

Bruce Strickrott

PILOT, ALVIN GROUP MANAGER



Chris Linder/WHOI

“One of the coolest things to do is to show *Alvin* to kids and watch their reactions. It’s almost always, ‘Wow!’ When I was a kid, I definitely was dreaming about playing with things like *Alvin*. Next thing I knew, I was in it.

I joined the Navy when I was 20. Mostly I was an electronic technician and operator. I learned a lot about diagnosing problems and fixing things and learned a lot about life at sea and long work hours with early starts.

After a six-year hitch, I went back to college for a degree in ocean engineering. I was looking for a job and found an ad online seeking *Alvin* pilots. When I went to Woods Hole for the interview, I saw the research vessel *Atlantis II*. Then I saw *Alvin*. And at that moment I said, ‘Man, I want this job.’ I’ve been a pilot since 1996 with more than 300 dives. Now I am *Alvin* Group manager, with this brand-new sub.

The new *Alvin* has a lot of new features. For example, the old *Alvin* had only one forward-looking viewport—for the pilot. You can see that in the upgraded *Alvin*, we added two new forward-looking viewports. But that meant we had to do something about the sub’s two manipulator arms—because they would be directly in front of those two new viewports. There’s no sense in having windows there if you’re going to be staring at a manipulator the whole time.

So we put a little more swing in the arms. Their bases, instead of being fixed, can rotate. We gave them more flexibility at their shoulder joints, so they could swing farther out and get out of the way. A byproduct of that redesign is that we’ve extended the arms’ reach forward from 93 to 118 inches and expanded their coverage area from about a 100-degree to a 140-degree arc.

We also made the sub’s payload basket bigger and sturdier. That’s the basket in front that holds scientists’ instruments that we bring down and the samples of rocks, or sediment cores, or organisms that we bring up from the bottom of sea. The basket used to be three by four feet. Now it’s four by four.

On top, we added a lateral thruster, which allows the sub to move way more nimbly going sideways. Before, we had to do sort of a K-turn: back up a little, turn a little, then scootch forward a little, again and again. The first time [*Alvin* pilot] Bob Waters and I used that new thruster, we had big grins on our faces.

We had conversations about all these upgrades for years, but everything was conceptual. We dreamed about having them in *Alvin*. Now that they are all here, it’s awesome. It’s a great machine. ▲