6Mar17

Airbus Planning To Reveal Concept Car Able To Be Airlifted By UAV.

<u>Business Insider</u> (3/4) reported that at this week's Geneva Auto Show, Airbus plans to unveil a concept car designed to be airlifted by a UAV within heavy traffic, according to <u>Automotive News</u> (3/3). Airbus is developing several "flying car" VTOL concepts, including "an electric, single-passenger aircraft for urban transit" from its Silicon Valley arm under Project Vahana and, separately, "a flying taxi named CityAirbus."

New Nonprofit 'SharedSky' Looks to Educate Citizens in Michigan on Safe and Ethical UAS Use 6 March 2017

Five entrepreneurs in the state of Michigan are launching a new nonprofit organization called SharedSky to educate citizens on the safe and ethical use of UAS technology. Among many things, the Traverse City-based organization will look to serve as an advocate for pro-industry legislation, host activities and events related to UAS, and act as a networking hub for companies, employers and individuals.

The organization would also like to create the first UAS park in the region, where UAS users can safely fly their UAS, while also communicating and socializing with their fellow UAS users.

"With this organization, we'd like to make Traverse City the official drone capital of Michigan," says Christian Smith, the president of SharedSky's board of directors,

Like the other four founding members of the organization, Smith has extensive experience within the UAS industry, as he is the CEO of Interactive Aerial, a company that manufactures customized UAS equipment, for drones that are used to inspect enclosed structures and hazardous environments.

Dennis Wiand works with Zero Gravity Aerial and James Greenwayworks with a North Dakota-based national UAS firm called SkySkopes that opened a satellite in Traverse City in January, Zero Gravity Aerial specializes in environmental assessments and aerial data collection, while Greenway has a focus on agricultural surveying and energy industry inspections. Enrico Schaefer, from Drone Law Pro, is experienced when it comes to FAA laws and regulations surrounding UAS. Rob Dreer is an assistant chief UAS instructor at Northwestern Michigan College (NMC). When speaking about the goal of the organization, Dreer says, "we want people to say this is a drone-friendly environment...so that companies will want to headquarter here, and so there's a direct line from NMC for students to jobs." http://www.auvsi.org/blogs/auvsi-news/2017/03/06/new-nonprofit-sharedsky-looks-to-educate-citizens-in-michigan-on-safe-and-ethical-uas-use

7Mar17

Dubai residents will be able to ride in flying drone taxis by July March 5, 2017

Residents of gridlocked Dubai won't need to worry about getting stuck in traffic for much longer, said Jon Gambrell at the *Associated Press*. The Emirati city says that by July, self-piloted taxi drones should be flying above its car-clogged streets. Using an app, people will be able to hail a Chinese-made EHang 184 drone, an egg-shaped craft with four propeller-bearing wings. It can carry one passenger and a small suitcase, together weighing up to 220 pounds.

"After buckling into its race car—style seat, the passenger selects a destination on a touch-screen pad in front of the seat and the drone flies there automatically." The EHang 184, which can stay in the air for up to 30 minutes and has a range of up to 31 miles, "will be monitored remotely by a control room on the ground."

http://theweek.com/articles/683208/dubai-residents-able-ride-flying-drone-taxis-by-july

SATELLITE 2017: Small Satellite Industry Needs More Launch Opportunities.

Space News (3/6, Subscription Publication) reports that participants at the SATELLITE 2017 conference agreed that the small satellite industry needs more launch opportunities to resolve a "launch bottleneck," as Clyde Space CEO Craig Clark described the problem. Spaceflight Industries CEO Jason Andrews urged companies to remember that "launch is super-hard" and to "educate investors" on that point. Participants also discussed the need to encourage the entry of entrepreneurs with specialized knowledge for specific industries. Planet co-founder Chris Boshuizen said that the market is "saturated with companies that are broad and shallow," and needs specialization to reach customers like farmers with customized, time-sensitive imaging solutions.

Nevada Bill Would Allow Authorities To Impound Abandoned UAVs.

The <u>Las Vegas Review-Journal</u> (3/6) reports that under a new bill introduced in Nevada, law enforcement in the state would gain the authority to "impound" UAVs found

grounded or abandoned through a process similar to that for motor vehicles. Senate Bill 234 would allow authorities to examine UAVs to attempt to determine ownership and require a warrant for any examination of data on the unmanned vehicles. The legislation calls for the state's Department of Motor Vehicles "to develop regulations and set storage fees" for impounding.

Oklahoma Bill Would Protect Property Owners Who Destroy UAVs.

The <u>AP</u> (3/6) reports that a bill proposed in the Oklahoma legislature "would exempt property owners from civil action" if they destroy a UAV over their private property. The Senate Judiciary Committee approved the legislation unanimously on February 21, sending it to the full chamber. The legislation does not specify how property owners can destroy a trespassing UAV, and State Sen. Ralph Shortey (R) said, "It doesn't matter how you damage that thing." The governor's Unmanned Aerial Systems Council opposes the bill, and its Chairman Stephen McKeever explained that the legislation "opens itself up to the state pre-emption of federal law," which prohibits shooting down aircraft.

Researchers Employ "Fuzzy Logic" For UAV Navigation.

The <u>University of Cincinnati News Record</u> (3/6) reports that at the AIAA SciTech Forum in January, a University of Cincinnati team presented their research into the benefits of using "fuzzy logic" – also known as "soft computing" – for small UAV navigation. While acknowledging that the research is preliminary, team member Kelly Cohen explained that "compared to other state-of-the-art techniques of adaptive thinking and deep learning," the "fuzzy logic" solution "appears to possess several advantages" in that it is "scalable, adaptable and very robust." The research was funded by a \$500,000 National Science Foundation grant.

senseFly and MicaSense Develop New Agricultural Drone & Data 04Mar17



senseFly has announced that it has signed a commercial agreement with agricultural data gathering, processing, and analytics provider MicaSense that enables senseFly and its distribution partners to offer MicaSense's Atlas cloud processing platform alongside eBee drones.

By making MicaSense Atlas available with senseFly's eBee drone platforms — all of which are compatible with the Parrot multispectral Sequoia camera — the two companies are signaling their ongoing commitment to providing customers with industry-adapted, end-to-end solutions that make collecting and analyzing high-resolution aerial data a simpler, more efficient process.

"By combining Atlas with Sequoia-based drones such as the eBee SQ we can offer farmers, agronomists and crop consultants a new, easy-to-use and highly powerful crop monitoring system," said Jean-Christophe Zufferey, senseFly's CEO. "With both companies part of the Parrot Group, this new end-to-end offering also confirms Parrot's position as a trusted provider of professional agricultural solutions."

"Our partnership with senseFly will help empower growers, agronomists, and agricultural service providers to easily capture data on a large scale, for greater insights into crop health. The integration of Sequoia-based eBee drones, combined with data analysis and processing by MicaSense Atlas, provides end-users the tools they need to effectively manage their farms," said Gabriel Torres, co-founder and CEO of MicaSense.

When flown at 120 metres (400 feet) above the ground, the senseFly eBee SQ can cover 200 hectares (500 acres) per flight; several times more than smaller quadcopter drones. It is built around Parrot's Sequoia multispectral camera, which captures data across four highly distinct spectral bands (near-infrared, red-edge, red and green), plus RGB imagery, in a single flight.

http://www.unmannedsystemstechnology.com/2017/03/sensefly-micasense-develop-new-agricultural-drone-data-solution/

Leonardo Announces New Secure Air Traffic Management System for Drones 07 Mar 2017

Leonardo has announced that the company is ready to deploy its automated system for unmanned aircraft air traffic management (ATM). Using new technologies, the system is able to efficiently and safely manage unmanned civil airborne traffic in very low-level urban airspace, or what is known as "U-Space," up to 150 metres above the ground. The new system, which will be showcased at the World ATM Congress 2017, is effective even beyond visual line of sight (BVLOS).

The system services are web-based and remotely accessible through standard web browsers and from two different external applications, one for mobile devices using iOS and one for multi-platform desktops. The system works with unmanned cooperative vehicles equipped with self-identification, self-positioning and communication facilities that transmit their positional data and equipment status to the platform. http://www.unmannedsystemstechnology.com/2017/03/leonardo-announces-new-secure-air-traffic-management-system-drones/

Land Rover's new Discovery search and rescue SUV has a roof-mounted drone <u>Darrell Etherington</u> (@etherington)



A special version of the new Land Rover Discovery dubbed 'Project Discovery' and designed for search and rescue operations is actually being deployed with the Austrian Red Cross – complete with a quadcopter drone that can take off from and land on the SUV, even while it's moving. Magnets lock the drone in place while the Discovery is moving, and the drone can assist with search and rescue operations, extending the Red Cross staff's ability to cover terrain beyond where the car and their feet can take them.

The drone that the Discovery carries onboard can broadcast live footage back to the rescue crew at the car, giving them a bird's-eye view not only of potential survivors in case of accidents and disasters, but also letting them see how the landscape may have actually changed compared to any maps they may have as a result of earthquakes, avalanches, wildfires and storms. It's a huge advantage to have on the ground in shifting emergency situations.

The Land Rover Discovery created for Project Hero also includes a sliding floor panel that can be used as a work surface in a pinch, as well as more mounting points for gear, added LED lighting to better illuminate nighttime operations, and power supply points with international plug configurations for compatibility with a range of devices.

The project's first deployment will be at an Austrian Red Cross training center in Erzberg, which is home to mountain-based mining operations. It's going to be doing a 12-month stint at first, starting in June, 2017, and the drone will be running simulated

operations to help rescue teams evolve their potential use of the added tech. https://techcrunch.com/2017/03/07/land-rovers-new-discovery-search-and-rescue-suv-has-a-roof-mounted-drone/

8Mar17



North Dakota Researchers Receive Grant to Develop Network for BVLOS UAS Flights <u>AUVSI News</u> (3/1/2017)

Thanks to a grant from the North Dakota Centers of Excellence Commission, the Harris Corporation, in partnership with the Northern Plains UAS Test Site and the University of North Dakota, will work on developing a network that provides aviation-grade services for beyond visual line of sight (BVLOS) UAS flights. According to the Harris Corporation, the network, which is expected to be developed within the Grand Forks-to-Fargo corridor, would be the first of its kind in the United States.

The Harris Corporation hopes to partner with end users in the local area to create test scenarios for UAS. Eventually, they would like to conduct a variety of tests for different scenarios including roadway inspection, public safety and emergency services, and precision agriculture. This grant, which is for two years, is a continuation of a previous grant that was aimed at creating and assessing detect-and-avoid technology for UAS. http://www.auvsi.org/blogs/auvsi-news/2017/03/01/north-dakota-researchers-receive-grant-to-develop-network-for-bylos-uas-flights

9Mar17

Urgent Need For UAV Traffic Management Concept: World ATM Congress.

Aviation Week (3/8) reports that at the World ATM Congress in Madrid on Wednesday, participants "expressed a sense of urgency" for air traffic management (ATM) and UAV industry members to agree on a UAV traffic management (UTM) concept. Speakers agreed that a "balance will have to be struck between the desire to act swiftly and the need for a single standard" to avoid a patchwork of regulations. European Commission Deputy Directorate-General for Mobility and Transport Matthew Baldwin "suggested 2019 as the deadline to have a UTM implemented in Europe."

Virgin Orbit President Discusses Smallsat Market.

The Los Angeles Times (3/8) interviewed Virgin Orbit President Dan Hart about the small satellite industry. Hart, a former vice president of government satellite systems at Boeing, was tapped to lead Virgin Orbit when it was created this month as a spinoff from Virgin Galactic. Hart said that smallsats are upending the "old economy" of large satellites, with lower costs, shorter production times, and specialized options providing "huge flexibility" for constellations and applications. He said that "courageous players" in recent decades "blazed the trail" for smallsats, and now "there's really no doubt" that they can provide old and new capabilities "very cost-effectively from low-Earth orbit."

10Mar17

FAA Examining Various Studies On UAV Fights Over Crowds.

Bloomberg News (3/9) reports that FAA Office of Unmanned Aircraft Systems Integration Director Earl Lawrence said that the agency and its counterparts across the world are following studies examining the safety of UAV flight over crowds of people. Virginia Tech is currently flying UAVs into crash-test dummies to study whether small to medium-size UAVs could seriously injure or kill a person. CNN's Greg Agvent said that the news organization is "conducting its own research on how to safely operate drones over crowds for news video photography." Lawrence said that the "FAA needs" this type of research "to support our rulemaking activities, but so does every other civil aviation authority and interest groups throughout the world."

Thales, IMEC Develop Radiation-Hardened Chip For Smallsats.

<u>Defense Systems</u> (3/9) reports that new "radiation-hardened" circuits could extend the lifespans of the next-generation small satellites at lower production costs. Belgium's Interuniversity Micro Electronics Center (IMEC) partnered with Thales Alenia Space in a project overseen by the ESA to develop the latest example. The pair announced this week that Thales' gallium nitride-on-silicon (GaN-on-Si) "power devices based on IMEC's chip architecture withstood heavy ion and neutron irradiation with…no degradation in performance." IMEC and Thales called the successful testing "an important step [on] the way to space-based power conversion applications," and IMEC said that the next phase will include transitioning fabrication of the technology to "existing infrastructure used to make conventional silicon chips," lowering costs.

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