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**3Aug19**

**Inside the First Truly BVLOS Drone Flight Without Ground Observers – A 4 Mile Linear Inspection Along the Trans-Alaska Pipeline** [Miriam McNabb](https://dronelife.com/author/miriam-mcnabb/) August 02, 2019

[](https://dronelife.com/wp-content/uploads/2019/08/1024px-Trans-Alaska_Pipeline_System_ENBLA01-e1564760602235.jpg)This week the University of Alaska Fairbanks’ [UAS Integration Pilot Program](https://dronelife.com/2017/11/02/transportation-secretary-elaine-chao-hosts-launch-drone-integration-pilot-program/) moved forward with a ground-breaking BVLOS flight. The mission was a four mile linear inspection of the Trans-Alaska pipeline.  The University of Alaska team and Alyeska Pipeline Service designed the project which involved a hybrid electric drone made for endurance flight from [Skyfront](https://skyfront.com/), on-board sense-and-avoid technology from [Iris Automation](https://www.irisonboard.com/) and ground-based, radar sensors from [Echodyne](http://r20.rs6.net/tn.jsp?f=001cvoG5dlY-BtVGZq77DNvNKNZfLBPww7SUnG1FpKlFor42v-XkTy50Qv1iouSCWgmK-tnaaeyH7H3au8dt0aytPYuUizE7sYDyuumOKfUVceAxsAZOtU8lsM7dXLY0lys2nsBTKcxgBR7y6Q8r7Xy4sWuGbSMVGw-82f6ephFHno=&c=DRxiQeciiPFdU4NCsz0RMXY7JndyfA3RBXnPGdExSBSlcPTPcn4f_g==&ch=NpDjz3Y0m_smw6jHdZJSTeYYdewxZRg96P3xsMKIMjg4-4bDDIs2BA==).

“The test was to fly the drone along the pipeline with no human involvement at all,” explains Leo McCloskey, VP Marketing at Echodyne.   It carried the Iris Automation Casia system that detects, tracks and classifies other aircraft, makes decisions about the threat they may pose and triggers automated maneuvers to avoid collisions.

The Casia system worked in conjunction with 8 ground-based radars set up along the route. There were two interfaces at the command center: one to monitor the drone and one to monitor the radar.  As the drone altitude followed the terrain, rising over hills and dipping over valleys, the combination of sensors allowed the operators to distinguish between “ground clutter” and true obstacles, ensuring a safe flight.  “Radar is important,” says McCloskey.  As companies begin to plan long range inspections, “3D Radar is the best sensor to manage that airspace so there is always a safety first environment,” says McCloskey. <https://dronelife.com/2019/08/02/inside-the-first-truly-bvlos-drone-flight-without-ground-observers-a-4-mile-linear-inspection-along-the-trans-alask-pipeline/>

**Precision Landing for DJI Drones: New Automation Solution from FlytBase** [Miriam McNabb](https://dronelife.com/author/miriam-mcnabb/) August 02, 2019

**[](https://dronelife.com/wp-content/uploads/2019/08/Precision-Landing-1.jpg)***The following is a FlytBase press release.*

Professional users of prosumer-grade UAVs can now hover and land their drones precisely – for drone-in-a-box, autonomous charging, indoor operations, remote inspection missions and other commercial-use cases.

Precision landing has until now been available mainly for commercial-grade drones – particularly those running autopilots. FlytBase now brings this capability to prosumer grade drones (the DJI Mavic and Phantom series) that are SDK-enabled.

Fully autonomous precision landing is best delivered via a vision-based approach that leverages the inbuilt downward-looking camera and intelligent computer vision algorithms while avoiding the need for external sensors, cameras and companion computers. The ability to configure and manage this capability over the cloud in real-time, customize the visual markers, and integrate with the ground control station makes it well suited for enterprise drone fleets. <https://dronelife.com/2019/08/02/precision-landing-for-dji-drones-new-automation-solution-from-flytbase/>

**Terra Drone Europe Conducts Oil Rig Platform Survey and 3D Modeling For Shell** [August 1, 2019](https://uasweekly.com/2019/08/01/) [Mapping and Surveying](https://uasweekly.com/category/mapping-and-surveying/)

 Terra Drone Europe has successfully completed the aerial 3D survey of an offshore platform in the North Sea on behalf of Shell.

Precision in drill rig positioning is indispensable in offshore exploration because errors can pose significant worker safety and commercial implications. Terra Drone Europe was thus roped in to capture as-is conditions. The company divided the survey into two parts. One was dedicated to creating a 3D point cloud and the second was to accurately check the position of the platform using GNSS readings.

Two GNSS receivers were installed at several locations on each platform and used to log in the data which was later processed. When this data was combined with the 3D point cloud, the coordinates of each and every asset on the platform structure could be determined accurately. <https://uasweekly.com/2019/08/01/terra-drone-europe-conducts-oil-rig-platform-survey-and-3d-modeling-for-shell/?utm_source=newsletter&utm_medium=email&utm_campaign=uasweekly_daily_newsletter_08_02_2019&utm_term=2019-08-02>

**FAA and Kittyhawk IO Launch New B4UFLY App** [August 1, 2019](https://uasweekly.com/2019/08/01/) [FAA & Drone Laws](https://uasweekly.com/category/faa-drone-laws/) | [News](https://uasweekly.com/category/news/)

[Kittyhawk](https://cts.businesswire.com/ct/CT?id=smartlink&url=https%3A%2F%2Fwww.kittyhawk.io&esheet=52021903&newsitemid=20190731005289&lan=en-US&anchor=Kittyhawk&index=1&md5=a5ab4870d98bd16be4777516b39a26b9)  and the Federal Aviation Administration today introduced a new version of B4UFLY, the free mobile app that lets drone operators check the status of airspace prior to flight. Available now for iOS and Android, the app determines what airspace restrictions are in effect at any location in the United States, in real-time.

More than 700,000 people have used B4UFLY since its original launch in 2016. It is provided through a partnership between the FAA and Kittyhawk at no cost to taxpayers.

The new app leverages Dynamic Airspace, Kittyhawk’s patented airspace controller for managing real-time flight restrictions, authorizations, and guidance. It programmatically consumes FAA data sources for controlled airspace, special use airspace, critical infrastructure, airports, national parks, military training routes, and temporary flight restrictions. <https://uasweekly.com/2019/08/01/faa-and-kittyhawk-io-launch-new-b4ufly-app/?utm_source=newsletter&utm_medium=email&utm_campaign=uasweekly_daily_newsletter_08_02_2019&utm_term=2019-08-02>

**5Aug19**

**Some Want Delivery Drones to Buzz Off. Would Stricter Rules Change Their Minds?** Mike CherneyAug. 2, 2019

*Wing carried out a drone delivery trial in Australia, and it plans to do one in Virginia this year.*

SYDNEY—A parliamentary report into one of the world’s most advanced [drone-delivery trials](https://www.wsj.com/articles/delivery-drones-cheer-shoppers-annoy-neighbors-scare-dogs-11545843552?mod=article_inline), by a Google affiliate in Australia, raised concerns about privacy, noise and wildlife, underscoring challenges tech giants face as they prepare to bring such services to the U.S.

The report, released Thursday by state-level officials in the Australian capital, Canberra, said existing laws may not prevent a drone from collecting high-resolution images during deliveries, and recommended officials investigate what more regulation might be needed. It also said there was initially a lack of oversight of noise from the drones’ propellers and rotors, and that more study was needed to determine whether frequent drone flights impact local wildlife.

The trial by Wing—which, like Google, is a subsidiary of Alphabet Inc.—delivered coffees, burritos and drugstore items in a Canberra suburb. Some residents were thrilled by the convenience and used the service multiple times a day. Others found the drones noisy and intrusive and eventually complained to lawmakers.

The state-level government is required to respond to the committee’s report, but the report’s recommendations are nonbinding. A Wing spokesperson said the company welcomed the final report and will work with the government, regulators and the broader community.

Wing and others are betting that drone deliveries could revolutionize e-commerce by cutting delivery times, reducing energy use and lowering costs. Wing is planning a [drone-delivery trial in Virginia](https://www.wsj.com/articles/Google%20Wins%20First%20FAA%20Approval%20for%20Regular%20Drone%20Delivery%20of%20Consumer%20Items?mod=article_inline) later this year. Amazon recently unveiled a new delivery-drone design, and [United Parcel Service](https://quotes.wsj.com/UPS) is [seeking U.S. regulatory approval](https://www.wsj.com/articles/ups-seeks-authority-for-commercial-drone-flights-11563913288?mod=article_inline) to operate a new drone-delivery subsidiary. <https://www.wsj.com/articles/some-want-delivery-drones-to-buzz-off-would-stricter-rules-change-their-minds-11564744619>

[](https://www.airforce-technology.com/news/usaf-ascent-vision-anti-drone/)**USAF contracts Ascent Vision Technologies for anti-drone systems** 2 AUGUST 2019

The US Air Force has awarded a contract to Ascent Vision Technologies to supply a full suite of anti-unmanned aircraft system vehicles.

Ascent Vision’s eXpeditionary Mobile Air Defense Integrated System (X-MADIS) is a counter-drone technology for fixed, mobile and on-the-move applications. It underwent 18 months of testing, trials and evaluation across multiple military services and operational spectrums. The contract has a potential of more than $23m, and deliveries are expected to start later this year.

It features tactical air surveillance radar, gyro-stabilized optical sensor, a command and control interface and electronic warfare system.

Ascent Vision has stated that it has secured contracts valued at more than $60m to deliver counter-drone products and services for US and allied militaries. <https://www.airforce-technology.com/news/usaf-ascent-vision-anti-drone/>

**Drone Manufacturer Schiebel Announces U.S. Subsidiary** *Aug 4, 2019* [Bill Carey](https://aviationweek.com/author/bcarey) *Aerospace Daily & Defense Report*

Austria’s Schiebel Group has formed a new subsidiary to market its Camcopter S-100 unmanned helicopter in the U.S. and named industry veteran Gretchen West to lead the company.

Schiebel Aircraft Inc. is a program, logistics and sales hub focused on “tremendous opportunities” for the 440-lb. helicopter in the U.S. defense, civil and commercial markets, the parent company announced on Aug. 1. Powered by avgas or JP-5 heavy fuel, the Camcopter carries a 75-lb. payload for up to 10 hours, navigates by preprogrammed GPS waypoints and transmits high-definition imagery to its control station in real time.

Schiebel Group supplies the Camcopter under a multi-year contract with the European Maritime Safety Agency. The company has production facilities in Wiener Neustadt, Austria, and Abu Dhabi, UAE. <https://aviationweek.com/awindefense/drone-manufacturer-schiebel-announces-us-subsidiary>

**FAA tests detect and avoid equipment with New Mexico State University** [August 1, 2019](https://www.unmannedairspace.info/latest-news-and-information/faa-tests-detect-and-avoid-equipment-with-new-mexico-state-university/" \o "10:48 am) [Jenny Beechener](https://www.unmannedairspace.info/author/jenny/) [UAS traffic management news](https://www.unmannedairspace.info/category/uncategorized/)

Several different flying encounter scenarios were tested using manned and unmanned aircraft at the New Mexico State University Physical Science Laboratory test site at Jornada Experimental Range from 16-18 July 2019. The flight tests are part of a Federal Aviation Administration project to examine “Small UAS Detect and Avoid Requirements Necessary for Limited Beyond Visual Line of Sight Operations: Separation Requirements and Testing”. The range is one of seven FAA-approved unmanned Aircraft Systems sites designated to test airborne, ground-based, visual/optical systems, radar and acoustic technology solutions.

Two types of UAS, a multi-rotor and a fixed wing, fitted with detect and avoid equipment, and two manned, NMSU vehicles, the CTLS Light Sport aircraft and Spyder Ultralight aircraft, which posed as the intruder aircraft, were used in the flight testing. An AI-based autonomous collision avoidance system from Iris Automation called Casia was used on the UAS to detect manned aircraft and respond with an avoidance maneuver.

Considerations for encounter scenarios included safe separation distances between vehicles of at least 100 feet in lateral separation and 250 feet in vertical separation. The vehicles conducted tests at different encounter angles and cross patterns. Flights were conducted at two altitudes: 100 feet for the UAS and 500 feet for the manned along with 400 feet for the UAS and 650 feet for the manned. The testing assessed when the Iris system was triggered and its limits.

Flight information on both the UAS and manned vehicles was collected, and the research team is due to plot the information to show the encounters in the coming weeks. <https://www.unmannedairspace.info/latest-news-and-information/faa-tests-detect-and-avoid-equipment-with-new-mexico-state-university/>

**THIS STRANGE SOLAR-POWERED DRONE COULD SAVE YOU IN A DISASTER** AUGUST 1ST 2019 KRISTIN HOUSER

For two years, Chinese aircraft manufacturer OXAI Aircraft Co. has been developing MOZI 2, a fully solar-powered unmanned aircraft it hopes will one day help out in disaster relief situations.

On Saturday, the drone took its maiden flight at an airport in Deqing County — and it appears the test went off without a hitch. **It** has a wingspan of 49 feet and is powered solely by solar cells. It can reach an altitude of 8,000 meters (nearly 5 miles) with a maximum cruise time of 12 hours at night following eight hours of charging in sunlight.

In addition to contributing to disaster relief scenarios, the solar-powered drone could be useful for reconnaissance missions and communication efforts, OXAI Aircraft told *Xinhua* — and now that it knows the craft can fly, it can start working toward those applications. <https://futurism.com/the-byte/solar-powered-drone-disaster-relief>

**[Fast-growing Public Safety Drone Programs face new challenges](https://dronedj.com/2019/08/05/public-safety-drone-programs-2/)** [Haye Kesteloo](https://dronedj.com/author/hayekesteloo/) Aug. 5th 2019

New research from non-profit group DRONERESPONDERS that was presented at the 2019 UAS DRONES Disaster Conference in Los Angeles, shows that the fast-growing Public Safety Drone Programs face new challenges. Analyst Greg Crustinger, Ph.D., presented insights as to how first responders and their agencies are using [UAS for public safety.](https://dronedj.com/guides/drones-to-the-rescue/)

Among the key findings that DRONERESPONDERS discovered in their 2019 Mid-Year Public Safety UAS Report:

* 3 out of 4 public safety agencies claim they are already either operating drones or working on implementing a UAS program.
* More than 80% of public safety UAS operators either have obtained, or are pursuing, their FAA Part 107 certification.
* 82% of public safety agencies with UAS program are operating multi-rotor systems, while only 11% are using fixed or delta-wing drones.
* Over 35% of public safety UAS programs are using the FAA’s LAANC system for airspace requests.

The DRONERESPONDERS data included survey responses from 288 public safety professionals, combined with expert insight from DRONERESPONDERS analysts who work with a variety of stakeholders within the public safety UAS sector. <https://dronedj.com/2019/08/05/public-safety-drone-programs-2/#more-18148>

**6Aug19**

**Raytheon to Build High-Energy Laser Tech for Air Force Field Experimentation** [Mary-Louise Hoffman](https://www.govconwire.com/author/mary-louise-hoffman/) August 5, 2019 [Contract Awards](https://www.govconwire.com/category/contract_awards/), [News](https://www.govconwire.com/category/news/)

The U.S. Air Force has selected [Raytheon](https://www.govconwire.com/?s=Raytheon) to develop two prototypes of a High Energy Laser Weapon System for experimental use under a $23.8M sole-source contract.

The Washington Post [reported Friday](https://www.washingtonpost.com/business/2019/08/02/air-force-deploy-ground-based-lasers-first-field-test-directed-energy-weapon/?noredirect=on&utm_term=.27fa1f9a19a6) the service branch plans to evaluate the potential of the system to defeat small unmanned aerial system threats over a 12-month field assessment that will take place outside the continental U.S. The 10-kilowatt laser technology is designed to integrate with a small ground-based vehicle and employ a video game controller-like interface.

“What we really want to do is figure out how we can deploy these systems in an environment where our warfighters work and train every day,” Evan Hunt, director of high energy laser and counter-UAS at Raytheon, told The Post in an interview.

Michael Jirjis, lead for the Directed Energy Weapons Experimentation Campaign at USAF, said the HELWS program will involve the first operational field test of such technology and engagement across the service's entire enterprise. <https://www.govconwire.com/2019/08/raytheon-to-build-high-energy-laser-tech-for-air-force-field-experimentation/>

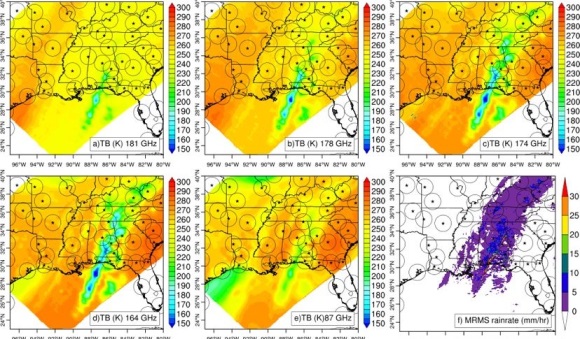
**SpaceX Falcon 9 rideshare missions announced** [CORINNE REICHERT](https://www.cnet.com/profiles/corinne.reichert/) AUGUST 5, 2019

*Small sats can use SpaceX's dedicated, regular Falcon 9 missions for $2.25 million minimum*.

Elon Musk's [SpaceX](https://www.cnet.com/news/spacex-guide-to-elon-musk-space-company/) is expanding its [Falcon 9 rideshare missions](https://www.cnet.com/news/watch-spacex-push-the-limits-of-rocket-recycling-again/) to target small satellite operators, saying Monday it will have ["regularly scheduled, dedicated" missions](https://twitter.com/SpaceX/status/1158437647280271363). The [service will start at $2.25 million](http://spacex.com/smallsat) for 150kg (330 pounds) of payload mass, plus $15,000 for every kilogram above that. SpaceX is expanding its launch services to directly address the needs of small satellite operators through regularly scheduled, dedicated Falcon 9 rideshare missions. [http://spacex.com/smallsat](http://spacex.com/smallsat )

"With SpaceX as a launch partner, small satellites can fly on dedicated missions with the world's leading commercial launch provider at a fraction of traditional costs," the space company said. The first mission will launch between November 2020 and March 2021, with the subsequent two SmallSat Rideshare Program missions scheduled for the first quarters of 2022 and 2023. <https://www.cnet.com/news/spacex-expands-falcon-9-rideshare-missions/>

**Blue Canyon Technologies continues NASA cubesat operations** [Debra Werner](https://spacenews.com/author/debra-werner/" \o "Posts by Debra Werner) August 5, 2019

*TEMPEST-D data from Jan. 29, 2019 shows a storm in the southeastern United States. Rainfall estimates from ground-based weather radar are in the lower right-hand corner. Circles show coverage of individual weather radars.*

LOGAN, Utah — Small satellite manufacturer Blue Canyon Technologies (BCT) announced plans Aug. 5 to continue operating two NASA-funded cubesats, TEMPEST-D and HaloSat, from its mission operations center in Boulder, Colorado. Both TEMPEST-D, short for Temporal Experiment for Storms and Tropical Systems – Demonstration, and HaloSat, an investigation of the Milky Way’s galactic halo, were launched from the International Space Station in July 2018. A year later, both six-unit cubesats are working well.

BCT is building more than 60 spacecraft for government, commercial and academic customers, currently operates five satellite missions and plans to begin 12 more in 2020.

The TEMPEST-D satellite makes global measurements of water vapor, clouds and precipitation using a five-channel millimeter-wave radiometer. The cubesat was developed by Colorado State University, NASA’s Jet Propulsion Laboratory, the California Institute of Technology and BCT. NASA’s Earth Ventures program is sponsoring the mission. <https://spacenews.com/blue-canyon-technologies-continues-nasa-cubesat-operations/>

[](https://2e2de02um3hsz26s7iwe817v-wpengine.netdna-ssl.com/wp-content/uploads/2019/08/Japan.jpg)**Japan’s NEC Corp demo of passenger drone surpasses one minute in the air** [INNOVATION](https://www.commercialdroneprofessional.com/category/innovation/" \o "Innovation) [INTERNATIONAL](https://www.commercialdroneprofessional.com/category/news/international/) [NEWS](https://www.commercialdroneprofessional.com/category/news/) [ZOE MONK](https://www.commercialdroneprofessional.com/author/zoe-monk/) AUGUST 6, 2019

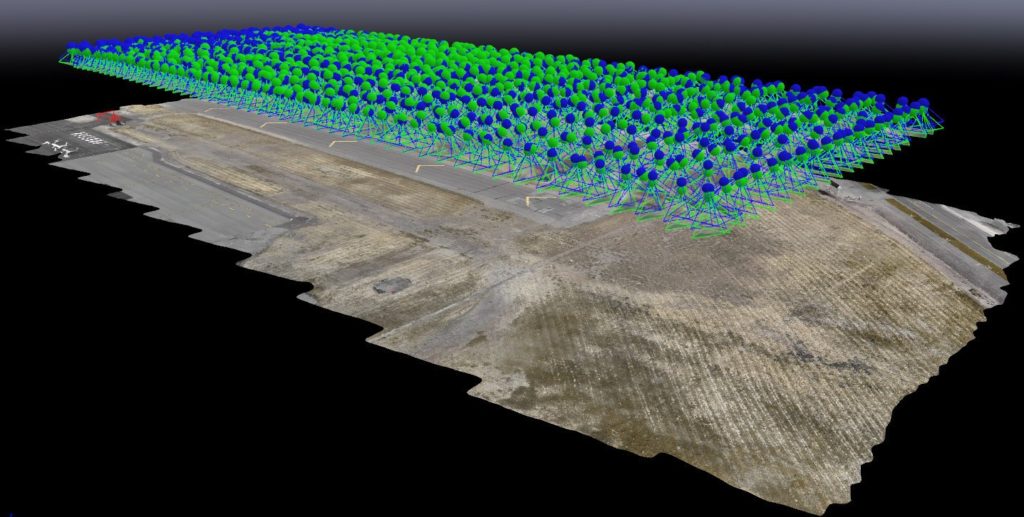
The company’s battery powered drone rose to a height of about 10 feet for around 60 seconds during the trial inside a safety cage at a test facility in Abiko in Tokyo.

It weighs about 150 kilograms and is around 3.9 metres long, 3.7 metres wide and 1.3 metres tall, with still major steps to overcome before it is able to carry passenger weight.

Under Japan’s infrastructure plan, deliveries made by such drones are scheduled to start by 2023.

The government hopes to allow people to travel in the machines in the following decade. Venture capitalists in Japan meanwhile are investing in autonomous aircraft companies through their Drone Fund. <https://www.commercialdroneprofessional.com/japans-nec-corp-demo-of-passenger-drone-surpasses-one-minute-in-the-air/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-309121-Commercial+Drone+Professional+DNA+-+2019-08-06>

**UAS Photogrammetry Used for Airport Inspection & Analysis** 05 Aug 2019

[](https://www.unmannedsystemstechnology.com/2019/08/uas-photogrammetry-used-for-airport-inspection-analysis/uas-photogrammetry-for-airport-inspection/)[AeroTEC](https://www.aerotec.com/), a provider of aerospace testing, engineering, and certification services, has announced the successful completion of proof-of-concept UAS surveys at two Washington state airports in collaboration with the Washington State Department of Transportation (WSDOT) Aviation Division.

The aerial surveys, which took place at Sunnyside Municipal Airport and Prosser Airport, were designed to assess the use of photogrammetry to evaluate runway obstacles. This is the first time the technique has been used for WSDOT Aviation’s airport inspections.

AeroTEC’s pilots flew a UAS to capture a series of images used to create virtual models of the airports. The models were then analyzed and used to identify obstacles in a predetermined area near the end of each runway as required by Federal Aviation Regulations. By utilizing this UAS-enabled photogrammetry technology, AeroTEC was able to provide WSDOT a runway obstacle report at a far higher degree of accuracy and lower cost than traditional methods. <https://www.unmannedsystemstechnology.com/2019/08/uas-photogrammetry-used-for-airport-inspection-analysis/?utm_source=Unmanned+Systems+Technology+Newsletter&utm_campaign=facaf1fc58-eBrief_2019_Aug-06&utm_medium=email&utm_term=0_6fc3c01e8d-facaf1fc58-119747501>

**Coastguard tasks UAV industry with new £1m drone tender** [BUSINESS](https://www.commercialdroneprofessional.com/category/business/" \o "Business) [JOE PESKETT](https://www.commercialdroneprofessional.com/author/joe-peskett/) AUGUST 6, 2019

[](https://2e2de02um3hsz26s7iwe817v-wpengine.netdna-ssl.com/wp-content/uploads/2019/08/before-the-storm-1521005-1280x960.jpg)The Maritime and Coastguard Agency tender is designed to provide a quicker and cheaper alternative to helicopters in the form of a network of drones stationed along the coast.

UAVs will be expected to patrol an area up to 11 miles from the coastline and will be primarily used in search and rescue, although pollution control will be another focus. The location for the trial has not been decided but UAVs will be expected to remain airborne for more than three hours. More than £18m has been penned for drone technology to be used around the UK coastline following the trial.

There are concerns that the need to fly drones beyond-the-line of sight may hamper efforts to roll out the technology on a large scale. Last week, the [**US Federal Aviation Administration (FAA) approved the first drone flight beyond-the-line-of-sight**](https://www.commercialdroneprofessional.com/faa-approves-first-flight-beyond-line-of-sight/), making a leap towards the further integration of drones into everyday life.

The MCA’s contract will be awarded in October and is expected to run until March 2021. Details on how to apply can be found [**HERE**](https://www.contractsfinder.service.gov.uk/Notice/884f0f85-8a05-487a-a4c9-ab9336abb6f2). The application deadline is 12 August. A spokeswoman told the newspaper that the MCA wants to “unlock drones’ potential”. <https://www.commercialdroneprofessional.com/coastguard-tasks-uav-industry-with-new-1m-drone-tender/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-309121-Commercial+Drone+Professional+DNA+-+2019-08-06>

**Switzerland’s U-Space: Enabling a “Safe and Open Drone Economy” With Aviation Data Exchange Hub** [Miriam McNabb](https://dronelife.com/author/miriam-mcnabb/) August 06, 2019

[](https://dronelife.com/wp-content/uploads/2019/08/Geneva-Airport-FIMS-UTM-Dashboard_Attribute-to-skyguide.jpg)The Swiss Federal Office of Civil Aviation announced today that they have deployed the Swiss U-Space flight information management system for drones, or the FIMS.

In March 2018, Swiss air navigation service provider [skyguide](http://www.skyguide.ch/en/) and airspace intelligence provider [AirMap](http://airmap.com/) announced their partnership to develop the[first nationwide U-space system in Europe](https://www.skyguide.ch/en/events-media-board/news/#p13446-13453-13459)  to provide the comprehensive framework required for that communication.  Today, Swiss U-Space deployed the FIMS, “an aviation data exchange hub that connects skyguide’s air traffic management system to UAS Service Providers with open interfaces” says a skyguide press release.

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Here’s how it works:  the FIMS is a cloud-based platform that distributes airspace information, directives and real-time air traffic information taken from skyguide’s air traffic systems to drone operators through a network of service providers (USPs). Participating USPs can connect to the FIMS and provide the data to drone operators, and the system is designed to connect with multiple USPs – “to support an open, competitive drone economy with a marketplace of drone services,” says the release – which means that drone operators will have a choice of application for airspace intelligence. <https://dronelife.com/2019/08/06/switzerlands-u-space-enabling-a-safe-and-open-drone-economy-with-aviation-data-exchange-hub/>

**Solar sailing, at long last** Jeff Foust Monday, August 5, 2019

 “Today is the day we declare mission success,” said Bill Nye, CEO of The Planetary Society, in a teleconference. “We are going to a higher orbital altitude without rocket fuel, just from the push of sunlight.”

“The objective of the mission is to just show a definitive change in our orbit apogee through solar sailing” said David Spencer, the LightSail 2 project manager and an associate professor at Purdue University. The solar sailing phase of the mission should continue through late August, Spencer said, with the spacecraft’s apogee continuing to rise and perigee dip until atmospheric drag overwhelms the thrust from the sail. Exactly when that will happen, and by how much orbit the orbit changes, isn’t clear because of uncertainties in atmospheric density at the altitudes LightSail 2 is flying, about 705 and 725 kilometers.

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Once the sailing phase of the mission ends, the orbit will gradually decay, reentering in about a year. Engineers plan to do additional tests on the spacecraft during that time, manipulating the sail to see how different orientations affect the drag on the spacecraft.

Society officials were very satisfied with the outcome of the LightSail 2 mission and the overall program, which cost $7 million, according to Jennifer Vaughn, COO of the organization. That funding came from donations from nearly 50,000 people in 109 countries. “They are truly the heroes of the story,” she said of the project’s supporters. “LightSail 2 is their spacecraft, and I’m so very grateful for the decade of support for LightSail.” <http://www.thespacereview.com/article/3774/1>

**7Aug19**

**HawkEye 360 Closed a $70M Series B Funding Round** 8/6/19  [Michelai Graham](https://technical.ly/dc/author/mgraham), [Technical.ly DC](https://technical.ly/dc)

**Herndon, Va.-based **HawkEye 360**, a radio frequency data analytics startup, [**announced**](https://www.newswire.com/news/hawkeye-360-secures-70-million-in-series-b-financing-20957521) that it has closed on a **$70 million** Series B financing round. The startup reports that it will use the funding to develop and deploy its full constellation of satellites and product lines by 2021.

This funding round had participation from new investors Airbus and Esri, existing investors Razor’s Edge Ventures, Allied Minds and Shield Capital Partners, with additional undisclosed parties, the press release states. HawkEye 360 raised $35.3 million from four previous Series A funding rounds, [**Crunchbase reports**](https://www.crunchbase.com/organization/hawkeye-360-2#section-funding-rounds). This latest round brings the startup to more than $100 million in funding since its inception in 2015.

“Receiving an investment of this size, especially for a pioneering space startup, reaffirms the value investors place on the advanced capabilities of our satellites and the highly innovative RF data analytic products,” John Serafini, HawkEye 360 CEO, said in a statement. “This financing not only capitalizes the development of our full constellation, but also provides exceptional access to European markets through our new investor and distribution partner, Airbus.” <https://dc.citybizlist.com/article/565142/hawkeye-360-closed-a-70m-series-b-funding-round>

**OneWeb founder Wyler calls for responsible smallsat operations** [Jeff Foust](https://spacenews.com/author/jeff-foust/" \o "Posts by Jeff Foust) August 6, 2019

LOGAN, Utah — The founder of broadband megaconstellation company OneWeb urged the smallsat industry to operate responsibly in orbit, warning that failed satellites and collisions could result in stifling government regulation.

In an Aug. 5 keynote address at the Conference on Small Satellites here, Greg Wyler contrasted OneWeb’s emphasis on building reliable satellites and avoiding the creation of orbital debris with unnamed companies that he fears may sacrifice reliability in a rush to get their satellites launched.

His comments appeared to be a veiled reference to SpaceX and its Starlink constellation. SpaceX launched its first 60 satellites in May, and later reported at least three had failed.

Wyler argued that OneWeb is trying to be a responsible operator by focusing on the reliability of its satellites, avoiding failures that prevent from the company from deorbiting them. The first six OneWeb satellites, launched in February, are 100% functional, he said.

With completion of a new factory in Florida, the company is preparing to launch its initial constellation of 650 satellites in batches of 34 to 36 each. Those launches will take place monthly, starting in December, on Soyuz rockets. <https://spacenews.com/oneweb-founder-wyler-calls-for-responsible-smallsat-operations/>

**Drones a game changer for insurance world, State Farm claim specialists say at Greeley demo** [News](https://www.greeleytribune.com/recent-stories/news) August 6, 2019 [Trevor Reid](https://www.greeleytribune.com/profile/trevor-reid/) [treid@greeleytribune.com](mailto:treid@greeleytribune.com)

*State Farm claim specialist Austin Wilkins shows off the senseFly eBee drone*

Whether working an individual claim after a hailstorm damaged a roof or assessing damage to a neighborhood after a catastrophic event, drones are revolutionizing the way State Farm claim specialists do their work.

State Farm began using drones in 2015 and has been working to expand its use ever since. The Federal Aviation Administration granted in November a national waiver for State Farm to operate drone flights for damage assessment beyond the visual line of sight as well as over people.

Joy*Hillsman-Caffie, a State Farm claim specialist, poses for a photo with the Kespry quadcopter drone.*

There are two drones used by State Farm: the quadcopters and the senseFly eBee fixed-wing. A single claim specialist can operate a quadcopter to help with individual roof claims, primarily after wind and hail damage.

On Tuesday, State Farm claim specialists demonstrated a fixed-wing drone in Greeley. It is used to assess widespread damage after events such as hurricanes, tornadoes or wildfires. They recently deployed a fixed-wing drone to assess damages after Hurricane Barry in Louisiana. He said they’ll probably use the drones in response to every hurricane this year.

State Farm has eight claim specialists who pilot the company’s drones. <https://www.greeleytribune.com/news/drones-a-game-changer-for-insurance-world-state-farm-claim-specialists-say-at-greeley-demo/>

**New Research Shows Public Safety Drone Programs Growing Fast – But Face Challenges** [Miriam McNabb](https://dronelife.com/author/miriam-mcnabb/) August 07, 2019

[](https://dronelife.com/wp-content/uploads/2019/08/DroneResponders-1-e1565106166964.png)Public safety programs are one of the fastest growing sectors in the drone industry, but new research from DRONERESPONDERS shows that the agencies face new challenges in adopting drone technology.

**MIAMI, FL**– As public safety agencies continue to adopt unmanned aircraft systems and related technology for life safety missions, new research from DRONERESPONDERS – the leading non-profit program supporting public safety UAS — provides a better understanding about how these programs are developing, as well as a glimpse at many of the challenges facing first responders who are increasingly operating drones.

Among the key findings that DRONERESPONDERS discovered in their *2019 Mid-Year Public Safety UAS Report*:

* 3 out of 4 public safety agencies claim they are already either operating drones or working on implementing a UAS program.
* More than 80% of public safety UAS operators either have obtained, or are pursuing, FAA Part 107 certification.
* 82% of public safety agencies with UAS program are operating multi-rotor systems, while only 11% are using fixed or delta-wing drones.
* Over 35% of public safety UAS programs are using the FAA’s LAANC system for airspace requests.

The data included survey responses from 288 public safety professionals, combined with expert insight from DRONERESPONDERS analysts. U.S. <https://dronelife.com/2019/08/07/new-research-shows-public-safety-drone-programs-growing-fast-but-face-challenges/>

**8Aug19**

**Dominion Energy Brings BVLOS Experience to Small UAV Coalition** [Betsy Lillian](https://unmanned-aerial.com/author/betsy-lillian) August 1, 2019

[](https://unmanned-aerial.com/wp-content/uploads/2019/08/power-poles-49848_960_720.jpg)Virginia-based utility Dominion Energy has joined the Small UAV Coalition as an associate member.

According to the coalition, unmanned aircraft systems are a critical tool for the energy industry, enabling safer, more efficient routine inspections as well as service restoration after major weather events. Dominion Energy has been using drones since early 2014 to augment its existing inspections. It has also partnered with the Virginia Tech Mid-Atlantic Aviation Partnership for the federal UAS Integration Pilot Program to test drone technology. The company also recently won approval from the Federal Aviation Administration for expanded beyond visual line of sight (BVLOS) drone flights.

“We are researching and developing new, innovative uses for drones to serve our customers,” says Nate Robie, UAS program manager for Dominion Energy. “Joining the Small UAV Coalition will help us lend our voice to the growing chorus of companies looking to grow this important business solution.”

The coalition says Dominion Energy’s experience, particularly when it comes to BVLOS operations and flights near critical infrastructure, will enhance the group’s efforts as it continues to work with the FAA on forthcoming regulations to enable expanded commercial operations. <https://unmanned-aerial.com/dominion-energy-brings-bvlos-experience-to-small-uav-coalition?utm_medium=email&utm_source=LNH+08-08-2019&utm_campaign=UAO+Latest+News+Headlines>

**Telesat outlines spending plan for Canadian government’s LEO constellation investment**[Caleb Henry](https://spacenews.com/author/caleb-henry/" \o "Posts by Caleb Henry) August 7, 2019

*Telesat CEO Dan Goldberg*

WASHINGTON — Telesat plans to use an 85 million Canadian dollar ($64.7 million) investment by the government of Canada on the first dozen satellites of its low Earth orbit broadband constellation as part of a research and development-intensive early deployment phase.

A separate 600 million Canadian dollar commitment will subsidize satellite capacity for Canadian buyers once the constellation is operational. Telesat has been working with Airbus Defence and Space and a consortium formed by Maxar Technologies and Thales Alenia Space on designing the constellation.

The Canadian government announced its financial support for Telesat LEO July 24, saying it views the constellation of 298 satellites as the only means to bring internet to some of its most rural citizens.

“Part of the development phase is just launching the first, call it dozen satellites. These will be the same satellites that will occupy the whole constellation, but those first ones we will launch and rigorously test and put through all the paces before we launch the hundreds of others.” <https://spacenews.com/telesat-outlines-spending-plan-for-canadian-governments-leo-constellation-investment/>

**Vector Launch awarded its first U.S. Air Force mission** [Sandra Erwin](https://spacenews.com/author/sandra-erwin/" \o "Posts by Sandra Erwin) August 7, 2019

*An engineering test model of the Vector-R rocket at Pad 0B of the Mid-Atlantic Regional Spaceport at Wallops Island, Virginia*

*The ASLON-45 space vehicle manifest will consist of multiple 3U and larger U.S. government cubesats to low earth orbit.*

HUNTSVILLE, Ala. — Small launch provider Vector Launch has received a $3.4 million contract from the Air Force Rocket Systems Launch Program office to lift experimental satellites to low Earth orbit. The contract falls under the [Small Rocket Program-Orbital program](https://www.fbo.gov/index.php?s=opportunity&mode=form&id=b4eefc20f5d4a3de35cc67ca6c2c0467&tab=core&_cview=0) run by the Space and Missile Systems Center’s launch enterprise experimental division at Kirtland Air Force Base in Albuquerque, New Mexico.

The ASLON-45 space vehicle manifest will consist of multiple 3U and larger U.S. government cubesats launched to low Earth orbit at a 45 degree inclination. Under the contract, Vector will provide required dispensers and perform payload integration and launch operations. The mission will support the Defense Department’s Space Test Program. <https://spacenews.com/vector-launch-awarded-its-first-u-s-air-force-mission/>

**Op-ed | Small satellites are big business** [Christian Zur](https://spacenews.com/author/christian-zur/" \o "Posts by Christian Zur) August 4, 2019

*Vendors display their wares at the 32nd Annual Conference on Small Satellites in Logan, Utah, in August 2018.*

“I see no reason why a satellite the size of a shoe box, with the life expectancy of a guinea pig, should be regulated the same way as a spacecraft the size of a school bus that will stay in orbit for centuries.” — FCC Chairman Ajit Pai

On July 9, at a U.S. Chamber of Commerce small satellite roundtable, FCC Chairman Ajit Pai surprised the audience by making an announcement — a draft order to make it easier and cheaper to license small satellites.

This new draft order would establish a new regulatory regime for smallsat applicants to opt for alternative licensing procedures, making it easier for entrepreneurs and startups to develop and deploy satellites. Additional elements of the directive include radio-frequency interference protection for critical communication links and more effective debris mitigation.

Applications for low Earth orbit are in the $450,000 range. Ironically, that’s about what many LEO satellites cost to manufacture. <https://spacenews.com/op-ed-small-satellites-are-big-business/>

**Establishing a Drone Business with Part 107 in Oil & Gas** August 6, 2019 [Sam Hill](https://www.expouav.com/news/latest/author/samhill/)

Drones have entered the oil and gas domain as a more comprehensive method of inspection – providing not only a flexible and cost-effective way to conduct inspections, but also a data-intensive structure for inspecting assets in a non-destructive manner.

Through a combination of drone technology, aerial mapping and modeling software, along with artificial intelligence and machine vision, oil and gas professionals are experiencing up to a 50 percent reduction in inspection costs, efficiency gains up to 33 percent and a reduction in hazardous man-hours.

Drones can be utilized in the industry for a variety of purposes depending on a company’s needs — from simple tasks such as gathering overhead imagery, site selection and asset monitoring, to more complex tasks like methane detection, spill monitoring and inspecting pipeline integrity.

Using drones to conduct inspections that would otherwise put employees in danger or require significant man-hours is the main hook that incentivizes oil and gas companies to start a drone program.

Drone operators working with oil and gas firms should deploy thermal, infrared, and LiDAR sensors, methane detection lasers, and optical gas indicators (OGI). There are the tools Katz says that will make drone operators ideal walk-in candidates for a job. <https://www.expouav.com/news/latest/establishing-drone-business-part-107-in-oil-gas/?mkt_tok=eyJpIjoiTXpRMFpqWXdNalExWldVeSIsInQiOiJ4NDdWc0Z1TFk4Q1FcLzBOVEpqd2hUNjd2bFRGbFQ3SUtvc0lrT1FramdFYXJPSWtYWTlaM3J6eXhlTzR3T21FV0JBTUtXM1pEWXRsXC9kZkoxbXpHbTc5R3B6Rll3Y25uMFJnY010UjdKdlBqcG1UYVR6cWR0d3VcLzZFS2pyS0VsNCJ9>

**UK coastguard plans drone rescue trial in south-west England** 5 August 2019

*Bidders are being asked to declare how their aircraft would operate in low-light conditions*

The UK's Maritime & Coastguard Agency (MCA)has invited specialists to bid for a £990,000 contract [**before a deadline of 19 August**](https://www.contractsfinder.service.gov.uk/Notice/884f0f85-8a05-487a-a4c9-ab9336abb6f2?p=@FQxUlRRPT0=NjJNT08=U).

Interested parties have to detail their ability to search for a reported missing person or vessel up to 6.2 miles (10km) away from shore in low-light, misty and/or windy conditions.

*Drones could provide aerial surveillance support to lifeboat crew*

The idea would be to transmit reconnaissance information that could then be used by helicopter or lifeboat rescue crews.

[**A tender document says that other potential uses**](https://www.contractsfinder.service.gov.uk/Notice/Attachment/940720b4-389e-4e4e-a821-6a69f7cd6311) include tracking the amount of pollution that vessels are leaking into the water and providing support to law enforcement and other agencies that track activity in and around the English Channel.

While the drone missions are likely to be human-controlled to begin with, the aspiration is that at least some of the activities could be automated over time. The contract would be awarded in October with the trial due to last until autumn 2020. <https://www.bbc.com/news/technology-49237304?mkt_tok=eyJpIjoiTXpRMFpqWXdNalExWldVeSIsInQiOiJ4NDdWc0Z1TFk4Q1FcLzBOVEpqd2hUNjd2bFRGbFQ3SUtvc0lrT1FramdFYXJPSWtYWTlaM3J6eXhlTzR3T21FV0JBTUtXM1pEWXRsXC9kZkoxbXpHbTc5R3B6Rll3Y25uMFJnY010UjdKdlBqcG1UYVR6cWR0d3VcLzZFS2pyS0VsNCJ9>

**9Aug19**

**Amazon requests FAA approval of delivery-drone plans** [Gregory Wallace](https://www.cnn.com/profiles/gregory-wallace), [CNN Business](https://www.cnn.com/business) August 8, 2019

Amazon is requesting permission to use its custom [MK27 drone](https://dronelife.com/2019/06/06/see-amazons-new-delivery-drone-fly-will-your-stuff-be-delivered-by-drone-within-months/) for [deliveries](https://www.cnn.com/2019/02/28/tech/amazon-day/index.html) before the FAA grants the aircraft a certificate of airworthiness and an exemption from drone-specific rules including a requirement that they only be operated when an operator can see it.

The petition says delivery drones will fly autonomously but that there will be one operator for each drone in the sky at any time. Amazon would like to eventually have a lower operator to drone ratio "subject to FAA approval based on flights and simulations that demonstrate required levels of safety."

At least initially, the company plans to only conduct flights during the day in "areas with low population density" when there are no "icing conditions" and the wind is less than 24 knots.

Flights will be planned to avoid "all known overflight areas such as sensitive government installations, hospitals, open air assemblies," which includes fields where sporting events are taking place. Deliveries will be less than 15 nautical miles round trip and packages must weigh 5 pounds or less — parameters the company has previously outlined.

Amazon said in June drone deliveries would begin "[in months](https://www.cnn.com/2019/06/05/tech/amazon-prime-air-drone/index.html)," although it did not specify if that timeline applied to the US. The FAA will take public comments on the petition until August 28. <https://www.cnn.com/2019/08/08/tech/amazon-faa-drones/index.html>

**Collaborative drone fleet transports immunization vaccines for children in DR Congo** [APPLICATION](https://www.commercialdroneprofessional.com/category/application-news/" \o "Application) [DELIVERY](https://www.commercialdroneprofessional.com/category/application-news/delivery/) [HEALTH](https://www.commercialdroneprofessional.com/category/application-news/health/) [INTERNATIONAL](https://www.commercialdroneprofessional.com/category/news/international/) [NEWS](https://www.commercialdroneprofessional.com/category/news/) [ALEX DOUGLAS](https://www.commercialdroneprofessional.com/author/alex-douglas/) AUGUST 9, 2019

[](https://2e2de02um3hsz26s7iwe817v-wpengine.netdna-ssl.com/wp-content/uploads/2019/08/EBdaRKkWwAYuUqz.jpeg)*A collaboration which included the Ministry of Health, VillageReach and Swoop Aero, with funding by Gavi, the Vaccine Alliance, has vaccinated the first children receiving vaccines by drone in the Democratic Republic of Congo.*

The successful flights, which took place in the northwestern province of Équateur, are part of a broader strategy to reach remote populations with vaccines and other medicines called Nouvelle Génération des Chaînes d’Approvisionnement, or NGCA.

A fleet of drones transported vaccines, syringes and medicines to a hard-to-reach Congolese village called Widjifake with 6,500 residents, where children were vaccinated. Each drone flight delivered vaccines–maintained at the right temperature–in around 20 minutes, expediting what is typically a three-hour journey by road.

The drones completed four round-trip test flights of 80 kilometers each in one day. This is in addition to 17 round-trip flights, reaching approximately 2,000 kilometers, flown over recent weeks.

Swoop Aero’s drones have vertical take-off and landing capability, which allows them to land directly at the health center in Widjifake and also return to the Provincial Health Division of Equateur with lab samples, data collection forms, and requests for medicines needed. <https://www.commercialdroneprofessional.com/collaborative-drone-fleet-transports-immunisation-vaccines-for-children-in-dr-congo/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-309470-Commercial+Drone+Professional+DNA+-+2019-08-09>