



# *2023 UNOLS/AICC Arctic Chief Scientist Training Cruise*

March-May virtual meetings • June 2023 transit, R/V Sikuliaq • Early Career Polar Oceanographers

## **Program summary**

UNOLS AICC Meeting,  
Alexandria July 19, 2023

Dr. Emily Eidam & Dr. Laurie Juranek

*Photos by Lloyd Pikok Jr*

# THANK YOU



NSF / Frank Rack - funding for this training opportunity & workshop support

UNOLS / AICC, Doug Russell – project development & workshop

R / V Sikuliaq crew and science technicians – supporting the cruise

John Farrell (ARC), Lloyd Pikok (UIC), Karla Heidelberg (USC), Chris Fanshier (OSU) – mentors

Jules Hummon (UH) – UHDAS training

UAF – Doug Baird, Jennifer Elhard, SMC staff – supporting workshop, cruise planning

# Recruitment & applicants

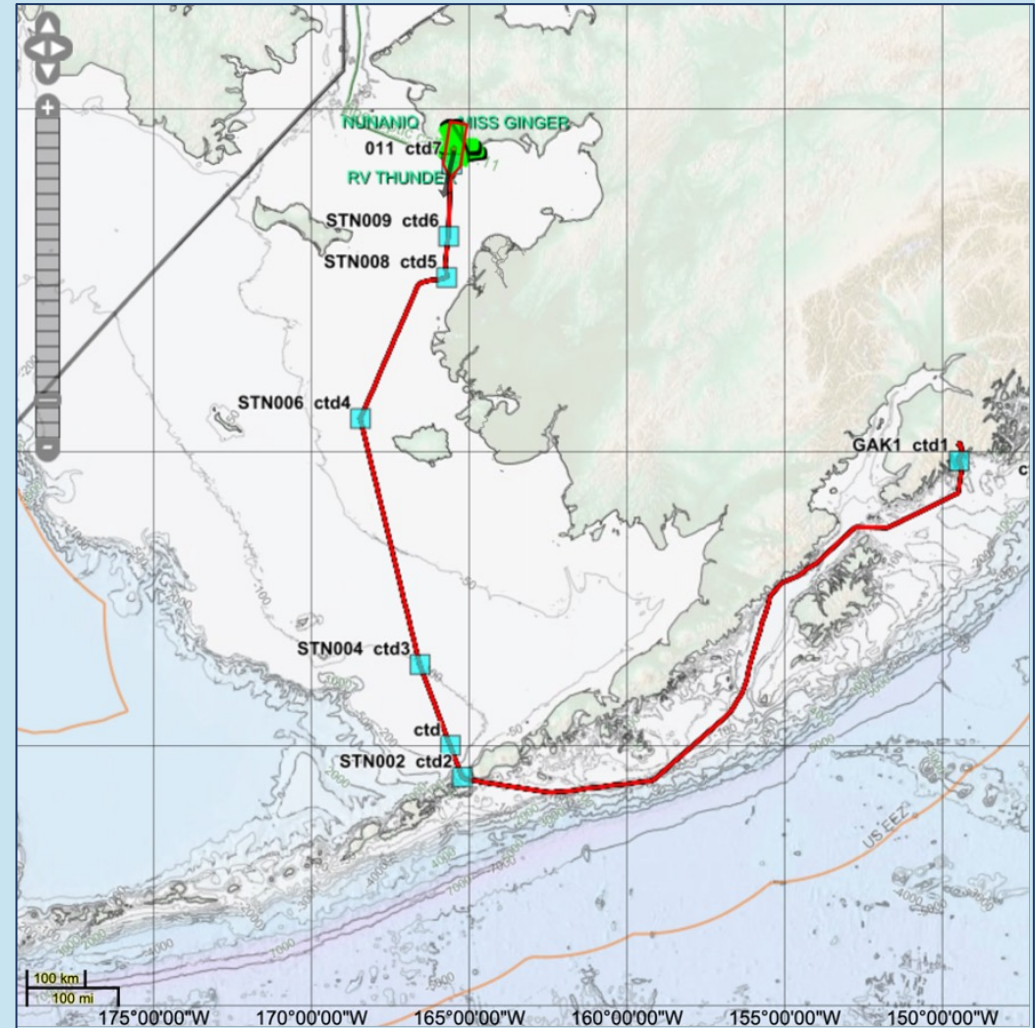
- Applications open Jan 24 – Feb 24 for March-June program
- 53 applicants representing more than 30 universities (and NOAA, EPA, and one AK school)



<https://blogs.oregonstate.edu/arcticcruise>

# Schedule of activities

- Virtual, March – May: 4 planning meetings, 1 risk assessment, 1 formal pre-cruise meeting
  - Participants developed a cruise plan
  - Leads uploaded MFP documents
- June 5 – pre-cruise workshop at SMC in Seward
- June 6-12 – transit (intensive schedule of meetings, trainings, and survey activities)
- Post-cruise – follow-up survey; potential data discussion; informal meetup at OSM



# Training topics

## Pre-cruise workshop

- Introduction to SMC
- Introduction to NSF Arctic Logistics
- Introduction to UNOLS
- Practical considerations of being a chief scientist (interpersonal dynamics)
- UHDAS



# Training topics

## Technical systems

- CTD operations and controls
- Ice stations and equipment
- Winch systems & overboarding
- Underway & meteorological systems
- MARSSAM, MGR, and coring equip



# Training topics

## Administration – big picture

- CESOP
- Maintaining an Environment of Respect Aboard Ships (UNOLS MERAS)
- Geopolitics of working in the Arctic
- Community communications and interactions



### My History

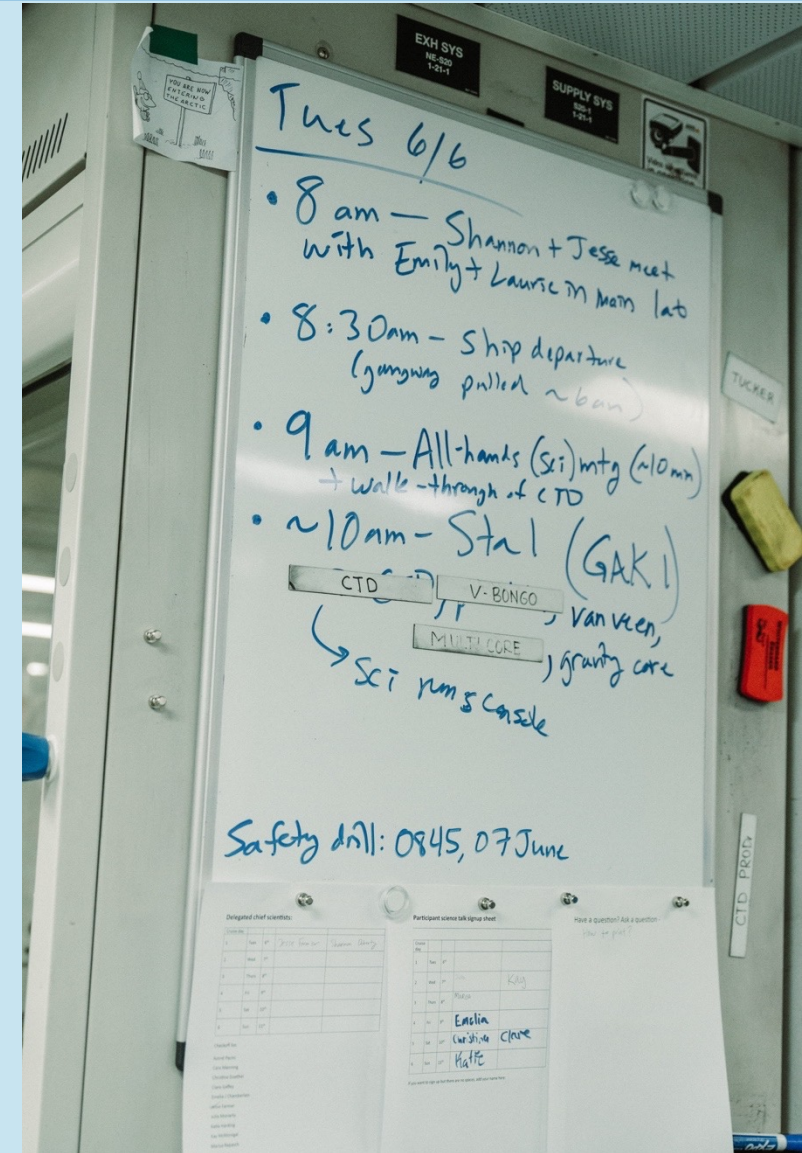
- Born & Raised in Utaqavik (Barrow), AK
- Grew up Hunting & fishing
- Caught my first Tuttu when I was 13
- A member of a whaling crew (Aa'la Crew)
- Built a cabin in 2018, upgrade it every year
- Full time photographer/videographer ( @loydipokoyr on IG @)
- Fisherman & Hunter
- Part 107 certificate holder
- Started with UIC Science in June 2022

# Training topics

## Administration – cruise execution

*Two participants were "acting chief scientists" each day*

- Creating and updating the plan of the day (interactive experiences with mentors and captain)
- Communications with the ship
- Writing a daily cruise report & coordinating with community rep





# Training topics

## Post-cruise expectations & collaborations

- Differences between *R/V Sikuliaq* and *USCGC Healy*
- Overview of PCARs (post-cruise assessment reports)
- Science meeting / research presentations
- Research collaboration discussion





[T]his experience hit the right balance of informational sessions and time to actively learn skills via being chief scientist/field work/etc.

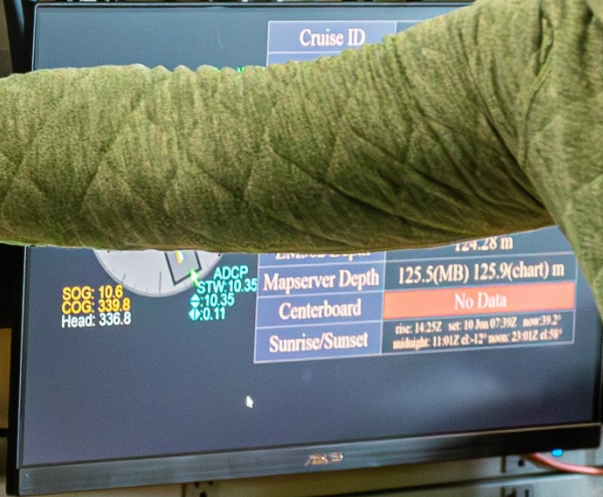
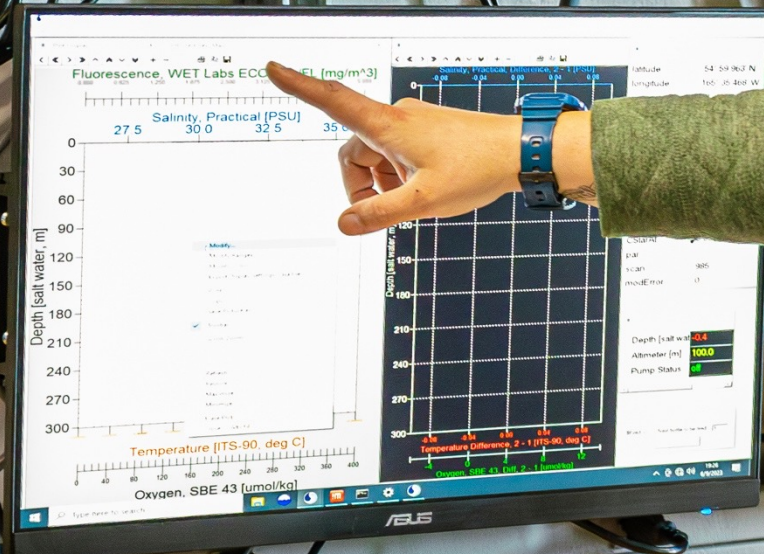


this cruise provided a lot of transparency into the process of including ship time and marine sampling equipment

A key takeaway was... deeper understanding of the Sikuliaq's systems and technical considerations you should have when designing a research cruise



“[I] appreciated the time and training from the science techs - their demonstrations were really useful for understanding how the onboard systems operate and will help me in leveraging resources to initiate better science on the SKQ - and other UNOLS vessels





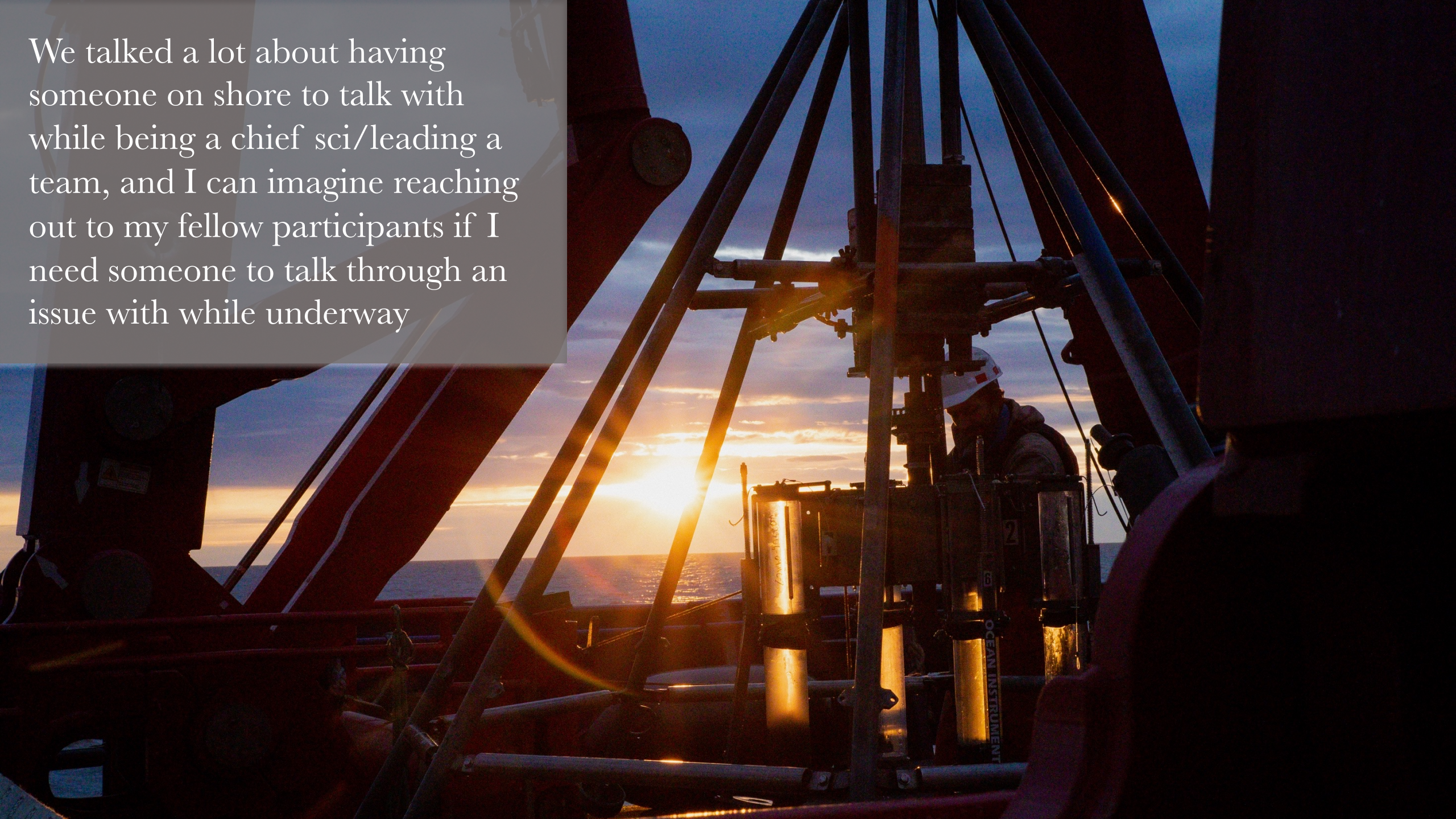
The opportunity to form connections with our peers, with the chief-scientists and other participants and speakers, and with the crew was incredible



It was a fun learning experience to be co-chief scientist with a colleague from another university and different research field

I realize ship time is limited, but I would have loved more days as "acting chief sci"

We talked a lot about having someone on shore to talk with while being a chief sci/leading a team, and I can imagine reaching out to my fellow participants if I need someone to talk through an issue with while underway







While a breadth of colleagues is to be expected on any research cruise, this was wholly unique in that we were all at similar career stages, eager to share best practices, and willing to think broadly about future collaboration.

We learned how all of our research comes together despite differences in research objectives. The people selected for this cruise were also wonderful to spend time with





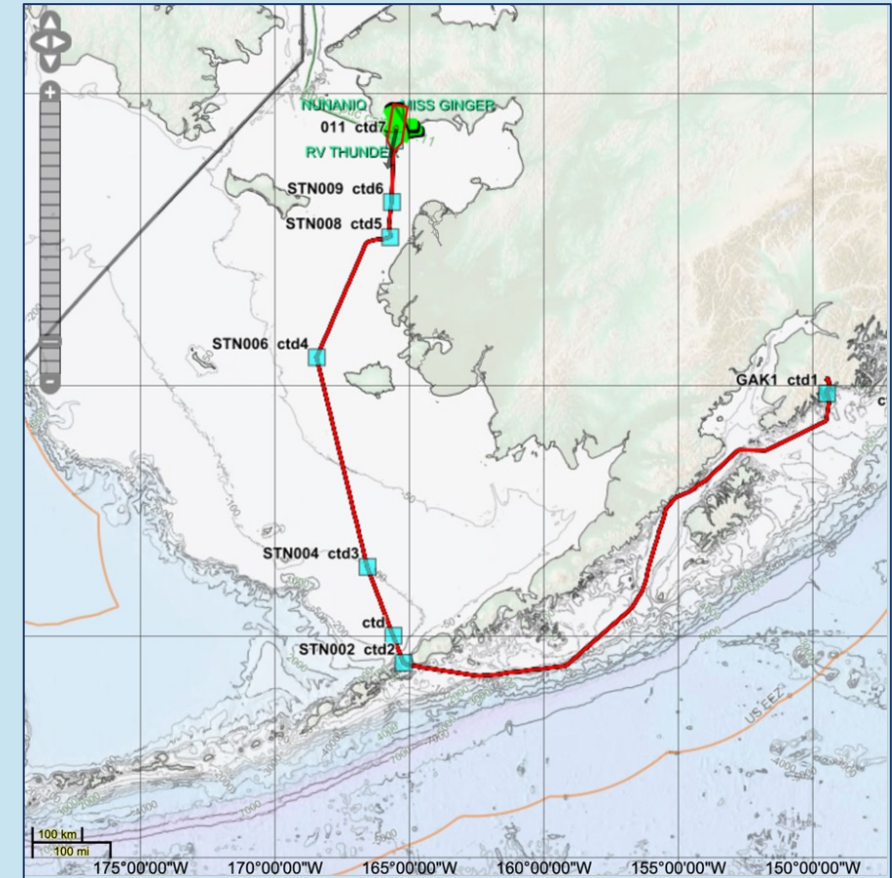
[T]he connections made on this cruise will lead to the submission of multiple proposals and will provide a cohort for networking throughout my career

I had never worked with anyone on the cruise before and now see them as a core part of my Arctic research network.

# Future?

Merits of this Seward to Nome itinerary on *R/V Sikuliaq*:

- Introduction to SMC (Sikuliaq home port)
- ~6-7 days allowed for diverse training, without an excessive time commitment
- Shallow Bering Sea stations required little wire time
- Sufficient transit time for presentations
- View into Nome port logistics (barge problem, internet outage)



# Future?

Merits of a slightly longer, more northerly route:

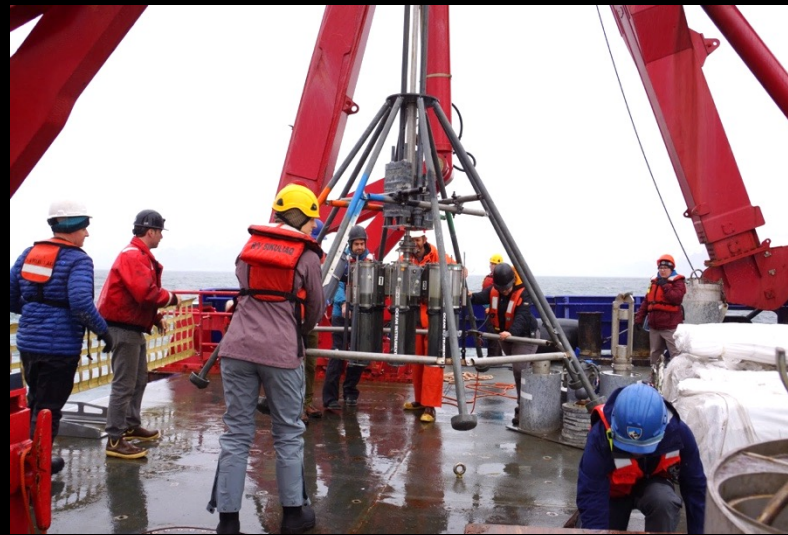
- 8-10 days would provide time for more “acting chief scis” (i.e., more participants) and some additional training topics
- Sea ice
- Deeper water
- More opportunity to learn about remote port shipping & receiving logistics



I admit to having low expectations going in; the cruise track wasn't targeting areas of my direct research interest. But I was blown away by this experience. It was far more immersive and more collaborative, both with fellow scientists, technicians, and the crew, than a typical research cruise... Ultimately, I'm not sure how previous chief scientists could feel comfortable in their roles without the learning experience this cruise offered.

This was an amazing experience and I really hope this program continues

Thank you for this incredible opportunity! I learned a lot at what feels like a critical time in my career development and I highly recommend organizing more of these training cruises in the future.



Overall it was an excellent experience. I am grateful to NSF, UNOLS, UAF, the organizers, and everyone else who worked hard to make this happen. **THANKS!**