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Business-Drone Rules to Take Effect

Regulations apply to unmanned aircraft weighing less than 55 pounds

By ANDY PASZTOR Aug. 28, 2016 3:36 p.m. ET

The first detailed U.S. rules for flights of small commercial drones go into effect Monday, including nationwide licensing requirements for pilots and a ban on nighttime operations. But the long-awaited move won't satisfy pent-up demand for more-complex uses of unmanned aircraft—especially at higher altitudes and beyond the sight of operators—or approval of aerial vehicles substantially heavier than the 55-pound limit covered by the regulations.

Capping more than two years of debate, some 4,500 written comments and escalating industry turmoil, the rules also won't resolve growing controversy over privacy protections. On such issues, local governments increasingly are preempting Washington by staking out positions before federal agencies reach a consensus. Recognizing the need for quick action, the Federal Aviation Administration earlier this year established separate registration requirements for all drone users. Agency leaders also have pledged to craft follow-on rules with unprecedented speed, led by regulations due to be released by year-end allowing unmanned vehicles to start flying over crowds.

<http://www.wsj.com/articles/business-drone-rules-to-take-effect-1472413016>

FAA Set For New UAV Rule To Take Effect Today.

[The Hill](#) (8/28) reports that the FAA is “preparing for a swarm of drone applications” as the new commercial UAV rule goes into effect on Monday. The FAA's Drone Integration Office Director Earl Lawrence “said 3,351 aspiring pilots already signed up to take the written test on Monday, while over 20,000 operators have registered commercial drones that will be able to take flight under the new rule.” In addition to releasing this new rule relaxing pilot requirements, the FAA is expanding its educational outreach efforts “with law enforcement, farmers, journalists and others who may want to use the technology in their line of work.”

[WRIC-TV](#) Richmond, VA (8/28) reports on its website that the rule includes a prohibition on flying at night, flying higher than an altitude of 400 feet, and flying over individuals “not directly involved and consenting,” among other provisions. Association for Unmanned Vehicle Systems International CEO Brian Wynne said of the new rule, “It's an important moment. But it probably won't be like a light switch going on.”

AeroVironment, Elbit Systems Target Maritime UAV Market.

In a [Motley Fool](#) (8/27) blog post, Rich Smith reported that the US Navy has begun using AeroVironment's RQ-20B Puma AE UAV, which can be launched “by hand or off a rail,” and can be operated remotely or flown autonomously via GPS navigation. Earlier versions of the UAV are currently in use by US Special Operation Command, the US Navy Expeditionary Combat Command Coastal Riverine Force, the US Marine Corps, the US Army, and various foreign militaries. Smith also reported on the release of Elbit System's Skylark C UAV, “designed specifically for maritime operations.”

General Atomics UAV Training Academy Graduates First Class Of Pilots.

[ExecutiveBiz](#) (8/26) reported that General Atomics Aeronautical Systems has graduated its first class of UAV pilots from its Unmanned Aircraft System Flight Training Academy. The academy was opened in June to provide UAV pilot training that can be completed in as fast as two months. The graduating class includes three new pilots qualified to operate the Predator A UAV, and the academy plans to launch a Predator B training session later this year.

USAIG Launches UAV Safety Program.

[Aviation Week](#) (8/29) reports that United States Aircraft Insurance Group (USAIG) has launched a UAV safety program, Performance Vector Unmanned, for policyholders who insure UAVs. Its initial offering is the Small Unmanned Aircraft System Ground School Course, which provides required aeronautical knowledge for remote pilots of UAS weighing less than 55 pounds.

NASA Enters Second Phase Of UTM Air Traffic Management Plan For UAVs.

The [AP](#) (8/28) reports that NASA is entering the second phase of its four-step UTM air traffic management plan that aims to regulate low-altitude UAV of 55 pounds or less. NASA Airspace Operations and Safety Program Director John Cavolowsky told an audience at a UAV summit in North Dakota last week that the agency intends to present its research to the FAA before 2020, by which time it estimates there will be seven million small UAVs in operation, 2.6 million of which will be flown commercially. UTM will be a virtual system to help operators “deal with weather conditions, restricted air space, airport congestion and other obstacles.”

30Aug16

New Commercial UAV Rule Takes Effect.

On Monday, a new rule issued by the FAA took effect that will allow companies to use UAVs for commercial purposes without requiring FAA approval, as long as the company complies with the FAA’s requirements for operating the devices. The story received extensive coverage from major outlets, industry sources, and local television stations.

[USA Today](#) (8/29) reports that the industry is anticipated to create 100,000 jobs and \$82 billion in economic activity by 2025, according to the Association for Unmanned Vehicle Systems International (AUVSI). [NPR](#) (8/29) reports on its website that the top uses of commercial UAVs include “aerial photography, real estate, various inspections, agriculture and filmmaking,” according to AUVSI. The [NBC News](#) (8/29) website quotes Transportation Secretary Anthony Foxx touting the potential of UAV, saying, “There are literally dozens of missions a UAV can do that would otherwise put a human life at risk.” [Bloomberg News](#) (8/29) reports that 3,300 people signed up to take the \$150 certification test on Monday during its first day of availability. The article describes the “appeal” of UAVs, noting that they can provide aerial assistance at a far lower price point than helicopters or fixed-wing aircraft.

[Business Insider](#) (8/29) reports that the new rule does not cover the use of UAV for delivery purposes, while the [AP](#) (8/29) reports that the Air Line Pilots Association has expressed concern that the new rule does not require a UAV pilot to hold an FAA pilot license. The [Washington Post](#) (8/29) features a Q&A on the new regulations.

CNN Receives FAA Approval To Fly Over People. In a press release, [CNN](#) (8/29) announced that it has become the first organization granted a waiver by the FAA to fly UAVs over people in the US. The waiver allows CNN to operate its Fotokite Pro, a tethered platform that weighs less than two pounds, “over uncovered people who are not directly participating” in the operation. “Not only is this a milestone moment for CNN, this approval is a milestone for the commercial UAS industry as a whole,” said Lisa Ellman, co-director of the Commercial Drone Alliance.

Stanford University Restricts UAV Use Over Campus.

The [San Jose \(CA\) Mercury News](#) (8/29) reports that Stanford University has banned the use of UAVs over the campus by anyone who is not a member of the Stanford community. In a news release, Stanford said the use of UAVs could endanger helicopters bringing critically injured patients to its two hospitals, and also raises “privacy and other safety issues.” Stanford faculty, students, and staff must seek approval from the university before conducting UAV flights. The university uses UAVs for research in “a wide range of technologies important to infrastructure inspection, agricultural monitoring, and various humanitarian applications.”

PrecisionHawk Receives Permission To Fly UAV Beyond Visual Line Of Sight.

[TechCrunch](#) (8/29) reports the FAA has given permission to UAV startup PrecisionHawk to fly its aircraft beyond the visual line of sight (BVLOS) in US airspace, the first such exemption issued in the country. The company makes fixed-wing Lancaster UAVs for use in agriculture, as well as cloud-based software used to save and analyze aerial images. PrecisionHawk Executive Vice President Thomas Haun said, "In agriculture, now that we have an exemption to fly beyond the visual line of sight, we can fly an entire farm, not just one field, efficiently."

Virginia Woman Shoots Down UAV With Shotgun.

[Ars Technica](#) (8/29) reports that a 65-year-old woman in rural northern Virginia recently shot down a UAV flying over her property, using a .410 gauge shotgun. The woman, Jennifer Youngman, said she had just returned from church on Sunday morning and was cleaning her two shotguns on her porch when she heard the sound of the aircraft "going down through the field...buzzing like you would scaring the cows." Youngman said she "blasted it to smithereens." Ars Technica notes that current US law does not recognize aerial trespass, though a Kentucky case is currently pending in which a UAV pilot has requested a federal court to make a legal determination of whether a flight over private property constitutes trespass.

Kespry Unveils New Commercial Micro UAV

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Kespry has released the new Kespry Drone 2.0, a light-weight Micro UAV designed for commercial applications. Based on requests from commercial customers, the new Kespry Drone 2.0 now flies over 30 minutes per flight, covering up to 150 acres at a 400 foot altitude, and can operate effectively in up to 25 mph sustained winds and 35 mph wind gusts. Weighing under 2 kilograms, the Kespry Drone 2.0 benefits from a new airframe, battery, and flight system improvements.

Kespry delivers a fully-automated drone system, which takes off, flies the designated flight path, and lands, all without operator intervention or even a joystick. To help customers operating in congested areas, including applications like roof inspections for insurance claims, the new Kespry Drone 2.0 is the first automated drone system that includes an on-board LiDAR sensor that automatically detects and avoids obstacles like trees, cranes, and buildings.

http://www.unmannedsystemstechnology.com/2016/08/kespry-unveils-new-commercial-micro-uav/?utm_source=Unmanned+Systems+Technology+Newsletter&utm_campaign=b81d0ae207-Unmanned+Systems+Technology+eBrief&utm_medium=email&utm_term=0_6fc3c01e8d-b81d0ae207-111778317

31Aug16

AeroVironment Sees Revenue Fall 23% On Declining UAV Sales.

The [Wall Street Journal](#) (8/30, Subscription Publication) reports that AeroVironment saw its revenue fall 23 percent to \$36.2 million from \$47.1 million in the latest quarter, as sales of its UAVs continued to decline. The company reported a loss of \$11.6 million, up from a loss of \$7 million a year earlier. According to the Journal, the company has been driven mainly by sales of its small UAVs, and is aiming to enter the market for commercial UAV applications.

The [Motley Fool](#) (8/30) reports that the company's UAV revenue "was off almost a quarter compared to the year-ago period," and gross profit for its UAV division was "down by more than half." CEO Wahid Mawabi said, "International demand for our small [unmanned aircraft systems] remains strong...and we are confident in our ability to build on significant opportunities with existing and new customers, particularly in Europe and the Middle East."

FAA Approves Pendleton Range To Fly UAVs Up To 9,999 Feet.

The [AP](#) (8/30), citing a report by the [East Oregonian](#) (8/30), notes that the FAA approved the Pendleton Unmanned Aerial Systems Range to fly UAVs of all sizes as high as 9,999 feet, range officials said on August 25. The FAA had previously limited flights by commercial UAVs weighing less than 55 pounds to under 400 feet. The AP mentions that the Pacific Northwest National Laboratory is among the range's "small stable of clients" that test UAVs at the facility.

Kansas task force to examine UAS deployments for public, private sectors

Kansas has formed a task force to identify ways state agencies can incorporate unmanned aircraft systems into their operations. The task force will also examine how the state government can make the use of drones conducive to private-sector needs. "We want to explore the sharing of ideas utilizing commercial applications of drones to improve efficiencies of state operations, such as using drones for bridge inspections, and also private-sector applications," Interim Kansas Transportation Secretary Richard Carlson said. The task force will include representatives from the Department of Agriculture, Department of Commerce, Department of Wildlife, Parks and Tourism, Department of Transportation and the Kansas Bureau of Investigation. Bob Brock, a retired Air Force officer who recently was named the state's first director of UAS, will oversee the task force's quarterly meetings and serve as the group's key contact. http://www.ksdot.org/Assets/wwwksdotorg/Headquarters/PDF_Files/UASTaskForce.pdf

UAS Being Tested for Natural Disaster Relief Efforts

By AUVSI News posted 8 days ago

An unmanned aircraft system is being tested in North Dakota to see if it is capable of helping with natural disaster relief efforts. Thanks to a half million-dollar spending budget from tech company Elbit Systems and utility holding company Xcel Energy, the UAS, Elbit's Hermes 450, is being tested to see if it can provide assistance to crews that are working in different areas affected by disasters.

The Hermes 450 is a 20-foot long UAS that can fly up to 17 hours, allowing it to cover 40,000 acres in an hour before needing to refuel. The hope is that because of the size and length of time that the UAS can fly, it will be able to collect more data, which will help when trying to get crews, material and equipment to the right locations. Tests, which are being conducted through the Xcel Energy test program, are currently examining the UAS performance during a variety of possible emergency situations. The progress of the initial test flights was discussed at the North Dakota UAS Field Day on Monday. <http://www.auvsi.org/blogs/auvsi-news/2016/08/23/uas-being-tested-for-natural-disaster-relief-efforts>

1Sep16

AIM To Provide UAV Training Course.

[Military & Aerospace Electronics](#) (8/31) reports on an Aviation Institute of Maintenance (AIM) announcement that it will be providing a training course on "operational understanding" of UAVs at its Chesapeake and Manassas locations. The course will cover "unique flight properties and performance, calculating weight and balance, performing basic and advanced flight maneuvers, and actions and responses to common emergency scenarios."

FAA Names Drone Advisory Committee Members.

[Aviation International News](#) (8/31) reports that the FAA has named 35 “business, association, municipal and academic leaders” to serve on its new Drone Advisory Committee (DAC), to advise on the introduction of UAVs into the national airspace system. The committee is modeled on the FAA’s NextGen Advisory Committee, formed in 2010 to advise on ATC modernization. DAC members include: the Association for Unmanned Vehicle Systems International, General Atomics, the Massachusetts Institute of Technology, the Air Line Pilots Association, the National Air Traffic Controllers Association, Insitu, Rockwell Collins, and Lockheed Martin, among others.

General Micro Systems CEO: Change UAV Design Approach To Reduce Costs.

In a [SIGNAL Magazine](#) (8/26) op-ed, General Micro Systems CEO Benjamin Sharfi wrote that current high UAV costs are unjustified, and called for changes in design approach that could reduce costs significantly and support increased use of UAVs. Sharfi’s recommended changes include: a “modular design that packs functionality into small, lightweight form factors,” “effective cooling systems to support dense designs,” and “intellectual property protection in case of capture.”

WPost: New FAA UAV Rules Are Still “Quite Restrictive.”

A [Washington Post](#) (8/28) editorial asserted that while new FAA rules avoid “several crucial mistakes that could have grounded a young [UAV] industry,” they are still “quite restrictive, particularly the requirement that operators keep drones within their line of sight.” The Post argued that “officials used to decades of regulating big airliners need to do a more nimble job adapting to the revolution in unmanned and, some day soon, automated flight.”

2Sep16

GoPro To Unveil Karma UAV This Month.

[The Verge](#) (9/1) reports that GoPro plans to unveil its Karma quadcopter UAV on September 19th, according to a teaser video posted to GoPro’s Twitter account. Only a few short clips of the UAV have been released so far. GoPro plans to release Karma alongside its Hero 5 camera “in time for the holidays.” The Verge notes that “it also seems like a good bet that the Hero 5 could be unveiled on the same day as Karma.”

ApolloShield Spoofs UAV Control Signals, Redirects Them Elsewhere.

[Bloomberg News](#) (9/1) profiles ApolloShield, which uses radio waves to scan for unauthorized UAVs, spoofing their remote control signals to redirect the aircraft elsewhere. ApolloShield was started by former Israeli intelligence officers Nimo Shkedy and Gilad Beerli, who had been inspired to start the company after learning that Israeli supermodel Bar Refaeli had requested a UAV no-fly zone over her wedding. Bloomberg News also reviews alternative anti-UAV systems, including the DroneDefender jamming device, the SkyWall shoulder-mounted rocket-power cargo net launcher, and Guard From Above’s trained attack eagles.

Intel Corp Receives Two FAA Part 107 Waivers For UAV Use.

[UAS Magazine](#) (9/1) reports that during a news conference in Washington DC, Transportation Secretary Anthony Foxx and FAA Administrator Michael Huerta announced 76 waivers under the new FAA Part 107 rule for commercial UAVs. Intel Corp. received two of the 76 waivers “for nighttime flights and to control a fleet of drones with a single pilot.” Anil Anduri, general manager of Intel’s UAS, said, “Under the 107 rules, we have two waivers.” Anduri added, “The speed at which the FAA has been working is amazing. We’re extremely pleased with the response from the FAA in processing our requests.”

Yamaha's RMAX UAVs Tested At Napa Valley Vineyards.

The [Napa Valley \(CA\) Register](#) (9/1) reports that Napa Valley vineyards “have become testing beds” for the use of Yamaha RMAX UAVs to “spread pesticide, fertilizer and other substances on steep and difficult-to-reach fields.” Yamaha hopes to make the RMAX available to US farmers starting in 2018, with Yamaha employees piloting and maintaining the aircraft. According to the Association for Unmanned Vehicle Systems International, some 2,100 companies and individuals have received FAA permission to use UAVs for agricultural purposes.