18Jul16

FAA Releases Final Rule On Small Drones.

In continuing coverage, Wired (7/17) reports that the FAA, after months of delay, released its highly-anticipated rule on small commercial drones, representing a significant step toward establishing comprehensive regulations for small unmanned aerial systems and integrating them into the nation's airspace. Analysts believe the new rule could expand the growth of the nation's commercial drone industry, catalyze American innovation in the global marketplace, and maintain the technological superiority of US military drones. The FAA expects the rule "could generate more than $82 billion for the US economy and create more than 100,000 new jobs over the next 10 years." The rule, which takes effect in August, applies to drones used for commercial purposes and which weigh less than 55 pounds, and it is intended to ensure safety and mitigate the risks UAVs can pose to larger aircraft. The rule does not apply to recreational use of small drones, address privacy or surveillance issues, or deal with larger UAVs.

19Jul16

Airbus Using Drones To Accelerate Aircraft Inspection Process.

Engadget (7/18) reports that Airbus showcased a new aircraft inspection method last week at the Farnborough Airshow, "where a drone equipped with an Intel RealSense camera autonomously circled an A330 while rapidly snapping photos." The article explains that the captured images were then superimposed on a 3D model of the aircraft, allowing inspectors "to get a close, detailed look at the subject." The article notes that while collecting inspection data manually by hand can take about two hours, using a drone only takes about 10 to 15 minutes.

DJI, AirMap Add Alerts For Wildfire Awareness.

Government Security News (7/18) reports that "DJI, the world's leading maker of unmanned aerial vehicles, and AirMap, the world's leading provider of airspace intelligence and navigation services to unmanned aircraft, added real-time wildfire alerts to their geofencing data Wednesday to help keep unauthorized drones from interfering with firefighting operations." According to the article, "AirMap now obtains wildfire information directly from the U.S. Department of the Interior's incident command system and immediately pushes it to drone pilots through AirMap's iOS and web apps, AirMap's API, and the GEO geofencing system included in the DJI GO flight control app."

Google's Vos Praises FAA's Drone Rule.

Fortune (7/18) reports that Dave Vos, the project lead for Google's Project Wing drone delivery program, praised the FAA for its new drone regulations, which he believes remove "barriers" between the government and businesses. "The regulators are willing to have that conversation," he added. Fortune states, however, that the FAA's new regulations don't remove all the barriers standing in the way of Amazon and other companies offering drone delivery. Vos said some other countries have less strict drone rules, and the goal is to "make the regulators compete with each other."

Opinion: Drones Threaten US Airspace.

The Wall Street Journal (7/18, Subscription Publication) published an opinion piece by three members of the Air Force Scientific Advisory Board urging the FAA to adopt regulations properly regulating drone flight safety. They urge the FAA to convene a forum setting international standards addressing safety of flight, such as requiring all non-military drones to be equipped with electronics allowing authorities to prevent their inappropriate operation in specified airspace. They argue that scientific literature can yield evidence to inform policy. Systematic simulation and modeling can answer questions and test operational concepts. Science and policy decisions, they argue, must account for the complexity of the national airspace to prevent unintended consequences. They urge FAA support of a

consensus study on drones conducted by the Board on Human Systems Integration of the National Academies of Sciences, Engineering and Medicine.

DJI and AirMap Introduce Real-Time Wildfire Awareness and Geofencing Capabilities for Drones 15 Jul 2016

DJI and AirMap, a provider of airspace intelligence and navigation services, have added real-time wildfire alerts to their geofencing data in order to help keep unauthorized drones from interfering with firefighting operations.

AirMap now obtains wildfire information directly from the U.S. Department of the Interior's incident command system and immediately pushes it to drone pilots through AirMap's iOS and web apps, AirMap's API, and the GEO geofencing system included in the DJI GO flight control app. This data is more current and includes more active wildfires than Temporary Flight Restrictions (TFRs) published by the Federal Aviation Administration (FAA).

The Department of the Interior records 300 new wildfires each day during summer fire season, rising above 500 new fires on the busiest days. The vast majority of wildfires start and spread faster than the time it takes to communicate and post the hazard as a TFR. Often, fires are extinguished before the TFR is issued, and in approximately half of those cases, the fires have been fought by specialized airplanes and helicopters.

DJI is integrating the new AirMap wildfire alerts into the GEO geofencing system in the DJI GO app, which helps pilots avoid flying drones near airports, prisons, nuclear power power plants and other sensitive locations without authorization. DJI pioneered geofencing technology three years ago and has been steadily refining the industry's best technology to enhance aviation safety.
http://www.unmannedsystemstechnology.com/2016/07/dji-and-airmap-introduce-real-time-wildfire-awareness-and-geofencing-capabilities-for-drones/

Obama signs FAA extension

AUVSI Advocacy (7/19/2016)

On Friday, President Barack Obama signed a bill passed by Congress earlier in the week to extend authorization for Federal Aviation Administration programs and funding until Sept. 30, 2017. He signed the bill the same day the current FAA authorization was set to expire.

In addition to extending FAA authorization for 14 months, the measure includes provisions that impact operations of unmanned aircraft systems. It directs the FAA to create a comprehensive UAS research and development roadmap, which AUVSI has advocated to coordinate industry and government R&D initiatives. It also outlines a pilot program for unmanned traffic management and expands the Section 333 exemption process to allow for beyond-line-of-sight operations, both long-standing AUVSI priorities.

20Jul16

Amazon Files Patent For UAV Pit Stops.

USA Today (7/19) reports that a new patent filed last week by Amazon, as part of its Prime Air program, "paints a picture of flocks of unmanned aerial vehicles whizzing out of tiny depots perched on light poles, carrying packages bound for a broad geographical region." The article explains that as part of the e-commerce giant's "multi-use unmanned aerial vehicle docking station system," the docking stations serve as pit stops to recharge UAVs flying between customer homes and distribution facilities. According to the article, the docking stations will be capable of

accommodating several UAVs at once, and will be located up high in isolated places such as "cell towers, light and power poles, church steeples, office buildings, parking decks and other vertical structures."

The New York Daily News (7/19) reports that in its patent filing, Amazon explained, "The range provided by current UAV technology...makes deliveries over a wide area – e.g., throughout a city, or even a portion of a city – difficult." In addition, a UAV that can generally operate at long distances can only fly less than a mile when carrying a package. According to Amazon, "The docking stations may incorporate a number of features to enable UAVs to fly longer routes, to fly routes more accurately, and to provide shelter during adverse conditions."

21Jul16

Kansas Universities Give Students New UAS Emergency Management Minor AUVSI News July 15, 2016

Kansas State University and Kansas Wesleyan University are teaming up to give students an opportunity to minor in two programs that can leverage UAS to help those affected by disasters within their community. Through a partnership signed on July 11, students in Kansas State University's Polytechnic Campus unmanned aircraft systems program will now have the chance to enroll in Kansas Wesleyan University's emergency management program to receive a minor. In return, students enrolled in Kansas Wesleyan's emergency management program can now receive a UAS minor through Kansas State Polytechnic's UAS program.

Students in both programs will have the opportunity to take what they're learning about in their current curriculum and apply these skills to real-life emergency situations through their new minors. Students receiving a minor in UAS will learn how to properly use unmanned aircraft systems to supply resources in disaster locations, as well as how to analyze data collected by those systems. Students receiving a minor in emergency management will learn how to best assist emergency response teams during disasters, as well as how to properly operate unmanned aircraft in disaster areas

New Award to Virginia Space Grant Consortium Supports Community College Partnerships to Develop the Unmanned Aircraft Systems (UAS) Workforce in Virginia For Release: July 21, 2016

Contact: Mary Sandy, Director, msandy@odu.edu, 757-766-5210 Chris Carter, Deputy Director, cxcarter@odu.edu, 757-766-5210

The Virginia Space Grant Consortium (VSGC) is leading a statewide partnership to develop the Unmanned Aircraft Systems (UAS) Workforce in Virginia by creating career pathways at Virginia's community colleges.

VSGC, Virginia Community College System (VCCS), Thomas Nelson Community College (Thomas Nelson), Mountain Empire Community College (Mountain Empire), and Virginia Tech are partnering on the Geospatial Technician Education-Unmanned Aircraft Systems (GeoTEd-UAS) project. GeoTEd-UAS will prepare students for success as UAS operations technicians who will plan and fly UAS missions and analyze geospatial data to solve problems and answer questions.

Explosive growth and innovation in UAS technology and integration will create new UAS jobs and a demand for a trained workforce in this emerging sector. Virginia's Community Colleges working with the VSGC and other partners are well-positioned to prepare the future UAS workforce thanks to a new award of $899,847 from the National Science Foundation (NSF) Advanced Technological Education (NSF-ATE) program.

The GeoTEd-UAS team is also partnering with private and public sector business and industry in the Commonwealth, including NASA, to support and advise the project. An assessment of the knowledge and skills needed to succeed as a UAS operations technician will be among the first products of the project and will inform the future work of the team.

Facebook Successfully Tests Aquila Aircraft.

USA Today (7/21) reports that Facebook has completed the first test flight of its solar-powered Aquila UAV, flying the aircraft for 96 minutes, three times longer than planned. Featuring a wingspan the length of a Boeing 737, the aircraft is designed to stay aloft for up to three months at a time, providing Internet access across a 60-mile radius using new laser-beam technology. However, Facebook still has significant challenges to address in order to make the technology fully operational, including "collecting enough energy during daylight hours to operate around the clock and designing high-energy, dense batteries that can efficiently store enough energy."

Facebook VP Touts Aquila Aircraft. In an op-ed for USA Today (7/21), Jay Parikh writes that in order to bring mobile broadband to the more than one billion people without current access, Facebook is "building an advanced autonomous aircraft called Aquila and a laser communications system that takes the fiber-and-towers approach and moves it into the stratosphere." Parikh notes that the recent test flight "exceeded our expectations." Providing the Internet to those still without it "will require a bold approach, where we rethink technology and look at novel options," but Facebook has "a sense of urgency" to make it happen, he adds.

Utah Teen Launches UAV Manufacturing Company.

The Christian Science Monitor (7/20) reported that on Wednesday, 18-year-old Utah resident George Matus launched his company Teal "with the ambitious aim of changing consumer drones from a single-purpose flying camera to a fully modular, multi-purpose tool." According to Teal, the UAV features thermal sensing and collision detection capabilities, and has a navigation system so advanced that it is essentially "a flying supercomputer." Matus told the Christian Science Monitor, "The goal is to make this drone and drones in the future just as ubiquitous as the smartphone is today."

Virginia Educators Issued $900,000 NSF Grant To Teach UAV-Flying Classes.

The Washington Post (7/21) reports that educators in Virginia have been given a $900,000 federal grant from the National Science Foundation (NSF) intended to spur a roll-out of UAV-flying classes at community colleges in the state. The move is part of an effort to develop a future workforce for "an exploding industry that is making inexpensive, high-resolution imagery widely available." Cherie Aukland, who heads the geographic information system department at Thomas Nelson Community College, said, "That's going to change how we analyze what's happening with our world," noting that UAVs can be used to monitor crop health and conduct land surveillance, in addition to other uses.

Short-Term FAA Funding Bill Calls For UAS Use And Mitigation.

Aviation Week (7/22) reports that the short-term FAA funding bill "directs the agency to continue opening airspace to unmanned aircraft systems (UAS)" and make it easier for public and civil UAS to be used in emergencies, as well as "for commercial operators to apply for exemptions to fly beyond current limits." The FAA also is "to quantify and mitigate the potential hazards they pose in airspace around airports" by "developing means of remotely identifying UAS and their operators, mitigating the airspace hazard at airports, testing to determine the collision risk to manned aircraft and piloting the UAS traffic management (UTM) system for low-altitude airspace."

Atherton, California Discussing UAV Privacy Regulations.

The San Jose (CA) Mercury News (7/21) reports that the City Council in Atherton, California is closely looking at issues regarding the regulation of UAVs, particularly those mounted with cameras. At a meeting on Tuesday, City Council Member Michael Lempres said, "We are gathering information," adding, "At the last meeting (a July 6 study

session) I thought it was unanimous among the council that privacy needs to be safeguarded." Noting that safety is less of a concern than privacy, Lempres "said the goal is to respect privacy, while still allowing room for legitimate uses, such as at 'schools, where we have kids doing things with drones for research.'"