

3Apr17

Swiss Postal Service Planning Use Of UAVs For Medical Deliveries.

[Fortune](#) (3/31) reported that on Friday, Switzerland's national postal service announced that it plans to use UAVs to conduct medical deliveries for two major hospitals by next year. Over the past year, the Swiss Post has been working with US-based UAV company Matternet to conduct test deliveries under the oversight of the country's Federal Office for Civil Aviation, which "appears to be more welcoming" to such projects than the FAA. The Swiss Post said that as soon as all testing requirements are met, "the regular use of drones between the two hospitals will become an everyday occurrence."

"Drone Hive" Designed To Automate Swarming Mini UAV Operations.

[Shephard Media](#) (3/31) reported that at SOFINS (Special Operations Forces Innovations Network Seminar Exhibition), French start-up Drone Hive displayed its new concept, also called Drone Hive, designed to automate the operation of multiple mini multi-rotor UAVs. The system "mimics the hexagonal shape of a bee hive," with each UAV docked in a separate box as a home base for automated landing, sheltering, battery charging, take-off, and mission following. The French Special Operations Command "has approached the company" about integrating the Hive system with a tactical vehicle.

UAVs Becoming More Popular Among First Responders.

[ABC World News Tonight](#) (4/2, story 11, 1:20) reported that UAV use among first responders is growing, with teams increasingly using them in emergency situations such as manhunts, fires, missing person cases, and rescue situations. According to first responders, UAVs are "helping them tackle emergencies better and faster on the ground."

Connecticut Bill Would Make State First To Allow Law Enforcement Use Of Lethal UAVs.

[Reuters](#) (3/31) reported that last week, a Connecticut state legislature's judiciary committee approved a bill that, if passed by both houses and signed into law, would make the state the first in the US to allow law enforcement agencies to use weaponized, lethal UAVs. Just prior to the committee vote on a bill that "would ban so-called weaponized drones in the state," the legislation was amended to exclude law enforcement from the ban. Civil rights groups are pressing for the original language to be restored. While North Dakota began permitting law enforcement agencies to use armed UAVs in 2015, it limited them to "less than lethal" weapons.

New Mexico Lt. Gov. Sanchez Elected ASA Vice Chairman.

In its "Briefcase" roundup of local developments, the [Albuquerque \(NM\) Journal](#) (4/3) reports that New Mexico Lt. Gov. John Sanchez has been elected vice chairman of the Aerospace States Association (ASA).

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FLIR's Prox Dynamics Developing New, Larger Black Hornet Nano UAV.

[IHS Jane's 360](#) (4/3) reports that FLIR's Prox Dynamics is developing a new, larger version of its PD-100 Black Hornet nano rotary-wing UAV. Compared to the current Black Hornet 2's weight of 18 g, the Black Hornet 3 will weigh "as much as 35 g," but will retain its predecessor's primary role "as a soldier-borne close reconnaissance asset" carried on combat vests. FLIR Systems Director of UAS

Business Development Ole Aguirre said that the Black Hornet 3 will not exceed the 63 g weight maximum for class 0 UAV status.

Annual UAV Complaints In UK Have Risen Twelvefold Since 2014.

[CNBC](#) (4/3) reports on its website that according to data obtained by the Press Association through a freedom of information request, the number of UAV complaints logged by police in the UK rose to 3,456 last year – almost triple that of the 1,237 recorded in 2015 and more than twelve times the 283 incidents reported in 2014. The rise indicates “that the commercial success of the devices has brought with it a growing public nuisance.” In response to the growing proliferation of UAVs, UK ministers are considering several measures including mandatory registration of new unmanned aircraft.

Airobotics Approved to Fly Fully-Automated BVLOS Drones

31 Mar 2017



[Airobotics](#) has announced that it has been granted authorization by the Civil Aviation Authority of Israel (CAAI) to fly fully automated drones without a pilot, allowing for Beyond Visual Line of Sight (BVLOS) commercial drone operations. Airobotics claims that the certification is a world-first. Airobotics' computer software and artificial intelligence takes on decisions and actions that are usually performed by a human drone pilot, potentially solving some of the biggest problems for the drone market, such as high costs of labor, increased logistics around drone operations, expensive and lengthy training of aircrew as well as enabling customers that are not drone experts to perform highly complex drone missions.

Airobotics' drone system has already been operated in automated BVLOS mode without a certified UAV pilot at Airobotics' first customer sites, Israel Chemicals (ICL) and Intel in Israel. Intel and ICL were instrumental as Airobotics' first customers, and they continue to allow CAAI and Airobotics to conduct series of tests.

Based on the experience Airobotics has gained in Israel, the company is scaling its operations to additional markets, starting with Australia and USA. Airobotics recently announced its first customer in Australia, the mining company South32. Airobotics has been granted a commercial license from CASA (Civil Aviation Safety Authority) in Australia and with an FAA waiver authorisation under Part 107 in the US. <http://www.unmannedsystemstechnology.com/2017/03/airobotics-granted-approval-fly-fully-automated-commercial-drones/>

New UAV Provides Full 4G Cell Phone Service

03 Apr 2017



[Fenix Group](#), a private technology firm, has announced that, in partnership with [Martin UAV](#), it has launched what it claims is the world's first under-55-lbs. drone capable of providing fully functional 4G cell phone service.

While Fenix Group's focus is in providing technology & direct support to DoD and partner forces worldwide, the utility for a flying cell phone tower – complete with subscriber database & billing functionality, means connectivity in the most remote parts of the world. In addition to providing a coverage area on the ground, the payload is also able to stream encrypted video from the drone's camera system to anyone on the network. In the future, soldiers, search and rescue teams, and first responders will have access to drone video from their phones. The Fenix team also enabled Internet access so that command centers could access the feed from anywhere in the world.

<http://www.unmannedsystemstechnology.com/2017/04/fenix-group-martin-uav-launch-4g-service-providing-drone/>

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Advanced Tactics Completes First Aerial Package Delivery Test Using Panther sUAS Air/Ground Robot [AUVSI News](#)

Advanced Tactics Inc. (AT) has announced that it has successfully completed its first aerial package delivery test, using its Panther sUAS Air/Ground Robot, which can operate as a UAS, and once on the ground, operate as a UGV.

During its successful package delivery test, the battery powered Panther flew to its location, landed, and drove to the doorstep of a Torrance, California man to deliver a package. Besides its ability to operate as both a UAS and a UGV, some of the features that make the Panther stand out from other technologies are its ability to lift a payload as heavy as 15 pounds and its autonomous waypoint navigation, which helps it travel on its own.

Using the company's current FPV goggles, an operator can control the vehicle from miles away when the system is in the air or on the ground, using the correct transmitters and receivers.

<http://www.auvsi.org/blogs/auvsi-news/2017/03/30/advanced-tactics-completes-first-aerial-package-delivery-test-using-panther-suas-airground-robot>



AT Panther in package delivery test flight.

FAA Tech Chief Says Agency Is “Working Hard” On Ways To Integrate UAVs Safely Into Airspace.

In a blog, [Philly \(PA\)](#) (4/4) reports that FAA Technical Center Director Shelley Yak told lawmakers Tuesday that the agency is researching and testing concepts that will help “form the basis of a new 21st-century aviation infrastructure,” including a UAV traffic management system. Speaking during a hearing of the US House Transportation Subcommittee on Aviation, Yak said, “The FAA is looking at everything involved in integrating drones in a safe way into our airspace” and explained that the agency is “working hard with rulings we’ve just put out, and working with industry to develop concepts and operations.”

US Marine Corps Looking At Multiple Vendors For Small UAV Program.

[Seapower Magazine](#) (4/4) reports that Marine Corps Small UAS Program Manager Col. Eldon Metzger said Tuesday that the service is “looking at multiple vendors” for a new five-year contract for close-range UAVs. Speaking at the Sea-Air-Space Exposition, Metzger said that the re-compete for the “Close Range Multiple Award Contract” seeks small UAVs with an operating endurance of about 10 hours.

One of These Drones Could Save Your Life

by STEVEN ASHLEY



A delivery drops from a Zipline drone

You've just exited a scenic stretch of twisty mountain roads when suddenly the view's no longer scenic: A tourist bus has tipped over and slipped into a gully, evidently just minutes before. After pulling over, you call 911. Soon after, as you're searching your car for supplies, a flashing light appears overhead, accompanied by a buzzing sound. You look skyward to see that a helping hand has come to the rescue; an EMS response drone drops from the heavens *deux ex machina*. The 3-feet-tall, 6-feet-diameter octo-copter has been automatically guided to your location using your smartphone's GPS coordinates.



It lands nearby, carrying a kit stuffed with meds, gauze and bandages, a chest seal, clotting sponges, scissors, and tourniquets. As you rummage through it, a video screen inside lights up and a face appears. "I'm an emergency care physician. I'm here to help." Such a futuristic scenario will become reality soon if Dr. Italo Subbarao, senior associate dean at William Carey University College of Osteopathic Medicine in Hattiesburg, Miss., has anything to do with it. In December, Subbarao and a medical student demonstrated how [two new disaster drones](#) they've developed could deliver 'telemedical' packages to victims and rescue personnel in a [simulated mass-casualty event](#).
<http://www.nbcnews.com/mach/innovation/one-these-drones-just-might-save-your-life-n706206>

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NRL eyes CICADA swarm tests

Geoff Fein, National Harbor, Maryland - IHS Jane's International Defence Review 05 April 2017

The US Naval Research Laboratory (NRL) is planning swarming tests of its Close-In Covert Autonomous Disposable Aircraft (CICADA) MK5 from a US Navy P-3 Orion aircraft. CICADA is a palm-sized unmanned aerial vehicle (UAV) designed to be deployed from a sonobuoy canister and in essence is a flying circuit board with autopilot controls built into the wings.



The air vehicle is GPS guided and self-stabilizes using spin recovery maneuvers that have been tested at a wind tunnel at the NASA Langley Research Center, an NRL spokesperson told Jane's, at the Navy League Sea, Air, Space symposium at National Harbor, Maryland, on 5 April.

CICADA currently carries Micro-Electro-Mechanical- (MEM)-based pressure, temperature, and humidity sensors, and estimates the vertical wind profile during descent. CICADA uses an onboard GPS to provide position, time and altitude and guide itself to a specific location on the battlefield. The CICADA has a 65 g flight weight and descends at a rate of around 1,000 ft per minute.

The MK5 fits into a sonobuoy tube fitted with a parachute. After being launched from an aircraft, the canister releases all the CICADAs. A single tube can hold 32 of the small air vehicles, stacked two at

a time, nose to tail. <http://www.janes.com/article/69320/navy-league-2017-nrl-eyes-cicada-swarm-tests>

This Tiny Drone Can Pollinate Flowers Like a Bee

By Nick Leiber, [Bloomberg](#) March 23, 2017



Innovator Eijiro Miyako **Age** 37, Senior researcher at the National Institute of Advanced Industrial Science and Technology Tsukuba, Japan

Miyako has invented an adhesive gel that collects flowers' pollen grains and deposits them on other flowers upon contact. His goal is to offer farmers a tool to complement, not replace, bees and other natural pollinators. The gel is applied to a small patch of horsehair anchored to the underside of a butterfly-size commercial drone. The water-resistant gel is durable but soft enough to avoid damaging the flowers.

Miyako pilots the drone from flower to flower, rubbing the horsehair against pistils and stamens. Like the adhesive in a Post-It note, the gel is tacky but not sticky, so it releases some of the pollen grains on contact. Last year he received a \$32,000 grant from the Japan Society for the Promotion of Science to further develop them.

<http://finance.yahoo.com/news/tiny-drone-pollinate-flowers-bee-230013987.html>

DJI Agras MG-1S Drone for Farmers

By [robot man](#) March 21



Meet the DJI Agras MG-1S: a flying machine with an advanced sprayer and sensor system that allows farmers to monitor the health of their crops more efficiently. It comes with an advanced flight controller and redundancy for a reliable performance. This aircraft has wave radars on the front slope, rear slope, and the bottom. These radars allow the vehicle to detect the terrain and adjust its height. As conditions change, the MG-1S is capable of adapting. Farmers get a controller with a 5.5" display to interact with the drone. More info is available [here](#).

<http://www.roboticgizmos.com/dji-agras-mg-1s-drone-farmers/>

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Nevada UAV Officials Preparing For Expected Industry Growth.

The [Las Vegas Review-Journal](#) (4/6) reports that Nevada UAS Test Site Director Chris Walach said that the team he leads at the Nevada Institute for Autonomous Systems (NIAS) is working to make sure the state is prepared to meet the demand of an industry that the FAA expects will post tremendous growth over the next five years. The NIAS site is one of six FAA-designated test locations working with the agency to “develop an air corridor for long-distance drone travel across the state and regulations to allow drone operators to fly drones past their line of sight,” and the group also is “working with companies to build training programs for pilots and drone operations.”

Study Reveals Rise In Number Of US Public Agencies Flying UAVs.

[Bloomberg News](#) (4/6) reports that a team of Bard College researchers released a study Thursday that found at least 347 municipal agencies in the US, including 167 police departments, were flying UAVs last year. The report showed that more public agencies acquired UAVs in 2016 “than in all previous years combined.”