Research Vessel SIKULIAQ

Campbell Creek Science Center
Fireside Chat Presentation
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Presentation on the Research Vessel SIKULIAQ

- How does SIKULIAQ fit within the University of Alaska System?
- What is a SIKULIAQ?
- The construction process
- Post-delivery testing/trials period and funded science
SFOS Seward Marine Center

existing SMC footprint

location of the new dolphins
What is a SIKULIAQ

See-KOO-lee-auk
• An Inupiat word for “young ice”, “new ice”, or “thin ice”
• This is ice described as new ice without snow that is safe to walk on.
What is R/V SIKULIAQ?

• Alaska Region Research Vessel (ARRV)
• Ice-capable general oceanographic research ship
  • 261 feet 6 inches length
  • 4065 LT at design draft
  • 5,750 HP
  • 20 crew, 2 marine techs, 24 scientists
  • Integrated power plant with AC propulsion motors
  • Tractor style Z-drives
• Funded and owned by NSF, was built and operated by UAF
• UNOLS Global Class fleet – Arctic Region Research Vessel
SCIENCE CAPABILITIES

SIKULIAQ will provide the tools needed to support ocean research on the emerging critical questions with world wide capability, but a focus on the North Pacific, Bering Sea, and Arctic Ocean

- State-of-the-art acoustic systems for bathymetry and bottom mapping
- “Hands-free” over-the-side profiling and water sampling system
- Capability for deck arrangements to be configured for piston cores, mooring deployments, ROV deployments, biological tows etc.
- Acoustically quiet ice capable vessel
- Deck services for ROV and AUV deployments and support vans
- Accommodations for large multidisciplinary science parties
- Environmental chamber and freezer for controlled experiments
- Excellent sea keeping and station keeping capabilities
- Can accommodate up to four science vans
- State-of-the-art science data and communications systems
**Instrumented Foremast**

**Excellent Visibility**

**Small Boats**

**120,000 lb A-frame**

**Two Large 30-ton Cranes**

**Side Launch Science Packages**

**Extensive SONAR Suite and Centerboard**

**Z-Drives and Ice Reamers**
SIKULIAQ Project Status

- Project award to UAF in summer 2007
- Shipyards contract awarded December 2009
- Launched in October 2012
- Delivered 6 June 2014
- Post-delivery science testing and transit July 2014 through June 2015
- Two funded science cruises in late 2014
- Ice trials in the Bering Sea spring 2015
- Five funded Arctic science cruises in Summer 2015
- 2016 funded science schedule under development, but high level of interest
Rollout For Launch
SIKULIAQ enters the water for the first time - successfully
495,000 gallons fuel consumed
280,000 gallons from now to Seward

• Sailed from Marinette on 6 July
• Cleveland, OH 14 July
• Montreal, Quebec 23 July
• Woods Hole, MA 31 July
• San Juan, PR 11 September
• Panama Canal 27 September
• Honolulu, HI 11 October

• First science mission 17 Nov to 12 Dec
• Honolulu to Honolulu
• Second science mission 16 Dec to 15 Jan
• Honolulu to Guam
• Ketchikan, AK 9 February
• Juneau, AK 16 February
• Seward on 24 February

https://www.sikuliaq.alaska.edu/track/
Questions?