UAS and SmallSat Weekly News

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Tata Consultancy Services sets up research lab for drones in US

Fri, 5 May 2017-08:00pm , New Delhi , PTI

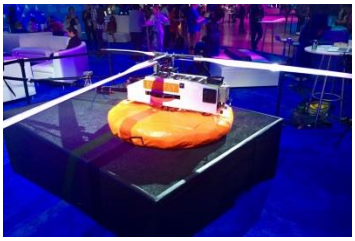
India's largest IT services firm TCS has established its first research lab for drones in the US to address the rapidly expanding demand for these unmanned aerial vehicles and business solutions.

The lab -- which has been set up in its Ohio campus -- will focus on experimentation and co-innovation for customers to build solutions for specific industry problems, Tata Consultancy Services (TCS) said in a statement. "Forward thinking companies worldwide are at different stages of exploring drone technology to reimagine existing operational processes and transform the way they do business," TCS EVP and Chief Technology Officer K Ananth Krishnan said.

He added that the fully operational lab is demonstrating solutions for insurance, manufacturing, logistics, and transportation industries, as well as specific environmental applications. The Seven Hills Park facility was established in 2008 as TCS' largest and first North American digital centre for advanced technologies. The campus has over 1,000 employees.
http://www.dnaindia.com/money/report-tcs-sets-up-research-lab-for-drones-in-us-2428719

There's a small drone startup helping Facebook build its new internet-beaming helicopter drone Meet Everfly.

BY APRIL GLASER AND KURT WAGNER MAY 4, 2017, 6:52PM EDT



Facebook's latest plan to help people get online is rather unusual: It involves an autonomous robot helicopter that is tethered to the ground, and specifically built to operate during times of crisis or natural disasters. Think of it like a drone, only plugged into a power line. This means it can stay airborne for long periods — it has no battery to rely on — but can't move very far.

Facebook unveiled the drone at the company's annual F8 developer conference last month, but what we didn't know at the time is that Facebook has a partner in this endeavor: Everfly, a five-person drone startup that spun out of Otherlab, a firm that houses early-stage hardware companies and funded research projects in San Francisco.

The CEO of Everfly is Mikell Taylor, who previously worked on autonomous underwater robots with Bluefin Robotics before her more recent focus on aerial robotics. Everfly was also the team behind a disposable, small autonomous cardboard drone project funded by DARPA, the U.S. military's experimental technology arm. https://www.recode.net/2017/5/4/15364938/facebook-drone-startup-internet-beaming-helicopter-everfly

Dos, don'ts and geo-fencing: Europe proposes rules for small drones

A drone flies as Belgian police officers showcase the use of drones deployed over traffic accidents occurring on highways, in Ranst near Antwerp, Belgium,

Europe's aviation safety authorities have proposed rules for operating small drones that include requirements for geo-fencing technology to prevent them from straying into banned areas and a "dos and don'ts" leaflet to be inserted in retail packaging. With demand booming, both for hobby and commercial use, European regulators have been looking for ways to ensure drones can be safely operated, while allowing the industry to grow.

Fears have been raised over the use of drones near airports in particular, with a number of pilots reporting near collisions with drones, and the European Aviation Safety Agency (EASA) has set up a task force to look into the risk of drone strikes. EASA's proposals include requirements for drones to be remotely identifiable, to be fitted with geo-fencing technology to prevent them from entering prohibited zones such as airports and nuclear sites, and a requirement for people operating drones weighing more than 250 grams to register themselves. http://www.reuters.com/article/us-europe-drones-idUSKBN1811KD

Fortem raises $5.5 million to hunt and take down unwanted drones

Posted yesterday by Lora Kolodny (@lorakolodny)

After drones became available to private citizens around the world, bad actors found ways to use them for nefarious purposes like spying on corporations, carrying contraband across borders and into prison yards, and sadly, turning the aerial robots into weapons. Drone crashes also put people and property in harm's way. Provo, Utah-based Fortem Technologies Inc. has raised $5.5 million in a new round of seed funding to keep the skies, and people below, safe as we enter the drone era. Signia Venture Partners and Data Collective (DCVC) led the deal.

The so-called counter drone market is bustling with activity. Other startups in this category include: Airspace, Guard From Above, and threat detection firms like Department 13 or Dedrone to name just a few. Signia Partner Ed Cluss and DCVC Managing Partner Matt Ocko said Fortem's approach is differentiated from others thanks to its proprietary radar technology.

According to Fortem CEO Timothy Bean, the company has developed a compact radar which enables drones to detect fast-moving aircraft up to 3,000 meters away. The idea is to ensure that as drones enter our airspace, they stay well-clear from one another and manned aircraft, even traveling at 100 miles per hour. https://techcrunch.com/2017/05/06/fortem-raises-5-5-million-to-hunt-and-take-down-unwanted-drones/

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Huntsville Celebrates International UAV Day.

Alabama Live (5/7) reports that the US Space & Rocket Center in Huntsville, AL "celebrated International Drone Day" on Saturday with UAV races; debuting a netted drone flight space; displaying military, commercial, and hobbyist UAVs; and holding a forum in which FAA personnel discussed regulations and answered questions from drone pilots. Dave Arterburn, Director of the Rotocraft Systems Engineering & Simulation Center at University of Alabama in Huntsville, also

talked about “research into drone safety standards.”
http://www.al.com/living/index.ssf/2017/05/team_alabama_celebrates_intern.html

UAV Checks Washington State Capitol’s Dome For Leaks.

KOMO-TV Seattle (5/7) reported that crews used a UAV to inspect the Washington State Capitol’s roof for leaks, a job that “is dangerous, and expensive for a person to complete.”
http://komonews.com/news/local/gallery/drones-hover-over-state-capitol#photo-3

Flood Of Bids To Build UAVs For Border Patrol.

NBC News (5/6) reported that the Department of Homeland Security’s (DHS) request for proposals for compact UAVs for use by US Border Patrol agents produced so many submissions that the Silicon Valley Innovation Program stopped accepting them April 27 instead of the initially-planned date of July 14. The DHS Science and Technology Directorate has awarded packages of between $100,000 and $200,000 to startups “to develop portions of the miniature drone’s sensor, controller and cybersecurity systems.”

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European Aviation Safety Agency Proposes UAV Rules.

The AP (5/9) reports that the European Aviation Safety Agency proposed rules on the use of small UAVs that would require owners of craft weighing 250 grams or more to register with authorities. The proposal also includes UAV technical and operational requirements.

India Requiring Permit For Civilian UAV Use. The Times of India (5/9) reports that Indian intelligence agencies have “sent out warnings to police across India to keep a strict vigil on use of drones for civilian purposes.” UAV users require a permit and a unique identification number.
TNN | May 9, 2017, 07.58 AM IST

MANGALURU: Planning to use a drone for personal occasions such as marriage photography? Think again. You will stand on the wrong side of the law in doing so. Intelligence apparatus in the country is extremely sensitive to the issue and has sent out warnings to police across India to keep a strict vigil on use of drones for civilian purposes including the one mentioned above. The intelligence input has reiterated a circular from Directorate General of Civil Aviation (DGCA) dated October 7, 2014, to press home this point.

The DGCA, in April 2016 in its proposed guidelines for unmanned flying devices, stated that drone users need to secure a permit and a unique identification number for their operations. This has been done as part of efforts to regulate operations of unmanned flying devices like drones, which are increasingly posing challenge to regulators and personnel manning airspace, warranting guidelines for civil use of such machines. http://timesofindia.indiatimes.com/city/mangaluru/use-of-drones-without-dgca-permit-could-spell-trouble/articleshow/58581512.cms

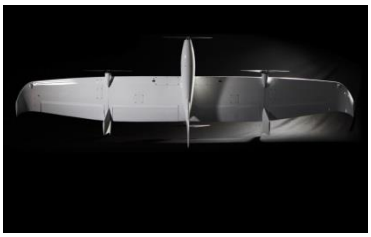
Lawmakers Introduce Bill Authorizing Military To Take Defensive Actions Against UAVs.

The Panama City (FL) News Herald (5/8) reports that Reps. Neal Dunn (R-FL) and Colleen Hanabusa (D-HI) are sponsoring a bill that would authorize the armed forces and DoD contractors to "take a number of defensive actions against UAVs, including disrupting, controlling and destroying them." Under the proposed legislation, the military can use violent or non-violent methods to stop UAVs and Dunn said that the aircraft can be returned to its owner if it is determined that the owner meant no harm.

FAA Grants North Dakota Park Permission To Fly UAVs Beyond Visual Line Of Sight.

The AP (5/8) reports that the FAA has granted North Dakota's UAV business park permission to fly aircraft beyond visual line of sight. Still, the AP reports that "initial flights will be limited to" UAVs "flying within 60 miles of the Grand Forks facility."

Hybrid UAS Completes Autonomous Marine Flight Test 08 May 2017



Swift Engineering has announced that its Swift020 hybrid unmanned aircraft system (UAS) has successfully performed a completely autonomous marine flight test excursion off the coast in Orange County, California. The test, one in a series conducted by Swift Engineering, consisted of 8 consecutive fully autonomous launch and recoveries off a boat with an aft deck of 20' x 30'. The fully autonomous flight tests were executed with the push of one button.

The Swift020's X-Blade technology combines the benefits of VTOL with the efficiencies of fixed wing flight. It is a vertical take-off and landing (VTOL) transition to horizontal flight technology that does not use rotating mechanisms; all the control is conducted with in the flight control autopilot system. The X-Blade technology used in the Swift020 can be scaled to larger and different configuration platforms. http://www.unmannedsystemstechnology.com/2017/05/swift-engineering-vtol-uas-successfully-completes-test-flight/

Rapid Composites Announces New Amphibious VTOL UAS 06 May 2017

Rapid Composites has announced Bullray – a rugged, fully autonomous waterproof and man-portable VTOL unmanned aircraft system (UAS) that is optionally configured for less-than-lethal applications. The aircraft can be configured as a tri-, quad-, hex- or X4-copter covering a wide spectrum of markets.

Bullray's rugged design is capable of performing in all weather conditions and does not require a transit case. All fuselage components are made of carbon fiber and can be rapidly customized to support demanding commercial, law enforcement and military customer needs.
http://www.unmannedsystemstechnology.com/2017/05/rapid-composites-announces-new-amphibious-vtol-uas/

New senseFly Solution Increases Drone Corridor Mapping Efficiency

04 May 2017

senseFly has announced its new mapping solution senseFly Corridor, a new platform enhancement that vastly simplifies the unmanned aircraft system (UAS) mapping of linear infrastructure and sites. senseFly Corridor will debut at the AUVSI Xponential show in Dallas, Texas.

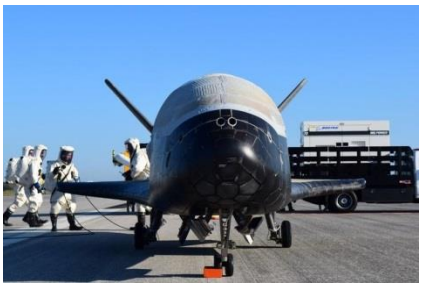
Corridor mapping is a common task for many geospatial professionals and crucial for the effective planning, design and analysis of linear infrastructure, as well as the monitoring of rivers and coastlines. However, using drones to carry out corridor projects — as an alternative to hiring expensive manned aircraft — can be a relatively complex job that contains some frustrating inefficiencies.

"senseFly Corridor overcomes these hassles, providing a geometrically and logistically efficient method of mapping linear routes," said Francois Gervaix, senseFly's lead product manager for surveying. "With senseFly Corridor, commercial operators can easily plan an automated corridor mapping mission, containing one or numerous flights. This release is also future-friendly, as more operators gradually look towards gaining EVLOS and BVLOS permissions."
http://www.unmannedsystemstechnology.com/2017/05/new-sensefly-solution-increases-drone-corridor-mapping-efficiency/

After Two Years in Orbit, a Secret Government Drone Has Landed

Just a totally normal government robot plane ending its shadow mission.

BY ERIC GRUNDHAUSER MAY 08, 2017



After two years in flight, a secret government drone plane has finally landed, and nothing is sinister about it at all.

According to *Reuters*, the X-37B, otherwise known as the Orbital Test Vehicle (OTV), touched down at Florida's Kennedy Space Center after spending the past two years orbiting the planet for undisclosed reasons. The OTV originally launched in May 2015, and according to a press release from the Air Force, it conducted "on-orbit experiments for 718 days during its mission."

While the details of the OTV's latest mission weren't disclosed, the craft has previously been tasked with doing experiments for NASA, including testing out an ionizing thruster. The windshield-free shuttle is planned to be placed back in orbit later in the year, ensuring that there will always be a secret government plane silently passing overhead, well into the future.
http://www.atlasobscura.com/articles/secret-drone-government-lands

UNMANNED SYSTEMS
ASSOCIATION OF VIRGINIA
Unmatched Innovation

The Office of the Governor announced today that Governor McAuliffe will lead his 27th trade and marketing mission this week. One of the Governor's stops will be the Association for Unmanned Vehicle Systems International (AUVSI) XPONENTIAL trade event in Dallas, where he will promote Virginia's pro-business climate, top-ranked education system, skilled workforce and high quality of life. **The Unmanned Systems Association of Virginia (USAV) is pleased to join Governor McAuliffe at XPONENTIAL and share ideas on how to foster the growth of the unmanned systems industry in Virginia.**

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AeroVironment Unveils 'Snipe' Nano Quadrotor Drone

Bill Carey May 9, 2017

Small unmanned aircraft system (UAS) manufacturer AeroVironment on May 9 unveiled a wearable,five-ounce (140-gram) quadrotor that draws from advances in nano technology it first made with its Nano Hummingbird concept demonstrator. AeroVironment said a U.S. government customer took delivery of 20 systems in April.

Named “Snipe,” the new quadrotor is worn on the operator’s clothing and launched by hand. It can fly at speeds exceeding 20 mph, with one-kilometer (0.6 mile) range and 15 minutes of flight time. Designed for close-range intelligence, surveillance and reconnaissance, the miniature aircraft is fitted with electro-optical/infrared, low-light and long-wave infrared sensors in an integrated tilt mechanism, said AeroVironment, which timed the announcement for the Xponential 2017 conference in Dallas. http://www.ainonline.com/aviation-news/defense/2017-05-09/aerovironment-unveils-snipe-nano-quadrotor-drone

Elbit Presents UAS Capabilities At AUVSI's XPONENTIAL

Elbit Systems Ltd., has logged hundreds of thousands of mission flight hours with systems such as the Hermes 450 and Skylark I-LE. Elbit has adapted these units to U.S.-unique operational requirements by incorporating new electronics, sensors, command and control, and mission packages.

The Vidar, a small, fixed-wing UAS. features a universal payload mounting system that supports multiple types of vertically-mounted payloads during any deployment. Designed to be waterproof and durable, Vidar offers a small logistical footprint when launched by hand or by pneumatic launcher. Landings feature a low altitude deep-stall maneuver followed by the deployment of landing gear prior to touchdown. http://aero-news.net/ANNTicker.cfm?do=main.textpost&id=68c0fd94-9e94-4099-a064-cb40355a787a

Attorney Recommends Liability Mitigation For UAV Operations.

Aviation International News (5/9) reports that attorney Camille Khodadad, partner in Hall Prangle and Shoonveld, said at the Business Aviation Safety Summit that UAV operators and their employers should mitigate the risk of potential liability should an accident occur. She suggested risk mitigation strategies including liability insurance, having an emergency response plan, aviation attorneys vetting all contracts with third-party UAV service providers, and reviewing all state, federal and local regulations and statutes governing UAV operations.

Parrot Launches First Commercial Drone The Disco-Pro AG (video)

May 10, 2017 By Julian Horsey

French drone manufacturer Parrot has this week unveiled a new range of commercial drones it has created specifically designed for small to medium-sized farms and cooperatives, taking the form of the Parrot Disco-Pro AG.

Watch the video below to learn more about the first commercial professional drones being marketed by Parrot, designed to enable farmers to quickly see the health of their crops as well as carry out crop scouting and NDVI maps. http://www.geeky-gadgets.com/parrot-disco-pro-ag-10-05-2017/

Intel wows Xponential with hard facts, helpful robots, entertaining drones

AUVSI (5/9/2017)

Relying upon a mix of dazzle and hard facts, Intel Corporation CEO Brian Krzanich used his May 9 keynote speech for AUVSI's Xponential 2017 as a platform to outline in crystal clear terms how unmanned systems — and the data they collect — are shaping the future. Speaking to an audience of UAS industry leaders and key players, Krzanich says that when time for driverless cars and aircraft becomes commonplace, the most important aspect of the vehicles would be the data they collect, not their performance.

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Airbus Entering US Commercial UAV Service Market.

The Wall Street Journal (5/10, Subscription Publication) reports that Airbus SE is entering the US commercial UAV service market with its new subsidiary Airbus Aerial. Next year, the company plans to offer services including monitoring agriculture and checking infrastructure maintenance using both in-house designed UAVs and those produced by others. The move is part of an attempt by Airbus to

catch up with UAV development and production by rivals such as The Boeing Co., Lockheed Martin Corp., Northrop Grumman Corp., and Israel Aerospace Industries Ltd. However, Airbus's move comes during a period of regulatory uncertainty in the US for UAVs, partly due to technical challenges in adding them to the national airspace as well as the Administration's moratorium on most new rules.

Bloomberg News (5/10) reports that Jesse Kallman, who will lead the Airbus unit's U.S. operations, said, "We will use whatever hardware makes the most sense," as most customers won't care whether the information they need is acquired by UAV, satellite, or other means. Bloomberg adds that as the use of commercial UAVs proliferates, they will generate immense amounts of data, creating "a broader change in how companies employ aerial surveillance and data to inform their businesses." The Atlanta Journal-Constitution (5/10) reports, "Airbus plans to contract with other businesses for drone vehicles, drone flights in areas where it doesn't have a presence, additional satellite imagery or data analysis when necessary."

Marines Seeking To Use 3D-Printed UAS.

ExecutiveGov (5/10) reports that Capt. Christopher Wood, co-lead for additive manufacturing at the US Marine Corps Headquarters, said that the service is seeking to deploy the Nibbler UAS, "a small unmanned aircraft system built using three-dimensional printing technology." He added that the Marine Corps wants to, in ExecutiveGov's words, "produce a 'near infinite' range of UAS that can be produced from basic materials."

Protonex Successfully Tests UAV Flight With Fuel Cell Propulsion System.

Seapower Magazine (5/10) reports that Ballard Power Systems subsidiary Protonex announced successful test flights of Insitu-made ScanEagle unmanned aerial vehicles "with the company's PEM (proton exchange membrane) fuel cell propulsion system." Paul Osenar, president of Protonex, said, "When combined with improved reliability and other advantages over internal combustion systems, fuel cells are proving to be a tremendous fit for UAVs."

Nevada Officials Help Set UAV Delivery Record.

The Las Vegas Review-Journal (5/10) reports that the Nevada Institute for Autonomous Systems "worked with a team on Friday to fly a fixed-wing drone over 97 miles ranging between 200 and 400 feet altitude in Texas," a record in long-distance drone package delivery. Chris Walach, director of the FAA- designated Nevada Unmanned Aerial System Test Site, said that "the technique that we validated last week allows Nevada right now to welcome any company, national or global, that wants to test ou[t] their technology for beyond visual line of sight."

3DR Raises $53 Million Series D Round 3DR, April 28, 2017

We're excited to announce that 3DR has recently raised $53 million in capital as part of our Series D funding round. This round includes both new equity and conversion of debt equity. It was led by Atlantic Bridge, and with investments from the Autodesk Forge Fund, True Ventures, Foundry Group, Mayfield, and a number of other fantastic investors that we're proud to partner with.

With this funding, we'll continue to build our flagship product, Site Scan, the complete drone data platform for the construction and engineering industries. https://3dr.com/blog/3dr-raises-53-million-series-d-697ab7dbd24b/#

Drones Are Redefining Infrastructure Design—Here's Why

By: Hugh McFall May 8, 2017

It's increasingly common to hear the steady hum of a drone flying on a construction site. They're being used to share progress updates from the sky, manage earthworks, perform cut-and-fills, and much more. But, there's also an emerging use case for drones within the civil engineering space: as designers move from 2D towards 3D design and BIM workflows, the reality capture data that drones provide is making a huge impact on their projects. In short: drones are the latest tool in the civil engineer's workflow, and they're changing the way the world gets built.

To show how, we recently embarked on a project with Autodesk—working with their team of bridge design and reality capture specialists—to explore the impact that drones are having on infrastructure projects.

We set out to show the complete drone to design workflow on a real-life project, and we quickly identified a great example: the Pinto Creek bridge, an aging structure east of Phoenix that the Arizona DOT is demolishing and replacing. Drone data is particularly useful for a site like Pinto Creek: it's a large, steep ravine that a drone can quickly survey—going out in the field to collect this data would be time-consuming and, at times, unsafe. Also, flying a drone doesn't require closing the road for manual inspection, which is particularly useful because there are no easy detours around the bridge.

We flew our Site Scan drone to data platform at Pinto Creek and captured the entire area in a single flight. The flight took a half-hour, and we collected 358 high-resolution photos. Then, after processing the images into a number of different data products, we delivered a detailed point cloud to the Autodesk team for processing. https://3dr.com/blog/drones-redefining-infrastructure-design/

Governor McAuliffe Announces Establishment of Commonwealth's Autonomous Systems Center of Excellence

DALLAS—Governor Terry McAuliffe today announced the establishment of the Autonomous Systems Center of Excellence to champion the expansion of this important industry in the Commonwealth, while speaking at the Association for Unmanned Vehicle System International "Xponential" event. The Center, which will be operated by Virginia's Center for Innovative Technology (CIT), is in direct response to recommendations made by the Commonwealth's Unmanned Systems Commission and roundtable discussions with industry leaders from across the Commonwealth and in accordance with language included in the 2017-2018 budget.

"The autonomous systems industry is one of the cornerstones of the new Virginia economy," **said Governor McAuliffe.** "With the establishment of the Autonomous Systems Center of Excellence, we will send a clear message that Virginia is open for unmanned systems business. Over the past three years, we've made tremendous progress to support this emerging industry, and we'll continue our efforts to cut red-tape and open the door for further growth." - See more at:
https://governor.virginia.gov/newsroom/newsarticle?articleId=20245#sthash.hLkQbX16.dpuf

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WATCH THIS AI DRONE TEACH ITSELF HOW TO FLY THROUGH TRIAL AND ERROR *By **Luke Dormehl** — Updated May 11, 2017 8:33 pm*

You know the saying, "If at first you don't succeed, try, try again?" Well, it also counts for drones. At least, that is the takeaway message from a recent paper titled "Learning to Fly by Crashing," published by roboticists from Carnegie Mellon University. They subjected hapless drones to 11,500 collisions in 20 different indoor environments, spread over 40 hours of flying time, to prove it.

Instead of using a computer simulation to solve the problem, Gupta and colleagues set out to build a framework where the goal of the drone is to crash. In their study, the drones were instructed to fly slowly until colliding with something, after which they would return to the starting

position and set off in a new direction. By doing this repeatedly and then feeding the crash data into a convolutional neural network, the team was able to train a drone to be able to more successfully fly autonomously — even in narrow, cluttered environments.

The algorithm controlling the drone works by splitting the picture the drone sees into two separate images and then turning in the direction of whichever looks less likely to result in a crash. The results were surprisingly effective. The drone still runs into problems, particularly involving glass doors and plain walls, but it is a whole lot better than it was before its training. https://www.digitaltrends.com/cool-tech/crashing-drones-teach-fly-better/

Self-analyzing drones could perform their own emergency landings

Ben Coxworth May 11, 2017

The Safe2Ditch system would let malfunctioning drones figure out where to land (Credit:NASA)

One of the big worries about the widespread use of multicopter drones is the possibility that if they stop working, they might plummet from the sky and hit someone on the head. As a result, we've seen suggestions such as parachutes, autorotating bodies, and even the ability to fly with one or more failed motors. NASA is now developing a system of its own, in which drones automatically select the best place to land in the event of a malfunction.

Known as Safe2Ditch, the technology would see drones continuously running self-diagnostic checks on themselves while in flight. If any problems were detected, the system would estimate how much longer the aircraft was able to remain airborne – it could also adapt the manner in which the drone was flying, allowing it to "limp" along a little longer.

The system would additionally search a database for locations that the drone could reach within that time, where it would be safe to land. Based on that information, the aircraft would then autonomously perform a landing at the closest such place, using sensors to confirm that no one was standing beneath it.

Landing locations could include areas such as fields, parking lots or parks. In some cases, however, the suitability of them would depend on the time of day – a school yard, for instance, wouldn't be recommended during school hours.

"The technology could significantly reduce the risks of UAVs [unmanned aerial vehicles] flying over populated areas," NASA's Sean Sullivan tells us. "NASA is trying to work with companies

that can develop it further for commercial use." There's more information in the following video. http://newatlas.com/nasa-safe2ditch-drone-safety/49489/

US Air Force Seeks More Agility In Buying And Fielding Simple, Cheap UAS.

IHS Jane's 360 (5/11) reports that Reid Melville, the unmanned air systems strategy lead for the US Air Force Research Laboratory, said at AUVSI's annual Xponential conference that the Air Force, in Jane's words, "wants to be more agile in its systems acquisition and be capable of quickly buying and fielding simple and cheap unmanned aerial systems (UAS) that would complement higher-end USAF platforms."

Public Safety Agencies Increasingly Using UAVs.

The San Francisco Chronicle (5/11) reports that "public safety agencies are increasingly using" UAVs, which fire officials and law enforcement agencies say "can save time, money and lives." UAVs have been used in the San Francisco area to inspect fires, search for people, and get closer looks at dangerous situations. However, there are concerns by the public that the UAVs will be used for surveillance. http://www.sfchronicle.com/business/article/Fire-police-drones-caught-between-saving-lives-11137289.php

Progress Being Made On Introducing Larger UAVs Into National Airspace System.

Aviation International News (5/11) reports that at AUVSI XPONENTIAL 2017, Michael Francis, United Technologies Research Center chief of advanced programs, "conceded" during a workshop co-sponsored by AIAA that the aerospace industry was "totally off the mark" in assuming that large UAVs would lead the way into civilian, controlled airspace. Instead, there has been a "rapid proliferation" of small drones, and the FAA has already produced a regulation on commercial uses of UAVs weighing less than 55 pounds. Still, progress is being made toward introducing larger UAVs into the US National Airspace System, "led by the NASA UAS Integration in the NAS Project." http://www.ainonline.com/aviation-news/business-aviation/2017-05-11/principals-report-progress-large-drones-entering-airspace