Unmanned Systems for Port Security and Emergency Response Project in Hampton Roads Expands with Three More Companies

Virginia Department of Emergency Management joins the VIPC and the Virginia Institute of Spaceflight and Autonomy (VISA) to support technology demonstrations.

RICHMOND, VIRGINIA, UNITED STATES, December 5, 2022 /EINPresswire.com/ -- The Virginia Department of Emergency Management (VDEM) is providing $200,000 to enable three additional companies to participate in the Port Security and Emergency Response Project in Hampton Roads. The Unmanned Systems Center at the Virginia Innovation Partnership Corporation (VIPC) and the Virginia Institute of Spaceflight and Autonomy (VISA) at Old Dominion University (ODU) organized the project to demonstrate the effectiveness of unmanned systems technology to enhance security at the Port of Virginia and support the region's first responders.

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"Technology advancements continue to prove that unmanned systems are useful tools for public safety operations," Shawn Talmadge, the State Coordinator of Emergency Management at VDEM, said. "The Port of Virginia and the surrounding area in Hampton Roads are integral to international trade as well as Virginia's economy. It's critical to identify the latest innovations to protect these vital assets."

The three companies – Analytical Mechanics Associates (AMA), Sentinel Robotics Services (SRS), and Tridentis – will participate in simulated exercises with the drones, ground robots and unmanned maritime systems they developed to address a variety of operational challenges identified by public safety officials. The project addresses opportunities to enhance safety and security and improve operational effectiveness with unmanned systems

technologies in five scenarios: general response, hazmat, bomb squad, search and rescue, and maritime and port operations.

“The companies participating in this project are examples of Virginia’s leadership in the unmanned systems industry,” Tracy Tynan, the director of the Virginia Unmanned Systems Center at VIPC, said. “These are home-grown businesses that are developing cutting-edge solutions made possible by the extraordinary technology resources and expert and experienced workforce in the Commonwealth.”

“Protecting a maritime facility presents a unique set of challenges for public safety,” Chris Sadler, the director of VIPC’s Public Safety Innovation Center said. “The unmanned technologies included in this project are enhancing situational awareness that will give first responders a better assessment of an incident scene during an emergency.”

“Hampton Roads has a remarkable legacy in aerospace and maritime that makes it a unique technology hub for developing unmanned systems,” David Bowles, the executive director of VISA, said. “The historic research and development that led to sailing around the world and exploring the far reaches of space are now informing solutions for this region that will create exciting opportunities for years to come.”
AMA of Hampton has developed a low-cost modular Autonomous Surface Vehicle (ASV) with an on-board, solar-powered electric propulsion system, an array of sensors, processors/controllers, and communication links. The system will also include an autonomous navigation system with positional awareness using sensors and cameras for above and below water coverage, environmental monitoring sensors, and a sonar system to identify underwater hazards.

A fully integrated mesh communications and counter-drone technology system for security and surveillance is the centerpiece of the solution by SRS of Wallops Island. The system will be integrated through a network to support multiple use cases across multiple platforms that include a rapidly deployable and long-endurance drone, a mobile ground surveillance station, a tethered aerostat balloon, and an operational control center.

The Advanced Coastal Monitor (ACM), which was developed by Tridentis of Alexandria and Norfolk, is a completely integrated unmanned maritime system that can be equipped with sub-surface, surface, and atmospherics sensors. The ACM operates fully autonomously for weeks utilizing an on-board, solar-powered rechargeable battery system. The sensor data is transmitted by a dedicated very high frequency (VHF) radio, cellular, or Wi-Fi connection, depending on the mission requirements.

ANRA Technologies of Reston and Alliance Solutions Group (ASG) of Newport News were previously selected to participate in the project. Last month, ANRA demonstrated at the Port of Virginia its SAFEport software platform, which connects to unmanned systems for manual or autonomous operations and transmit live video or data throughout its network. ASG has developed the ArgusElite, a fully integrated, UAS with infrared sensors that detect, identify,

quantify, and map hazards in real-time for enhanced situational awareness. It will also be tested at the port.

The project was launched last year with more than $100,000 from VIPC and public safety workshops and industry briefings organized and managed by VISA. The Center for Naval Analyses (CNA) in Arlington will develop a report on the results of the technology demonstrations by all five companies based on the requirements defined by the public safety community.

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About Virginia Innovation Partnership Corporation (VIPC)
VIPC: Connecting innovators with opportunities As the nonprofit operations arm of the Virginia Innovation Partnership Authority (VIPA), VIPC is the commercialization and seed stage economic development driver in the Commonwealth that leads funding, infrastructure, and policy initiatives to support Virginia's innovators, entrepreneurs, startups, and market development strategies. VIPC collaborates with local, regional, state, and federal partners to support the expansion and diversification of Virginia's economy.
Programs include: Virginia Venture Partners (VVP) | VVP Fund of Funds (SSBCI) | Virginia Founders Fund (VFF) |Commonwealth Commercialization Fund (CCF) | Petersburg Founders Fund (PFF) | Smart Communities | Unmanned Systems | Advanced Air Mobility (AAM) | Public Safety Innovation | Entrepreneurial Ecosystems | Regional Innovation Fund (RIF) | Federal Funding Assistance Program (FFAP) for SBIR & STTR | University Partnerships | Startup Company Mentoring & Engagement. For more information, please visit www.VirginiaIPC.org. Follow VIPC on Facebook, Twitter, and LinkedIn.

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The Virginia Institute for Spaceflight & Autonomy (VISA) is chartered to grow the entrepreneurial ecosystems for space flight and autonomy. The Institute will be the hub to leverage Virginia's world-class assets in space launch, autonomous systems, modeling and simulation and data science to solve real-world problems. Through industry, academic and governmental agency partnerships, our vision is to create an environment of research, technology, commercialization, and educational opportunities to grow the spaceflight and autonomous systems industry.

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