



## UAS and SmallSat Weekly News

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### Southampton-based Motion Robotics launches three new drones with innovative motor tech BUSINESS EVENTS INNOVATION MANUFACTURER NEWS UK DRONE SHOW ALEX DOUGLAS DECEMBER 21, 2018



Motion Robotics has unveiled three new products, two aerial drones and one land drone. The firm has been developing the technologies for the past two years, with a high percentage of the R&D costs having been supported by the UK Government Innovate program.

Aiming to surpass current motor technologies, the Motion Robotics team came up with what is called a Circumferential Flux Motor (CFM). "The CFM design **scales up very well**, so that while the benefits of its use in smaller drones is the same as existing motors, when used in larger drones above the 2KW level, the CFM has full superiority."

"It has a higher leverage design, similar to axial motors providing higher torque at size. However, apart from that, the axial and flux designs do not compare. As there are no steel laminations the CFM is lighter, has low high-frequency inductance and exhibits zero cogging. This also means the motor has zero eddy current loss and smoother performance."

See more of CDP's trip to the NEC here: [https://www.commercialdroneprofessional.com/southampton-based-motion-robotics-launches-three-new-drones-with-innovative-motor-tech/?utm\\_source=Email+Campaign&utm\\_medium=email&utm\\_campaign=45819-286761-Commercial+Drone+Professional+DNA++2018-12-21](https://www.commercialdroneprofessional.com/southampton-based-motion-robotics-launches-three-new-drones-with-innovative-motor-tech/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-286761-Commercial+Drone+Professional+DNA++2018-12-21)

### CONTINUING BREAKING NEWS: The "Drone Chaos" at Gatwick Airport – and the Effects on the Commercial Drone Industry Miriam McNabb December 21, 2018



It's a terrible example of what one bad actor can do. For the third day in a row, Gatwick Airport was forced to cancel hundreds of flights and ruin the holiday plans for more than 100,000 passengers – all due to the appearance of unauthorized drones on the runway. As of Friday morning Gatwick has reopened – but nobody knows for how long.



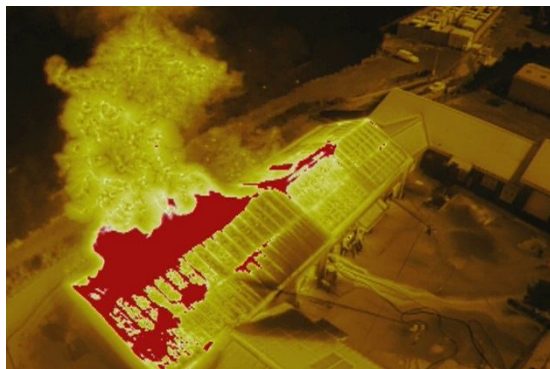
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British authorities have indicated that they don't suspect state actors of causing the shutdown, but are looking at the possibility of "highly organized crime" or, some speculate, environmental protestors.

In any case, the drone "attack" – while the drones weren't weaponized, their mere presence was sufficient to shut down a significant piece of U.K. infrastructure – has caused a situation accurately described by many news outlets as "**chaos**." Police, security services, and military personnel have been called in to help capture the drone operator: drone mitigation tools ranging from sophisticated technology to sniper rifles have been deployed at untold cost to airlines and the British taxpayer. <https://dronelife.com/2018/12/21/continuing-breaking-news-the-drone-chaos-at-gatwick-airport-and-the-effects-on-the-commercial-drone-industry/>

### **DJI and FLIR unveil Mavic 2 Enterprise Dual to make thermal imaging mobile**

BUSINESS EVENTS HEADLINE NEWS INTERNATIONAL ALEX DOUGLAS DECEMBER 21, 2018



The Mavic 2 Enterprise Dual aims to enable users to measure temperatures and conveniently store images and temperature data for efficient reporting and analysis, adding immediate value to a range of industrial or time-sensitive operations today from utility inspections to emergency response.

The Mavic 2 Enterprise Dual features a three-axis gimbal stabilized camera housing a side-by-side 4K sensor for capturing visible light and a FLIR Lepton thermal micro-camera for **capturing thermal data**.

Together, these sensors allow pilots to perform flights at night, as well as fly in complex daytime conditions like fog and smoke. [https://www.commercialdroneprofessional.com/dji-and-flir-unveil-mavic-2-enterprise-dual-to-make-thermal-imaging-mobile/?utm\\_source=Email+Campaign&utm\\_medium=email&utm\\_campaign=45819-286761-Commercial+Drone+Professional+DNA+-+2018-12-21](https://www.commercialdroneprofessional.com/dji-and-flir-unveil-mavic-2-enterprise-dual-to-make-thermal-imaging-mobile/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-286761-Commercial+Drone+Professional+DNA+-+2018-12-21)



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### Ability To Stop Drone Attacks In U.S. Is Lacking, And It's The Legal Vision As Much As The Tech

EDITOR'S PICK Dec 21, 2018 Jonathan Rupprecht Contributor Aerospace & Defense



*A passenger rolls away a sleeping aid as she sits with her luggage at London Gatwick Airport on Friday as flights started to resume following the closing of the airfield due to a drone incursion.*

The Gatwick Airport drone incident has raised sudden awareness of the need for counter-drone technology, but just as important as the current lack of good solutions, the U.S. also has not yet developed the legal strategy and training to enable law enforcement and prosecutors to respond to these types of events and appropriately prosecute the perpetrators.

Current counter-drone techniques have major drawbacks. There are two types: detectors and defenders. Detectors use different methods (radar, radio waves). Defenders disrupt or destroy the unmanned aircraft using all sorts of creative technology: shotgun shells; jammers that disrupt the radio frequency signals between the drone and the pilot; GPS signal spoofers, which allow taking over control of the drone; lasers; and even trained eagles.

While some of these techniques have been used effectively by the military in war zones and by intelligence agencies, such as jamming and GPS spoofing, they have been made illegal for unauthorized use by law enforcement in the U.S. due to the collateral damage that they could cause. In using a jammer to take down a drone, it would also disrupt the use of that radio frequency spectrum in a wide area for a host of important functions, interfering with Wi-Fi and cellular communication signals and airport navigation aids, and potentially resetting equipment for power companies. Use of projectiles or lasers to take a drone down raises risks of harming bystanders and damaging nearby property.

But can anyone do anything to stop these drones? Yes, multiple federal laws have been passed within the last two years to give the authority to use counter-drone measures to the Department of Homeland Security, Department of Justice, U.S. Coast Guard, Department of Energy and Department of Defense. But even with these new laws, there will still be a need to determine safe and effective rules of engagement against misused drones. DHS and DOJ will be working on this quickly in light of the events at Gatwick.

<https://www.forbes.com/sites/jonathanrupprecht/2018/12/21/gatwick-airport-drone-shutdown-counter-drone-technology-law/#5274483853ad>



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### UK army said to use Israeli-made system to end drone chaos at London airport

TOI STAFF and AGENCIES 21 December 2018



*A drone that was grounded using Rafael's 'Drone Dome' system.*

The British military reportedly used an Israeli anti-drone system to ground an unmanned aerial vehicle that shuttered the airfield at London's Gatwick Airport for over 36 hours beginning Thursday, stranding tens of thousands of passengers.

The Daily Mail [reported](#) that the British Army used the Israeli-made "Drone Dome" to bring down the UAV after police failed for hours to do so with a commercial anti-drone system.

The Drone Dome can use its electro-optical sensors to jam the radio frequencies being used by the drone's operator to control it, making the UAV inoperable and bringing it down in a so-called "[soft-kill](#)." The system also has a laser that can melt drones, but the Daily Mail said this technology was not purchased by Britain.

The British military on Thursday joined police and aviation authorities in the search for the culprit or culprits behind the drone intrusion, which police said was designed to cause maximum disruption over the holiday period.

Grayling, the transportation minister, said there had been about 40 sightings of "a small number of drones" while the airport was shut down. He told the BBC the drone disruption at Gatwick was "[unprecedented anywhere in the world](#)." The last confirmed drone sighting was at 10 p.m. Thursday. <https://www.timesofisrael.com/uk-army-said-to-use-israeli-made-system-to-end-drone-chaos-at-london-airport/>

### FPT Supports Forvola Breaking Guinness World Record of Heaviest Load Carried by Drone December 21, 2018



*Forvola's megadrone lifted a box full of Industrial spare parts weighing 101 kg to a height of almost 1.5 m for more than 1 minute and 3 seconds, breaking the previously held record.*

**It broke the Guinness World Record for the heaviest payload lifted by a drone** during FPT Industrial's Tech Day event in

Turin, Italy, on November 23. Forvola's megadrone, with its 16 propellers, lifted a box full of FPT





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Industrial spare parts weighing 101 kg to a height of almost 1.5 meters for more than 1 minute and 3 seconds. The record was officially certified by Guinness World Records on December 6, 2018. The previous record belonged to the University of Oslo, Norway, whose drone lifted 61 kg to a height of 1 m for 37 seconds in 2015.

Forvola's drone is the world's first customizable megadrone currently on the market. It has a power of 10-20 kW, can carry weights up to some 200 kg and fly for 30 minutes or more, depending on the payload. [https://uasweekly.com/2018/12/21/fpt-supports-forvola-breaking-guinness-world-record-of-heaviest-load-carried-by-drone/?utm\\_source=newsletter&utm\\_medium=email&utm\\_campaign=uasweekly\\_daily\\_newsletter\\_2018\\_12\\_18&utm\\_term=2018-12-21](https://uasweekly.com/2018/12/21/fpt-supports-forvola-breaking-guinness-world-record-of-heaviest-load-carried-by-drone/?utm_source=newsletter&utm_medium=email&utm_campaign=uasweekly_daily_newsletter_2018_12_18&utm_term=2018-12-21)

## ANSI Standardization Roadmap for Unmanned Aircraft Systems Published

December 21, 2018



The [American National Standards Institute](#) announced today the publication of the [Standardization Roadmap for Unmanned Aircraft Systems \(Version 1.0\)](#). The roadmap was developed by the Institute's [Unmanned Aircraft Systems Standardization Collaborative](#), a group established to coordinate and accelerate the development of the standards and conformity assessment programs needed to facilitate the safe integration of unmanned aircraft systems into the national airspace system. Over 300 individuals from some 175 public- and private-sector organizations supported the document's development, including representatives of the Federal Aviation Administration, additional federal government agencies, standards developing organizations, industry, academia, and others.

This roadmap represents the culmination of the UASSC's work over the last 15 months to identify existing standards and standards in development, assess gaps, and make recommendations for priority areas where there is a need for additional standardization including pre-standardization research and development. Topical areas covered include airworthiness; flight operations; personnel training, qualifications, and certification; and specific operations for critical infrastructure inspections, commercial services, and public safety. For more information, visit [www.ansi.org/uassc](http://www.ansi.org/uassc). [https://uasweekly.com/2018/12/21/ansi-standardization-roadmap-for-unmanned-aircraft-systems-published/?utm\\_source=newsletter&utm\\_medium=email&utm\\_campaign=uasweekly\\_daily\\_newsletter\\_2018\\_12\\_18&utm\\_term=2018-12-21](https://uasweekly.com/2018/12/21/ansi-standardization-roadmap-for-unmanned-aircraft-systems-published/?utm_source=newsletter&utm_medium=email&utm_campaign=uasweekly_daily_newsletter_2018_12_18&utm_term=2018-12-21)



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### Winter is coming – a 2019 forecast for the commercial drone and UTM industries

December 24, 2018 Philip Butterworth-Hayes Commentary



If the global economic trends of the last six decades continue, then in the next 18 months, there will be a major recession among Western economies. Will this act as a catalyst or a brake to the commercial drone industry? It depends how fast the operational and regulatory foundations to beyond visual line of sight commercial operations can be built in the key markets of North America, Europe and Pacific Rim countries.

The recent events at London Gatwick airport will have underlined the drone industry's threats, rather than opportunities, to many governments. But Gatwick could be an opportunity as well as a threat.

The commercial drone sector needs all the help it can get – it is growing spasmodically but it is made up of thousands of very small companies making very small profits, if at all, and is therefore extremely vulnerable to a downturn in market demand.

At least four countries in Europe and several other countries outside Europe are planning to introduce UTM systems to support commercial BVLOS operations in 2020, though these plans are vulnerable to further drone incursion events.

If the commercial drone industry and its service sectors are to thrive during the coming long winter, it may not have time to wait for new regulations. Instead, all sides of the industry should concentrate on developing and **improving risk assessment methodologies** which will allow regulators to rubber stamp more BVLOS operations under current or imminent regulations. They should work collectively, closely and cleverly on this and the work should start now. Philip Butterworth-Hayes <https://www.unmannedairspace.info/commentary/winter-coming-2019-forecast-commercial-drone-utm-industries/>



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### Here's the Latest on the Gatwick Drone Disruption: Damaged Drone Being Tested for DNA Evidence Miriam McNabb December 24, 2018



Some news outlets still identify the drone operators as “Eco-terrorists.” Others mention organized crime. One police chief suggested that the flying object causing complete chaos at Gatwick Airport last week might not even have been a drone. The U.K. government and military, airport authorities and law enforcement have all committed major resources to the crime: but so far, we have very few answers about who was responsible for last week’s disruptions.

**What Happened?** England’s second busiest airport was closed down last Wednesday, December 19, when pilots and airport officials spotted drones “buzzing” over the runways. In order to avoid a collision, flights were canceled. Flights were finally resumed on Friday. Despite a significant military and police presence, the operator was not caught nor were the drones captured: they simply disappeared, having caused maximum disruption to Britain’s air transportation system during the busiest travel season of the year.

**The Search Continues** The military presence at Gatwick to secure the runways continues – and so does the search for a culprit. Yesterday, authorities revealed that they have found parts of a damaged drone near the airport. The damaged aircraft is being examined by forensic experts for both digital and DNA evidence that might link the drone to an operator.

<https://dronelife.com/2018/12/24/heres-the-latest-on-the-gatwick-drone-disruption-damaged-drone-being-tested-for-dna-evidence/>

### New Drone Security Solution Launched 21 Dec 2018 Mike Rees



[Airspace Systems](#) has announced the introduction of Airspace Galaxy, a family of automated, always-on airspace security solutions. The platform combines input from multiple sensors to detect drone activity at long ranges, identifies authorized and unauthorized flights, assesses risk, and deploys an autonomous mitigation system to safely capture and remove an unauthorized or malicious drone.

Sensors detect anomalies operating from ground level to 400-feet and beyond, and cover up to a 25-mile radius. Detection includes: radio frequency sensors that use drone-to-operator communication links to identify a drone’s unique identifier and launch location, a camera array to minimize false alarms and improve localization, and communication alerts to the operator.





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Data from multiple sensors are combined into a graphical user interface coupled with artificial intelligence and machine learning to create actionable intelligence for the system to handle automatically or with human override. Users can log in from a browser on their desktop or mobile device to see all pertinent information.

The interceptor drone is released with a single click. Using guidance systems and AI, it locks onto identified rogue drones and heads them off at high speed without human guidance. The interceptor fires a Kevlar net to capture unauthorized or malicious drones and delivers them to a safe place, preventing damage to either people or property.

<https://www.unmannedsystemstechnology.com/2018/12/new-drone-security-solution-launched/>

## DRONE-MOUNTED LEDS SHINE A LIGHT ON HOW GLACIERS MELT



Last July, photographer [Reuben Wu](#) and a crew of around 30 people hiked from the Peruvian city of Huaraz, nestled in the Cordillera Blanca region of the Andes, to the 16,000-foot-high Pastoruri glacier. The hike took around four hours and the crew arrived after sunset, finding the melting glacier lit only by a full moon.

Rather than shoot the disintegrating parts of the glacier, Wu chose to highlight what majesty remained. He used a drone

equipped with a blue LED light to illuminate the face of the glacier while leaving the rest of the landscape in darkness. The resulting photographs reveal a forbidding, alien landscape bathed in a mysterious blue glow. It's a landscape that no longer exists, according to Wu, who has been monitoring the glacier's disintegration through the Instagram posts of tourists. "Huge chunks which you can see at the front of the glacier are no longer there," he says. "In 10 years I think it will probably be gone." <https://www.wired.com/story/peru-glacier-melting-photograph/>



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### **UPDATE: Couple released without charge in Gatwick Airport drone case, Gatwick to spend \$9 million on upgrades** December 25, 2018 Feilidh Dwyer



[The Guardian](#) reports that the couple, a 47-year-old man and 54-year-old women were released due to their “cast-iron, watertight alibi.” The pair, who were held by police for a marathon 35 hours, may now seek compensation from various media outlets for damages after multiple British newspapers identified them, despite their not being charged

with anything.

Gatwick Airport, which is located 30 miles south of London, was closed for some 36 hours between December 19 and 21 due to repeated witness sightings of a drone or drones flying around the airport. The incident caused disruption to around 1000 flights, delayed approximately 150,000 passengers and cost Gatwick Airport millions of pounds.

According to the [New York Times](#), the couple were arrested, in part, due to both living in a district near the airport and the husband having a Facebook profile page suggesting he was a drone hobbyist.

**Gatwick Airport has spent \$9 million to upgrade their airport to prevent any further drone incidents.** The equipment as part of this upgrade is likely to include signal jammers and [drone killer devices](#).

There was some reporting in media that **perhaps, no drone ever flew at Gatwick Airport**. Some of our readers pointed out that it seemed unlikely that a drone could fly in such a public location and not be caught on camera, video or one of the airport’s many CCTV cameras.

[https://www.wetalkuav.com/couple-released-without-charge-in-gatwick-airport-drone-case/?utm\\_source=WeTalkUAV&utm\\_campaign=b32352c704-RSS\\_EMAIL\\_CAMPAIGN&utm\\_medium=email&utm\\_term=0\\_1d410cb84d-b32352c704-83642867](https://www.wetalkuav.com/couple-released-without-charge-in-gatwick-airport-drone-case/?utm_source=WeTalkUAV&utm_campaign=b32352c704-RSS_EMAIL_CAMPAIGN&utm_medium=email&utm_term=0_1d410cb84d-b32352c704-83642867)

### **IAI’s ELTA Drone Guard Counter-Drone System Offered to Gatwick Airport for Immediate Placement** December 24, 2018 Counter UAS



The Drone Guard Counter-Drone System, produced by ELTA Systems, a division and subsidiary of Israel Aerospace Industries, was offered to the Gatwick Airport Authorities on Friday for immediate placement in the airport. Already proven in foiling

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several drone incursions into closed airspace during the recent G20 summit in Argentina, ELTA's Drone Guard is globally **the most sold anti-drone system** for military, homeland security and civilian applications.

With hundreds of units already operational across the world, the system includes a compact radar system, Electro Optical system, jammer and Communication Intelligence system as well as a Take-Over capability for neutralizing threats. [https://uasweekly.com/2018/12/24/iais-elta-drone-guard-counter-drone-system-offered-to-gatwick-airport-for-immediate-placement/?utm\\_source=newsletter&utm\\_medium=email&utm\\_campaign=uasweekly\\_daily\\_newsletter\\_2018\\_12\\_18&utm\\_term=2018-12-24](https://uasweekly.com/2018/12/24/iais-elta-drone-guard-counter-drone-system-offered-to-gatwick-airport-for-immediate-placement/?utm_source=newsletter&utm_medium=email&utm_campaign=uasweekly_daily_newsletter_2018_12_18&utm_term=2018-12-24)

### Indonesia tsunami: Rescuers use drones as dozens still missing 20 hours ago Eko Siswono Toyudho/Anadolu



*Authorities said rescuers were working round the clock to reach six villages, currently inaccessible by road. At least 154 people are still missing*

Rescuers in [Indonesia](#) are using drones and sniffer dogs to search for survivors after a powerful [tsunami](#) devastated the shorelines of the islands of Java and Sumatra and killed more than 400 people.

Military and volunteer teams on Tuesday **deployed drones** to assess the extent of the damage along the west coast of Java island, but torrential rains hampered rescue efforts.

Food, water, blankets and medical aid are trickling in to remote areas via inland roads choked with traffic. Thousands of people are staying in tents and temporary shelters like mosques or schools, with dozens sleeping on the floor or in crowded public facilities.

<https://www.aljazeera.com/news/2018/12/indonesia-tsunami-rescuers-drones-dozens-missing-181225185002305.html>

### One Company's Story about Drone Delivery in India Harry McNabb December 26, 2018



Drones have finally inched closer to commercialization in India this year. The country's 'Drone Regulations 2.0' policy is considered a **landmark** in federal regulations for the drone industry. From taxis to delivery vehicles, the latest policy paves the way for a range of drone applications that can integrate into existing airspace. The regulations are scheduled to go into effect in March 2019.



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While delivery of critical supplies such as blood plasma has been around for a while in many countries, the second tier of delivery – consumer goods – is further off. In India as with many countries, the technology has outpaced regulations that would allow implementation.

Drone Delivery as a segment is increasingly important, both for critical goods such as medical supplies and for consumer goods by major providers such as Amazon [here](#), and Google [here](#). One of the first efforts towards using drones for commercial deliveries is being made by Zomato which recently acquired a Lucknow-based start-up [TechEagle Innovations](#). Zomato is an Indian restaurant search service, founded in 2008 and currently operating in 24 countries. Zomato provides restaurant menus, reviews, and information about restaurants of all kinds. A robust restaurant database and drone delivery combination could lead to a game changer in the world of takeout. <https://dronelife.com/2018/12/26/dronelife-exclusive-interview-one-companys-story-about-drone-delivery-in-india/>

27Dec18

### Oklahoma State, Vigilant Aerospace Kick off BVLOS Drone Research Betsy Lillian December 26, 2018



A Federal Aviation Administration Certificate of Authorization allows the university and partners, such as Vigilant Aerospace, to conduct long, linear inspections and remote surveying flights in a 13-mile corridor in central Oklahoma.

Using its FlightHorizon GCS system, Vigilant Aerospace provided detect-and-avoid and airspace situational awareness services for a three-mile flight under the new COA. Originating from OSU's Unmanned Aircraft Flight Station near Stillwater, Okla., the flight was completed by OSU's Unmanned Systems Research Institute using a fixed-wing Anaconda drone.

Vigilant Aerospace used FlightHorizon to track the aircraft during its three-mile outbound and three-mile return flight while simultaneously tracking 17 manned aircraft for display and alerting the pilot-in-command. The flights were controlled from a ground control station linked to an on-board autopilot, and **visual observers followed the aircraft** in a motor vehicle.

Ultimately, Vigilant Aerospace plans to integrate new sensors into the flights, such as micro-radar and use its new automatic detect-and-avoid system on board the aircraft.

[https://unmanned-aerial.com/oklahoma-state-vigilant-aerospace-kick-off-bvlos-drone-research?utm\\_medium=email&utm\\_source=LNH+12-27-2018&utm\\_campaign=UAO+Latest+News+Headlines](https://unmanned-aerial.com/oklahoma-state-vigilant-aerospace-kick-off-bvlos-drone-research?utm_medium=email&utm_source=LNH+12-27-2018&utm_campaign=UAO+Latest+News+Headlines)



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### FAA Seeks Candidates for Drone Advisory Committee Betsy Lillian December 26, 2018



The Federal Aviation Administration is [seeking](#) candidates to serve on its Drone Advisory Committee which is designed to provide an open venue for the agency and other stakeholders to identify and recommend consensus-based resolutions for issues related to the integration of unmanned aircraft systems into national airspace.

The FAA recently posted a notice in the Federal Register soliciting qualified candidates to serve on the DAC, which was [first announced](#) in spring 2016. The notice explains the responsibilities associated with DAC membership and the desired qualifications for participants. It also details the materials candidates must submit.

Selected members will serve for at least two years. The FAA must receive nomination packages no later than 6:00 a.m. EST on Jan. 9, 2019. The DAC is limited to a maximum of 35 individuals. More information can be found [here](https://unmanned-aerial.com/faa-seeks-candidates-for-drone-advisory-committee?utm_medium=email&utm_source=LNH+12-27-2018&utm_campaign=UAO+Latest+News+Headlines). [https://unmanned-aerial.com/faa-seeks-candidates-for-drone-advisory-committee?utm\\_medium=email&utm\\_source=LNH+12-27-2018&utm\\_campaign=UAO+Latest+News+Headlines](https://unmanned-aerial.com/faa-seeks-candidates-for-drone-advisory-committee?utm_medium=email&utm_source=LNH+12-27-2018&utm_campaign=UAO+Latest+News+Headlines)

### Gatwick Drone Update: Police Offer Reward for Info Betsy Lillian December 26, 2018



In the latest update on the [Gatwick Airport drone sightings](#) in the U.K., the Sussex Police say they are offering a **50,000 British pounds** reward for information related to the incident.

Gatwick Airport Ltd. is offering the reward through an independent charity, Crimestoppers, for information leading to the arrest and conviction of those responsible for "the criminal acts" that caused "widespread disruption of flights," the police said in a Dec. 24 [news release](#).

"There have been numerous illegal drone sightings at the airport over three days from 19 to 21 December," says Jo Shiner, chief constable at the Sussex Police. "There were numerous reports clustered around 37 occasions where a drone or drones were seen. The first report was on Dec. 19 at around 9:00 p.m., when an airport security officer finishing work reported seeing two drones flying near Perimeter Road South.

Half an hour later, at about 9:30 p.m., six people, including five police officers, reported within 15 minutes of each other seeing a drone with white and red lights near the runway. Early the next morning at around 1:15 a.m. on Dec. 20, six people – three airport workers and three





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police officers – reported over 30 minutes seeing a drone near the runway. Over 30 minutes at about 5:00 p.m. on Dec. 21, six people – a member of the public and five police officers – reported seeing a drone near a hangar. At around 7:15 p.m. on Dec. 21, a pilot reported seeing a drone near a stand on the airfield. The account was corroborated by a member of staff.

“We urge the public to contact us if they feel they have information that will help us in our investigation.” [https://unmanned-aerial.com/gatwick-drone-update-police-offer-reward-for-info?utm\\_medium=email&utm\\_source=LNH+12-27-2018&utm\\_campaign=UAO+Latest+News+Headlines](https://unmanned-aerial.com/gatwick-drone-update-police-offer-reward-for-info?utm_medium=email&utm_source=LNH+12-27-2018&utm_campaign=UAO+Latest+News+Headlines)

### **DJI, SkyPixel Launch This Year's Aerial Photo & Video Contest** Betsy Lillian December 24, 2018



Running until **Feb. 18**, the contest welcomes submissions from photographers, videographers, aerial enthusiasts and content creators globally. The contest consists of two storytelling formats, one for photography and one for videography. There is no restriction on the type or brand of aerial equipment, and participants can submit as many photos or videos as they wish.

Contestants can win a range of prizes, including a Hasselblad X1D-50c camera, DJI Mavic 2 Pro drone and the new Osmo Pocket three-axis stabilized gimbal. In addition, SkyPixel will organize a series of exhibitions at different DJI Flagship Stores in 2019 to showcase the winning pieces. Select work will also be featured and introduced at workshops hosted by winners and professional photographers in conjunction with SkyPixel.

The video contest consists of five categories: nature, city, sport, travel and creative. Video submissions should not be longer than five minutes and must feature at least 30 seconds of aerial footage. The photo contest consists of four categories: nature, architecture, fun and sport.

From these nine categories, SkyPixel and DJI will give away **49 awards**, including two grand prizes, and nine first, second and third prizes in each category. There will also be 10 nominated entries that are selected by a panel of judges and 10 by popular vote, measured by which submissions get the most likes during the contest period.

More information can be found [here](https://unmanned-aerial.com/dji-skypixel-launch-this-years-aerial-photo-video-contest?utm_medium=email&utm_source=LNH+12-27-2018&utm_campaign=UAO+Latest+News+Headlines). [https://unmanned-aerial.com/dji-skypixel-launch-this-years-aerial-photo-video-contest?utm\\_medium=email&utm\\_source=LNH+12-27-2018&utm\\_campaign=UAO+Latest+News+Headlines](https://unmanned-aerial.com/dji-skypixel-launch-this-years-aerial-photo-video-contest?utm_medium=email&utm_source=LNH+12-27-2018&utm_campaign=UAO+Latest+News+Headlines)



## UAS and SmallSat Weekly News

### OPINION: More governments to adopt UAV tech in 2019, predicts Dronamics

CEO APPLICATION BUSINESS INTERNATIONAL NEWS RESEARCH ALEX DOUGLAS DECEMBER 20, 2018



Speaking to CDP, Svilen Rangelov, co-founder of the firm, said: "More countries and governments worldwide will be open to trialing and adopting UAV technology as a solution to local connectivity challenges, cost reduction, unused infrastructure utilization and economic enabler for remote and rural locations."

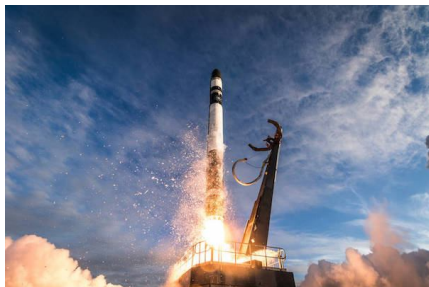
"The collaboration between UAV developers & manufacturers, regulators, airlines and logistic companies will strengthen. Trade tensions internationally will slow the pace of growth of airfreight, as trade lanes redirect and supply chains shift, but overall, 2019 will see more cargo flown than 2018. Customers of e-commerce platforms will expect faster and free-of-charge delivery of their goods worldwide."

Read the full report here: [https://www.commercialdroneprofessional.com/opinion-more-governments-to-adopt-uav-tech-in-2019-predicts-dronamics-ceo/?utm\\_source=Email+Campaign&utm\\_medium=email&utm\\_campaign=45819-286954-Commercial+Drone+Professional+DNA+-+2018-12-27](https://www.commercialdroneprofessional.com/opinion-more-governments-to-adopt-uav-tech-in-2019-predicts-dronamics-ceo/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-286954-Commercial+Drone+Professional+DNA+-+2018-12-27)

### NASA and U.S. Partner Rocket Lab Launch CubeSats to Space

December 21, 2018

NASA Kennedy Space Center



**Thirteen** new CubeSats are now in space, conducting a variety of scientific investigations and technology demonstrations following launch of Rocket Lab's first mission for NASA under a Venture Class Launch Services (VCLS) contract.

On December 17, an Electron rocket lifted off at 1:33 a.m. EST from Rocket Lab's launch complex on the Mahia Peninsula in New Zealand, marking the **first time** CubeSats have been launched for NASA on a rocket designed for small payloads.

"With the VCLS effort, NASA has successfully advanced the commercial launch service choices for smaller payloads, providing viable dedicated small launch options as an alternative to the rideshare approach," said Jim Norman, director of Launch Services at NASA Headquarters in Washington. "This first mission is opening the door for future launch options."



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At the time of the VCLS award in 2015, launch opportunities for small satellites and science missions were limited to ridesharing—flying only when space was available on other missions. Managed by NASA's Launch Services Program at Kennedy Space Center in Florida, VCLS awards are designed to foster a commercial market where SmallSats and CubeSats could be placed in orbits to get the best science return. [https://www.federallabs.org/news/nasa-and-us-partner-rocket-lab-launch-cubesats-to-space?utm\\_campaign=FLC%20Digest&utm\\_source=hs\\_email&utm\\_medium=email&utm\\_content=68547205&\\_hsenc=p2ANqtz-9-XodbbpyliH-VRNtYTQaIE65FBGwxZz2JLyPNv5ZZRIBn94xXBdpw2UV6ERoOsQdTOxpvkY0mmpXwPISPU3PA3nn9KQ&\\_hsmi=68547205](https://www.federallabs.org/news/nasa-and-us-partner-rocket-lab-launch-cubesats-to-space?utm_campaign=FLC%20Digest&utm_source=hs_email&utm_medium=email&utm_content=68547205&_hsenc=p2ANqtz-9-XodbbpyliH-VRNtYTQaIE65FBGwxZz2JLyPNv5ZZRIBn94xXBdpw2UV6ERoOsQdTOxpvkY0mmpXwPISPU3PA3nn9KQ&_hsmi=68547205)

### **The First Flying-Car Review** Wall Street Journal Dan Neil Sept. 12, 2018 Story of the Year

WSJ car critic Dan Neil tests the Kitty Hawk Flyer—the kind of electric vertical-takeoff-and-landing vehicle that could soon fill the skies.

I'm one of very few people to have flown in an aeromobile—in this case a recreational model called the Kitty Hawk Flyer. This single-seat, open-cockpit, 10-rotor machine is designed to give civilian guests—VC funders, policy makers and even car reviewers—a first taste of VTOL flight. Kitty Hawk's management believes the aeromobile industry's long play requires building grass-roots support. Actually, with only a 20-minute flight time, the Flyer isn't good for much more than evangelizing.



*Kittyhawk, the personal-aviation company backed by Larry Page, will be releasing its first "flying car" later this year.*

Kitty Hawk is [funded by Google co-founder Larry Page](#) and run by CEO Sebastian Thrun, who founded the Google X autonomous-driving unit that became Waymo. Kitty Hawk comprises two startups: one developing the Kitty Hawk Flyer and the other, a winged taxi called the Cora.

The FAA doesn't have a path to certify air taxis, so in December 2016 the Cora development team, led by CEO Fred Reid, began a partnership with the **New Zealand** government. "The U.S. is seeing companies head elsewhere as gaining access to airspace becomes the major roadblock in fielding new technologies," says Harrison Wolf, World Economic Forum Centre for the Fourth Industrial Revolution. Zipline—a drone company focused on delivering medical supplies to remote areas—chose to debut in Rwanda. Amazon's Prime Air went to the U.K., and Volocopter, a Daimler-backed air-taxi venture, will deploy first in Dubai.



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Kitty Hawk's Flyer is also trying to stay below the FAA's radar, so to speak. It weighs less than 254 pounds empty, so it qualifies as an ultralight aircraft, like a powered glider and paraglider. No pilot's license or physical exam is required. To avoid entanglements of the overhead-power-line variety, Kitty Hawk has set up its base on the sunny shore of **Lake Las Vegas in Nevada**, a sort of training range and party spot, with a beached houseboat for a reception area and paddleboards sprinkled amid the Quonset-like hangars. <https://www.wsj.com/articles/the-first-flying-car-review-1536753601?mod=djemfoe>

## What Do You Need to Know About Anti-Drone and Counter Drone Technology?

João Antunes Commercial UAV News Story of the Year March 13, 2018



One of the reasons counter drone/anti-drone technology [has become such a big issue in 2018](#) relates to scenarios where drones could be used to threaten the privacy of people, protected places, large events or critical infrastructure. With that being the case, what does it mean to enable a sense of security when it comes to drone technology? What kinds of options are available to

organizations that want to get a better sense of the threats that are in their airspace and in turn take action around them?

These are the exact sorts of questions [Dedrone](#) solutions have been designed to answer. Founded in 2014, the San-Francisco-based company uses advanced hardware and software technology to create a critical awareness of the airspace and allows users to take active countermeasures. The company's drone detection and security solution includes the [Dedrone RF sensor](#), which helps users understand their airspace security situation, while their [DroneTracker](#) software connects to various sensors (including the RF sensor) and can trigger active countermeasures.



Sorting out permission to legally take active countermeasures is something that has to happen on a couple levels. On the FAA side, if you're jamming a drone, you're interfering with an aircraft, and on the FCC (Federal Communications Commission) side, if you're jamming a drone you're doing it by using signals that interfere with other radio

signals, and that's a violation of FCC regulations. However, creating a simple awareness of what's happening in the airspace is often an even greater concern than active or passive countermeasures.





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Recently, the Dedrone hardware and software combo helped to collect data on drone activity in a no-fly-airspace in Northern Virginia, just outside of Washington DC and close to the Pentagon. The company installed and deployed their solution in a couple different locations, and **it detected 52 drones that were operating in the area over the first 26 days**. In the next 30 days, it detected another 43. [https://www.expouav.com/news/latest/need-know-anti-drone-counter-drone-technology/?utm\\_source=marketo&utm\\_medium=email&utm\\_campaign=newsletter&utm\\_content=newsletter&mkt\\_tok=eyJpIjoiTkRBNFpEazJaV1ExTnpJMSIsInQiOiJ5Rng1WGtUTUhyQjVaMk1bBF2N2NTYTc0N3pERTVJMnBZb3dCUFNBC9FQ09pekdnb0hYMXc1SDU2WVZiTiBUUWNkbE5uNXlYwSXFzVlpYWkorNmtWaTVidjg1M3ZlQzVLeDRVdF FBcGh2MStJWHdpSUpDSG4zRDVRTFhTakxcl054ln0%3D](https://www.expouav.com/news/latest/need-know-anti-drone-counter-drone-technology/?utm_source=marketo&utm_medium=email&utm_campaign=newsletter&utm_content=newsletter&mkt_tok=eyJpIjoiTkRBNFpEazJaV1ExTnpJMSIsInQiOiJ5Rng1WGtUTUhyQjVaMk1bBF2N2NTYTc0N3pERTVJMnBZb3dCUFNBC9FQ09pekdnb0hYMXc1SDU2WVZiTiBUUWNkbE5uNXlYwSXFzVlpYWkorNmtWaTVidjg1M3ZlQzVLeDRVdF FBcGh2MStJWHdpSUpDSG4zRDVRTFhTakxcl054ln0%3D)

### The Top Drone Photos of 2018 [Miriam McNabb](#) on: December 27, 2018

*The following is a guest post by talented Part 107 Pilot and author, Kara Murphy.*

As 2018 draws to a close, it's time to reflect back on another year of growth and ingenuity in the drone world. Beauty is in the eye of the beholder, and taste is certainly objective. However, it is difficult to argue that the photos and video clips presented in this article are anything less than astounding.

As technology continues to improve, and it becomes easier to access a high-quality cameras, creativity has flourished. Remote pilots, including myself, have started to capitalize on their years of capturing aerial imagery by selling prints. DJI has even launched a site for professional filmmakers and photographers.

Without further ado, here are my picks for the best drone photos and video clips created this year.







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<https://dronelife.com/2018/12/27/the-top-drone-photos-and-video-shorts-of-2018/>

28Dec18

### Noisy Wing Drones Are Being Quietly Redesigned Matthew Humphries December 27, 2018



[Drones](#) may be the future of deliveries, but there's a number of hard problems to overcome before that becomes a reality. One of those is noise, and Alphabet's Wing drones have been faced with their noisy reality after testing in Australia resulted in a number of complaints.

As [9to5Google](#) reports, recently Wing drones have been flying around Australia thanks to a trial with local businesses, but the trial resulted in complaints regarding the noise. The noise has been described as similar to a chainsaw, it apparently makes dogs nervous, and some people on flight paths have opted not to use their yards as much. If you imagine a chainsaw-like sound passing overhead multiple times a day, or even per hour, you can understand why people are staying indoors.

With Alphabet keen to ensure Wing drones can fly anywhere deliveries are required, the noise problems needs to be tackled. For the existing drones, their top speed is being reduced to lower the noise, and flight paths will be varied so as to be less frequent over the same properties.

We don't know how the new Wing drone will be different to reduce noise, but it could be as much to do with the tone of the noise as how loud it is. If someone manages to come up with a way of silencing the multiple rotors these drones use, they'll be able to **name their price** at any



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of big players in this field, be that Alphabet, Amazon, or [even Walmart](#).  
<https://www.pcmag.com/news/365635/noisy-wing-drones-are-being-quietly-redesigned>

### Skyports MD thinks UK could see passenger drones sooner rather than later

BUSINESS EXCLUSIVE HEADLINE NEWS INDUSTRY LEADER INSIGHT INTERVIEW ALEX DOUGLAS OCTOBER 12, 2018 a "best interview in 2018"



*Managing director of Skyports, Duncan Walker, believes the UK could see passenger carrying drones sooner rather than later, and they could come even before drone delivery services.*

Skyports is a London-based infrastructure company that has installed 15 'Skyports' already in the capital, as preparation for the emerging drone market.

Skyports hopes to implement this business model across busy cities across the globe and make a variety of locations drone-friendly in the process for when the currently emerging market takes off.

In the UK, managing director Duncan Walker believes that when it comes to infrastructure, insurance and regulation, the drone delivery industry may be pipped to the post by passenger carrying 'taxi' drones, due to **legislation that is already in place**.

"If you think about cargo and passengers, often the infrastructure is the same. We have the debate endlessly: is it cargo drones or is it passenger drones that are going to come first? Part of me says it is going to be the cargo drones, they're smaller, more manageable and the consequence of their going wrong is less because moving people around is obviously complicated."

"On the **flip side**, if you've got a passenger-carrying VTOL, it is essentially an electric helicopter. If it has the Civil Aviation Authority sign off, you have the framework in which to fly. At the moment, we don't have the framework to fly BVLOS drones in London, but we do have a framework which says you can fly a helicopter in London and if it's just an electric helicopter, a company can get their certification to fly in London."

Walker has a real-estate background in London and founded Skyports 18 months ago. His team now operates 15 Skyports across London and is looking to expand further in the coming years.  
<https://www.commercialdroneprofessional.com/exclusive-skyports-md-thinks-uk-could-see-passenger-drones->



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[sooner-rather-than-later/?utm\\_source=Email+Campaign&utm\\_medium=email&utm\\_campaign=45819-287018-Commercial+Drone+Professional+DNA+++2018-12-28](#)