



UAS and SmallSat Weekly News

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Indonesia rolls out indigenous MALE UAV Greg Waldron 2 January 2020

Indonesian Aerospace has rolled out the first prototype of a medium altitude long endurance (MALE) UAV for which it sees a number of domestic missions.



The 'Elang Hitam' will have an endurance of 30h, and be capable of carrying weapons.

Dubbed 'Elang Hitam' – Indonesian for Black Eagle – the aircraft has a conventional planform with a V-tail, pusher-propeller, a high aspect ratio, and tricycle landing gear.

The aircraft has a wingspan of 16m and a length of 8.65m. The aircraft's payload will be 300kg, and it will be able to land on a 700m runway, or take-off on a 500m runway. It is envisaged as having a maximum endurance of **30h** and a cruising speed of 127kt.

Two prototypes will be built and used for both flight and structural tests. The company hopes to attain a type certificate from the Ministry of Defence's Feasibility Centre in 2021, and a full military type certificate by 2023, which will include weapons. A first flight is planned in 2020.

Media reports that sensor payloads will include a synthetic aperture radar, but the first prototype appears to lack sensors, such as an electro-optical/infrared turret. The aircraft is powered by Rotax engine from Austria. The aircraft can be remotely operated via satellite.

<https://www.flightglobal.com/indonesia-rolls-out-indigenous-male-uav/135989.article>

Japanese Firm Tests Heavy-duty Delivery Drone Jason Reagan January 03, 2020



Japanese flying-car developer SkyDrive has successfully launched test flights of a cargo drone. "[This] could revolutionize the way heavy goods are transported and speed up the movement of equipment in remote locations."

The first test launched earlier this month in Toyota City, Japan. A company spokesperson said the drone moved "heavy equipment in remote locations." Additional testing will be carried out later in the month.

"This new technology has been tested with a load capacity of **[44 pounds]**. There is the potential to develop this further and achieve greater capacity loads of up to **[110 pounds]**,



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according to demand. The cargo drone also has the potential to change the way products are moved from manufacturers to warehouses and onto depots.

The company plans to use delivery drones across rough terrain such as slopes, mountain valleys, overpasses, power transmission towers, civil engineering/construction sites or agricultural fields. <https://dronelife.com/2020/01/03/japanese-firm-tests-heavy-duty-delivery-drone/>

NASA, South Dakota State students work on human-carrying drone South Dakota State University January 02, 2020

Engineering students at South Dakota State University are designing a drone large enough to carry a human for their capstone senior design project through a nearly **\$80,000** NASA grant.



Our team is proposing an autonomous aerotaxi; another team might propose something completely different, like to develop a software for air traffic management, for example.

The team will receive half of the funding, but then must raise at least \$2,000 through crowdsourcing to receive the remainder of the grant.

“First, we need to validate our preliminary design,” Smithee said. The team will then use that proof of concept to build a large-scale drone called the Albatross capable of lifting 200 to 250 pounds. The drones are battery-powered.

During the first experiments, the students will operate the drone via remote control, but it will eventually be autonomous, Ciarcià said. “The passenger will set the destination, push go and it will fly by itself.” <http://uasmagazine.com/articles/2111/nasa-south-dakota-state-students-work-on-human-carrying-drone>

The world's largest drone companies to watch and stocks to invest in 2020 Divya Joshi Dec 20, 2019



From conceptualization to actual application, drone manufacturers have taken the theories of sci-fi movies and books and turned them into real-life applications, giving birth to the phenomenon of Unmanned Aerial Vehicles. Drone makers worldwide have been significantly influenced by the accelerated technological developments and advancements in the field of smart electronics.



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Predicted to play significant roles in business, civic, and military affairs, drones are at the forefront of a smart-generation technological shift. They capture the fancy of many, from hobbyists to surveyors, tech leaders, tech-savvy enthusiasts, tech investors and business and decision leaders worldwide.

Drone stocks are **massive opportunities** for companies and investors alike. Companies across the US have rushed to deploy drones to cut costs, boost operational efficiency, and open up new streams of revenue.

In this article by Business Insider's premium research service, [Business Insider Intelligence](#) has covered some of the most recognized and famed global drone makers. It includes both established and startup companies, giving you an all-inclusive overview of the diverse, trending, and explosive industry of Miniature Pilotless Aircraft.

Below is a list of public and private companies that are the current biggest players in the [drone industry](#). <https://www.businessinsider.com/drone-manufacturers-companies-invest-stocks>

Colorado drone mystery remains unresolved — FAA investigates Haye Kesteloo Jan. 3rd 2020



As mainstream media are picking up on the Colorado drone mystery, local residents are getting “very nervous and anxious,” according to [the Guardian](#).

Over a period of weeks, at least 17 drones have been spotted over northeastern Colorado and southwestern Nebraska. Right before Christmas, the unidentifiable drones were spotted over Phillips County every night at 7 p.m.

According to local law enforcement, the unmanned aircraft show up every night and fly in harmony. *“They’ve been doing a grid search, a grid pattern,” the Phillips county sheriff, Thomas Elliott said. “They fly one square and then they fly another square.”*

On other nights the drones have been observed flying in a straight line in Yuma County, which neighbors Phillips County. *“At the same time, a single drone hovered about 25 miles away over the town of Paoli — it didn’t move all night, [it] just hovered over the town, according to the Post.”*

The Colorado drone mystery has even received the attention from the [Federal Aviation Administration \(FAA\)](#). The government agency has now started to investigate the mystery.



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The drones are not your typical DJI quadcopters — these aircraft have a roughly 6-foot wingspan. Local law enforcement has been unable to explain the phenomenon.

One explanation that has been presented is that the drones are operated by a private company or government department. On January 6, a meeting between the sheriffs, police, and an FAA inspector will take place to investigate the Colorado drone mystery and hopefully explain the mysterious aircraft. <https://dronedj.com/2020/01/03/colorado-drone-mystery-remains-unresolved-faa-investigates/#more-22612>

Just how bad is the FAA's NPRM for Remote ID? Watch this video! Haye Kesteloo
Jan. 3rd 2020



When it comes to explaining just how bad the [FAA's Notice of Proposed Rulemaking \(NPRM\) for Remote ID for drones](#) is for both hobbyist and commercial drone pilots, Paul does not disappoint.

In the following video from The Drone U, Paul's a little bit more excited than usual, but with good reason. He explains what some of the consequences are of the FAA's NPRM for Remote ID for drones, and how it will negatively impact your hobby or your drone business.

Watch the video and then be sure to take action. From the date the NPRM was officially published in the Federal Register on December 31, 2019, **we only have 60 days** to submit our comments and feed back to the FAA.

Feel free to share your opinion on the FAA's NPRM for Remote ID for drones in the comments below. We are very interested in hearing what you have to say.

For the record, *DroneDJ* is pro Remote ID for drones, but not in the way it is currently proposed. We believe it is overly restrictive, burdensome, expensive for both recreational and commercial drone pilots, and other and better solutions are available. <https://dronedj.com/2020/01/03/faas-nprm-for-remote-id-video/#more-22605>



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Colorado Drone Mystery Deepens as Nighttime Flights Expand to Nebraska Jason

Reagan January 04, 2020



Last week, Colorado police reported at least 17 [fixed-wing drones](#) with a six-foot wingspan flying what appeared to be a steady pattern over several counties.

This week, the nightly drone sightings continued with sightings in more Colorado counties as well as neighboring Nebraska, causing mounting unrest for residents and law-enforcement agencies.

Phillips County Sheriff Thomas Elliot reports the drones are flying between 7-10 p.m. at an altitude of 200-300 feet with speeds estimated at 25-40 mph.

"These drones have made residents in our community very nervous and anxious," Yuma County (Colo.) Todd Combs said in a [Facebook post](#).

The FAA has opened an investigation but have discovered few answers so far. Since the drones likely weigh more than 55 pounds, the pilots are either FAA certified and have commercial waivers, or they are flying illegally. <https://dronelife.com/2020/01/04/colorado-drone-mystery-deepens-as-nighttime-flights-expand-to-nebraska/>

NHS could deliver blood and chemo kits by drone Laura Donnelly, health editor 3

JANUARY 2020



Transport planners are bidding for the **first** UK trials using the devices to carry packages between hospitals, GP surgeries and hospital labs.

But experts said the scheme - yet to apply for ethical approval - could raise public concerns about safety and privacy.

Solent Transport - a partnership covering four councils across the south coast - has drawn up the bid for a pilot scheme involving the NHS. The transport planners say drones could be used to transport packages between hospitals in Portsmouth and Southampton and St Mary's Hospital on the Isle of Wight, as well as from GP surgeries to hospital labs.

The bid says these would be the first UK trials of unmanned aerial vehicle flights using beyond-visual-line-of-sight operation. In the United States, a drone has been used to transfer a live organ between hospitals.



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“There is scope for trialing UAV delivery of chemotherapy kits to the Isle of Wight where patients currently have to travel to Southampton General Hospital for chemotherapy treatment on a regular basis. <https://www.telegraph.co.uk/news/2020/01/03/nhs-could-deliver-blood-chemo-kits-drone/>

Could mystery of Colorado drone sightings finally be explained? By Tom Roeder

tom.roeder@gazette.com Jan 4, 2020



While no one has taken responsibility, and even the Federal Aviation Administration has claimed ignorance, the answer could be a secretive Air Force program intended to keep prying eyes away from nuclear missile silos.

Air Force Global Strike Command, which is based in Louisiana, has confirmed that it conducts counterdrone exercises out of F.E. Warren Air Force Base in Cheyenne, where it is based.

The command oversees underground Minuteman silos spread across northeastern Colorado, southeastern Wyoming and western Nebraska, the area where the drones have been spotted nightly the past two weeks.

The Air Force isn't claiming ownership of the drones, but neither is it denying it.

A Federal Aviation Administration map of the region where the drones have been spotted — Logan, Phillips, Sedgwick and Yuma counties — is pocked with red dots of where drones are forbidden, restricted airspace presumably above missile silos.

The Air Force counter-drone program at Warren, which includes extensive testing of civilian drones, relies on innovative technology including DEDRONE, a system developed in Europe that detects and tracks small civilian drones using the radio signals they require for control.

https://gazette.com/military/mystery-of-drone-sightings-over-colorado-could-have-a-simple/article_c8d375be-2e6f-11ea-85b7-2335e1d42476.html

6Jan20

Drone delivered: Beyond visual range test flights to commence soon IANS Updated:

Jan 04

The move, according to industry insiders, is seen as a major breakthrough for the evolution of the Unmanned Aircraft Systems' eco-system in India. The objective of the experimental BVLOS



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flights in controlled conditions for a period of at least two months is to prepare a 'Proof of Concept' for safe operations.



If successful, and found safe, a new policy framework for the long-range BVLOS drone operations will be drafted.

The initial step of allowing long-range test flights is expected to pave the way for UAS to delivery medicines and other articles, such as food items, in a faster manner across the country. Besides, these systems can become life savers in the rural and far flung areas to deliver first aid and other essentials. Other opportunities arising from BVLOS UAS operations at low altitudes are expected to provide cost-effective services such as surveying, photography and precision agriculture.

The BVLOS experiments will be conducted in various airspaces across the country which have been identified by the Directorate General of Civil Aviation and the Airports Authority of India.

<https://economictimes.indiatimes.com/news/defence/drone-delivered-beyond-visual-range-test-flights-to-commence-soon/articleshow/73100357.cms>

Global drone delivery at forefront of Pierce Aerospace and Dronedek partnership

APPLICATION DELIVERY NEWS UNITED STATES ALEX DOUGLAS JANUARY 6, 2020



The collaboration unites Pierce Aerospace's Remote Identification expertise and technologies and DRONEDEK's patent portfolio in last-mile logistics, including a drone mailbox system.

The teams' combined systems aim to provide the infrastructure that enables scalability of authenticated package delivery to government, commercial, institutional, and residential locations throughout the world. The result is authenticated, to-your-door-delivery, that is both private and secure.

"This partnership establishes the infrastructure to scale drone delivery operations in **the last mile**. The network effect of distributed DroneDek mailboxes equipped with Flight Portal ID technology further assures consumers and communities about drones overhead while strengthening and advancing the overall commercial drone delivery business model for all parcel carriers." <https://www.commercialdroneprofessional.com/global-drone-deliveries-at-forefront-of-pierce-aerospace-and-dronedek->



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[partnership/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-320605-Commercial+Drone+Professional+DNA+-+2020-01-06](https://www.axcelinnovation.com/partnership/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-320605-Commercial+Drone+Professional+DNA+-+2020-01-06)

BVLOS waiver allows Censys and SEI to inspect power lines January 2, 2020 Jenny Beechener UAS traffic management news

Censys Technologies and partner Soaring Eagle Imaging successfully carried out beyond visual line of sight inspection of power lines in Louisiana in the aftermath of Hurricane Barry in July 2019 according to a press release issued by the partners. The companies are among only a few dozen companies to have been granted BVLOS waivers in the US.



According to a Censys Technologies, SEI began conducting BVLOS flights with no remote visual observers once it was determined that safe flights could be conducted. In three missions, the single crew was able to capture **51 miles** worth of detailed information in **six total hours** of time in the field – including setup, tear-down, and transit. This enabled identification of the scope of damage and corresponding locations, helping facilitate swift repairs. The partners inspected 25.5 miles of 500kV power lines, showing the capability to safely perform BVLOS operations.

Censys Technologies' Sentaero vertical take-off and landing UAV offers a range of 50 miles and multiple integrated payload options. <https://www.unmannedairspace.info/latest-news-and-information/bvlos-waiver-allows-censys-and-sei-to-inspect-power-lines/>

Drone Investigation Intensifies Russ Niles January 5, 2020



FAA officials will meet with local law enforcement reps from about a dozen counties in northeastern Colorado to discuss unexplained drone activity that has alarmed local residents and public officials. So far, no one has come forward to give even the slightest hint of why the drones, described as being up to eight feet long, able to hover and fly at about 100 knots, are appearing in the evening sky every night. They often fly in groups but individual sightings have also been made and there have been reports they may be flying a grid search pattern. So far they haven't exhibited any threatening behavior but that doesn't do much to lessen concern.

A group of aviation industry representatives went drone hunting last Friday and found their quarry near Brush in Morgan County. "We did get eyes on one about 200 to 300 feet above, and it was moving at about 100 knots," Chris Swathwood, president of the Colorado Aviation



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Business Association, [told KDVR](#). "It was a large fixed wing aircraft. It was dark, and it had lights unlike any other manned aircraft would normally have." Swathwood, who is a drone pilot, said the aircraft was sophisticated and expensive and far beyond the reach of hobbyists so the consensus reached by his group that they are operated by the military or their contractors.

The [Mystery Drone Swarm Chasers Facebook](#) group now has more than **6,000 members**, and posters have speculated everything from a search for inmates from a prison break to secret artificial intelligence operations to log the movements of rural residents. There have been more than a few suggestions that someone shoot a drone down and reports that some drone hunters have been chasing the mystery drones with their hobby aircraft.

https://www.avweb.com/aviation-news/drone-investigation-intensifies/?MailingID=259&utm_source=ActiveCampaign&utm_medium=email&utm_content=ADS-B+Fallout%2C+Drone+Mystery+Deepens&utm_campaign=ADS-B+Fallout%2C+Drone+Mystery+Deepens-Monday+January+6%2C+2020

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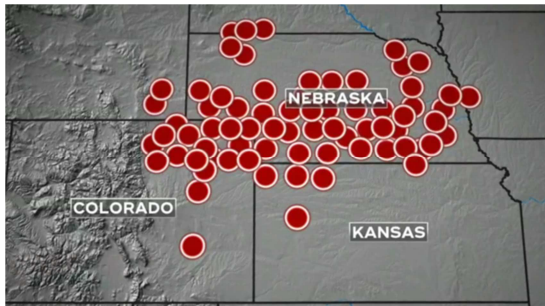
FBI investigating drone swarms startling residents in three states JANET

SHAMLIAN CBS NEWS *January 6, 2020*

Lucerne, Colorado — The FBI, FAA and U.S. Air Force are investigating a mystery in the skies over Colorado, Nebraska and Kansas. Swarms of drones have been spotted there — sometimes in formation. But who's flying them?

For the last week, Michelle Eckert has spotted a high-flying, night-time mystery above her rural northern Colorado home. She has seen drones, sometimes a dozen or more with wingspans 6 feet wide.

Sheriff's departments across the border area of three states have been flooded with at least 30 reports since mid-December.



"I think whomever is responsible for it will probably have some answering to do to the general public," Sheriff Steve Reams of Weld County, Colorado, said.

On Monday, dozens of agencies met and established a task force with the FBI, FAA and the Air Force. But they're no closer to an answer. The military and local companies have denied



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responsibility.

It was only dark for half an hour and drones could be seen all over the sky and appear as twinkling lights; sometimes just one, but other times there were clusters of six or more. There are **still more questions than answers** and residents are feeling vulnerable.

Late Monday, one of the sheriff's offices announced they were looking for a closed box trailer with antennas or a large suspicious van. They asked anyone who has spotted it to call authorities. <https://www.cbsnews.com/news/mysterious-drone-swarms-3-states-fbi-investigation-latest-updates-today-2020-01-06/>

Hyundai and Uber team up to debut new flying taxis at CES JAN 6 2020 Paul A. Eisenstein@DETROITBUREAU



Best known for its affordable automobiles, South Korean carmaker [Hyundai Motor](#) aims to take flight with [Uber](#) to develop a line of flying taxis for the Uber Elevate aerial ride-hailing service.

A full-scale mock-up, dubbed the S-A1, is making its debut at the Consumer Electronics Show in Las Vegas this week. The electrically powered PAV, or "personal air vehicle," will have the capability of carrying up to four passengers on trips of up to 60 miles at speeds reaching 180 mph, the partners said Monday.



Uber says its flying taxis are just 5 years away

Uber Elevate has already signed up more traditional aerospace partners such as [Embraer](#), Bell and [Boeing](#) subsidiary Aurora, but "Hyundai is our first vehicle partner with experience of manufacturing passenger cars on a global scale," Eric Allison, head of Uber Elevate, said in a statement.

The company anticipates the roughly 50-mile trip from the Marina district near Uber headquarters in San Francisco to downtown San Jose, in the heart of Silicon Valley, would take about 15 minutes. The same trip can take more than 2 hours by car, depending upon traffic.

Uber Elevate is planning to begin demonstration flights this year. The ride-sharing giant hopes to launch commercial service in **2023**, with operations initially set to debut in Dallas, Los Angeles and Melbourne, Australia. <https://www.cnbc.com/2020/01/06/hyundai-and-uber-team-up-to-debut-new-flying-taxis-at-ces.html>



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SpaceX launches 60 more satellites, trying to tone them down Marcia Dunn AP Jan. 6, 2020



In a time exposure, the SpaceX Falcon 9 rocket launches from Cape Canaveral, as seen from Viera, Fla., late Monday, Jan. 6, 2020. In the foreground is the traffic roundabout, which is lit up for the holiday season.

CAPE CANAVERAL, Fla. — SpaceX launched 60 more **mini** internet satellites late Monday, this time testing a dark coating to appease stargazers.

The Falcon 9 rocket blasted into a cold, clear night sky, **recycled** by SpaceX for its **fourth flight**. As the first-stage booster flew to a **vertical landing** on an ocean platform, the Starlink satellites continued hurtling toward orbit to join **120** similar spacecraft launched last year.

Flight controllers applauded, and the launch commentator described the booster's fourth touchdown as "awesome." An hour later, all 60 satellites were free of their upper stage and making their own way in orbit. His Starlink fleet now numbering **180**, SpaceX founder and chief executive Elon Musk plans to ultimately launch thousands of these compact flat-panel satellites to provide global internet service. Each spacecraft is just 575 pounds.

https://www.washingtonpost.com/business/technology/spacex-launches-60-more-satellites-trying-to-tone-them-down/2020/01/06/e3810816-30f6-11ea-971b-43bec3ff9860_story.html

PHOTOGRAPHY AT THE EDGE OF NIGHT SUNSET CREATES SPECIAL OPPORTUNITIES

January 6, 2020 Zach Ryall



This photo shows the Austin, Texas, Trail of Lights holiday display, with the Zilker Tree in the background, right. The photo was made with the DJI Phantom 4 Pro, about eight minutes past evening civil twilight. The last long, warm rays of the day reveal textures and cast shadows before the light surrenders to clouds and dust, and finally the horizon, to create

those beautiful travel-magazine sunsets. Practically speaking, ambient light lingers for many minutes before dark-dark sets in.



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Drone forums are awash with one sunset skyline photo after another, often taken during evening civil [twilight](#). All drone pilots should know this phrase well for legal and safety reasons. Just beyond evening civil twilight (which lasts 30 minutes after each sunset) lies a completely different flying environment. An FAA waiver is required to operate after civil twilight ends, and for good reason. https://www.aopa.org/news-and-media/all-news/2020/january/06/photography-at-the-edge-of-night?utm_source=dronepilot&utm_medium=email

Counter-Drone System for Vehicle Convoys Launched 07 Jan 2020 Mike Ball



[Dynamite Global Strategies](#), a provider of security and defense solutions, has announced the release of the V6000T, an advanced single-box multi-function electronic warfare system designed to protect military and VIP vehicle convoys from the threats posed by drones, as well as remote-controlled improvised explosive devices.

The system provides 360-degree jamming coverage to defeat a large number of drones from up to **2km** away. It also provides protection against RCIEDs and prevent remote radio detonation of improvised explosive devices by jamming all-known RCIED triggering frequencies across the RF spectrum of 20-6000MHz.

It has been developed in response to interest from DGS' customer base which includes military, law enforcement, homeland security agencies, defense contractors and VIP markets. The Department of Defense of a Western country has already placed an evaluation order for a small quantity of systems. **Iran might also be interested.**

[https://www.unmannedsystemstechnology.com/2020/01/counter-drone-system-for-vehicle-convoys-launched/?utm_source=UST+eBrief&utm_campaign=f7ac0df647-eBrief 2019 07 Jan&utm_medium=email&utm_term=0_6fc3c01e8d-f7ac0df647-119747501](https://www.unmannedsystemstechnology.com/2020/01/counter-drone-system-for-vehicle-convoys-launched/?utm_source=UST+eBrief&utm_campaign=f7ac0df647-eBrief%2019%2007%20Jan&utm_medium=email&utm_term=0_6fc3c01e8d-f7ac0df647-119747501)

Call for drone inspections in wake of New York building debris death LEGISLATION MANUFACTURER NEWS UNITED STATES SAM LEWIS JANUARY 7, 2020



New York City officials say laws must be updated to allow drone inspections of dangerous building facades in the wake of the death of Eric Tishman.

Tishman, an architect, was killed on December 17, 2019 by falling debris from a midtown Manhattan building. The



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building in question was fined in April 2019 for having a dangerous façade.

NYC officials and DJI drone experts gathered several days after the incident for a press conference. The full conference can be watched below. They assured those attending that they were doing all in their power to pass legislation that would enable local government to use drones to inspect the many hundreds or thousands of similarly hazardous buildings. Current law dates back to 1948 and 1998. At neither of these times, council members pointed out, could legislators imagine the UAV technology that would be available for such tasks.

All involved in the press conference were quick to offer their condolences. Council member Justin Brannan added: "We have two fundamental obligations as elected officials: to make sure New Yorkers are safe, and to make sure their tax dollars are spent wisely. We have failed on both counts. What happened to Erica Tishman was a completely avoidable tragedy."

https://www.commercialdroneprofessional.com/call-for-drone-inspections-in-wake-of-new-york-building-debris-death/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-320748-Commercial+Drone+Professional+DNA+-+2020-01-07

South Dakota Signs Participating Addendum with DroneUp January 7, 2020



Virginia Beach, VA-- DroneUp, LLC and the State of South Dakota have signed a Participating Addendum for the NASPO ValuePoint contract for Unmanned Aerial Vehicle services. This begins the offering for the purchase of drone services to state agencies, commissions, political subdivisions, institutions, and local public bodies. The award is the **first of its kind** for the drone industry and a highly anticipated

announcement.

DroneUp was awarded the Agreement by the Commonwealth of Virginia in August 2019. Services are available for use by all 50 states, the District of Columbia, and the territories of the United States through the National Association of State Procurement Officials. The State of South Dakota is able to use the award for the benefit of state departments, institutions, agencies, political subdivisions, and other eligible entities. For further information:

<https://www.naspovaluepoint.org/portfolio/unmanned-aerial-vehicle-drone-services-2019-2024/droneup-llc/>

The primary users are expected to be Agriculture & Game Management, Emergency Management, Transportation, Forestry, Mines, Minerals and Energy, Public Universities and Community Colleges.



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Task Force Makes Little Headway in Colorado Drone Mystery [Jason Reagan](#): January 07, 2020



Over Christmas, Colorado police [reported](#) at least 17 fixed-wing drones with a six-foot wingspan flying what appeared to be a steady pattern over several northeastern counties. Earlier this week, the nightly drone sightings expanded to more Colorado counties as well as neighboring Nebraska. Most reports state the drones are flying between 7-10 p.m. at an altitude of 200-300 feet with speeds estimated at 25-40 mph. The mystery [broadened yesterday](#) as residents on the outskirts of metro Denver reported drone sightings across Castle Rock, Parker and Fort Collins.

On Monday, a multi-agency task force formed to further probe the sightings. The group comprises representatives from more than 70 local, state, federal and military agencies including 10-15 law enforcement agencies as well as the FBI and FAA. After contacting several possible leads, spokesperson Ian Gregor said the FAA has been “unable to determine that any of these entities was the source of these reported flights.” “The purpose of today’s meeting was for the various agencies to share information and to discuss how we can most effectively collaborate in our efforts,” the FAA added in a statement.

The Phillips County (Colo.) Sheriff’s Office thinks the drones may be controlled from a mobile station. An official [Facebook post](#) states: “We are looking for the command vehicle. We are looking for a closed box trailer with antennas or a large van that does not belong in the area.” <https://dronelife.com/2020/01/07/task-force-makes-little-headway-in-colorado-drone-mystery/>

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New task force for mysterious drone sightings Shahn Sederberg/CDOT Aeronautics Division



In the latest bid to solve the question of [mysterious drone sightings](#) [vexing authorities](#) in northeastern Colorado, a [state](#) surveillance airplane loaded with sophisticated cameras and sensors was launched Monday evening.

However, it did not detect any suspicious drone activity despite a [five hour-flight](#) over the area besieged by recent reports of drone sightings, officials told ABC News.

The plane took off around 5 p.m. Monday, flying a spaghetti-shaped pattern over northeast Colorado before returning to its base at the Centennial Airport south of Denver, according to



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FlightRadar. The search was part of an effort to get answers to [a series of reported drone sightings](#) across parts of Colorado and Nebraska since mid-December.

At the same time and in the same area of Monday's surveillance flight, multiple people were still posting to drone-spotting Facebook groups that they could see one or more of the objects in the air.

"This is sort of a modern version of the UFO hysteria in that people think they see something and all of a sudden everybody thinks they see something," said retired Col. Steve Ganyard, a former Marine fighter pilot and ABC News consultant. "But they're really seeing nothing or they're seeing something that's eventually going to be easily explained scientifically."

<https://abcnews.go.com/US/high-tech-plane-joins-search-mysterious-drones-colorado/story?id=68128257>

Canadian company using drones to plant 1 billion trees Josh Spires Jan. 7th 2020



Canadian company Flash Forest is hoping to [plant 1 billion trees using drones](#) by 2028, a large task we want to see happen! The company hopes to use **autonomous** drones to plant seeds from above as well as monitor the seeds, ensuring they grow correctly and are able to survive.

Flash Forest is a group of scientists that modify drones to shoot tree seeds into the soil below. The seeds are planted using technology, software, and science to ensure the greatest survival rate possible. The drone is essentially a paintball gun retrofitted to shoot seeds. Flash Forest also uses [drones](#) to locate the best sites to plant trees and spray the drone-planted seeds with nutrients and food.

The company is currently funding on [Kickstarter](#) and has flown past its goal of CAD\$10,000 with a total of CAD\$76,000 and 11 days to go. The company now hopes to get to the 100,000 mark, which would allow them to purchase the automation station outright.

These drones can help rehabilitation from [wildfires](#) on top of deforestation. What do you think of this approach to planting trees? Let us know in the comments below.

<https://dronedj.com/guides/drones/>



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The UK's Nottinghamshire Police is adding a 24/7 drone team [Josh Spires](#) Jan. 7th 2020

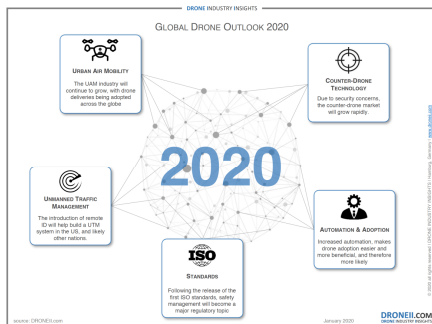


The Nottinghamshire [Police force](#) in the UK, along with the Nottinghamshire Fire and Rescue, is adding a 24/7 drone team as a new way to [improve security](#) as well as for use in emergencies. The team will also have a dedicated drone car used for fast responses and as a [mobile ground station](#).

The police officers have been trained in various situations both during the day and [night](#), which allows the team to be on call 24/7. Chief Constable Craig Guildford said they are excited to use the drones:

We're very pleased to be able to introduce drones into our work as a force and make the most of their capabilities. I am very much looking forward to seeing the benefits that this technology will have for our officers in a number of areas of police work, and I want to thank everyone involved for their hard work on bringing this team to fruition. <https://dronedj.com/2020/01/07/uk-nottinghamshire-police-drone-team/#more-22772>

Global Drone Outlook 2020: What's on the Agenda 2020-01-07 Millie Radovic



As the new year and the new decade kick off, new trends, challenges and opportunities for the commercial drone industry lay ahead. To kick off drone industry discussions in 2020, here are some of the key trends to look out for this year.

Originally published: January 2020. Read the summary at: <https://www.droneii.com/global-drone-outlook-2020>

Drones could lead the way in de-carbonised air travel, PhD study finds

APPLICATION DELIVERY HEADLINE NEWS UK ALEX DOUGLAS JANUARY 8, 2020

While studying for her PhD in Cambridge, Dr Enass Abo-Hamed came up with a revolutionary structure which could store hydrogen as [a stable solid without compression](#). The university paired her with materials scientist, Luke Sperrin, to try to find commercial applications for the innovation. They formed a partnership with Canadian hydrogen fuel cell maker Ballard a year ago to create a drone which used their reactor to safely store hydrogen for flight.



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It works by the hydrogen remaining stable and solid in these structures until “coolant” is pumped through the tubes, warming them and releasing hydrogen gas to the drone’s fuel cell. Hydrogen is pumped into one side of the fuel cell through a catalyst which frees electrons, creating electricity.

It generates **three times as much power per kilogram**

compared to fossil fuels which means a hydrogen-powered drone can fly further than a battery-powered drone and, potentially, carry heavier loads.

https://www.commercialdroneprofessional.com/drones-could-lead-the-way-in-de-carbonised-air-travel-phd-study-finds/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-320824-Commercial+Drone+Professional+DNA+-+2020-01-08

Sunflower Labs Announces Availability of World’s First Fully Autonomous Residential Security Drone January 7, 2020 News



[Sunflower Labs](#) is announcing the launch of the Sunflower Home Awareness System—the world’s first fully autonomous residential security drone—at the 2020 Consumer Electronics Show (CES). Starting today, homeowners will be able to pre-order the Sunflower system with a deposit of \$999. The company will deliver the first

systems to customers mid-2020. The System consists of three components: Sunflowers, Bee and Hive:

- The Sunflowers: Each Sunflower, disguised as garden lights, houses an array of motion and vibration sensors to constantly monitor activity on the property.
- The Bee: A fully-autonomous drone that navigates to observe activity on your property.
- The Hive: This housing and charging station keeps the Bee powered up with AI data processing and analysis enabled by an embedded system.

If the system senses anything out of the ordinary, it sends an alert to the property owner’s mobile device. In seconds, the owner can choose to launch an autonomous drone flight and view real-time aerial footage of the property via the Sunflower Labs app from anywhere in the world. The starting price for the system is \$9,950. https://uasweekly.com/2020/01/07/sunflower-labs-announces-availability-of-worlds-first-fully-autonomous-residential-security-drone/?utm_source=newsletter&utm_medium=email&utm_campaign=uasweekly_daily_newsletter_01_08_2020&utm_term=2020-01-08



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9Jan20

Spotted a drone cluster? The Nebraska Information Analysis Center is collecting reports

Erin Duffy / World-Herald staff writer Jan 8, 2020

Sightings of mysterious [packs of drones flying at night](#) in eastern Colorado and western Nebraska have puzzled observers, law enforcement and officials from the Federal Aviation Administration. It's still unclear [what the drones are doing](#) and who's flying them, but witnesses have reported drones **large in size**, often flying in grid-like formations, since mid-December. And social media have exploded since with photos, videos and more reports of drone sightings moving eastward across Nebraska, although it's difficult to tell whether they're linked to the drones seen in rural Colorado and Nebraska.

As **the investigation continues** — a task force of federal, state and local officials met Monday — the Nebraska State Patrol is encouraging people to report detailed, credible sightings of four or more drones to the Nebraska Information Analysis Center, which reviews crime- and terrorism-related intelligence. https://www.omaha.com/news/state_and_regional/spotted-a-drone-cluster-the-nebraska-information-analysis-center-is/article_cd846ab3-837b-54a6-9d1e-d24fac3388bc.html

Pilotless air taxi from China's Ehang takes flight in the US for the first time

Andrew J. Hawkins@andyjayhawk Jan 8, 2020



The all-electric two-seater took flight for **five minutes** above a test track south of Raleigh, North Carolina, on Tuesday afternoon, with approximately 100 people, including the state's governor, Roy Cooper, looking on. It represents the first time that Ehang has received permission to fly from the US Federal Aviation Administration, and it helped set the stage for it to receive approval for passenger demonstrations in the near future.

The Ehang 216, powered by 16 electric rotors, flew along a pre-planned route at over 80 mph. The aircraft weighs about 600 pounds and can carry another 500 to 600 pounds of cargo or passengers, the company says. But it's still in its early stages of development and is primarily being used today for sightseeing trips.



North Carolina Governor Roy Cooper in the cockpit. Ehang says it has conducted over 2,000 trial flights in China, Austria, the Netherlands, Qatar, the UAE, and now in the US. The company recently filed paperwork with the US Securities and Exchange Commission [to go](#)

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[public on Nasdaq with a \\$100 million offering priced at \\$12.50](https://www.theverge.com/2020/1/8/21056956/ehang-air-taxi-first-flight-demo-pilot-electric-north-carolina-us-faa) per share.
<https://www.theverge.com/2020/1/8/21056956/ehang-air-taxi-first-flight-demo-pilot-electric-north-carolina-us-faa>

DRONE VIDEO OF THE DAY

Control click

MAGIC OF HONG KONG: BEHIND THE SCENES



We doubt you've seen Hong Kong like this before.

BY @TIMELAB.PRO <https://mailchi.mp/airvuz/airvz-video-of-the-day-o218qhfsb-1145563?e=ac6ccc9889>

10Jan20

Swift Tactical Systems lands \$17m national drone contract APPLICATION

INTERNATIONAL NEWS ALEX DOUGLAS JANUARY 9, 2020



to provide the Bahamas government agencies and ministries with a comprehensive Unmanned Aircraft Systems program.

The multi-agency drone program includes the purchase of 55 short and medium-range drones, immediate surveillance capabilities, training and support and the establishment of a

regional drone academy.

The Ministry of National Security Bahamas Unmanned Aerial System held a contract signing at Coral Harbour Base. Rick Heise, president and CEO of the company, commented: "This is an exciting partnership utilizing Swift's revolutionary drone technology and operational expertise with the Bahamian's embrace of technology in fighting crime, drug and gun trafficking, human trafficking, illegal immigration, and poaching."

The contract was awarded to Swift Tactical Systems more than one year after the government released a worldwide request for drone and services proposals. Swift's plan **beat 25 other companies** that were part of the multi-agency selection process.

https://www.commercialdroneprofessional.com/swift-tactical-systems-lands-17m-national-drone-contract/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-320934-



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