

Beaufort Gyre Exploration Project: Dispatch 6: Copter Recon

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The *Louis* uses a sophisticated arsenal of tools to navigate ice-covered waters and facilitate scientific research in inhospitable environments. Chief among these tools is its primary source of transportation off the ship, the helicopter. In times when navigation requires first-hand observation of conditions ahead, the helicopter carries scouts to explore the vicinity and determine efficient pathways through the ice. When not being used for ship-related exploration, the helicopter's aerial perspective provides expansive views that help scientists understand the mass movement of Arctic ice. These expeditions go by what is arguably the most action-packed term in environmental science, ice reconnaissance.

Today, helicopter pilot Jim Myra led a group of cadets and scientists on an ice reconnaissance mission. Ice expert Alice Orlich of the University of Alaska-Fairbanks was on board to document the environment and get an idea of how Beaufort Sea ice is behaving in September, when Arctic ice cover reaches its annual low.

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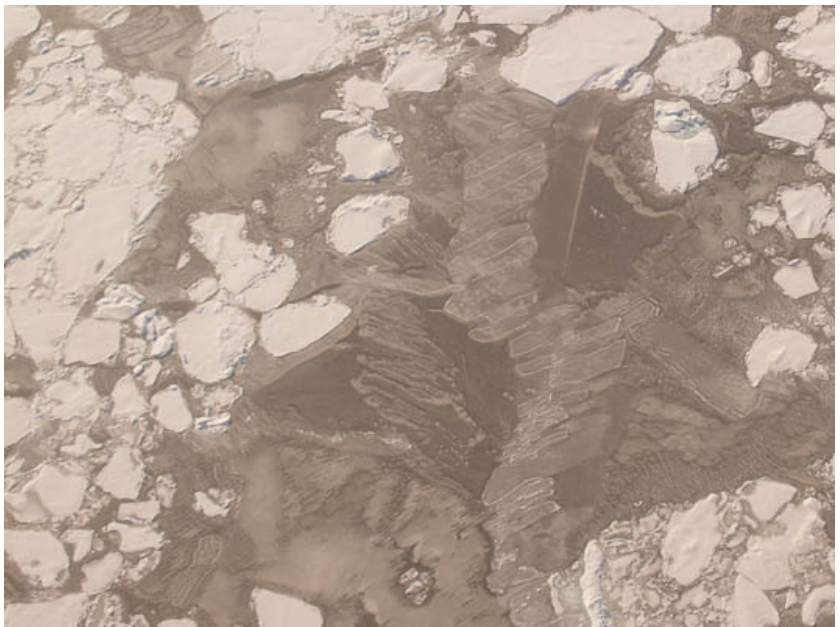
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Coast Guard Cadets Kristina Kean and Ryan Gurr stand on the helipad before flying over the Beaufort Sea for ice reconnaissance.



The *Louis S.-St. Laurent* viewed from the cabin of the helicopter, roughly 2000 feet in the sky. From this distance, the massive ship looks like a toy boat.



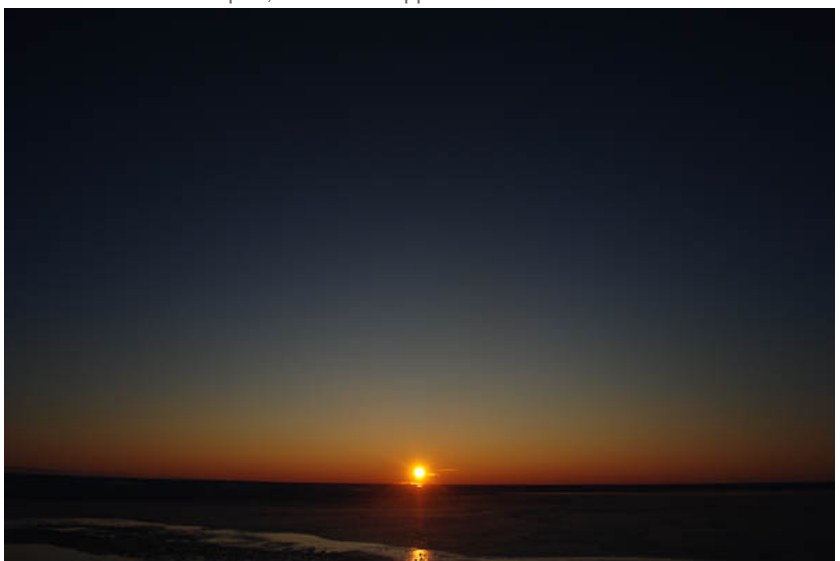
The zipper-like pattern bisecting the frame shows two thin sheets of ice responding to forces pushing them together. Rather than having one sheet subduct and one form a ridge, the two sheets do what is called "finger rafting," a name derived from the finger-like pattern of their intersection.



Finger rafting produces startling geometry. In this case, a rigid rectangle stands out amid sensuous curves and organic shapes.



Viewed from the helicopter, the sea ice appears endless.



Enormous, empty, and daunting as it is, the Arctic landscape makes for spectacular sunsets. Photo by Alex Kain.

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