moderated six technical presentations from affiliated SPP offices within the enterprise Laboratories, Plants, and Sites (LPS). For our office annual 2-day, in-person meeting, I led the creation of the agenda, organizing a space, coordinating with our speakers and participants to produce an informative review of our SPP office goals, procedures, and future priorities.



Meagan Roberts, Cheri Hautala-Bateman, PhD (R), fellow cohort mate, Farrah Harris (G), and affiliate office federal staff members and directors at the SPP and Technology Transfer (10.1), Pantex/Y-12 Security Complex Program Review and Tour in Oak Ridge, TN.

Monthly, I participated in an Institutional Review Board (IRB) to review and debrief over Human Subjects Research Projects (HSR) from respective LPS.

I also had the chance to use my creative skillset in revamping our SPP and HSR websites by recording and uploading videos to briefly explain an overview of what users would see.



"During this fellowship, I had the opportunity to learn a wide arrange of professional skills, travel domestically to the labs, and face transformative challenges in both my work and personal growth. Through these experiences, I came to realize the importance of perseverance—continuing to build both my network and myself to lay the foundation for future success."

#### Office

NA-1.1 Office of Strategic Partnerships and Engagements

#### Education

Doctor of Philosophy, Health Law, Policy and Management, Meharry Medical College Master of Science, Public Health, Certificate in Health Policy, Meharry Medical College Bachelor of Science, Psychology, Health and Biology, Middle Tennessee State University

# Caroline Russell NA-20 Office of Defense Nuclear Nonproliferation



The Office of Defense Nuclear Nonproliferation (DNN) Front Office (FO) provides support to the Deputy Administrator for DNN on all policy and action issues. As an NGFP fellow in the NA-20 Front Office, I supported my team members on various assignments. One of the most fulfilling assignments was supporting the federal lead in my office on coordinating a visit from the NATO Committee on Proliferation to Sandia National Laboratories (SNL) and Los Alamos National Laboratory (LANL).

### Outcomes

I worked with colleagues from NA-20 program offices, NA-10, SNL, LANL, and the U.S. Department of State to develop an agenda and policy materials and to coordinate logistics for the visit. This visit was successful and meaningful to my experience as a fellow. I learned to coordinate and communicate efficiently with colleagues in NNSA and across the National Labs.







NATO Committee on Proliferation Group Photo at Los Alamos National Laboratory

I gained insight into how the North Atlantic Treaty Organization (NATO) Committee on Proliferation operates within NATO, and the broader European security environment.

The NATO delegation was highly engaged throughout the entire visit, and we had fruitful discussions on arms control, deterrence, the geopolitical threat environment, and how the National Labs support research and development that contributes to NNSA's mission.



NA-20 Office of Defense Nuclear Nonproliferation "This fellowship has provided me with fantastic opportunities to support leaders from across NNSA. Working in the DNN Front Office has been critical to my development as a young professional."

#### **Education**

Master of Arts, Walsh School of Foreign Service, Georgetown University Bachelor of Arts, Russian and International Studies, College of the Holy Cross



# Samantha Salazar **NA-122.1 Stockpile Services** Division





### **Overview**

NA 122.1 Stockpile Services serves to integrate and coordinate planning, budgeting, and evaluation of stockpile services to ensure national defense requirements are understood and met. During the fellowship I supported the Multi-Weapons Systems Program (MWS) and the Weapons Dismantlement and Disposition Program (WDD).

### Outcomes

As a fellow, I supported the creation of a new program Weapons Engineering and Advanced Virtual Education (WEAVE) which aims to expand its scope beyond NNSA by integrating participation from all weapons design laboratories to participate in a space where knowledge is shared for preservation of nuclear weapons information.



Samantha attended the Annual Nuclear Deterrence Summit in Washington D.C.

I assisted in organizing the first crosscutting meetings to discuss the creation of WEAVE and developing logistics plans and gathering stakeholder buy-in. Gathering multiple stakeholders for this ongoing program including all design laboratories that currently posses this knowledge but are not currently shared cross sectionally with-in the nuclear enterprise.



Office NA 122.1 Stockpile Services Division

"The NGFP fellowship experience has had a profound impact to me in exploring all aspects of NNSA's work and understanding the importance of stockpile sustainment for an ever-changing geo-political climate.

#### **Education**

MS, Global and National Security Policy, University of New Mexico

BS, Geography/Geographic Information Systems, University of **New Mexico** 

BS, Biological Anthropology, University of New Mexico



# Jeremy Seicianu NA-1.3 Office of Cost Estimating and Program Evaluation





#### **Overview**

NA-1.3 Office of Cost Estimating and Program Evaluation (CEPE) works with all NNSA offices to review their Future Years Nuclear Security Program (FYNSP) for accuracy and thoroughness. I worked on five different Integration Areas (IA) for the office, including fusion, non-nuclear manufacturing, and nuclear nonproliferation.

#### **Outcomes**

Working alongside CEPE analysts, I was able to assist with various deliverables that helped inform office leadership of the potential risks and vulnerabilities of key areas within the enterprise. I took the lead on various deliverables, including monthly bulletins, mission alignment summaries, and even wrote a guiding document for an Analysis of Alternatives (AoA).



Team Krypton in Richland, WA.

I was also able to develop my software skills in Power Apps, Power Automate, and Power BI to create a workload and project tracker with an accompanying visualization dashboard for CEPE branch chiefs and leadership. This new software tool helped fill a need for the office to track upcoming deliverables, list upcoming milestones, and notify leadership of upcoming due outs.



"This fellowship allowed me to grow my professional skill set while making a difference for US national security. It was an honor to work alongside capable and like-minded people."

**Office** NA-1.3 Office of Cost Estimating and Program Evaluation

**Education** 

Master of Public Policy, Oregon State University

# Drew Starbuck NA-10 Defense Program's Deputy Administrator's Action Group (DAAG)





### Overview

Part of the Deputy Administrator's Action Group's (DAAG) responsibilities includes developing targeted messages for external stakeholders. On one project, I helped to organize and prepare for a trip with NA-20, Defense Nuclear Nonproliferation, to the national laboratories with delegates from the North Atlantic Treaty Organization (NATO) Arms Control, Disarmament, and WMD Nonproliferation Group.

### Outcomes

Work responsibility is divided amongst the DAAG, so that each individual has leads or contributions to portfolios associated with specific program offices. As a cohesive team, we cover other portfolios when needed as well. This allows members of the team to build relationships with their program office and strengthen the relationship and communication processes when handling taskers and other items for senior leadership.



Drew visited the National Museum of Nuclear Science & History during this NATO visit.

Establishing and leveraging personal relationships with portfolio contacts have allowed me to speed things along or get to the ground truth on solving program execution or technical issues. This ensures that both leadership and programs have awareness on major issues with applicability to their portfolio and are otherwise kept apprised of issues assigned to other offices.



"Working within the DAAG has given me great insight into all the various equities within Defense Programs and beyond, along with gaining much greater knowledge of the nuclear stockpile and the stockpile stewardship mission amidst the modernization of the nuclear deterrent."

#### Office

NA-10 Defense Program's Deputy Administrator's Action Group (DAAG)

#### **Education**

Master of Arts, Security, Cybersecurity, and Intelligence Johns Hopkins University, School of Advanced International Studies

# Alexandra Stavros NA-21 Office of Global Material Security





### **Overview**

The Office of Global Material Security (GMS) collaborates with domestic and international partners to enhance the security of nuclear and radioactive materials, prevent the trafficking of these materials, and foster the development of secure nuclear technologies. As an Action Officer in the GMS Front Office, I supported leadership in these efforts.

#### Outcomes

As a part of the Action Officer team in the GMS Front Office, I coordinated tasks between GMS programs and the Office of Defense Nuclear Nonproliferation; addressed inquiries related to nuclear and radiological security and counter-nuclear smuggling from various stakeholders, including senior leaders and Congress; and supported cooperation with multilateral organizations critical to the GMS mission.



Alexandra visits Oak Ridge National Laboratory and the Y-12 Security Site in Tennessee with the Office of Global Material Security.

A visit to one of the national laboratories provided firsthand insight into the nuclear security enterprise, and a visit to meet GMS partners in Bulgaria provided insight into the front-line operations that GMS enables. Further, supporting bilateral and multilateral engagements underscored the importance of international partnerships for promoting nuclear and radiological security.



**Office** NA-21 Office of Global Material Security "My fellowship with the Office of Global Material Security profoundly shaped my understanding of the nuclear security landscape and was a unique opportunity to collaborate with so many dedicated individuals."

#### Education

Master of Public Policy, International Policy University of Michigan's Ford School of Public Policy, Michigan

# Isabel Strawn NA-1 Immediate Office of the Administrator





#### **Overview**

The Immediate Office of the Administrator staff supports the Under Secretary for Nuclear Security and Administrator of the National Nuclear Security Administration, the Principal Deputy Administrator, the Associate Principal Deputy Administrator, the Assistant Principal Deputy Administrator for Operations, and the NNSA Chief of Staff in providing strategic leadership and stakeholder engagement to enable NNSA program and support offices to perform their respective missions.

#### Outcomes

As a member of the NA-1 staff, I provided support in the review and preparation of read-ahead materials for the Administrator. My assistance with tracking open and current action items helped ensure materials were



Left to right: With U.S. Ambassador Holgate; Uranium glass; Mural outside Vienna International Centre (VIC); Arms Control & International Security Under Secretary Bonnie Jenkins address to 2024 Ministerial Conference; The VIC; w/ International Atomic Energy Agency (IAEA) Head of the Department of Nuclear Sciences and Application, Najat Mokhtar.

I received invaluable insight into how the NNSA's work protects the American people by maintaining a safe, secure, and effective nuclear stockpile; reducing global nuclear threats; and providing the

submitted in a timely manner for inclusion in the Administrator's briefing book.

U.S. Navy with safe, militarily-effective naval nuclear propulsion plants.



**Office** NA-1 Immediate Office of the Administrator "NGFP introduced me to governmental agency management and operations and provided perspective on how to approach my future career goals. From my personal experience, NNSA is an exemplary bridge connecting the arts of humanities and hard sciences."

#### **Education**

Master of Rhetoric & Writing, University of New Mexico



# Michael Sway **NA-231 Office of Reactor Conversion and Uranium Supply**





### **Overview**

The Office of Reactor Conversion and Uranium Supply (ORCUS) works to create a more secure global environment through the conversion of research reactors fueled by highly-enriched uranium (HEU) to highassay, low-enriched uranium fuels. I worked on projects throughout the office with a large focus on international conversion and domestic Molybdenum (Mo-99) production.

### Outcomes

ORCUS is divided into multiple programs that all support the overall mission of creating a safer global environment. In my work supporting my office's mission, I have drafted briefing materials, provided input for deliverables, coordinated with other offices and agencies, and tracked deliverables and program costing.



NA-23 fellows visiting the Japanese Research Reactor-3 (JRR-3)

These efforts have helped create a more secure global and American future through the removal of HEU from civilian use and through relationship building with our international allies and counterparts. Additionally, we have and continue to support the development of domestic production of Mo-99, a vital radioisotope used in medical procedures, for the American people.



"This fellowship has provided me with ample opportunities to grow and develop as a professional and expert in my field. I have learned many new things and have gained critical experience to help guide me on my path forward. It has been a privilege and an honor to work with my team."

Office NA-231 Office of Reactor Conversion and Uranium Supply

#### **Education**

Master of International Policy, Nuclear Nonproliferation and Energy Security, University of Georgia

# Annie Trentham 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. NPAC provides policy and technical leadership to protect U.S. technological and industrial competitiveness, prevent weapons of mass destruction (WMD) proliferation, and ensure peaceful nuclear uses.

### **Outcomes**

As part of the Action Officer team in the NPAC front office, I worked in a fast-paced and constantly changing environment. This consisted of managing thousands of taskers, often with a turnaround time of 8 hours or less. During my fellowship, I was encouraged to attend a variety of workshops, meetings, and opportunities, such as a Nonproliferation and Peaceful Uses Workshop, Nonproliferation Seminars on weapons design and the fuel



A traditional Bahamian brass band greets workshop speakers and participants at the Nonproliferation and Peaceful Uses Workshop in Nassau.

cycle at Los Alamos National Laboratory, Nevada National Security Site, and Oak Ridge National Laboratory, and small group meetings with highlevel DOE and industry experts. I've been able to learn about the Nuclear Security Enterprise, how NNSA works with the national laboratories, and how NNSA's mission is implemented domestically and internationally.

"I am incredibly grateful for the friendships, knowledge, and experiences I have gained throughout my time as a fellow. From attending networking events to nonproliferation discussion forums, I have valued every opportunity that NGFP has given me."

#### Education

Master of Arts in Law and Diplomacy, Fletcher School, Tufts University B.A., International Studies, Centre College





NA-24 Office of

Nonproliferation and Arms

Office

# Hunter Vaughn NA-193.3 High Explosives and Energetics – Production Modernization





#### **Overview**

NNSA's High Explosives and Energetics – Production Modernization team brings together a wide range of equities to ensure the long-term supply of material used in weapon main charges, detonators, boosters, and more. Demand for each component has increased steadily alongside mission requirements.

### Outcomes

The NA-19 space is relatively new to the enterprise and possesses a less defined set of procedures and processes by which to operate within. The search for new solutions to old problems creates a space that is experimental, entrepreneurial, and in which my software start-up background could find a home.



NGFP Class of 2024-2025 Fellows during a site visit to Lawrence Livermore National Laboratory.

From updating the user interface/user experience (UI/UX) and data governance of our knowledge management platform, to redesigning production schedules for leadership to tell a better story, to learning about agile manufacturing processes at our design labs, I've seen and contributed to an enterprise that is becoming leaner, quicker, and more adaptable.



NA-193.3 High Explosives

and Energetics – Production

Office

**Modernization** 

"The Nuclear Security Enterprise brings together the country's best people and hardest problems. I am proud to have worked alongside them and to carry that responsibility forward."



Education

Master of International Affairs American University

# Amelia Wagner NA-212 Office of Radiological Security





# Overview

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 Domestic Protect team provides additional protections to facilities with radioactive sources used for vial medical, research, and commercial purposes.

# Outcomes

I engaged with a team of over 20 people nationwide in supporting the implementation of a strategic review of the domestic protect portfolio including updates to communications, private-public partnerships, and programmatic strategy. I presented our progress to over 200 people at a yearly program review and to over 50 people at a department-level meeting with senior leadership.

I worked with teams at the labs regarding new partner engagement and performed 26 quality control reviews of our ongoing programs and updated systems for greater efficiency.



NGFP Los Alamos National Laboratory Site Visit

transit security and security-by-design programs, which works closely with manufacturers and industry leaders to design and implement solutions to complex problems.

I participated in discussions to identify security improvements with bi-lateral partners including Ghana, Democratic Republic of Congo, Sudan, and India.

I supported the training of incoming team members and provided project management support to our mobile source I supported budget reviews of 50 states and presented our current budgetary status for our security-by-design program to senior leadership.

"The NGFP Fellowship gave me a deeper



understanding of the nuclear and radiological security threats facing our nation and allowed me to make valuable contributions to the mission starting on day one."

**Office** NA-212 Office of Radiological Security, Domestic Protect Portfolio

#### **Education**

M.A, Public Policy Frank Batten School of Leadership and Public Policy University of Virginia