

**Testimony of
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President and CEO
Insitu
On Behalf of
The Association for Unmanned Vehicle Systems International
Before the
House Transportation and Infrastructure Subcommittee on Coast Guard and Maritime Transportation
Hearing entitled
“How to Improve the Efficiency, Safety and Security of Maritime Transportation: Better Use and
Integration of Maritime Domain Awareness Data”
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Thank you, Chairman Hunter, Ranking Member Garamendi, and Members of the Subcommittee for inviting me to testify. My name is Steve Morrow, and I am the President and Chief Executive Officer of Insitu, a subsidiary of Boeing. Our company designs, develops and manufactures high-performance, low-cost unmanned aircraft systems, or UAS. I am speaking to you today on behalf of the Association for Unmanned Vehicle Systems International (AUVSI), the world’s largest and oldest nonprofit trade association representing the unmanned systems industry.

The use of unmanned aircraft systems has grown substantially in recent history due largely to advances in computing technology, but experts all say the industry is still in its infancy. UAS hold enormous potential to increase the reach and efficiency of current systems while reducing the risk of the operations. I am here primarily to address the benefits of UAS in the maritime domain. UAS have the ability to access and survey vast expanses of our oceans and rivers to supplement the capabilities of manned vehicles and other platforms. The critical situation awareness that UAS provide could support search and rescue operations, anti-drug or anti-smuggling operations, environmental protection, anti-piracy operations and many other missions. In these missions, UAS are capable of saving time, saving money and most importantly, saving lives.

One example was described by Vice Admiral Carrier in a hearing before this subcommittee on June 26 in which he described an evaluation of a small UAS aboard the National Security Cutter Bertholf. The UAS, which was launched and recovered on the cutter, flew more than 90 hours at sea and provided situational awareness beyond the reach of the existing systems available to the cutter. In one mission, the UAS provided real-time monitoring and location information of a suspicious vessel, targeting and monitoring the vessel until other Coast Guard assets arrived to interdict and apprehend the vessel’s crew. The seamless transfer between UAS and manned aircraft and vessels – through regular communication – resulted in the successful interdiction of over 1200 pounds of cocaine, the first such UAS-aided effort by the Coast Guard. In an even more high profile example several years prior, the same UAS provided persistent observation for military units during the rescue operation of Richard Phillips, captain of the Maersk Alabama, from Somali pirates in 2009.

While the Coast Guard is at the early stages of utilizing UAS, other agencies have initiated UAS programs more extensively. The National Oceanographic and Atmospheric Administration (NOAA) has implemented an ongoing UAS program that has performed ten test projects to date. NOAA has acknowledged that optimizing this technology could provide improved and cost-effective understanding of oceanic and atmospheric exchanges, hurricanes, wildfires, marine ecosystems, and other environmental and ecological processes. This would ultimately lead to improved climate and weather predictions, and management of marine resources.

In addition to U.S. government application, commercial application of UAS can benefit environmental monitoring and scientific analysis in regions not accessible by manned aircraft, or information gathering for commercial enterprise along coastal regions. As the Federal Aviation Administration finalizes its regulations of UAS in the national airspace, we believe that there will be further opportunities for government agencies – in particular the Coast Guard – to work with commercial UAS in furtherance of its missions.

The information gathered by a UAS can be both cost effective and timely, allowing all maritime operators the ability to do their jobs more economically, effectively and efficiently. There should be no doubt that the future of maritime domain awareness should and will include unmanned aircraft.

Mr. Chairman, the UAS industry also holds the potential to be an engine of economic growth for our nation. A study by AUVSI finds that the unmanned aircraft industry is poised to create more than 70,000 jobs in the first three years following the integration of UAS into the national airspace. By 2025, that number is estimated to rise to 103,776 new jobs – with an economic impact of more than \$82.1 billion over that period.¹

I thank you again for the opportunity to testify today, and I look forward to answering any questions you might have.

¹ Economic impact includes the monies that flow to manufacturers and suppliers from the sale of new products as well as the taxes and monies that flow into communities and support the local businesses. For more information, please visit, <http://www.auvsi.org/econreport>.