3Apr16

How airports and the drone industry are teaming up to protect planes

By Matt McFarland March 29

More than 50 U.S. airports will test a new system to make themselves more aware of drones flying near their runways. Airport executives and the drone industry expect the Digital Notice and Awareness System (D-NAS) to improve safety amid concerns raised by 764 drone sightings near airplanes in 2015. Drone hobbyists are required to notify airports of their plans when flying within five miles of an airport, but doing so has been a difficult process.

Drone operators using D-NAS will input the radius of their flight and how long they intend to fly using apps from drone manufacturers such as DJI, 3DRobotics and Yuneec, or the websites AirMap and some airports. This information will then be sent to operations staff and air traffic control at participating airports. By sending information this way, drone operators will be able to more easily notify these airports of their flight plans.
https://www.washingtonpost.com/news/innovations/wp/2016/03/29/how-airports-and-the-drone-industry-are-teaming-up-to-protect-planes/

4Apr16

Blue Origin Launches, Lands Reusable Rocket For Third Consecutive Time.

USA Today (4/2) reported that on Saturday, Blue Origin "took another step toward making reusable rockets a reality" by successfully launching and landing its New Shepard vehicle for a third consecutive time. Declaring the mission a success on Twitter, Blue Origin owner Jeff Bezos "said the rocket's hydrogen-fueled BE-3 engine fired properly to enable a soft booster touchdown in west Texas, followed by a crew capsule landing nearby under parachutes."

Wired (4/2) noted that ahead of the launch, the spaceflight company "announced it was upping the ante by restarting the rocket engine only 3,600 feet in the air, leaving less room for error as it maneuvers on the way down." Additionally, the launch and landing of the rocket also tested an algorithm for the crew capsule, "which separates from the rocket and lands via parachutes."

Drone Racing Gaining Popularity.

The CBS Evening News (4/3, story 10, 1:55) reported that drone races are growing in popularity across the U.S. The pilots wear first-person view (FPV) goggles that receive "streaming video from a camera on the drone" and give "racers the sensation that they are flying, that they are the drone." Drone racing can be "disorienting because your body is giving you one sensation and your eyes are giving you something else," according to expert drone racer Chad Nowak. CBS News (4/3) also carries the story on its website.

Government-Sponsored Committee To Recommend Commercial Drone Standards.

The AP (4/4) reports that "A government-sponsored committee is recommending standards that could clear the way for commercial drone flights over populated areas and help speed the introduction of package delivery drones and other uses not yet possible." The standards "call for creating four categories of small drones that commercial operators can fly over people, including crowds in some cases." In a "last-minute disagreement" that "nearly kept the committee from meeting the Friday deadline for the recommendations," the Air Line Pilots Association (ALPA) and

certain trade associations "wanted to require that all commercial drone operators pass an aviation knowledge test administered in person by the FAA and receive a background check from the Transportation Security Administration." The disagreement "was resolved by the inclusion of a dissent by those in favor of the FAA test and TSA clearance."

UAS Proposals Seek To Ensure Safety Without Stifling Innovation.

The Tulsa (OK) World (4/3) reports that more and more UAVs are poised to enter U.S. airspace with the release of a new FAA proposal to "allow routine use of small UAS in today's aviation system and be flexible enough to accommodate future technological innovations." The article also notes that the Transportation Secretary's role in granting Section 333 exemptions to private groups that want to operate UAS commercially.

Gizmodo (4/2) reports that last week, the FAA also proposed a couple of "updated rules for commercial unmanned aircraft, doubling their operational ceiling and streamlined the online application process for pilots registering their drones." The so-called "blanket" altitude for commercial UAS with Section 333 exemptions would be doubled to 400 feet, and commercial operators and other non-hobbyists would be encouraged to register their aircraft on the FAA's website. The article points out that "There's still a whole lot of restrictions that haven't been lifted," such as the requirements that pilots "fly during the daytime, keep their drones within visual range and stay several miles away from airports."

5Apr16

FAA Data Reveals Risk Of UAVs To Aircraft.

Bloomberg News (4/4) reports in depth on the "potentially more fearsome prospect" of UAVs entering airport airspace, incidents which the FAA says "have surged since 2014, with more than 1,200 reports nationwide last year," according to a *Bloomberg News* analysis of agency data released last week. Air Line Pilots Association (ALPA) President Tim Cannoll said of the risk drones pose to airliners, "We're not kidding when we say it has to be mitigated as a threat. ...Your imagination can run wild with the problems of hitting hard metal objects at 200 mph." In a statement released with its data the FAA said that it hopes "to send a clear message that operating drones around airplanes and helicopters is dangerous and illegal."

Police In Netherlands Use Eagles To Target Unwanted UAVs. BBC News (UK) (4/5) reports on several methods used by law enforcement to take down unwanted UAVs. *BBC News* details a method used by police in the Netherlands, who use trained eagles to target and take unwanted drones down to the ground. The report adds that a company in Ohio has developed a system for interfering with the radio waves of a drone, but current regulations restrict such radio-wave disrupting units to federal authorities.

Silicon Valley's Zipline To Deliver Medicine In Rwanda Via UAV.

The New York Times (4/4, B1, Subscription Publication) reports on plans to use small, fixed-wing UAVs to carry medical supplies to remote locations in Rwanda as part of a service offered by Silicon Valley's Zipline, and notes that Rwanda will become "the first country with a drone delivery network." The *Times* mentions that Rwanda is prioritizing the use of UAS for medicine delivery and economic development, and that the country hopes to become a technology hub for East Africa, according to Zipline founder William Hetzler. The new system is to start making "50 to 150 daily deliveries" of blood and emergency medicine to Rwandan hospitals and clinics. TheChristian Science Monitor (4/4) also provides coverage.

UAV Manufacturers Form New Industry Group.

In continuing coverage, Fortune (4/4) reports that a number of large UAV manufacturers including GoPro, DJI, Parrot, and 3D Robotics have founded their own industry group called the Drone Manufacturers Alliance, after withdrawing from the Small UAV Coalition last week. In an email, Kara Calvert, Drone Manufacturers Alliance director, said that the companies "felt the need to focus their efforts on policy issues that affect manufacturers of drones used in the

recreational, commercial and other spaces." The Hill (4/4) reports that the new group "will push for policies that emphasize innovation and safety for people who operate small commercial and recreational drones," and plans to "closely monitor" FAA regulations on drones.

FAA Com Committee Recommends Standards For Commercial UAV Use.

The AP (4/4) reports that a government-sponsored committee is "recommending standards" that could "clear the way" for the use of UAVs to deliver packages, record news footage, inspect cell phone towers, and provide other services that require flight over populated areas and crowds. The recommendations call for the creation of different categories of UAVs: smaller-sized UAVs could fly "at least 20 feet" over the heads of crowds, while larger-sized UAVs might not be able to fly over crowds or be subject to other restrictions. The FAA formed the committee in February in order to expedite the rule-making process. The committee is made up of 27 companies or trade associations, including UAV manufacturers, as well as "airline and private pilots, airports, crop dusting companies, and helicopter operators."

AirMap and American Association of Airport Executives Launch UAS Notice System http://www.unmannedsystemstechnology.com/2016/03/airmap-and-american-association-of-airport-executives-launch-uas-notice-system/#sthash.AtuavgQ3.dpuf

AirMap, a provider of airspace information and services for unmanned aircraft, and the American Association of Airport Executives (AAAE), through the Airport Innovation Accelerator, have announced the release of the Digital Notice and Awareness System (D-NAS). D-NAS was created to allow UAS operators to provide airports with real-time digital information about the location of their flights. D-NAS works by allowing a UAS operator to send an encrypted digital flight notice to a secure dashboard at an airport's operations center.

SNIPER VTOL UAV Demonstrates Maritime Search and Rescue Capabilities Published: 29 Mar 2016 http://www.unmannedsystemstechnology.com/2016/03/sniper-vtol-uav-demonstrates-maritime-search-and-rescue-capabilities/#sthash.idqVBPdc.dpuf

Alpha Unmanned Systems, a manufacturer of small range helicopter UAVs, has outlined its participation "RONCAOR 2016", a training exercise conducted by the Maritime Rescue Society. Held between the fishing port and marina Juan Montiel in Cartagena in February, "RONCAOR 2016" simulated a real emergency search and rescue situation at sea. During the exercise, the emergency center received a call from a man in the water with approximate coordinates. From these coordinates, a search pattern was generated taking into account tides, wind direction and wind speed. At 11:40 hrs SASEMAR (Maritime Security and Rescue Society) reported the search area; at 12:05 hrs the captain of the rescue ship gave approval for the SNIPER UAV to takeoff. Just 18 minutes after the operation began the SNIPER UAV had identified the castaway and reported the exact coordinates to the center of control of SASEMAR to send a rescue boat. At 12:28 hrs the SNIPER UAV landed back on the ship platform while the speedboat recovered the castaway.

6Apr16

Google Awarded Patent For UAV Delivery Of Medical Equipment.

Quartz (4/5) reports that on Tuesday, Google was awarded a patent for a "device that can call for a drone to fly in with specific medical equipment" in case of emergencies. *Quartz* describes the system as "a cross between an old HAM radio and one of the callboxes found on the sides of highways" that would deliver necessary medical equipment based on the type of emergency reported.

UAV Startups Receiving More Attention From Investors.

MarketWatch (4/5) reports that drone startups, including North Carolina-based PrecisionHawk, are "getting more attention" from investors. Citing CB Insights of New York, the article notes that in 2015, "venture capitalists invested $450 million in 74 drone deals, a fourfold jump compared with" the previous year. However, *MarketWatch* adds that investing in drones does carry some risks, including several regulatory hurdles, "particularly in the U.S.," where the FAA has been directed by Congress to develop "rules to govern how drones would share the airspace with commercial aircraft."

New Hampshire Bill Restricts Drone Use By Law Enforcement.

Forbes (4/5) reports that a law passed last month by the New Hampshire House of Representatives is aimed at restricting the use of drones by police. According to *Forbes*, the bill proposes "explicitly that police cannot use drones for surveillance" and "extends citizens' expectation of privacy while police are using drones." The article adds that the bill seeks to overrule two Supreme Court cases from the 1980s that "held that observations from the air are analogous to observations from public roads."

Insurers adopt drones for airborne inspections Bart Jansen, USA TODAY 9:33 a.m. EDT March 31, 2016 http://www.usatoday.com/story/news/2016/03/31/insurers-adopt-drones-airborne-inspections/82434322/

The days of the harried insurance adjuster climbing a ladder to poke at your storm-damaged roof may soon be history as insurance companies look to drones as the new wave for property inspections. State Farm, the first insurer to win approval from the Federal Aviation Administration to use drones commercially, has launched hundreds of experimental drone flights for routine roof inspections. If the technology works out, the company could eventually use drones to give them a bird's eye view of catastrophes. State Farm has not said yet when it will deploy drones company-wide to routinely do such inspections.

More insurance companies, utilities and telecommunications firms will likely embrace drones for the more dangerous or difficult to reach inspections, says Jonathan Downey, CEO of Airware, a drone startup based in San Francisco that is working with State Farm. Airware says it works with companies find the right aircraft and navigation software, train workers to use the equipment and to steer through complex government regulations.

Praxis Partners With New York UAS Test Site By AUVSI News posted 2 days ago

Praxis Aerospace Concepts International Inc. announced today that it has entered into a partnership with the New York UAS test site, Griffiss International Airport, to provide the test site with additional

expertise as they accomplish requirements toward its support of NASA. The goal of the partnership is to help integrate unmanned aircraft into the national airspace.

NASA has invited test sites to participate in NASA activities as well as to encourage teaming across test sites to gain cost efficiencies and maximize research data that will de delivered to NASA. The Unmanned Aircraft Systems Integration and in the National Airspace System project (UAS in the NAS) will contribute capabilities designed to reduce technical barriers related to safety and operational challenges associate with enabling routine UAS access to the NAS. Afterwards, Oneida County has been awarded a five-year indefinite delivery, indefinite quantity contract for future NASA task orders. These task orders may require Praxis' participation and expertise toward the goal.

http://www.auvsi.org/blogs/auvsi-news/2016/04/04/praxis

7Apr16

Proposals Seek to Expand Uses of Small Commercial Drones

http://www.wsj.com/articles/proposals-seek-to-expand-uses-of-small-commercial-drones-1459984611

Andy.Pasztor@wsj.com April 6, 2016 7:16 p.m. ET

Proposed rules would allow commercial flights over groups of people with certain safety checks

A federal advisory group has proposed rules to significantly expand uses of small commercial drones, including the first regulatory framework to conduct risk assessments of operations such as news videos, power line inspections and other types of flights over urban areas or crowds of people. So far U.S. regulators have banned operation of any commercial drones—even those weighing just a few ounces or made from soft materials—from flying over large numbers of people. But that restriction has rankled many industry officials, prompting creation of the advisory panel to come up with compromises covering everything from the tiniest drones to those possibly weighing dozens of pounds.

The package of recommendations calls for designating four categories of small drones, defined to some extent by weight but more important by safety design criteria such as speed and protective coverings for propellers, in the event the craft hits someone on the ground.

FAA Panel Recommends Easing Drone Restrictions.

Several news outlets report on a new set of proposed rules from an FAA panel of experts. CNN Money (4/6) writes that the proposed rules include allowing drones to "fly 20 feet above people's heads, and have a 10-foot buffer space on all sides, mostly for safety during [takeoff] and landing." *CNN Money* explains that the rules were proposed by a panel that included "members from the drone industry, GoogleX, 3D Robotics, Intel, DJI, airlines and realtors." The article adds that the FAA will review the proposed rules before releasing them for public comment ahead of the FAA's formal proposal.

The AP (4/6) notes that the recommendations could pave the "way for drone delivery – a dream for companies like Amazon, which [has] already announced its desire to deliver products by unmanned aircraft."

8Apr16

DJI To Train European First Responders To Use UAVs In Rescue Operations.

The Verge (4/7) reports that on Thursday, China-based DJI announced that in partnership with the Brussels-based European Emergency Number Association (EENA), it will begin training first responders in Europe on how to use UAVs in rescue operations. According to the article, the partnership program “will give carefully selected teams of European pilots access to Phantom, Inspire, and Matric 100 (M100) drones.” The article adds that the first two pilot training events, slated for May and September this year, will take place in Denmark and Ireland.