

# Carderock technician lends a hand during the submarine races

By Lydia Weyrich, NSWCCD Public Affairs | July 1, 2019

Teams have packed up their years' worth of hard work and traveled to West Bethesda, Maryland, to race submarines they designed and built themselves in Carderock's 3,200-foot long David Taylor Model Basin for the 15<sup>th</sup> International Human-Powered Submarine Races (ISR).

The event was held at Naval Surface Warfare Center, Carderock Division during the week of June 24-28, 2019, in West Bethesda, Maryland. Over 20 college and high school teams have been welcomed on base from around the world and across the United States.

Each submarine on display was creatively designed, but some of the vessels experienced troubles on their time trial runs.

Patrick McGrail, a technician in the Towing Basin Operations (Mechanical) Branch at Carderock, helped several teams throughout the week with mechanical problems by fixing and creating parts through the use of mill and lathe machines. McGrail said it isn't necessarily part of his assigned duties to assist, but he said he wants to see the teams succeed.

"You want to help wherever you can," McGrail said. "It's in the spirit of things."

On June 26, McGrail helped the University of Michigan with a broken crankshaft, and recycled the leftover material to make a separate part for the University of Waterloo. He said the demand for help from his shop varies, but his goal is to get the teams back in the water as soon as possible.

When McGrail is not helping with ISR, he spends his days fixing mechanical issues throughout all sectors of the basin. His work ranges from creating machine parts, operating rig tests and fitting models, to maintaining the general integrity of the basin itself.

With his years of experience, McGrail embraces new challenges, especially if it benefits young and aspiring engineers.

## Photos



