SPATIAL INTEGRATED SYSTEMS SPOTLIGHT

HII Acquires Navy STP Participant SIS's Autonomy Business

By Jennifer Reisch

As a former Naval officer, Rick Simon was very familiar with Huntington Ingalls Industries (HII). As the program manager at Spatial Integrated Systems, Inc. (SIS), a Department of the Navy SBIR/STTR Transition Program (Navy STP) participant, he remained aware of HII's work building ships and submarines, but the two companies never worked together. Now HII has acquired the autonomy business of SIS.

"They acquired us because of the autonomy solutions that we offer," said Simon, now the program manager for Unmanned Systems at HII Technical Solutions. "Our technology allows taking any surface vehicle and integrating intelligent autonomy to it and creating a very intelligent robot that you can send out on a mission, that does the mission and comes home. It needs very little help from humans. If it runs into problems that it can't solve itself, it can call home and ask for help. When it encounters obstacles, other vessels, etc., it will figure out its way around that."

According to Simon, HII "acquired us to leverage that technology, to strengthen what they are doing in unmanned systems, specifically USV capability, but we will, I'm sure, flow over with the autonomy into other areas that HII is going after for unmanned. And unmanned vessels are a huge area for the U.S. Navy right now."

"For about the last two years HII has been investing very heavily in the unmanned market sector with several acquisitions and a couple of strategic partnering agreements that we have with other companies, so this was probably the fifth or sixth move we have made," said Beci Brenton, corporate director of public affairs for HII. HII has acquired Hydroid, formed a strategic alliance with Kongsberg Maritime, and made an equity investment in Sea Machines.

Now all these companies are partnered together within HII, said Simon. "HII is a very large company that builds aircraft carriers and ships and submarines. The Navy started

Images courtesy of SIS
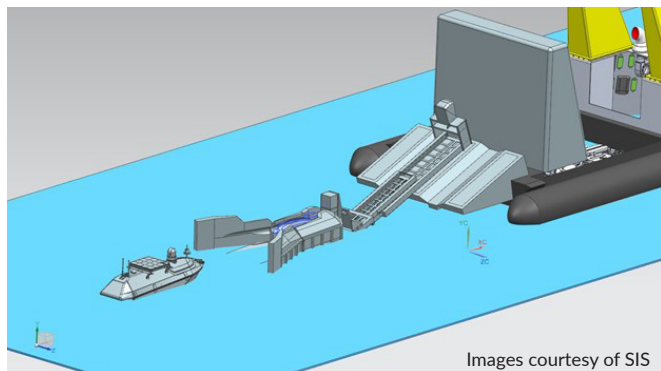
Figure 1: Small USV approaching for recovery
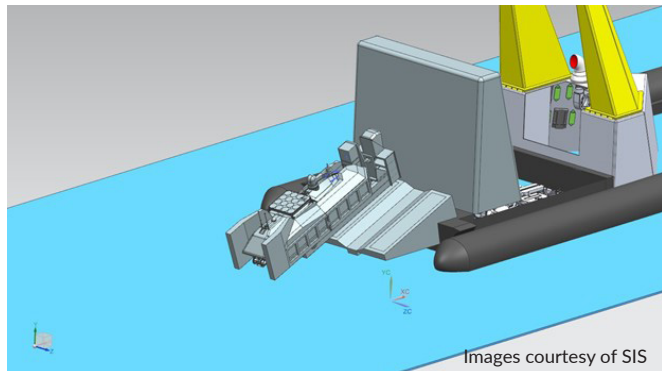

Images courtesy of SIS

Figure 2: Small USV fully recovered

moving toward unmanned vessels and HII looked at USVs and SIS was part of that business. Now they've brought in some of the outside expertise like Hydroid and Kongsberg and SIS to fill out the team. HII has brought together a lot of smaller companies to help build a huge team to go after unmanned systems for the Navy."

What SIS develops for unmanned surface vessels (USVs) includes software and sensors. "SIS built the autonomy, the brain, and the eyes and ears, the perception, radars, sonars, AIS, cameras and those things. We brought all the intelligence, the brain and all the eyes and ears for USVs, unmanned surface vehicles to the table. The autonomy goes on vessels HII builds," Simon explained.

The software's foundation is in the Mars rover program. SIS used technology it licensed from NASA on SBIRs and intelligent autonomy programs, so software that helps us explore on the surface of Mars continues to be adapted for the surface of Earth.

Simon appreciated working with his business consultant through the Navy STP. "The STP allowed us to focus on how we could present the SBIR we're doing to the sponsors, program managers, PEOs, and all over the Navy. I've also talked to the Coast Guard already, and to the Marine Corps. The business consultant helps craft the message with an abstract, with a quad, with a brief we gave at a virtual conference in January. They bring together different organizations at the conference and let us present what we have done so it really helps the SBIRs," he said.

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