Joint Venture to Produce Manned Submersible

OceanGate and APL-UW team to dive deeply

Narrator: *Cyclops* – a new ultra-strong, lightweight manned submersible – born of the partnership between the UW's Applied Physics Laboratory and OceanGate.

Stockton Rush: *Cyclops* was developed with the goal of being a totally new approach to manned subersibles.

Narrator: *Cyclops* is designed to take up to five people as deep as 10,000 feet.

Rush: It could do both research and environmental assessment work for oil and gas, mining survey work, bio pharma, and even adventure tourism.

Narrator: OceanGate brings to the table experience in small subs. This is *Antipodes*, a veteran of more than 100 dives in the past two years.

Dave Dyer: This is a new kind of venture for us.

Narrator: APL brings to the table...

Dyer: ...the ability for a company like OceanGate to come into the university and gain access to resources and access to technology. APL brings in the ability to do computational fluid dynamics. In other words, how much force, how much power does it require to move this vehicle through the water at a given speed?

Narrator: *Cyclops* is aimed at customers who need to charter deep sea access previously the domain of military submarines or submersibles tethered to support vessels of a size and cost *Cyclops* won't need.

Rush: We can use an ocean-going tug that might be $10,000 a day versus a specialized research ship that runs, say, $100,000 a day.

Narrator: *Cyclops* will employ carbon fiber reinforced plastic – the same material Boeing uses to build jetliner wings.

Rush: New carbon fiber manufacturing techniques, new high-purity glass, as well as new control systems.

Narrator: Why risk people where robots can go?

Rush: Subs are extremely safe when operated as a research vessel. Robots can't do everything. There's a place for people in the ocean. We're looking at the first commercial operations in 2016.

This is APL The Applied Physics Laboratory at the University of Washington in Seattle.