



## March 2, 2021 Podcast Transcript

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**Announcer:** Welcome to HII Talking Points, a Huntington Ingalls Industries Podcast. Twice a quarter we'll sit down with HII leaders to discuss topics of interest in our company and industry.

**Phoebe Richards:** Hi everyone, and welcome to another episode of HII Talking Points. I'm your host, Phoebe Richards, and today I'm talking with Duane Fotheringham, president of Technical Solutions' Unmanned Systems Business Group. Duane, thanks for joining me.

**Duane Fotheringham:** Thanks for the opportunity to be here and talk about Unmanned.

**Phoebe Richards:** So in the past year, HII has expanded its footprint in the unmanned maritime market, including the acquisitions of Hydroid and the autonomy business of Spatial Integrated Systems, the equity investment in Sea Machines and the development of the Unmanned Systems Center of Excellence. Today, I'd like to get your thoughts on these developments and how you see the unmanned space influencing HII's future. So to start, you personally have many years of experience at Unmanned, can you talk a little bit about your background?

**Duane Fotheringham:** Sure. I started my career in the Navy as a submarine officer. When I left the Navy, I went to work for Kongsberg, a Norwegian company here in the US, and I spent about 10 years working for Kongsberg out in Seattle, in various positions, in engineering, sales, project and program management, but the common thread in all of those positions that I was working on, undersea sensors and marine robotics.

In 2008, Kongsberg acquired Hydroid and I moved out here to Massachusetts to join Hydroid as the VP of engineering and operations. At that time, we were a small company, about 45 people. And at Hydroid, we designed and built the REMUS line of AUVs and the sea glider AUVs for commercial, scientific and military customers.

Our largest customer's always been the US Navy, but we also had, and still have, a large international presence in 30 countries around the world. And we've delivered around 600 vehicles into those markets. In 2014, I became the president of Hydroid when the founder of Hydroid retired. In the 10 years with Kongsberg, we really saw the AUV market develop and we grew significantly, as I mentioned we delivered around 600 vehicles and we grew to about 230 employees. And then, about a year ago, I became a part of HII through the acquisition of Hydroid. And now the President of Unmanned Systems for Technical Solutions.

**Phoebe Richards:** So you mentioned the Hydroid acquisition was about a year ago now, how has that transition been?

**Duane Fotheringham:** It's been great. Transitions and integrations are always challenging. And we closed the Hydroid acquisition just a few days before everything shut down and went virtual due to COVID. So that certainly wasn't on our roadmap, but everyone at Hydroid and HII rose to the occasion, and we've worked very hard to make it successful. It's really amazing sometimes, what people can accomplish when they're challenged.

During that time, we've successfully integrated the Hydroid and HII Unmanned Maritime Systems businesses together into one really amazing team. We've entered the USV space through the equity investment of Sea Machines. And I think that you mentioned that a few minutes ago, we finalized the contract to build the first five Orca XLUUVs with Boeing. [We] broke ground and opened phase one of the Unmanned Center of Excellence. And then we ended the year with the acquisition of the SIS autonomy business. So it's been a really busy 11 months, but being part of HII has brought a level of growth investment in the future of unmanned and resources that just would not have been possible as just Hydroid. So it's tremendous to see the business and the market growing and all of the things that we can do with HII.

**Phoebe Richards:** A tremendous amount of growth in less than a year. And it aligns nicely because Technical Solutions has been called the growth engine of HII. And you mentioned this, but how do the acquisitions of Hydroid and the Spatial Integrated Systems autonomy business play into that concept of growth?

**Duane Fotheringham:** The acquisition of Hydroid positioned HII to be a leader in the unmanned underwater vehicles, so the UUVs and through that, we offer the full range of UUVs, everything from the small class to the extra large class -- a full spectrum of solutions in the unmanned underwater vehicles. The acquisition of the SIS autonomy business, it expands our competencies into the unmanned surface vessel autonomy. It also brings multi-vehicle collaborative autonomy, sensor fusion, perception capabilities, and applications, not just for maritime systems, but they also have positions in unmanned ground vehicles and unmanned aerial vehicles. So really opens up the aperture on unmanned systems.

The SIS solutions, similar to the Hydroid solutions we've talked about have a lot of success in operational experience and integration to around 23 different vessel types. And I think also importantly, as we build these autonomy solutions, we can apply that autonomy to more than just unmanned platforms. Autonomy also has a capability to automate some functions on traditional vessels to decrease manning requirements. So there's a lot of possibilities that bringing all of this technology to bear represents for us in unmanned systems and to HII. And I think also very significantly, adding Unmanned Systems to HII diversifies our portfolio, and it allows us better to serve our customer's needs in the future.

**Phoebe Richards:** You mentioned that the Navy is one of Unmanned Systems' primary customers, but it sounds much wider than that. Can you talk about the other customers that you work with?

**Duane Fotheringham:** We work across a wide spectrum of customers and a worldwide customer base. So, primarily three areas, military, so not just the US Navy, but foreign military is also primarily in Europe, but our largest market is actually in Japan, outside the US. We also work with a lot of scientific and academic customers, for doing oceanographic research, for gathering data, for mapping the bottom, assessing biomass and a whole array of different uses for gathering data persistently, beneath the

surface of the water that wouldn't be possible with manned platforms. And then finally, we also have a commercial customer base. The oil and gas industry is as a large user of our technology, as well as other companies that want to survey the sea floor or gather other underwater data.

**Phoebe Richards:** We mentioned earlier, the new Unmanned System Center of Excellence. Can you talk a little bit about the facility and what it means for Technical Solutions and HII?

**Duane Fotheringham:** The Unmanned Systems Center of Excellence in Hampton, Virginia provides systems prototyping, production, and test capabilities across all of our unmanned portfolio. It complements our current operations here in Massachusetts. We also have manufacturing operations in Washington State, in Florida. And so it's very complementary to the work that we're doing there. When it's complete, there'll be a high-tech reconfigurable manufacturing facility located on a 20-acre campus. We just completed the first 22,000 square foot building at the end of 2020. The main 135,000 square foot facility is under construction, and it will be completed by the end of 2021. Together those two facilities provide a host of capabilities that include precision machining, surface finishing, welding space, assembly and test. Right now, the first building is being used to assemble the hull structures for the Boeing Orca extra large unmanned undersea vehicle, or XLUUV, for the U.S. Navy. We're also looking at how we expand those operations to include other UUVs in our portfolio, as well as how we use it to expand our competencies in the USV space or unmanned surface vessels.

**Phoebe Richards:** Taking a broader look, why do you think it's important for HII to expand its footprint in the unmanned space now?

**Duane Fotheringham:** Well, we've talked a couple of times about our largest customer is the U.S. Navy. It's clear that Unmanned will play a significant role in the future for structure of the Navy, regardless of which plan you look at, or which administration, all of them show that the future Navy is envisioned to have a significant number of unmanned platforms. And that's also true for the other navies around the world that we're working with. So the acquisition of Hydroid and the SIS autonomy business place HII in a great position to be a key contributor to that unmanned future. In the near term, there are significant opportunities for growth in the UUV space with current procurements across all classes of UUVs. There's also a lot of activity in the smaller USV space, as well as developing programs in large USVs. For example, right now we're partnering with Ingalls for the concept design on the large USV or LUSV. So with Hydroid and SIS together, we're actively participating, executing and winning business in all of these areas for HII.

**Phoebe Richards:** Very good. Duane, thank you for sharing your thoughts today, and thanks as always to our listeners for tuning in. Remember, you can go back and listen to older episodes of the podcast by visiting our page on the HII website or by subscribing to the podcast. So thank you.

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**Announcer:** Thanks for listening to HII Talking Points. This podcast was produced by Huntington Ingalls Industries corporate communications team. We welcome your feedback and ideas for future podcasts at [www.huntingtoningalls.com/podcast](http://www.huntingtoningalls.com/podcast).

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