

Arctic Switchyard Project

Wendy Ermold: "Our project is called Switchyard. This is Ellesmere Island, here, next to Greenland and there's a little military base that's Canadian that we base out of. It's the northernmost outpost in the world."

Mike Steele: "The Switchyard Project is designed to better understand the ocean currents that are moving in the Arctic Ocean towards the North Atlantic Ocean. "

Narrator: Switchyard tracks waters of varying temperature, differing salt and nutrient content as they converge in the Arctic northwest of Greenland and then diverge into the North Atlantic—hence the name "Switchyard."

Mike S.: "The concept is like a train switchyard where different loads are coming into a switching area and getting rearranged on the trains and then going out on different tracks. The Gulf Stream is a warm ocean current that makes northern Europe warmer than it would be without that water. If we can better understand what's happening within the Arctic Ocean and how the Arctic Ocean tends to collect relatively fresh waters and then, sort of, 'burp' it out every fifteen years or so, then we can possibly predict variations in the Gulf Stream."

Narrator: APL-UW polar scientists fan out across the Arctic.

Wendy E.: "We fly out and land out on the sea ice and drill through and send our instruments down through the hole that we created. The instruments store all the data like temperature and salinity and oxygen data."

Narrator: In addition to science, "Switchyard" offers adventure.

Mike S.: "It's always exciting to land on the sea ice that's floating on the Arctic Ocean."

Wendy E.: "Yeah, it'll come in (the plane) and just kind of touch it's skis and just try to feel the ice. And then it'll suddenly gun it and lift off and circle around. So you're flying around trying and trying to land. And then finally you do land and you're always a little bit worried (nervous laughter)."

Interviewer: "About the ice?"

Wendy E.: "Yeah."

Mike S.: "I came to Seattle because our group here at the Polar Science Center at the Applied Physics Lab is a world renowned place for field work in the Arctic Ocean. You do things that you sure don't do back home and you have adventures that you would never have sitting at a desk like most people at their jobs do really. So, I love it."

