



2023 ASIP participants pose in front of Point Barrow Long Range Radar Site with collected air samples.

Back to the Arctic: Arctic Summer Internship Program Returns

A Seventh Year of Research and Exploration

By: Communications Staff

ADAC's summer internship is unlike any other. Participants in this year's Arctic Summer Internship Program (ASIP) found themselves learning about Arctic Alaska's distinctive qualities and challenges virtually, then in a classroom in Anchorage, and later in the 5,000-person village of Utqiagvik (formerly known as Barrow). There, they drilled ice cores, toured permafrost tunnels, and explored the tundra on four-wheelers. Along the way, they met with dozens of Indigenous leaders, polar scientists, and Arctic stakeholders, as well as a few Arctic foxes and polar bears.

ASIP is a recurring ADAC program that exposes undergraduate and graduate students to Alaska field research projects and Arctic engagement over the summer months. This was the seventh year of the fellowship program, and the incredible experience was made possible this year thanks to generous funding from the University of Alaska Anchorage's (UAA) Chancellor's Excellence Award, UAA's Office of Research, and NSF EPSCoR seed funding via University of Alaska Fairbanks.

ASIP has a dedicated focus on welcoming students from science, technology, engineering, and mathematics (STEM) backgrounds while also including minority-serving institutions. This year's cohort included seven students from undergraduate and graduate school programs, including UAA, University of Texas at El Paso, Harvard Kennedy School, and the US Naval Academy. Their diverse fields of study include oceanography, environmental sciences, public policy, mechanical engineering, and applied technologies leadership. During their week in Utqiagvik, participants worked alongside international researchers, Tribal leaders, and Elders on a range of research

projects. Additionally, federal and state stakeholders provided fellows a first-hand look at the community impacts and research potential of climate change and energy policy in the Arctic. ADAC had the privilege of hosting key collaborators, such as scientists from Sandia National Laboratories and the US Air Force who engaged in lively discussion about the importance of the Arctic.

Upon their return, our next generation of researchers and practitioners enthusiastically described their experiences, how it will affect their future academic decisions and careers, and the magnitude of learning accomplished during their visit to Alaska's northernmost community. Anna Wen, a UAA student majoring in environment and society with a concentration in biology and minor in GIS, said that learning about science during this visit was "a dream come true." The experience is shaping her future. "This opportunity has given me a chance to understand Alaska more, in the sense of our domain awareness and its importance in the next years," she said. "Really thinking about those critical questions has made me want to stay in Alaska and pursue higher education here."

For University of Texas at El Paso student Nayib Talavera, who grew up ranching and farming in Texas and Mexico, this experience could shape his mechanical engineering studies, even in a setting so contrasted to the Arctic. Talavera was observant of the minimal agriculture on the North Slope, and the very clean water. He is thinking about water purification for agriculture in his region of the United States, and wants to "add what I learned here into future research or projects."

(Cont. on pg. 3)



A Note from the Director

Greetings Everyone,

I am delighted to share with you some groundbreaking developments in our ongoing efforts to support education and research in Alaska. The collaboration between UAA, ADAC and the Applied Environmental Research Center (AERC) has resulted in significant achievements. Our joint proposal for a new Cooperative Agreement in response to the U.S. Department of Homeland Security's (DHS) Scientific Leadership Awards program has been awarded. This five-year agreement of almost \$1,000,000 will enable us to establish the Alaska Program for Arctic Research, Training, and Education (PARTE).



ADAC, recognized as a DHS Emeritus Center of Excellence, brings invaluable expertise, while keeping student success at the forefront of its mission. The Center continues addressing maritime challenges in support of the United States Coast Guard (USCG). AERC, on the other hand, hosts a diverse network of Arctic science and technology projects and operates an apprenticeship training program for researchers. Together, ADAC and AERC have successfully administered internship and fellowship programs preparing students for careers in the homeland security enterprise and beyond. Our ultimate goal is to empower students to become leaders in their communities, equipped with the knowledge and skills to address Alaska's unique challenges.

Other highlights include our new media staff team, and our positive relations and ongoing support from the USCG District 17 and Sector Anchorage, as well as the Environmental Protection Agency and the Alaska Department of Environmental Conservation. ADAC is now hosting the Arctic and Western Alaska Area Committee meetings on-site at UAA. This collaboration strengthens our partnerships with the state and federal family and emphasizes our commitment to fostering dialogue and cooperation in addressing the challenges of the Arctic.

As we move forward, our focus on supporting underrepresented students remains unwavering. The 2023 Arctic Summer Internship Program just completed its seventh year nurturing the next generation of researchers and scientists while addressing the needs of the Homeland Security Enterprise.

I am also pleased to announce a significant funding opportunity within the DHS's Science and Technology Directorate (S&T). The new Center of Excellence for Homeland Security in the Arctic aims to forge partnerships between universities and DHS S&T to address complex homeland security issues.

I would like to express my deepest appreciation to every team member who contributed to this effort. Your dedication, expertise, and commitment to excellence have been instrumental in reaching this stage. I am immensely proud of our accomplishments thus far, and I am confident that our proposal showcases the extraordinary and exceptional work we do.

As we eagerly await the outcome, let us continue our unwavering dedication to research, innovation, and collaboration. Together, we are pushing the boundaries of knowledge and making a lasting impact in the field of homeland security. It is your commitment and enthusiasm that propels our collective progress.

Thank you for being part of our vibrant community. I hope you find this newsletter insightful, inspiring, and thought-provoking.

Jeff L. Libby, Executive Director

ADAC Builds Out Communications Team

By: Communications Staff

ADAC expanded its team this May by welcoming three communications professionals. The new additions bring a range of photo, video, and writing experience to ADAC and its partners.

Lindsay Glick will helm ADAC's communication efforts, including a special focus on supporting the US Coast Guard with the Arctic and Western Alaska Area Committee. Glick has a varied background including civil rights investigation, ocean charter fishing, and living history interpretation in Denali National Park.

Joey Besl also joined the team in May as a research communications professional in the AERC, and will also support ADAC alongside Glick. Besl first joined UAA in 2014 as a writer in University Relations and most recently served as Interim Director of Communication and Marketing at Alaska Pacific University.

Lastly, Jeffrey Kee returns to ADAC as its videographer. Kee first joined the Center in 2017 and shaped the public face of ADAC as its Communications and Broadcast Media Officer for five years. His design work elevated ADAC's videos, posters, website, and newsletters and the team is grateful to welcome his skills back.

The team looks forward to providing engaging content on Arctic research, collaborations, education opportunities, and innovation as the Center moves toward its next chapter.



Besl, Glick, & Kee

New Grant Awarded

By: Lindsay Glick

UAA is thrilled to announce the successful awarding of funding to establish the Alaska Program for Arctic Research, Training and Education (PARTE). In July UAA, ADAC, and the Applied Environmental Research Center (AERC) were collaboratively awarded approximately one million dollars from DHS, Science and Technology Directorate, Office of University programs.

PARTE aims to support Alaska Native and rural students in research projects of mutual interest to both Alaska and DHS through its Scientific Leadership Award program. The program's primary focus is supporting and developing research capabilities and education opportunities within Minority-Serving Institutions. Areas of support for students include environmental challenges, advanced data analysis and visualization, communications, infrastructure resilience, and maritime and port security.

UAA was honored and grateful to receive a joint letter of support for this endeavor submitted to DHS Secretary Alejandro Mayorkas by U.S. Senators Lisa Murkowski and Dan Sullivan, and U.S. Representative Mary Sattler Peltola.

UAA, alongside ADAC and AERC, is honored to embark on this journey of knowledge creation and student empowerment.



2023 ASIP fellow Luke Shields holds up an ice core sample



ASIP participants and leaders in Utqiagvik, AK

Back to the Arctic

(Cont. from page 1)

Participants learned from each other as well, processing what they'd heard together, and contributing from their own diverse backgrounds. Luke Shields, who is a Master of Public Policy candidate at Harvard Kennedy School, commented, "I really enjoy the diverse perspectives of the other students. There's not one specific background that everybody comes from." He also took away some big picture thoughts from the experience. "Energy and foreign policy are two of the biggest issues, I think, in the Arctic. With the warming of the ocean and the depletion of sea ice, more routes are going to open for trade. It's going to change the security landscape."

Specific site visits included the Barrow Arctic Research Center, managed by Iñupiat-led UIC Science, LLC, and its permafrost tunnel to learn the cultural risks of thawing permafrost. In Utqiagvik, residents commonly store whale meat in underground permafrost cellars to save energy costs and preserve cultural traditions. This was a highlight for US Naval Academy's Midshipman First Class Caleb Seright, who said observing cultural preparations for the whaling festival, Nalukataq, was unexpected and a "hands-down super neat insight into their culture."

At Point Barrow, the group had the opportunity to drill ice cores, a valuable technique used to study past climate trends. They partnered with the National Oceanic and Atmospheric Administration to collect air samples and learned how these data can indicate shifting climate trends into the future. Fellows also worked with representatives of UAA's Applied Environmental Research Center to become familiar with surveying tools and techniques to measure coastal erosion.

In Anchorage, other cultural visits included the Alaska Native Heritage Center and the Anchorage Museum. Fellows visited US Coast Guard Sector Anchorage, which holds jurisdiction over the largest Coast Guard territory in terms of geographic area, including the Aleutian Islands and North Slope of Alaska. Students had the privilege of engaging in a dynamic discussion with the Senior Arctic Advisor to the Ted Stevens Center for Arctic Security Studies.

The ASIP program is the evolution of a Cooperative Agreement with the Department of Homeland Security's Science and Technology Directorate Office of University Programs and ADAC. Jeff Libby, ADAC's Executive Director, said he was grateful to welcome "our nation's future Arctic leaders back to Alaska" and continue to offer "an unmatched experience for our students."

ADAC Support for US Coast Guard Interagency Work in Alaska

By: Lindsay Glick

ADAC is pleased to continue supporting the US Coast Guard in important work in Alaska and the Arctic. ADAC is providing administrative and technical assistance and design products as part of a unique partnership with the US Coast Guard's interagency efforts in oil spill prevention, planning, and response in Alaska waters.

The Arctic and Western Alaska (AWA) Area Committee is the largest of four regional groups in Alaska tasked with convening and preparing a contingency plan for oil and hazardous substance response at the local level. The Committee is housed within the US Coast Guard, and also includes state and local officials such as the Alaska Department of Environmental Conservation and the Environmental Protection Agency. The contingency plan assesses appropriate methods of shoreline cleanup, protection of sensitive environmental and cultural areas, and the rescue and rehabilitation of fisheries and wildlife, among others.

AWA Area Committee meetings will be supported by ADAC and hosted on the UAA campus, a unique partnership made possible

in part by contracting assistance from ALCOM and Space Force. Additionally, ADAC will support the Area Committee meetings by virtually hosting the meetings using Cvent. This platform will increase access, as participants can log-in virtually from anywhere while still submitting poll responses, and access PowerPoints and agendas from past and future meetings. The public is welcome to join upcoming meetings. For more information, visit the Committee's website or reach out to uaa.adac@alaska.edu

AWA Area Committee State On-Scene Coordinators





Continued Support of Arctic Events and Endeavors

By: Lindsay Glick

ADAC continues as an Emeritus Center of Excellence under the direction of its core members Executive Director Jeffrey Libby, Principal Investigator Aaron Dotson, and Finance Director Heather Paulsen. The team continues to support and participate in high-profile events.

In March, ADAC and UAA hosted DHS's Office of Strategy Policy and Plans to assist the team in their Arctic Tribal Consultations in Alaska to discuss DHS's Strategic Approach for Arctic Homeland Security. The meetings incorporated feedback from Indigenous

community members and discussions on anticipated impacts that climate change will have on Tribes in the future, and what a DHS support role might look like. Opening remarks were given by Dr. Tasha Hippolyte, Deputy Assistant Secretary for Trade Policy.

DHS's Cybersecurity and Infrastructure Security Agency (CISA) and Argonne National Labs are midway through a three-year endeavor to evaluate, prioritize, and mitigate risks to National Critical Functions in Alaska's Arctic region. ADAC's Aaron Dotson, together with former ADAC faculty researchers and current UAA faculty researchers met with the CISA team in May to discuss their project and provide feedback.

The Arctic Encounter Symposium was held in Anchorage in March and boasted more than 200 speakers from around the world. Participants discussed shared Arctic interests, and the event featured artistic and musical performances and the Far North Fashion Show. Center members hosted the RAND Corporation and their team for a lively discussion on DHS COEs. In addition to the ADAC leadership team, the RAND Corporation met with ADAC stakeholders and customers.

ADAC attended the 25th Alaska Forum on the Environment in February. Keynote speakers included Ukpeaġvik Iñupiat Corporation President and CEO Pearl Brower, Commissioner of the State of Alaska Department of Environmental Conservation Jason Brune, Elder Patricia Cochran, and Environmental Protection Agency Region 10 Administrator Casey Sixkiller.

The Emeritus Center is also developing a partnership with FEMA, which may result in a research forum concerning Arctic areas affected by natural disasters. This is thanks in part to David Leiva, FEMA's Economic Recovery and Academia Advisor, whose role is to leverage college and university technical assistance, subject matter expertise and specialized resources in disaster, to support community-driven, long-term recovery, and build resilience capacity.

ADAC Pursues New Center of Excellence

By: Lindsay Glick

Center leadership has been diligently seeking exciting new funding opportunities for support and expansion. Earlier this year, DHS, Science and Technology (S&T) Directorate, Office of University Programs (OUP) announced an opportunity for a new DHS Center of Excellence for Homeland Security in the Arctic. This \$45 million opportunity seeks the best subject matter experts (including universities) to partner with DHS, S&T, OUP to address the most

complex issues facing our Nation and the challenges in the Arctic. In addition, this funding will enable enhancements in situational awareness, improvements in resilience, and expand collaboration across the homeland security enterprise.

A special thanks to ADAC's exceptional network of researchers, partners and stakeholders for their continued support and contributions. As a result, the UAA ADAC Emeritus team was able to solicit project proposals from esteemed international and national collaborators, eager to be included in our proposal for this new COE. The University of Alaska's Arctic Domain Awareness Center looks forward to hosting DHS, S&T, OUP for a site visit and discussing this new and exciting COE for Homeland Security in the Arctic.



Summer 2023 ASIP Participants



**ARCTIC DOMAIN
AWARENESS CENTER**
A DEPARTMENT OF HOMELAND SECURITY CENTER OF EXCELLENCE

ADAC's Mission

The Arctic Domain Awareness Center, led by the University of Alaska, develops and transitions technology solutions, innovative products, and educational programs to improve situational awareness and crisis response capabilities related to emerging maritime challenges posed by the dynamic Arctic environment.

Contact Information

1901 Bragaw St
Anchorage, AK 99508

Website: ArcticDomainAwarenessCenter.org
Email: uaa.adac@alaska.edu



@ADACAlaska



@ADACAlaska



YouTube
Arctic Domain
Awareness Center