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**23Nov19**

**WorkHorse, USOG Will Launch Medical Drone Delivery Program** [Jason Reagan](https://dronelife.com/author/jason/) November 21, 2019

Transportation-solutions provider [Workhorse Group](https://c212.net/c/link/?t=0&l=en&o=2603767-1&h=2088743689&u=https%3A%2F%2Fworkhorse.com%2F&a=Workhorse+Group+Inc.) is partnering with [Unmanned Systems Operations Group](https://c212.net/c/link/?t=0&l=en&o=2603767-1&h=3110276980&u=https%3A%2F%2Fwww.opsunmanned.com%2F&a=Unmanned+Systems+Operations+Group%2C+Inc.) to launch a pilot drone-delivery program focusing on the medical sector. It will deploy Workhorse’s HorseFly, an octocopter drone designed and built by the University of Cincinnati College of Engineering and Applied Science.

USOG technicians will monitor multiple autonomous drone flights. Healthcare clients will be able to track deliveries with an app providing real-time data such as package location and vehicle status as well as on-board video.

Last year, Workhorse Group announced a [patent filing](https://patents.justia.com/patent/9915956) to develop a truck-launched drone package delivery system. The company describes the system as a “custom-built, high efficiency delivery UAV that is fully integrated with the Workhorse line of electric/hybrid delivery trucks” that will maintain line-of-sight flights with a driver or assistant.

Workhorse and USOG will work within the FAA’s [Integration Pilot Program](https://dronelife.com/2018/05/10/drone-delivery-a-major-winner-in-ipp-announcement/) in San Diego. USOG will use a Workhorse step van and HorseFly, with the goal of adding additional programs in the coming months. <https://dronelife.com/2019/11/21/workhorse-usog-will-launch-medical-drone-delivery-program/>

**General Atomics Demos Dynetics-Built Munition in Unmanned Aircraft Flight Test** [Matthew Nelson](https://www.govconwire.com/author/juan-mangahasexecutivemosaic-com/) November 22, 2019 [News](https://www.govconwire.com/category/news/), [Technology](https://www.govconwire.com/category/technology/)

[General Atomics](https://www.govconwire.com/?s=General+Atomics)’ aeronautical systems business tested a[Dynetics](https://www.govconwire.com/?s=Dynetics)-built small glide munition aboard a long-range variant of the MQ-1C Gray Eagle unmanned aircraft system during a flight demonstration at a military test range in California.

The GBU-69B lightweight munition works to defeat threats in multi-domain environments and reach extended distances at maximum altitude, General Atomics[said Thursday](http://www.ga.com/ga-asi-demonstrates-small-glide-munition-launched-from-gray-eagle-er).

David Alexander, president of General Atomics’ aeronautical systems business, said the small glide munition will augment Gray Eagle Extended Range's mission capacities and survivability in austere environments. <https://www.govconwire.com/2019/11/general-atomics-demos-dynetics-built-munition-in-unmanned-aircraft-flight-test/>

**FAA Announces LAANC Expansion to Major Airports, Adds New Providers** [Miriam McNabb](https://dronelife.com/author/miriam-mcnabb/)on: November 22, 2019

[](https://dronelife.com/wp-content/uploads/2019/05/LAANC-e1558709260974.jpg)The [Low Altitude Authorization and Notification Capabilit](https://dronelife.com/2017/11/17/faa-explains-laanc-program/)y has been a major success for the FAA and the drone industry, representing new technology that dramatically improves the process of airspace authorizations for drone operators.  Yesterday, the FAA announced that LAANC has expanded to add 4 new airports in major urban areas – and has added 7 new companies to the list of authorized providers.

Four airports – Baltimore/Washington International Thurgood Marshall Airport, Dulles International Airport, William P. Hobby Airport in Houston and Newark Liberty International Airport – joined the list of approximately 400 air traffic facilities covering about 600 airports where [LAANC is available](https://www.faa.gov/uas/programs_partnerships/data_exchange/laanc_facilities/).

Access to the service is provided through one of the FAA-approved UAS Service Suppliers. The seven companies listed below are the latest to enter into partnerships with the agency, bringing the total to 21.

* Airspacelink
* Avision
* Botlink
* Collins Aerospace
* Drone Up
* Simulyze
* Skygrid

<https://dronelife.com/2019/11/22/faa-announces-laanc-expansion-to-major-airports-adds-new-providers/>

**Drone firm in talks with Uganda on medical supply delivery deal** NOVEMBER 22 2019 Reuters

A drone service firm is in talks with the Ugandan government on a deal to deliver blood packages, drugs and medical equipment to public health facilities. A deal could see Uganda join a small number of other African countries, such as Ghana and Rwanda, that have deployed unmanned aerial vehicles to help public health logistics.

Uganda’s public hospitals often face shortages of essential supplies, such as blood, drugs, syringes, gauze and gloves, sometimes due to unreliable transport through the gridlocked capital or along poorly paved or dirt roads in the countryside.

John Goslino, business manager at Flexdrone, told Reuters the drone services firm launched by a Ugandan and a German aimed to start a delivery service in March if talks were successful.

He said the service had already secured approval from the Information and Communications Technology Ministry, and they were awaiting an endorsement from the Health Ministry. <https://www.monitor.co.ug/News/National/Drone-firm-talks-Uganda-medical-supply-delivery-deal/688334-5358226-12pbh3lz/index.html>

[**US Department of Homeland Security plans to shoot down drones near airports**](https://dronedj.com/2019/11/22/department-of-homeland-security-plans-shoot-down-drones-airports/) [Haye Kesteloo](https://dronedj.com/author/hayekesteloo/) Nov. 22nd 2019

The Trump administration recently proposed a plan that allows for shooting down drones near US airports. This plan, however, upset two Republican lawmakers, who argue that it is “irresponsible,” and that it exceeds the department’s authority.

The Department of Homeland Security, the Department of Defense, the Federal Aviation Administration, and the Department of Justice drafted a “Concept of Operations,” which would make the TSA the lead federal agency to counter drones that pose a threat to US national airspace or airports.

According to a congressional staffer, DHS had already asked Congress for shoot-down authority over federal assets, and that the department is now “trying to use some loophole” to shoot down unmanned aircraft near airports, which is “well beyond the current authorities.”

The Republican representatives wrote that the department “does not have the authority or experience” to operate equipment required to counter unmanned aircraft in the way it proposes.

In a statement, Rogers and Graves said that “nobody wants drones to cause disruptions at our airports, but to hastily hand over authority to shoot down drones to an agency that doesn’t have a critical knowledge or experience of how our aerospace system functions, is irresponsible and dangerous.” <https://dronedj.com/2019/11/22/department-of-homeland-security-plans-shoot-down-drones-airports/#more-21418>

**Pilot fined $20,000 after fly-away drone lands at McCarran Airport in Las Vegas** [Haye Kesteloo](https://dronedj.com/author/hayekesteloo/) Nov. 22nd 2019

The [drone incident](https://dronedj.com/guides/drone-incident/) took place in June of 2018 when Reuben Burciaga wanted to take an aerial photo of a Ferris wheel. Early on during the flight, he lost control of the drone. It then slowly drifted for more than two miles towards the airport before landing right next to an active runway. The FAA issued the ‘careless and reckless” drone pilot a fine of $14,700 that increased to around $20,000 after he failed to pay or appeal on time.

Burciaga explained his action to Fox 5 KVVU-TV as follows: *“I got about to the strip and that’s when I started losing GPS. When I lost control is when it started acting all weird and it just took off. And it never gave me an opportunity to make any type of adjustments.”*

After the pilot lost control, the drone then drifted over two miles at an altitude of 450 feet towards McCarran International Airport where it landed only a few feet away from an active runway. Airport workers found it and turned it over to the FAA. <https://dronedj.com/2019/11/22/drone-pilot-fined-20000-mccarran-airport-las-vegas/#more-21400>

**Terra Drone Indonesia Demonstrated Drone for Pipeline Monitoring to Medco Energi** [November 21, 2019](https://uasweekly.com/2019/11/21/) [News](https://uasweekly.com/category/news/)

[Terra Drone Indonesia](https://terra-drone.us14.list-manage.com/track/click?u=845d824191dd902c443aa2e28&id=1b6600c9d3&e=fad88dbe22), a group company of Japan-based Terra Drone Corporation, has conducted a demonstration to showcase the advantages of UAV-based pipeline monitoring to Indonesian oil and gas group Medco Energi Internasional Tbk PT. The demo was completed on Nov 15, 2019 in Purwakarta, West Java, using Terra BRAMOR C4EYE UAS manufactured by Terra Drone group company C-Astral.

Armed with 12 years of drone manufacturing experience, Slovenia-based [C-Astral](https://terra-drone.us14.list-manage.com/track/click?u=845d824191dd902c443aa2e28&id=c882b53139&e=fad88dbe22) has designed and developed the aircraft specifically for high-endurance surveillance, monitoring, security patrol, surveying and remote sensing activities. During the demo for Medco Energi, Terra Drone Indonesia focused on how it can directly monitor activities through real-time video and photos to shoot certain objects with clear results. In addition, the drone can identify anomalous objects that move in the area being monitored. It is already being used by several security companies to monitor theft activity on pipelines. <https://uasweekly.com/2019/11/21/terra-drone-indonesia-demonstrated-drone-for-pipeline-monitoring-to-medco-energi/?utm_source=newsletter&utm_medium=email&utm_campaign=uasweekly_daily_newsletter_11_22_2019&utm_term=2019-11-23>

**25Nov19**

**Watch a 'transforming' drone blast out of a cannon** [Christine Fisher](https://www.engadget.com/about/editors/christine-fisher/), [@cfisherwrites](https://twitter.com/cfisherwrites) 11.21.19

Researchers launched a drone from a pneumatic baseball pitching machine strapped to a truck traveling 50 miles per hour. They hope this ballistic launch method might lead to drones that are better suited for emergency response and space exploration missions.

The Streamlined Quick Unfolding Investigation Drone, SQUID, was developed by Caltech and NASA's Jet Propulsion Laboratory. When folded, the quadrotor looks something like a football. It is loaded into what's essentially a cannon and blasted into the sky. It then deploys its rotors and is able to maintain stable, controlled flight. The design is 3D printable, launches from a three-inch diameter barrel, and has sufficient thrust to carry a significant payload.

The current design is 27 centimeters long and has an 8-cm diameter, weighing in at 530 grams. For now, the drone is intended for research purposes, but it's only a matter of time before a commercial drone-launching cannon hits the market. <https://www.engadget.com/2019/11/21/drone-cannon-nasa-jpl-caltech/?guccounter=1&guce_referrer=aHR0cHM6Ly93d3cuZ29vZ2xlLmNvbS8&guce_referrer_sig=AQAAABwkOqB86vbkFCLwhvzsGI0U07wae3XvnJVwffX3UCfnZ1e8DMsZ5G0oLcJJQH9MEHKauDDrO3vXU6XMdmAgvUW2v_I07_Hm3sATBm2jgHZz6OTVIZdKZjqziZZ2TlQprKDyU5WrcZ2oKAtCzsvforH9XTdmU6IuASdBu4rl77pg>

[](https://www.commercialdroneprofessional.com/wp-content/uploads/2018/05/DJI.jpg)**WhiteFox secures Remote ID for DJI during fist-of-its-kind drone traffic management demo** [APPLICATION](https://www.commercialdroneprofessional.com/category/application-news/) [INTERNATIONAL](https://www.commercialdroneprofessional.com/category/news/international/) [NEWS](https://www.commercialdroneprofessional.com/category/news/) [ALEX DOUGLAS](https://www.commercialdroneprofessional.com/author/alex-douglas/) NOVEMBER 19, 2019

During the demonstration, DJI drones broadcasted their identity using the new, proposed ASTM standard for drone remote identification, and were cryptographically verified by WhiteFox cloud services, providing an unforgeable link between the drone and operator’s identity. The standard supports a variety of receivers, including smartphones, laptops, and dedicated hardware, all using widely deployed technologies, such as Wi-Fi and Bluetooth.

The proposed standard is currently before the FAA for adoption and rule-making, which will provide a framework around issues such as which airspace will require Secure Remote ID, such as large public events, prisons, and critical infrastructure. <https://www.commercialdroneprofessional.com/whitefox-secures-remote-id-for-dji-during-fist-of-its-kind-drone-traffic-management-demo/>

**Unmanned drones latest underground tool at Hoyle Pond**  [PJ Wilson](https://www.timminspress.com/author/pwilson) November 19, 2019

The day is coming when small, unmanned drones will be able to get into areas of underground mines that were – or are – inaccessible to traditional mining methods. It could be in the ventilation shafts, access shafts, the stopes, drifts or adits, with the drone operators at a safe distance. And, in some cases, they will be able to be used in mine rescue operations, finding the safest path to rescue anyone trapped underground.

Not too far down the road, they also will be able to be programmed to operate autonomously, scanning with Light Detection and Ranging (LIDAR) to map out the mine workings and uploading the information to be used by the mine operators.

Last week, the company announced that its drones have marked the one-year anniversary of the launch of its underground drone flight program at Newmont Goldcorp’s Porcupine gold camp, with more than 100 underground drone flights without incident at the Hoyle Pond Mine. <https://www.timminspress.com/news/local-news/unmanned-drones-latest-underground-tool-at-hoyle-pond>

**Drones That Do the Work of 500 Farmers Transform Palm Oil** [Anuradha Raghu](https://www.ttnews.com/authors/anuradha-raghu-0) Bloomberg News November 19, 2019

 With oil-palm plantations spread across some 22.3 million hectares (86,100 square miles) of Malaysia and Indonesia — an area almost the size of the U.K., the industry represents fertile ground for drone sales.

That’s partly due to growing awareness about sustainable farming and precision agriculture, as well as government programs, greater use of smartphones, and new “smart” technologies.

Worldwide drone sales to agricultural businesses could top $8 billion by 2026, according to Selbyville, Del.-based Market Study Report LLC.

Besides spotting fires, drones are capable of collecting data that can be used to decide if crops have enough water and nutrients, and even to find leakages in irrigation systems. That makes them an efficiency-boosting boon for the palm oil industry.

A single drone can capture images of about 2,500 hectares of oil palms a day, while a human can cover only 5 hectares. <https://www.ttnews.com/articles/drones-do-work-500-farmers-transform-palm-oil>

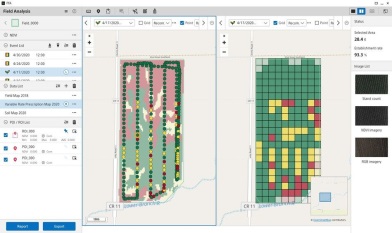
[](https://www.commercialdroneprofessional.com/wp-content/uploads/2019/11/DJIAirWorks.jpg)**RECAP: Business booms for DJI at AirWorks 2019** [AGRICULTURE](https://www.commercialdroneprofessional.com/category/application-news/agriculture/) [APPLICATION](https://www.commercialdroneprofessional.com/category/application-news/) [BUSINESS](https://www.commercialdroneprofessional.com/category/business/) [DJI](https://www.commercialdroneprofessional.com/category/manufacturer/dji/) [HEADLINE NEWS](https://www.commercialdroneprofessional.com/category/headline-news/) [MANUFACTURER](https://www.commercialdroneprofessional.com/category/manufacturer/) [UNITED STATES](https://www.commercialdroneprofessional.com/category/news/united-states/) [ALEX DOUGLAS](https://www.commercialdroneprofessional.com/author/alex-douglas/) on NOVEMBER 25, 2019

Kicking off the conference as part of the opening keynote, DJI’s regional manager for North America and VP for government relations, Mario Rebello, described just how quickly the enterprise side of the business was growing, detailing that it had grown by 80% and now has 14,000 employees worldwide with 7 locations just in the US.

He explained how the drone industry is seeing more large enterprises deploying drone technology and are starting to reap the rewards of doing so. DJI is seeing increasing scalability in the US large enterprise market as well as those in the public safety, first responder and emergency service sector.

However, the excitement of expansion does not come without difficulty. DJI has been the subject of a number of reports and accusations detailing how the manufacturer’s drones send data back to China. In the opening keynote, Rebello was keen to quash the rumors, describing them as “false.” <https://www.commercialdroneprofessional.com/recap-business-booms-for-dji-at-airworks-2019/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-317910-Commercial+Drone+Professional+DNA+-+2019-11-25>

**Sony hones in on drones for agriculture market with capability expansion** [INTERNATIONAL](https://www.commercialdroneprofessional.com/category/news/international/) [NEWS](https://www.commercialdroneprofessional.com/category/news/) [ALEX DOUGLAS](https://www.commercialdroneprofessional.com/author/alex-douglas/) NOVEMBER 25, 2019

[](https://www.commercialdroneprofessional.com/wp-content/uploads/2019/11/sonyagriculture.jpg)Sony Electronics has announced a version 2.0 software update for its Smart Agriculture Solution with new AI-based imaging capabilities including drones planned for rollout in March 2020.

With the launch of Sony’s Version 2.0 software update, the enhanced agriculture solution consisting of a drone-mounted multispectral sensing unit and Fast Field Analyzer image analytics software for in-the-field crop management, monitoring and insights, will add Sony’s unique imaging and AI-based technology for stand counting.

Stand counting allows growers to assess the planting quality, enabling replanting decisions to be made earlier and with greater accuracy. <https://www.commercialdroneprofessional.com/sony-hones-in-on-drones-for-agriculture-market-with-capability-expansion/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-317910-Commercial+Drone+Professional+DNA+-+2019-11-25>

**Airbus, XAG team up for drone delivery** [Zhu Shenshen](https://www.shine.cn/zhushenshen/) 2019-11-25

Airbus and Guangzhou-based startup XAG announced on Monday a deal to jointly develop drone cargo solutions for food and package delivery firms.

Both sides demonstrated a trial drone delivery of noodles and soups in Guangzhou. The delivery flight covered 1.6 kilometers in three minutes, reaching a height of 50 meters. The project, codenamed Project Vesper, is a joint development by Airbus and XAG. It’s still in the technical test stage.

As a Guangzhou-based drone maker focusing on agriculture applications, there have been 42,000 XAG drones operating in the field already.

The two sides have developed a drone with a takeoff weight under 25 kilograms, a payload of up to 4 kilograms and maximum flight distance of 12 kilometers. <https://www.shine.cn/biz/tech/1911256806/>

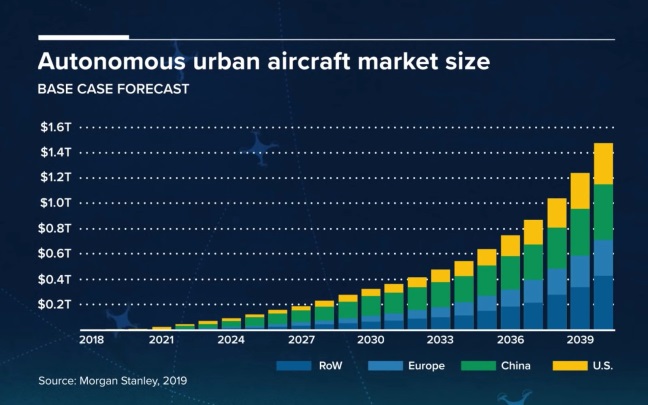
**Homeland Security issues Request for Information for UAS detection, tracking, mitigation** [November 25, 2019](https://www.unmannedairspace.info/counter-uas-systems-tenders/us-homeland-security-issues-request-for-information-for-uas-detection-tracking-and-mitigation-solutions/) [Jenny Beechener](https://www.unmannedairspace.info/author/jenny/) [Counter UAS systems tenders](https://www.unmannedairspace.info/category/counter-uas-systems-tenders/)

The US Department of Homeland Security has issued a request for information to announce the Air Domain Awareness and Protection in the National Airspace 2019-2020 Equipment Demonstration. This demonstration will support the research and development efforts of the DHS S&T Border, Immigration and Maritime Division along with other federal partners. The purpose of the demonstration is to safely explore systems, procedures and processes of manned systems and unmanned aircraft systems detection, tracking, identifying and mitigation systems in varying live operational environments. The focus of the Government’s objectives for this effort include evaluating products, systems, and services that detect, identify and track both manned and unmanned systems and pilot in command of UAS.

The RFI proposes a Cooperative Research and Development Agreement to allow unrestricted and independent Government use of the Counter-Unmanned Aircraft Systems equipment for up to six months and up to three locations in the US, during demonstration and evaluation events, at no cost to the Government per the terms of a CRADA. <https://www.unmannedairspace.info/counter-uas-systems-tenders/us-homeland-security-issues-request-for-information-for-uas-detection-tracking-and-mitigation-solutions/>

[**Drone industry is growing fast to $100 billion by 2020 and $1.5 trillion by 2040**](https://dronedj.com/2019/11/25/drone-industry-100-billion-2020/) [Haye Kesteloo](https://dronedj.com/author/hayekesteloo/) Nov. 25th 2019

Drones are revolutionizing the military emergency services aerospace and potentially even the taxi industry. The growth of these unmanned aerial craft presents new opportunities for the aerospace industry, but with more and more of them popping up, are they safe to crowd our skies?

I’m here at the Dubai Air Show while several of the latest drones are on display. This is the Aura 100 UAV. “We are ready for production now.”

But the Aura 100 faces stiff competition with drawn from all over the world on display here in Dubai.

“We’ve been flooded with opportunities here from the defense sector and the government sector to oil and gas. The response been really good.”

Jason Braverman is here with his Canadian built drone which he says is ideal for monitoring pipelines and carrying out surveillance. “If you look at the world, this is really the center of oil and gas, and this region has very particular security issues.”

The drone industry is expected to be 100 billion dollars globally by 2020 with military applications making up the bulk of the market at 70 billion dollars*.* <https://dronedj.com/2019/11/25/drone-industry-100-billion-2020/>

**SMALL DRONES HAVE TRAFFIC 'IN SIGHT' DETECT-AND-AVOID SYSTEMS PROVE EFFECTIVE** November 26, 2019 Jim Moore

Safe integration of drones in the airspace used by all requires active measures for traffic avoidance, measures that account for aircraft and other objects that are not “cooperating.” Two competing approaches to achieving airborne detection and avoidance proved they are the leading contenders in recent months.

**[](https://www.aopa.org/news-and-media/all-news/2019/november/25/small-drones-have-traffic-in-sight?utm_source=dronepilot&utm_medium=email)**In October, the Kansas Department of Transportation and its federal [**Unmanned Aircraft Systems Integration Pilot Program**](https://www.aopa.org/news-and-media/all-news/2018/august/20/flying-popsicles) partners, including Iris Automation, conducted the first FAA-approved flight of a small drone operated beyond visual line of sight with only the on-board aircraft systems used to detect and avoid other traffic. The flights over Kansas, [**announced November 8**](http://www.ksdot.org/Assets/wwwksdotorg/Headquarters/PDF_Files/pressrelease2019/Aviation_Nov_8_EVENT.pdf), were a real-world test of a computer vision system developed by [**Iris Automation**](https://www.irisonboard.com/). The system logged more than 150 miles of coverage in the first two days of power line inspection flights.

Computer vision, which combines powerful computers and cameras to create artificial situational awareness, is not alone supporting long-range BVLOS drone flights. [**Echodyne**](https://echodyne.com/), maker of a sophisticated, lightweight radar system that also supports active traffic detection, joined Iris in Alaska supporting another of the IPP teams in marking the first BVLOS flight without visual observers, the firms jointly announced in an August press release:

“The test mission designed by the team at the University of Alaska at Fairbanks is an excellent demonstration of the potential for commercial UAS,” said Echodyne Founder and CEO Eben Frankenberg. “With Iris Automation and Echodyne sensor technologies, routine commercial missions like linear inspection and medical deliveries to remote communities are both practical and safe.” <https://www.aopa.org/news-and-media/all-news/2019/november/25/small-drones-have-traffic-in-sight?utm_source=dronepilot&utm_medium=email>

**Space Startup Aims to Launch Cubesats on Balloon-Lofted Rockets** [Mike Wall](https://www.space.com/author/mike-wall) a day ago [Tech](https://www.space.com/tech-robots) Leo Aerospace wants to give very small satellites a dedicated ride to orbit.

California-based startup Leo Aerospace is developing a small-satellite launch system employing a rocket and a big hot-air balloon. The system will be mobile, capable of launching off the back of a semitruck.

Balloons could help the [small-satellite revolution](https://www.space.com/nasa-cubesats-proposed-moon-and-venus.html) reach new heights.

Los Angeles-based startup Leo Aerospace is developing a system that will loft bantam spacecraft using a rocket dropped from a giant hot-air balloon about 60,000 feet above Earth's surface.

Leo Aerospace's autonomous aerostat, named Regulus, is far more advanced than the simple helium balloons of 60 years ago. The autonomous Regulus features multiple thrusters to maintain stability and orientation, for example, as well as a proprietary rail system for the three-stage, 33-foot-long rocket.

It will be capable of launching 73 lbs. of payload to a 340-mile-high sun-synchronous orbit, or 126 lbs. to a circular orbit 186 miles up. The company also plans to conduct suborbital missions using Regulus and a 10-foot-long rocket which will be able to get 220 lbs. to an altitude of 250 miles.

Those rockets will be expendable, but Regulus is designed for rapid and extensive reuse. Indeed, each individual balloon will be able to fly 100 missions, Leo Aerospace co-founder Bryce Prior said earlier this month during a presentation at the U.S. Air Force's first-ever Space Pitch Day. <https://www.space.com/balloon-launch-rockets-leo-aerospace.html>

[](https://dronelife.com/wp-content/uploads/2019/11/medical-drone-e1574793871762.jpg)**This New Medical Drone Will Be Showcased at Amsterdam Drone Week Next Week** [Miriam McNabb](https://dronelife.com/author/miriam-mcnabb/) November 26, 2019

The Erasmus MC and Sanquin Blood Bank, in collaboration with ANWB, PostNL and technology partners Avy (drone developer) and KPN are investigating how drones can be used for medical applications such as transporting blood, medicines, and diagnostic samples to patients and care institutions. Within a period of three years, the partners involved in this collaboration aim to determine what kind of contribution drones can actually make to society in ensuring that care is delivered at the right time and the right place.

[](https://dronelife.com/wp-content/uploads/2019/11/1341-6ae19016b05fc137a4048b15023eb6e6.jpg)In the coming period, ANWB will be the party carrying out the test flights to demonstrate whether unmanned drones can actually make a significant contribution to healthcare in a safe and socially responsible manner. KPN will provide the communication links with the drone. <https://dronelife.com/2019/11/26/this-new-medical-drone-will-be-showcased-at-amsterdam-drone-week-next-week/>

**Echodyne Radars Deployed for DARPA Urban Drone Testing** Mike Ball 26 Nov 2019

[Echodyne](https://echodyne.com/) has announced that the company’s EchoGuard and EchoFlight radars were used by the Defense Advanced Research Projects Agency during the Aerial Dragnet program, which aimed to test situational awareness and surveillance of drones in an urban environment. The tests took place in San Diego.

Echodyne’s radar sensors were mounted on two large tethered aerostat balloons flying at up to 400 feet above ground level above the city, as well as fixed installations atop buildings and mounted on towers. The sensors were calibrated to detect and track small UAVs and distinguish them from background objects such as buildings, vehicles, and birds. DARPA’s testing program assessed how well the system could detect, track and identify drones during 150 waves, which included various commonly available commercial off-the-shelf models.

The tests were designed to simulate tracking of unauthorized and unidentified drones flying in the city. Although DARPA’s focus is on protecting U.S. troops from drone attacks in urban settings overseas, the system under development could ultimately help protect U.S. metropolitan areas from potential drone-enabled terrorist threats, which is a growing concern as the volume of drones in urban airspaces continues to expand. <https://www.unmannedsystemstechnology.com/2019/11/echodyne-radars-deployed-for-darpa-urban-drone-testing/?utm_source=Unmanned+Systems+Technology+Newsletter&utm_campaign=7668e1e3f2-eBrief_2019_26_Nov_LI&utm_medium=email&utm_term=0_6fc3c01e8d-7668e1e3f2-119747501>

**Terra Drone Corporation inspects Chevron’s onshore flare stacks** [INTERNATIONAL](https://www.commercialdroneprofessional.com/category/news/international/) [NEWS](https://www.commercialdroneprofessional.com/category/news/) [SAM LEWIS](https://www.commercialdroneprofessional.com/author/sam-lewis/) NOVEMBER 26, 2019

[](https://www.commercialdroneprofessional.com/wp-content/uploads/2019/11/Flare-tips-x.jpg)The Indonesian branch of the Japan-based Terra Drone Corporation completed the visual inspections in Duri field in Rokan PSC, Sumatra.

The multirotor drone used by Terra Drone Indonesia has high-resolution RGB and thermal cameras, while Chevron would previously have used binoculars. The former camera provides a much clearer, closer image of flare stacks than binoculars do. The radiometric thermal camera, meanwhile, identifies temperature anomalies.

Michael Wishnu Wardana, managing director of Terra Drone Indonesia, says: “Going forward, the many benefits and applications of drones will be an attraction for oil and gas companies to adapt them in their daily operations.” <https://www.commercialdroneprofessional.com/terra-drone-corporation-inspects-chevrons-onshore-flare-stacks/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-317989-Commercial+Drone+Professional+DNA+-+2019-11-26>

**UAM is “serious” business for Airbus, its CEO insists** [APPLICATION](https://www.commercialdroneprofessional.com/category/application-news/) [BUSINESS](https://www.commercialdroneprofessional.com/category/business/) [HEADLINE NEWS](https://www.commercialdroneprofessional.com/category/headline-news/) [INTERNATIONAL](https://www.commercialdroneprofessional.com/category/news/international/) [NEWS](https://www.commercialdroneprofessional.com/category/news/)[ALEX DOUGLAS](https://www.commercialdroneprofessional.com/author/alex-douglas/) NOVEMBER 26, 2019

[](https://www.commercialdroneprofessional.com/wp-content/uploads/2019/03/airbusdrone.jpg)Airbus says it is ‘serious about UAM (urban air mobility)’ because it accelerates the development of decarbonised technologies

In conversation with Aviation Business Middle East, Airbus CEO Guillaume Faury said he thinks it is important for the company to invest in and take urban air mobility and pilotless aircraft seriously because it can help the manufacturer develop its commercial planes.

Airbus is testing a range of UAM solutions, including electric vertical take-off and landing vehicles, Vahana and CityAirbus. Faury said he believes that such projects act as a testbed for electrification and pilotless technologies, which can be applied to its larger commercial planes.

In an interview with the news outlet in Paris, he detailed how there are many steps before UAM can become a reality. He said: “The first one is technology, it’s not yet there but we are making progress. The second one is regulation. The third one is public acceptance, which might take time. Are you ready to get on a plane today without pilots and go across the Atlantic?”

Many believe Dubai could be one of the first urban areas to experiment with air taxis. For Faury, the sector is one that holds business potential because of the convergence of needs and technologies. Faury added: “We are pursuing this avenue. We think that safety is absolutely critical, more so than any other aviation device because it is flying over cities. The first step is urban air mobility with pilots and the next one, the ultimate one, is without pilots. <https://www.commercialdroneprofessional.com/uam-is-serious-business-for-airbus-its-ceo-insists/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-317989-Commercial+Drone+Professional+DNA+-+2019-11-26>

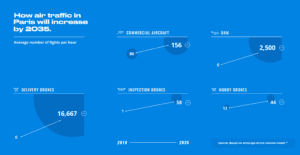
**27Nov19**

**FAA Expands LAANC Drone Program** [Mark Huber](https://www.ainonline.com/mark-huber) November 26, 2019, 2:53 PM s

The FAA announced two important expansions of its automated drone flight application and airspace approval process for drones—the Low Altitude Authorization and Capability program. The agency added four major airports where the program is now available—Baltimore BWI, Washington Dulles, Houston Hobby, and Newark Liberty. The airports join the list of 400 air traffic facilities covering 600 airports where LAANC is available.

Further, the FAA added seven UAS service providers approved to provide access to LAANC—Airspacelink, Avision, Botlink, Collins Aerospace, Drone Up, Simulyze, and Skygrid—bringing the total number of approved UAS service providers to 21. More than 170,000 authorizations have been approved through LAANC since 2017.

Originally limited to Part 107 pilots, the program was expanded in July to provide near-real-time authorizations to recreational UAS pilots. “The program’s continued expansion further increases the ability of drone pilots to gain safe and efficient access to controlled airspace nationwide,” the FAA said. <https://www.ainonline.com/aviation-news/general-aviation/2019-11-26/faa-expands-laanc-drone-program>

****European Aviation Groups Back Integration of Drones in Common Airspace** [Frank Wolfe](https://www.aviationtoday.com/author/fwolfe) November 26, 2019 *Pictured is a projection of Paris airspace in 2035*

A number of European and international aviation groups backed the integration of drones in common airspace in a [joint paper](https://www.canso.org/system/files/pictures/IMAGES/Documents/We%20are%20ALL%20ONE%20in%20the%20sky%20position%20-%20Joint%20Principles%20safe%20integration%20of%20drones.pdf) published earlier this month by the Civil Air Navigation Services Organization.

"Airspace is a finite resource with a growing number of actors – such as for manned and unmanned commercial, general aviation and air sports, military and search & rescue operations – all wanting to use it. Creating a mature framework that enables different categories of cooperative users to share the airspace is the best way to ensure fair and equitable access for all. It is also fundamental to unlock the true value of the drone services industry. Some of the most beneficial potential applications for drones exist in areas where other aircraft are likely to operate – from close to airports to offshore oil rigs where helicopters may operate.

The paper advocates the maximization of "airspace capacity and value through integration, not segregation" of drones. The organizations behind the paper are members of the We are ALL ONE in the Sky initiative and include the General Aviation Manufacturers Association, the International Air Transport Association, the International Federation of Air Traffic Safety Electronics Associations, Airlines for Europe, Airports Council International Europe, AeroSpace and Defence Industries Association of Europe, Air Traffic Controllers European Unions Coordination, the International Federation of Air Traffic Controllers’ Associations, and International Federation of Air Line Pilots’ Associations, among others. <https://www.aviationtoday.com/2019/11/26/european-aviation-groups-back-integration-of-drones-in-common-airspace/>

****What's more fancy than a Porsche? A flying Porsche.** Luxury automakers race to perfect the flying car Miquel Ros, CNN 27th November 2019

*View Gallery 10 Pictures*

**(CNN) — T**he long-expected [travel](https://www.cnn.com/travel) convergence between automobile and aircraft may finally be about to unfold. This is a pivotal time for the auto industry, with new automation and electrification technologies threatening to disrupt a century-old business model.

It's not surprising, then, that some of the major names in the automobile industry have set their eyes on the nascent field of personal air mobility. Firms such as Porsche, Daimler and Toyota are behind some of the most daring startups in the nascent eVTOL industry that aim to revolutionize urban transportation by taking to the air. These vehicles will be as ubiquitous in the urban landscape of tomorrow as their ground-based equivalents are today.

Sounds far-fetched? Some cities, such as Dubai, have already been testing the concept in a limited way. The emirate is drawing up plans for an [eVTOL roll out](https://www.cnn.com/2018/11/08/middleeast/hoverbike-dubai-police-flying-lessons/index.html).

For automakers, the emergence of new mobility technologies is, at the same time, a threat -- diverting journeys from their core ground transportation business -- and an opportunity to redefine themselves as mobility providers in a broader sense. <https://www.cnn.com/travel/article/flying-cars-automakers/index.html>

**Hivemapper Combines Videos from Any Drone to Create 3D Smart Maps** [João Antunes](https://www.commercialuavnews.com/author/joao-antunes)  [Surveying & Mapping](https://www.commercialuavnews.com/news/surveying-mapping) NOVEMBER 27, 2019

**** Hivemapper has made it simple to create intelligent maps that can power drone applications focused on everything from autonomous delivery to managing construction projects to keeping cities running.

Designed for Oil and Gas, Disaster Management, Urban Planning, Logistics, and more, the software provides users with machine vision mapping, visualization, and analytic tools to “uncover changes humans can’t see”. The company focuses on three components: the Map, for analytics; Change Detection, to see changes in the map over time; and Object AI to help understand the map.

To store all the information collected from users, the company created Hivemapper Swarm, a cloud-based software service hosted and maintained by the company. This allows users anywhere around the world to build both public and private maps without worrying about any of the infrastructure. For companies who want to keep their data fully within their network, there’s [Hivemapper Colony](https://blog.hivemapper.com/hardware-requirements-for-running-hivemapper-colony-b3788f4808df), an on-premises self-hosted platform that works with the company’s own hardware, cloud environment, or fully disconnected network. <https://www.commercialuavnews.com/surveying/hivemapper-combines-videos-from-any-drone-to-create-3d-smart-maps?utm_source=marketo&utm_medium=email&utm_campaign=newsletter&utm_content=newsletter&mkt_tok=eyJpIjoiWmpsbE5EVmhOMkl6TmpabCIsInQiOiJUR2JDb3psQWd5c2VhQmlKdEM5N0lkVlwvTDFWTUs2VVV4bkJXYVJYSCswd2lMZkIwcEhKdGJ6cnJIMFwvNXFKTE9wMCtlSzFJdGxXdVRIWWFjOXRwcENGTXRYdytIRTFSTXZhQ3VMS0FQR0JlQ1VjaktRYlJkelNld1NDSjI5dklWIn0%3D>

**DRONEUP ANNOUNCES 41 NEW JOBS IN VIRGINIA BEACH** October 24, 2019

RICHMOND—Governor Ralph Northam today announced that DroneUp, a web and mobile platform for on-demand drone pilot services, will invest $130,000 to expand its headquarters operation in Virginia Beach. Virginia successfully competed with North Carolina for the project, which will create 41 new jobs.

“The soaring success of innovative companies like DroneUp is a reflection of the many competitive advantages available to unmanned systems companies in Virginia,” said Governor Northam. “We are thrilled that DroneUp is reinvesting in the Commonwealth and helping to propel the Hampton Roads economy forward.”

DroneUp connects drone clients with qualified drone pilots through its Mission Match™️ process. The company delivers on-demand services to commercial, government, and military organizations and addresses airspace safety oversight.

“We are honored to be part of the Virginia business community,” said Tom Walker, founder and CEO of DroneUp. “We are sincerely grateful to Governor Northam, the Virginia Economic Development Partnership, the Hampton Roads Economic Development Alliance and the City of Virginia Beach. Their support, along with the Virginia Jobs Investment Program, have helped to ensure that we have the resources necessary to maintain our position as an industry leader in the global drone services space.” <https://www.hreda.com/news-media/blog/2019/10/droneup-announces-41-new-jobs-in-virginia-beach/>

**Identifying a market for a transformable air-ground robot** Ashley Roque**,** Washington, DC - Jane's Defence Weekly 20 November 2019

Robotic Research is working to find a military market for Pegasus, a UAV-UGV combo.

Robotic Research's Pegasus may be fielded to select US Special Forces, but the company is facing challenges breaking into a US military market that can't quite figure out how to classify a drone that can both fly and navigate on land.

On 19 November, the company held a media day in Clarksburg, Maryland, to show off its newest projects including a 'transformable' vehicle dubbed Pegasus - part unmanned aerial vehicle and part unmanned ground vehicle.

"You can fly to a location and once you land in that building, for example ... you can drive to a location that you're interested in and then recovery is easy because you can fly away. This sequential use of fly-drive-fly gets you to places that no other robot can take you," president and co-founder Alberto Lacaze explained.

While the platform was developed for Special Forces, it is not yet a US military program of record, and Lacaze said the company is having some challenges finding a home for this new robot class. <https://www.janes.com/article/92725/identifying-a-market-for-a-transformable-air-ground-robot>

**28Nov19**

**Department of Justice posts US drone policy update for first time in four years** [FAA](https://www.commercialdroneprofessional.com/category/regulation/faa/) [LEGISLATION](https://www.commercialdroneprofessional.com/category/legislation/) [NEWS](https://www.commercialdroneprofessional.com/category/news/) [UNITED STATES](https://www.commercialdroneprofessional.com/category/news/united-states/) [SAM LEWIS](https://www.commercialdroneprofessional.com/author/sam-lewis/)  NOVEMBER 28, 2019

[](https://www.commercialdroneprofessional.com/wp-content/uploads/2018/11/us-capitol-477987_1280.jpg)One significant change is that government departments must “evaluate UAS acquisitions for cyber security risks”.

This comes in the wake of the grounding of all 800 Department of the Interior drones last month due to concerns about cyber risks from Chinese-made drones. A further comment said that government bodies must “weigh the possible intrusiveness and impact on privacy and civil liberties” against the interests of government.

Another change is required collaboration between the DOJ and the FAA on airspace access. <https://www.commercialdroneprofessional.com/ministry-of-justice-posts-us-drone-policy-update-for-first-time-in-four-years/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-318249-Commercial+Drone+Professional+DNA+-+2019-11-28>

**29Nov19**

**What Not to Do: Thanksgiving Dinner with a Drone** [Miriam McNabb](https://dronelife.com/author/miriam-mcnabb/) November 28, 2019

It’s that time of year again – time to review what you can (and cannot) do with a drone for Thanksgiving dinner prep.   That’s right, there are YouTube videos on how to hunt a turkey, cook a turkey, and even make mashed potatoes and gravy.

The team at [IntelligentUAS](http://1uas.com/index.php?route=common/home) published a video last year of an expert flyer using a drone to dip a turkey into a deep fryer.  Possible, yes – but unless you can set up your fryer in the middle of a field, have an industrial strength drone and are willing to sacrifice 3 -4 birds to practice and accidents you might be better off just using a kitchen glove.

The other way of cooking a turkey with a drone is to equip the drone with a homemade flamethrower and roast it. The flamethrower turkey roasting video published in 2015 by a CT teen actually [landed the teen and his family in court](https://dronelife.com/2016/06/23/faa-takes-flame/) and in serious trouble with both local law enforcement and the FAA, so that one should probably be crossed off your list

In a great video produced by the marketing team at [Autel Robotics](https://www.autelrobotics.com/) last year, an Autel drone is used to peel potatoes, chop carrots, and – equipped with kitchen beaters instead of props – whip up a creamy mash and gravy.  But, in speaking with the chef last year, he did tell DRONELIFE that it took a full day to scrape the resulting mess off of the ceiling and walls of his kitchen. <https://dronelife.com/2019/11/28/what-not-to-do-thanksgiving-dinner-with-a-drone-and-other-questionable-cooking-advice/>

[**Best drones you can buy on Amazon today – Buyers guide**](https://dronedj.com/2019/11/28/best-drones-you-can-buy-on-amazon-today-buyers-guide/) Haye Kesteloo Nov. 28th 2019

Amazon is littered with cheap drones. Here’s a list of what we think are the best drones that are available on Amazon today. They include all-time favorites such as the [DJI Mavic 2 Pro](https://amzn.to/2OuAjbf), [DJI Mavic 2 Zoom](https://amzn.to/2Ds5Y73), [DJI Mavic Air](https://amzn.to/34upmfj), [DJI Mavic Mini](https://amzn.to/2Dp0AkX), [Parrot Anafi](https://amzn.to/2L3m6QJ), [Autel Evo](https://amzn.to/35OxOGR), and even the Ryze Tello. Check it out below, before or after you have had your Thanksgiving dinner.

**The DJI Mavic 2 Pro.** It features a Hasselblad 20MP, UHD 4K gimbal camera with a 1-inch sensor. The Mavic 2 Pro has a flight time of 31 minutes and a top speed of almost 45 mph. The Mavic 2 Pro comes with omnidirectional obstacle avoidance, ActiveTrack 2.0 and a number of shooting modes. Available at Amazon for [**$1,379**](https://amzn.to/2OuAjbf).

**The DJI Mavic 2 Zoom** The zoom range on this camera is from 24-48mm. And it shoots 12MP stills and 4K video. The flight time is 31 minutes and the drone has a top speed of almost 45 mph. The Mavic 2 Pro comes with omnidirectional obstacle avoidance, ActiveTrack 2.0 and a number of shooting modes. Available at Amazon for [**$1,439**](https://amzn.to/2Ds5Y73).

**The DJI Mavic Air** It comes with a 3-axis gimbal-stabilized camera that shoots 12MP stills and 4K video at 100 Mbps. This drone has some special built-in features such as the 32MP Sphere Panoramas, HDR photos and a number of QuickShots that make it easier to get those amazing aerial video clips. it has a flight time of just over 20 minutes. The DJI Mavic Air has advanced obstacle avoidance built-in as well. Available at Amazon for [**$788**](https://amzn.to/34upmfj).

**The DJI Mavic Mini**. It is the ultimate DJI beginners drone that comes with an easier to use app, the DJI Fly app. The mini will fly for almost 30 minutes. I have a DJI Mavic Mini on loan from DJI and I like it so much that I’ll have a hard time giving it back… The Mavic Mini is available on Amazon for [**$399**](https://amzn.to/2Dp0AkX) or for [**$589**](https://amzn.to/34quyku) if you opt for the Fly More Bundle.

**The Parrot Anafi** It has agimbal-stabilized camera that can point 90-degrees upward as well as downward, allowing you to get very creative shots. The Anafi shoots 21MP stills and 4K HDR video. This drone will fly for about 25 minutes and is available on Amazon for [**$599**](https://amzn.to/2L3m6QJ) today.

**The Autel Evo** It shoots 12MP stills and 4K video at 60 fps. It is a foldable quadcopter that will fly for about 30 minutes. the Evo is available on Amazon for [**$999**](https://amzn.to/35OxOGR) today. <https://dronedj.com/2019/11/28/best-drones-you-can-buy-on-amazon-today-buyers-guide/>