

1.1.1 Wet Test One

Date: May 19, 2019

Systems tested: Buoyancy, Propulsion, and Ergonomics

Number of Divers: 4

The submarine was lowered into the water in the deep end of the pool. The submarine's trolley was positioned at the bottom of the pool and weight was added to the submarine to lower it onto the trolley. The submarine remained stationary for all of the system tests.

Propulsion: The propulsion system worked better than expected. The team had believed that with the new, longer cranks and clipless pedals the pilot may not have enough room in the hull to pedal. However, the pilot reported a comfortable amount of room for adequate pedaling. The chain derailed once during testing as it was noted that the deflection in the chain, between the sprocket and the gear box, was quite large.

Buoyancy: Weight was passed to the pilot through the front of the hull, as the dome was left off during testing. Communication between the pilot and the divers allowed for the pilot to move the weight around and balance the submarine. Communication was adequate but needed improvement, so the dive team has decided to spend an evening together to practice signals. It was found that weight needed to be added to the forward portion of the submarine as the back portion is much heavier than the front.

Ergonomics: This test consisted of pilot comfort as well as testing the new restraining system. The pilot reported feeling comfortable in the submarine. Additionally, the restraining system was of good comfort but broke during testing. This was a concern before the testing began because the restraining system was a model rather than a final product.