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UAS and SmallSat Weekly News

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Robert Rea | Axcel Innovation | Charlottesville and Portsmouth, VA
robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com

UAS and SmallSat Weekly News

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Uber Announces eVTOL Partner at Elevate Summit Jerry Siebenmark June 11, 2019

Jaunt Air Mobility and Uber will partner to develop an electric vertical takeoff and landing air taxi, Uber announced today at the opening of its Uber Elevate Summit 2019 in Washington, D.C. According to Uber, Jaunt has expertise in reduced rotor operating speed aircraft.

"Jaunt Air Mobility has assembled a highly talented team of experienced engineers with a long history of designing and certifying eVTOL vehicles," Uber Elevate director of engineering Mark Moore said. "Martin Peryea, Jaunt's chief technology officer, has led many helicopter development programs as a chief engineer and brings invaluable insights to developing low noise, reliable, and safe aircraft."

ROSA will enable an air vehicle design that offers quiet operations, maximum safety, and enhanced ride quality that keeps passengers in a level position from takeoff to landing. Jaunt's rotor and wing design provides both high hover and cruise flight efficiency, allowing it to meet Uber's mission requirements with an all-electric propulsion system.
https://www.ainonline.com/aviation-news/business-aviation/2019-06-11/uber-announces-evtol-partner-elevate-summit

EU publishes Europe-wide rules on drone operation June 11, 2019

BERLIN (AP) — The European Union has published EU-wide rules on drones to provide a clear framework for what is and isn't allowed, improve safety and make it easier for drone users to operate their craft in another European country.

The European Aviation Safety Agency said Tuesday that the new rules will come into force from July 2020, giving member countries and operators time to prepare. The rules will override any relevant existing national rules.

EASA said the rules specify that new drones must be "individually identifiable," allowing authorities to trace a particular drone if needed. They will also allow operators authorized in one EU country to fly their craft in others.
https://www.apnews.com/2c9b2c69647f498c8efb34f750219320

An Empty Mine in the Alleghany Highlands May be Pure Gold for the Drone Industry Miriam McNabb June 11, 2019

Forward thinkers in the Alleghany Highlands Economic Development Corporation want to take their natural assets and put them to work for a new group of visitors: drone businesses.

One unusual asset is an empty mine – no longer used: but safe, dark, and fascinating. At any time it's interesting, but Alleghany Highlands Economic Development's Executive Director Marla Akridge sees some more practical – and exciting – uses. As an indoor, GPS-deprived environment the empty mine could offer the perfect place for drone racing or recreational drone flying for enthusiasts. Or, more practical but no less exciting, it offers an ideal environment for testing new technologies or learning new flight techniques.

These ideas are being developed now, with the support of Virginia's Governor and the Appalachian Regional Commission. With the recent announcement of an Appalachian Regional Commission Grant, the Alleghany Highlands Drone Zone is moving rapidly towards a reality that the drone industry can take advantage of. https://dronelife.com/2019/06/11/an-empty-mine-in-the-alleghany-highlands-may-be-pure-gold-for-the-drone-industry/

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Storm: DJI's Heavy Duty Aerial Cinematography Service Malek Murison June 11, 2019

New products from DJI usually come with plenty of hype and fireworks. But Storm, the manufacturer's custom aerial cinematography service already live in China, has gone completely under the radar.

Here's what we know about the DJI Storm drone so far:

- The heavy-duty drone is operated under the banner of DJI Studio. The drone has eight propellers and is designed for the heavy lifting of professional cinema gear.
- The platform integrates a Ronin 2 PTZ gimbal which can carry up to 18.5kg of professional movie cameras and lenses. Storm can be used with DJI masters' wheel and somatosensory controllers.
- In terms of performance, DJI says the drone can reach speeds of 50mph and operate for between 8-25 minutes, depending on the payload. It can handle a huge temperate range of -10 degrees Celsius to 40 degrees Celsius.

DJI Storm comes with its own crew. In short, Storm aims to be the missing link between the drone industry and the professional cinematography industry. It can carry various popular cinema cameras and lenses with the support of Ronin 2, Master Wheels, or Force Pro. https://dronelife.com/2019/06/11/storm-djis-heavy-duty-aerial-cinematography-service/

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Uber tests drone food delivery, launches new autonomous SUV June 12, 2019

WASHINGTON (AP) — Uber is testing restaurant food deliveries by drone.

The company's Uber Eats unit began the tests in San Diego with McDonald's and plans to expand to other restaurants later this year. Uber says the service should decrease food delivery times.

It works this way: Workers at a restaurant load the meal into a drone and it takes off, tracked and guided by a new aerospace management system. The drone then meets an Uber Eats driver at a drop-off location, and the driver will hand-deliver the meal to the customer. In the future, the company wants to land drones atop parked vehicles near delivery locations and secure them to the vehicle for the final mile of the delivery.

Last year Uber and the city of San Diego won a bid from the U.S. Federal Aviation Administration to test food delivery by air. The company said the knowledge it gains from the tests will help with Uber's planned aerial ride-sharing network. https://www.chron.com/business/technology/article/Uber-Volvo-Cars-launching-new-self-driving-13970870.php

Boeing's Autonomous Prototype Crashes Jerry Siebenmark June 12, 2019

Boeing and its subsidiary Aurora Flight Science's unmanned passenger air vehicle (PAV) prototype crashed June 4 during its

fifth test flight in Manassas, Virginia. The crash is under investigation, and a determination of cause is pending.

The vehicle previously had four successful test flights and it crashed in a closed area. Guerra declined to disclose further details of the crash. The 30-foot-long, 28-foot-wide electric-powered vehicle completed its first flight on January 22. It is expected to have a range of up to 50 miles and operate autonomously from takeoff to landing.

The air-taxi concept demonstrator completed a controlled takeoff, hover, and landing during its first flight, with later tests focusing on forward, wing-borne flight and the transition between hover and forward flight. https://www.ainonline.com/aviation-news/business-aviation/2019-06-12/boeings-autonomous-prototype-crashes

14Jun19

CTA Survey Underscores U.S. Consumer Support for Professional Drone Use Betsy Lillian June 12, 2019

New research from the Consumer Technology Association claims that most Americans support

the professional use of unmanned aircraft systems. CTA's consumer study surveyed over 2,000 U.S. adults. The study, "Drones: Public Perceptions & Consumer Attitudes," reports three-quarters of U.S. adults are comfortable with drone use by local law enforcement (76%), utility and

construction companies (71%), and educational institutions (70%).

"Drones are making work safer and more efficient for professions such as newsgathering, construction, utility inspections and first responders," says Steven Hummel, senior analyst for market research at CTA. "At the same time, innovations in technology have made drones more accessible for consumers with enhanced features that can turn anyone into a hobbyist or indoor racing enthusiast. The possibilities of drones are limitless."

CTA's study also shows 13% of U.S. households – equating to roughly 15.6 million – own a drone, which is up from 10% in 2018's survey. The study also forecasts 12% of households plan to buy a drone in the next year. Further, almost all (99%) drone owners use their devices for some type of recreational use, including general-purpose flying (72%), amateur aerial photography and videography (55%), and racing (23%). Small- (59%) and medium-sized (58%) drones are most common, and most owners have more than one device.

CTA also finds that most drone owners are married (56%) with children (60%) and own their home (68%). Current drone owners also tend to live in the South (41%) – especially in suburban areas (45%) – and identify as male (62%).

Lastly, keeping out of the way of emergency vehicles and operations (89%) and remaining a safe distance from people, other aircraft and vulnerable property (88%) are most important to consumers, regardless of whether or not they own a drone. More on the report can be found here. https://unmanned-aerial.com/cta-survey-underscores-u-s-consumer-support-for-professional-drone-use?utm_medium=email&utm_source=LNH+06-13-2019&utm_campaign=UAO+Latest+News+Headlines

FAA To Uber: Work Hard, Be Patient Paul Bertorelli June 11, 2019

In an alternately inspirational and cautionary talk at Uber's Elevate Summit in Washington, D.C. acting FAA chief Dan Elwell told the aspiring urban air taxi audience that he's impressed with ideas and progress the industry has made. Elwell briefed the participants about regulatory challenges they face in certifying and fielding EVTOLs for passenger service. "We understand your desire to sprint out of the starting gate. But you have to understand our safety mandate," Elwell said.

Elwell confirmed the general consensus in the legacy aviation industry that the old, stodgy FAA has been replaced by an agency that's more proactive to responsive regulation developed in months, not years. In just the past few months, the agency has developed draft rules for allowing unmanned aircraft to fly over people and at night and it's about to release a draft rule for remote identification, a critical capability unmanned aircraft and eventually autonomous aircraft will need to fly beyond visual range. And much of what needs to be done can be accomplished with existing rules, Elwell said. "We may discover gaps as we go through the certification process. We definitely have what we need to start to crawl, walk and then run," Elwell said. https://www.avweb.com/news/faa-to-uber-work-hard-be-patient/?MailingID=55&utm_source=ActiveCampaign&utm_medium=email&utm_content=Special+Coverage+From+the+Uber+Elevate+Conference%2C+Industry+Groups+Warn+of+Possible+Jet-A+Contamination&utm_campaign=June+12%2C+2019

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Civil drone production to triple worldwide over next decade, predicts Teal Group APPLICATION BUSINESS INTERNATIONAL NEWS RESEARCH ALEX DOUGLAS JUNE 17, 2019

Phillip Finnegan, Teal Group's director of corporate analysis, commented: "The foundations for rapid growth are being laid. Venture capital investment in the sector has soared, and technology giants increasingly envisage drones as part of their future. Regulators are loosening airspace rules. Governments are turning to UAS to monitor borders and provide public safety."

Teal Group's 2019 World Civil UAS Market Profile and Forecast projects that non-military UAS production will total $88.3bn over the next decade, soaring from $4.9bn in 2019 to $14.3bn in 2028, a 12.6% CAGR in constant dollars. It envisages that commercial use will surpass the consumer drone market in 2023, becoming the largest segment.

Finnegan added: "The growing promise of the civil market is attracting the world's leading technology companies, driving ever faster development of systems and business applications. As corporate clients move from proof of concept to fleet deployment the market will soar."
https://www.commercialdroneprofessional.com/civil-drone-production-to-triple-worldwide-over-next-decade-predicts-teal-group%EF%BB%BF/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-304787-Commercial+Drone+Professional+DNA+-+2019-06-17

Terra Drone India undertakes digital preservation of 16th century monument
APPLICATION BUSINESS INTERNATIONAL NEWS ALEX DOUGLAS JUNE 17, 2019

Built in 1591, the monument, known as the 'Arc de Triomphe of the East', suffered significant damage in May 2019 when a huge chunk of lime-plaster from its south-west minaret broke and fell off. The incident made the digital preservation of Charminar extremely time-sensitive and important for the Indian government.

The IT department of Telangana state government invited Terra Drone India to provide solutions for the digital preservation of Charminar. The firm scanned and surveyed the damaged minaret using multiple technologies.

The solution-set included Air Gap Measurement through Ultrasonic Pulse Velocity Testing technique, True Color 3D Model Creation using Visual Sensor, Thermal Scanning and LiDAR 3D Profiling and Model Generation using LiDAR.

Commenting on the work, wing commander Polu Sreedhar, COO, at Terra Drone India, commented: "Terra Drone India has collated multiple technologies under one umbrella and provided it as a holistic solution to the Archaeological Survey of India to help preserve the monument that speaks volumes about our Indian heritage, culture and ancestral prominence." https://www.commercialdroneprofessional.com/terra-drone-india-undertakes-digital-preservation-of-16th-century-monument/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-304787-Commercial+Drone+Professional+DNA+-+2019-06-17

18Jun19

In the Eye of the Storm with Swarming Drones Miriam McNabb June 17, 2019

[Black Swift Technologies](#) (BST), a specialized engineering firm based in Boulder, CO, announced

today it has been awarded a NOAA contract to develop an air-deployed unmanned aircraft system to perform lower boundary layer observations in difficult atmospheric conditions that are commonly encountered in convective storms, e.g. hurricanes and tropical cyclones.

BST is proposing a vehicle, called the S0 Air-Deployed UAS, that can be tube-launched from an aircraft, such as NOAA's Lockheed P3 Orion. The design of the system is intended to mimic the operations of radio dropsondes already used by NOAA in these environments, reducing the workload of the operators. The goal is to provide a cost-effective, air-launched UAS designed to augment pressure, temperature, humidity and sea surface temperature measurements, with 3D wind data. The UAS is designed to provide intelligent and autonomous extended sampling (1+ hour of targeted observations) where the aircraft can make its own navigation decisions based on the atmospheric sensor data.

No communications need be sent to the UAS after release without the addition of a separate command and control link. The vehicles are intended to be deployed close to the sea-surface and eyewall of the storm to capture essential data. Custom avionics enable the UAS to fly autonomously in a turbulent environment while integrating components necessary for 3D wind sensing along with interfaces to the RD-41 sonde and radio. As the vehicle will not be

Robert Rea | Axcel Innovation | Charlottesville and Portsmouth, VA
robert.rea@axcel.us | 757-309-5869 | www.axcelinnovation.com

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recoverable, it's essential that the data is relayed in its entirety during the flight. https://dronelife.com/2019/06/17/in-the-eye-of-the-storm-with-swarming-drones/

General Atomics Aeronautical Systems SkyGuardian Surpasses 100 Test Flights

June 16, 2019 Military

The MQ-9B SkyGuardian Remotely Piloted Aircraft (RPA)– designed and developed by General Atomics Aeronautical Systems, Inc – has now flown more than 100 test flights as development continues towards its first delivery to the Royal Air Force.

Since making its first flight in November 2016, GA-ASI has kept the new aircraft busy performing a variety of flights, from long endurance testing (logging 48.2 consecutive hours in flight in May 2017) to becoming the first Medium-altitude, Long-range RPA to perform a trans-Atlantic flight in July 2018.

The Royal Air Force is acquiring SkyGuardian for first delivery in the early 2020s. The Government of Belgium has approved Belgian Defense to negotiate the acquisition to meet the nation's RPA requirements. The aircraft is also being considered by the Australian Defence Force, who chose GA-ASI to supply an RPA system for Project Air 7003.

The development is the result of a five-year, company-funded program to deliver an unmanned aircraft to meet the airworthiness type-certification requirements of NATO and various civil authorities. The aircraft is also built for all-weather performance with lightning protection, damage tolerance, and a de-icing system. https://uasweekly.com/2019/06/16/general-atomics-aeronautical-systems-skyguardian-surpasses-100-test-flights/?utm_source=newsletter&utm_medium=email&utm_campaign=uasweekly_daily_newsletter_06_17_2019&utm_term=2019-06-21

19Jun19

Raytheon and Black Sage Announce Counter-Drone Solution at Paris Air Show

Malek Murison June 18, 2019

Raytheon has announced a partnership with counter-drone specialist Black Sage at the Paris Air Show. The two companies will provide an integrated drone detection and mitigation system for civil authorities, critical infrastructure and military organizations.

To defend urban environments, airports other sensitive locations against drones, Black Sage combines sensors with AI and radio-frequency jammers. These have been integrated into Raytheon's Windshear command and control system, effectively giving a single operator control to track, take over or land drones flying where they shouldn't.

 "And though Raytheon has developed a range of counter-drone systems, authorities also need a system that can safely stop and land a drone where it may not be safe to shoot them down. That's why we've teamed with Black Sage on a solution safe enough to operate in a populated area." https://dronelife.com/2019/06/18/raytheon-and-black-sage-announce-counter-drone-solution-at-paris-air-show/

Delair Signs Commercial Drone Agreement with International Mining Firm

Eramet June 18, 2019Mapping and Surveying

Eramet, a global mining and metallurgy group, and Delair, a global provider of drone-based solutions, have signed an agreement concerning digital transformation of mining activities. The agreement allows Eramet to access Delair Aerial Intelligence, a new collaborative platform for analyzing drone data and turning the results into business insights.

Since January 2019, the Delair has been up and running at the Tiébaghi mine in New Caledonia, and by the end of the year it will be used by all of the Group's mines. Nine drones are currently in operation at Eramet, with an additional nine planned for deployment by the end of this year. With the Delair, Eramet will be able to map and analyze around 300,000 hectares a year across all of its sites. https://uasweekly.com/2019/06/18/delair-signs-commercial-drone-agreement-with-international-mining-firm-eramet/?utm_source=newsletter&utm_medium=email&utm_campaign=uasweekly_daily_newsletter_06_18_2019&utm_term=2019-06-21

20Jun19

No longer fiction: Flying car startups aim to begin test flights as early as next year Dalvin Brown, USA TODAY June 19, 2019

As Uber forges ahead with plans for a [flying taxi service in 2023](link), other startups are unveiling futuristic air mobility vehicles, suggesting that a "Jetsons"-like transportation system may be closer than you think.

Massachusetts-based [Alaka'i Technologies](link) showed an electric human-carrying drone last month that it claims can carry five passengers, and the American-Israeli startup NFT – short for Next Future Transportation – hopes its new folding-wing vehicle will halve travel times by both driving on the street and flying through the air during commutes.

In the world of ambitious concepts, flying cars are nothing new. As far back as the early 1990s, people have tried to make cars take off into the skies. However, companies today say their vehicles are almost ready to launch, with test-flights planned for as early as next year.

'Uber Copters': [Uber will offer $200 helicopter flights in New York City this summer](link) **Shhh!** [Uber offers 'Quiet Mode' so you don't have to talk to the driver, but it'll cost you extra](link)
https://www.usatoday.com/story/money/cars/2019/06/19/flying-cars-uber-faces-competition-startups/1454008001/

FAA pushed to allow drone deliveries EMILY BIRNBAUM 06/19/19

Mainstream implementation of drone delivery services is likely still years off, as industry leaders say the federal agency in charge of civil airspace is taking its time crafting regulations that will make it legal to fly drones for commercial purposes, including delivery.

The Federal Aviation Administration has, over the past year, allowed top companies to test drone delivery programs in urban and rural areas across the U.S. The agency is collecting information on how those programs play out in order to inform the rules for commercial drone use, which experts say could make drone delivery legal within the next two to five years.

Under that pilot program, which was enabled by an executive order signed by [President Trump](link) in 2017, more companies have gotten permission to make drone delivery a reality, but with strict limitations. Companies have been given permission to deliver medical supplies to remote areas, food from local restaurants and more.

Major tech industry players have ambitious plans. Uber last week announced that it has received FAA approval to start making food deliveries to customers in San Diego this summer. The week before that, Amazon unveiled its latest updates saying in a blog post that it expects to start "delivering packages via drone to customers within months."

And in a game-changer for drone delivery, Wing Aviation — which is owned by Google's parent company, Alphabet — in April announced that it had received certification from the FAA to begin delivering small consumer items in two rural Virginia communities.

Ellman described that authorization, which classified Wing Aviation as an airline, as "precedent-setting." But stakeholders in drone delivery complain that the FAA's approach has largely been overly cautious. https://thehill.com/business-a-lobbying/449210-faa-pushed-to-allow-drone-deliveries

SkyX On Track for Canadian BVLOS Operations in 2019 June 18, 2019 News

SkyX Systems, an aerial monitoring solutions provider, has received regulatory guidance for performing beyond visual line-of-sight operations in Canada. Transport Canada's Transportation Sector Regulatory Review Roadmap includes a proposed amendment to Canadian Aviation Regulations to provide more clarity and flexibility for Remotely Piloted Aircraft Systems.

Beginning this year, Transport Canada plans on expanding pilot projects to develop and implement performance-based standards for RPAS operating BVLOS under low risk conditions. SkyX has been working closely with Transport Canada, including trial flights on Salt Spring Island to demonstrate to regulatory authorities that drones can safely operate in Canadian airspace autonomously and BVLOS. SkyX pilot certifications allow for Basic and Advanced Operations in Canadian airspace.

According to the roadmap, SkyX BVLOS missions are on track to be approved in 2019 in isolated areas and uncontrolled airspace, which bodes well for midstream operators in need of inspection and monitoring solutions to maintain asset integrity. In three years of BVLOS RPAS development, flight operations at SkyX have advanced from site-specific Special Flight Operations Certificate with a development aircraft, to a system capable of nationwide operations in controlled airspace with the safety-assured SkyOne RPAS. A more permissible regulatory structure implies an increased level of confidence by Transport Canada that

Canadian RPAS operators will act in their own best interest to maintain a culture of professionalism and flight safety. https://uasweekly.com/2019/06/18/skyx-on-track-for-canadian-bvlos-operations-in-2019/?utm_source=newsletter&utm_medium=email&utm_campaign=uasweekly_daily_newsletter_06_19_2019&utm_term=2019-06-22

ANRA Technologies Tests Dual Broadcast and Network Remote ID Solution June 18, 2019 Sam Hill

ANRA Technologies, in collaboration with Northeast UAS Airspace Integration Research, recently conducted an operational assessment of its unmanned traffic management technology for dual broadcast- and network-based remote identification of unmanned aircraft systems.

The tests took place in late May at the New York UAS Test Site located at Griffiss International Airport in Rome, N.Y., where NUAIR staff assessed the system against draft industry standards. The testing was also reviewed by Oneida County Sherriff's Office personnel.

The tests were ultimately considered a success, said Amit Ganjoo, the founder and CEO of ANRA. "We've been talking about this for a long time and Remote ID is obviously one of the key issues holding back the entire industry right now," said Ganjoo. "There are lots of folks working on proprietary solutions, but not a lot of work was being done to move the whole industry forward — little work has been done to push the needle forward. We're hoping this helps do that."

Multiple drones were flown by NUAIR staff, with two carrying a Wi-Fi broadcast module, provided by ANRA and Doodle Labs. Various UAS Service Suppliers used the UTM software to

manage drone operations while also serving as the network RID service and display provider.

"The display applications ingested broadcast RID data and/or interacted with a network RID display provider to present information to the end users," explained ANRA's Brent Klavon in a blog post following the tests. "The broadcasting drones transmitted RID advertisements continuously and a Display App on a smartphone used the smartphone's technology to listen for the drone advertisements, extracted the RID data, and then displayed the live drone location on a map along with its historical path."

ANRA and Doodle Labs have also announced a decision to open-source the broadcast-based remote ID firmware, which can be used for any Linux-compatible Wi-Fi hardware module.
https://www.expouav.com/news/latest/anra-technologies-tests-dual-broadcast-and-network-remote-id-solution/?utm_source=marketo&utm_medium=email&utm_campaign=newsletter&utm_content=newsletter&mkt_tok=eyJpIjoiTTJRd05HUTVaalkyTVRBMyIsInQiOiJsQjduem1LTUVcL1ZcL2RFd1wvU3ZhbDVoQnQrWUFQbWtadkwrZWVQUnRhMm9BNHRFV3ZqZzh6dmg4SG5RWSs1cytDUVQ0V2dDRnNyekU5UmJaOXFHNUhiSmUrbFdJTjk3bGZ3NHNNlVW56Y0kyNW95QkNqSUNtV2dyTnl2WVBlN0tTUyJ9

FAA Seeks Partners for $6M in Integration Tech Projects JUNE 13, 2019 AIR, FAA INSIDE UNMANNED SYSTEMS

The Federation Aviation Administration is looking to co-fund research on technologies that support the integration of unmanned aircraft into the national airspace. The effort, mandated by Congress, dedicates $6 million in federal matching funds to validate and demonstrate technology in nine different areas:
— The development and enforcement of geographic and altitude limitations
— The operation of multiple small Unmanned Aircraft Systems (UAS)
— The provision of alerts by the manufacturer of a UAS regarding any hazards or limitations on flight, including prohibitions on flight as necessary
— Detect and avoid capability
— Beyond-Visual-Line-of-Sight operations
— Operations over people;
— UAS Traffic Management
— Other critical priorities
— Improvement of privacy protections through the use of advances in UAS technology
The FAA plans to issue roughly seven contracts each valued at $425,000 to $850,000 though it may support efforts that are larger or smaller. These projects are to be done on a cost-sharing basis where the government covers no more than half of the costs.
In addition, each of the projects is to involve one of the FAA's seven official UAS Test Sites and the technology under consideration must be at a Technical Readiness Level of between 5 and 7. TRL 5 is where the basic technological components are integrated with reasonably realistic supporting elements so they can be tested in a simulated environment. TRL 6 involves a system/subsystem model or prototype demonstration in a relevant environment. TRL 6 is to represent a major step up from TRL 5 in a technology's demonstrated readiness. TRL 7 entails the testing and evaluation of a prototype near, or at, planned operational system (pre-initial operating capability). TRL 7 also represents a major step up from TRL 6, requiring demonstration of an actual system prototype in an operational environment such as an aircraft, vehicle, or space.
Those interested in proposing a project need to submit a description of what they want to do in the form of a white paper that is no more than seven pages long. The details of what should be

included and how it should be submitted can be found by searching for solicitation number: 692M15-19-R-00020 at https://faaco.faa.gov/index.cfm/announcement/search.The deadline for submissions is 3 pm June 28 EST via email. http://insideunmannedsystems.com/faa-seeks-partners-for-6m-in-integration-tech-projects/?mkt_tok=eyJpIjoiTTJRd05HUTVaalkyTVRBMyIsInQiOiJsQjduem1LTUVcL1ZcL2RFd1wvU3ZhbDVoQnQrWUFQbWtadkwrZWVQUnRhMm9BNHRFV3ZqZzh6dmg4SG5RWSs1cytDUVQ0V2dDRnNyekU5UmJaOXFHNUhiSmUrbFdJTjk3bGZwNHNlIVW56Y0kyNW95QkNqSUNttV2dyTnl2WVBlN0tTUyJ9

The Next Big Privacy Concern Is Up in the Air Katy McLaughlin June 20, 2019

Michele Dunn, a 53-year-old lobbyist in Atlanta, stepped out of the shower, wrapped herself in a towel, and wandered into her bedroom while drying her hair before work. Because she lives on the third-floor of a downtown high-rise with highly reflective windows, she only pulls the curtains at night. Then she heard a strange noise.

"That's when I saw the drone. It was so close, you could see the camera moving," said Ms. Dunn. "I screamed bloody murder." Ms. Dunn's husband, Wesley Dunn, a 67-year-old attorney and former house member of the Georgia General Assembly, came running and yanked open the window.

The hovering drone buzzed away immediately, but its appearance had lasting consequences, Ms. Dunn said. Since the incident last March, she has never again stepped into her bedroom in just a towel. As she does her makeup in the morning, she finds herself scanning the skyline. "I am much more careful now," said Ms. Dunn. The drone "changes everything."

Drones burst into American leisure and commerce in 2016 when the Federal Aviation Administration simplified the process for becoming a legal drone operator. That ignited an industry of commercial applications for drone technology, much of which is oriented around some aspect of the building, inspecting, marketing and securing of real estate. By next year, the FAA estimates there will be as many as 638,000 commercial drones in operation, up from 277,000 last year, an increase of 130%. But as big a boon as drones may be to real estate, they also threaten to alter the concept of home as a personal sanctuary.
https://www.wsj.com/articles/the-next-big-privacy-concern-is-up-in-the-air-11561042733?mod=itp_wsj&ru=yahoo

21Jun19

Drone records rescue of man in wheelchair stuck in rising floodwaters Haye Kesteloo Jun. 21st 2019

Drone records rescue of a man in a wheelchair stuck in rising floodwaters. After spending more than 24 hours stuck in his motorized wheelchair in rising floodwaters, the 73 year-old-man from Mansfield said that he prayed to be rescued. According to local police, his family reported Jefferson missing on Saturday. The man who suffers from dementia was last seen around noon. Drones are increasingly being used during rescue operations to either find missing persons or as in this case to assist in the rescue.

According to FOX8 Cleveland, his family said that he often uses his motorized wheelchair to get around the neighborhood, but after he failed to return home after several hours, they began to worry. The police said that apparently, Jefferson was pushed off the sidewalk and ended up in an area exposed to rising floodwaters. According to Jefferson, one of the wheels of his wheelchair got stuck in the mud and despite his cries for help, nobody heard him.

After being stuck in the rising floodwaters for more than 24 hours, Jefferson's grandson found him on Sunday around 3 pm. The Mansfield Police used a drone to capture Jefferson's rescue. They also warned people to keep a close eye on family members and loved ones diagnosed with dementia. https://www.bestbuy.com/site/dji-mavic-2-pro-quadcopter-with-remote-controller/6262620.p?skuId=6262620&cmp=RMX&ref=RT166&loc=BAN_1781800_22600895_245736849

AUVSI hosts webinar on the advancing role of unmanned systems in defense, protection & security Haye Kesteloo Jun. 21st 2019

The Association for Unmanned Vehicle Systems International (AUVSI) will host a webinar on unmanned systems for the defense community and the program for the upcoming Unmanned Systems – Defense. Protection. Security. (USDPS) conference. The webinar will take place on Wednesday, June 26, 2019 at 3 p.m. EDT.

For over 40 years, AUVSI has connected the Department of Defense with the industry to support the advancement of unmanned systems as the technology has evolved for military applications.

"Unmanned Systems – Defense. Protection. Security. and the Road Forward," sponsored by Sierra-Olympic, will place webinar participants into the middle of discussions focusing on the most important issues facing unmanned systems in the defense community. The webinar will preview topics that will be featured at USDPS, such as acquisition, cybersecurity and artificial intelligence.

USDPS is taking place at the Wardman Park Marriott in Washington, DC on August 20 and 21, 2019. More information and registration are available on the conference's website. Registration for USDPS is complimentary for military and DOD personnel. Registration for the webinar is complimentary for all attendees and will close on June 26 at 11 a.m. EDT. For more information or to register, contact AUVSI@clsstrategies.com. https://dronedj.com/2019/06/21/auvsi-hosts-webinar/#more-17051

Autonomous drones to fight wildfires tested in Spain Haye Kesteloo Jun. 21st 2019

In Spain, researchers from the Universidad Carlos III de Madrid work together with telecommunications corporation Telefonica, drone start-up Divisek Systems and drone operations company Dronitec to test the use of autonomous drones to fight wildfires. The drones are part of a firefighting system that consists of a number of communication towers. Each of the towers is outfitted with a thermal camera and an autonomous drone that is stored in a special hangar.

With the thermal camera, the tower is able to detect the heat signature of the forest over a 9-mile radius. Once a fire is detected, the tower wakes up the drone and sends it out to investigate. The GPS-equipped drone than captures imagery of the fire and sends the info back to firefighters in real-time.

"The drone we have developed for the project has a thermal camera, an optical camera, and four sensors which allow us to identify the temperature of the device in the environment, the drone's different controllers enable us to determine the internal state of the equipment and the communication system is provided by Telefonica to receive this information in real time," UC3M professor Fernando Garcia pointed.

Based on the visual information the firefighters can then decide to further investigate or to send out a crew to fight the wildfire. The drone automatically returns to its hangar at the communications tower to be recharged and be ready for its next deployment.

"It's a totally novel solution, based on robotics and automation, which won't remove anyone's job but will instead offer a new tool for emergency services, providing added value and allowing them to operate more safely and to control the situation,' according to the university researchers. https://dronedj.com/2019/06/21/autonomous-drones-to-fight-wildfires/

Amazon delivery drones to spy on your home, patent shows Haye Kesteloo Jun. 20th 2019

An Amazon patent filed with the US Patent and Trademark Office on June 12, 2015, and granted June 4 of this year, indicates that the e-commerce giant is planning to use its network of drones to form a neighborhood watch system and keep an eye on your home. The company calls it "surveillance as a service" and it would have its delivery drones record footage of your home when they are out delivering packages.

The Amazon delivery drones would look for signs of break-ins, such as open doors, broken windows and people trespassing onto your property. Any suspect activity would be recorded and shared immediately with the homeowner and local police.

Customers of Amazon's "surveillance as a service" could request a drone to check on their property hourly, daily or weekly according to the patent filing. The filing also mentions that the drones can be outfitted with microphones to detect any unusual sounds such as the breaking of glass.

Amazon says that the security drones offer a benefit over traditional security cameras that might be purposely disabled or damaged during a break-in. https://dronedj.com/2019/06/20/amazon-delivery-drones-spy-home-patent/

Rafael Places US$5.5 Million Order for Orbit's Airborne Satcom for "Heron TP" UAV June 20, 2019 Military

Orbit Communications Systems Ltd., a provider of airborne communications and satellite-tracking maritime and ground-station solutions, announced today that Rafael Advanced Defense Systems, a leading global defense technology provider headquartered in Israel, placed a $US5.5 million order for Orbit's airborne satcom terminals and ground pedestals for integration with Israel Aerospace Industries' Heron MALE UAV.

Orbit's satcom terminals and ground pedestals will provide both beyond-line-of-sight and line-of-sight connectivity and tracking for IAI's medium-altitude, long-endurance unmanned aerial vehicles. Delivery of the Orbit equipment is expected in 2019 and 2020.

"Tasked with providing both BLOS and LOS connectivity aboard the Heron TP, we were looking for the most reliable and field-proven solutions available," noted Yoav Wermuth, Head of the Communications Division at Rafael. "That is why we chose Orbit's BLOS communication components for the aircraft, as well as for the ground stations."

https://uasweekly.com/2019/06/20/rafael-places-us5-5-million-order-for-orbits-airborne-satcom-for-heron-tp-uav/?utm_source=newsletter&utm_medium=email&utm_campaign=uasweekly_daily_newsletter_06_21_2019&utm_term=2019-06-21

Help From Above: This Florida Town is Relying on Drones for Recovery After Hurricanes Miriam McNabb June 20, 2019

Drones can't always meet their potential for helping communities, due to regulations and sometimes public opinion. But the team members from Airborne Response, a drone services company specializing in critical infrastructure inspection, have been welcomed by the community in Homestead, FL, as the firm works with Disaster Program & Operations to prepare Homestead for the next hurricane season.

Airborne Response is reviewing critical electrical infrastructure after repairs made post-hurricane Irma. Using drones for inspection is safer, faster, and less expensive than trying to inspect all areas with ground teams. https://dronelife.com/2019/06/20/help-from-above-this-florida-town-is-relying-on-drones-for-recovery-after-hurricanes/

Duke Engineers Developing New Method for Detecting Drones at Prisons Betsy Lillian June 19, 2019

A "bird's nest," developed by Clemson University landscape architects, houses and hides the electrical components of the drone detection system.

Duke University engineers are developing a solution that the North Carolina Department of Public Safety can use to detect drones attempting to deliver contraband at state prisons.

Many of the larger prison facilities in North Carolina have experienced several attempts at smuggling contraband via unmanned aircraft. Although commercial anti-drone systems exist, they are too expensive to roll out on a state-wide basis.

 "It's been sporadic for our facilities, but obviously even a single incident is too many for us," says Loris Sutton, chief of security for the North Carolina state prison system. The Department turned to Mary "Missy" Cummings, professor of electrical and computer engineering at Duke, who has a doctorate in human-computer system interaction and was a U.S. Navy fighter pilot.

In 2017, Cummings received a National Science Foundation grant, in partnership with landscape architects at Clemson University, to develop an affordable system for deterring unwanted drones. Working with her team of students, Cummings has been developing an alerting system that uses microphones and thermal cameras to detect drones and their pilots. The team's colleagues at Clemson, meanwhile, built a synthetic bird's nest the size of a hawk's nest to camouflage the associated equipment.

The team will be beta-testing the system with the Town of Cary later this summer and eventually with Duke Gardens. If the initial results are promising, Sutton hopes the emerging system would be able to extend to monitoring the walls of North Carolina's prisons.
https://unmanned-aerial.com/duke-engineers-developing-new-method-for-detecting-drones-at-prisons?utm_medium=email&utm_source=LNH+06-20-2019&utm_campaign=UAO+Latest+News+Headlines