



CELEBRATING THE PAST – PLANNING THE FUTURE
ENHANCING ARCTIC SCIENCE AND ENGINEERING
WORKSHOP AGENDA

August 1-5, 2022, Utqiagvik, Alaska



75th ANNIVERSARY OF THE NAVAL ARCTIC RESEARCH LABORATORY (NARL)

Mission Statement: Ukpeagvik Inupiat Corporation and partners will celebrate NARL's 75-year history of American Arctic research by bringing together North Slope Borough community members, for profit and not-for-profit corporations as well as past and present Arctic researchers to Utqiagvik, Alaska. A key goal is to look toward the next 25 years of Arctic science and the economic development necessary to meet future research needs.

MONDAY, AUGUST 1, 2022

ANC-BRW/FAI - BRW

Buses pick up at the airport

4:00 - 6:00 PM Early Registration and Inupiat Heritage Center Tour

Location: Inupiat Heritage Center

6:00 - 8:00 PM Icebreaker Welcome Reception

Location: Inupiat Heritage Center

Featuring: Local Dance Group

Traditional Welcome

- **Harry K. Brower Jr.**, Mayor, North Slope Borough *(invited)*
- **Morrie Lemen**, Head of ICAS *(invited)*
- **Crawford Patkotak**, Executive VP, Stakeholder Engagement, Arctic Slope Regional Corporation
- Gold Sponsor speaker

*Moderator: **Dr. Pearl K. Brower**, President and Chief Executive Office, Ukpeagvik Inupiat Corporation*

TUESDAY, AUGUST 2, 2022

SCIENCE AND INDUSTRY COOPERATION

8:00 – 9:00 AM **Registration and Continental Breakfast**
Buses start picking up at the hotels at 7:45am
Location: High School

9:00 – 9:45 AM **Opening Keynote**
Location: High School

- U.S. Senator **Lisa Murkowski** (*video message*)
- U.S. Senator **Dan Sullivan** (*video message*)
- Representative **Josiah Patkotak**

*Moderator: **Mike Sfraga**, Chair & Distinguished Fellow, Polar Institute, Wilson Center, Chair, U.S Arctic Research Commission*

9:45 – 10:45 AM **NARL Past and Future**
Location: Barrow High School

- Brief History of Early NARL, **Todd Sformo**, Department of Wildlife Management, North Slope Borough
- Transitions During Middle Years of NARL History **Dave Norton**, Retired UAF Research Faculty, UA Museum of the North (*virtual presentation*)

*Moderator: **Richard Glenn***

10:45 – 12:30 PM **Tour of Utqiagvik (Barrow)**
Buses pick up at 10:45am

12:30 – 1:30 PM **Lunch**
Location: High School

*Featuring: **Utqiagvik Arctic Science Achievement Award***

TUESDAY, AUGUST 2, 2022

Award Presenter: Nagruk Harcharek, VP of Private Equity & Arctic Development, Ukpeaġvik Inupiat Corporation

Brian Vasel, Director of Operations, NOAA Global Monitoring Laboratory

1:30 – 3:00 PM Community Perspective (s) on Science at NARL Speakers Panel

Location: High School

- **Inuuteq Stotts**, Stakeholders relations and Community Coordinator, ASRC Consulting & Environmental Services, LLC.
- **Crawford Patkotak**, Executive VP, Stakeholder Engagement, Arctic Slope Regional Corporation
- **Nagruk Harcharek**, VP of Private Equity & Arctic Development, Ukpeaġvik Inupiat Corporation

Moderator: Craig George, Wildlife Department

3:00 – 4:00 PM Science and Industry Cooperation Speakers Panel

Location: High School

- **Lynn Palensky**, North Pacific Research Board
- **Nettie La Belle-Hamer**, Vice Chancellor for Research, University of Alaska Fairbanks
- **John Thornley**, Senior Geotechnical Engineer, Golder Member of WSP

Moderator: David Prusak, Principal, Stantec

TUESDAY, AUGUST 2, 2022

4:00-5:30 PM

Barrow Arctic Research Center Tour

Buses pick up at 4:00pm

- **Nagruk Harcharek**, VP of Private Equity & Arctic Development, Ukpeaġvik Inupiat Corporation
- **Craig Tweedie**, *University of Texas*

6:00-8:00 PM

Dinner

Location: High School

Buses pick up at 5:45pm

Featuring: ***Introduction to the Arctic***, Historical NARL Film

Navigation the New Arctic Community Office (NNA-CO),
Matthew Druckenmiller, Research Scientist with the National Snow and Ice Data Center (NSIDC) at the University of Colorado Boulder

Inaugural Kenneth Toovak & Max Brewer Memorial Research Award Announcement

Moderator: Nagruk Harcharek, VP of Private Equity & Arctic Development, Ukpeaġvik Inupiat Corporation

WEDNESDAY, AUGUST 3, 2022

ARCTIC PAST AND POTENTIAL

8:00 – 9:00 AM

Continental Breakfast

Buses pick up at 7:45am

Location: High School

WEDNESDAY, AUGUST 3, 2022

9:00 – 10:30 AM Welcome and Disciplinary Assessment of Research Past and Potential

Location: High School

- **Terrestrial Vegetation**
 - Documenting and Understanding Terrestrial Ecosystem Change in the Arctic, **Bob Hollister**, Professor, Biology Department, Grand Valley State University
- **Freshwater Ecology**
 - **Christian Andersen**, Assistant Professor, Geography Department, University of Wisconsin Madison
- **Marine and Terrestrial Wildlife**
 - **Craig George**, NSB Wildlife
- **Social Sciences**
 - **Daniel Wall**, Associate Professor of Social Studies, Iḷisaḡvik College
 - Archaeology and NARL: The Past 25 Years, **Anne Jensen**, Affiliate Research Assistant Professor, Department of Anthropology, University of Alaska Fairbanks

*Moderator: **Craig Tweedie**, University of Texas*

10:30 – 11:00 AM Coffee break

11:00 – 12:30 PM Disciplinary Assessment of Research Past and Potential

Location: High School

- **Atmosphere and Climate**
 - **Bryan Thomas**, NOAA
- **Cryosphere**
 - **Matthew Sturm**, UAF (*virtual presentation*)

WEDNESDAY, AUGUST 3, 2022

- **Biogeochemistry**
 - **Donatella Zona**, Associate Professor, San Diego State University (virtual presentation)
- **Marine and Coastal Processes**
 - **Andy Mahoney**, Research Associate Professor of Geophysics, Geophysical Institute, University of Alaska Fairbanks
 - **Jeremy Kasper**

Moderator: **Cheryl Rosa**, U.S. Arctic Research Commission

12:30 – 1:30 PM Lunch

Location: High School

Featuring: **DOE's Arctic Energy Office, ARM Facility, And Sandia National Labs Session**

- The New Arctic Energy Office, **Dr. Matthew Heavner**, Senior Advisor, DOE Arctic Energy Office
- The Utqiagvik ARM Site, a Brief Overview of the Atqasuk Facility, Important Field Campaigns, **Dr. Mark Ivey**, Senior Engineer, Geoscience Research and Applications Center, Sandia National Labs
- The Future of the Utqiagvik ARM Site, Plans, Recent Achievements, Dr. **Andy Glen**, Manager of the Atmospheric Sciences Department, Sandia National Labs
- **Bernie Zak**, Senior Scientist, Sandia National Labs (Ret.) (video)

Moderator: **Dr. Ben Cook**, Senior Manager, Geoscience Research and Applications, Sandia National Labs

WEDNESDAY, AUGUST 3, 2022

1:30 – 3:00 PM Interdisciplinarity Assessment of Research Past and Potential

Location: High School

- **Arctic Systems Science Focus**
 - **Dr. John Farrell**, Executive Director, U.S. Arctic Research Commission
- **Long-term Environmental Observations**
 - Barrow Environmental Observatory: Window on the Future, **Jerry Brown** (*virtual presentation*)
- **Co-Production of Knowledge**
 - **Brendan Kelly**, Chief Scientist, *Study of Environmental Arctic Change*, University of Alaska Fairbanks
- **Long-term Environmental Monitoring Efforts**
 - **Christopher Baird**, Domain Manager, Arctic and Boreal, National Ecological Observatory Network
 - **Roberta Glen**, Graduate Student

Moderator: Ben Jones, Research Assistant Professor, Institute of Northern Engineering, University of Alaska Fairbanks

3:00 – 4:00 PM Future of Arctic Research, Department of Defense Perspective

Location: High School

- **Randy “Church” Kee**, Senior Advisor, Arctic Security Affairs, Ted Stevens Center for Arctic Security Studies, U.S. Department of Defense
- **Craig Fleener**, Deputy Advisor, Arctic Security Affairs, Ted Stevens Center for Arctic Security Studies, U.S. Department of Defense

Moderator: Mike Sfraga, Chair & Distinguished Fellow, Polar Institute, Wilson Center, Chair, U.S Arctic Research Commission

WEDNESDAY, AUGUST 3, 2022

4:00 – 5:00 PM **Iḷisaḡvik College Speakers Panel**

Location: High School

- **Ana Stringer**, Graduate Student, University of Washington, Seattle
- **Kimberly Pikok**, UAF Graduate Student
- **Joyce Stotts**, Iḷisaḡvik College Student
- **Daphne Mueller**, UAF Undergraduate Student
- **Garrett Taylor**, UAF Undergraduate Student
- **Linda Nicholas-Figueroa**, Associate Professor Biology and Chemistry, Iḷisaḡvik College

Moderator: Dr. Edna MacLean

5:00 – 6:00 PM **Iḷisaḡvik College Tour**

Buses pick up at 4:55pm

6:00 – 8:00 PM **Networking BBQ**

Location: Iḷisaḡvik College

THURSDAY, AUGUST 4, 2022

PLANNING FOR THE NEXT 25 YEARS IN THE ARCTIC SCIENCE

8:00 – 8:30 AM **Express Continental Breakfast**

Buses pick up at 7:45am

Location: Barrow High School

8:30 – 9:00 AM **Welcome and Breakout Groups Introductions:**

Location: High School

THURSDAY, AUGUST 4, 2022

Participants will be asked to break into groups to discuss key science questions and research facilities and support needs by discipline. Social scientists, policymakers, and local and Indigenous knowledge holders are encouraged to join any group that is aligned with their work or interests. All groups will be asked to consider human dimensions and co-production of knowledge in their discussions.

Group 1: Life Sciences Focus

- Terrestrial Vegetation
- Freshwater Ecology
- Marine and Terrestrial Wildlife
- Social Sciences & Co-production

Group 2: Physical Sciences Focus

- Atmosphere and Climate
- Cryosphere
- Biogeochemistry
- Marine and Coastal Processes
- Social Sciences & Co-production

Group 3: Arctic Systems and Environmental Monitoring Focus

- Arctic Systems Science Focus
- Long-term Environmental Observations
- Social Sciences & Co-production

Group 4: DOD Perspective

- Social Sciences & Co-production

*Moderator: **Ben Jones**, Research Assistant Professor, Institute of Northern Engineering, University of Alaska Fairbanks*

THURSDAY, AUGUST 4, 2022

9:00 – 10:45 AM Planning for the Next 25 Years in Arctic Science

Location: High School

Discussion Questions:

- *What are the key science questions that will drive research in these disciplines at different scales (Utqiaġvik, the North Slope, Circumpolar)? When thinking about questions, please consider both their scientific merit and broader impact.*
- *What facilities and logistical support will be needed to address these questions?*
- *What is needed to foster collaboration and knowledge co-production within the science community, with industry, within indigenous communities and with other stakeholders.*

Group 1: Life Sciences Focus

*Moderator: **Craig Tweedie**, University of Texas*

Group 2: Physical Sciences Focus

*Moderator: **Hajo Eicken**, Director – International Arctic Research Center, Professor of Geophysics, University of Alaska Fairbanks*

Group 3: Arctic Systems and Environmental Monitoring Focus

*Moderator: **Brendan Kelly**, Chief Scientist, Study of Environmental Arctic Change, University of Alaska Fairbanks (invited)*

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Group 4: DOD Perspective

Randy “Church” Kee, Senior Advisor, Arctic Security Affairs,
Ted Stevens Center for Arctic Security Studies, U.S.
Department of Defense

10:45 – 12:30 PM NOAA Facility Tour

Buses pick up at 10:45am

12:30 – 1:30 PM Lunch

Location: High School

Featuring: **Informing Decisions with Co-produced
Understanding of the Consequences of Arctic Change –
Stantec Panel**

- **Betsy Baker**, International Lawyer and Global Fellow at the Wilsons Center Polar Institute
- **Jackie Qataliña Schaeffer**, ANTHC, Community Development Manager
- **Athena E. Copenhaver**, Assistant Director, Study of Environmental Arctic Change
- **Dr. Martin Robards**, Regional Director, Arctic Beringia Program, Wildlife Conservation Society

*Moderator: **Brendan Kelly**, Chief Scientist, Study of Environmental Arctic Change, University of Alaska Fairbanks*

1:30 – 2:15 PM ANCSA 101, Arctic Slope Regional Corporation Panel

Location: High School

- **Marth Monnin**, President and CEO, Arctic Slope Native Association
- **Morrie Lemen Jr.**, Executive Director, Iñupiat Community of the Arctic Slope

THURSDAY, AUGUST 4, 2022

- **Bridget Anderson**, Vice President of External Affairs, Arctic Slope Regional Corporation
- **Raynita “Taquik” Hepa**, Director, Department of Wildlife Management, North Slope Borough
- **Justina Wilhelm**, President, Iḷisaḡvik

2:15 – 3:15 PM Breakout Groups Summarizing and Recommendations

Location: High School

During this session, breakout groups will be asked to conclude their discussions from the morning session and to summarize their work in order to report out to the larger group.

Reporting Guidelines:

- 1. Please prepare a summary statement outlining your key science questions, research and support needs, and ideas for fostering collaboration and co-production. Each group will have 7 minutes to report out.*
- 2. Following the session each group will be asked to provide a longer written summary of the discussion that captures thoughts on scale (local, regional or global), scientific merit, broader impact, and additional details on facilities and logistics needs such as location, capacity, equipment, etc.*

Group 1: Life Sciences Focus

*Moderator: **Craig Tweedie**, University of Texas*

Group 2: Physical Sciences Focus

*Moderator: **Hajo Eicken**, Director – International Arctic Research Center, Professor of Geophysics, University of Alaska Fairbanks*

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Group 3: Arctic Systems and Environmental Monitoring Focus

*Moderator: **Brendan Kelly**, Chief Scientist, Study of Environmental Arctic Change, University of Alaska Fairbanks (invited)*

Group 4: DOD Perspective

Randy “Church” Kee, Senior Advisor, Arctic Security Affairs, Ted Stevens Center for Arctic Security Studies, U.S. Department of Defense

3:15 – 4:00 PM Breakout Groups Reporting

Location: High School

*Moderator: **Nagruk Harcharek**, VP of Private Equity & Arctic Development, Ukpeaġvik Inupiat Corporation; and **Ben Jones**, Research Assistant Professor, Institute of Northern Engineering, University of Alaska Fairbanks*

4:00-4:30 PM Closing Remarks

Location: High School

- **Cody Johnson**, Director of Operations, UIC Science
- **Nagruk Harcharek**, VP of Private Equity & Arctic Development, Ukpeaġvik Inupiat Corporation

6:00-8:00 PM Closing Banquet - 75th Anniversary of NARL Celebration

Buses pick up at 5:45pm

Location: Middle School

Featuring: Crafts Fair and Barrow Dancers Performance

- **Michael Kuhlman**, Chief Scientist and Business Line Director. Applied Science and technology, Battelle, Platinum Sponsor
- **DOE's Arctic Energy Office, ARM Facility, and Sandia National Labs**, Platinum Sponsor
- Tribute to U.S. Representative **Don Young** and Senator **Ted Stevens, Julie Kitka**, President, Alaska Federation of Natives

FRIDAY, AUGUST 5, 2022

Breakfast on your own

9:30-10:30 AM Honoring Past Researchers

Buses pick up at 9:15am

Optional Event. All Workshop participants are welcome and encouraged to participate.

Location: Barrow Arctic Research Center

*Moderator: **Roberta Glen**, Graduate Student*

10:30-12:30 AM Round Table Dialogue – Overview and Outline for the Future. Planning for the Future: Next Steps for Deliverables and Start Discussion of Facilities

*Moderator: **Nagruk Harcharek**, Operations Manager, UIC Construction, Ukpeaġvik Inupiat Corporation; and **Ben Jones**, Research Assistant Professor, Institute of Northern Engineering, University of Alaska Fairbanks*

12:30-1:30 PM Lunch

Location: Barrow Arctic Research Center

1:30 – 3:30 PM Search & Rescue Facility Tour

Buses pick up at 1:30pm

Buses drive to the airport