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World's first flying race car can go from 0–62 mph in just 2.8 seconds SAM TONKIN FOR MAILONLINE17 June 2021

The world's first <u>flying racing car</u>, which goes from 0–60 miles per hour as fast as a Formula One car, has taken to the skies over the South Australian desert for the first time ahead of a race debut later this year.



The 'octocopter' craft — called the Mk3 Airspeeder, and designed and built by former McLaren, Jaguar, Rolls-Royce, Boeing and Brabham engineers — will fly at speeds of between 93 and 155 miles per hour depending on the terrain.

Up to four teams and 10 aircraft will compete in the series, with the cars controlled from the ground by pilots with aviation, motorsport, and eSports backgrounds. The aim is to have human pilots in the cockpit by 2022.

The 287 lb racer sports a carbon fiber shell and eight easy-to-replace battery packs. It can deliver a maximum power of 320kW, lift a weight of 176 lbs. and limb to 1,640 feet.

It sports eight rotor blades surrounding a central carbon-fiber cockpit and can go from 0-62 miles per hour in 2.8 seconds. Lewis Hamilton in a Mercedes F1 car would be able to do the same in around 2.6 seconds.

The craft is powered by a lithium polymer battery which allows it to fly for about 15 minutes. Each race will last 45 minutes, which means two motorsport-style pit stops will be required to change the battery. This will take around 20 seconds — about the same time as an average Formula One pit stop in the 1970s, although today the best teams can do it in under two seconds.

The Airspeeder's first flight took place at a secret test location in the South Australian desert last month, under the observation of Australia's Civil Aviation Safety



Authority. <u>https://www.dailymail.co.uk/sciencetech/article-9696003/Worlds-flying-race-car-takes-flight-time-ahead-race-debut-later-year.html?ito=1490</u>

Electric Plane Pioneer Pivots to Cargo Drones Jan Bratanic June 17, 2021



originally to make non-cargo models.

Ivo Boscarol has pivoted to building drones to carry heavy freight to remote areas of China. Boscarol says this approach is less daunting from a technical, safety and regulatory standpoint than shuttling live passengers across dense cities in electric vertical takeoff-and-landing craft.

April's deal in China, which has begun to license cargo drones, will see Pipistrel customize its Nuuva V300 model equipped with same electric motor in a venture with <u>SF Express</u>, the country's biggest courier firm. SF says it may need 1,000 such craft over the next decade, set to be built at a plant 120 miles east of Shanghai. The factory has been planned since 2016,

While the coronavirus crisis has delayed completion of a plant, the 65-year-old entrepreneur still expects unmanned cargo craft to comfortably beat autonomous passenger planes into the skies. Pipistrel's focus on China could help it ride a global surge in demand for parcel deliveries driven by online purchases.

The cargo drone will be powered by eight of the E-811 rotors originally built for Uber air taxis. It is targeted to carry a 300-kilogram (660-pound) payload for 300 miles, with an internal combustion engine powering a rear-mounted propeller for cruise flight. The model should have its first flight early in 2022 and enter production in 2023.

https://www.bloomberg.com/news/articles/2021-06-17/electric-plane-pioneer-backs-cargo-drones-tobeat-flying-taxis

SkyeBrowse Launches Thermal Mapping with Autel Jun 14, 2021

BOTHELL, Wash. — SkyeBrowse has officially launched software that will enable Autel EVO II drones to create 3D models of an area using thermal imaging.





The thermal mapping software will enable first responders to recreate accident sites or crime scenes quickly and safely at night—saving government dollars and lives in the process.



"Right now, nighttime reconstruction looks like this: Either you have the budget and equipment to do it—which is a quartermillion-dollar laser scanner—or you shut down the entire scene until the morning," said Bobby Ouyang, CEO of SkyeBrowse.

The software creates a 3D model using a single video captured in 90 seconds—

much faster than the traditional photogrammetry method, which requires hundreds of photos to be taken over the course of several minutes to an hour. The superior speed of videogrammetry is precisely what makes thermal mapping possible, as photogrammetry is too slow to compile accurate thermal data due to camera recalibrations that take place every 5 minutes.

In addition to accident reconstruction, drone pilots will be able to use the thermal mapping function to plan for wildfires or SWAT raids, detect pipeline leaks that aren't visible to the human eye, or even identify crops that might be getting too much sun. <u>https://auteldrones.com/blogs/news/skyebrowse-launches-thermal-mapping-with-autel</u>

First passenger seat on Blue Origin's New Shepard sells for \$28 million David Szondy June 13, 2021



The first paying seat on Blue Origin's initial New Shepard passenger flight into space has sold at auction for an eyewatering \$28 million. The telephone auction of qualified bidders was conducted on June 12 by RR Auction in Boston, Massachusetts and involved 7,600 bidders from 159 countries.

The winner of the auction will be one of four passengers aboard the Reusable Space Ship First Step crew capsule, which will be launched atop the New Shepard booster on July 20, 2021. It will go on a 10-minute suborbital flight to an altitude of over 62 miles (100 km) from the company's Launch Site One in West Texas.



The other three passengers will include Blue Origin founder Jeff Bezos, <u>his brother Mark</u>, and a fourth, who has yet to be named. The proceeds of the auction will go to Blue Origin's Club for the Future, which encourages young people to enter STEM professions. A replay of the auction can be seen here: <u>https://newatlas.com/space/first-passenger-seat-blue-origin-new-shepard-sells-28-million/</u>

Mavic 2 Pro captures Lake Ontario shipwreck in stunning detail [video] <u>Ishveena</u> Singh Jun. 18th 2021



Last weekend, when New York-based photographer James Montanus took a small fishing boat out into the lake, he was surprised to see the outline of a sunken tugboat peering through the surface. Montanus knew this vessel. He had snorkeled on its wreck in 1974 and has snorkeled on it every year since then.

It was Laura Grace, a shipwreck just off the shore in

Greece, New York. The 76-foot wooden vessel was built in 1901 in Ontario, Canada. It went down in a storm in December 1918, about a quarter mile from the Long Pond channel. Everything inside was removed shortly after the boat went aground.

Montanus soon realized that the wreck was in only 12 feet of water due to drought. A drone could probably capture the whole thing. And sure enough, when he went back to the spot with his <u>Mavic 2 Pro</u>, Montanus got the best pictures he had ever gotten of that shipwreck. Take a look at this brilliant video the drone took:

He even got a couple of paddle-boarders to get into the frame to showcase the tugboat's scale.



Montanus tells a <u>local newspaper</u> that he used a polarizing filter on his drone's <u>Hasselblad camera</u> lens to reduce the reflection from the water. But after that, it took only minor color correction to get these results: <u>https://dronedj.com/2021/06/18/mavic-2-pro-captures-lake-ontario-</u> shipwreck/#more-60705



"Remotely Flying Drones Anywhere" is the Enterprise Segment of Red Cat Holdings Strategy June 17, 2021 News



Red Cat Holdings, Inc., a hardware enabled software provider to the drone industry, announced the core business strategy for its Enterprise segment would be "Remotely Flying Drones Anywhere." This strategy reflects a further leadership decision by Dr. Allan Evans, its newly appointed Chief Operating Officer.

"Enterprise customers require not only drones but robust software for fleet and flight management," stated Dr. Evans. "We believe our ability to remotely fly drones anywhere provides our customers with a significant reduction in labor, travel, and training when compared with any other enterprise system on the market. Our ongoing relationships with major industrial companies like GM and Aramco represent a clear affirmation of our business strategy."

Over the past two years, the Company has completed three separate acquisitions which have expanded the portfolio of drone products, services and solutions offered to business customers. These technologies enable drones to provide services and solutions more efficiently, faster, and at lower cost. <a href="https://uasweekly.com/2021/06/17/remotely-flying-drones-anywhere-is-defined-as-the-core-business-strategy-for-the-enterprise-segment-of-red-cat-holdings/?utm_source=rss&utm_medium=rss&utm_campaign=remotely-flying-drones-anywhere-is-defined-as-the-core-business-strategy-for-the-enterprise-segment-of-red-cat-holdings&utm_term=2021-06-18

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Drone Safe World – The Global Drone Operator Network HEADLINE NEWS GEORGINA FORD JUNE 20, 2021



Drone Safe World represents the very best pilots in the industry who are masters of their craft and are also safe, legal, and insured. Having a safe and secure network of reliable professionals means that we can maintain a supply of high-quality aerial data for clients who want the best possible results, while maintaining zero agency fees



Having spent the past five years growing and developing the UK's largest network of professional drone pilots, Drone Safe Register has developed the know-how and the software and tools to provide operators with everything they need to succeed in this industry. Drone Safe World offers everything a commercial operator could ever need.

Drone Safe España launched to much acclaim from pilots across the country in May 2021. Our growing Spanish network is full of praise for the exciting dashboard features, such as seeing their pin in a digital and interactive map. We currently have members in Madrid, Barcelona, Valencia, Malaga and Gibraltar.

Drone Safe Italia officially launched in June 2021, just before the kick-off of Euro 2021. Our new Italian network grows every day with members currently in Rome, Florence, Naples and Ancona.

Drone Safe USA has now landed on American soil! We've already seen a lot of excitement from pilots in San Francisco, Ohio, Atlanta, Miami and New York.

As Drone Safe continues to expand across the globe, Drone Safe World will act as a portal to access professional drone operators, no matter where you are. We're on a mission to provide easy access to industry experts across the globe.

https://www.commercialdroneprofessional.com/drone-safe-world-the-global-drone-operator-network/

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Transcend VTOL Aircraft is Changing the Status Quo: City to City Transportation

that Works Dawn M.K. Zoldi Posted By: Miriam McNabb June 18, 2021



Transcend has created a three step model to challenge the status quo. Step 1, they will have no airports. The company will operate from a distributed architecture, floating base structures called Vy Ports. These launchpads will alleviate the need for commercial ground travel because they will be walking distance from city centers.

Step 2 is the Vy 400's VTOL design, which enables it to takeoff/land flexibility to and from these urban Vy Ports. Step 3 is its tiltwing, which allows it to fly at speeds upwards of 400mph. This is three times faster than helicopters. The Vy will take commuters from San Francisco to San Diego in and an hour and twenty minutes. Incredibly, this will be accomplished at 50% of the cost-per-mile required by a helicopter – that would take nearly four hours for the trip. Similarly,



at a projected \$283 one way from Boston to New York City, the Vy undercuts the door-to-door cost of the typical ground travel plus regional airline fare combination required to fly today. <u>https://dronelife.com/2021/06/18/transcend-vtol-aircraft-changing-status-quo/</u>

Walmart Strengthening Partnership with On-Demand Drone Delivery Startup

DroneUp June 18, 2021 · By 24/7 Staff



<u>John Furner</u>, CEO, and President, Walmart U.S. wrote in yesterday's Thursday (June 17, 2021) press release: "Last year, we partnered with <u>DroneUp</u>, a nationwide drone services provider, to launch trial deliveries of at-home COVID-19 self-collection kits. The trial demonstrated we could offer customers <u>delivery in minutes</u> versus

hours. Now, after safely completing hundreds of drone deliveries from Walmart stores, we're making an investment in DroneUp to continue our work toward developing a scalable last-mile delivery solution."

DroneUp operates an on-demand drone delivery network that matches their database of more than 10,000 Federal Aviation Administration certified pilots to missions nationwide. Since partnering with DroneUp last year, we've valued their technological expertise, world-class operations, and experienced management team – and their commitment to helping the FAA ensure the highest levels of safety with every delivery.

DroneUp was the first operator to use the FAA 107.39 waiver, an operation that allows for delivery flights to be conducted over people and moving vehicles. DroneUp operates commercially throughout the U.S. and is an authorized government drone services provider for 11 U.S. states serving public sector organizations.

https://www.supplychain247.com/article/walmart strengthening partnership with on demand dron e delivery startup/transportation

eVTOL Certification: Who Are the Leaders? Graham Warwick



Credits (clockwise from top left): Jaunt Air Mobility/Dufour Aerospace/Hyundai/Wisk Aero

A growing number of electric air taxi developers are entering the certification phase, aiming to begin advanced air mobility services by the middle of the decade. As Aviation Week Network launches its

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Advanced Air Mobility Report, here is a look at the early leaders in this emerging market.

Jaunt Air Mobility is targeting 2026 for the start of urban air taxi services using its Journey eVTOL, assuming it can secure strategic investors to set up operations in Canada. Swiss startup Dufour Aerospace also is aiming to bring its AEro 3 tiltwing eVTOL to market by 2026. Kitty Hawk/Boeing joint venture Wisk is expected to unveil its sixth-generation vehicle this year but has not given a target date for FAA certification of its self-flying air taxi. South Korean automaker Hyundai plans to enter the urban air mobility market in 2028, having unveiled its S-A1 eVTOL concept vehicle in 2020. <u>https://aviationweek.com/forum/aerospace-defense/evtol-certification-who-are-</u>

leaders?utm_rid=CPEN1000003332045&utm_campaign=28915&utm_medium=email&elq2=e401b7df5 8c54bed9def7d58df94dbe3

Volocopter demonstrates first urban air mobility flight during Paris Air Forum

June 21, 2021 Jenny Beechener UAS traffic management news



Today, Volocopter, flew their 2X electric vertical take-off and landing aircraft at Le Bourget Airfield during the <u>Paris</u> <u>Air Forum</u>. The German UAM developer demonstrated the progress they are making to introduce eVTOL aircraft as an addition to existing transportation in the Paris region.

The 3-minute remote controlled flight was the first public flight demonstration of an electrically powered air taxi in France. It gave the public a real-life experience of what an air taxi looks and sounds like in operation. Attendees watched as the Volocopter 2X flew a 500 m route at speeds up to 30 km/h and 30 m high along the Le Bourget Airfield. This flight marks the beginning of a multi-step test and market development campaign in cooperation with the French Civil Aviation Authority (DGAC – Direction générale de l'aviation civile) to safely bring electric air taxis to the Île-de-France region. Attendees could sit inside the VoloCity model for a first-hand experience and detailed explanation of the benefits of electric air taxi services.

https://www.unmannedairspace.info/latest-news-and-information/volocopter-demonstratesfirst-urban-air-mobility-flight-during-paris-air-forum/



New BAE 'pseudo satellite' can remain aloft at 70,000 feet for a year Bruce Crumley Jun. 21st 2021



Dubbed Phasa-35, the so-called "pseudo satellite" is designed to operate at altitudes of up to 70,000 feet – far above weather systems that could block its solar source of power. The High Altitude Long Endurance craft will most frequently be used to provide continual high-quality images of terrestrial locations, as well as for monitoring, surveillance, security, and conventional communications services.

But in the case of disruption or destruction of a satellite, the Phasa-35 can also act as a stand-in to relay information between ground stations or airborne planes – or, in war situations, between troops and remote commanders.

BAE says the drone "will provide both military and commercial customers with capabilities that are not currently available from existing air and space platforms." Using 5G and other communications technologies, it says, the Phasa-35 can also be a far more affordable tool to disaster relief and border protection services than traditional satellite options.

The 35-meter-wide winged HALE can remain in <u>stratospheric deployment</u> for up to a year without returning to Earth. Onboard solar panels collect energy that is transformed into electricity and stored in rechargeable cells that continue powering the craft at night. The craft took its first test flight in 2020, after a super-fast development period of just two years. <u>https://dronedj.com/2021/06/21/new-bae-pseudo-satellite-can-remain-aloft-at-70000-feet-for-a-year/</u>

Darwinian drones rid Galápagos Islands of invasive rats Bruce Crumley Jun. 21st 2021



After two years of trying to rid a pair of Galápagos Islands of destructive non-native rats, researchers say they have eliminated the invasive rodents with considerable help from drones.

The eradication effort was deemed necessary to protect several species of indigenous wildlife,

particularly frigate birds and swallow-tailed seagulls. Officials at Galápagos National Park say

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black and brown rats that came to the islands aboard visiting ships during the 19th and 20th centuries had become a constant threat to both unhatched and young birds. For that reason, elimination <u>efforts began</u> on the Seymour Norte and Mosquera islands in 2019 – using drones for the first time. This month, after a thorough inspection, the islands were declared rat-free.

The nonprofit group <u>Island Conservation</u> teamed with professional pilots using GPS data to fly drones around the islands. The craft scattered "conservation bait" – a rodenticide specially developed to only attract rats. After the main population had been eliminated, drones were deployed to replenish scores of bait stations around the islands' coasts, creating a first line of defense against any new rats migrating from surrounding islets. <u>https://dronedj.com/2021/06/21/darwinian-drones-rid-galapagos-islands-of-invasive-rats/</u>

What's standing in the way of widespread drone deliveries? The weather David MacQuarrie Jun. 21st 2021



A <u>new study</u> published in *Nature Scientific Reports* looked at how rain and snow, wind, and temperature affect drone flyability around the world. Precipitation damages electronics, high winds can cause loss of control, and cold weather can be murder on done batteries.

The study says most drones used for commercial applications should never fly in rain or snow but can tolerate temperatures between 0 C and 40 C and winds up to 36 km/h. It then looked at the weather in 100 of the world's most populous cities. It found on average that there are only 10 hours a day when the weather lets up sufficiently to let drones fly safely. There are regional differences, of course. If you live in sunny Johannesburg, your drone-delivered pizza will likely make it hot and on time. If you live in Glasgow, where it rains 170 days per year, make backup arrangements if you're expecting a donor kidney.

The authors say just upgrading drone weatherproofing could be a partial answer. Increasing precipitation tolerances to 1 mm/hr and wind speed tolerance to 15 m/s would improve average flyability from 40 to 87%, but the authors found a critical lack of weather-related standards for drone components and performance testing..

The report's authors found safely scaling drone deliveries in urban areas requires a defensible and standard set of weather performance tests. <u>https://dronedj.com/2021/06/21/the-bad-weather-may-be-a-roadblock-to-drone-delivery-schemes/</u>



Oh, to be in Venice – and be able to fly FPV like this [Video] Scott Simmie Jun. 21st 2021



We've never been to Venice, and from what we've been reading, now is the perfect time for a trip. The hordes of tourists normally clogging the city are a faint whisper of their pre-pandemic presence, meaning you really get to enjoy the beauty of Venice without all the distractions.

We've been following <u>Gianmarco Gabriele</u> for some time on Instagram. He's an amazing pilot and always has his eyes out for really interesting places to fly. And, well, because he appears to live in Italy, there's never a shortage of locations. But this is the first time we've noticed him flying in Venice, and this is quite a spectacular flight.

In addition to the locations Gianmarco chooses, his flying style is often (depending on the subject) incredibly smooth. It's like he's inviting you to tag along on a little exploratory tour, with the vista unfolding as he flies.

But, as we mentioned, Gianmarco isn't a one-trick pony. Check out this flight from the Piazza San Marco. Not only does he get an amazing dive in, but his recovery is liquid smooth. <u>https://dronedj.com/2021/06/21/oh-to-be-in-venice-and-be-able-to-fly-fpv-like-this-video/</u>

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Taking Flight - The Economist Technology Quarterly Civilian drones June 22, 2021



Most drones today are either cheap toys or expensive weapons. But interesting commercial uses are emerging in the middle, says Tom Standage.

STARTING a riot at a football match. Revealing an unknown monument in the desert near Petra. Performing at the Super

Bowl. Sneaking drugs and mobile phones into prisons. Herding elephants in Tanzania. What links this astonishing range of activities? They are all things that have been done by small flying robots, better known as drones.

Military drones account for the vast majority (nearly 90%) of worldwide spending on drones. But after a pivotal year for the civilian drone industry, an interesting space is now opening up in the middle as drones start to be put to a range of commercial uses.

Last year around 110,000 drones were sold for commercial use, according to Gartner, a consultancy. That figure is expected to rise to 174,000 this year and the number of consumer drones to 2.8m. Although unit sales of commercial drones are much smaller, total revenues from them are nearly twice as big as for the consumer kind.

In "Drones Reporting for Work", published in 2016, Goldman Sachs argued that drones are becoming "powerful business tools". It predicted that of the total of \$100bn likely to be spent on both military and civilian drones between 2016 and 2020, the commercial segment would be the fastest-growing, notably in construction (accounting for \$11.2bn), agriculture (\$5.9bn), insurance (\$1.4bn) and infrastructure inspection (\$1.1bn). Oppenheimer, another bank, predicts that the commercial market "will ultimately contribute the majority of UAV industry revenues". https://www.economist.com/technology-quarterly/2017-06-08/civilian-drones

Israel cites progress in laser that shoots down drones June 21, 2021



JERUSALEM (AP) — The Israeli military said Monday it has successfully tested an airborne high-power laser that can shoot down drones, technology it hopes to deploy on a larger scale in the coming years.

Israel already boasts a large and sophisticated air defense system, which the military says had a 90% interception rate

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against thousands of rockets fired from Gaza during last month's 11-day war. The laser technology would complement that system.

A prototype, developed with Elbit Systems, was mounted on a civilian plane and successfully shot down "several" drones in a recent test over the Mediterranean Sea, according to Brig. Gen. Yaniv Rotem, head of military research and development at the Defense Ministry.

"The ability to intercept and destroy threats from the air is groundbreaking," he told reporters. "Israel is among the first countries to use such capabilities."

In the recent test, the system shot down drones from within a range of about 1 kilometer (0.6 mile). In the coming years, Israel hopes to deploy a ground-based system with a range of 8-10 kilometers (5-6 miles) that can intercept rockets, mortar rounds and drones. <u>https://apnews.com/article/israel-middle-east-business-technology-14d664c9738edc47a5888cecf8d86281</u>

DroneUp Selected to the FAA's BVLOS ARC to Advance Drone Operations June 22, 2021



Virginia Beach, Virginia,—Today, <u>DroneUp</u>, announced that they had been selected to sit on The Federal Aviation Administration's Beyond Visual Line of Sight Aviation Rule Making Committee (ARC). DroneUp will assist ARC in defining performance-based regulatory requirements to standardize safe, affordable, and sustainable BVLOS drone operations at scale.

The ARC represents a collaboration between regulators and UAS industry experts who will provide BVLOS recommendations to the FAA within the next six months. At a minimum, the ARC's recommendations must address long-line linear infrastructure inspections, industrial aerial data gathering, small package delivery, and precision agriculture operations, including crop spraying. The action memo for the charter details the purpose, background, objectives, tasks, procedures, operations, public record and participation, and duration of the charter. https://www.dropbox.com/sh/uh724qg1927dg0b/AAAm1Ezwt97sHoiAju5ltbmJa?dl=0&previewerps w=PR 6.22.2021 DroneUp+Selected+to+the+FAA%E2%80%99s+BVLOS+ARC.docx



Unmanned Helicopter Detects & Measures Radioactive Particles 21 Jun 2021 Sarah Simpson



The <u>SwissDrones</u> SDO 50 V2 helicopter drone has been deployed to detect and measure radioactive particles in a joint operation with the Swiss Federal Office for Civil Protection.

The SDO 50 V2 can be combined with traditional manned aircraft and ground vehicles

to collect additional radiological information around critical sites and non-accessible areas.

With top-of-class sensor integration, the SDO 50 V2 can provide a safer, more cost effective and ecologically friendly solution to aerial radiation detection, delivering high-resolution screening, without risking pilot exposure to radioactivity. Watch the video to see SwissDrones in action: https://www.unmannedsystemstechnology.com/2021/06/unmanned-helicopter-used-to-detectmeasure-radioactive-particles/?utm_source=UST+eBrief&utm_campaign=a718d9da6b-ust-ebrief_2021jun22_engaged&utm_medium=email&utm_term=0_6fc3c01e8d-a718d9da6b-119747501

Swiggy and ANRA Make History: BVLOS Drone Delivery in India Miriam McNabb June 21, 2021



<u>ANRA Technologies Private Limited</u>, a leader in integrated airspace management, and <u>Swiggy</u>, India's leading on-demand delivery platform, today announced that stakeholders from the India Ministry of Defense, Directorate General of Aviation, and Ministry of Civil Aviation, awarded final clearances for the ANRA Technologies led consortia to commence trials for

Beyond Visual Line of Sight operations in India. The ANRA drone delivery app will power deliveries of Uber Eats of India in an unprecedented series of BVLOS drone delivery flights.

The project has taken months of planning, but the 100 hours of planned BVLOS flights will be instrumental in taking India's drone industry forward. ANRA's flight team launched its first sortie on June 16, 2021. For the next several weeks, the flight team will conduct BVLOS food and medical package deliveries in the Etah and Rupnagar districts using ANRA <u>SmartSkies</u> technology and <u>SmartSkies DELIVERY</u>, ANRA's software solution that connects



customers, delivery services, and other stakeholders. https://dronelife.com/2021/06/21/swiggyand-anra-make-history-bylos-drone-delivery-in-india/

Camcopter[®] s-100 supports Finnish, Estonian and Swedish Coast Guards June 21,

2021 News



The Finnish Border Guard is once again operating the CAMCOPTER[®] S-100 for implementing coast guard functions in the Baltic Sea. The Remotely Piloted Aircraft System service is offered by the European Maritime Safety Agency.

Based at a coast guard station in Hanko, Finland, the

CAMCOPTER® S-100 is supporting the Finnish authorities in carrying out Coast Guard functions, such as maritime border surveillance, search and rescue, monitoring and surveillance, ship and port security, vessel traffic monitoring, environmental protection and response, ship casualty assistance, as well as accident and disaster response. The information collected in the Baltic Sea from the on-board RPAS system is shared in parallel with multiple Member States, allowing for a common maritime picture and more comprehensive coordination. The operations will continue until the end of July.

This deployment comes on top of two other CAMCOPTER® S-100 operations for EMSA currently being carried out in Estonia and Romania conducting maritime surveillance. It is also the third deployment for the Finnish Border Guard, after a trial in 2019.

https://uasweekly.com/2021/06/21/camcopter-s-100-supports-finnishestonian-and-swedish-coastguards/?utm source=rss&utm medium=rss&utm campaign=camcopter-s-100-supportsfinnishestonian-and-swedish-coast-guards&utm term=2021-06-21

Fahari Aviation participates in Kenya's first National Wildlife Census DRONES AT WORK HEADLINE NEWS SURVEILLANCE GEORGINA FORD JUNE 22, 2021



"The use of drones and unmanned aircraft has proven feasible in many different fields of application. In addition, the Omni-purpose nature of these vehicles has provided opportunities to create an impact on various uses. Through Fahari Aviation, we aim to furnish new dimensions to the use of aerial counting and wildlife monitoring methods cost-effectively and

efficiently," Allan Kilavuka, Chief Executive Officer at Kenya Airways, said.



The national census will count terrestrial, fresh water and marine mammals, key birds (ostrich, kori bastards and other threatened birds), endangered primates (Tana Mangabey and Tana red colobus), threatened amphibians and reptiles (crocodiles) in the 47 counties. The specific terrestrial mammals to be counted will include elephant, rhino, giraffe, buffalo, lesser kudu, greater kudu, eland, common zebra, Grey's zebra, Grant's gazelle, Thomson's gazelle, hirola, gerenuk, sitatunga, bongo, kongoni, impala, hippopotamus, and warthogs.



Brig. (Rtd) John Waweru, Kenya Wildlife Service Director-General, said: To facilitate sustainable conservation and management of our wildlife, monitoring populations is a significant prerequisite. This census will therefore provide information on the status and distribution of wildlife. Further, it will aid in identifying threats to the vast but threatened wildlife populations and support the decisionmaking process in the conservation and tourism

sector. Through Fahari Aviation, we look forward to working with Kenya Airways and further the use of drones and unmanned aircraft in wildlife conservation efforts." https://www.commercialdroneprofessional.com/fahari-aviation-participates-in-kenyas-first-national-

wildlife-census/

New drone footage: China's famous nomadic elephants may be heading home

Ishveena Singh Jun. 22nd 2021



China's famous herd of wandering elephants is showing a trend of returning south. We now have new aerial footage that supports a preliminary returning trend. Meanwhile, another drone video released by Chinese authorities shows adorable baby elephants engaging in a playful wrestling match!

Though it has been 15 months since the nomadic herd bid farewell to their original habitat in a nature reserve in China's Yunnan Province, in the past month, the elephants have captured global attention. With a task force of 360 personnel, 76 cars, and nine drones keeping tabs on their progress around the clock, aerial footage of the animals is keeping netizens hooked. From watching the authorities struggle to keep the elephants away from populated areas to



observing the herd <u>taking a nap together</u> in a forest, the herd's antics have made for one bingeworthy video after another.

In the latest installment of drone videos, the headquarters in charge of monitoring the elephant migration note that the herd may be contemplating to head back home. However, determining the herd's specific routes will need further research, officials say. https://dronedj.com/2021/06/22/new-drone-footage-china-elephants/#more-60843

23Jun21

FAA Launches Recreational Drone Test: TRUST Miriam McNabb June 22, 2021



The FAA has announced a list of approved organization to administer a recreational drone test, designed to provide recreational drone pilots with "aeronautical safety knowledge and an overview of the rules for operating drones in the National Airspace System".

The FAA Reauthorization Act of 2018 directed the FAA to develop a

recreational drone operator test: the <u>drone industry provided</u> stakeholder input, and the result is a free, online test administered by non-government test administrators. Recreational drone flyers who pass the test will be issued a completion certificate. When asked, a recreational drone pilot must provide evidence of having taken the test. Currently, however, the FAA has not announced a system to enforce test taking or to educate consumers about the test at time of purchase.

In addition to clubs such as the Academy of Model Aeronautics and the Boy Scouts of America, TRUST will be administered by qualified educational and training organizations across the country. <u>https://dronelife.com/2021/06/22/faa-launches-recreational-drone-test-trust/</u>

Mars helicopter Ingenuity nails 8th flight on the Red Planet Meghan Bartels 22June21



NASA's experimental Mars helicopter, <u>Ingenuity</u>, has now flown eight times on the Red Planet, traveling farther than scientists hoped would be possible.

The little chopper made its most recent <u>Mars</u> sortie on Monday (June 21). During the flight, Ingenuity remained aloft for 77.4 seconds, flew

525 feet (160 meters), and landed about 440 feet (133.5 m) away from its companion.



Monday's flight came about two weeks after <u>Ingenuity's previous flight</u>, on June 8. The success of the new flight marks a second flawless flight for the helicopter after <u>a difficult sixth flight</u> that tested the chopper's resilience.

Although Ingenuity was originally designed to fly only five times, its steady successes encouraged the agency to extend its mission and experiment with more ambitious flights. Whereas the helicopter's early flights began and ended in the same place, dubbed <u>Wright</u> <u>Brothers</u> Field, Ingenuity is now soaring from one new airfield to another. <u>https://www.space.com/mars-helicopter-ingenuity-8th-flight</u>

Honeywell, DENSO Partner to Develop Electric Propulsion Systems for

UAM RENEE KNIGHT JUNE 3, 2021



Through the alliance, the companies will draw from their automotive and aerospace backgrounds to deliver these systems for the urban air mobility (UAM) segment. The companies are in advanced discussions with current and prospective customers and plan to deliver flight test configurations in the next year.

"Mobility needs are changing, and this collaboration

represents how DENSO is evolving to meet them," said Jiro Ebihara, a senior executive officer and head of the Electrification Systems Business Group. "While we have committed to achieve a carbon-neutral society, we still need to reduce traffic and offer eco-friendly movement in population-dense areas. Working with Honeywell will help address both these issues and furthers our goal of creating mobility that is green and offers peace of mind."

The companies entered an initial teaming agreement in 2019. The electric propulsion systems created will integrate with Honeywell's fly-by-wire, avionics, and actuation systems. https://insideunmannedsystems.com/honeywell-denso-partner-to-develop-electric-propulsion-systems-for-uam/

Russia has flown prototypes of its six-seat hybrid VTOL Cyclocar Loz Blain June 20, 2021

Russia's Foundation for Advanced Research has already flown a 60-kg (132-lb) prototype of its Cyclocar VTOL aircraft, which uses a super-responsive cyclical propeller propulsion system. A full-size, long-range, six-seat Cyclocar is expected to fly in 2022.





While this would make cyclic propulsion a terrific solution for a gasoline-powered VTOL, the Russians are planning to use it with a hybrid propulsion system, with full electric drive and a rangeextending combustion generator. The six-seat aircraft is expected to fly at up to 250 km/h (155 mph) – this is a fair bit slower than many

multicopter designs, presumably because it has no wings and needs to keep its thrust vectored partially downward at all times.

Range, on the other hand, is huge at up to 500 km (310 miles) thanks to the excellent energy density of gasoline. The propulsion barrels will have a large diameter of 1.5 m (5 ft), and it'll carry up to six people, or 600 kg (1,323 lb) of payload, in either piloted, autonomous or remote-controlled trim. The team has worked out the kinks and complexities in the propulsion system flying sub-scale prototypes shown in the video. <u>https://newatlas.com/aircraft/russia-cyclocar-evtol-protoype-flight/</u>

U.S. and Israel huddle on Iran drone threat



Iranian Army drones on display in January.

The Biden administration and the Israeli government held talks recently on countering the proliferation of Iranian drones and cruise missiles among its proxies in Iraq, Yemen, Syria and Lebanon.

After several drone attacks from pro-Iranian militias

in recent weeks, some of which were thwarted, the U.S. and Israel are highly concerned that the technology will spread to additional groups who could target their forces in the region.

Al Asad Airbase, where most U.S. troops in Iraq are stationed, has been attacked repeatedly by pro-Iranian Shia militias.

During a meeting in Washington on April 27, national security advisor Jake Sullivan and his Israeli counterpart, Meir Ben Shabbat, agreed to establish an inter-agency working group to focus on unmanned aerial vehicles and precision-guided missiles produced by Iran and provided to its regional proxies. <u>https://www.axios.com/newsletters/axios-tel-aviv-9725159d-d6bf-4c20-aaff-</u>



<u>418cacf86d94.html?utm_source=newsletter&utm_medium=email&utm_campaign=newsletter_axiostel</u> <u>aviv&stream=world</u>

Tucson copter cop says mysterious, 'sophisticated' super-drone 'like no other'

Bruce Crumley Jun. 23rd 2021



Additional information has surfaced about the mysterious drone that officials in Tucson described as "highly modified" after it buzzed, then led a border patrol helicopter on a high-speed, hour-long chase before vanishing. A case summary of the incident details airborne police efforts to pursue and unsuccessfully identify the astonishingly

powerful craft described as "very sophisticated/specialized and able to perform like no other."

The <u>initial encounter</u> occurred just after 10 p.m. on Feb. 9, but was only revealed in May. The executive summary version is that a drone nearly collided with a Customs and Border Patrol helicopter above Tucson. The chopper then chased the craft over a veering, 70-mile course at speeds over 100 mph and altitudes of up to 14,000 feet. During that run, the escaping uncrewed aerial system (UAS) craft violated restricted airspaces – including those of an Air Force base and Tucson's airport – and displayed maneuverability and power reserves far beyond those of a consumer drone. Then it disappeared.

An hour after it began, the chase ended – ironically – with the TPD helicopter having to turn back for refueling, and the CBP unit unable to get another visual fix on the drone. The last time anyone saw it, the super-UAS was "flying in and out of the cloud base at 12,000 ft" before vanishing altogether. <u>https://dronedj.com/2021/06/23/update-tucson-copter-cop-says-mysterious-sophisticated-super-drone-like-no-other/#more-61124</u>

24Jun21

Hyundai's Urban Air Mobility Group Partners with ANRA on Traffic Management Solutions Miriam McNabb June 23, 2021



Hyundai's Urban Air Mobility group has a vision of urban air mobility that is based on the idea of interconnected mobility solutions. Hyundai's concept includes flying cars which they refer to as Personal Air Vehicles, purpose-built ground-based vehicles and a hub, which would link air-based vehicles, ground-

based vehicles, and their passengers. "Based on three interconnected mobility solutions,



Hyundai aims to free future cities and people from the constraints of time and distance and allow them to inject more opportunities into their day-to-day," says the Hyundai urban air mobility website.

The new partnership with ANRA is the start of an industry consortium that Hyundai plans to establish to build out the AAM operating system. ANRA will provide strategic insight on Hyundai's concept of operations for AAM airspace management and ground mobility integration. "The two companies will also identify research opportunities to help inform regulatory decisions and advance infrastructure projects".

https://dronelife.com/2021/06/23/hyundais-urban-air-mobility-group-partners-with-anra-on-trafficmanagement-solutions/

