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## **UPS Successfully Tests UAV Package Delivery.**

The [Christian Science Monitor](#) (9/23) reported that UPS carried out a successful test of a UAV carrying a small package from Beverly, Massachusetts, to Children's Island, using it as an example of "how drones could be used to quickly deliver emergency supplies to rural and hard-to-reach areas."

**Tests Part Of "Race For Data" To Get FAA Support For Looser Rules.** [Reuters](#) (9/23) focused on the test's importance in the "race for data to prove such deliveries can be performed safely." While Amazon mainly conducts its UAV delivery testing abroad, UPS wants to prove to the FAA that autonomous, out-of-line-of-sight UAV deliveries are safe and effective. Aerotas CEO Logan Campbell said, "The only way things could move more quickly" in getting the FAA to relax its rules "is if everyone were to share their data, but...no one wants to lose their competitive edge so that's not going to happen."

**CyPhy Works Founder: Test Data Will Help Identify UAV Niche.** In an interview with [CNBC](#) (9/23), CyPhy Works founder Helen Greiner said that the companies are using the tests to "collect data. Engineering data, cost data, and we're going to use that data to see where else drones can be an effective part of the UPS delivery network. We're really looking at the business of drone delivery."

## **China Reportedly Preparing To Monitor South China Sea With UAVs.**

The [Washington Times](#) (9/25) reports that according to IANS, "China intends to monitor its disputed claims in the South China Sea with drones that are 'especially stealthy'" in order "to keep tabs on exploitation of the oil and mineral rights in the region, along with monitoring possible military developments. The drones will be linked to the Chinese version of GPS."

## **Aircraft Hobbyists, Aviation Authorities Battle Over UAV Regulation.**

The [Baltimore Sun](#) (9/24) reported that model airplane hobbyists and the FAA have continued to battle over UAVs and now the focus has turned to a 2012 law regulating UAVs. The Sun noted that modelers who are "fighting to preserve their decades-old hobby" rely on "broad protections for model aircraft" provided to them by the 2012 law, including allowing them to perform "some of the most advanced unmanned flying." However, the article explained that the FAA "has periodically sought to impose new rules" and the Air Line Pilots Association "wants Congress to rewrite the 2012 law to give the FAA more authority to regulate the hobbyists."

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## **Safran, Urban Aeronautics Sign MOU To Explore Propulsion For Cormorant UAV.**

[Flightglobal](#) (9/26) reports that Safran Helicopter Engines and Urban Aeronautics have signed a memorandum of understanding (MoU) for research into alternatives to the Turbomeca Arriel 1D propulsion system, currently used in Urban's Cormorant cargo-carrying UAV. In a statement, Safran said the companies "intend to pursue their co-operation through pre-series and production phases of full-scale new vertical-lift manned or unmanned vehicles, especially those intended for use in urban environments in the air-taxi, medevac and transport roles."

## **PwC Report: UAVs Can Save Costs, Time In Security Applications.**

The [Madison \(WI\) Capital Times](#) (9/26) discusses a PricewaterhouseCoopers (PwC) report that identifies commercial applications for UAVs in the security industry. The report "highlights the advantage drones have in providing advanced electronics, sensors, and videos to tasks that are primarily done by humans today," and mentions that UAVs can check security fences "better and more efficiently" than humans can. The Times identifies Lockheed Martin, Boeing's Insitu, and AeroVironment as major players in the UAV market.

## **UAE To Finalize Laws That Regulate UAVs.**

[Reuters](#) (9/26) reports that the United Arab Emirates' (UAE) Authority for Standardization & Metrology will soon finalize laws to regulate the sale and operation of UAVs, and provide a "framework for the UAE for imports, sales and performance of drones," according to UAE General Civil Aviation Authority (GCAA) Director Mohammed Faisal al Dossari. Al Dossari said, "Several incidents have happened and to integrate them [UAVs] safely into the commercial

airspace is a challenge.” On June 12, Dubai International Airport closed “for more than an hour” due to unauthorized UAV flights in the vicinity, resulting in “millions of dollars of losses for the economy.”

## **House Committee To Hold Hearing On Commercial UAV Regulations.**

In its rundown on regulations, [The Hill](#) (9/26) reports that the House Small Business Committee “will hold a hearing on the Federal Aviation Administration’s regulatory framework for commercial drone operation” on Tuesday.

## **AUVSI Representatives Included On UAV Panel At ANSI Joint Member Forum Meeting.**

A press release published in [PRNewswire](#) (9/26) announces that the American National Standards Institute (ANSI) will be holding its Joint Member Forum Meeting during World Standards Week 2016, and provides an agenda of panels where various topics will be discussed by representatives from industry and government. The panel, “Drones and Unmanned Vehicles: Coming to a Standards Meeting Near You” will be attended by representatives from the Association for Unmanned Vehicle Systems International (AUVSI), SAE International, and the US Department of Transportation.

## **InVisage Launches Micro-LiDAR Module for Autonomous Drone Flight**

Published: 22 Sep 2016

InVisage Technologies Inc., a developer of imaging and sensing technology, has announced the launch of its Spark Micro-LiDAR (SML20) module. The previously announced Spark4K 13-megapixel, 1.1-micron NIR sensor enables the SML20 module to sense structured light patterns with high acuity at a range of 20 meters, even in direct sunlight. This means drones can now self-navigate at a much higher speed. With a sensor module measuring 8.5 by 8.5 by 4.5 millimeters, SML20 is ultra-light, compact, and low power. These advantages make SML20 ideal for drones and other mobile autonomous devices that require a lighter, more power-efficient alternative to conventional LiDAR without the limitations of ultrasonic and stereo-camera depth sensing systems.

“In order to perform autonomously at a high flight speed of 20 meters per second, drones and other unmanned vehicles require at least half a second to recognize an upcoming obstacle and another half a second to change trajectory or decelerate in order to avoid it. This means accurate ranging at 20 meters is crucial,” said Jess Lee, InVisage President and CEO. “SML20 is the only solution enabling obstacle avoidance at that distance without being weighed down by a traditional bulky LiDAR.”

<http://www.unmannedsystemstechnology.com/2016/09/invisage-launches-micro-lidar-module-for-autonomous-drone-flight/>

## Bell Helicopter Announces New Shipborne Tiltrotor UAS Platform



Published: 26 Sep 2016

Bell Helicopter has announced its new V-247 Vigilant tiltrotor, an unmanned aerial system (UAS) that will combine the vertical lift capability of a helicopter with the speed and range of a conventional fixed-wing aircraft. The aircraft is designed to provide long-endurance persistent expeditionary and surveillance capability and reach, as well as runway independence to operate successfully in maritime environments and locations without secure runway availability.

The Bell V-247 Vigilant satisfies the comprehensive spectrum of capabilities outlined in the 2016 Marine Corps Aviation Plan, and could be available for production as early as 2023. The Bell V-247 Vigilant is designed to address the evolving demands of the military and transportation sectors for unmanned aircraft for a shipborne UAS platform, including:

- The ability to operate successfully without a runway, such as in maritime environments
- Seamless performance in locations without secure runway availability, such as at shrinking land bases in contested areas
- Significant reduction of the logistical footprint while retaining the superior operational performance by combining the vertical lift capability of a helicopter with the speed and range of a conventional fixed-wing aircraft
- The capacity to control the battle space effectively with 24-hour intelligence provided by unmatched long-endurance persistent expeditionary and surveillance capability

[http://www.unmannedsystemstechnology.com/2016/09/bell-helicopter-announces-new-shipborne-tiltrotor-uas-platform/?utm\\_source=Unmanned+Systems+Technology+Newsletter&utm\\_campaign=9cfc70bbf8-Unmanned\\_Systems\\_Technology\\_eBrief&utm\\_medium=email&utm\\_term=0\\_6fc3c01e8d-9cfc70bbf8-111778317](http://www.unmannedsystemstechnology.com/2016/09/bell-helicopter-announces-new-shipborne-tiltrotor-uas-platform/?utm_source=Unmanned+Systems+Technology+Newsletter&utm_campaign=9cfc70bbf8-Unmanned_Systems_Technology_eBrief&utm_medium=email&utm_term=0_6fc3c01e8d-9cfc70bbf8-111778317)

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## **DJI Unveils Mavic Pro UAV With Foldable Rotors.**

In a blogpost on [The Verge](#) (9/27) Ben Popper reports that DJI unveiled its Mavic Pro UAV on Tuesday. The aircraft is “about half the size and weight” of DJI’s Phantom UAV, and features foldable rotors, allowing it to fit “into a backpack or even a purse.” The Mavic shoots 4K video at 30 frames per second and 1080 p HD video at 96 frames per second, has a 12-megapixel camera, and flies at 40 miles per hour at top speed.

## **Drones: DJI’s Liftoff Needn’t Ground GoPro**

Action-camera maker’s Karma drone can still find a niche in the fast-expanding market.

By Dan Gallagher Sept. 27, 2016 3:30 p.m. ET

It is a big sky, but GoPro’s new place in the drone market is already getting crowded. Sales of high-definition camera drones are soaring. Most are a pain to lug around, though. So GoPro’s first drone, unveiled last week, attempted to set itself apart with collapsible wings that allow the quadcopter to fit into a backpack-size case. The Karma drone, as it is called, goes on sale next month.

It was a solid first attempt by the company better known for its tiny action cameras. But GoPro was never destined to have this airspace to itself. SZ DJI Technology showed off its own foldable drone on Tuesday. The Mavic Pro reduces to a size even smaller than GoPro’s Karma and includes many of the obstacle-dodging and autopilot features that made the company’s Phantom 4 a hit. DJI’s new drone also goes on sale next month.

The news caused GoPro’s shares to slip on Tuesday. DJI already accounts for about half the U.S. drone market, according to Skylogic Research. Other estimates have put the company’s share at more than two-thirds globally. The privately backed company, based in Shenzhen, China, has raised about \$581 million in funding to date for a valuation of about \$10 billion, according to Dow Jones VentureSource. That is over four times as large as GoPro’s market capitalization.

The drone market is also still in its early days, with lots of room for competition. Consumer-drone sales totaled about \$1.6 billion last year, according to Gartner. Simona Jankowski of Goldman Sachs Group projects consumer-drone sales alone will surpass the \$3 billion mark by 2019. That leaves plenty of airspace for GoPro, even if it hits some turbulence on the way.

<http://www.wsj.com/articles/drones-djis-liftoff-neednt-ground-gopro-1475004631>

## **Industry Representatives Call On Congress To Ease FAA UAV Rules.**

The [Washington Examiner](#) (9/27) reports that during Tuesday’s House Small Business subcommittee hearing, UAV industry representatives “called on Congress to make it easier for companies to have their commercial drone use plans approved by the federal government, and said current delays are making it harder for them to use drones for time-sensitive projects.” Association for Unmanned Vehicle Systems International (AUVSI) CEO Bryan Wynne said that delays may be due to bureaucratic confusion at the FAA’s Unmanned Aerial Systems (UAS) office, and that, “It’s easier for [the FAA] to identify at this point who is not working on UAS than who is.” Wynne said he was hopeful the approval process will “accelerate over time.”

## **Military, Defense Department Officials Comment On UAV Threat To Nuclear Facilities.**

[Defense News](#) (9/27) quotes Air Force Global Strike Command head Gen. Robin Rand, Secretary of Defense Ash Carter, and Minot Air Force Base Security Forces Group lead Col. Jason Beers commenting on the threat of UAVs to nuclear sites. Rand said, “I have our bases with our weapons storage facilities [mission], and I will tell you there have been recent examples of extended UAS over some of the areas; we don’t particularly like them being around.” On a trip to US Air Force installations, Carter said that the threat from UAVs is “a concern,” and that “we need to provide security” for such facilities. Beers said UAVs have yet to be a problem at his base, but that there are “procedures in place” to deal with them if the need arises.

## **Praxis Aerospace CEO: Containing Black Market UAV Providers Should Be FAA's Priority.**

The [Las Vegas Review-Journal](#) (9/27) reports that Praxis Aerospace Concepts International Inc. CEO and co-founder Jonathan Daniels told lawmakers during a House Small Business subcommittee hearing on "Tuesday that containing the black market should be a priority for the Federal Aviation Administration." Daniels said that his concern over black market UAV providers is based on the fact that black marketers can provide UAV services cheaper than companies such as his can and that "the public will not discriminate between a legal and illegal operations when the inevitable accident occurs."

## **AeroVironment Blackwing UAV Connects Submarines, UUVs.**

[Aviation Week](#) (9/27) features an AeroVironment video that illustrates how the company's Blackwing UAV can function as a digital communications relay between manned submarines and unmanned underwater vehicles (UUVs), enabling subs to control UUV swarms.

## **FAA: Nine UAV Sightings Reported Near Airports In Minnesota.**

The [St. Paul \(MN\) Pioneer Press](#) (9/27) reports that, according to data collected by the FAA, "air traffic control and pilots flying in Minnesota reported nine incidents of drones flying near airports over a roughly 15-month period." However, Metropolitan Airports Commission (MAC) spokesman Patrick Hogan "said the few sightings in Minnesota haven't made a large impact at MAC's seven airports."

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## **Northrop Grumman Awarded \$350 Million In Contracts For MQ-4C Triton UAVs.**

[Naval Today](#) (9/28) reports that Northrop Grumman has been awarded two contracts, valued at \$255.5 million and \$94.9 million, to manufacture three MQ-4C UAVs and "interim spares" in support of its initial deployment to the US Navy. The Triton is a land-based Intelligence, Surveillance and Reconnaissance UAV that uses "a multi-sensor mission payload including maritime radar, Electro-Optical/Infrared (EO/IR), Electronic Support Measures (ESM), Automatic Identification System (AIS), and basic communications relay."

## **Dubai Airport Closes Airspace For 30 Minutes Due To UAV Activity.**

[Reuters](#) (9/28) reports that on Wednesday morning, Dubai International Airport "closed its airspace" for the second time this year due to unauthorized UAV activity. Dubai Airports said on Twitter, "Safety is our top priority and we remind all UAV operators that activities are not permitted within 5 km of any airport or landing area." The airspace was closed for nearly 30 minutes.

## **AUVSI CEO Brian Wynne Testifies On Commercial UAVs Before House Committee.**

[Point of Beginning](#) (9/28) reports that Association for Unmanned Vehicle Systems International (AUVSI) CEO Brian Wynne recently testified before the US House Small Business Subcommittee on Investigations, Oversight and Regulations on the growth of the commercial UAV market, saying that "UAS increase human potential, allowing us to execute dangerous or difficult tasks safely and efficiently. ... From inspecting pipelines to surveying bridges to filming movies, UAS help save time, save money and, most importantly, save lives. It's no wonder why thousands of businesses, small and large, have already embraced this technology, and many more are considering integrating it into their future operations." Wynne praised an FAA UAV rule implemented in August for progressing UAV regulation and enabling significant growth in commercial UAV use, and said that AUVSI is "hopeful that the sustained efforts of all parties will help pave the way for a true, holistic plan for full UAS integration that includes beyond line of sight operations, flights over people, access to higher altitudes and platforms above 55 pounds."

## **Anoka County Sheriff's Office Uses UAV To Find Lost Hunter.**

[WDAY-TV](#) Fargo, ND (9/28) reports that the "Anoka County Sheriff's Office recently used a UAV to find a lost hunter in the Carlos Avery State Wildlife Management Area." WDAY-TV adds that the UAV used in the mission costs \$20,000. It "can fly up to a mile away at 35 miles an hour," has GPS, and "can automatically return to the exact place it took off from."

## **Hunter: Lawmakers Must Address Safety And Security Concerns Of New UAV Economy.**

In an op-ed published in [The Hill's](#) (9/27) "Congress Blog," Department 13 International CEO Jonathan Hunter wrote that "as drones begin to gain traction into the everyday day life of the average American, we must address the safety and security concerns of this new drone economy." Therefore, lawmakers "must" support "policy and regulation changes to the current definition of 'aircraft,'" invest in "non-kinetic based technologies that allow...for positive control of commercial or government airspace," and provide policy support to technology-based solutions and "potential changes to current 20th century regulations that do not address the 21st century economy."

## **Greenwood: Shooting Down Hobbyist UAVs Puts People At Risk.**

In a [Slate](#) (9/26) op-ed, civilian UAV pilot Faine Greenwood wrote that incidents in which hobbyist UAVs have been "shot out of the sky" endanger individuals on the ground who could be harmed by a falling aircraft. Greenwood criticized the framing of such stories as "tales of normal people getting revenge on snooping tech bros," or acting as "brave vanguards of an anti-surveillance revolution," and says that "cheering on drone shooters normalizes a potentially deadly overreaction" to UAV use.

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## **Package-Delivery Drones Likely Years Away From Federal Approval**

Aviation authorities, advisers say technology to get packages to individuals won't really gel until around 2020

By Andy Pasztor Updated Sept. 29, 2016 4:36 p.m. ET

Amazon.com Inc. and others have been touting plans to use drones to deliver packages to consumers, but safety experts and federal documents indicate widespread flights aren't likely before the next decade. U.S. aviation authorities only recently kicked off the formal process of defining the types of collision-avoidance systems considered essential for such operations to receive broad regulatory authorization. Drafting the technical standards is projected to take three or four years, envisioning a suite of ground-based and airborne sensors that haven't yet been developed. Even strong proponents of unmanned aerial vehicles predict that delivering packages to individual customers probably won't gain significant momentum until at least roughly 2020.

So far, the Federal Aviation Administration has issued rules for routine commercial uses of small drones flying no higher than 400 feet, but almost always within sight of operators. The U.S. agency's next regulatory priorities are allowing such unmanned aerial vehicles to fly over people in suburban and perhaps certain urban areas; and giving the green light for railroads, pipelines and other prospective users to fly inspection drones many miles away from operators.

In a statement Wednesday, an FAA spokeswoman reiterated agency plans to propose mandatory rules this year and next aimed at integrating other categories of small drones, also weighing less than 55 pounds, into the national airspace. Delivery drones are "part of our longer-term integration rule-making strategy," according to the FAA, which didn't elaborate. Even after industrywide consensus standards are in place, historically it takes one to two years to process public comments and finalize agency regulations.

<http://www.wsj.com/articles/package-delivery-drones-likely-years-away-from-federal-approval-1475154227>

## **US Marine Corps Commandant Wants Quadcopter UAV For Every Squad By End Of 2017.**

[Marine Corps Times](#) (9/29) reports that Marine Corps Commandant Gen. Robert Neller said, "At the end of next year, my goal is every deployed Marine infantry squad has got their own quad copter." Neller was speaking at the Modern Day Marine expo in Quantico, Virginia on Wednesday. A UAV supplier has not been identified, but the Marines have tested Prox Dynamics' Black Hornet, which has a range of one mile beyond line of visual sight, uses GPS navigation, and "provides live stream video and still pictures in HD quality back to the operator," according to Prox's Arne Skjaerpe.