HawkEye360 Raises \$11 Million To Launch Smallsats.

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MMC Introduces New Multi-Function Commercial UAV: 28 Nov 2016

Shenzhen drone manufacturer MMC has introduced F6 Plus, a multi-function drone with interchangeable mounts for a number of industrial and commercial applications.

The F6 Plus offers customizable features including:

200 payloads

Commercial customized payloads are configured to meet the needs of any mission

Plug-and-play universal mount system

Plug-and-play system provides an ideal platform for development

Automatic safety kill switch.

Weighing 15.6 kg, including batteries, the F6 Plus falls under U.S. Small UAS regulations and can carry a large capacity 10 kg payload.

While many industrial drones are designed for a specific application, the F6 Plus is a truly cross-functional unit – making it an extremely cost-effective option for industries like law enforcement and security, where one drone may be required to serve multiple functions including crowd control, surveillance, or search and rescue. http://www.unmannedsystemstechnology.com/2016/11/mmc-introduces-new-multi-function-commercial-uav/

29Nov16

FAA Releases New UAV Safety Video.

American Security Today (11/27) reports that the FAA has released a new educational video on applicable federal rules and regulations UAV pilots must follow. American Security Today adds that the video also informs pilots on "how to get the FAA's B4UFLY smartphone app," which "provides the latest information about airspace restrictions wherever you intend to fly your drone."

New Cloud-Based UAV Platform to aid Autonomous Search and Rescue: 29 Nov 2016

Mouser Electronics, together with Easy Aerial and engineer Grant Imahara, has announced the launch of its newest entry in the Empowering Innovation Together program, Project First Responders, which features a cloud-based drone platform called GlobalARC for autonomous search and rescue. The drone project will be developed in the Mouser Innovation Lab with parts from sponsor TE Connectivity.

Project First Responders seeks to answer some of the biggest problems facing search and rescue drone operations, such as how to coordinate multiple drones at once, from locations anywhere in the world, and share information with experts dispersed at various geographic locations. "With the Empowering Innovation Together program, Mouser looks to push the boundaries of innovation. This new series goes even further by developing technology that may help save lives," said Glenn Smith, President and CEO of Mouser Electronics.

Mouser partnered with Easy Aerial to develop a GSM-based solution capable of controlling multiple drones while sharing information in real time, using existing cellular infrastructure. The GlobalARC platform will allow drones to be outfitted with a range of sensors that capture important information such as video, heat imaging, chemical detection, and radiation to help first responders determine when disaster sites are safe to enter.

http://www.unmannedsystemstechnology.com/2016/11/mouser-electronics-and-easy-aerial-to-develop-search-and-rescue-drone-platform/

30Nov16

DroneShield Releases Signal-Jamming DroneGun Rifle.

The <u>Daily Mail</u> (11/29) reports on the release of DroneShield's DroneGun, a "signal-jamming rifle" that can be used to block UAV "video and GPS" transmissions from a range of 1.2 miles, and is designed to stop weaponized UAVs carrying explosives and land them "away from target areas."

The <u>Washington Post</u> (11/29) reports that the DroneGun "could be used to jam other consumer-grade electronics, such as Internet routers or remote-controlled toy cars" that similarly operate on public radio frequencies. The Post adds that the device "can only be sold to federal agencies," according to FCC regulations.

<u>PC Magazine</u> (11/29) reports that the company is targeting the "US military, federal prisons, and government VIP protection" as customers.

India's Haryana State Uses UAVs To Update Land Records.

Reuters (11/29) reports that Haryana state's Project Udaan is using UAVs to map the Indian city of Gurgaon, as well as several smaller north28Nov16

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Reuters (11/29) reports that Haryana state's Project Udaan is using UAVs to map the Indian city of Gurgaon, as well as several smaller north Indian towns. Gurgaon Deputy Commissioner TL Satyaprakash said that land record updates are "not done regularly and there are invariably errors, even with satellite imagery," but that UAVs "are more precise" and allow officials to "verify and rectify the land records before they are digitized." UAVs sourced from Pune's Science and Technology Park "take high-resolution images every three months to record boundaries, illegal constructions, and encroachments of forests and public lands, Satyaprakash said," after which the images are "checked against existing land records and verified with village councils in rural areas."

FAA: California Has Highest Number Of Unauthorized UAV Incidents.

ExecutiveGov (11/29) reports that the FAA "has found that California had the most...reported unauthorized unmanned aircraft systems incidents among US states from October 2015 to September 2016." ExecutiveGov adds that "Florida, New York, New Jersey, Washington, Arizona, Illinois, North Carolina, Virginia, and Texas also topped FAA's list of most unauthorized UAS encounters by state."

Manufacturers Digital Tool Kit

The FAA has developed a safety statement describing some of the rules, regulations, and safety tips consumers need to know when operating unmanned aircraft systems (UAS) or drones. A recent federal law* will require manufacturers to provide a safety statement in the future for owners of small UAS at the time of delivery. This safety statement is intended to serve as an example manufacturers may use to satisfy that requirement. To ensure the widest education and safest integration of UAS into the national airspace, the FAA encourages manufacturers to begin providing safety statements to their consumers immediately. https://www.faa.gov/uas/resources/manufacturers/

U of T researchers study network to send drones to those in cardiac

arrest LAURA BEESTONStaff Reporter Thu., Nov. 24, 2016

Researchers at the University of Toronto are imagining a world where drones can help paramedics save lives. Although still in its preliminary stages, they have created a hypothetical network of drones across Ontario that would deliver life-saving defibrillators to those in cardiac arrest. "The benefits could be huge," said U of T researcher

Timothy Chan, an associate professor of industrial engineering who is also the director of the Centre for Healthcare Engineering.

The "paradox" of cardiac arrest, he said, is that interventions in this field are focused on public access to AED's, although 80 per cent of cardiac arrest occurs in private residences. (He also found that many life-saving defibrillators are inaccessible to the public during off-hours and evenings, when most incidents of cardiac arrest occur.) Inspired by a similar program he saw in Europe, Chan and his team began looking at cardiac arrest data across eight large geographic regions from Toronto to Muskoka. The team says they'd need 100 drones located at 80 bases across those 10,000 square kilometres to beat ambulances to a victim of cardiac arrest 90 per cent of the time. https://www.thestar.com/news/gta/2016/11/24/u-of-t-researchers-study-network-to-send-drones-to-those-in-cardiac-arrest.html

Drone helps Ray Texans perfect skills on the field Damen Clow, Special to the Caller-Times 5:05 a.m. CST November 28, 2016

Ray football players have always had plenty to look up to, going back to the state championship team of 1959. These days, they look higher than ever. The newest member of the Texans' high-flying offense is a definite throwback to that Cold War era – a drone helicopter with video capabilities, a hefty price tag and a select group of handlers answering questions from a curious public.

Second-year head football coach Craig Charlton was looking for a new way to film practice last year when he and offensive coordinator Danny Faust reached out to Austin-area coaches they knew had used drone technology. "It's so versatile," Charlton said. "If you're in a tower, you've got to move the players to the angle that you want. With a drone, you just practice. The players just play. The drone can move to the angle that it needs. The film crew can adjust based on your needs." The booster club and other donors contributed the near \$1,800 for the drone, extra batteries and related equipment last spring. http://www.caller.com/story/news/education/2016/11/28/drone-helps-ray-texans-perfect-skills-field/94231124/

1Dec16

FLIR Systems Acquires Nano-UAV Company Prox Dynamics.

<u>Defense Daily</u> (11/30) reports that FLIR Systems has acquired Norway's Prox Dynamics for \$134 million in a deal "that gives it a position as a developer and producer of micro-unmanned aircraft systems" for military use and intelligence-gathering. Prox Dynamics manufactures the soldier-launched Black Hornet nano-UAV, which "incorporates FLIR's Lepton micro thermal camera, visible spectrum cameras, low-power rotor technology, and proprietary software for flight control, stabilization, and communications." FLIR CEO Andy Teich said the Black Hornet solution "fits well with our vision for growth for our Surveillance segment."

Sky-Futures USA Certified For UAV Vessel Inspections.

Shephard Media (11/30) reports that Sky-Futures USA "has been certified by the American Bureau of Shipping (ABS)" to carry out internal vessel inspections using UAVs following a demonstration "on a bulk carrier vessel inside the cargo hold." Sky-Futures Vice President of Operations Jay Forte said, "We're very proud to have been awarded this rating by ABS and to have become the first approved drone specialist for vessel inspection."

GoPro Slashes Workforce Following Slow Karma UAV Sales.

<u>Bloomberg News</u> (11/30) reports that GoPro Inc "is eliminating about 15 percent of its workforce and shutting down the entertainment division to reduce costs." GoPro had hoped that the release of its Hero5 camera and Karma UAV would "revive growth and its stock price," but the products have "failed to be the hits that management had been expecting."

<u>Bloomberg News</u> (11/30) reports that despite GoPro's intention to refocus on cameras and UAVs, "competition is mounting on several fronts," including from Chinese UAV manufacturer DJI Technology. DJI has been developing UAVs "for almost a decade, and has built a robust engineering team and strong customer support."

DJI's New Inspire 2 UAV Will Be Slower Than Planned.

The Verge (11/30) reports that DJI's new Inspire 2 UAV will have a top speed of only 58 mph, "reduced from 67 mph," a change that the company said is necessary "to ensure speed does not compromise video quality and stability." The UAV "is aimed at filmmakers, with obstacle tracking, two cameras, and a new image processing system that uses an onboard SSD." Gizmodo (11/29) quoted a DJI statement as saying, "After further optimization and testing of various components of the craft, camera gimbal and propulsion system, our engineers have revised [its] specifications."

2Dec16

Thales Is France's Likely Pick For \$106 Million Mini-UAV Tender.

<u>Defense News</u> (11/23) reported that Thales appears "likely to win" a \$106 million contract to replace the French Army's Airbus Drac ISR mini-UAV, beating out the Airbus SkyGost with the Thales Spy Ranger. The "winning factors" for the Spy Ranger were "a high-definition imaging capability...and a high-speed datalink, which allowed simultaneous transmission of infrared and visual images." Other companies bidding on the contract included "ECA Group partnered with Delair-Tech; Gaci teamed with Elbit of Israel; Ineo teamed with Aeronautics of Israel; and Safran with Polish partner...WB Electronics."

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