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Dubai Airport Temporarily Closes Airspace Due To UAV.

The [AP](#) (10/29) reported that Dubai International Airport closed its airspace for nearly an hour and a half on Saturday due to an unauthorized UAV flying nearby. The airport “faces a serious problem with hobby drones flying into the airport’s airspace.” The AP cited similar incidents in September and June.

Amazon Secures Patent For Mini Police UAVs.

In continuing coverage, the [Seattle Post-Intelligencer](#) (10/28) reported that Amazon has secured a patent for compact “mini police drones,” that could be used in lieu of body-strapped cameras to monitor and record encounters between police officers and citizens. The report provides the initial sketches of Amazon’s UAV design, suggesting it “could be just as wide as an officer’s radio microphone, and dock on their shoulder.” Amazon officially received the patent for the device last week.

Taiwan Supports US UAV Nonproliferation Declaration.

[Forbes](#) (10/30) reports that Taiwan has “voiced support” for the US “Joint Declaration for the Export and Subsequent Use of Armed or Strike-Enabled Unmanned Aerial Vehicles,” which would “limit sales of UAVs for military use.” The US State Department “calls Taiwan a ‘central hub for (UAV) shipments and transshipments in the Asia Pacific region.’” IHS Janes analyst Derrick Maple said that the declaration “could certainly slow down the approval process for exporters and or importers, especially of armed UAVs.”

Hunter Urges US Air Force To Accelerate Deployment Of Counter-UAV Systems.

[ExecutiveGov](#) (10/28) reported that Rep. Duncan Hunter (R-CA) sent a letter to Air Force Secretary Deborah Lee James requesting details of the service’s plans to deploy counter-UAV technology following an ISIL UAV-borne IED attack that killed two coalition troops. Hunter wrote, “Given this threat, it is important that we continue prioritizing the development and deployment of counter UAS technology, including directed energy, to supplement advances on kinetic targeting. ... This is especially necessary given the accessibility and affordability of UAS in the commercial marketplace and the relative ease of configuring explosives to unmanned platforms.”

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AVIC Introduces Wing Loong II, Cloud Shadow UAVs At Airshow China.

[FlightGlobal](#) (10/31) reports that the Aviation Industry Corporation of China (AVIC) introduced its Wing Loong II and Cloud Shadow HALE UAVs at Airshow China, both of which offer “auto-landing and auto-takeoff capability.” The Wing Loong II has an increased maximum takeoff weight of 4,200 kg, and features six hard points that can carry double payloads. The Cloud Shadow, which “resembles the General Atomics Avenger,” has “three hard points on the wing, as well as a synthetic aperture radar and EO/IO sensor.”

[Shephard Media](#) (10/31) reports that the “jet-powered” Cloud Shadow was developed by AVIC’s Chengdu Aerospace Corporation (CAC), and has “a maximum payload of 400kg, a normal take-off weight of 3,000kg and endurance of six hours.”

Verizon Outlines Uses For Its 4G LTE UAV.

[Phandroid](#) (10/31) reports that Verizon published a blog post outlining “how the testing went and the use cases for the unmanned aerial systems” it announced early in October. Phandroid notes that Verizon’s 4G LTE UAV’s purpose is “to provide emergency personnel on the ground a strong 4G LTE signal while working” as well as to offer a “birds-eye view of what’s happening on the ground.” Verizon also discussed how UAVs were used to “conduct service inspections” following Hurricane Matthew’s impact on North and South Carolina.

Canadian Ag UAV Data Firm Sees Strong Growth.

[Baking Business](#) (10/31) reports on the growth of Green Aero Tech, “a private company based in Canada that provides data collected by drones to farmers in North America.” The company is part of a “flurry of vendors and service providers [that] are moving fast to capitalize on farmers’ needs for quality data as they chase profits at a time of low crop prices.”

Textron Systems Demonstrates Aerosonde HQ sUAS

Published: 26 Oct 2016

Textron Systems Unmanned Systems has announced that it has completed its inaugural customer demonstration of the Aerosonde HQ. The Aerosonde HQ combines the vertical takeoff and landing (VTOL) capabilities of a multi-rotor platform with the efficiency and speed of a fixed-wing aircraft. With the addition of VTOL capabilities, the system retains service proven capability within a smaller, more portable footprint. The Aerosonde HQ features an eight-hour endurance and 10,000-foot service ceiling. The system incorporates the purpose-built Lycoming EL-005 heavy fuel engine.

Textron Systems' Aerosonde SUAS has amassed more than 150,000 flight hours in commercial and military operations around the world. The Aerosonde system is a multi-mission capable UAS that offers the ability to simultaneously support electro optical/infrared full motion video, communications relay, automatic identification systems, and intelligence payloads within a single flight. The system also supports a variety of sensors and payloads optimized for civil and commercial missions including survey and inspection.

<http://www.unmannedsystemstechnology.com/2016/10/textron-systems-demonstrates-aerosonde-hq-suas/>

Sentera Unveils Quad-Rotor Omni UAV with Multi-Angle Data Capture

Published: 28 Oct 2016

Sentera has announced the release of its new Omni Quad-Rotor Unmanned Aerial Vehicle (UAV), which is partnered with a gimbaled Sentera Double 4K Sensor. The package is aimed at the Inspection, Survey and Mapping, and Agriculture industries. The system simultaneously captures macro and micro data and provides distortion-free imagery, allowing the user to collect precise data from obscure angles.

"The lightweight Omni with Double 4K Sensor on an upward-looking gimbal provides users with an unprecedented field of view while inspecting difficult-to-reach areas such as the bottom of antenna connections or the underside of bridges," said Greg Emerick, executive vice president for Sentera. Weighing eight pounds, the Omni is compatible with a variety of sensors, including Sentera Double 4K, DJI Zenmuse X3, Z3, XT, and new Z30 sensors. Flight time with a payload is up to 25 minutes.

The dual zoom levels of the Double 4k Sensor allow users to review a wide-angle field of view (FOV) and audit a structure, then instantly see 12MP of detail with the narrow-angle lens. For agriculture applications, operators simultaneously capture high-resolution color, NIR, and normalized difference vegetation index (NDVI) data – providing growers with precise crop-health imagery. Sentera's AgVault and OnTop Open Software Platforms manage the multitude of images and data collected during flight and allow near-real-time reading and analysis of the data, including working with other data sources via APIs. Data is easily cataloged and stored for future analysis.

<http://www.unmannedsystemstechnology.com/2016/10/sentera-launches-quad-rotor-omni-uav-with-multi-angle-data-capture/>

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China's CH-5 UAV Ready For Export.

The [Daily Caller](#) (11/1) reports that the China Academy of Aerospace Aerodynamics is ready to begin export of its CH-5 military UAV. Chief Designer Shi Wen said that "several foreign nations have expressed intentions to purchase the CH-5, and we are in talks with them." According to Shi, the CH-5 is a match for the US MQ-Reaper in terms of "flight duration and operational efficiency," and is also able to share a data link and control system with its predecessor UAVs, the CH-3 and CH-4, in order to effect joint strikes. The UAV "can also function as an airborne early warning system, a battlefield command and control platform, and an electronic warfare unit," the article reports.

Flirtey drones deliver socks from the sky at Menlo Ventures' annual partner meeting

Posted yesterday by Lora Kolodny (@lorakolodny)

Around the world, drones have been delivering life-saving drugs and blood to clinics, and contrarily tasty treats like burritos, pizza, and Slurpees to homes or campuses. Civilian drones have also conducted countless surveys of farms, construction sites, and surveillance around venues with a high security risk.

Now, in a stunt that begs to be spoofed by Mike Judge for his HBO series Silicon Valley, Menlo Ventures portfolio company Flirtey has delivered socks from the sky above the Rosewood Hotel during the firm's annual limited partner meeting. The delivery drone was operated with oversight by a Flirtey employee from the luxury hotel's parking lot.

Although Flirtey's unmanned aerial vehicles can fly autonomously, hotel liability concerns and local regulations would not allow it without a licensed operator's involvement.

The drones dropped custom swag made by another Menlo Ventures-backed company, Stance, a kind of Cafepress or Zazzle for socks whose competitors include SockClub, Eversox and others. Menlo Ventures' Managing Director Mark A. Siegel tells TechCrunch, "The Rosewood demo was a little gimmicky and everyone took it in good humor. However, there was a serious angle to it. We wanted investors to get excited about a new cutting edge area in which we are making some bold bets."

<https://techcrunch.com/2016/10/31/flirtey-drones-deliver-socks-from-the-sky-at-menlo-ventures-annual-partner-meeting/>

Netherlands to upgrade Ravens and buy two new UAV models

31 OCTOBER, 2016 BY: BETH STEVENSON LONDON

The Netherlands has awarded AeroVironment a contract worth \$10.3 million to cover the upgrade of its existing RQ-11B Raven unmanned air vehicles, and to provide two new aircraft types. Amsterdam has operated the Raven since 2008, and is upgrading the system from its current analogue configuration to include AeroVironment's digital datalink.

Under the award, the Netherlands has also opted to buy the Puma AE and Wasp micro unmanned air systems, plus a new ground control station and support, which the company says will be delivered within six months.

In recent years the Royal Netherlands Army has expressed its interest in replacing the Raven with a family of advanced systems, which would offer different capabilities for user groups within the service, including increased endurance and integrated day/night payloads. The service previously revealed that it was eyeing the Puma AE to add to its inventory, following observation of the Danish army operating its fleet of the type during joint operations, and had also expressed interest in a micro system.

<https://www.flightglobal.com/news/articles/netherlands-to-upgrade-ravens-and-buy-two-new-uav-mo-430938/>

Speaking @ TEDxBerlin

WeRobotics co-founder Patrick Meier recently gave a talk at TEDxBerlin, one of Europe's largest TEDx events. He spoke about the humanitarian applications of aerial and marine robotics. The TEDx talk covered our endeavors in Nepal and referenced our upcoming missions in countries such as Tanzania and Peru. Patrick stressed how appropriate robotics technologies can empower local communities around the world to scale and sustain positive social change. Some 700 people attended the talk, which was very well received per the positive social media response.

<http://werobotics.org/speaking-tedxberlin/>

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CASC Unveils QY-1 Rotary Wing VTOL UAV At Airshow China.

[IHS Jane's 360](#) (11/2) reports that the China Aerospace Science and Technology Corporation (CASC) "has unveiled a new vertical take-off and landing (VTOL) UAV prototype at the Airshow China 2016 exhibition," featuring "a constant-taper pod and boom fuselage supporting a folding three-blade main rotor and two-blade tail rotor."

According to the article, the QY-1 "is essentially a militarized variant" of Weifang Tianxiang Aviation Industry's V750, itself based on the Brantly B-2B two-seat light helicopter design, and powered by "a vertically mounted Lycoming IVO-360-A1A flat-four engine that generates up to 134 kW (180 hp) of power."

Interior's Bathrick Delivers Keynote At Commercial UAV Expo.

[Drone Life](#) (11/1) reports that the Interior Department "runs a project managing over 500 million acres and using more than 1,200 aircraft to do it – including hundreds of drones." According to the article, the UAVs "perform more than 25 different applications to manage US lands, including avalanche control, monitoring of illegal dumping, and surveying." As a keynote speaker at the Commercial UAV Expo in Las Vegas, the Interior Department's Mark Bathrick "shared the four competencies he says are essential to success in the commercial drone industry: aviation, privacy, security, and culture."

DHS Sees Value In Deploying UAVs At Borders.

The [New York Times](#) (11/2, Subscription Publication) reports that UAV-equipped cameras at the US-Canada border "are intended to compensate for the Department of Homeland Security's lack of personnel and other surveillance

equipment to adequately patrol the longest international border in the world.” The UAVs “fill a critical gap in border security, officials with Homeland Security say,” but they have been “criticized by government auditors as costing too much...and producing too little” in terms of apprehensions and arrests, while “privacy activists say that the government may be taking video of people who are not engaged in criminal activity.” Nonetheless, “Homeland Security is seeking to increase its use of the aircraft” and “recently requested proposals from Silicon Valley companies to develop smaller drones that would be used by individual border patrol agents.”

USGIF To Host Second Two-Day Sat Workshop On November 14-15.

[Trajectory Magazine](#) (11/2) reports that the United States Geospatial Intelligence Foundation (USGIF) “will host its second two-day Small Sat Workshop – one day unclassified and another classified – at the National Geospatial-Intelligence Agency (NGA) in Springfield, Va., Nov. 14-15 as part of the Foundation’s 2016 GEOINT Community Week.” Trajectory Magazine reports that the unclassified day will include remarks by NGA Director Robert Cardillo and “will also feature panels on turning pixels into insight, launch, and policy, with representatives from DARPA, Leidos, Lockheed Martin, Planet, Terra Bella, Virgin Galactic, and many more.”

UK Launches UAV-Hacking Cybersecurity Boot Camp.

[BBC News \(UK\)](#) (11/2) reports that the UK Government Communications Headquarters certified a new boot camp where “budding cyberspies will learn how to hack into drones and crack codes.” BBC News notes that the Cyber Retraining Academy “will be operated by cybersecurity training firm Sans Institute,” and will be funded as part of the new government’s £1.9bn National Cybersecurity Strategy. The academy will take place in London in 2017 and will feature “two years of training condensed into 10 weeks.”

India Calls On States To Use UAVs In Illegal Mining Crackdown.

[Reuters](#) (11/2) reports that the India Ministry of Mines has directed state governments to explore how UAVs can be used to fight illegal mining through monitoring of illicit sites, tracking truck movements, and checking whether reclamation has been done following mine closures. The states of Uttarakhand and Maharashtra already have begun using UAVs to monitor illegal mine sites. The CEO of the non-profit Mine Labor Protection Campaign, Rana Sengupta, said that, “Drones can show you the extent of the problem, but if the intent is to check illegal mining, you need to involve the villages and local communities in the area. ... We already have the capability to use satellite images to see where illegal mining is taking place. Villagers can be your eyes and ears far more effectively in preventing the activity than drones.”

Poss: Guidance Needed From FAA On Beyond Line Of Sight UAS Flight.

In an [Inside Unmanned Systems](#) (10/29) op-ed, Maj. Gen. James O. Poss, the US Air Force’s Assistant Deputy Chief of Staff for Intelligence, Surveillance and Reconnaissance, wrote that even though the FAA’s “long overdue” Part 107 rule for small UAS gave “solid guidance for the private and commercial drone industry,” they lack much needed guidance on beyond line-of-sight (BLOS) flight. Poss wrote that “BLOS is the big, expensive restriction that we MUST solve to make drones profitable and industry needs guidance from the FAA before they can offer realistic solutions.”

FAA Issues Guidance On Part 107 Waiver Requests

By: Kevin D. Pomfret

The Federal Aviation Administration (FAA) recently issued useful guidance (the “Guidance”) for businesses who wish to operate small unmanned aircraft systems (“sUAS”) outside the parameters of Part 107 of the Federal Aviation Regulations (“Part 107”). According to the Guidance, the FAA has issued 36 waivers under Part 107, and 81 authorizations for flights in Class D and E airspace. However, it also has rejected 71 waiver requests and 854 airspace applications. Although requests are denied for a number of reasons, according to the FAA, many applications were rejected for requesting too many waivers or waiver requests for flights in types of airspace for which the FAA is not yet granting approvals. (The FAA will not begin to consider requests for sUAS flights in Class C airspace until after October 31 and for Class B airspace until after December 5.)

Part 107, published by the FAA in August, sets forth the requirements that businesses must satisfy in order to operate sUAS for commercial purposes. Part 107 includes the requirements for piloting sUAS, size limitations of UAS as well as a number of operating limitations. However, Part 107 also states that businesses can request a waiver from several of the operating restrictions (collectively, the “Waiverable Restrictions”).

<http://www.williamsmullen.com/news/faa-issues-guidance-part-107-waiver-requests>

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Companies Cut Costs Using UAVs, Sensors For Monitoring.

The [New York Times](#) (11/3, Subscription Publication) reports on UAVs used by Sky-Futures in the energy industry to collect "high-resolution videos and images that can spot potential infrastructure problems" on sites such as offshore platform and oil rigs, costing "roughly 80 percent less than traditional inspections." Accenture's Richard Holsman said, "It's easier than ever to leverage this type of data" from UAVs and sensors. "What they learned is that they can avoid failures by taking a different approach to the data they already have."

Verizon Conducts First UAV Venue Inspection At Texas Racetrack.

[Fierce Wireless](#) (11/3) reports that "Verizon conducted its first drone venue inspection at the Circuit of the America's (COTA) racetrack in Austin, Texas, last month, to measure network coverage ahead of a major Oct. 21-23 event." Fierce Wireless adds that the "inspection took about 50 percent less time than it would normally take to walk the venue in a traditional test scenario."