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Chinese startups push into foreign markets

Firms such as Ehang and Musical.ly are discovering more opportunities abroad than at home



Mar 9th 2017| GUANGZHOU

ON THE outskirts of Guangzhou, a city in southern China, lies an abandoned park filled with crumbling replicas of the wonders of the world. To the right are fading golden spires that are meant to represent Angkor Wat, a temple in Cambodia. On the left, a row of dusty Egyptian statues towers over a desolate Greek amphitheatre. Adding to the surrealism, the tops of the trees have been lopped off and a buzzing noise fills the night air.

This strange place is the testing ground for EHang, a Chinese startup that makes drones. (The treetops were chopped off, an employee explains, because drones kept crashing into them.) Hu Huazhi, EHang's founder, is beaming. His firm has just set a world record for a drone-swarm light show in Guangzhou, where it flew a thousand small drones in perfect unison. Next it plans to launch an autonomous flying-taxi service with a giant drone big enough to take a person (pictured). Dubai has just signed a deal with EHang to launch drone taxis this summer.

<http://www.economist.com/news/business/21718541-firms-such-ehang-and-musically-are-discovering-more-opportunities-abroad>

US Officials: Smallsats Can Strengthen Resilience Of US Space Capabilities.

SPACE (3/12) reports that at the SATELLITE 2017 conference, participants from the US military discussed how deploying smallsats and dispersed systems can help the US mitigate potential losses to space capabilities in the event of a conflict. US Air Force Operationally Responsive Space Office Director Col. Shahnaz Punjani said that smallsats and “disaggregated architecture” represent the “smartest way to go” to ensure “minimum threshold capability in a timeline of need.” Beyond enhancing resiliency, Punjani explained that smallsats will drive down the cost of US military space systems and allow the Pentagon to upgrade constellations more frequently.

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March 27-29, 2017

Hyatt Regency Reston

1800 Presidents Street | Reston, VA
20190



Join us in welcoming FAA Administrator Michael P. Huerta to our prestigious lineup!

The FAA has taken major steps over the past year to move toward integrating UAS into the NAS in a manner that is both safe and efficient. FAA Administrator Michael P. Huerta will speak to the FAA's achievements to date as well as next steps toward full integration.

This Symposium will also feature an [FAA Executive Panel](#) moderated by Administrator Huerta with other high-ranking government officials and industry executives who are working on public policy to further the deployment of unmanned aircraft systems (UAS).



To register or for more information about the symposium, panels and speakers, visit www.auvsi.org/faasympoium.

Harris Corp to Develop First BVLOS UAS Network

Published: 14 Mar 2017



[Harris Corporation](#) has announced that it has received a two-year grant to help develop a first-of-its-kind solution to enable beyond-visual-line-of-sight (BVLOS) operations for unmanned aircraft systems (UAS).

Representatives from Harris and North Dakota announced a partnership agreement to create the first UAS network in the nation to provide a full range of aviation-grade services for safe and efficient UAS BVLOS operations. A UAS flight demonstration was conducted during Harris' Tech Expo.

Harris will partner with the University of North Dakota and the Northern Plains UAS Test Site to develop the network infrastructure system under a Research North Dakota grant awarded by the North Dakota Centers of Excellence Commission.

The grant includes the development of aviation-grade network services specifically for UAS operations. It is a continuation of a previous grant that included development and a risk and safety assessment of UAS detect-and-avoid technology. The UAS BVLOS network will be developed within the Grand Forks-to-Fargo corridor.

<http://www.unmannedsystemstechnology.com/2017/03/harris-corporation-help-develop-first-us-bvlos-network-drones/>

Thales and Unifyly Announce ECOsystem UAS Traffic Management System

Published: 09 Mar 2017



[Thales](#) has announced the launch of ECOsystem UTM, an advanced solution for Unmanned Aerial System Traffic Management (UTM), built with key technology from partner [Unifyly](#).

Joining forces to satisfy the growing need for UTM, the companies will leverage Thales's expertise in air traffic management, system integration and cyber security as well as Unifyly's dedicated focus on drone management to provide the UTM application. The solution will incorporate Unifyly's Validation Engine, a sophisticated software application that conducts real-time validation of drone flight plans, into Thales ECOsystem, a decision support platform for improved aviation operations.

Leveraging more than 10 years of research and technology innovation, ECOsystem moved from concept to reality to enable ANSPs, airlines and airport operators to plan, monitor, manage and assess aviation operations for better decisions and better results. Through a suite of tools and predictive analytics, stakeholders optimize their operations, as well as contribute to global optimization through data sharing and collaborative applications. Further, ECOsystem is configurable to the customers' operational requirements, from a global cloud-hosted service, to a local single-facility deployment.

<http://www.unmannedsystemstechnology.com/2017/03/thales-unifyly-announce-ecosystem-uas-traffic-management-system/>

Terra Drone Launches New Heavy-Lifting UAV

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[Terra Drone Corporation](#) has announced the launch of the new "Terra Powerlifter" unmanned aerial vehicle (UAV) series, continuing its focus on developing technologies for the benefit of Australia's agriculture, construction and resource sectors.

Offering up to two hours' continuous flight time and capable of carrying a heavy payload of up to 10 kilograms, the UAV is fully integrated with the RIEGL LiDAR (light detection and ranging) laser measurement systems for 3D mapping.

Terra Powerlifter does not require a long take-off or extra flight stabilisation despite its heavy payload, far exceeding the industry average 1-2 kg payload and flight time of 15-20 minutes. Terra Drone's Brisbane branch chief, Tsuyoshi Honda, said the new series offered Australian industry a best-in-class solution that had been tested in the harshest climatic conditions.

"Terra Powerlifter has already proven its effectiveness in Antarctica, where it supported scientific research with continuous single flights of up to 40 kilometres. It has also proven its worth in aerial vegetation surveys and in measuring particulate matter, with its state-of-the-art Japanese technology providing the ultimate in surveying and mapping," Mr Honda said.

<http://www.unmannedsystemstechnology.com/2017/03/terra-drone-corporation-announces-new-heavy-lifting-uav/>

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US Air Force Evaluating Use Of Small UAVs For Maintenance Inspections.

[Aviation International News](#) (3/14) reports that last week, the US Air Force revealed that it is evaluating the use of small UAVs for aircraft maintenance inspections and other applications. In the most recent demonstration, a new "emerging technologies combined test force" at Edwards Air Force Base demonstrated the capabilities of the 3DR Solo quadcopter in inspecting a Boeing C-17 Globemaster III. UAVs could cut the time required for external inspections from an hour to several minutes. The Air Force said that the inspection demonstration and an earlier test using a UAV to calibrate telemetry antennas were both promising.

Amazon Granted Patents For UAV Telescoping Legs, Foldable Propellers.

[GeekWire](#) (3/14) reports that on Tuesday, Amazon was granted two patents for UAV designs, one for telescoping landing legs and another for foldable propellers. According to the patent for the adjustable landing gear, the system is designed to keep the UAV level on uneven ground and "operate as a landing dampener to absorb shock" for fragile item delivery. The patent for the propeller design explains that reconfigurable "winglets" can "realign or readjust any attribute of a propeller" to increase flight efficiency.

US Air Force Orders Anti-UAV Net-Filled Shotgun Shells.

On its website, [Fox News](#) (3/14) reports that the US Air Force has ordered anti-UAV shotgun shells for evaluation. In late January, the service placed an order with AMTEC Less Lethal Systems for 600 12-gauge SkyNet Mi-5 shotgun shells, which deploy a five-foot wide net designed to disable UAVs that weigh less than 55 pounds. The shells offer the prospect of a cheap anti-UAV solution for the Air Force, and could garner interest from law enforcement agencies, depending on the results of testing.

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DJI Releases Study Showing UAVs Have Saved 59 Lives.

[Digital Trends](#) (3/15) reports that on Tuesday, DJI [released a study](#) (3/14) that found that UAVs "have rescued at least 59 people from life-threatening conditions in 18 separate incidents" since 2013. The study was based on an analysis of news reports and determined that rescues using UAVs

are quickly accelerating, with 39 of the 59 occurring in 2016 and 2017. DJI notes that “professional rescue crews are just beginning to adopt” UAVs. The study included only confirmed, published reports, and “DJI suggests the actual number is much higher.”

Democratic Lawmakers Propose Bill To Implement UAV Privacy Protections.

[The Hill](#) (3/15) reports that on Wednesday, Sen. Edward Markey (D-MA) and Rep. Peter Welch (D-VT) announced that they have introduced legislation that is designed to create privacy protections to address the government’s expanded use of UAVs. Markey said that the Drone Aircraft Privacy and Transparency Act would ensure that UAVs “cannot and will not be used to spy on Americans.” Welch said that “statutes must be updated to reflect the emergence of this soon-to-be ubiquitous technology.”

Senate Committee Examines UAV Integration Into National Airspace.

[Aviation News Today](#) (3/15) reports that at a Senate Commerce Committee hearing on Wednesday, lawmakers examined progress in implementing UAVs into the national airspace. FAA Office of Unmanned Aircraft Systems Integration Director Earl Lawrence told the panel that the agency is on track to begin its UAS Traffic Management (UTM) pilot program by April 2017 as required by the 2016 FAA extension. Chairman John Thune (R-SD) “said that innovation in the UAS industry needs to be protected as the regulatory framework continues to develop.”

Senate Panel Tackles Issue Of UAVs Flying Near Airports. [The Hill](#) (3/15) reports that during the hearing, lawmakers and airport officials raised concerns about the lack of solutions for UAVs flying near airports. Lawrence explained that the FAA is coordinating with partners to create a report on a “suite of technologies” for UAV mitigation, and said the agency expects to “come back with some good solutions” by this summer. Miami-Dade Aviation Department CEO Emilio Gonzalez said that his department has had to take action because UAV sighting required more “immediacy” than offered by the government’s progress. Sen. Tammy Duckworth (D-IL) said that “if something is not done” she will introduce legislation to address the problem

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Here's The Cutting Edge Weapon The U.S. Air Force Is Developing To Combat War Drones Justin T. Westbrook Wednesday 8:40pm

Lacking a long-term approach to tackle the increasing accessibility, flexibility and volatility of drone warfare, the U.S. Air Force is turning to small contract, quick turn-around solutions to defend against smaller and lighter unmanned aircraft threats. According to the justification document released by the Pentagon’s Joint Rapid Acquisition Cell last week, and as reported by our friends over at [The War Zone](#), testing is under way to develop a shotgun projectile designed to take out light unmanned aircraft by firing a weighted net with a foot-wide spread.

The net projectile is being developed by [ALS](#) to be compatible with the U.S. Air Force’s standard Remington 870 shotgun, but could also require a small muzzle attachment with barrel rifling to get the projectile spinning as it travels toward the little enemy drone at longer distances.

The small drones this new shotgun projectile is being developed against are classified in two categories; the first category of drones weigh less than 20 pounds and fly at an altitude of about 1,200 feet, and the second category weigh just over 50 pounds and fly at up to around 3,500 feet. The projectile system, fittingly called the “SkyNet Net Gun System”, has been tested alongside other anti-drone prototypes like electromagnetic wave guns and [drone-to-drone systems](#). The most recent documented test of the SkyNet system was in December of 2016.



[Watch a Drone-Hunting Quadcopter Attack Its Prey](#)

Now that everyone with a few hundred bucks to burn can become an amateur drone pilot, we're seeing...[Read more on gizmodo.com](#)

<http://foxtrotalpha.jalopnik.com/heres-the-cutting-edge-weapon-the-u-s-air-force-is-dev-1793287267>

Leidos Testing UAS Notification Service.

[Air Traffic Management](#) (3/16) reports that on Thursday, Leidos Flight Services [announced](#) (3/16) that it is testing a UAS Notification Service in coordination with Burlington Northern Santa Fe (BNSF) railways as part of the FAA UAS Pathfinder program. When a UAS operator files a flight plan for a "beyond visual line-of-sight" flight, the service sends automatic notifications to the operator and any other pilots scheduled to be in the area to facilitate "deconfliction" of potential collisions. Leidos began testing the service in September, and the company and BNSF are currently implementing the system in New Mexico for UAS inspection of railroads.

Canada Issues New Rules For Recreational UAVs.

The [Globe and Mail \(CAN\)](#) (3/16) reports that Canadian Transport Minister Marc Garneau has announced new "rigorous rules," effective immediately, governing the use of recreational UAVs. The safety restrictions forbid UAV operation within nine miles of any airport, within 75 meters of buildings, vehicles or people, at night, or near emergency scenes. Garneau, pointing to the recent increase in UAV incidents, said, "When there is a significant risk to aviation, I have the power to issue an immediate measure until new regulations can be enacted. And that is what I have done." Garneau noted that the government plans to propose new unmanned aircraft regulations in June.