UAS and SmallSat Weekly News

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Robert Rea | Axcel Innovation | Charlottesville and Portsmouth, VA
robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com

29Dec18

Drone X Challenge 2020 Offers US$1M Final Prize 20 Dec 2018 Mike Rees

Krypto Labs has announced the Drone X Challenge (DXC) 2020. The challenge will reward the winner US$1 Million.

The challenge seeks to find cutting-edge technologies such as two hours of endurance time, the ability to carry loads up to 500 kg, using both gas and battery powered engines, as well as be able to maneuver in a fast, safe, and precise manner.

DXC 2020 is open to entrepreneurs, start-ups, R&Ds, university students and companies. The challenge aims to find the most outstanding drones in two main domains: Innovation in Maneuverability, and Innovation in Transportation. The winner of the challenge is expected to offer innovative, inventive, and disruptive products or services which are agile, original, and have scalable commercial applications. DXC 2020 highlights the applications in which drones can excel, such as rapid delivery for transportation purposes, and distribution of objects in a small timeframe.

To enter the competition, visit https://kryptolabs.com/contests/dxc-2020/ and submit your application by **10 January 2019**. https://www.unmannedsystemstechnology.com/2018/12/drone-x-challenge-2020-offers-us1m-prize-fund/?utm_source=Unmanned+Systems+Technology+Newsletter&utm_campaign=282195f6ea-eBrief_2018_Dec_28&utm_medium=email&utm_term=0_6fc3c01e8d-282195f6ea-119747501

Drone Video of a Pagoda in Thailand: A Window into a Different World

staff December 28, 2018

From our friends at Airvuz here is a drone video of a pagoda from Thailand. It help us see images that most of us will not have the chance to see otherwise. Wat Chan Thattharam is at the northern end of Nakhon Si Thammarat province, only a short distance from the coast. The main feature, the coral pagoda, chedi or stupa is estimated to be at least 1000 years old, whereas the small temple shown at the beginning of the video was only recently completed. https://dronelife.com/2018/12/28/drone-video-of-a-pagoda-in-thailand-a-window-into-a-different-world/

Robert Rea | Axcel Innovation | Charlottesville and Portsmouth, VA
robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com

Three Forces That Shaped the Drone Industry in 2018 staff December 28, 2018

Guest post by leading drone industry analyst Colin Snow of Skylogic Research.

This was a big year for the commercial drone industry as a whole. It saw a significant increase in the business adoption, the expansion of the FAA's LAANC program (the Low Altitude Authorization and Notification Capability that provides access to controlled airspace near airports), the launch of the UAS Integration Pilot Program from the FAA (aka IPP), new products like the Phantom 4 RTK from DJI, and some significant developments for new regulatory frameworks for drones in Europe and in India.

In this post, I'll illustrate some of the market trends over the past year using data from our third annual drone industry benchmark report and describe what I think shaped the drone industry.

The key forces of 2018 on the drone market are:

Force 1 – Business adoption. Adoption of aerial drones and drone technology was not widespread, but it did grow in select industries such as insurance, utilities, construction, and survey engineering, It's mostly pilots who work for companies, enterprises, or public agencies with internal drone programs.

Force 2 – Vendor contraction and expansion. There were some winners and losers this year in the race to gain more customers and satisfy investors. The biggest contraction story was the $118M collapse of Airware. The other contraction was from Parrot. Another big move this year was PrecisionHawk's acquisitions of both HAZON and InspecTools. These businesses specialize in inspection services and technology for the energy sector.

Force 3—The DJI effect. DJI continues to dominate the market and has made gains this year in every category, from drone aircraft at all price ranges, to add-on payloads, to software. DJI is still the dominant brand for drone aircraft purchases, with a 74% global market share in sales across all price points. Much of DJI's dominance can be attributed to its aggressive product development, technological advancements, and partner development in the enterprise channel.

Listen to the companion podcast here: http://bit.ly/2EynyIY. If you have questions about what's in the report or would like to comment, write me at colin@droneanalyst.com.
https://dronelife.com/2018/12/28/three-forces-that-shaped-the-drone-industry-in-2018/

Robert Rea | Axcel Innovation | Charlottesville and Portsmouth, VA
robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com

Airbus Helicopter Completes Fully Unmanned Autonomous Flight 21 Dec 2018

Mike Rees

Airbus Helicopters has announced that its VSR700 demonstrator has successfully completed a fully unmanned autonomous flight at the military airbase in Istres in the south of France. The purpose of the flight was to establish compliance with the demanding regulatory and safety systems necessary for future unmanned flight in France. During the exercise the demonstrator performed a 30 minute flight successfully executing a variety of flight patterns before landing in an autonomous mode. The unmanned air vehicle was piloted and monitored from the ground station located at the base.

The VSR700 is a light military tactical unmanned aerial system able to carry multiple payloads, with an endurance of around 8 hours at 100 NM. The system will initially offer extended surveillance capabilities for navies, allowing them to preserve manned helicopter flights for critical missions. Users will benefit from the system's low operational cost and its low consumption diesel engine. The VSR700 is designed to complement manned helicopters, without replacing them, on ships ranging from small corvettes to major warships.
https://www.unmannedsystemstechnology.com/2018/12/airbus-helicopter-completes-fully-unmanned-autonomous-flight/?utm_source=Unmanned+Systems+Technology+Newsletter&utm_campaign=282195f6ea-eBrief_2018_Dec_28&utm_medium=email&utm_term=0_6fc3c01e8d-282195f6ea-111778317

31Dec18

Update: British Army used Israeli technology to end chaos at Gatwick Airport, still no suspects in custody! December 30, 2018 Feilidh Dwyer

In case you somehow missed one of the biggest drone stories of 2018, more than 140,000 passengers were delayed and some 1000 flights diverted or cancelled December 19-21 this month after a drone or drones repeatedly flew through the Gatwick Airport grounds.

While the ordeal was underway, the British Army brought in an expensive Israeli anti-drone system intended to prevent drones from flying into the area. Forbes reports that in August 2018, Britain had paid several million pounds for the Israeli produced Rafael Advanced Defense System's Drone Dome.

Robert Rea | Axcel Innovation | Charlottesville and Portsmouth, VA
robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com

Israel's Rafael Advanced Defense System's Drone Dome system

The technology works by pinpointing the location of unauthorized UAVs then jams the radio frequency which disables communication between the pilot and the UAV, making them unable to fly. **The latest:**

- British police report two drones found near the airport were not involved in the incident
- They have so far searched 26 sites in Gatwick's surrounding area
- Sky News reports that British Police are investigating "relevant sightings" by 115 witnesses, including 93 from "credible witnesses" which includes pilots, airport staff and police officers.
- Despite the sophisticated technology deployed by the army, no suspects are in custody. Police don't know the make or model of the drone.
- Gatwick Airport is still offering a £50,000 ($63,500 USD) reward for information leading to the arrest and conviction of those responsible
- The motive of the person or people who flew the drones over the airport is still unknown
- Sussex police chief admits that some sightings may have been of police drones

Some of you may be a little tired of this story already, but given the massive international media attention that this story received, we feel it is important to keep you updated with the latest. https://www.wetalkuav.com/israeli-technology-end-gawick-drone-chaos/?utm_source=WeTalkUAV&utm_campaign=12107d4327-RSS_EMAIL_CAMPAIGN&utm_medium=email&utm_term=0_1d410cb84d-12107d4327-83642867

FAA Launches Test Program to Speed Up Drone Identification Rules *Andy Pasztor*

Dec. 30, 2018

The new Federal Aviation Administration program, spelled out in a Federal Register notice earlier this month, envisions creating up to eight company-financed prototype projects to examine various options. The goal is to verify technologies and provide real-world data to hasten broader regulatory steps aimed at significantly expanding commercial uses of unmanned aircraft.

Lessons learned from the tests are intended to counter widespread industry complaints that the FAA has moved too slowly in establishing rules for remote identification of drones. A

Robert Rea | Axcel Innovation | Charlottesville and Portsmouth, VA
robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com

proposed rule is expected to be released in coming months, but it could take a year or two to make it final.

In the interim, the FAA has decided to rely on joint company-agency efforts to begin exploring the most promising answers. The agency has adopted a similar approach to the way it authorizes private drone-services providers to act as intermediaries between operators and federal air-traffic controllers. That system has streamlined the process of obtaining clearances for low-altitude flights around airports. https://www.wsj.com/articles/faa-launches-test-program-to-speed-up-drone-identification-rules-11546196674?mod=flipboard

What Can We Learn From The Drone Disruption at Gatwick Airport? Malek Murison December 28, 2018

At 9pm on Wednesday December 19th, two drones were spotted flying "over the perimeter fence and into where the runway operates from" at London's Gatwick airport. Flights were grounded. The runway reopened at 3am on Thursday morning but closed again less than an hour later after further drone sightings were reported. Britain's second-busiest airport was locked down for 36 hours. Over 1,000 flights were diverted or cancelled. Some 140,000 passengers had their travel plans disrupted.

Was there even a drone? **A**irport security, police and the military personnel that were called in to assist still don't seem to know what happened or who was responsible.

By Monday, investigating officers said there definitely had been a drone- according to 67 witness statements that include accounts from the public, plane passengers, police officers and Gatwick airport staff.

The latest developments include the discovery of a crashed drone near the airfield's perimeter on the 22nd. The unit was sent for forensic testing – as you'd expect – but the radio silence since suggests it may be just another unrelated clue in a mystery that may never be solved. https://dronelife.com/2018/12/28/gatwick-airport-drone-disruption/

Robert Rea | Axcel Innovation | Charlottesville and Portsmouth, VA
robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com

Rogue Drone Incidents Spells Good News for DroneShield Jason Reagan December 28, 2018

Recent events involving rogue drones have proven lucrative for Australian counter-drone firm DroneShield.

Following a purported assassination attempt in August against Venezuelan president Nicolas Maduro, the company received an order from an unnamed Central American government security agency for DroneShield's two cornerstone products.

- DroneSentinel is a multi-prone detection product designed to locate rogue drones. The solution is aimed at customers unable to deploy jamming because of regulatory or operational restrictions.
- DroneSentry detects and neutralizes unmanned aerial bandits using jamming technology. The product is geared toward foreign clients – the product has not been authorized by the FCC and may not be sold or leased in the U.S. because it jams radio signals.

The company received a $3.2 million order of 70 DroneGuns from an undisclosed "major Middle Eastern country allied with the Western governments. A company statement says the order was the "largest known order of its kind in the industry to date, globally.

A recent study predicts the drone mitigation (or anti-drone) market will to grow to a billion-dollar industry within six years with predicted compound annual growth rate of 23.89 percent across 2018-22. https://dronelife.com/2018/12/28/rogue-drone-incidents-spells-good-news-for-droneshield/

UK army tests eagle-inspired paragliding drone for delivering supplies DAILY NEWS, 27 December 2018 Sam Wong

Is it a bird? Is it a plane? No it's an autonomous paragliding drone

An autonomous paraglider inspired by nature could help armies resupply troops in dangerous places or deliver humanitarian aid to disaster zones. The British Army trialed the unusual aerial vehicle during a recent month-long combat exercise. Called Stork, the glider can take off and land in very tight spaces. It can fly itself to preprogrammed coordinates, using either GPS or a vision-based navigation system if GPS is not available.

Robert Rea | Axcel Innovation | Charlottesville and Portsmouth, VA
robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com

Stork's small, three-wheeled chassis has a motor for propulsion.
https://www.newscientist.com/article/2189250-uk-army-tests-eagle-inspired-paragliding-drone-for-delivering-supplies/

2Jan19

Alphabet to build quieter delivery drones following widespread noise complaints December 31, 2018 Feilidh Dwyer

A few months back we wrote this story in which residents of a suburb in Canberra complained that the X Wing delivery drones were so noisy they were making life miserable for some residents. Some who were in the flight path said the noise resembled a "chainsaw gone ballistic," and the noise makes it hard for them to relax in their homes and disturbs their pets.

Alphabet drones have been tested in Australia since 2014 and are capable of flying at speeds of up to 75 mph (120 kph). Until now, they have primarily been used to deliver food items such as burritos.

How do they plan to reduce the noise? The company has reduced the flight speed and changed the routes so the drones do not pass over the same houses all the time. They plan to do an overhaul of the drone's design ahead of their rollout in Finland, which is planned for 2019. However, with the current fleet regularly delivering items in Australia's capital, they are unlikely to immediately scrap the UAVs already in operation.

Not everyone is bothered by the sound. Some residents in Canberra have told media that they love the convenience of having items delivered to their house 10-15 minutes after ordering it.
https://www.wetalkuav.com/alphabet-try-to-make-quieter-delivery-drones/?utm_source=WeTalkUAV&utm_campaign=fe3d0b3877-RSS_EMAIL_CAMPAIGN&utm_medium=email&utm_term=0_1d410cb84d-fe3d0b3877-83642867

What a Long Government Shutdown Could Mean for the FAA – and the Drone Industry Miriam McNabb January 02, 2019

It's good news for the drone industry that ATC is operational, and that LAANC and Drone Zone continue to operate. However, the drone industry will feel

Robert Rea | Axcel Innovation | Charlottesville and Portsmouth, VA
robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com

the impact as other aerospace industries do – now and, possibly, well after the shutdown ends.

"For the FAA, this affects 17,791 positions that are not involved in the excepted "life and safety" positions. In addition to airmen certificate issuance and NextGen development, activities suspended include unmanned systems exemption, aviation rulemaking, facility security inspections, routine background checks, air traffic control specialist development, certain drug testing, dispute resolution, and air traffic performance analysis, among many others."

In practical and immediate terms, it means that any pilots hoping to test for their Part 107 will have to wait – tests will not be administered during the shutdown, and will need to be rescheduled. Part 107s that need to be renewed will also have to wait. Pilots in the field report that local FAA towers – already stretched to their limits – say that above grid LAANC authorizations won't happen for any "non-essential" drone missions. Testing programs, discussions on regulations, meetings, collaborations and all of the immense work that goes into establishing a framework for drone integration will be put to the side – and risk not being taken up again by the same people, or with the same energy, if the shutdown continues for a long period. https://dronelife.com/2019/01/02/what-a-long-government-shutdown-could-mean-for-the-faa-and-the-drone-industry/

FlightHorizon GCS Used for BVLOS Drone Tracking 31 Dec 2018 Mike Rees

Vigilant Aerospace Systems has announced that it has participated with Oklahoma State University in the first beyond visual line-of-sight (BVLOS) unmanned aerial system flights authorized under a new, unique FAA Certificate of Authorization allowing flights in a 13-mile long corridor in central Oklahoma.

The COA allows the university to waive rules requiring drone operators to keep their aircraft continuously in line-of-sight. The authorization is one of a very few such certificates in the United States and is only the second for a university. There are currently 29 similar commercial BVLOS authorizations.

The COA allows the university and partners like Vigilant Aerospace to pioneer new unmanned flight and safety systems that enable long linear inspection operations and remote surveying flights. These linear flights are required for pipeline, utility, road and bridge inspections and for monitoring remote assets like oil and gas wells and farm and ranch operations.

Robert Rea | Axcel Innovation | Charlottesville and Portsmouth, VA
robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com

Using its FlightHorizon GCS system, Vigilant Aerospace provided detect-and-avoid and airspace situational awareness services for the first 3-mile flight under the new COA. Vigilant tracked the aircraft during its 3-mile outbound and 3-mile return flight while simultaneously tracking 17 manned aircraft for display and alerting in real-time to the pilot-in-command over the duration of the 13-minute flight. https://www.unmannedsystemstechnology.com/2018/12/flighthorizon-gcs-used-for-bvlos-drone-tracking/?utm_source=Unmanned+Systems+Technology+Newsletter&utm_campaign=92c674d6d2-eBrief_2019_Jan_02&utm_medium=email&utm_term=0_6fc3c01e8d-92c674d6d2-111778317

Liteye Demonstrates UAS Net-Capture System 31 Dec 2018 Mike Rees

Liteye Systems has announced that, in partnership with OpenWorks Engineering, it has successfully demonstrated the SkyWall net-capture system against real-world UAS threats. The demonstration was performed at the U.S. Army's JIDO (Joint Improvised-Threat Defeat Organization) Hard Kill 2 event in the desert of the White Sands Missile Range, New Mexico.

During the event, the operator easily targeted the UAS using the onboard SmartScope. Once initiated, SkyWall neutralized the threat by launching a non-explosive, air powered projectile timed to deploy in front of the target and entangle it in its net. The launcher can be utilized with a range of projectiles which includes a round with net and parachute option which lowers the captured drone to the ground, or the net-only round that has a larger net against fast moving drones at greater ranges. The system will soon be fitted with auto-reload for multi-threat scenarios. Increased range and the ability to capture extremely fast-moving targets are also being addressed. https://www.unmannedsystemstechnology.com/2018/12/liteye-demonstrates-uas-net-capture-system/?utm_source=Unmanned+Systems+Technology+Newsletter&utm_campaign=92c674d6d2-eBrief_2019_Jan_02&utm_medium=email&utm_term=0_6fc3c01e8d-92c674d6d2-111778317

Velodyne Lidar Partners with Nikon for Autonomous Vision 31 Dec 2018 Mike Rees

Velodyne Lidar has announced that Nikon Corporation has become a new strategic investor with an investment of $25M, and that the two companies have begun discussions for a business alliance combining Nikon's optical technologies with Velodyne's sensor technology. Velodyne believes the relationship will advance the timeline for manufacturing and mass production of LIDAR for the autonomous and safety global market. The companies share a vision of perception technology for a range of applications including autonomous driving, robotics, mapping, security, shuttles, drones and safety on roadways.

Robert Rea | Axcel Innovation | Charlottesville and Portsmouth, VA
robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com

https://www.unmannedsystemstechnology.com/2018/12/velodyne-lidar-partners-with-nikon-for-autonomous-vision/?utm_source=Unmanned+Systems+Technology+Newsletter&utm_campaign=92c674d6d2-eBrief_2019_Jan_02&utm_medium=email&utm_term=0_6fc3c01e8d-92c674d6d2-111778317

Anti-drone market to be worth £1.8bn by 2024, new research suggests HEADLINE NEWS INTERNATIONAL INVESTMENT ALEX DOUGLAS JANUARY 2, 2019

At a CAGR of 28.8% over the six-year period, the report described rising incidences of security breaches by unidentified drones, increasing terrorist threats and illicit activities as the reasons for large-scale growth. However, it went on to outline how high research and development expenses and public safety concerns could hold it back.

The military & defense sector is expected to account for the largest share of the anti-drone market during the forecast period due to an increase in the use of drones for border trespassing, smuggling and spying. Additionally, the laser counter-drone systems market is expected to see the highest growth for the period due to development from Boeing, Lockheed Martin, Rheinmetall Defense Electronics and Raytheon.

The report also outlines how the US is likely to account for a major share of the global anti-drone market during the forecast period because of increasing risk of terror attacks.
https://www.commercialdroneprofessional.com/anti-drone-market-to-be-worth-1-8bn-by-2024-new-research-suggests/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-287319-Commercial+Drone+Professional+DNA+-+2019-01-02

Police close Severn Bridge on New Year's Eve after nearby drone activity CRIME HEADLINE NEWS ALEX DOUGLAS on JANUARY 2, 2019

Police deemed it necessary to close the Severn Bridge after a man was flying his drone nearby.

Local forces were alerted after the man had climbed a bridge, something the police believed to be a public nuisance.

Officers then discovered he was flying a drone, and the man was arrested after he voluntarily came down from his 47ft high position.

Highways England said: "The incident was quickly spotted on our security cameras and reported to police, and thankfully there was no injury or worse on this occasion. We will be undertaking

Robert Rea | Axcel Innovation | Charlottesville and Portsmouth, VA
robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com

investigations to determine if any damage was caused during the incident." https://www.commercialdroneprofessional.com/police-close-severn-bridge-on-new-years-eve-after-nearby-drone-activity/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-287319-Commercial+Drone+Professional+DNA+-+2019-01-02

Unifly investment takes total capital funding to £18.9m BUSINESS EUROPE FINANCIAL INVESTMENT NEWS ALEX DOUGLAS JANUARY 2, 2019

Unifly has raised a total of £13.1m in Series-B funding, an investment which takes the company's total up to £18.9m.

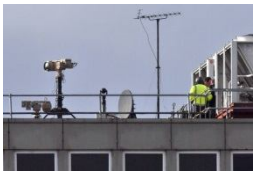
Investors in the new round of financing include existing shareholders QBIC, PMV, Terra Drone and the management, as well as the Deutsche Flugsicherung, the German National Air Navigation Service provider.

Unifly has said the proceeds will be used to continue to develop the software and to establish an international sales and support organization to solidify its global position in UTM.

Marc Kegelaers, CEO of Unifly, said: "The fact that the Deutsche Fluchsicherung, the National ANSP of Germany who has been working with our software for the last two years, participates in this round and becomes an important shareholder of Unifly is testimony to the success of our strategy." https://www.commercialdroneprofessional.com/unifly-investment-takes-total-capital-funding-to-18-9m/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-287319-Commercial+Drone+Professional+DNA+-+2019-01-02

3Jan19

Counterdrone Technologies Face Slow Ramp-Up at Airports Globally *Andy Pasztor, Robert Wall* Jan. 2, 2019



Counter-drone equipment on a rooftop at London's Gatwick airport, where pre-Christmas flights were disrupted by drone sightings

Despite world-wide concerns about unmanned aircraft buzzing around airports, suppliers of commercial drone-detection equipment generally have been looking elsewhere for sales.

With aviation authorities in the U.S., U.K. and other countries urging a go-slow approach to deploying such systems until regulations are in place, industry officials say military facilities,

Robert Rea | Axcel Innovation | Charlottesville and Portsmouth, VA
robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com

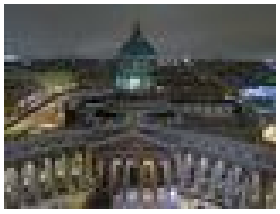
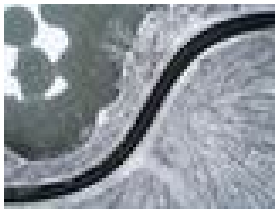
correctional institutions and stadiums currently are the primary customers for civilian technologies to track and deter unauthorized drones.

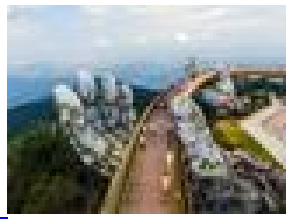
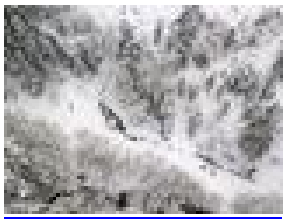
Air-safety regulators are worried that counter-drone systems designed to jam radio communications also could interfere with legitimate airport equipment and operations.

In the U.S., according to industry officials, the Federal Communications Commission's reluctance to authorize sales of hardware able to disrupt radio links has hobbled growth of the nascent counter-drone industry. Only a handful of U.S. airports have drone-detection programs underway, and nearly all are in the testing phase.

Congress, however, has instructed the Federal Aviation Administration to develop a strategy to permit wide use of counter-drone technologies across airports.
https://www.wsj.com/articles/counterdrone-technologies-face-slow-ramp-up-at-airports-globally-11546283774

What you can see with a drone: Amazing photographs USA Today

https://www.usatoday.com/picture-gallery/tech/news/2018/07/03/what-you-can-see-with-a-drone-amazing-photographs/36581467/

Drones Used to Find Toylike "Butterfly" Land Mines Jeremy Hsu December 28, 2018

A type of land mine called the "butterfly" has a particularly insidious reputation for two reasons: It is known for killing or crippling children who may pick up what looks a lot like a green plastic toy, and its mostly non-metallic construction means it often

evades traditional mine detectors. Butterfly mines' light-touch detonators go off easily if stepped on by a fighter—or farmer—and their relatively small charge often maims people without immediately killing them. More than a million Russian-made PFM-1 land mines—the most common butterfly type—still litter Afghanistan after decades of conflict.

"The only way to clear mines is to poke every inch of the ground," says Alex Nikulin, assistant professor of energy geophysics at Binghamton University in New York. "But we can tell you where to poke."

Nikulin and his team are basing their strategy on the fact that plastic heats up and cools down differently than the surrounding soil. By conducting flight tests around sunrise and sunset, when temperatures can rapidly change, the researchers showed that inert PFM-1 land mines lying on the ground become clearly visible in thermal imagery captured by the drone camera and displayed on a laptop. They presented their work at the annual meeting of the American Geophysical Union, held in Washington, D.C., in December.
https://www.scientificamerican.com/article/drones-used-to-find-toylike-butterfly-land-mines/?utm_source=newsletter&utm_medium=email&utm_campaign=weekly-review&utm_content=link&utm_term=2019-01-02_top-stories&spMailingID=58154248&spUserID=NTQxMjY1ODQxNTES1&spJobID=1560242529&spReportId=MTU2MDI0MjUyOQS2

PA Adopting Drone Law on Preemption, 'Peeping Tom' Betsy Lillian January 2, 2019

Pennsylvania Gov. Tom Wolf

A new drone law regarding privacy invasions and the prohibition of local drone regulations will soon take effect in Pennsylvania.

On Oct. 12, 2018, Gov. Tom Wolf, D-Pa., signed into law H.B.1346 which is designed to protect the public by increasing the criminal penalties for using unmanned aircraft systems to spy on or conduct surveillance of someone in a private place. The bill is designed to combat "peeping tom" drones.

The legislation makes using an unmanned aircraft to conduct surveillance of another person in a private place or to place another person in reasonable fear of bodily injury a summary offense – i.e., a fine of up to $300. Further, using an unmanned aircraft to deliver, provide, transmit or furnish contraband to a person in a prison or in a mental hospital is a felony of the second degree. The bill includes exceptions for law enforcement officials, first responders, utility companies and some government employees.

The bill also "shall preempt and supersede any ordinance, resolution, rule or other enactment of a municipality regulating the ownership or operation of unmanned aircraft." https://unmanned-aerial.com/pa-adopting-peeping-tom-regulation-preemption-drone-law?utm_medium=email&utm_source=LNH+01-04-2019&utm_campaign=UAO+Latest+News+Headlines

North Dakota Partners Demo Milestone UAS Network for BVLOS Flights

Betsy Lillian January 2, 2019

On Dec. 21, the University of North Dakota along with research partners from Harris Corp. and the Northern Plains Unmanned Aircraft Systems Test Site, achieved its first successful tests of a multi-user, multipurpose network for commercial unmanned aircraft systems

The Harris UAS Network, which combines detect-and-avoid capabilities developed at UND and UAS technology solutions from Harris, is a system of integrated ground infrastructure that helps commercial drones fly beyond the visual line of sight.

The new North Dakota network keeps watch over a 55-mile-long corridor between Grand Forks and Fargo, representing the drone industry's first-ever implementation of wide-area, multi-user UAS BVLOS airspace. The flights tested the Harris UAS Network's ability to provide UAS pilots with airspace awareness. The network is enhanced by locally deployed sensors for cooperative and non-cooperative (radar) surveillance as well as integration of the Federal Aviation Administration's NextGen UAS surveillance data feed.

Gov. Doug Burgum, R-N.D., recently announced a $30 million proposal to build out infrastructure that would support BVLOS operations for drones across North Dakota. https://unmanned-aerial.com/north-dakota-partners-demo-milestone-uas-network-for-bvlos-flights?utm_medium=email&utm_source=LNH+01-04-2019&utm_campaign=UAO+Latest+News+Headlines

Fairfax County Plans Public Safety UAS Program

Betsy Lillian January 2, 2019

In an announcement issued today, the county says it is seeking input from residents on the proposed program. To do so, it is hosting six public information meetings throughout the county this month.

Each meeting will include a display of drones and a presentation outlining the program. There will be an opportunity to ask questions from representatives of

Robert Rea | Axcel Innovation | Charlottesville and Portsmouth, VA
robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com

the Office of Emergency Management, County Attorney's Office, Police and Fire & Rescue Departments. Feedback can also be sent to uas@fairfaxcounty.gov or through the county's informational site on the UAS program.

According to a draft of the program, the county would deploy UAS for situations such as search and rescue, flooding assessment, pre- and post-disaster damage assessment, crash reconstruction, fire incident/scene management and investigation, hazardous materials response and wildlife estimation. https://unmanned-aerial.com/fairfax-county-plans-public-safety-uas-program?utm_medium=email&utm_source=LNH+01-04-2019&utm_campaign=UAO+Latest+News+Headlines

Access for New Drone Surveying Solution Betsy Lillian January 3, 2019

Ventura, Calif.-based Apollo Robotics, a provider of autonomous drone solutions for land surveying, has announced the availability of early access with its development partner program.

The new program is designed to deliver an automated surveying platform for professionals. By combining LiDAR, HD and thermal cameras with artificial intelligence, Apollo can quickly digitize and reconstruct worksites into a 3D model from a single scan.

Apollo says it has secured more than $2 million in pre-order purchase commitments and is now launching the program. Participants can purchase the drone for $53,800. Other benefits for development partners include free delivery and training, free software upgrades and reduced subscription rates for data platform services. https://unmanned-aerial.com/apollo-robotics-launches-early-access-for-new-drone-surveying-solution?utm_medium=email&utm_source=LNH+01-04-2019&utm_campaign=UAO+Latest+News+Headlines

K-State Holding Informational UAS Webinar on Jan. 15 Betsy Lillian January 3, 2019

Kansas State University Polytechnic Campus is offering a free unmanned aircraft systems webinar and live question-and-answer session to discuss safety practices, flying rules and regulations, and other tips for operating a drone.

The webinar is being held at 7:30 p.m. CST on Tuesday, Jan. 15. K-State will discuss, for example, the difference between hobby

and commercial UAS operations and which applies to you, safety considerations when operating your UAS, and important Federal Aviation Administration rules and regulations to ensure compliance.

The webinar is free, but registration is required. Contact Kansas State Polytechnic Professional Education and Outreach with questions at 855-552-0079. https://unmanned-aerial.com/k-state-holding-informational-uas-webinar-on-jan-15?utm_medium=email&utm_source=LNH+01-04-2019&utm_campaign=UAO+Latest+News+Headlines

2019 Predictions for the Commercial Drone Industry with Anil Nanduri Jeremiah Karpowicz January 3, 2019

Security and counter-drone solutions are going to be major themes for the drone industry in 2019. Intel has taken the lead in defining what these efficiencies can look like in 2019. To get a better understanding of what those changes could look like, we talked with Anil Nanduri, VP & GM for the Intel Drone Group.

Anil Nanduri: We are seeing increased collaboration within the industry and the FAA on complex flight missions that are not initially covered within Part 107. Ongoing testing and proving out night missions, BVLOS, remote ID, UTM, command and control technologies, and obstacle avoidance technologies are critical for carrying out automated missions in a safe way.

The integration of hardware and software solutions is critical for commercial drone use across individual operators and large organizations alike. There is also a large opportunity for artificial intelligence to extract intelligence from data through analytics. Additionally, streaming solutions and cloud-based visual and data management platforms will amplify the efficiencies and benefits that commercial drone technology already provides.

At Intel, we are excited about the prospect of seeing drones deployed across a myriad of industries such as utilities, construction, oil & gas, and insurance. Along with wider adoption of technologies that further automation of mission planning, data collection, data management, processing and analytics, will all help trigger business transformation for operators both small and large.

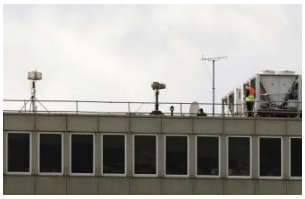
In 2019, we expect to see a continued partnership between the commercial drone industry and regulatory/policy makers. This open and collaborative relationship will advance safety in the skies so that UAS and manned aircraft can co-exist. https://www.expouav.com/news/latest/2019-predictions-commercial-drone-industy-anil-

nanduri/?utm_source=marketo&utm_medium=email&utm_campaign=newsletter&utm_content=newsletter&mkt_tok=eyJpIjoiTURGbU1UbGpNVEJrTURabCIsInQiOiJ4TGZ1NjUzakZPdFZSUitPbG1oaTBqZjV3eTcrNnZmNEYreDF3TjA0bVI5bFdlSW9PRXRHOGhqcWs0akpQQjRqNXZXZmprMnA4Z1ZreWJQZitINlV0azVaRmUwdmFrOUpkMlpNZlIXRENmN0V0bW5rQktkTHk1WDVWSGxNUkhwYSJ9

UK Ministry of Defence Withdraws Military Counter-Drone Tech From Gatwick

Malek Murison January 03, 2019

The UK's Ministry of Defence has withdrawn military personnel and equipment from London's Gatwick airport. The measures were deployed after drone sightings near the airfield grounded air traffic and led to 1,000 flight cancellations over the course of 36 chaotic hours.



Sussex Police are still investigating "relevant sightings" from 115 witnesses – 93 of whom are described as "credible". These include airport staff, police officers and a pilot. However, Chief Constable Giles York has admitted that some of the drones spotted may have been those the police were using to investigate the area.

Gatwick Airport has now invested £5m in counter-drone systems to prevent future attacks. Understandably, airport officials would not comment on the nature of the systems. But we'd imagine they've tried to cover as many bases as possible with as many technologies as possible.
https://dronelife.com/2019/01/03/uk-ministry-of-defence-withdraws-military-counter-drone-tech-from-gatwick/

Local community uses drone to rescue deer from icy pond APPLICATION DRONES AT WORK HEADLINE NEWS ALEX DOUGLAS JANUARY 3, 2019

The group involved, which included a 17-year-old, her grandfather and a 19-year-old neighbor, was able to fly the device in such a way that allowed them to herd the deer back to safe and dry land in Upstate New York.

The group used a canoe and shovels to clear a path in the ice which the deer could swim through once guided by the drone.

Describing the event to the local news outlet, the girl who first noticed the deer, said: "I just kept chipping bits off, after a couple hours-worth of work, a path was formed. The chipping of the ice scared the deer farther into the center of the pond."

Then, due to the deer being reluctant to move from its position, 19-year-old Casey Hargrave came up with the idea of using his drone to shepherd it to safety. He said: "I put my drone up in

Robert Rea | Axcel Innovation | Charlottesville and Portsmouth, VA
robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com

the air, and we flew it over in that direction. I tried to nudge it and scare it I the direction toward the shoreline." https://www.commercialdroneprofessional.com/local-community-use-drone-to-rescue-deer-from-icy-pond/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-287391-Commercial+Drone+Professional+DNA+-+2019-01-03

4Jan19

FAA to speed up drone ID process with new test program FAA NEWS REGULATION

ALEX DOUGLAS JANUARY 4, 2019

Paid for by drone industry parties, the program sets out to create eight company-financed prototype projects to look at different options. The aim is to verify technologies and provide real-world data to accelerate broader regulatory steps intended to expand commercial uses of unmanned aircraft.

Due to lack of simplicity in drone identification, US authorities have resisted the urge to open up large amounts of airspace to the industry meaning the commercial and professional marketplace is being held back.

The WSJ went on to detail that one of the main questions that still must be answered is whether drones will broadcast positions using cellphone signals or use more extensive internet networks. https://www.commercialdroneprofessional.com/faa-to-speed-up-drone-id-process-with-new-test-program/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-287527-Commercial+Drone+Professional+DNA+-+2019-01-04

WeTalkUAV's biggest drone stories and videos of 2018 January 2, 2019 Feilidh Dwyer

Our most read stories of 2018

THE GOOD

Whether it be saving human or animal lives, helping put out fires or assisting nature – UAVs are helping the world in all sorts of ways.

Drone with thermal imaging camera locates assault victim

Robert Rea | Axcel Innovation | Charlottesville and Portsmouth, VA
robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com

DJI Report 65 lives were saved by drones in the previous year

Firefighting drones helping to combat US wildfires

Amazing documentary shows all the ways drones are changing the world

This short doco produced by Dutch design and architecture publication, Dezeen, interviews futurists, architects and other experts about positive and negative implications that UAVs are having on cities today. Called Elevation, it's on YouTube and you can watch it here.

THE BAD

The attempted assassination of Venezuelan President using DJI drones

Although the drones missed their target due to military signal jammers, the possibility of consumer drones being used to kill someone was something that came up several times this year (read about Elon Musk's warning regarding Slaughterbots)

Drones cause chaos at Gatwick Airport – or did they?

When it comes to rogue drones, we had plenty of stories about drone killer devices or US police departments obtaining their own drones for to respond.

Killer drones and surveillance

Considering all consumer drones exist thanks to their original invention as weapons of war, it's remarkable that consumer drones haven't been used in more attacks.

Robert Rea | Axcel Innovation | Charlottesville and Portsmouth, VA
robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com

Elon Musk's dire warning about killer drones

It's unfortunate but not surprising that some people use their drone to spy on others. This was our most read story of the year.

The problem of 'peeping tom' drones

Drones still sit outside of mainstream culture

'What are you talking about?' – you may be thinking. 'I know loads of people who own drones.' That may well be but as at the beginning of 2018, the FAA reported around 1 million drones registered in the United States. This included 878,000 for hobbyists and 122,000 in the commercial sector. That number is predicted to grow to 3.1 million in 2021.
https://www.wetalkuav.com/biggest-wetalkuav-stories-of-2018/?utm_source=WeTalkUAV&utm_campaign=4ca8f56050-RSS_EMAIL_CAMPAIGN&utm_medium=email&utm_term=0_1d410cb84d-4ca8f56050-83642867

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