

15Jan17

This New Drone is Designed to Transport Humans Michele Debczak

At the Consumer Electronics Show (CES) earlier this week, Chinese drone maker Ehang debuted their new, 440-pound drone featuring a cockpit built for one. The Ehang 184 can carry a single passenger weighing 220 pounds or less, and fly them at speeds reaching 63 miles per hour. The rider starts the journey by inputting their flight plan, and from there they only instruct the vehicle when to take off and land. The drone takes care of the rest.

During the flight, passengers can read by the 184's reading light while relaxing in the air-conditioned cockpit. And if anything should go wrong, a fail safe system kicks in that causes the drone to either revert to hover mode or find a safe spot to land. According to Derrick Xiong, the company's chief marketing officer, the vehicle has been operated over 100 times, including several trips with human cargo.

The Ehang 184 is not yet legal in the U.S., but the company told Mashable they're currently in contact with the FAA. If the passenger drone does hit the market any time soon, it's expected to be listed between \$200,000 and \$300,000. You can watch the drone in flight in the video below.

<http://mentalfloss.com/article/73430/new-drone-designed-transport-humans>

17Jan17

Companies Establish Commercial UAV Training Programs Amid Pilot Demand.

[ABC News](#) (1/14) reported that as demand for commercial UAV pilots outpaces the number of new licensed operators, some companies have established new training centers and online classes to spark early interest in students. Some also have partnered with schools to prepare prospective pilots for FAA licensure. SkySkopes Academy, which offers classes for a fee, is partnering with the University of North Dakota to start an internship program with the Minot Public Schools for high school UAV classes.

ADVANCED AIRCRAFT COMPANY

Advanced Aircraft Company (AAC) is an aeronautical engineering and manufacturing company founded in October 2015. We produce vertical take-off and landing (VTOL) unmanned aerial systems (UAS) that incorporate electric propulsion, based on current NASA research and development.



The Hercules VTOL multi-rotor UAS features eight propellers powered by electricity generated by a 2-stroke gasoline engine. The unique patent-pending aerodynamic design and hybrid electric propulsion offers more than six times the range and endurance of other products on the market and can carry multiple payloads, allowing the simultaneous collection of data in multiple spectra.

Greased Lightning is a transitioning VTOL fixed wing aircraft, offering aerodynamic efficiency. The design is licensed technology from NASA. Capable of linear infrastructure inspections at high speeds (yielding a low cost per mile), this UAV can also slow to a hover for more detailed inspections (to reduce false positives) and can repeat this procedure many times on a flight.



Greased Lightning VTOL UAV

To find out more about the Advanced Aircraft Company, please visit their profile page: www.unmannedsystemstechnology.com/company/advanced-aircraft-company/.

<http://www.unmannedsystemstechnology.com/company/advanced-aircraft-company/#tabs-overview>

Agribotix and senseFly Announce Agricultural Drone & Data Processing Solution Published: 16 Jan 2017

Agribotix and senseFly have partnered to offer a new combined agricultural drone and data processing solution for professional users. Combining senseFly's eBee drone with sensor and agricultural data processing technologies will make the collection and analysis of aerial data more straightforward and efficient.

By adopting the eBee SQ as its new fixed-wing drone platform, Agribotix is signaling its ongoing commitment to sourcing high-quality hardware to bundle with its FarmLens SaaS platform, a 100% agricultural data processing cloud solution. The eBee SQ is built around Parrot's Sequoia sensor. This features multispectral sensors that capture calibrated data across four highly distinct spectral bands (near-infrared, red-edge, red and green), plus RGB imagery, in a single flight.

<http://www.unmannedsystemstechnology.com/2017/01/agribotix-sensefly-announce-agricultural-drone-data-processing-solution/>

US DoD Releases Micro-Drone Swarm from Fighter Jets Published: 15 Jan 2017



The U.S. Department of Defense has carried out its largest ever test of micro-drone swarms at China Lake, California. In the trials, three F/A-18 Super Hornets released 103 Perdix drones mid-flight; the micro-drones then demonstrated advanced swarm behaviors such as collective decision-making, adaptive formation flying, and self-healing.

The swarm does not know how, exactly, it will perform the task before it is Dereleased. William Roper of the Department of Defense explained: "Perdix are not pre-programmed synchronized individuals, they are a collective organism, sharing one distributed brain for decision-making and adapting to each other like swarms in nature. Because every Perdix communicates and collaborates with every other Perdix, the swarm has no leader and can gracefully adapt to drones entering or exiting the team."

The demonstration is one of the first examples of the Pentagon using teams of small, inexpensive, autonomous systems to perform missions once achieved only by large, expensive ones.

<http://www.unmannedsystemstechnology.com/2017/01/us-department-defense-tests-drone-swarm-released-fighter-jet/>

Drone Delivery Canada to Begin Testing of UAS at Canada's Foremost UAS Range

By AUVSI News posted 6 days ago

With an eye towards developing UAS for package deliveries across Canada, Drone Delivery Canada (DDC) has announced that it will begin conducting tests of its technologies at Alberta's Foremost Centre for Unmanned Systems. Tests will begin in the first quarter of this year. "Unmanned vehicles are the fastest growing sector of the aerospace industry right now," says Doug Hanna, manager of the Foremost UAS Range, through the Calgary Sun. "So this is a timely thing, not just for Canada but for those foreign companies that want to come and fly here, too."

Testing at Foremost, which is Canada's first approved UAS test range, will allow Drone Delivery Canada to focus on beyond visual line of sight flights, as Foremost was granted permission by Transport Canada last November to begin BVLOS flight testing. Some of the features that make Foremost an ideal testing place include 700 square nautical miles of restricted airspace up to 18,000 feet above sea level, a mixed short grass ecosystem that doesn't have trees or forest, and visual flight weather 90 percent of the year.

<http://www.auvsi.org/blogs/auvsi-news/2017/01/11/drone-delivery-canada-to-begin-testing-of-uas-at-canadas-foremost-uas-range>

THE SENTINEL VDS DRONE INTENDS TO STOP SHARK ATTACKS BEFORE THEY HAPPEN By Garrett Hulfish — January 16, 2017 1:29 PM

For many beachgoers, there is always that fear of a shark attack in the back of their mind. Wouldn't you feel better if you knew for certain if a shark was present? That is exactly what the Sentinel VDS wants to provide. Sentinel VDS is a completely automated shark-detection system. Using an autonomous aerial system and sophisticated detection software, the system provides a safe haven for swimmers and surfers alike. The drone captures high definition footage while a computer processes it. If a shark is detected, an alert is given to warn ocean users of the threat.

While the project is still in its prototype stage, trials in Shark Bay, Australia have proved successful. The field test obtained a substantial amount of verified shark footage. In turn, this is then used to further improve on the system's species detection algorithm. Basically, the more sharks the drone detects, the fewer times other species — such as a dolphin — trigger the alarm.

Technically, the camera technology can be incorporated in any aerial vehicle, but Sentinel VDS has been testing with a fixed wing prototype. This allows for better coverage and mobility. The entire system can easily be transported and deployed at any location. This makes it ideal for specific events such as a surfing competition. <http://www.digitaltrends.com/outdoors/sentinel-vds-shark-drone/>

UAVs helping collect crop production data, farmers become more efficient By Blair Fannin, AgriLife Jan 14, 2017 0

The use of unmanned aerial vehicles, also known as UAVs, is providing large amounts of data that hold keys to unlocking valuable solutions in helping farmers become more efficient and increase profitability, according to a Texas A&M AgriLife Research agricultural engineer. Alex Thomasson spoke recently at the Texas Plant Protection Association Conference in Bryan. He is part of a 40-member team of researchers consisting of multiple flight teams using UAVs and sensing technology to find solutions to crop diseases and plant stress-related events such as drought.

Thomasson said field activities have concentrated at the 1,400-acre Texas A&M Farm near College Station using rotary and fixed-wing unmanned aerial vehicles. "Rotary aircraft tend to fly lower and slower than fixed-wing and provide much more detailed images but cover less ground," he said. "Among the objectives of the research program include developing workflows and techniques for precision agriculture, and phenotyping, which means measuring the physical characteristics of plants.

"We are using aerial sensors to speed up the phenotyping process. It's much more efficient than having graduate students walking through a field with rulers and notepads." Thermal aerial images can help determine the temperature of the plant, and other image types can help determine its height and other important characteristics, Thomasson said.

http://www.hpj.com/crops/uavs-helping-collect-crop-production-data-farmers-become-more-efficient/article_f802546c-2aad-54d6-a050-d44f26eef476.html

18Jan17

Protesters Call For Los Angeles Sheriff To Suspend UAV Plans.

The [Los Angeles Times](#) (1/17) reports that on Tuesday about 20 protesters "called on the Los Angeles County Sheriff's Department to immediately suspend plans to deploy" a UAV "in emergency situations, saying they feared the device will be used for warrantless surveillance." While Sheriff Jim McDonnell said last week that the UAV would not be used for surveillance, Stop LAPD Spying Coalition founder Hamid Khan and others argued that "mission creep" poses the risk of a change to that policy. While the sheriff claimed that the department's agreement with the FAA "prevented use of the drone for surveillance," a spokesperson for the agency said the FAA "regulates drone flights based only on safety, not purpose."

FAA Issues Largest-Ever Fine For Unauthorized UAV Flights.

[NBC News](#) (1/17) reports that on Tuesday, the FAA issued the "biggest fine on record" to a company for illegal UAV flights. Chicago-based SkyPan International "confirmed that it will pay \$200,000 to settle a case in which the FAA accused it of launching 65" unauthorized flights over Chicago and New York City from March 2012 to December 2014. The FAA had initially sought a "\$1.9 million penalty" for the company.

Chinese Authorities Detain UAV Operator After Close Call With Plane.

[CNN](#) (1/17) reports that Chinese authorities have detained the operator of a UAV that had a "close call" with a passenger plane at Hangzhou Xiaoshan International Airport in Zhejiang province. A video uploaded to a messaging app revealed the UAV's close proximity to the aircraft. DJI, the manufacturer of the Mavic Pro UAV used by the operator, expressed its "strong condemnation" of the incident.

19Jan17

Swiss Police Utilizing Anti-UAV Jammers For World Economic Forum Security.

[Bloomberg News](#) (1/18) reports that ahead of the World Economic Forum in Davos, “Swiss police were pictured this week...testing anti-drone jammers, which resemble massive machine guns, as part of security preparations.” The “jammers” are made by German firm HP Marketing & Consulting Wüst, and specialize in “blocking signals from drones more than 1,000 feet away.” When disabled, the UAV “wouldn’t just drop to the ground,” but instead “should hover in place within an invisible fence created by the jammer.”

Otherlab Details Its DARPA-Funded ICARUS Disposable UAV.

[Digital Trends](#) (1/18) reports that in an interview, Otherlab engineer Star Simpson discussed the company’s DARPA-funded disposable cardboard Inbound Controlled Air-Releasable Unrecoverable Systems (ICARUS) UAVs. The devices – which do not have engines – are designed to be released by a larger aircraft, glide to their destination with the aid of a mini computer’s guidance, and then biodegrade after delivering supplies. Simpson said, “We enable distributed delivery with precise landings, solving the ‘last leg’ problem for battlefield or low-infrastructure locations, and also reduce supply chain vulnerability in those cases.”

US Army Demonstrates JTARV “Hoverbike” Quadcopter.

The [Daily Mail](#) (1/18) reports that the US Army earlier this month demonstrated its joint tactical aerial resupply vehicle (JTARV), a rectangular-shaped quadcopter that has been nicknamed the “hoverbike.” The JTARV has been under development since 2014. Researchers “envision a future JTARV flying low to the ground at speeds of 60 miles per hour while delivering supplies within 30 minutes,” and “are also exploring increasing the payload capacity to 800 pounds and extending the range to 125 miles.”

20Jan17

Elettronica Provides Update On ADRIAN Anti-UAV System.

[Shephard Media](#) (1/19) reports that in an interview, an Elettronica (ELT) official discussed progress in the development of its ADRIAN (Anti-Drone Interception, Acquisition, Neutralisation) system, which Italy’s Ministry of Interior has ordered to be completed as soon as possible. Speaking at the Electronic Warfare Singapore conference, Alessio Campana of ELT’s capability marketing and scientific boards revealed that ADRIAN – which utilizes capabilities such as “global navigation system spoofing” – “successfully completed field trials last December.” The system “will be fielded by the government perhaps later this year after further tests are conducted.”

Idaho Community Colleges To Begin Offering UAV Piloting Classes.

The [AP](#) (1/19) reports that two Idaho community colleges “will offer classes on piloting [UAVs] to train people for jobs in the growing commercial” UAV industry. Two instructors from Hayden-based UAV company Empire Unmanned will teach the courses, one at North Idaho College starting in February and another at Treasure Valley Community College. The article notes that the FAA last year “removed a requirement that [UAV] operators also be licensed to pilot manned aircraft,” enabling “people to become certified through a 16-hour course and a test.”