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## AUVSI CEO Speaks At World Unmanned Systems Conference.

Point of Beginning (11/18) reported that AUVSI CEO Brian Wynne delivered the keynote speech at Shenzhen's World Unmanned Systems Conference, in which he discussed commercial UAV opportunities and the new FAA rule. Wynne said, "The small UAS rule did not come about overnight. It took government and industry working together in the US to embrace and accelerate innovation, and these efforts continue today as we look for ways for UAS to fly higher and farther. On a global level, it is important that industry and governments around the world, including in China, continue to work cooperatively to advance innovation."

## AeroVironment Launches Quantix Drone and Decision Support System for Real-Time Intelligence Published: 18 Nov 2016

AeroVironment has announced the launch of its new integrated commercial information solution featuring the new Quantix drone and Decision Support System (DSS). These technologies allow users to gain actionable insights that can improve operational efficiencies, minimize risk and increase profitability. Quantix features simple, automated flight with an operator-in-the-loop, and a unique hybrid design that allows the aircraft to launch vertically and transition into horizontal flight, maximizing aerodynamic efficiency and range.

To plan a mission, the operator simply traces their finger over a map displayed on the tablet controller screen to identify an area of interest. The system guides the operator through a simple, automated pre-flight check to ensure a safe, reliable mission. The operator then presses the "fly" button and Quantix does the rest, including performing a detailed built-in test procedure, optimizing its flight path for maximum coverage, launching, and then landing vertically when its mission is complete after scanning hundreds of acres with its color and multispectral sensors. Quantix is designed to be the first practical commercial drone combining the advantages of vertical liftoff, for safe launch and soft landing, and horizontal flight to acquire data quickly and easily. It also includes "land now" and "return home" command safety features for complete control.
http://www.unmannedsystemstechnology.com/2016/11/aerovironment-launches-quantix-drone-and-decision-support-system-for-real-time-intelligence/?utm_source=Unmanned+Systems+Technology+Newsletter&utm_campaign=e44e7f14d2-Unmanned_Systems_Technology_eBrief&utm_medium=email&utm_term=0_6fc3c01e8d-e44e7f14d2-111778317

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## Nevada UAV Experts Complete FAA Operation in Denver.

The Las Vegas Review-Journal (11/21) reports that Nevada UAV experts have completed an FAA "operation in Denver to develop the counter-unmanned systems industry," which involved testing different UAV detection technologies for air traffic control towers. Testing results "showed that one of the minimum criteria for such a radar system likely will be that the radar has to detect not only the frequency of a drone, but also the drone's audio and visual systems." Aviation News Today (11/21) reports that similar tests will be conducted at "Atlantic City International, New York's Kennedy International, Eglin Air Force Base, Helsinki Airport and Dallas Fort Worth International."

## DOT Has 60 Days To Compete UAV Rules, Actions.

Politico Morning Transportation (11/21) reports that the Obama Administration "has 60 days to wrap up DOT rules and actions on drone use, vehicle technology and other high-profile issues before President-elect Donald Trump takes office." The article features "a full breakdown...of what the White House may try to push out the door before January 20," and mentions that "environmental groups are bracing for Trump to take aim at fuel economy standards for light-duty vehicles."

## NTSB Launches Investigation Into Facebook UAV Crash.

The Wall Street Journal (11/21, Subscription Publication) reports that the NTSB launched an investigation into a June 28 incident in which a Facebook UAV, designed to extend Internet access, crashed during its first flight. The Journal adds that the NTSB plans to release a report on the accident within the next two months.

## Schiebel CAMCOPTER UAS Supports Migrant Offshore Aid Station Mission 21 Nov 2016

Schiebel has announced that its CAMCOPTER S-100 unmanned aircraft system (UAS) has been operating onboard the charity organization MOAS' (Migrant Offshore Aid Station) ship MY Phoenix, in support of search-and-rescue efforts in the Mediterranean. Schiebel provided MOAS with a CAMCOPTER S-100 system and an experienced team of onboard operators.

During this year's mission, which started from Valetta, Malta at the beginning of June, more than 19,000 men, women and children in emergency situations have been saved from drowning in the sea during attempts to cross the Mediterranean by the MOAS' crew – in partnership with the Italian Red Cross. These results are a huge increase compared to the numbers from the rescue missions undertaken in 2014 and 2015. Since MOAS launched in 2014, a total of around 30,000 persons have been rescued and given medical aid.

MOAS founder Christopher Catrambone commented: "The use of drones has been instrumental to MOAS' successful humanitarian efforts. The Schiebel CAMCOPTER S-100, with its takeoff and landing capability on the 40-meter-long ship MY Phoenix, has been providing real-time daylight and infrared video, widening the view of the crew onboard and enabling them to locate migrants in distress even well beyond the horizon."
http://www.unmannedsystemstechnology.com/2016/11/schiebel-camcopter-uas-supports-migrant-offshore-aid-station-mission/?utm_source=Unmanned+Systems+Technology+Newsletter&utm_campaign=e44e7f14d2-Unmanned_Systems_Technology_eBrief&utm_medium=email&utm_term=0_6fc3c01e8d-e44e7f14d2-111778317

## Nokia Partners with UAE's General Civil Aviation Authority to Create an End to End UAS Ecosystem By AUVSI News posted yesterday

Nokia and the United Arab Emirates' General Civil Aviation Authority will work to create an end-to-end UAS ecosystem for the country, based off Nokia's UAV Traffic Management concept. The creation of the ecosystem would make the UAE's goal of establishing a smart city a reality, and it would also make the country the first in the world to have safe, secure and managed operations of UAS for both businesses and government agencies.

"We, as a civil aviation regulator, are pleased to partner with Nokia for such an innovative initiative for the UAE aviation sector and to build a safe and secure drone ecosystem," said Ismaeil Mohammed Al Blooshi, assistant director general of the UAE General Civil Aviation Authority. "Being the number one aviation industry in the world with regard to safety standards, the UAE has superb aviation infrastructure and is qualified to play a key role in innovative aviation projects such as this drone collaboration."

Bernard Najm, head of the Middle East Market Unit at Nokia, added, "this collaboration with the GCAA, the first of its kind in the world, gives us a unique and extensive test bed where we can trial and refine our UAV Traffic Management system, and shape the future of UAV management overall." Nokia's UTM concept will look to safely integrate UAS into everyday life, as it seeks to help unmanned systems meet a variety of challenges including automated flight permissions, no-fly zone control and beyond-visual-line-of-sight flights.
http://www.auvsi.org/blogs/auvsi-news/2016/11/21/nokia-partners-with-uaes-general-civil-aviation-authority-to-create-an-end-to-end-uas-ecosystem

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## Lewes officials scrap possible drone regs

Solicitor: State law prevents city from making rules
Nick Roth, November 21, 2016

Lewes officials have scrapped plans to regulate drone use in the city. City Solicitor Glenn Mandalas said the state has made it clear that it is the authority on drones in Delaware. A preemption in state code says a county or municipal governmental body may not enact any laws that prohibit, restrict or regulate the use of unmanned aircrafts.

"Cities can continue to have regulations that are not specific to drones that someone could still get in trouble with for using a drone, like noise, nuisance, voyeurism," said Mandalas. To clarify, Councilwoman Bonnie Osler said if someone were to be assaulted with a drone, it would be covered under assault. "If it's covered under existing law, sure, we could address it," said Police Chief Tom Spell.

Philadelphia police used existing laws to charge a 20-year-old college student with reckless endangerment after he flew a drone over a Donald Trump protest Nov. 16. Police say the operator could have caused a major catastrophe when he flew the drone within a few feet of a police helicopter. The operator also failed to follow Federal Aviation Administration regulations by flying over a crowd and flying at night.

Mandalas hinted that the state itself may not have the authority to regulate drone use in the future. The FAA Reauthorization Act of 2016, which is making its way through the federal government, may take law-making ability away from states. http://www.capegazette.com/article/lewes-officials-scrap-possible-drone-regs/120295

## Bug Biobots: Drones and Insect Biobots to Map Disaster Areas

By Jaimee Bruce Nov 19, 2016 04:00 AM EST

Drones and insect biobots can now map high risk disaster areas. Insect biobots move around a defined area and signal researchers via radio waves when they get close to each other. Custom software would then translate the biobot sensor data into a rough map of the unknown environment. (WIRED/YouTube)

Scientists from North Carolina State University have developed a combination of software and hardware that gives them the ability to use unmanned aerial vehicles (UAVs) and insect cyborgs, or biobots, to map large, unfamiliar areas. One of the proposed uses is for gathering critical information about collapsed buildings after a disaster. "The idea would be to release a swarm of sensor-equipped biobots, such as remotely controlled cockroaches, into a collapsed building or other dangerous, unmapped area," said Edgar Lobaton, a co-author of two studies detailing the technology and an assistant professor of electrical and computer engineering at NC State. "Using remote-control technology, we would restrict the movement of the biobots to a defined area. That area would be defined by proximity to a beacon on a UAV. For example, the biobots may be prevented from going more than 20 meters from the UAV."

The biobots move around a defined area and signal researchers via radio waves when they get close to each other. Using an algorithm, custom software would then translate the biobot sensor data into a rough map of the unknown environment. When the program has enough data to map the defined area, the UAV moves to an unexplored section. The biobots move with it to repeat the mapping process until the entire region or structure has been mapped.

"This has utility for areas, like collapsed buildings, where GPS can't be used," Lobaton explained. "A strong radio signal from the UAV could penetrate to a certain extent into a collapsed building, keeping the biobot swarm contained. And as long as we can get a signal from any part of the swarm, we are able to retrieve data on what the rest of the swarm is doing. Based on our experimental data, we know you're going to lose track of a few individuals, but that shouldn't prevent you from collecting enough data for mapping."
http://www.natureworldnews.com/articles/32313/20161119/bug-biobots-drones-insect-map-disaster-areas.htm