UAS and SmallSat Weekly News

Contents

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22Feb20

Wing Makes a Statement on Remote ID for Drones Supports Recreational Flyers

"Open Skies for All" Miriam McNabb February 21, 2020

While discussions and arguments over how to implement retail drone delivery have been going on for years, Google spin-off Wing has been quietly making it happen. With the receipt of the first FAA certification as an air carrier for drone delivery in 2019, Wing has taken a leadership position in the industry. Despite their focus on commercial applications, however, Wing believes in the concept of open and fair skies for all pilots – as their statement on Remote ID for drones indicates.

The statement recommends the FAA follow the recently published ASTM standards on Remote ID: and says the rule should work for all drones, including recreational flyers. "**Our skies are open to all,"** says the statement. "Hobbyists are vital to innovation in the United States. However, the proposed rule would make it difficult for hobbyists to build and operate their aircraft. The final rule should recognize alternative ways for hobbyists to identify their drones, including via smartphone, and should avoid limiting their participation in the airspace."

In a reasoned statement, Wing lays out the challenges – flexibility, privacy, and support for all operators and aircraft – and suggests simply that the FAA utilize the work done by the ASTM standards committee and allow operators a choice of how to comply with the rule. If the entire drone community supports a flexible framework that supports innovation, the whole industry will thrive. Wing's statement: https://dronelife.com/2020/02/21/wing-makes-a-statement-on-remote-id-for-drones-supports-recreational-flyers-open-skies-for-all/

The Lindbergh flight and X-Prize Spurred Innovation, GoFly wants to do the Same with Personal Flying Devices Harry McNabb February 21, 2020

In the spirit of contests spurring innovation and problem solving, GoFly is offering a $2,000,000 purse over the course of the 24-month competition – and they are scheduled to award the final winner later this month. The contest is entering its final phase with about two dozen displaying and five listed as flying for the grand prize. The goal is simple: to design and build a personal flying device. The rules state that it must be safe, useful, and

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thrilling, but the design and function of the device is up to teams that build them. The purse had three phases:

Phase I has 10 $20K prizes based on written technical specifications. Phase II awards five $50K prizes to Teams with the best VTOL demonstration and revised Phase I materials. Phase III will unveil the Grand Prize Winner, awarded at the Final Fly-Off. It will take place Saturday, February 29th at Moffett Federal Airfield at NASA Ames Research Center in Mountain View, CA. https://dronelife.com/2020/02/21/the-lindbergh-flight-and-x-prize-spurred-innovation-gofly-wants-to-do-the-same-with-personal-flying-devices/

Axon launches drone livestream connected app for law enforcement APPLICATION EMERGENCY SERVICES INTERNATIONAL NEWS ALEX DOUGLAS FEBRUARY 21, 2020

The first-of-its kind Axon Air app allows law enforcement to stream drone footage to command staff and into Axon Evidence in near real-time. The data is protected by the same data management system and chain of custody protocols that law enforcement agencies trust for body-worn, in-car and in-room video systems.

Axon partnered with a network of agencies to develop the app, which includes customizable piloting controls and settings — about 30 agencies are using it in the field.

The Escondido Police Department in California was the first to use the application. Commenting, Escondido's drone program coordinator and chief pilot, sergeant Craig Miller, said: "We are excited to have a flight app that streamlines our workflow. From livestreaming in the moment to capturing the evidence in a secure system, it makes our jobs easier and keeps everything consistent. Our pilots love the simple interface, and the streaming allows us to get widespread awareness on any critical incident — the Axon Air app has been a game-changer." https://www.commercialdroneprofessional.com/axon-launches-drone-livestream-connected-app-for-law-enforcement/

FirePoint selects six teams for C3 Challenge to build US Army's UAV 21 FEBRUARY 2020 NEWS

Sponsored by the US Army Combat Capabilities Development Command Aviation and Missile Center, the Challenge is supported by Dassault Systems and America Makes.

These selected teams will compete for $35,000 in funding and move

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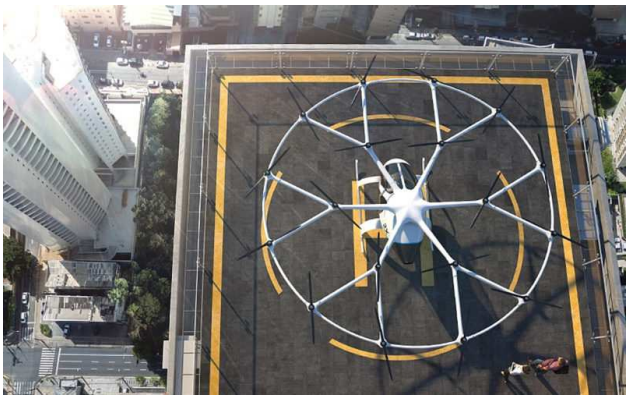
forward to the next phase of the competition. Initially, they will create a statement of work and move on to proof of concept prior to demonstrating their innovations. Each of them will get up to $10,000 for project development.

Participating teams are the Buhler High School Science Club, Team Innovating Shockers from Wichita State University, Team Shocker UAVs from Wichita State, Team Vol Air from the University of Tennessee, Team UAH Chargers from the University of Alabama and Pistol Pete's Propulsion Posse from Oklahoma State University. They have each submitted design concepts in one of three component areas within a UAV subsystem. An integrated working UAV prototype will be designed and fabricated for final presentation to the army in February next year. https://www.army-technology.com/news/firepoint-c3-challenge-uav/

Volocopter extends total investment to €122m after mega Series C funding round

APPLICATION BUSINESS FINANCIAL HEADLINE NEWS ALEX DOUGLAS FEBRUARY 21, 2020



Volocopter extended its Series C funding to a total of €87m. Besides DB Schenker, Mitsui Sumitomo Insurance Group and TransLink Capital join the round as new investors. Existing investor Lukasz Gadowski and btov also invested.

The funding will go towards the certification of the VoloCity, hiring more industry experts, and a second generation VoloDrone to ensure commercialization of the heavy-lift cargo drone product. To date Volocopter has raised total funding of €122m.

Jochen Thewes, CEO of DB Schenker, said: "DB Schenker has already tested autonomous and electrical vehicles in several innovation projects and in actual operations. By integrating the VoloDrone into our supply chain of the future, we will be able to serve our clients' demand for fast, remote, emission-neutral deliveries. We are thrilled to now be part of this drive for innovation in a fantastic team." https://www.commercialdroneprofessional.com/volocopter-extends-total-investment-to-e122m-after-mega-series-c-funding-round/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-324263-Commercial+Drone+Professional+DNA+-+2020-02-21

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Grey Arrows Drone Club integrates Altitude Angel airspace data APPLICATION NEWS

UK ALEX DOUGLAS FEBRUARY 21, 2020

Established in 2017 and with one of the largest memberships in the UK, the Grey Arrows Drone Club is a forum where drone users can share and exchange information and discuss various topics around drones and recreational flying.

Airspace and ground hazard data will now be supplied by Altitude Angel and will appear on the club's dronescene.co.uk flight planning tool. Members will be encouraged to file flight reports prior to their flights via the tool.

These reports will then be incorporated into Altitude Angel's GuardianUTM system, which will then propagate the data to Altitude Angel's other applications and partner platforms, such as NATS's Drone Assist app, Guardian App and DroneSafetyMap.com.

Rich Kavanagh, Grey Arrows Drone Club's chairman and founder member said: "Airspace regulations are changing all the time, coupled with temporary FRZs and short notice NOTAMs. The up-to-the-minute information Altitude Angel provides is invaluable for the drone community looking to make safe and legal flights, often at very short notice. It made perfect sense for us to partner with the leaders in UTM."
https://www.commercialdroneprofessional.com/grey-arrows-drone-club-integrates-altitude-angel-airspace-data/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-324263-Commercial+Drone+Professional+DNA+-+2020-02-21

Grand Sky Flying High as it Celebrates Five Years February 21, 2020 News

GRANDSKY
GRAND FORKS COUNTY, ND

Grand Sky Development Company, LLC, the nation's first commercial unmanned aerial system testing and training center, is celebrating five years of successful operations and dramatic impact to the North Dakota economy. Built to support large UAS operations, Grand Sky has logged 2,300 UAS flight hours due to partnerships and agreements with Grand Forks Air Force Base. Located on the base, Grand Sky provides flight schedule certainty because of uncongested airspace and a high number of flyable days per year.

The State of North Dakota has invested $18.5 million in infrastructure, and Grand Sky secured another $60 million in private investments. They have created 160 full-time jobs with average

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annual salaries of $70,000. Each year, over 600 trainees and meeting attendees visit the region with an average stay of five nights. This equates to more than $19.2 million in annual economic impact to the state.

"There is no point in securing BVLOS capability if you can only fly for 45 minutes or only cover 500 acres an hour," Swoyer said. "For the UAS industry to truly achieve economies of scale, we need to fly for many hours and cover tens of thousands of acres an hour or else we're all just wasting time. In the near future, we need to bring large UAS into the commercial UAS industry to realize these new requirements. Small UAS have a role, but large UAS will define how the industry realizes the promise of UAS technology." Grand Sky plans to host a series of demonstrations this spring to demonstrate how large UAS will change the industry. https://uasweekly.com/2020/02/21/grand-sky-flying-high-as-it-celebrates-five-years/?utm_source=rss&utm_medium=rss&utm_campaign=grand-sky-flying-high-as-it-celebrates-five-years&utm_term=2020-02-21

24Feb20

Drones and Other UAV's Are Being Used to Fight Coronavirus in China Harry McNabb February 23, 2020

The country of China is deploying drones and unmanned robots to disinfect hospitals and public space, enforce quarantine restrictions and deliver medicines in their efforts to stem the tide of this growing epidemic. As the world braces for what is edging toward a global pandemic, there are some lessons to be learned from China as how they are using drone and related technology to battle the disease.

The situation appears to be worsening. The Director-General for the WHO, Tedros Adhanom Ghebreyesus in Geneva Switzerland said in a press conference, "*Although the window of opportunity is narrowing to contain the outbreak, we still have a chance to contain it*", he said. "*If we don't, if we squander the opportunity, then we will have a serious problem on our hands*"… he continues, *"Although the total number of cases outside China remains relatively small, we are concerned about the number of cases with no clear epidemiological link, such as travel history to China or contact with a confirmed case."* https://dronelife.com/2020/02/23/the-window-of-opportunity-is-narrowing-drones-and-other-uavs-are-being-used-to-fight-coronavirus-in-china/

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"Big Drone" Shows off Flying Ability Harry McNabb February 23, 2020

Built to promote its Drone Champions drone racing video game, this drone is shown flying being controlled on the ground by a controller in the video below. This is a full-sized drone, called the "big drone" is built with a carbon fiber airframe with 6 arms, each with a pair of coaxial rotors mounted at the ends and extending on a very sleek looking chassis. The unit is controlled on the ground by a pilot rather than in the drone itself.

The video was filmed in Croatia. Now much of the video was filmed doing the extreme flying was filmed sans human (but with a dummy on board) but it is still impressive. Later it shows a person on board but doing a much more sedate flight. "We have developed and built the first-ever manned aerobatic drone with the vision to create a brand-new future racing experience and to recruit drone pilots through DCL – The Game," says Drone Champions founder and CEO, Herbert Weirather. See an 8 minutes video that give further background and flights of the drone. https://dronelife.com/2020/02/23/big-drone-shows-off-flying-ability/

BAE Systems Solar UAV Successfully Completes First Flight 18 Feb 2020 Mike Ball

BAE Systems has announced that its solar-electric PHASA-35 unmanned aerial vehicle has successfully completed its maiden flight. The 35 meter wingspan unmanned aircraft, designed, built and flown in less than two years as part of a collaboration between BAE Systems and Prismatic Ltd, is intended to operate unmanned in the stratosphere.

The High Altitude Long Endurance (HALE) vehicle is powered by the Sun during the day and by batteries overnight, and this combination of long-life battery and high-efficiency solar technology could allow the aircraft to maintain flight in the stratosphere for up to a year.

PHASA-35 is intended to provide a persistent alternative to satellites that features the flexibility of an aircraft, and could be used for a range of applications including forest fire detection, communications, security and maritime surveillance. These first trials were sponsored by the UK's Defence Science and Technology Laboratory and Australian Defence Science and Technology Group and took place at the Royal Australian Air Force Woomera Test Range in

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South Australia. They marked the first fully integrated flight test of the PHASA-35 system, delivering rapid proof of capability.

When connected to other technologies and assets, the UAV will provide both military and commercial customers with capabilities that are not currently available from existing air and space platforms. Further flight trials have been scheduled, with the possibility that the aircraft could enter initial operations with customers within 12 months of the flight test program completion. https://www.unmannedsystemstechnology.com/2020/02/bae-systems-solar-uav-successfully-completes-first-flight/

Morocco's Royal Gendarmerie to Use Drones for Road Surveillance Yahia Hatim Feb 21, 2020 *The use of drones will allow officers to detect infractions that radars cannot record.*

Rabat – Morocco's Royal Gendarmerie is set to start using drones for the surveillance of Moroccan highways. The use of drones seeks to ensure the detection of drivers' infractions that radars cannot record.

Infractions that the drones will detect include the use of cellphones while driving, exceeding the passenger or load limit, along with any other behaviors that could threaten the safety of road users.

The use of drones will facilitate the capture of high definition footage and its transmission through a live feed to the gendarmes on the ground. The footage will also provide proof of any infractions.

The new addition to the Royal Gendarmerie's arsenal is inspired by France's National Gendarmerie. French gendarmes have been using drones for more than a decade, upgrading their fleet every few years. https://www.moroccoworldnews.com/2020/02/294234/moroccos-royal-gendarmerie-to-use-drones-for-road-surveillance/

ASTM national standard for remote ID supported by Wing APPLICATION BUSINESS INTERNATIONAL NEWS ALEX DOUGLAS FEBRUARY 24, 2020

Following the December release of the FAA's Notice of Proposed Rulemaking for Remote ID in the United States, Wing has welcomed the publication this week of a new ASTM International standard for Remote ID.

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The ASTM standard reflects two years of collaboration between regulators and industry. It looks to demonstrate that Remote ID can be implemented in a way that supports a diverse drone ecosystem, protects privacy, and enables hobbyists to participate in the airspace.

While Wing agrees with the objectives of the FAA's NPRM, the company says the proposed rule poses some challenges as drafted. The ASTM standard can help to address some of these challenges, and Wing looks forward to providing detailed public comments to the FAA as part of the rulemaking process.

Wing believes that simple changes can resolve the challenges presented by the proposed rule in a safe and secure way, and enable Remote ID to be implemented quickly with existing technology. https://www.commercialdroneprofessional.com/astm-national-standard-for-remote-id-supported-by-wing/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-324351-Commercial+Drone+Professional+DNA+-+2020-02-24

DRONERESPONDERS Profile: Deputy Fire Chief Chris Sadler February 24, 2020

CHRISTOPHER SADLER
Deputy Chief & Deputy Director
York County, Virginia Department of Fire & Life Safety

Our UAS team is made up of both fire/rescue and law enforcement personnel. We respond to all kinds of emergencies. We had an active shooter situation a few years ago where we were able to use our aircraft and high powered zoom cameras to keep situational awareness of the scene, and an eye on the shooter through the windows for most of the event. This allowed the rest of the building to be cleared by the SWAT teams pretty quickly and safely. By keeping a visual on the bad guy throughout, SWAT personnel were able to set up explosive breaching devices on a side entry and make a coordinated entry from this door and an interior doorway to take the shooter into custody after a 5-hour standoff.

DRONERESPONDERS has now grown to include over 1,600 members with representation in nearly 40 countries. This demonstrates a huge representation of the public safety UAS community to the manned and unmanned aviation community. The Public Safety UAS Summit at AUVSI's XPONENTIAL May 4-7 in Boston provides networking with peers passionate about public safety UAS.

And then there is the XPO floor where you will see just about anything you can imagine in the world of unmanned systems. It is a great place to see new products, ask questions, and

compare products. I believe it is the largest exhibition of unmanned vehicle systems anywhere in the world!
https://mail.google.com/mail/u/0/#inbox/WhctKJVjXpWpwdcWztzqgMDpvLWWSvvPPhxPQmhbDQvPltcrpkTSqDTxBZWmGnsbQsrzkRG

Drones Help Scientists See the Arctic Is Getting Greener Harry McNabb February 24, 2020

Credits: NASA's Goddard Space Flight Center/Cindy Starr

Contrary to what you may have remembered from your grade school days, the Arctic is not the barren wasteland of ice that you may envision. It is a rich environment where plants such as dwarf shrubs, a variety of grasses, lichens, herbs and mosses form the tundra. Relatively small increases (or decreases) in temperature can dramatically affect the types and numbers of plants that can survive and thrive in different environments.

The latest drone and satellite technology is helping an international team of researchers, including experts at the University of Sheffield, to better understand how the vast, treeless region called the tundra is becoming greener.

A recent paper details this change with the addition of drone imaging data. Co-author Professor Gareth Phoenix, Professor of Plant and Global Change Ecology at the University of Sheffield, said: "The greening of the Arctic has been one of the clearest consequences of climate change we can see in the natural world. However, with more damage now coming from extreme weather events and fires that kill tundra plants, we have a big challenge ahead if we are to predict what the future holds for Arctic ecosystems, as well as how changes there will affect the rest of the world." https://dronelife.com/2020/02/24/drones-help-scientists-see-that-the-arctic-is-getting-greener/

Drone spots more than 20 sharks swimming off popular beach Josh Spires Feb. 24th 2020

A drone has spotted sharks swimming off New Smyrna Beach, Florida, a popular beach and swimming location.

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The drone, flown by Jeremy Johnston, was able to take photos and videos of an estimated 20-50 sharks swimming in shallow water.

He posted the drone video to his Instagram account on February 19. Johnston told FOX35 Orlando *Maybe 100… they wouldn't all fit in the drone video. And now you can see why I've been so spooked paddling out alone!* https://dronedj.com/2020/02/24/drone-captures-over-20-sharks-swimming-beach/#more-24410

25Feb20

Monitoring climate change from the sky

DRONES could play a 'critical role' in tracking the effects of global warming but only if their battery life improves RYAN MORRISON FOR MAILONLINE 24 February 2020

Researchers at the University of Southampton are working with technology entrepreneur Ewan Kirk to develop cheaper, longer lasting batteries and drones. The unmanned flying vehicles can be used to monitor large areas of land for changes but need to be airborne for a long time to collect the necessary data. While longer-range drones are available already, they are much more expensive and difficult to deploy at a scale required for climate monitoring. Improved battery life will mean drones can be deployed to monitor climate degradation in difficult-to-reach and hostile environments, Kirk said.

Dr Kirk, who is the director of the Turner-Kirk Charitable Trust, said improving the range of unmanned aerial vehicles is critical to their use in helping the planet. He has donated £15,000 to the University of Southampton engineering department as part of a project to create new types of drones with better batteries.

He says as well as climate change, the technology can help in stopping or reducing instances of poaching and help first responders in natural disasters. Drones should be an essential tool at the fingertips of those environment agencies already helping in the fight against climate change. 'In the area of conservation, continuous monitoring of endangered animals by UAVs will enable authorities to identify potential threats and increase the response times for wardens to intercept and prevent any illegal activity.'
https://www.dailymail.co.uk/sciencetech/article-8036133/Drones-critical-role-play-tackling-climate-change.html

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Robotic Skies receives strategic investment from CerraCap INVESTMENT SAM LEWIS FEBRUARY 25, 2020

Founded in 2014, the drone company provides turnkey maintenance solutions and has more than 190 independently owned and operated aviation repair stations.

Investor CerraCap Ventures is an early-stage technology venture capital firm specializing in cyber security and artificial intelligence.

Robotic Skies founder and CEO Brad Hayden commented: "A robust software platform is essential to aviation maintenance operations. As we continue to support the rapidly expanding unmanned market, a highly automated and data-driven technology stack becomes an even more vital element of our business." https://www.commercialdroneprofessional.com/robotic-skies-receives-strategic-investment-from-cerracap/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-324471-Commercial+Drone+Professional+DNA+-+2020-02-25

Case Study: Measuring Wind Turbine Wake Turbulence with UAVs 20 Feb 2020 Mike Ball

FT Technologies, a developer of high-performance ultrasonic wind sensors for unmanned aerial vehicles, has released a case study outlining how the company's FT742-SM wind sensor was used to assess the safety of operating drones in front of the nacelle of a spinning wind turbine, even in strong and turbulent wind. *Read the full case study on FT Technologies' website here*

Aalborg University in Denmark is currently undertaking a research project involving the transportation of spare parts to offshore wind turbines, using drones that would fly directly from the service harbor to the wind turbine nacelle. If possible, this would reduce costs and downtime significantly compared to the current method, which involves transporting the parts by ship and then transferring them to the nacelle by crane.

In order to determine the wind conditions at the exact location where drones would fly, Aalborg University mounted the FT technologies wind sensor first on a DJI Matrice 600, and then on the unmanned helicopter that will conduct test deliveries during the research project.

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The article details how the wind sensor's measured wind direction was correlated with a changing aircraft heading, to ensure that the measured wind speed could also be trusted. It also features videos of the flight from both the drone itself and a ground tracking camera. https://www.unmannedsystemstechnology.com/2020/02/case-study-measuring-wind-turbine-wake-turbulence-with-uavs/?utm_source=UST+eBrief&utm_campaign=5bf768268d-eBrief_2019_25Feb&utm_medium=email&utm_term=0_6fc3c01e8d-5bf768268d-119747501

26Feb20

SPECIAL REPORT: Training in the Drone Industry APPLICATION EXCLUSIVE HEADLINE NEWS TRAINING ALEX DOUGLAS FEBRUARY 26, 2020

As part of the second edition of the year, Commercial Drone Professional speaks to a select group of training providers and delves into the market.

In conversation with iRed, Heliguy, RUAS and UAV8, CDP discovers the latest goings on in the sector and what challenges they see.

CLICK HERE TO SEE THE REPORT https://www.commercialdroneprofessional.com/special-report-training-in-the-drone-industry-2/?utm_medium=push&utm_source=notifications

JAL trials transporting fresh fish with UAVs Alfred Chua 25 February 2020

Japan Airlines has conducted the first series of test flights using UAVs to transport freight, including one involving fresh fish from Nagasaki to a Tokyo restaurant. The flights, which spanned two days, were operated in cooperation with the Nagasaki Prefecture government. JAL adds that Yamaha Motor piloted the UAV during the test flights. The rotorcraft UAV used was Yamaha's Fazer-R G2

(C)Google

For the first test flight on 18 February, the UAV helicopter transported freight packed in a cool box over a distance of about 46km from Kamigoto Airport to Ojika Airport. The next day, the UAV transported 20kg of fresh fish, from Kamigoto airport to Saikai city in the prefecture, over a distance of about 35km. The fish was then transported by truck to Nagasaki airport, before being loaded on a passenger flight to Tokyo Haneda airport.

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"The fresh fish was ultimately served at a restaurant in Tokyo on the same day," JAL notes, adding that checks revealed the temperature within the cool box remained constant throughout its journey from Kamigoto to Tokyo. "JAL aims to develop a new type of air cargo service in the industry with UAV technology, as the airline foresees demand for such services in the near future," the carrier states. https://www.flightglobal.com/aerospace/jal-trials-transporting-fresh-fish-with-uavs/136922.article

Tissue-box-size satellite created by Rice University students to help tackle space junk Andrea Leinfelder Feb. 25, 2020

Satellites that will form part of SpaceX's Starlink constellation await release into orbit from a Falcon 9 rocket.

The Houston Chronicle (2/25) reports that Rice University students have developed the OwlSat CubeSat, which "will collect data over the course of one year to see how extreme ultraviolet radiation...can alter a satellite's path in low-Earth orbit." Understanding such orbits "can help prevent collisions that can create space junk, said Ryan Udell, president of Rice University's chapter of Students for the Exploration and Development of Space."

The OwlSat is "one of 18 small research satellites recently selected by NASA to hitch a ride into space." It will launch in January 2022. NASA "will cover the cost of launching the satellite, and various Rice University departments, labs, schools and alumni groups are helping fund the $45,000 needed to build the satellite, Udell said."
https://www.houstonchronicle.com/news/houston-texas/houston/article/Rice-University-students-build-research-satellite-15081075.php

The SkyWall Auto Response System Captures Rogue Drones – in a Net Miriam McNabb February 26, 2020

While drone detection systems have gotten more and more sophisticated over the last few years, the problem of how to actually mitigate a rogue drone remains – and it's a thornier problem than you might think. "Shoot 'em down" seems like an obvious answer – but aside from the fact that shooting down aircraft is illegal, it is also extremely difficult (a drone moving at 400 feet overhead is no easy target) and dangerous.

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Solutions have ranged from trained eagles to shoulder mounted "ray guns" – but the latest is the SkyWall Auto Response net capture system that will be displayed at the Security and Policing 2020 government event.

Developed by OpenWorks Engineering, the SkyWall is the mitigation piece of the company's Patrol system. The company says the system is already deployed "at critical national infrastructure around the world."

It is mounted on a vehicle, allowing it to follow a drone – and then it shoots a net to capture the rogue drone. This has significant advantages over destroying the drone. Destroying a drone is illegal except in very specific circumstances by government agencies – and capturing a drone allows for the greater possibility of enforcement actions after an incident. In addition, the unit is meant to be discreet. https://dronelife.com/2020/02/26/the-skywall-auto-response-system-captures-rogue-drones-in-a-net/

RAF to Launch Swarming Drone Squadron in April February 25, 2020 Military

The Ministry of Defense said the drones would work alongside fighter aircraft like the F-35 and Eurofighter Typhoon to increase their lethality. "The new £160m Transformation Fund will also develop swarm squadrons of network-enabled drones capable of confusing and overwhelming enemy air defenses. By working with combat aircraft, these swarms will allow our pilots to deliver precise, lethal combat power more effectively and safely."

At last year's Air and Space Conference, then Air Chief Marshal Sir Stephen Hillier repeated the ambitious timeframe and commented on the program, saying: "The team set the most challenging objectives, and I am confident enough to say the results, thus far, are looking pretty impressive. So much so that I can declare that we will shortly be forming an experimental squadron – Number 216 Squadron – to bring this capability quickly to the frontline." https://uasweekly.com/2020/02/25/raf-to-launch-swarming-drone-squadron-in-april/?utm_source=rss&utm_medium=rss&utm_campaign=raf-to-launch-swarming-drone-squadron-in-april&utm_term=2020-02-26

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DJI uses a cotton swab to fight against coronavirus Josh Spires Feb. 26th 2020

DJI drones are being used in China to check for coronavirus among the population as many have access to the drones, specifically the DJI Mavic 2 Enterprise edition.

The engineers at DJI realized this and knew the drone could give inaccurate readings of up to four to five degrees celsius. They went to work on the problem and came up with a simple solution three days later. They found that attaching the cotton swab to the gimbal within view of the camera lowered the margin of error to just 0.5 degrees celsius.

DJI told Abacus News that this was only an emergency solution and recommends that actual medical equipment be used. DJI is also looking into other ways its drones and cameras can be used in the fight against coronavirus, such as the recent $1.5 million pledge DJI made to fighting the coronavirus with its DJI Argas drones.

Drones have been present throughout the coronavirus outbreak, with various farmers using drones to spray disinfectant over their villages as well as police drones yelling at people spotted on the street to go back inside and wear masks. https://dronedj.com/2020/02/26/dji-uses-a-cotton-swab-to-fight-against-coronavirus/

Nav Canada and Unifly release nationwide drone flight management system

INTERNATIONAL NEW PRODUCTS NEWS SOFTWARE TECHNOLOGY SAM LEWIS FEBRUARY 27, 2020

The drone flight management system will be of use to both drone pilots and airplane pilots to safely navigate the skies. It comes in both mobile and web applications, allowing users to identify safe airspace, plan flights and manage operations.

The software has been designed with current regulations for drone flights within visual line of sight. The website and app are available in both French and English.

Unifly CEO Marc Kegelaers commented: “As one of the most innovative and world’s safest air navigation service providers, Nav Canada has a deep understanding of the challenges that developing and implementing complex traffic management systems bring.”

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https://www.commercialdroneprofessional.com/nav-canada-and-unifly-release-nationwide-drone-flight-management-system/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-324660-Commercial+Drone+Professional+DNA+-+2020-02-27

UAVOS to demo unmanned helicopter at UMEX 2020 INTERNATIONAL NEWS SAM LEWIS FEBRUARY 27, 2020

The ISR350-5 will showcase its maritime search and rescue capabilities at the show, dropping a lifejacket into water.

The unmanned helicopter carries the Gyro-stabilized two-axis gimbal for day and night surveillance, with Laser Rangefinder, that is able to detect, identify, locate and report targetable data. Designed for civilian and security missions it works in conjunction with a portable ground control station.

Other planned demonstrations will include intelligence, surveillance and reconnaissance missions, bringing increased persistence, capability, and capacity through multi-sensor mission payloads. UAVOS and others will be at UMEX 2020 which runs Feb 23-25 in Abu Dhabi.
https://www.commercialdroneprofessional.com/uavos-to-demo-unmanned-helicopter-at-umex-2020/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-324660-Commercial+Drone+Professional+DNA+-+2020-02-27

Drone Company Manna Starts Delivery in Dublin: Thai & Ice Cream Harry McNabbon: February 27, 2020

Ben & Jerry's Manna's drone delivery pilot program can deliver ice cream and Thai food in three minutes. In a version of "farm to drone to table," the drone delivery company plans to replace road delivery and deliver Thai food and Ben and Jerry's Ice Cream to University College of Dublin students in a fraction of the time that traditional delivery would take.

"Using custom-developed aerospace grade drones, we deliver directly from restaurants and centralised kitchens to consumer's homes. We fly at an altitude of 80 metres and a speed of over 80kph – delivering within a 2km radius in less than 3 minutes.

Our 'Manna-festo' is to completely replace road-based delivery – reducing delivery times to a fraction of their current times, greatly improving the consumer experience of food delivery, and saving lives as we take the dangerous process of road-based delivery into the skies."

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The much discussed "last mile" is done with the drone hovering about 10m above the ground while the package is lowered to the recipient on a biodegradable linen string. The process takes a matter of seconds. Manna is partnering with Just Eat, takeaway company Camile Thai, and ice cream icons Ben & Jerry's.https://dronelife.com/2020/02/27/drone-company-manna-starts-delivery-in-dublin-next-month-thai-ice-cream-video/

Drone finds lost tomb with 72 ancient skeletons from extinct Canary Islands civilization The Sun February 24, 2020

A tomb containing the ancient remains of people from a lost pre-Hispanic civilization has been found by drone-flying amateur archaeologists on the holiday island of Gran Canaria which is part of the Spanish Canary Islands.

The mummified remains of 72 skeletons belonging to natives of the 'Guanche' society were discovered by drone. The amazing find included 62 adult skeletons and 10 newborns.

Experts have confirmed the discovery and have linked it to the Guanche civilization as the cave dates back to between 800-1000AD. Guanche people are thought to be the original inhabitants of the Canary Islands and may have travelled there from North Africa.

Archaeologists went down to the burial site and found tradition burial shrouds made from vegetable fibers and animal skin. Experts had to travel down 75 feet to reach the tomb. https://nypost.com/2020/02/24/drone-finds-lost-tomb-with-72-ancient-skeletons-from-extinct-canary-islands-civilization/

28Feb20

UAVs could start replacing manned fighters in mid-2020: USAF Garrett Reim, Orlando, Florida27 February 2020

The service wants to rethink the way it does aerial combat using new technology, including attritable UAVs, says General James Michael Holmes, head of Air Combat Command, on 27 February at the Air Force Association Air Warfare Symposium in Orlando, Florida.

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"I hope that 30 years from now I'm not still trying to maintain 55 fighter squadrons," he says. Instead of laying out a traditional acquisition plan centered around buying manned combat aircraft, Holmes says he wants the service to think more conceptually.

"As we go forward in the future, what I would rather build is a capabilities roadmap that shows how we're going to accomplish the missions for the Air Force that we traditionally have done with fighters." The first opportunity to add attritable aircraft to the USAF inventory could come with the retirement of F-16 Block 25 and Block 30 aircraft in the mid-2020s. https://www.flightglobal.com/military-uavs/uavs-could-start-replacing-manned-fighters-in-mid-2020s-usaf/136978.article

Drones Get the Lights Back on Faster for Florida Communities Miriam McNabb February 28, 2020

One of the most dangerous and unpleasant effects of extreme weather is a loss of power across large areas. Florida Power & Light is accustomed to the problem – and they're finding new ways to deal with it. The power company has received an FAA waiver to fly beyond visual line of sight and to use the drones to quickly identify downed lines. It's a great use for drone technology – and one that can have a positive impact on communities across Florida.

Last week, WPTV NewsChannel 5 reported how Florida Power & Light (FPL) is using the Percepto Drone-in-a-Box daily at its next generation clean energy center in Martin County, as part of its Aerial Intelligent Response program. The report highlights how Percepto's Sparrow drones are online 24/7 and ready to fly at a moment's notice. The Percepto Solution operates under an FAA waiver allowing for flight two miles beyond visual line of sight. FAA has given FPL a waiver to fly the drones two miles beyond visual line of sight.

The drones were tested at Florida International University's (FIU) wind tunnel at speeds of up to 150 miles per hour, to ensure they can help speed up restoration after a storm, by identifying what electrical poles are down and what crews and equipment is needed.

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