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Intel Unveils UAV Designed For Aerial Light Shows.

[eWeek](#) (11/6) reports that Intel unveiled its new UAV, called the Intel Shooting Star, on November 4. eWeek adds that the UAV has been specifically designed for aerial light shows and that Intel broke the Guinness World Record last month by using 500 of these UAVs to light up the sky in Germany. [Tech Times](#) (11/6) reports that the UAVs feature “an almost limitless array of color combinations” and that a group of 500 UAVs can be piloted by a single operator.

[Business Insider](#) (11/4) features a video of a lightshow performed by 500 of Intel’s Shooting Star UAVs.

Disney Issued Waiver To Fly UAVs At Theme Parks. The [AP](#) (11/6) reports that the FAA issued a waiver last week to Walt Disney Parks and Resorts, allowing them to fly UAVs at their theme parks in Florida and California. The AP adds that “Disney asked permission to fly the drones for entertainment purposes.”

Australian Consortium To Deliver Medical Supplies By UAVs.

[Jobs & Hire](#) (11/5) reported that “the Angel Drone Project, a collaborative effort launched last week by the Australian RPAS Consortium, plans to” use custom UAVs to deliver emergency medical supplies to parts of the Australian Outback. The article mentioned that Amazon is currently testing Prime Air delivery UAVs, and reported that the company “claims that they are currently developing several prototypes to handle a wide variety of packages and models that are best suited to different environments, and may announce developments soon enough.”

New Mexico’s Spaceport America Will Host Inaugural UAV Summit This Month.

The [AP](#) (11/6) reports that New Mexico’s Spaceport America will host its first-ever UAV summit on November 11. The article adds that “Spaceport officials are hoping to attract between 500 and 1,000 participants and spectators for the three-day event.”

Arizona DPS Seeks FAA Approval To Test UAVs For State Troopers.

The [AP](#) (11/4) reported that the Arizona Department of Public Safety (DPS) is seeking certification to test UAVs “in the line of duty,” and notes that the news follows an announcement by the Sahuarita Police Department that it plans to use UAVs “for criminal investigations and search-and-rescue operations,” beginning in December.

Photos http://www.aol.com/article/2015/11/25/15-drone-photos-that-leave-us-speechless/21272199/?icid=maing-grid7%7Cmain5%7Cdl1%7Csec1_Ink3%26pLid%3D-1545838494_htmlws-main-bb

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NASA Science Chief Zurbuchen To Prioritize Innovation.

[Space News](#) (11/7, Subscription Publication) reports that at an October 31 roundtable at NASA Headquarters, new NASA Associate Administrator for Science Thomas Zurbuchen discussed how to incorporate innovation such as “so-called ‘disruptive’ technologies, like **small satellites**” into science missions. Zurbuchen is Professor of Aerospace Engineering at the University of Michigan, where he has done research on innovation, and also has chaired “a National Academies study on the potential use of cubesats for science missions.” Commenting on NASA’s Cyclone Global Navigation Satellite System (CYGNSS), which “consists of a constellation of eight smallsats” for weather data collection, Zurbuchen said, “This kind of disruption is what I’m looking for. ... How can we develop new technologies, how can we invent new architectures of missions that can go in and really do science that otherwise we can’t do?”

C-ASTRAL Aerospace Announces New Long Endurance sUAS Published: 03 Nov 2016

C-ASTRAL Aerospace, a developer of small unmanned aircraft systems (sUAS), has announced the launch of its new Bramor ppX long endurance sUAS at the Commercial UAV EXPO in Las Vegas. The company has also launched a Long Range Solar version, developed in conjunction with Alta Devices.

The ppX UAS builds upon a decade of operational experience in 80 countries with more than 50000 global flight hours. The aircraft features an all composite blended wing body, flying for up to 3.5 hours (regular version) or 5.5

hours (Long Range Solar version) and can carry an array of different advanced sensors for remote sensing, aero photogrammetry, surveying and agricultural mapping as well as classical intelligence, surveillance and reconnaissance missions. The array of sensors available for the system range from classical visible light to multispectral, hyperspectral as well as advanced gas laser sensors, capable of detecting 0.05ppm of methane gas in the air above the areas of interest where leaks could develop.

The C-ASTRAL ppX UAS system is also able to fly beyond visual line of sight (BVLOS) corridor and pipeline monitoring missions at distances of up to 100 nautical miles, carrying an ADS-B mode S transponder. As such it will be ready for future US regulations that will eventually enable long endurance and long distance BVLOS operations. http://www.unmannedsystemstechnology.com/2016/11/c-astral-aerospace-announces-new-long-endurance-suas/?utm_source=Unmanned+Systems+Technology+Newsletter&utm_campaign=587f042295-Unmanned+Systems+Technology+eBrief&utm_medium=email&utm_term=0_6fc3c01e8d-587f042295-111778317

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Unmanned-aircraft training program raises the bar for safety in aerial journalism November 8, 2016

The Virginia Tech Mid-Atlantic Aviation Partnership has developed an aerial journalism training program to help reporters safely use unmanned aircraft like this one, mounted with a camera, to collect photo and video for news coverage. For journalists, using unmanned aircraft to capture photo and video can lead to more effective reporting. But safely deploying this new technology in environments that may be complex and unpredictable requires careful preparation.

The Virginia Tech Mid-Atlantic Aviation Partnership has developed a training program for journalists that is being used by Sinclair Broadcast Group Inc., one of the country's largest broadcasting companies. "Journalists have always thought about how to get the right shot — now they have to think about the flight, too," said Mark Blanks, the director of the Virginia Tech Mid-Atlantic Aviation Partnership, or MAAP. "That's where we come in: how can you get the shot you want and still stay within the limits of aviation safety and comply with Federal Aviation Administration rules? Working with a major player like Sinclair to develop tools the news industry can use to fly responsibly is part of our mandate to integrate this technology safely into the national airspace."

For aerial reporting, unmanned aircraft are much less expensive to own and operate than a helicopter, which are out of reach for many local stations. They are also quieter, less disruptive, and can get close shots at low altitudes that would be too risky for a helicopter. "We want to try to set the standard for a program that is running as safely as possible and hopefully lead by example," said Jeff Rose, the UAS chief pilot at Sinclair. <https://vtnews.vt.edu/articles/2016/11/ictas-maapdronejournalism.html#.WCMiwVihbak.email>

Intel Creates Shooting Star UAS for Entertainment Light Shows

By AUVSI News posted 2 days ago

Using its new quadcopter UAS, Intel has created the first unmanned aerial system to use for entertainment light shows. The quadcopter, which includes encased propellers and has a battery life upwards of 20 minutes, will be known as the Intel Shooting Star, and Intel has been granted a Part 107 waiver to fly a fleet of the UAS at night in the U.S.

Weighing just 280 grams, the Shooting Star includes built-in LED lights that can create a whopping 4 billion color combinations. Thanks to improved technology on the quadcopter, the UAS will be capable of creating light shows within days, as opposed to the previous time frame of weeks or months.

From Intel's website, a portion of a description of the Shooting Star said, "This means we can now create beautifully choreographed images in the nighttime sky quickly and easily in the U.S. We are looking forward to using this new fleet of Intel Shooting Star drones publicly soon." Before beginning the process of creating a light show, individual UAS within a fleet will be evaluated to determine which are best suited for that particular show, based off of certain conditions such as battery life and GPS reception. A fleet, which can include several hundred Shooting Stars, can be controlled with just one computer. A video demonstration of a working fleet can be seen here. <http://www.auvsi.org/blogs/auvsi-news/2016/11/07/intel-creates-shooting-star-uas-for-entertainment-light-shows>

Echodyne Announces Successful UAV Detect And Avoid Test.

[Business Insider](#) (11/8) reports that radar array startup Echodyne announced Tuesday that it successfully completed a test of a system that lets UAVs mounted with its Metamaterial Electronic Scanning Array (MESA) “automatically detect and evade oncoming aircraft and other obstacles...even when it would otherwise be too far away, too cloudy, or too dark for a human operator to see.” According to Business Insider, Echodyne founder and CEO Eben Frankenberg said that the test “opens the door for drones to operate further away from human operators.” The article adds that currently “the FAA requires a drone pilot essentially be within eyeshot of the vehicle they’re flying, which is no good if you’re Amazon and you’re trying to send drones all over town.”

GoPro Recalls Karma UAVs Due To Power Failure Issues.

[USA Today](#) (11/8) reports that GoPro announced Tuesday that it is recalling all of the 2,500 Karma UAVs sold after they said a “very small number” of units lost power during operation. [Bloomberg News](#) (11/8) reports that the “company said no injuries or property damage have been reported involving the new drones” and that “owners can return the units for a full refund.” [Engadget](#) (11/8) reports that GoPro CEO Nicholas Woodman said in a statement that the company is investigating the issue and is “working in close coordination with both the US Consumer Products Safety Commission and the FAA.”

Alphabet Scales Back Project Wing.

[Bloomberg News](#) (11/8) reports that Alphabet’s Project Wing, a UAV-delivery initiative, “is slowing down, trimming headcount and shelving initiatives as the experimental unit becomes the latest target of tightening budgets across” the company. Alphabet reportedly backed out of a partnership for coffee delivery with Starbucks following Project Wing head Dave Vos’ departure in October, after which the company froze hiring and began encouraging staff to look for other positions within the company.

NASA Plans Launch Of RVAN Small Satellite.

The [Christian Science Monitor](#) (11/8) reports that NASA plans to launch the Radiometer Assessment using the Vertically Aligned Nanotubes (RVAN) satellite this month, the first of a group of “very tiny” small satellites called “Smallsats” that NASA will use to study the atmosphere and climate change, and to monitor storms. Smallsats are “cheaper to launch,” as well as “faster and easier to build, allowing researchers to take more risks than they could with a large, expensive piece of equipment.” NASA Science Mission Directorate Associate Administrator Thomas Zurbuchen said, “NASA is increasingly using small satellites to tackle important science problems across our mission portfolio. ...They also give us the opportunity to test new technological innovations in space and broaden the involvement of students and researchers to get hands-on experience with space systems.”

Clemson’s Precision-Agriculture Program Granted License To Fly UAVs.

The [Greenville \(SC\) Journal](#) (11/8) reports that the FAA “has granted Clemson University a special license for researchers to pilot unmanned aerial vehicles (UAV)...in the United States,” as the university’s precision-agriculture research program looks to “develop techniques and technologies that could improve profitability and environmental sustainability in agriculture, South Carolina’s largest industry.”

Research Group in Finland Using UAS to Create Maps That Could Help With Wireless Technology By AUVSI News posted 2 days ago

A research group in Finland used a fleet of UAS to create a detailed map of a city, which could help with the improvement and development of Wi-Fi platforms. The research group is based out of Aalto University and Tampere University of Technology.

After capturing images using a fleet of UAS, the images were sent to the researchers and they processed the photos using a special photogrammetry software. That software allowed the researchers to create accurate, 3-D models of any object captured, and those models were also used in radio wave propagation modeling.

According to a member of the research team, Vasilii Semkin, this technology can go a long way in the development of stronger wireless networks, including 5G networks. “Over the last year, the demand for wireless networks has increased and it is essential to deploy future mobile networks effectively based on the specifics of the environment,” said Semkin via an article from the Daily Mail. Semkin added, “the measurements and simulations we performed in urban environments show that highly accurate 3-D models can be beneficial for network planning at millimeter-wave frequencies.”

<http://www.auvsi.org/blogs/auvsi-news/2016/11/07/research-group-in-finland-using-uas-to-create-maps-that-could-help-with-wireless-technology>

Aerovel Flexrotor UAS Successfully Guides Workboat Fleets

By AUVSI News posted 7 days ago

The Aerovel Flexrotor UAS recently helped navigate a workboat fleet across the Beaufort and Chukchi Seas, as the fleet retrieved massive anchors from mooring sites. "This was the first genuinely sustained and economically successful mission for unmanned aircraft aboard ship in the Arctic," said Matt Parker, vice president of Precision Integrated, which executed the mission. "We'll soon be doing many more."

The Flexrotor, which is responsible for long-range imaging reconnaissance missions at sea, helped significantly reduce the time that the fleet would have been at sea, as the ships made it home weeks before they were scheduled to. At the completion of the mission, the Flexrotor had totaled 19 hours over five flights. "Shipboard operations to date also include reconnaissance for fisheries and observation," he said. "In general the aircraft substantially expands the range of practical applications for airborne information-gathering, both ashore and at sea."

<http://www.auvsi.org/blogs/auvsi-news/2016/11/02/aerovel-flexrotor-uas-successfully-guides-workboat-fleets>

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Drone World Expo To Be Held In San Jose.

A press release published in [Business Wire](#) (11/9) announced that the second annual Drone World Expo will take place at the San Jose Convention Center from November 15 to November 16. Companies presenting Tech Talks at the expo include AeroVironment, Altavian, Autel Robotics, DroneHive, Esri, FalconViz, Fruity Chutes, Gryphon Sensors, Insitu, InspecTools, Intel Corporation, Kespry, Kodak PIXPRO, Kray Technologies, LeddarTech, MAPPS, Maynard Cooper & Gale LLP, Measure, Oceaneering Intl., Perkins Coie LLP, PrecisionHawk, Skynet UAS, Skyward, Skyfish, SOAR Oregon, and others.

GoPro's Drone Grounds Expansion Hopes

By DAN GALLAGHER Nov. 9, 2016 12:17 p.m. ET

It is unclear what is actually worse for GoPro at this point: That its first drone showed the potential to spontaneously crash, or that so few were around to see it. The action-camera maker said late Tuesday it was recalling its Karma drone less than three weeks after its launch after discovering that a "very small number" of them were losing power during operation. That could pose a serious safety hazard, though the company said no injuries or property damage have been reported.

That the recall will have a limited financial impact is a mixed blessing. GoPro said approximately 2,500 Karma units have been purchased since Oct. 23, which would equate to about \$2 million in sales given the drone's stand-alone price of \$800. That is less than 1% of the company's projected revenue for the fourth quarter. But GoPro also priced its first drone aggressively, hoping to diversify somewhat from its dependence on the volatile action-camera business. So selling such a small number out of the gate is a disappointment, even if initial supply was constrained. It doesn't help that market leader DJI launched its own ultra-portable drone at the same time. The Consumer Electronics Association projects that more than 2.8 million consumer drones will sell in the U.S. alone this year, and DJI is already widely estimated to have over half of the market.

GoPro's market value is down more than 40% for the year, rightly reflecting the company's dented image following a series of missteps. At this point, it is hard to see what will get the stock to take off again.

<http://www.wsj.com/articles/gopros-drone-grounds-expansion-hopes-1478711833>

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Chinese Online Retailer Starts Trial UAV Deliveries.

[Bloomberg News](#) (11/10) reports that China's JD.com, which competes with Alibaba in online retailing, will start a trial program for UAV deliveries on Friday, and says it plans to establish "100 regular routes" for such deliveries by the end of 2017. JD.com has been carrying out testing for several months, "taking advantage of less-restrictive regulations" to test delivery to rural areas where surface delivery is costly. JD.com CTO Chen Zhang said, "This is something we look at as a long-term project. The benefits are tremendous if we get it into the most expensive areas of China."

Berkeley's 3D Robotics Launches UAV Construction-Monitoring Service.

The [San Francisco Chronicle](#) (11/10) reports that Berkeley's 3D Robotics "is starting a service called Site Scan" to track the progress of construction projects using UAVs. Co-founder Chris Anderson said that construction is "the infrastructure of our nations and it is in many ways still living in the paper era. So what we need to do is digitize the construction industry."

New York State To Create UAV Testing Corridor.

The [Syracuse \(NY\) Post-Standard](#) (11/10) reports that New York Governor Andrew Cuomo announced Thursday that the state will create "a 50-mile corridor" running between Griffiss Air Force Base and Syracuse for UAV testing "as a further attempt to lure companies to Central New York." The project will be funded with \$30 million from the Upstate Revitalization Initiative.

Cumbrian Police Deployed UAVs More Than 100 Times This Year.

The [News and Star \(UK\)](#) (11/11) reports that UAVs have been used by UK law enforcement in Cumbria County about 100 times so far this year "with officers launching them to search large swathes of the countryside and monitor crime scenes." Cumbria has four UAVs operating from separate locations that have been used "to help with investigations into missing people, potential explosive alerts and fires."

Drone Racing League Releases Simulator Game, Holding League Tryouts.

[TechCrunch](#) (11/10) reports that the Drone Racing League has released a racing simulator game, and is teaming with Budweiser "to host Drone Racing League tryouts on the simulator." The 24 participants "who complete the simulation course in the shortest amount of time" will compete in a "live finals simulation tournament" next year, "with the winner receiving a \$75,000 contract" to compete in the Drone Racing League's 2017 season. The simulator is available for both PC and Mac.