

ICE-PPR SAWG Quarterly Meeting



27 February 2025

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ICE-PPR SAWG Quarterly Meeting, 27 February 2025



Agenda

LCDR Barry McShane - Administrative Notes & Introductions

Randy “Church” Kee, Maj Gen, USAF (Ret) – Welcome & Opening Remarks

John Woods (ONR) – ICE-PPR Executive notes

Jack Nugent – Overview of Nav/ISR Workshop, Hanover, NH 29 April – 1 May

Phil McGillivray – Science Advisor Update

Adam Curry – Communications Sub-WG update

Dr. Britta Hale & LT Xisen Tian (Naval Post-graduate School)

Shelley Johnson (MITRE)

Joe Baczkowski (NOAA N-WAVE)

Closing Remarks – Randy “Church” Kee

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Welcome (Back/New) Participants:

Dr. Holly Dockery, Sandia

Al Arsenault, AFMC

Andrea Loper, AFMC

Karin Messenger, USCG

Amy Cutting, USCG

Robert Page, USCG

Dr. Doug Causey, UAA

Sonja Smith, NAVSURFWARCEN PNC

Lauren Freeman, USN

John Vehmeyer, DHS

Karen Jones, Aero

Maria Jonten, SWE

Stefan Lundqvist, SWE

Samu Paukkunen, FIN

SGM Joe Beck, US Army

Erin Choromanski, USN

Donald Farr, CAN

Daniel Riviere, CAN

CDR Regis Dowd, USN

Bjorn Kunoy, Faroe Islands (FO!)

Gunnhild Árnadóttir, FO

Jonathan Pitts, MIT LL

Brittany Smart, UAF

Amber Sorg, Idaho Nat. Lab.

Sara Taylor, DOI

LCDR Joshua Nach

Dallas Meggit, Sound & Sea

Shawn Monien, Beyond Clothing

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Upcoming Events:

- US SAWG Quarterly (virtual) – 27 February 2025
- Multinational SAWG Quarterly (virtual) – 11 March 2025
- **NAVSEA Arctic IPT Semi-Annual Conference - 3-4 April 2025 (jonathan.b.chavanne.ctr@us.navy.mil)**
- **Joint Working Group Chairs Meeting - 9 April 2025 (john.e.woods.civ@us.navy.mil)**
- Nav/ISR Workshop in partnership with CRREL – 29 April – 1 May 2025
- **Pittufik UxS Demonstrations (Crawl) - 1-9 May 2025 (lauren.a.freeman3.civ@us.navy.mil)**
- ICE-PPR Executive Steering Committee – Halifax, Nova Scotia 13-16 May 2025
- Multinational SAWG Quarterly (virtual) – 19 June 2025
- **Arctic Edge Experiments – August 2025 (NORTHCOM J7)**
- US SAWG Quarterly (virtual) – 21 August 2025
- **Alaska Defense Forum, Fairbanks - 26-27 August (bsmart4@alaska.edu)**
- Multinational SAWG Quarterly (virtual) – 18 September 2025
- US SAWG Quarterly (virtual) – 20 November 2025
- Multinational SAWG Quarterly (virtual) – 4 December 2025
- **US led ESC Meeting (tentively in Alaska ICW Arctic Edge March 2026) - (john.e.woods.civ@us.navy.mil)**
+ potential for Cross-Working Group, international collaboration



2025 Experimentation Highlights

- OP NA-NU25-Maj Hefner (CRREL)
 - FEB/MAR 2025
 - Joint Task Force Úlfr
 - Multiple Technologies (Platforms, Power and Energy, Clothing, Nutrition, Environmental)
 - Nations Participating: CAN, DEN, FIN, NOR, SWE
- Pituffik Tech Demo-John Woods (ONR-G)
 - APR 2025 (1 week; VIP Day)
 - UxS Demonstrations (Crawl)
 - International Partners Participating
 - Unmanned Systems in all Domains; Under Ice, Surface (Maritime/Terrestrial), Airborne, Space
 - Passive Moorings Deployed Summer 2024
 - Planning for Follow On Experiments 2026 (Walk) and 2027 (Run)



Welcome Remarks

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

ICE-PPR

International Cooperative Engagement
Program for Polar Research

Nav/ISR WORKSHOP

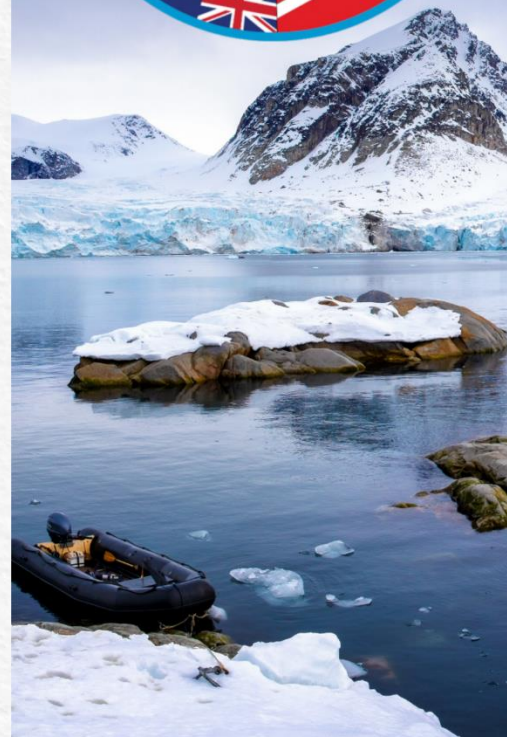
Navigation, Intelligence, Surveillance,
& Reconnaissance Workshop

The ICE-PPR Nav/ISR Research Workshop will bring together researchers, operators, and planners from the US joint force and partner nations to share current research, identify research priorities, and examine proposed international project arrangements for Arctic situational awareness challenges at the tactical, operational, and strategic levels.

**29 APRIL - 1 MAY
2025**

Co-hosted by the Ted Stevens Center for Arctic Security Studies and the Cold Regions Research and Engineering Laboratory (CRREL) at the CRREL facilities in
Hanover, New Hampshire

Please direct questions to matthew.schell.6@us.af.mil
or john.p.nugent15.mil@us.navy.mil.



The cross-cutting nature of this workshop offers mutual support among participants who are approaching Arctic research from different perspectives. These objectives are intended to result in findings and recommendations that inform operational commands, support policy and investment decisions, and guide research efforts.

- Explore current PNT risks, limitations, and vulnerabilities with insights from the recent war in Ukraine as well as Polar region-specific considerations.
- Identify PNT resilience and alternatives to space-based PNT that warrant further investigation or investment.
- Review domain awareness gaps and challenges including U.S. and partner nation perceptions and analysis.
- Discuss ISR advancements and research opportunities in near-term (0-5 years) and long-term (5-15 years) timeframes.
- Advance Cross-WG initiatives with in-person discussions
- Develop a prioritized list of Nav/ISR research needs and collaboration opportunities for the DoD and ICE-PPR SAWG



NAV/ISR Workshop

Organizations Invited

DoD/Interagency:

NORAD-NORTHCOM (J8, JIST)

ALCOM

EUCOM (RSI)

ONR –Polar Team

NAVSEA

Naval Postgraduate School

Air Force Research Laboratory

Air Force Material Command

11th Inf. Division (Airborne)

Army DEVCOM

US Army War College

NG – NGB J5, NYANG, MEANG

USCG Polar Coord/Ice Patrol, D17, TF Arctic

USCG R&D

NOAA –USNIC; NOAA-N wave

DHS S&T

BOEM

National Science Foundation

International:

DALO

Danish Technical University

Finland MFA

Swedish Defense University

NATO CASCOE

Nansen Institute

Andoya Space

Norce Research

Defense Research & Development Canada

Canada Armed Forces

Canadian Coast Guard – Arctic

Joint Task Force North

Industry/Academia:

MIT Lincoln Laboratory

Sandia National Laboratory

Idaho National Laboratory

MITRE

Helen Systems

MDSI

Quantum Eye

Therma

Space Inventor

University of Alaska Fairbanks

University of British Columbia

San Diego State University

Northeastern University

Columbia University

NAV/ISR Workshop

Content

Day Zero – 28 Apr	Day 1 – 29 Apr	Day 2 – 30 Apr	Day 3 – 1 May
(Travel Day)	Registration/Welcome		
	Phil McGillivray - Sci. Update Panel 1: Contested GPS Andy Alfiero - American Airlines Safety Jack Waitling - RSI	Panel 4: Land, Sea, Air MAJ Hefner – JTF Ulfer BOEM – unconventional domain awareness LTC John Limauro – 11 ABN DIV G2 Christoffer Nuth – Maritime (NO) Wesley Moses - Cryosphere	ICE-PPR Cross WG Collaboration Church Kee John MacKay (?)
	Panel 2: GPS Alternatives ?? - Celestial nav (Maj Hulsey) Mark Anderson - NAWC Bridge Littleton – E-Loran	Panel 5: Space & Cyber Col Brian Capps – NORTHCOM JIST	Facilitated Discussion, Forge led: Takeaways/reflections CAP proposals PA proposals
	Lunch	Lunch	Lunch
CRREL Orientation* *Optional; sign up during registration	Panel 3: Future PNT MITRE Niels Andersen (DTU) – Magnetic mapping	Panel 6: ISR Research (5-15 yrs) Ron Caton AFRL – Space partnerships	Brief Out to Dir. Kee
	Facilitated Discussion Forge led	Classified Briefings Joel Lopez Alvarado – Polar Express INP	
	No Host Social		



Questions/Discussion

Closing Remarks



Randy “Church” Kee

US Principal and Multinational Chair ICE-PPR SAWG

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