UAS and SmallSat Weekly News

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Conservation: Using Drones to Stem the Plastic Tide Malek Murisonon: July 12, 2018

An environmental organization in England is using drones and artificial intelligence to help measure plastic waste on the world's beaches.

In the last 10 years, there has been a 250% increase of plastics washing up on the world's beaches. Of the millions of tons that are dumped in our oceans each year, we can only account for around 1%.

The scale of that task is monumental. Aside from all the plastic floating around in the oceans and on the sea floor, spotting the waste that does turn up on beaches among pebbles and sand isn't easy. Drone imagery alone isn't enough to quantify and recognize plastic waste, particularly in such a uniform environment.

In 2016, Kohler began working with machine learning expert Dirk Gorissen. "To train the AI, we would need a large amount of images with litter tagged to teach the algorithm to find the plastics. This would mean a big exercise surveying as many different kinds of beaches as possible with a drone." The team chose a DJI Phantom 4 and got to work, with a little help from community volunteers.

"Volunteers worked to tag plastics in the images. This not only trained our algorithm, we found that many users reported that the process had made them much more aware of litter in the environment in general. We gathered 14,000 images from beaches across the UK and to date have collected of 4 million tags from over 10,000 volunteers – a humbling number!"
https://dronelife.com/2018/07/12/drones-stem-the-plastic-tide/

UAV touchdown makes history as first unmanned trans-Atlantic flight BUSINESS HEADLINE NEWS EMMA CALDER JULY 12, 2018

An aviation specialist has etched its name in the history books after successfully completing the world's first trans-Atlantic flight with an unmanned aerial vehicle.

A Medium-altitude, Long-endurance remotely piloted aircraft produced by General Atomics Aeronautical Systems made history.

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The aircraft took off from Grand Forks, North Dakota, on July 10 at 12:48 pm CDT and touched down yesterday in Fairford in Gloucestershire. The flight covered 3,760 nautical miles in 24 hours 2 minutes.

"The successful flight is the culmination of the hard work and innovation of our dedicated employees, and the strong relationships that we enjoy with the RAF, the UK Civil Aviation Authority, the Royal International Air Tattoo and our UK industry partners."
http://www.commercialdroneprofessional.com/touchdown-of-uav-makes-history-as-first-unmanned-trans-atlantic-flight/

Team UAV expands operators' inspection horizons with innovative solution

BUSINESSHEADLINE NEWSNEWSby EMMA CALDER on JULY 12, 2018

Team UAV has launched a new collision tolerant Dronecage to make confined space inspections and surveys more cost effective, higher quality, and available to all operators.

This week the UK-based drone inspection and survey company confirmed it is launching a confined space drone cage solution specific for the DJI Phantom 4 drone.

It is made from lightweight carbon fibre memory materials. It also has LED lights available and requires no extra training to be used.

Lewis Pritchard, CEO of Team UAV, said: "Dronecage has completely changed the way confined space inspections are carried out by dramatically lowering the cost of the drone equipment associated with them, giving the user high quality data and making these types of tasks even safer by using familiar, user friendly equipment that requires no extra training to use."
http://www.commercialdroneprofessional.com/team-uav-expands-operators-inspection-horizons-with-innovative-solution/

Record number of tourists bringing drones on holiday to New Zealand July 13, 2018 Feilidh Dwyer

According to New Zealand's Civil Aviation Authority, in the last year 200,000 tourists brought their drones into the country. This number is

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extraordinary given New Zealand's relatively small 4.7 million residents and estimated 280,000 domestic drone owners.

New Zealand is a giant tourist destination, and visiting holidaymakers frequently use their drones to capture stunning shots of its breathtaking nature. At some popular tourist spots like Queenstown however, tourists have been observed flying in restricted areas, disturbing nature or otherwise ignoring regulations put in place by the CAA.

Queenstown is a popular destination for tourists visiting New Zealand.

Drone basics when visiting New Zealand

- Don't fly within 4 km of an airport
- Do not fly out of line-of-sight
- Fly only in daylight
- Give way to all crewed aircraft
- Make sure you have consent from anyone whose property you want to fly above
- Be responsible and have fun

https://www.wetalkuav.com/tourists-bringing-drones-on-holiday-to-new-zealand/

FlightWave Edge Deployed in Cutting Edge Study Aboard the Schmidt Ocean Institute's R/V Falkor July 12, 2018 News

The FlightWave Edge™ UAS was part of a high-tech flotilla of underwater vehicles, autonomous surface vessels and unmanned aerial vehicles being used on the research ship R/V Falkor in an area of the Pacific Ocean approximately 1,000 miles west of Southern California in an area called the Subtropical Front. The mission: Establish a new method for observing dynamic ocean systems and processes with autonomous vehicles that maintain constant communication between themselves and a remote control center on the Falkor.

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The ecological mysteries of the Subtropical Front are extremely important for scientists to unravel and understand, and also offer a highly valuable opportunity for researchers to experiment with the simultaneous management of multiple autonomous vehicles.

The Edge was part of a group of autonomous marine vehicles being used to map out ocean fronts. Researchers used it to try out three types of sensors: a thermal camera to measure sea surface temperature, a multispectral camera to detect plankton, and a special sensor made by NASA that measures a gas called DMS emitted by plankton.

"Operating from a ship out in the middle of nowhere enabled us to demonstrate the Edge's versatility and airworthiness," said FlightWave co-founder and CTO Trent Lukaczyk, Ph.D. — who was part of the team at sea. "And there's only one good place to land: back on the ship. The Edge's VTOL and payload swapping are important capabilities out here. And networking into a system of autonomous assets via the Falkor's network and supercomputer put this demo on a whole new level." http://uasweekly.com/2018/07/12/flightwave-edge-deployed-in-cutting-edge-study-aboard-the-schmidt-ocean-institutes-r-v-falkor/?utm_source=newsletter&utm_medium=email&utm_campaign=uasweekly_newsletter_2018_07_13&utm_term=2018-07-13

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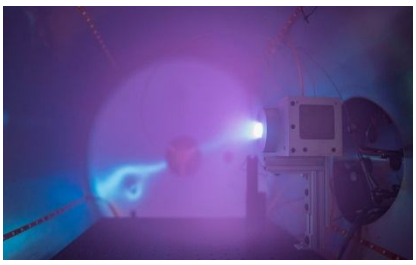
Phase Four reports progress on cubesat thruster design TOM RISEN JULY 11, 2018



AIAA PROPULSION AND ENERGY FORUM, Cincinnati — The California-based satellite propulsion startup Phase Four targeting the emerging market for constellations of cubesats and small satellites unveiled test results of its electric radio frequency thrusters that exponentially outperformed a previous iteration tested earlier this year.

Phase Four released a report on Wednesday titled "Updated Performance Measurements and Analysis of the Phase Four RF Thruster" summarizing results of test firing of two thrusters tested in a vacuum chamber at Phase Four, one designed for a cubesat and another for a small satellite. NASA has classified small satellites as spacecraft smaller than 180 kilograms.

The report, written by Umair Siddiqui, chief scientist at Phase Four, cites a thrust output of up to 10 millinewtons, measures fuel efficiency at a specific impulse of up to 1500 seconds, and a thrust efficiency of 10 percent with a 1 percent margin of error for the tests conducted in April and May. These results mark exponential increases in performance from previous tests of the

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thrusters conducted by the U.S. Air Force-funded nonprofit Aerospace Corp. earlier in 2018, which in April reported generating 1.5 millinewtons of thrust at 300 seconds specific impulse.

The thrusters went through four iterations of design changes between the start of April and the end of May. The latest results "get us on the playing field," Halpern said, confident his firm can compete with other propulsion providers to sell thrusters for cubesats and small satellites to move where they need to go in space and to safely de-orbit at the end of their missions. https://aerospaceamerica.aiaa.org/phase-four-reports-progress-on-cubesat-thruster-design/

China's OneSpace Counts Down To Market Entry Chen Chuanren July 15, 2018

Unlike more established players such as America's SpaceX or even India's Indian Space Research Organisation that also provide commercial space launch services, OneSpace hopes to differentiate itself by focusing on smaller, high-frequency carrier rockets for small and nano-satellites at cost-effective and competitive price-point.

The development of modern technology is spurring the rise of small "CubeSats," which now pack in more capabilities and are smaller and less expensive to produce than conventional satellites. China is expected to produce 1,000 CubeSats over the next five years, and OneSpace is hoping to ride on this demand. https://www.ainonline.com/aviation-news/aerospace/2018-07-15/chinas-onespace-counts-down-market-entry

Airbus partners EASA and CAAS to define drone regulations 14 JULY, 2018

FLIGHTGLOBAL.COM MICHAEL GUBISCH

The European Aviation Safety Agency says it has signed a collaboration agreement with the Civil Aviation Authority of Singapore (CAAS) and Airbus to establish a "framework for the exchange of information and technical expertise". EASA adds that the partners will be "leveraging Airbus's experience with the ongoing Skyways project". Skyways is a partnership, signed in 2017, between Airbus Helicopters and Singaporean postal service SingPost to trial an unmanned aerial package delivery system in the city state.

CAAS director general Kevin Shum says the collaboration with EASA and Airbus is "timely as we seek to better define the operating conditions for the growing number of beneficial uses of [unmanned aircraft systems] in urban environments". This view is echoed by EASA executive director Patrick Ky, who believes that "unmanned aircraft systems used in urban environments will shape the future of public transport".

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Airbus vice-president engineering Jean-Brice Dumont describes the collaboration as a "positive move to shape up the safety regulations" as "urban air mobility [is turning] into a business reality for us". https://www.flightglobal.com/news/articles/airbus-partners-easa-and-caas-to-define-drone-regula-450187/

Rolls-Royce poised to enter unmanned aerial systems market EMMA CALDER JULY 16, 2018

Rolls-Royce has unveiled a concept electric vertical take-off and landing (EVTOL) vehicle at the Farnborough International Airshow 2018.

The design, which could be adapted for personal transport, public transport, logistics and military applications, could take to the skies as soon as the early 2020s.

The Rolls-Royce EVTOL project is part of the company's strategy to 'champion electrification' and realise its ambition to become the world's leading industrial technology company.

The initial concept vehicle, which would be capable of carrying four or five passengers, uses gas turbine technology to generate electricity to power six electric propulsors specially designed to have a low noise profile.

In this hybrid-EVTOL configuration, which flies at speeds up to 250mph for approximately 500 miles, would not require re-charging as the battery is charged by the gas turbine and would be able to utilise existing infrastructure such as heliports and airports.
http://www.commercialdroneprofessional.com/rolls-royce-poised-to-enter-unmanned-aerial-systems-market/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-268618-Commercial+Drone+Professional+DNA+-+2018-07-16

Vodafone drone races into the history books with record-breaking speed

BUSINESS HEADLINE NEWS EMMA CALDER JULY 16, 2018

Piloted by teenage drone racer, Luke Bannister, the Vodafone Xblades racing drone, the Wingcopter XBR, achieved a top speed average of 240.6km/h on the Goodwood estate, officially setting the record as confirmed by the team at Guinness World Records.

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"Setting a drone world record at The Goodwood Festival of Speed gives us a glimpse of what is to come with the roll-out of 5G across the country," said Vodafone UK's enterprise director, Anne Sheehan.

According to mobile service providers, including Vodafone and T-Mobile, the use of 5G opens up a new dimensions in innovative drone applications, including live-saving services. Earlier this year, Vodafone announced trials of the world's first air traffic control drone tracking and safety technology.

The company's system is integrated with 4G Internet of Things (IoT) technology to protect aircraft from catastrophic accidents as well as prevent inadvertent or criminal drone incursions at sensitive locations such as airports, prisons and hospitals.
http://www.commercialdroneprofessional.com/vodafone-drone-races-into-the-history-books-with-record-breaking-speed/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-268618-Commercial+Drone+Professional+DNA+-+2018-07-16

Northrop's Cygnus Leaves Space Station to Perform CubeSat Deployment Mission

Jane Edwardson July 16, 2018 News, Space

Northrop Grumman's *Cygnus* spacecraft left the International Space Station on Friday to deploy six CubeSats into orbit.

The company said Sunday the spacecraft, also known as *S.S. J.R. Thompson*, will use the *NanoRacks* deployer to field *AeroCube 12A* and *12B* satellites from Aerospace Corp. and four other CubeSats that will join Spire Global's constellation of weather satellites to support weather and ship tracking operations worldwide.

Cygnus, which docked for 52 days at the orbiting laboratory, departed with at least 6,600 pounds of disposable cargo and is set to re-enter Earth on July 30.

"This mission once again demonstrates the expanded capabilities for Cygnus and paves the way for future mission objectives," said Frank Culbertson, president of space systems group at Northrop. http://blog.executivebiz.com/2018/07/northrops-cygnus-leaves-space-station-to-perform-cubesat-deployment-mission/

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FAA extends deadline for research/industry participation in multiple UAS operations research July 13, 2018 Philip Butterworth-Hayes UAS traffic management tenders

The Federal Aviation Administration has issued a new final response date of 20 July 2018 for its request for information on research and methods to safely conduct multiple-UAS operations in the NAS.

"This announcement provides the opportunity for academia and industry to participate in a Science and Research Panel (SARP) of the UAS Executive Committee Request for Information and Open Day for Multiple-UAS operations research. The results of the Open Day will serve to inform SARP research, workshops, and recommendations for control and NAS integration of multi-UAS operations. The SARP is organizing a two-day meeting on September 18-19, 2018 to explore the application of technologies and approaches that facilitate safe multiple unmanned aircraft systems operations with one or more pilots/managers.

The objectives of the meeting are to understand the range of current ongoing research (conducted by government, academia, and industry) that may inform technologies or procedures to enable human controlled or monitored multiple UAS operations.

As part of understanding the range of current ongoing research, the meeting will identify candidate solutions that provide a method of measuring/verifying the effect of the technology or procedure for effectiveness, efficiency and reliability. *Solicitation number: 30416 Deadline for responses: 20 July 2018* https://www.unmannedairspace.info/uas-traffic-management-tenders/faa-extends-deadline-research-industry-participation-multiple-uas-operations-research/

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New space companies confident about future of small satellites Sandra Erwin July 16, 2018

Space technology exhibition at the Farnborough Airshow

The start of what U.K. officials call a "new space age" is especially good news for the burgeoning global industry that makes tiny satellites and can quickly deliver data services.

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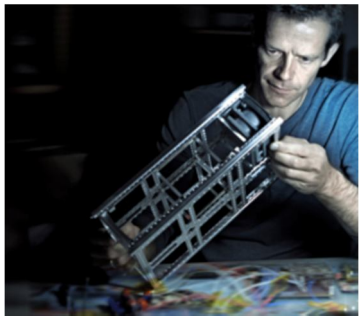
FARNBOROUGH, England — Executives around the "spacezone" section of the Farnborough Airshow reacted enthusiastically to the news on Monday that the United Kingdom will invest in domestic spaceports where commercial rockets and aircraft will be able to lift small satellites into orbit.

New business opportunities are popping up around the world. GomSpace has government contracts with NASA and the European Space Agency, but Witthoft said he sees most of the activity happening on the commercial side. The company on Tuesday announced a 1.4 million euro deal with the Spanish space big data company Aistech for the assembly and integration of 10 satellites. Aistech is planning a constellation of over 300 spacecraft by 2022 to provide global air traffic and internet-of-things services for asset tracking and monitoring. The first 10 satellites will be in orbit by mid-2019.



GomSpace nanosatellites

As parts and electronics are miniaturized, manufacturers are able to make toaster-size satellites that can do what used to require a much larger spacecraft. While legacy constellations were built to last 15 or 18 years, small satellite networks refresh satellites every five years or so. To avoid creating more space junk, satellites at the end of their service life are programmed to drop from their orbit and burn in the atmosphere. https://spacenews.com/new-space-companies-confident-about-future-of-small-satellites/

Drought and Drone Reveal 'Once-in-a-Lifetime' Signs of Ancient Henge in Ireland

Daniel Victor July 13, 2018

It took an unusually brutal drought for signs of a 5,000-year-old monument to suddenly appear in an Irish field, as if they had been written into the landscape in invisible ink.

On Monday, Anthony Murphy, an author and photographer, sent a camera-enabled drone high above the Brú na Bóinne archaeological landscape, a Unesco World Heritage Site about 30 miles north of Dublin. He suspected that recent dry conditions might reveal evidence that a henge — a man-made enclosure from thousands of years ago thought to serve as a gathering place — had once been there.

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What he saw in the images shocked him: a series of discolorations in the farmland, caused by differences in soil, spread about 150 meters wide in a perfectly circular pattern. He had flown the drone over the same field many times before and never saw a hint of what was now perfectly clear. "We knew fairly quickly that this was something that hadn't been seen before," Mr. Murphy, who runs the Mythical Ireland website, said in an interview.
https://www.nytimes.com/2018/07/13/science/newgrange-henge-ireland-drone-nyt.html

Intel's drones shape the future of the Great Wall of China APPLICATION BUSINESS NEWS EMMA CALDER JULY 17, 2018

Intel's drones are being deployed to protect and preserve the Jiankou section of the Great Wall of China in partnership with the China Foundation for Cultural Heritage Conservation.

An Intel Falcon 8+ drone is being used to carry out an aerial inspection and survey of the Jiankou section, capturing tens of thousands of high-resolution images of areas proven too difficult or dangerous for human access. These images are then processed into a 3D model, which provides preservationists with a digital replica of the current state of the wall.

Traditionally, surveys of the Great Wall are a manual process, using a tape measure or visual inspection by people over a month-long period. Using Intel technology allows the same inspections to be conducted in three days, producing more accurate data that helps conservationists develop an informed and effective repair schedule.

The project was first announced in April. Anil Nanduri, vice president and general manager, Intel's drone team, commented: "We continue to be excited about the future of inspections being automated all the way from drone data capture to data processing, analysis and insights. We look forward to leveraging our technology to aid in the preservation of more world heritage sites in the future." http://www.commercialdroneprofessional.com/intels-drones-shape-the-future-of-the-great-wall-of-china/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-268762-Commercial+Drone+Professional+DNA+-+2018-07-17

Are passenger drones likely to take off? July 17, 2018 Feilidh Dwyer

The concept of transporting people from place to place in flying passenger drones is exciting, potentially revolutionary and simultaneously far-fetched

and potentially problem-prone. While we know there exist models of UAVs that are up to the job, are they a development that's set to take off or something that, like flying cars, will never gain much traction in society?

Here's a cool example of a passenger drone. The Astro Aerospace is, according to their press release, a state-of-the-art aerial transport vehicle that is slated to improve urban mobility and enable passengers to arrive at their destination "swiftly and safely". It has 16 individual rotors and is emission-free.

The Ehang 184

The Ehang has completed manned test flights. It flew at a height of nearly 1000 feet (300 meters) at speeds of up to 80 mph (130 kmh).

No one will be flying anywhere unless this technology proves itself to be consistently safe over an extended period of time. New laws will need to be drafted that govern flight routes, rules for flying and create restricted airspace for these drones

At present, passenger drones are set to be between $200,000-$300,000 – putting them firmly in the class of toys for the rich. Over time, we can expect the cost of technology to come down and for cheaper models to be released. As for flying them, current models require a pilot's license to operate. Depending on the manufacturer of these drones, some may be totally automated while others can be controlled by the user. https://www.wetalkuav.com/passenger-drone-flights-realistic-or-not/2/

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Airbus Zephyr Production Gets Under Way Chris Pocock July 17, 2018

Born of the High Altitude Pseudo Satellite (HAPS) program, Airbus's Zephyr is a refined design, with much of the R&D centered on the aircraft's battery-management technology.

Airbus Defence and Space has started production of the solar-powered, high-altitude Zephyr S unmanned aerial system at a facility just outside the airfield perimeter at TAG Farnborough Airport. While the UK Ministry of Defence is the launch customer for three of the long-endurance UASs, Airbus has also secured a first commercial customer.

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Airbus bought the program in 2013, and since then, it has invested heavily to refine the design, and especially the battery-management technology. The “strings" of battery cells must provide energy to the payload during the day, while simultaneously being recharged to enable overnight flight. Operating altitude is 65,000 to 70,000 feet.

The first Zephyr S is currently on its maiden flight from a base in Arizona and can be followed in real-time this week at Airbus's chalet (K8) at the Farnborough Airshow. The predecessor Zephyr 7 development version already holds the world endurance record for a UAV, set in 2010 at 14 days 22 minutes. Airbus might be trying to beat that, since it said the Zephyr can theoretically fly for up to 120 days, although 30 days is the typical envisioned duration.
https://www.ainonline.com/aviation-news/aerospace/2018-07-17/airbus-zephyr-production-gets-under-way

Airbus Has High Expectations For Small-Satellite Production System *Andy Pasztor*

July 17, 2018

Airbus’s Dirk Hoke says the spirit of a small-satellite joint venture is rubbing off on the aerospace giant’s engineers.

FARNBOROUGH, London—The head of Airbus SE ’s defense and space business anticipates major long-term benefits, including possibly Pentagon contracts, as a result of implementing a high-volume automated production system for small satellites.

Dirk Hoke said the production and quality-control changes—under way as part of a joint venture with Internet services provider OneWeb—will position Airbus to churn out less-expensive spacecraft using fewer workers and less testing than with traditional factory practices.

Airbus officials previously highlighted expected financial gains stemming from assembling up to two satellites a day at the comparatively low cost of $1 million each. But Mr. Hoke’s comments at the international air show here Monday were the most specific yet about the project’s positive effect on internal industrial processes, as well as on the general approach of Airbus engineers**.** https://www.wsj.com/articles/airbus-has-high-expectations-for-small-satellite-production-system-1531854310

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Agricultural drones reduces the need to spray chemicals on crops July 18, 2018 Feilidh Dwyer

A South African farmer is toting the use of drones in helping her achieve a 30 percent reduction in the amount of pesticide she uses on her farm.

Jean Kuiper from Capetown has instituted a system at Rosenhof Organic Farm using Aerobotics' aerial data and claims it has changed the way she farms. Aerobotics uses drone and satellite imagery to achieve early pest and disease detection. Aeroview, a cloud-based app has the ability to measure individual plant and trees health, height and volume. Using the app, an individual can direct a drone to fly a certain route and inspect crops from above.

Kuiper told Cape Business News that the information gathered using Aerobotics was invaluable for farmers. [The Farmer] knows that orchard has a particular problem and sprays accordingly. He doesn't just go and spray the whole lot, he sprays what he needs, and immediately he will drop his chemical input by 30percent. That's our experience on the farm," said Kuiper.

She expressed concern about the amount of pesticides we use on our farms which she said were detrimental to plants, bad for human health and also killed or scared away helpful bugs that are beneficial to crops. "We need to improve soil health to improve human health and the less chemicals we use, the less toxic we make it," she said.
https://www.wetalkuav.com/agricultural-drones-reduces-need-for-pesticides/

Army to Adopt Raytheon-Built UAS Counter-Drone Missions Nichols Martinon July 18, 2018 C4ISR, News

The U.S. Army has chosen a Raytheon-made unmanned aircraft system and radar technology to help the service branch counter drone threats. Raytheon said Tuesday its *Coyote* UAS is designed to work with the company's Ku-band radio frequency radar to detect and track adversarial unmanned aircraft.

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Coyote is a tube-launched vehicle that uses a seeker technology and a warhead to recognize threats when used alongside the KRFS electronically scanned array to support surveillance, electronic warfare and strike operations. An operator can launch the UAS platform individually or in swarms to perform missions. KRFS works to aid fire control and UAS swarming efforts at a tactically significant distance. The Army has deployed more than 32 KRFS radars to date.
http://blog.executivebiz.com/2018/07/army-to-adopt-raytheon-built-uas-radar-for-counter-drone-missions/

Rolls-Royce Reveals Hybrid VTOL MARY GRADY

At the Farnborough International Air Show, which opened Monday in Great Britain, Rolls-Royce revealed a hybrid VTOL concept that could carry four to five passengers at speeds up to 217 knots with a range up to 435 NM. The design should be flying by the "early 2020s," the company said in a news release. The concept vehicle uses gas-turbine technology to generate electricity to power six electric propulsors which are specially designed to have a low noise profile. It also has a battery for energy storage. It would never need recharging, since the battery is charged by the gas turbine, so it wouldn't require any special infrastructure. The wings rotate 90 degrees, allowing for vertical takeoffs and landings.

The design could be adapted for personal transport, public transport or military applications and is based upon technologies that already exist or are currently under development. "Electrification is an exciting and inescapable trend across industrial technology markets and while the move to more electric propulsion will be gradual for us, it will ultimately be a revolution," said Rob Watson, who heads up Rolls-Royce's team working on the project.
https://www.avweb.com/eletter/archives/101/4108-full.html?ET=avweb:e4108:2565185a:&st=email#231145

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AirSelfie 2 drone fits in your pocket! July 18, 2018 Thomas Luna

AirSelfie 2 is a pocket-sized camera drone designed for selfies on the go. The drone itself is encased in anodized aluminum to minimize weight and optimize safety. With its 5-minute flight time rating and 2.8 oz weight, the AirSelfie 2 earned a Red Dot Design Award. The mini-quadcopter made its debut at CES 2018, but now it can officially be purchased online.

At first glance, the 3.8" x 2.8" x 0.5" quadcopter seems like a toy drone, but the AirSelfie 2 is rated with a 12 MP camera that can capture up to 1080p videos. Its four micro brushless motors are covered by the aluminum body, which basically acts like a one-piece propeller guard. AirSelfie 2 can fly up to 65 feet while being operated with a free app that is available on iOS and Android devices. A phone is required for controlling the drone since it's built to connect via 2.4 Ghz Wi-Fi.

Videos can be filmed in 1080p at 30fps, while the camera can capture wide-angle photos at 81°.

AirSelfie 2 can be purchased with a leather bag for $199.95 in four different colors: black, silver, gold or rose. An optional power bank designed specifically for the AirSelfie 2 can charge the drone up to 15 times. The power bank can be bundled with the drone, but it'll cost $249.99. https://www.wetalkuav.com/airselfie-2/

U.S. Sec. Transportation Elaine Chao on "Transformative Technology" and Government's Role Miriam McNabbon July 18, 2018

In a conversation with Fortune's Alan Murray at Fortune's Brainstorm Tech Conference, U.S. Secretary of Transportation Elaine Chao says that drone integration is a top priority for the department.

Chao emphasized, however, the "proper role of government," which she says is to be a regulator, but not to attempt to control the development of the technology. "We want to be tech neutral – we don't want to be top down, command and control and we don't want to pick

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winners and losers," says Chao. "Safety is the top priority." Chao says the Department of Transportation needs to address legitimate public concerns about privacy and security – and is trying to do that without hindering the industry.

The Secretary received pushback from interviewer Alan Murray, who commented that other governments have established technology development as a priority and were taking a more active role. "You don't see that as the government's role? To have a policy?" asked Murray. Chao responded that the government's role was regulatory. "I do have faith in the private sector through the competitive process," she said. "It's not up to us."

Chao also took a firm stand on the issue of state drone regulation. However, instead of focusing on preemption – the sole right of the FAA to regulate airspace in the US – Chao said that there needed to be more cooperation between federal and local governments. "We don't want a patchwork [of drone regulation across states]," said Chao."There needs to be more coordination between states and federal government." https://dronelife.com/2018/07/18/u-s-sec-transportation-elaine-chao-on-transformative-technology-and-governments-role/

U.S. offers India armed version of Guardian drone Mike Stone

FARNBOROUGH, England (Reuters) - The United States has offered India the armed version of Guardian drones that were originally authorized for sale as unarmed for surveillance purposes, a senior U.S. official and an industry source told Reuters.

If the deal comes to fruition, it would be the first time Washington has sold a large armed drone to a country outside the NATO alliance. It would also be the first high-tech unmanned aircraft in the region, where tensions between India and Pakistan run high.

The drones were on the agenda at a canceled meeting between Indian and the U.S. ministers of state and defense that was set for July, the sources said. The top level meeting is now expected to take place in September.

An Indian defense source said the military wanted a drone not just for surveillance but also to be able to hunt down targets at land and sea. The military had argued the costs of acquisition did not justify buying an unarmed drone. https://www.reuters.com/article/us-britain-airshow-india-drones-exclusiv/exclusive-u-s-offers-india-armed-version-of-guardian-drone-sources-idUSKBN1K820K

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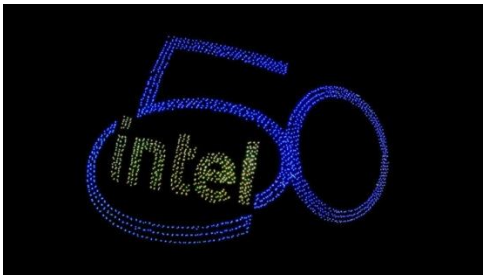
Intel Celebrates 50 Years With Record-Breaking Drone Light Show Betsy Lillian July 18, 2018



In celebration of Intel's 50th anniversary, the company recently flew 2,018 Intel Shooting Star drones over its Folsom, Calif., facility, setting a new Guinness World Records title for the most unmanned aerial vehicles airborne simultaneously.

"Several years ago, we had an idea of flying drones forming the Intel logo over our corporate headquarters, and here we are doing just that. It really speaks to the innovative spirit that Intel was founded on 50 years ago," says Anil Nanduri, vice president and general manager of Intel's drone group.

The Intel Shooting Star drones are specifically designed for entertainment purposes. They are equipped with LED lights that can create countless color combinations and can easily be programmed for any animation. The fleet of drones is controlled by one pilot. https://unmanned-aerial.com/intel-celebrates-50-years-with-record-breaking-drone-light-show?utm_medium=email&utm_source=LNH+07-19-2018&utm_campaign=UAO+Latest+News+Headlines

Continuously Saving Lives, UAVs Prove to be More Than Just a Toy Betsy Lillian July 18, 2018

As more public safety agencies adopt small unmanned aerial vehicles, the number of lives the technology is saving is climbing dramatically, reports Skyfire Consulting, a public safety UAV consulting company in Decatur, Ga.

Recently, in just one day, four people were reportedly saved by drones in three separate incidents around the world.

On May 31, the Wayne Township Fire Department in Indiana used a drone to drop a life jacket to a fleeing suspect, who had gotten himself into a near-drowning situation in a lake. On that same day, officials in a Texas town near Dallas dropped life jackets to a mother and daughter who found themselves in rising floodwater, and police in the U.K. used a drone with a thermal imaging camera to find a stranded hiker on a dangerous cliff, says Skyfire.

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"In my 32 years working in public safety, the UAV is one of the most exciting tools to come along that improves first responder safety and efficiency," says Captain Mike Pruitt, Wayne Township's UAV program manager. "The possibilities of what we can do with these aircraft are endless." https://unmanned-aerial.com/continuously-saving-lives-uavs-prove-to-be-more-than-just-a-toy?utm_medium=email&utm_source=LNH+07-19-2018&utm_campaign=UAO+Latest+News+Headlines

20Jul18

EASA Adopts EU-Wide Drone Rules Juan Plaza July 19, 2018

On both sides the Atlantic, the issue of integrating manned and unmanned aerial vehicles over controlled airspace has two distinct angles: one is technological and the other regulatory. These are issues the Federal Aviation Administration (FAA) in the USA and the European Aviation Safety Agency (EASA) in Europe are directly dealing with, as the agencies work to sort out the inevitable reality of what it will mean to share the same airspace.

The tricky part is that both agencies have to make sure that integration preserves the excellent safety record which commercial aviation enjoys today. It's why the FAA has joined NASA and many other private and public organizations in the search for the best system that would guarantee the continuity of this safety record. It's also why EASA has been working closely with industry, academia and the government sector to develop their unique version of a safe environment where to integrate, and they've just reached a major milestone on that front.

On 26 June 2018, the European Council adopted updated aviation safety rules, which include a revised mandate for EASA and the first ever EU-wide rules for civil drones of all sizes. The reform introduces proportionate and risk-based rules designed to enable the EU aviation sector to grow, make it more competitive and encourage innovation.

The rules on UAVs lay down the basic principles to ensure safety, security, privacy, data protection and environmental protection. The text establishes the registration threshold for commercial UAV operators. Operators must be registered if the vehicles they operate are capable of transferring more than 80 Joules of kinetic energy upon impact with a person. More detailed rules on drones will be set by the Commission with help from EASA, on the basis of the principles outlined in this rule.

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"This new mandate consolidates EASA's scope to cover the full spectrum of the aviation landscape and reinforces the European aviation system as a whole, with the possibility for EASA and European Member States to work closer together in a flexible way," EASA said.
https://www.expouav.com/news/latest/easa-adopts-eu-wide-drone-rules/?utm_source=informz&utm_medium=email&utm_campaign=newsletter&utm_content=newsletter

20Jul18

Drones become eye in the sky to preserve one of the seven wonders NEWS

VIDEO EMMA CALDER JULY 19, 2018

Drones have come to the aid of one of the world's most famous landmarks in the name of conservation.

Intel's drones are being deployed to protect and preserve the Jiankou section of the Great Wall of China in partnership with the China Foundation for Cultural Heritage Conservation.

An Intel Falcon 8+ drone is being used to carry out an aerial inspection and survey of the Jiankou section, capturing tens of thousands of high-resolution images of areas proven too difficult or dangerous for human access.

A video of the project can be found at: http://www.commercialdroneprofessional.com/video-of-the-day-drones-become-eye-in-the-sky-to-preserve-one-of-the-seven-wonders/?utm_source=Email+Campaign&utm_medium=email&utm_campaign=45819-269171-Commercial+Drone+Professional+DNA+-+2018-07-20

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