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Why the World's Best Consumer Drones Aren't Just "Made in China," They're Designed and Developed There Too Clay Chandler May 27, 2017

DJI was founded in 2006 by Frank Wang, a Hangzhou native studying engineering at Hong Kong University of Science and Technology. Its first product, the Phantom quadcopter released in 2013, was for enthusiasts and professional photographers. Late last year, the company launched a smaller, more portable consumer drone called the Mavic Pro that was priced under \$1000 and delivered on features rivals had only promised. The Mavic Pro can fly for about 30 minutes on a single battery charge and has a range of 7 kilometers. It offers a 4K video and yet is is small enough to fold up and put in a book bag. The best thing about the Mavic is its unique software that enables it to detect obstacles mid-air and avoid crashes, and automatically return to "base" if runs low on power. The product drew rave reviews from customers.

DJI executives cite their location with the manufacturing ecosystem of southern China's Pearl River delta as critical to their success. The company has its own manufacturing facilities. Engineers can test prototypes in neighboring facilities, speeding product development. DJI can recruit from a large pool of engineering talent. They can't imagine trying to manage all that from a research park half a world away.

Spark, the new mini-drone, is a classic example of Chinese innovation. It has a range of only 2-kilometers and can stay aloft for just 16 minutes. But it offers many of the same software features as the Mavic, and can be controlled by hand gestures, a big plus for beginners. (Read TIME's Spark review here.) Spark's rollout prompted analysts at the *Motley Fool* to declare: "GroPro's Karma is Now Dead in the Water."

Smug assumptions about China's "inability" to innovate deserve a similar fate.

http://fortune.com/2017/05/27/the-worlds-best-consumer-drones-arent-just-made-in-china-theyre-designed-and-developed-there-too/

NOT EXACTLY CANNES, THIS FILM FEST IS FARGO _ WITH DRONES

DAVE KOLPACK, Associated Press, May. 27, 2017 10:30 AM ET

"Apparently there's a bigger appetite for film festivals in the drone space than we even imagined," said Greg Tehven, executive director of Emerging Prairie, the nonprofit that sponsors the conference.

The festival is nothing like those put on for traditional film. Entries had to be 5 minutes or less, with at least half the footage from drone cameras.

Categories included narrative, landscape and architecture, showreel, lifestyle and work by students. Conference attendees will also vote on a people's choice award.



One of the judges, longtime professional photographer John Borge, said the learning curve for filming with drones can be steep. When he started using drones about four years ago, it was a fairly crude process and he needed to think differently about using light, movement, composition and flow.

The strongest films he judged were the ones "where you felt you were involved with it and it took you somewhere." He said there are times that an irresistible shot needs to be cut because it doesn't mesh with the rest of the piece.

"Sometimes there is such a cool shot but it doesn't fit, but you can tell they just had to use it. It was so great, it was so stunning, it was so beautiful, but it didn't tie together," Borge said. "The tricky thing, I think, is to make great video that isn't just great because it's shot from the air."

Kuhlman, who plans to attend Embry Riddle Aeronautical University in the fall, said he had a great time making his film and expressing his creativity. He and a friend started a clothing line six months ago, and they plan to use drone video and photography to promote it.

http://www.apnewsarchive.com/2017/Organizers-of-a-drone-film-festival-in-a-state-known-for-unmanned-aircraft-were-surprised-to-receive-entries-from-21-countries/id-96dee957ef644839888e7fe6b7449b2e

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FAA Ponders Next Move In Small-UAS Battle

May 25, 2017 Graham Warwick | Aerospace Daily & Defense Report



In December 2015, the <u>FAA</u> introduced a hurriedly conceived, small-unmanned aircraft system (UAS) registration rule ahead of an expected Christmas surge in drone sales. Since then, more than 820,000 recreational and commercial owners have registered their drones.

But Congress never incorporated the registration requirement into legislation, and the inevitable happened. On May 18, in a lawsuit brought by model-aircraft hobbyist John Taylor, the U.S. District Court for the District of Columbia struck down the requirement to register recreational drones weighing more than 0.55 lb.

The FAA said it is reviewing the decision and considering its options, but industry experts believe an appeal would not succeed because the Registration Rule was never enshrined in legislation. They expect the FAA will have to go back to Congress for statutory authority, but



question whether lawmakers have the will or the time to incorporate the change into a new FAA reauthorization bill. http://aviationweek.com/defense/faa-ponders-next-move-small-uas-battle?NL=AW-05&lssue=AW-05 20170529 AW-

<u>05_544&sfvc4enews=42&cl=article_5_4&utm_rid=CPEN1000003332045&utm_campaign=1021</u> <u>5&utm_medium=email&elq2=68b43d046a004df2bfd9a71563828e46</u>

Big Russian bank wants to use drones to deliver cash May 29, 2017



Russia's largest bank, Sberbank, wants to introduce technology to allow clients to have cash delivered by drones.

"We have been experimenting over the past year. Cash is delivered in special containers. If the container with money is stolen, it is programmed to inject paint, which turns the cash into paper. This function is controlled remotely," Sberban CEO Herman Gref told TASS news agency. Last week, Deputy Chairman of Sberbank Stanislav Kuznetsov told reporters he does not rule out using drones in Russia's Kazan within a month.

Other bankers are more skeptical. Cash delivery by drones sound interesting, but not feasible, TKB bank Vice President Igor Antonov told Vedomosti. The main problem is security, because drones are easily intercepted and shot down, he said. Gref claimed the technology is safer than plastic cards and stressed it can identify if a person is under duress or when fraudsters steal customer information.

Sberbank is Russia's largest bank with 16,000 branches throughout the country located across 11 time zones and employs 260,000 people. http://travelwirenews.com/big-russian-bank-wants-to-use-drones-to-deliver-cash-115539/#.WSv14MRmTdc.email

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Senators Introduce New UAS Legislation.

Aero-News Network (5/29) reports that Sens. Tom Cotton (R-AR), Dianne Feinstein (D-CA), Mike Lee (R-UT), and Richard Blumenthal (D-CT) have introduced legislation called "the Drone Federalism Act," which Sen. Cotton said aims to "return power to regulate everyday drone use to the proper level, states and local communities."





Cotton added, "By passing this legislation, we will protect private property rights and allow local communities to tailor drone rules to their specific needs." Sen. Feinstein said that the bill would enable communities "to create low-altitude speed limits, local no-drone zones or rules that are appropriate to their own circumstances." http://www.aero-news.net/bannertransfer.cfm?do=main.textpost&id=2ce65e5f-3c29-4e7e-9f71-40c3d24ea6e7

Bill Would Authorize Federal Government To Track, Destroy UAS Deemed Threats To Security.

Aero-News Network (5/27) reported that draft legislation is being circulated "among several Congressional Committees" to "give the federal government the ability to track, take control of, and if necessary destroy" UAS it identifies as a threat to security, as part of the National Defense Authorization Act (NDAA). The draft bill contains language that would authorize the federal government to "Detect, identify, monitor, or track, without prior consent, an unmanned aircraft system...or payload, or cargo, to evaluate whether it poses a threat to the safety or security of a covered facility, location... including by means of interception of or other access to wire, oral, electronic, or radio communications or signals."

Japan To Finalize UAV Package Delivery Strategy.

Reuters (5/29) reports that Japan is planning to authorize UAV package delivery "sometime from 2020," and will "temporarily ease regulations for some firms" in order to "allow companies to test new technologies right away."



According to Reuters, the move "is urgent for Japan," as a shrinking workforce has forced its largest package shipper, Yamato Holdings, to "cut delivery volumes and hike prices because it did not have enough workers." http://www.reuters.com/article/us-japan-economy-drones-idUSKBN18P0LP

Transport Canada Authorizes Deveron To Operate UAS.

<u>Proactive Investors US/CAN</u> (5/29) reports that Canada's Transport Ministry has authorized Deveron UAS Corp to operate its unmanned aircraft "across Canada," for purposes of "aerial data collection and surveying."





Transport Canada said that "Deveron is one of the first companies in the country to receive this status as well as one of the first to receive compliant approval using the senseFly eBee [UAS]." http://www.proactiveinvestors.com/companies/news/178433/deveron-uas-corp-shares-fly-higher-as-it-s-approved-to-operate-drones-across-canada-178433.html

10+ Cities Like You've Probably Never Seen Before By varynya

Walking around towns and taking photos of their places of interest you may not see the whole picture: the view from the ground doesn't permit you to fully appreciate the scale and geometry of architectural memorials.

The Russian AirPano team of photographers rises to the sky to show you different places of our planet from above.

Drone views – Paris and Dubai are particularly impressive - Bob

http://www.boredpanda.com/we-have-captured-views-of-the-cities-in-a-such-a-way-that-people-normally-dont-see/?utm_source=facebook&utm_medium=link&utm_campaign=BPFacebook

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MQ-9B UAS Flies 48.2 Hours Non-Stop.

The <u>Daily Mail</u> (5/30) reports that General Atomics' MQ-9B SkyGuardian UAS set a new company endurance record by flying non-stop for 48.2 hours, "at 240 miles per hour and returning with reserve fuel."



The previous record was 46.1 hours, set by the company's Predator XP UAS. General Atomics Aeronautical Systems CEO Linden Blue said, "This long-endurance flight is not only a significant achievement for our MQ-9B SkyGuardian aircraft but also a very timely landmark event for our company as we celebrate 25 years of aviation innovation this year."

http://www.dailymail.co.uk/sciencetech/article-4556508/Record-breaking-Predator-drone-fly-48-hours.html



Chao To Kick Off Drone Conference In North Dakota.

The <u>AP</u> (5/30) reports that Transportation Secretary Elaine Chao will kick off a two-day Drone Focus Conference in Fargo, North Dakota on Wednesday. Chao is one of 45 individuals who will speak at the conference, including Sen. John Hoeven (R-ND). While in the state, Chao also will "meet with representatives from Grand Forks to learn about regional research, operations and development of unmanned aircraft."

New Zealand Senator Pledges UAV Regulation Will Not Inhibit Use For Agriculture.

<u>Farm Online (AUS)</u> (5/30) reports that New Zealand Senator Barry O'Sullivan said that the government intends to avoid a "one size fits all" approach to UAV regulation that would inhibit the development and use of UAVs for agricultural purposes.



O'Sullivan is on a Senate committee looking into "regulatory requirements underpinning the safe use of" UAVs. The committee plans to issue recommendations in seven months, but O'Sullivan "said some interim laws were needed 'right now' which won't affect agricultural settings." http://www.farmonline.com.au/story/4698515/osullivan-pledges-minimalist-attitude-to-drone-laws-on-agriculture/

Springfield Beckley Municipal Airport installing radar to help UAS fly BLOS AUVSI (5/24/2017)

In June, crews at the Springfield Beckley Municipal Airport in Clark County, Ohio will begin installing a new radar that would allow an air traffic controller looking at the special radar on the ground in a trailer to guide UAS operators, while air traffic controllers in the tower would continue to focus on planes. The \$5 million bill for the radar will be paid for by the Air Force and the state of Ohio. Both entities hope that the "first-of-its-kind testing" of the radar will lead to FAA approval for beyond line of sight (BLOS) flight.

Aeryon Labs provides SkyRanger UAS to help assess tornado damage in Oklahoma AUVSI (5/25/2017)

Aeryon Labs provided its SkyRanger small UAS to help rapidly and safely assess the damage caused by an EF-2 tornado that took place in Elk City, Oklahoma on May 16.





The SkyRanger UAS was used to collect more than one hour of high definition video and georeferenced still imagery over the tornado's damage. https://www.auvsi.org/blogs/auvsi-news/2017/05/25/aeryon-labs-provides-skyranger-uas-to-help-assess-tornado-damage-in-oklahoma

Avion Unmanned helps Limestone County Sheriff's Office receive COA from the FAA to operate UAS AUVSI News

The Limestone County Sheriff's Office (LCSO) in Athens, Alabama will now begin implementing UAS into their daily operations, after receiving a Certificate of Authorization (COA) from the FAA. The FAA, in coordination with the local Air Traffic Organization (ATO) at Huntsville International Airport, issued the COA, which authorizes the LCSO to operate UAS within Limestone County, as well as in surrounding areas.

The LCSO received support from Huntsville, Alabama-based Avion Unmanned, which is a commercial branch of Avion Solutions, Inc. Avion Unmanned provided officers and deputies within the department with training on how to become FAA-compliant, legal, and safe UAS operators.



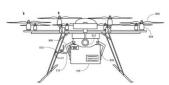
Avion Unmanned also helped develop the operating procedures of the agency, as well as the COA requests. Taylor Abington, Avion's UAS Program Manager, says, "the only way to be effective with a tool is to be properly trained in how to use it." http://www.auvsi.org/blogs/auvsi-news/2017/05/24/avion-unmanned-helps-limestone-county-sheriffs-office-receive-coa-from-the-faa-to-operate-uas

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Amazon patents shipping label with built-in parachute for dropping packages from drones NATLEVY May 30, 2017







A drone could someday drop off a package that gently lands in someone's yard thanks to a shipping label with a built in parachute. (Amazon Illustrations via USPTO) It's a bird, it's a plane ... oh wait, it's my package of diapers.

Amazon customers could someday be repeating this phrase as the online retail giant this morning <u>received a patent</u> for a shipping label with a built in parachute to help packages make a soft landing when dropped out of the air by drone or other airborne craft.

According to the newly issued patent from the U.S. Patent and Trademark Office, the parachute label could look and act just like any other shipping label, but underneath is a system of cords, a parachute, a breakaway cover and possibly a harness to keep everything in place. The package could also be loaded with sensors to make sure the package hits its landing zone and a shock absorber in case the cargo is coming in a little too hot.

Parachutes could be of all different shapes and sizes and Amazon could apply multiple parachute labels to keep larger, heavier items from careening to the ground. Static lines would attach packages to drones. When it is time to deliver, the line pulls the shipping label off, opening up the parachute. https://www.qeekwire.com/2017/amazon-patents-shipping-label-built-parachute-dropping-packages-drones/

17 BREATHTAKING DRONE PHOTOS THAT SHOW THE MAJESTY OF OUR WORLD

By <u>Dallon Adams</u> — Updated May 31, 2017

https://www.digitaltrends.com/photography/best-drone-photos/

Chao Says Modernization Needed To Manage "Rapidly Evolving" UAS Technology.

The <u>Forum of Fargo-Moorhead (ND)</u> (5/31) reports that at the start of the third annual Drone Focus Conference held in Fargo, North Dakota on Wednesday, Transportation Secretary Elaine Chao said that the Trump Administration is working to address the challenges facing the UAS industry.





Speaking alongside Chao, North Dakota Gov. Doug Burgum announced the creation of a task force designed to provide support for the development of UAS technology in North Dakota, the <u>AP</u> (5/31) reports. Burgum said that the UAS Detection and Counter-UAS Task Force will examine opportunities in government, business and research for drone technology and will work with operators seeking to test out detection and countermeasures in the state. http://www.inforum.com/business/4276074-high-hopes-big-challenges-us-transportation-secretary-outlines-need-modernization

China Institutes New UAS Regulations.

Reuters (5/31) reports that on Thursday, the Civil Aviation Administration of China (CAAC) instituted new laws requiring that civilian UAS weighing more than 250 grams "be registered under real names, in an effort to improve the safety of its skies." CAAC Deputy Director of Traffic Management Zhang Ruiqing said that CAAC also intends to introduce a permitting system for agricultural spraying and filming by UAS.

California Senate Passes Bill That Would Further Regulate UAV Use.

The <u>Los Angeles Times</u> (5/31) reports that in a 26-13 vote, the California State Senate passed a bill introduced by State Sen. Hannah-Beth Jackson that would "limit disruptive drone use near private property and prohibit the weaponization and reckless operation of the unmanned aerial vehicles."



The bill also would "require pilots to obtain insurance and to license, register and mark the aircrafts per federal regulations." The Times adds that the bill now moves on to the State Assembly. http://www.latimes.com/politics/essential/la-pol-ca-essential-politics-updates-california-lawmakers-take-another-aim-1496275036-htmlstory.html

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China's Solar-Powered Caihong UAV Sets Domestic Altitude Record.

<u>China Daily</u> (6/2) reports that China's Caihong solar-powered UAV has set "a domestic record for flight ceiling by reaching an altitude of over 20,000 meters," according to China Academy of Aerospace Aerodynamics' Shi Wen, who heads UAV development at the organization.





The aircraft is being developed for applications in "communications, internet, Earth observation, emergency response and marine survey and inspection." The article mentions that the AeroVironment Helios Prototype holds the altitude record of 29,524 m for a solar UAV.