Objective

To support USNORTHCOM’s Arctic mission, through convening a wide array of leaders and experts, very near the Arctic, during a time of year when the environment provides a bold reminder of the challenges faced in this austere and strategically vital region. Such convergence seeks to build partnerships, while improving the understanding of the challenges in the complicated risk environment that is the new circumpolar North. An improved understanding serves to fuel the solutions needed to address, and potentially reduce, the associated defense and security risks of the region.

Note: Comprehensive Report to follow, utilizing modified Chatham House Protocols
Day 1:
“Sketching the landscape, understanding the contours”
Welcome to Fairbanks and UAF

Randy “Church” Kee
Executive Director,
ADAC,
Maj Gen USAF
(Retired)
Logistics Details

To use the wi-fi:

Network: Ualaska
Username: AAS19Guest
Password: AAS2019

Emergency Exit:

Please depart through the rear doors from the concert hall, out into the Great Hall, then out the main doors and rally in the adjoining courtyard. The red box denotes our location and the green box denotes our rally point, should the need for emergency egress arise.
Parking:
Permits can be purchased via cash or credit at kiosks located throughout campus. The permits allow parking in any Yellow or Purple lot on the UAF campus map. Note that Gold decal lots, mostly located on the east end of campus, are not available for parking. We recommend that you park in the Geophysical Institute lots (please refer to the map).

Campus shuttle buses run in continuous loops between the Geophysical Institute and the Great Hall. The Yukon Route between the Wood Center North and Geophysical Institute (Elvey or Murie buildings) will likely be the most convenient option.
Official Welcomes by Distinguished Leaders

Lt. General Thomas A. Bussiere
Commander, Alaska NORAD Region, Alaskan Command, and 11th Air Force

Dr. Daniel M. White,
Chancellor, University of Alaska Fairbanks

Senator Josh Revak,
Alaska State Senate

Mr. Bryce Ward,
Mayor, Fairbanks, North Star Borough

Senator John Coghill,
Alaska State Senate
"The Changing Arctic...a Long View"

Keynote Speaker

Dr. Brendan P. Kelly

Executive Director, Study of Environmental Arctic Change (SEARCH) & Professor of Marine Biology, International Arctic Research Center, University of Alaska Fairbanks
Reflections on the Power of Alaska’s Indigenous Peoples to Advance Arctic and Northern Regional Security

President of the Sealaska Heritage Institute of the Sealaska Corporation, Juneau, Alaska

Dr. Rosita Worl
Panel 1

*Hidden in Plain Sight: The Growing Capacity of North Arctic Indigenous Peoples*

**Moderator:**
Dr. Whitney Lackenbauer, Professor, Trent University

**Panelists:**
Sarah Obed, Senior Vice President, External Affairs, Doyon Ltd.
Gregory Razo, Vice President, Cook Inlet Regional Inc.
Mary J. David, Executive Vice President, Kawerak Inc.
Nagruk Harcharek, Director of Barrow Operations, Ukpeaġvik Iñupiat Corporation (UIC)
The Emerging Arctic Strategic Landscape from a Defense Vantage

Derek “Dirk” Maurer
Deputy Assistant Secretary of Defense for Defense Continuity and Mission Assistance
Group Photo
Outside the Great Hall
11:50 - 12:00
Followed by
Lunch
In the Great Hall
12:00 - 13:00

Please remember...
If there is not a picture taken...
Did the event really happen?
Legislative Priorities for the Arctic Part 1: A Collection of Assessments from Alaska’s Congressional Delegation

Panelists:

Senator Dan Sullivan
Representative Don Young

Moderator:
Rachel Kallander
Founder and Executive Director, Arctic Encounter
Break

1335 – 1345
The Rapidly Changing Arctic Environment...What’s Going on Here?

Panelists:

Moderator:
Dr. Michael Sfraga,
Director of Wilson Center’s Global Risk and Resilience Program & Polar Institute

Don Moore
Alaska National Weather Service

Dr. Hajo Eicken
Director of the International Arctic Research Center

Captain Chris Gabriel
Commanding Officer, USN Fleet Weather Center

Dr. John Farrell
Executive Director, U.S. Arctic Research Commission

Nagruk Harcharek
Director of Barrow Operations, UIC

Dr. Julie Morris
Associate Director, U.S. Global Change Research Program

Craig Fleener
Executive Director, Alaska Ocean Cluster
Break

1450 – 1505
Panel 4

Achieving Improved Unity of Effort in Order to Better Succeed at 30° Below

Panelists:

Moderator:
Dr. Whitney Lackenbauer, Professor, Trent University

Rear Admiral Matthew T. Bell Jr., Commander of the United States Coast Guard District 17
Rear Admiral Shepard M. Smith, Coast Survey Director, NOAA
Hallie Bissett, Tanana Chiefs Council
Kevin Bjella, PE, US Army Corps of Engineers CRREL

Brigadier General Joseph J. Streff, ANG, Director of Staff, Alaska National Guard, JBER Alaska
Brigadier General J.B.P. Carpentier, CD, Commander, Joint Task Force North
LCOL Tim Halfkenny, Commanding Officer, 1st Canadian Ranger Patrol Group, Canadian Armed Forces
Joint Presentation

Leadership Lessons from Working Together (with a focus on cyber security)

Introduction By:
Amanda Andraschko,
Native Affairs Liaison, Alaska Command

Presenters:
Julie Kitka,
President, Alaska Federation of Natives
Darlene Gates,
President, ExxonMobil Alaska and Honorary Colonel, RCAF
William “Bill” Walton,
Special Agent, FBI
Colonel Tim Maxwell,
Director of Communications (J6), USAF, Alaska Command
Concluding Remarks

Lt. General Thomas A. Bussiere, Commander, Alaska NORAD Region, Alaskan Command, and 11th Air Force, Pacific Air Forces
End of Day 1

Join us starting at 1900 for Icebreaker reception
Followed by Dinner with Keynote Speaker, VADM Linda Fagan, USCG Pac Area CDR

*Reception:* Pike’s Landing Waterfront Restaurant
*Dinner:* at Pike’s Lodge Binkley Dining Room

Day 2 (14 Nov 2019)

0730: Breakfast in Great tomorrow
0800 Opening session starts at Davis Concert Hall

Transportation: Please Consult your bus schedule in your symposium folders

Thank you!
Day 2:
“Succeeding at 30 Below”
Reflections from Symposium Day 1

Lt. General Thomas A. Bussiere,
Commander, Alaska NORAD Region,
Alaskan Command, and 11th Air Force,
Pacific Air Forces
Rising to the Challenge: Addressing Public Safety, Rural Law Enforcement and Security Concerns in the North American Arctic

Panelists:

Moderator:
Dr. Whitney Lackenbauer, Professor, Trent University

LCol Tim Halfkenny, Commanding Officer 1st Canadian Ranger Patrol Group, Canadian Armed Forces

Vivian Korthuis, CEO, Association of Village Council Presidents

Julie Kitka, President, Alaska Federation of Natives

Nicole Borromeo, Executive Vice President and General Counsel, Alaska Federation of Natives
A Case Study in Evolving Self-Determination: The North Slope Borough

Harry K. Brower, Jr.
Mayor of the North Slope Borough
<table>
<thead>
<tr>
<th>Time</th>
<th>Track 1 Electives</th>
<th>Track 2 Electives</th>
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<tbody>
<tr>
<td></td>
<td>Location: Great Hall</td>
<td>Location: David Concert Hall</td>
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<tr>
<td>0930 – 1000</td>
<td>Arctic Research and Operations at the</td>
<td>NOAA Satellite Service Support to</td>
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<td>Geophysical Institute</td>
<td>Advance Arctic Domain Awareness for</td>
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<td>Operational Decision Makers</td>
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<td>1000 – 1030</td>
<td>Innovating Remote Power Solutions: The</td>
<td>Alaska Department of Natural Resources</td>
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<td>Alaska Center for Energy and Power</td>
<td>Arctic Strategic Transportation and</td>
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<td>Resources Project (ASTAR) Overview</td>
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<tr>
<td>1030 – 1100</td>
<td>Emerging Mapping Capabilities for the</td>
<td>Commercial Satellite Data Provides</td>
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<td>Arctic Region: The Geographic Information</td>
<td>Maritime Situational Awareness</td>
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<td>Network of Alaska (GINA)</td>
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<tr>
<td>1110 – 1140</td>
<td>Next Generation, Arctic Capable, Sensor</td>
<td>Sabre St. Paul SPXTR Arctic Plan: Putting</td>
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<td>Integration Research for Remotely</td>
<td>Alaska Technology forefront of Search &amp;</td>
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<td>Piloted Aircraft</td>
<td>Rescue, Emergency Response, Hazmat Response</td>
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<tr>
<td>1140 – 1210</td>
<td>Research and innovation in the Arctic:</td>
<td>Support To Northern Space Operations:</td>
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<td>The Alaska Satellite Facility</td>
<td>The Alaska Aerospace Corporation (AAC)</td>
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<tr>
<td>Time</td>
<td>Elective Title</td>
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<tr>
<td>0930 – 1000</td>
<td>Arctic Research and Operations at the Geophysical Institute</td>
<td>Dr. Bob McCoy, UAF</td>
</tr>
<tr>
<td>1000 – 1030</td>
<td>Innovating remote power solutions: the Alaska Center for Energy and Power</td>
<td>Dr. Jeremy Kasper, UAF</td>
</tr>
<tr>
<td>1030 – 1100</td>
<td>Emerging mapping capabilities for the Arctic region: The Geographic Information Network of Alaska (GINA)</td>
<td>Mr. John Pace, UAF</td>
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<tr>
<td>1000 – 1110</td>
<td>Break</td>
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<tr>
<td>1110 – 1140</td>
<td>Next generation, Arctic capable, sensor integration research for remotely piloted aircraft</td>
<td>Dr. Cathy Cahill, ACUASI, UAF</td>
</tr>
<tr>
<td>1140 – 1210</td>
<td>Research and innovation in the Arctic: The Alaska Satellite Facility</td>
<td>Dr. Nettie Labelle-Hamer</td>
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## Track 2 Timeline

<table>
<thead>
<tr>
<th>Time</th>
<th>Elective Title</th>
<th>Presented by</th>
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<tbody>
<tr>
<td>0930 – 1000</td>
<td>NOAA satellite service support to advance Arctic Domain Awareness for operational decision makers</td>
<td>Dr. Lihang Zhou, Program Manager, NOAA JPSS</td>
</tr>
<tr>
<td>1000 – 1030</td>
<td>Alaska Department of Natural Resources Arctic Strategic Transportation and Resources project (ASTAR) overview</td>
<td>Mr. Trent Hubbard, DNR, DGGS &amp; Ms. Tasha Jackson, RDI (ASTAR contractor)</td>
</tr>
<tr>
<td>1030 – 1100</td>
<td>Commercial Satellite data provides Maritime Situational Awareness</td>
<td>Sigmund Delhi, Kongsberg Satellite Services</td>
</tr>
<tr>
<td>1100 - 1110</td>
<td>Break</td>
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<tr>
<td>1110 – 1140</td>
<td>Sabre St. Paul SPXTR Arctic Plan: Putting Alaska Technology forefront of Search &amp; Rescue, Disaster Relief, Emergency Response, Hazmat Response and Interdiction</td>
<td>Mr. Patrick Baker, Executive Director of Aleut Community of St. Paul Island, and Mr. Amos, Mr. Ed De Reyes, CEO, Sabrewing Aircraft Company</td>
</tr>
<tr>
<td>1140 – 1210</td>
<td>Support to Northern space operations: The Alaska Aerospace Corporation (AAC)</td>
<td>Mr. Mark Lester, President and CEO, AAC</td>
</tr>
</tbody>
</table>

**Location:** Davis Concert Hall

**Moderator:**

Dr. Michael Sfraga, Director of Wilson Center's Global Risk and Resilience Program & Polar Institute

Mr. Patrick Baker, Executive Director of Aleut Community of St. Paul Island, and Mr. Amos, Mr. Ed De Reyes, CEO, Sabrewing Aircraft Company
Lunch
Reconvene in the Great Hall
1210 – 1305
Lunchtime Speakers

The Woodrow Wilson Polar Institute: “The Unfolding Geopolitical Trends Across the Circumpolar North”

**Discussion Lead:**

Dr. Michael Sfraga,
Director of Wilson Center’s Global Risk and Resilience Program & Polar Institute

**Guest Speakers:**

Mr. Jim Townsend,
Former DASD, Global Fellow Polar Institute
Woodrow Wilson Center

Mr. Abe Denmark,
Director of the Asia Program at the Woodrow Wilson International Center for Scholars & Senior Fellow of Kissinger Institute on China and the United States
Break

13:05 - 13:10
Legislative Priorities for the Arctic

Senator Lisa Murkowski,
United States Senator representing Alaska; Chair of Senate Energy and Natural Resources Committee; Chairman of Interior and Environment Subcommittee; member of Senate Health, Education, Labor and Pensions Committee; and senior member of Senate Indian Affairs Committee

Rachel Kallander
Founder and Executive Director, Arctic Encounter

Moderator:
Break

1330 - 1340
Arctic 2020...Becoming the Great Game of the New Millennium?

Panel 2

Moderator:
Maj Gen Randy “Church” Kee, USAF (Ret.), ADAC Executive Director

VADM Linda Fagan, Commander, USCG Pacific Area

Lt. Gen Thomas A. Bussiere, USAF, Alaskan Command, Alaska NORAD Region and 11th Air Force Commander

MG Peter Andrysiak, U.S. Army Alaska Commander

Brigadier General J.B.P. Carpentier, CD, Commander, Joint Task Force North

RDML Robert Katz, USN Director, Joint and Fleet Operations, U.S. Fleet Forces Command (N3)

RADM Andrew Betton, Royal Navy, Deputy Commander, NATO Joint Force Command
The Arctic as a new global hot-spot: assessing the rise of Arctic-focused strategies across the departments of the U.S. Federal Government

Panelists:

Mr. Justin Gerber, Office of Secretary Defense, Pentagon
Ms. Iris Ferguson, Deputy Chief of Staff, Operations, HQ USAF Pentagon
Mr. Shannon Jenkins, Commandant’s Senior Arctic Advisor (SAPA), HQ USCG
Ms. Amy Holman, NOAA Alaska Regional Coordinator
Mr. Jeff Barker, Deputy Branch Head, Policy and Posture OPNAV N5I5B, HQ US Navy, Pentagon

Moderator:

Dr. Michael Sfraga, Director of Wilson Center’s Global Risk and Resilience Program & Polar Institute
Break
1545 – 1600
Preparing the next generation: educating and training Arctic-minded leaders in security, defense and science to better secure, defend, serve, and learn in an increasingly unpredictable Arctic

Dr. Jim Johnsen
President, University of Alaska
Preparing the next generation. Educating and training Arctic-minded leaders in security and defense and science to better secure, defend, serve, and learn in an increasingly unpredictable Arctic

Panel 3

Moderator:

Dr. Larry Hinzman, Vice Chancellor for Research, UAF & Research Director, ADAC

Panelists:

Dr. John Farrell, Executive Director, U.S. Arctic Research Commission

Dr. Mary Thompson-Jones, U.S. Naval War College

Ms. Cara Condit, Center for Arctic Study and Policy, U.S. Coast Guard Academy

Ms. Cara Aghajanian, Director, Air Force Language, Regional Expertise, and Culture Program HQ USAF A1

Dr. Cam Carlson, LTC US Army (Ret), School of Management, UAF

Mr. Sam Alexander, School of Management, UAF

Dr. Dave Auerswald, National Defense University
Review and Recap

Lt. General Thomas A. Bussiere,
Commander, Alaska NORAD Region,
Alaskan Command, and 11th Air Force,
Pacific Air Forces
End of Day 2

AAS19 VIP Dinner (via invitation): Lavelle’s Bistro, start at 1930

AAS19 Participant Dinner: Silver Gulch Brewery, start at 1900

Day 3 (15 Nov 2019)

0730: Breakfast in Great tomorrow

0800 Opening session starts at Davis Concert Hall

Transportation: Please Consult your bus schedule in your symposium folders

Thank you!
Day 3:

“Arctic horizons...the way forward, followed by opportunities to orient”
Reflections from Symposium Day 2

Lt. General Thomas A. Bussiere, Commander, Alaska NORAD Region, Alaskan Command, and 11th Air Force, Pacific Air Forces
Panel 1

Panelists:

Moderator:

Maj Gen Randy “Church” Kee, USAF (Ret.), ADAC Executive Director

Mr. Jim Townsend, Former DASD, Global Fellow, Polar Institute Woodrow Wilson Center

Mr. Tony Penikett, Former Premier of Yukon Territory

Dr. Michael Sfraga, Director of Wilson Center’s Global Risk and Resilience Program & Polar Institute

BG (Ret.) Peter Zwack, former Senior Defense official, U.S. Embassy to the Russian Federation, Keenan Institute, Woodrow Wilson Center

Ms. Eugénie Panitcherska, First Secretary (Arctic Affairs)/Première secrétaire, Canadian Embassy to the United States

Ms. Gail Schubert, President and CEO Bering Straits Native Corporation

Arctic Policy in Support of Improved Security and Defense of the Northern Flank of U.S. and Canadian Homeland?
Panel 2

Assessing the Changing Human Terrain...Do We Have an Arctic Security Problem?

Moderator: Ms. Nicole Borromeo, Vice President and General Counsel for Alaska Federation of Natives

Panelists:

Supervisory Special Agent Jeffrey Peterson, Federal Bureau of Investigation

Dr. Mary Thompson-Jones, U.S. Naval War College

Special Agent Michael Smith, Customs & Border Protection

Mr. Troy Bouffard, School of Management, UAF
Break
10:30 – 10:45
Achieving Arctic Domain Awareness, Canada’s Developing Approach.

Dr. Paul Comeau
S&T Safety and Security DRDC’s Centre for Science Defence Research and Development Canada, Government of Canada
Panel 3

No Do Overs in the Arctic: Applied Research and Its Contributions to a Rapidly Changing Era

Moderator:
Dr. Doug Causey,
ADAC Principal Investigator, UAA

Panelists:
Dr. John Farrell,
Executive Director,
U.S. Arctic Research Commission
Dr. Matt Calhoun,
Alaska Native Science and Engineering Program (ANSEP), UAA
Dr. Holly Dockery,
Sandia National Laboratories
CAPT (Ret.) Mike White,
USCG, Pacific NW National Laboratories
Panel 4

**Moderator:**
Mr. Jim Townsend, Former DASD, Global Fellow Polar Institute Woodrow Wilson Center

**Panelists:**

- COL Ólafur Ragnar Ólafsson, National Liaison Representative for Iceland, North Atlantic Treaty Organization / Headquarters Supreme Allied Commander Transformation (NATO / HQ SACT)
- COL Petteri Seppala, Defense Attaché, Embassy of Finland
- Senior Commander Tue Lippert, Danish Joint Arctic Command
- COL Magne “Mags” Rodahl, Defense Attaché, Royal Norwegian Embassy
Summary and Overview

Lt. General Thomas A. Bussiere,
USAF Commander, Alaskan Command,
Alaska NORAD Region and 11th Air Force
Break
13:00 – 13:15

Please proceed with “Grab & Go Lunch” then
Load buses for field activities at UAF Poker Flats Research Range and the CRREL Permafrost Tunnel (13:15 – 17:45)
### Bus Transportation for Day 3 Tours

<table>
<thead>
<tr>
<th>Bus 1</th>
<th>Bus 2</th>
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<tbody>
<tr>
<td>Bus 1 departs UAF at 13:15 to drop off those unable to join</td>
<td>Bus 2 departs Great Hall at 13:15</td>
<td>Bus 3 departs Great Hall at 13:15</td>
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<tr>
<td>-</td>
<td>Arrive at ACUASI demonstration at 13:25, West Ridge UAF</td>
<td>Arrive at ACUASI demonstration at 13:25, West Ridge UAF</td>
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<td>-</td>
<td>Conduct ACUASI demonstration from 13:30 – 14:00</td>
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<td>Depart for Poker Flats Research Range (PFRR) at 14:00</td>
<td>Depart for Permafrost Tunnel at 14:00</td>
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<td>Stops at Pipeline for 5 minute photo op</td>
<td>Arrive at Permafrost Tunnel at 14:30 and conduct tour from 14:30 – 15:30</td>
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<td>Arrives at PFRR at 14:50 and conduct tour from 14:50 – 15:50</td>
<td>Depart for Poker Flats Research Range (PFRR) at 15:30</td>
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<td>Depart for Permafrost Tunnel at 15:50</td>
<td>Stops at Pipeline for 5 minute photo op</td>
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<td>Arrives at Permafrost Tunnel at 16:20 and conduct tour from 16:20 – 17:20</td>
<td>Arrives at PFRR at 16:00 and conduct tour from 16:00 – 17:00</td>
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<tr>
<td>-</td>
<td>Depart Permafrost Tunnel at 17:20</td>
<td>Depart PFRR at 17:00</td>
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<td>-</td>
<td>Arrive at Fairbanks hotels at approximately 17:45</td>
<td>Arrive at Fairbanks hotels at approximately 17:45</td>
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</table>
Thank you for your participation...
We are deeply honored by your efforts!

Report to follow!