



UAS and SmallSat Weekly News

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30July22

FAA Grants Approval for Flytrex to Double Drone Delivery Range Miriam

McNabb July 28, 2022 by DRONELIFE Staff Writer Ian M Crosby



Today, on-demand drone delivery leader [Flytrex](#) announced that it has been granted approval from the Federal Aviation Administration (FAA) to expand its current delivery radius from one to two nautical miles throughout its North Carolina and Texas operating stations.

Alongside longtime partner [Causey Aviation Unmanned](#), Flytrex will carry out deliveries of food, drinks and other goods to roughly 100,000 eligible customers qualified to opt into the service.

The approval comes after a recent expansion to Granbury, Texas. In addition, Flytrex has three operational stations in North Carolina in Fayetteville, Raeford, and Holly Springs. The company conducts thousands of deliveries each month.

Each of the new locations will maintain the ordering process for delivery. Customers will be able to place a range of orders from local stores and restaurants via the Flytrex app which sends customers updates on the status of their order until the package is gently lowered by wire into their backyards. <https://dronelife.com/2022/07/28/faa-grants-approval-for-flytrex-to-double-drone-delivery-range/>

Archer Selects Honeywell's Flight Control Actuation Technologies for Its eVTOL

Jessica Reed | July 28, 2022



Archer Aviation revealed this week that Honeywell will supply flight control actuation technology for its electric vertical take-off and landing (eVTOL) aircraft. This technology will enable the 12 tilt 6 configuration of Archer's vehicle. Honeywell will also provide its thermal management technology for a more comfortable in-cabin experience for passengers.

A few months ago, Archer selected another supplier: Hexcel, that provides composites technology. The [Letter of Intent \(LOI\)](#) was signed by both companies in April.

Archer also chose FACC that will manufacture fuselage and wing elements. The company's CEO, Robert Machtlinger, identified Archer as one of the market leaders in the urban air mobility



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space. "We expect this new area of aviation to show strong growth, and we're thrilled to be part of the journey with such an innovative partner," he said.

<https://www.aviationtoday.com/2022/07/28/archer-honeywell-flight-control-actuation-technologies/>

NASA Plans to Send 2 Helicopters to Mars for Rock Return Mission Amanda Kooser July 28, 2022



This illustration shows the bounty of robots that would be required to pull off the Mars Sample Return mission.

The [Ingenuity helicopter](#) has been so wildly successful on Mars that it's inspired [NASA](#) to redesign a future mission to the red planet. The [space agency said Wednesday](#) that a pair of Ingenuity-inspired rotorcraft will be a key component of a mission to bring pristine Martian rock samples from the Jezero Crater to Earth.

NASA expects Perseverance to still be functioning when the sample return mission arrives. The idea would be to have the rover bring its rock-filled tubes to the Sample Retrieval Lander, which would use a robotic arm (built by ESA) to pick them up for transport. But Mars Sample Return (MSR) is too important not to have a backup plan. The helicopters would be able to fetch the samples if needed.

The small rotorcraft Ingenuity has flown 29 times on Mars since proving with its first aerial adventure in April 2021 that powered, controlled flight was possible on another planet. The sample return choppers would have some design differences, notably the addition of wheels that would let them scoot across the ground to get close to the sample tubes.

With the mission concepts refined, MSR will move into a preliminary design phase starting in October. That yearlong phase will involve technology development work and the creation of prototypes. <https://www.cnet.com/science/space/nasa-plans-to-send-2-helicopters-to-mars-for-rock-return-mission/>

Flytrex gets FAA okay to double drone delivery areas in NC, Texas Bruce Crumley - Jul. 28th 2022



Drone delivery company [Flytrex](#) announced it has received approval from the [Federal Aviation Administration](#) (FAA) to double the size of areas it has been operating flights in North



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Carolina and Texas to two nautical miles, vastly increasing the potential number of households it can serve.

Israel-based Flytrex has been a major mover in the development of [drone delivery](#) of food and retail orders since it first launched activity in Iceland in 2017, then turned to the US to seek FAA approval. Since initially [introducing service in North Carolina](#) in 2019, the company has added two more areas it serves in the state, and in March announced the new aerial operations in the Dallas-Fort Worth area town of Granbury.

Under the new [FAA approval](#) announced today, Flytrex will be able to **double the previous radii of its drone delivery zones** to two nautical miles, increasing the number of [potential households served](#) from 40,000 to nearly 100,000. Flytrex has worked closely with the FAA from virtually the start of its entry in the nascent US drone delivery sector. <https://dronedj.com/2022/07/28/flytrex-drone-deliveries-faa/>

VW throws its hat into the eVTOL ring, with the "Flying Tiger" V.MO Ben Coxworth
July 29, 2022



With the increasing development of eVTOL (**electric vertical take-off and landing**) "air taxis," it shouldn't come as a surprise that [automakers are moving into the field](#). This week, Volkswagen Group China unveiled its own effort, in the form of the V.MO.

Its name an acronym for **Vertical Mobility**, the aircraft is also known as the Flying Tiger – it was launched in the Year of the Tiger, and its black-and-gold paint job pays homage to the big cat's black and orange coloration.

The existing functional prototype measures 36.7 by 34.8 ft and features eight horizontal rotors for vertical lift along with two rear vertical pusher props for forward flight. It was created via a partnership between VW China, UK design firm tangerine, and Chinese aviation manufacturer Sunward.

According to tangerine, the style, format, and layout were "heavily influenced by user research with over a hundred high-net-worth individuals across China." The V.MO is aimed at that same demographic, members of which could use the eVTOL to fly between various Chinese cities.



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Plans call for the current model to make several test flights later this year, after which an improved prototype will be the subject of test flights conducted late next summer. Volkswagen China states that the final commercial model will be fully autonomous, and capable of carrying four passengers plus luggage over distances of up to **124 miles**.

<https://newatlas.com/aircraft/volkswagen-group-china-vmo-evtol/>

1Aug22

Drone explosion hits Russia's Black Sea Fleet HQ Associated Press - Yesterday 11:52 AM

KYIV, Ukraine — A small explosive device carried by a makeshift drone blew up Sunday at the headquarters of Russia's Black Sea Fleet on the Crimean Peninsula, wounding six people and prompting the cancellation of ceremonies there honoring Russia's navy, authorities said.



A woman looks at a civilian's car shot at by Russian forces exhibited at Mykhailivs'ka Square along with damaged Russian military equipment as a symbol of Ukraine's resistance against the invasion in Kyiv, Ukraine, Saturday, July 30, 2022.

Meanwhile, one of Ukraine's richest men, a grain merchant, was killed in what Ukrainian authorities said was a carefully targeted Russian missile strike on his home.

There was no immediate claim of responsibility for the drone explosion at the naval headquarters. But the seemingly improvised, small-scale nature of the attack raised the possibility that it was the work of Ukrainian insurgents trying to drive out Russian forces.

The blast took place in the port city of Sevastopol in Crimea, which was seized from Ukraine by Russia in 2014. The Black Sea Fleet's press service said the drone appeared to be homemade. It described the explosive device as "low-power." Sevastopol Mayor Mikhail Razvozhaev said six people were wounded. <https://www.msn.com/en-us/news/world/drone-explosion-hits-russia-s-black-sea-fleet-hq/ar-AA109sG3?cvid=3acf877a09084126e2a0a5d502711101&ocid=winp2sv1plus>

White House Plans Summit on Drones, Advanced Aviation Next Week July 29, 2022

Lillianna Byington

**Bloomberg
Government**

The White House is planning a summit on advanced air mobility on **Aug. 3** as the number of drones operating in the US accelerates.



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- Panels will discuss the benefits and security concerns with drones and new technology, according to a draft agenda obtained by Bloomberg Government
- Officials, groups, and companies in the advanced air mobility space are expected to attend, including Joby Aviation Inc.
- NOTE: The Biden administration has [asked Congress](#) to expand its authority to intercept menacing drones, which expires in October; a Senate panel will vote on a bill to expand such powers next week
- Previously: [Drone Delivery Is Near With FAA, NASA Focused on Safety](#)

To contact the reporter on this story: Lillianna Byington in Washington at lbyington@bloombergindustry.com

<https://about.bgov.com/news/white-house-plans-summit-on-drones-advanced-aviation-next-week/>

AUDROS cUAS System: Capturing Intruding Drones in a Net Miriam McNabb July 29, 2022 by DRONELIFE Staff Writer Ian M Crosby



The AUDROS system, a drone solution that captures foreign drones in a net, has completed successful testing in the Czech Republic.

As opposed to other interception systems, which operate by shooting down or electrically paralyzing the intruding drone, the AUDROS (AUtonomous DROne System) solution provides a fully safe alternative that poses no risk to people or property in the removal of its target. The tests were conducted using [Fly4Future](#)'s Eagle One drone, which would take off from its docking station after detecting the presence of an unwanted drone. Upon approaching a foreign drone, Eagle One releases a net from its chassis to capture the intruder.

Rather than having to land after completing the first capture, the system can continue its mission, acting immediately upon detecting a second target. The autonomous system is controlled and managed by artificial intelligence, allowing for minimal human intervention. The artificial intelligence estimates the foreign drone's size, weight, and chance of capture.

The AUDROS system utilizes [Dronehub](#)'s docking station, in which the drone is permanently housed. The hub's advanced technology keeps the drone ready for take-off, and its used battery is autonomously connected to charging following flight, enabling continuous operations without requiring the operator to replace the battery.



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The AUDROS project was conducted by a consortium made up of Czech companies BizGarden, Fly4Future and GINA Software, and Polish company Dronehub and its subsidiary Cervi Robotics, with the participation of Brno's Military Technical and Research Institutes. The project also worked alongside the Czech prison service, with one of the system's use cases being monitoring airspace above prisons to prevent smuggling. <https://dronelife.com/2022/07/29/audros-cuas-system-capturing-intruding-drones-in-a-net/>

Tactical High Reconnaissance Evasive Aerial Target 1Aug22



T.H.R.E.A.T. was developed by Autonomous Flight Technologies in Salem, VA, to provide a low cost, secure, and Bradley compliant manufactured testing platform for counter sUAS solutions. The U.S. Department of Defense has issued several calls for prime manufacturers to develop countermeasures.

Legislation such as H.R. 4682 - UAS Act (2021) prohibits certain foreign manufactured equipment from being "operated, financed, or procured" by DOD or DOD prime contractors. Certain acts explicitly name DJI (China) as the top cyber threat due to many features including cloud storing technology. Although DJI raises most security concerns by the DOD, they remain the most popular. From Syria to the Ukraine, their Phantom continues to be the most widely used platform for both reconnaissance and offensive measures.

T.H.R.E.A.T. was designed to mimic the most popular DJI sUAS platform. From propulsion systems to aerial signature and flight characteristics, it performs almost identically when flown side by side with the Phantom. Where the Phantom is dependent upon cloud system technology, T.H.R.E.A.T. was designed to perform its missions without the use of any video equipment or internet access keeping the sUAS completely isolated. See the specs at: <https://www.autonomousflight.us/threat-target-suas>

2Aug22

China's civil drone market "will be worth more than \$14.8 million in 2022" July 25, 2022 Philip Butterworth-Hayes UTM and C-UAS market analysis

According to the *China Daily* new service, China's drone industry's output value of the domestic drone market is expected to exceed 100 billion yuan (\$14.8 billion) this year.



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“Data showed there were more than **12,000 drone enterprises**, with total output value topping 87 billion yuan. In Shenzhen alone, there are over 1,500 drone makers, and the output value reached nearly 60 billion yuan. Consumption-type drones accounted for 70 percent of the global total, while industrial-type drones grasped a 50 percent market share.

“**Since 2020**, despite the COVID-19 outbreak, China’s drone market bucked the trend and maintained a **30 percent growth** thanks to contactless delivery and smart applications, Yang Jincai, director of the Shenzhen Unmanned Aerial Vehicle Industry Association, said at the 6th Drone World Congress, which was held in Shenzhen, Guangdong province, on July 23-24. This year, domestic drone market value is expected to exceed 100 billion yuan, Yang said. A Low-altitude public airway network is a key part of China’s multidimensional transportation system. <https://www.unmannedairspace.info/utm-and-c-uas-market-analysis/chinas-civil-drone-market-will-be-worth-more-than-usd14-8-million-in-2022/>

White House to hold summit Wednesday on advanced air mobility August 1, 2022

David Shepardson



WASHINGTON, Aug 1 (Reuters) - The White House on Wednesday will hold a summit on advanced air mobility, including drones and electric vertical take-off and landing (eVTOL) aircraft, a spokesperson confirmed.

The summit, hosted by the White House Office of Science and Technology Policy, will include NASA Administrator Bill Nelson, Federal Aviation Administration acting chief Billy Nolen and Joby Aviation ([JOBY.N](https://www.joby.com)) CEO Joe Ben Bevirt. It will look at the "the future of aviation in America and the regulatory strategy towards responsible and equitable adoption of these technologies."

The summit will address how advanced air mobility can help achieve goals for U.S. domestic policy, national security, climate and job creation, the White House said. It will also look at the "future of aviation in America and the regulatory strategy towards responsible and equitable adoption of these technologies," and at challenges of integrating drones and eVTOLs into the national airspace.

Also speaking will be Gary Batton, chief of the Choctaw Nation of Oklahoma, Alondra Nelson, the acting director of OSTP, and Deputy White House Homeland Security Adviser Josh Geltzer.



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The summit comes as the White House is pressing Congress to extend and expand government powers to detect and disable threatening drones. That expanded authority is set to expire in October. <https://www.reuters.com/world/us/white-house-hold-summit-wednesday-advanced-air-mobility-2022-08-01/>

NEW ANTI-DRONE TECH HAS ONE PROMINENT CUSTOMER: THE UKRAINIAN MILITARY July 29, 2022 Sally French



San Francisco-based drone startup Dedrone has launched a new counter drone tech product called DedronePortable. And already, it has one highly prominent customer: the Ukrainian military.

Drones have been used by both Russia and Ukraine in the ongoing Russo-Ukrainian War, tasked with carrying out reconnaissance, artillery target location and even bombing. A spokesperson for the Ukrainian military told The Drone Girl in a prepared statement provided by Dedrone that having access to its new, counter-drone tech could provide essential support.

“We have been working closely with the Dedrone team and have reverse engineered the RF signature of the Russian Orlan-10 drones,” said a representative of Ukrainian military forces on the front line in eastern Ukraine. “We are now setting-up a network of sensors to further up-level our capabilities in the conflict zone.”

<https://www.thedronegirl.com/2022/08/02/dedroneportable-ukraine/>

American Water Earns FAA BVLOS Waiver Phoebe Grinter / 02 Aug 2022



American Water has been granted a Federal Aviation Administration waiver to fly Beyond Visual Line of Sight (BVLOS), providing the company with the opportunity to enhance its monitoring of source water and potential environmental threats to the water supply.

The new waiver will allow the company to fly 4-miles BVLOS from the Unmanned Aerial System (UAS) pilot.

“This waiver is a significant achievement for American Water and our UAS program,” said Christopher Kahn, Director of UAS, American Water. “**Annually**, American Water captures more than **500,000 images** & aerial maps of its assets through our drone program. These images help



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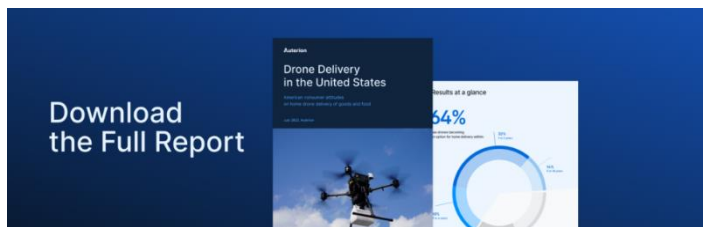
us monitor our systems and continue to provide our customers with safe, reliable water and wastewater service.”

American Water places a significant emphasis on aviation safety. The company utilizes an aviation Safety Management System (SMS), and its pilots receive up to 250 hours of initial training, depending on complexity of airframe and mission. Beyond training, the SMS provides a structured means of safety risk management decision making. In addition, American Water intends to utilize BVLOS for emergency response.

https://www.unmannedsystemstechnology.com/2022/08/american-water-earns-faa-bvlos-waiver/?utm_source=UST+eBrief&utm_campaign=517b2b6f77-ust-ebrief_2022-aug-2&utm_medium=email&utm_term=0_6fc3c01e8d-517b2b6f77-111778317&mc_cid=517b2b6f77&mc_eid=acabe18a61

New Research On American Attitudes Towards Drone Delivery Feature Article by Auterion

***Auterion**, the open source company building the software-defined future for mobile robotics and powering leading drone manufacturers, has announced new data from its 2022 “Consumer Attitudes on Drone Delivery” Report.*



Auterion works with more than 100 drone manufacturers and its open-source-based applications enable thousands of vehicles—putting its ecosystem at the center of shifts in the

cargo delivery vertical.

The survey, polling more than 1,000 consumers across the US, found that a solid majority of Americans (58%) favor the idea of drone deliveries and even more (64%) think drones are becoming an option for home delivery now or will be in the near future. With more than 80% reporting packages delivered to their homes on a regular basis, the survey finds that Americans are generally ready to integrate drone delivery into daily life.

https://www.unmannedsystemstechnology.com/feature/new-research-into-american-attitudes-towards-drone-delivery/?utm_source=UST+eBrief&utm_campaign=517b2b6f77-ust-ebrief_2022-aug-2&utm_medium=email&utm_term=0_6fc3c01e8d-517b2b6f77-111778317&mc_cid=517b2b6f77&mc_eid=acabe18a61



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Heavy Lift & High-Endurance Multi-Use Drones from Draganfly Phoebe Grinter / 28 Jul 2022

Both Draganfly's Heavy Lift and Commander 3XL drones are compatible with interchangeable payloads, including optical and thermal imaging solutions, specialized delivery containers, and the company's Long Range LiDAR system.



Draganfly's new Heavy Lift Drone is a versatile, industrial, multirotor Unmanned Aerial Vehicle (UAV) that has a payload lift capacity of **67 pounds** and a flight time of up to **55 minutes**. The UAV is capable of both automated missions and manual flight operations.

The company's Commander 3 XL Drone is a high-endurance, weather-resistant, multirotor UAV that is designed for easy assembly and rapid deployment. It can use drop and winch-down systems to transport up to 26 pounds of payload, performing well even in light rain and snow.

https://www.unmannedsystemstechnology.com/2022/07/heavy-lift-high-endurance-multi-use-drones-from-draganfly/?utm_source=UST+eBrief&utm_campaign=517b2b6f77-ust-ebrief_2022-aug-2&utm_medium=email&utm_term=0_6fc3c01e8d-517b2b6f77-111778317&mc_cid=517b2b6f77&mc_eid=acabe18a61

U.S. appeals court upholds FAA rules on drone identification August 1, 2022 News



A U.S. Appeals Court on Friday upheld rules set by the Federal Aviation Administration (FAA) requiring drones to have remote identification technology to enable them to be identified from the ground.

The rules, which were finalized in April 2021, give drone manufacturers 18 months to begin producing drones with Remote ID and are aimed at safely managing the growing use of drones in U.S. airspace.

The U.S. Appeals Court for the District of Columbia turned away a legal challenge from a drone operator and others who argued the rule "amounts to constant, warrantless governmental surveillance." The drone identification rules require they broadcast remote ID messages via radio frequency broadcast but eliminated proposed earlier requirements drones be connected to the internet to transmit location data. The FAA compares Remote ID to a "digital license plate" and says it is only detectable when the drone is in the air.



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Judge Cornelia Pillard [writing for the unanimous 3-0 panel](#) said “Drones are coming. Lots of them. They are fun and useful. But their ability to pry, spy, crash, and drop things poses real risks. Free-for-all drone use threatens air traffic, people and things on the ground, and even national security.”

She rejected arguments it was tantamount to illegal surveillance. “Requiring a drone to show its location and that of its operator while the drone is aloft in the open air violates no reasonable expectation of privacy,” Pillard wrote. https://uasweekly.com/2022/08/01/u-s-appeals-court-upholds-faa-rules-on-drone-identification/?utm_source=rss&utm_medium=rss&utm_campaign=u-s-appeals-court-upholds-faa-rules-on-drone-identification&utm_term=2022-08-02

Drone service and AAM vertiport specialist Skyports closes \$26 million Series B round Bruce Crumley - Aug. 2nd 2022



Leading drone services and [advanced air mobility](#) (AAM) vertiport developer [Skyports](#) says it has received over \$3 million in additional capital from Singapore-based ST Engineering, lifting the total of its now-closed Series B funding round to **\$26.13 million**.

London-based [Skyports](#) initially opened the financing drive in March. The objective, said company officials, was to generate sufficient funding to fuel Skyports’ rapid ascension as a leading [drone services provider](#), [aerial consultancy](#), and [builder of vertiports](#) that will be used in AAM services like air taxis, which are expected to begin operation as early as 2024.

Participation by aviation group ST Engineering in the over-subscribed capital push was a welcome but not novel linkup between the two companies. Their relationship began in 2021, when [Skyports](#) and ST Engineering began operating joint drone reservoir monitoring and inspection services for Singapore’s Public Utilities Board, using [beyond visual line of sight missions](#).

More recently, the two companies have been involved together in ship-to-shore UAV parcel deliveries to and from Singapore. That gave rise in May to a deal under which Skyports will [construct drone services infrastructure](#) at Singapore’s Jurong Port, which could feasibly become a precursor to the company being tapped to build vertiports needed for what’s expected to be robust future [AAM activity in the city-state](#).



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Previous subscribers to the Series B round included Deutsche Bahn Digital Ventures, Groupe ADP, Solar Ventus, Irelandia, Levitate Capital, global industrial property concern Goodman Group, Italian airport platform 2i Aeroporti, Ardian's Infrastructure Fund, F2i Italian Infrastructure Fund, US-based venture capital firm GreenPoint, and heavyweight Japanese conglomerate Kanematsu Corporation. <https://dronedj.com/2022/08/02/skyports-aam-drone/>

3Aug22

NASA ISN'T CONDUCTING DRONE DELIVERIES, SO WHY IS IT SO INTERESTED IN ZIPLINE? August 2, 2022 Sally French



NASA this week announced a partnership with California-based Zipline. Zipline is building a future involving delivery drones — and NASA is interested in being involved in the management of autonomous vehicles. Delivery drones means tons of autonomous vehicles in the air. And since Zipline is currently the largest drone delivery company out there, there's perhaps no better company to partner with in understanding operational needs to implement a way to manage many drones in the air at once.

The partnership is a [Space Act Agreement](#). As part of the agreement, NASA will work with Zipline to help develop tools and techniques under what it calls its (m:N) project.

(m:N) is short for Multi-Vehicle Control, and it means there would be an operational system where a few people (defined as m) are able to manage many autonomous vehicles (defined as N). (m:N) came to the public eye in March 2021, when NASA teamed up with industry leaders including Zipline and other big drone users like BNSF Railway for its first ever working group that month (which since meets quarterly).

NASA has always had a hand in drones, particularly when it comes to shaping drone traffic management. Lately, its (m:N) group has been working on addressing barriers to widespread drone adoption including technical, regulatory, safety assurance, and community acceptance. <https://www.thedronegirl.com/2022/08/03/nasa-zipline/>



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Boeing lands \$57m contract for support of unmanned carrier tanker Ryan Finnerty 2 August 2022

The US-based plane maker, which recently moved its headquarters to Arlington, Virginia from Chicago, was on 29 July awarded a \$57 million USN contract under Boeing's MQ-25 Stingray program.



Boeing's MQ-25 Stingray will be **the first carrier-based aerial tanker capable of unmanned, autonomous flight**. The MQ-25 is capable of autonomous take-off, flight and landing back on the carrier. A small number of the unmanned jets could ultimately be assigned to each USN aircraft carrier to provide in-flight refueling support to crewed aircraft

The recent award is an endorsement of the Stingray program which has been beset by delays according to the auditors at the US Government Accountability Office. The company blames pandemic-related supply chain backlogs and labor shortages for some of those issues while also noting "design challenges" related to the development of a first-of-its-kind aircraft.

During a recent tour of Boeing's defense division in St. Louis, Missouri, company officials said they are currently projecting the Stingray will begin low-rate initial production in 2024, with the USN reaching initial operating capacity in 2025. <https://www.flightglobal.com/military-uavs/boeing-lands-57m-contract-for-support-of-unmanned-carrier-tanker/149714.article>

Transportation Departments Are Using Drone Technology for Infrastructure Inspections Jessica Reed | August 2, 2022



An autonomous drone can eliminate the need for a manual inspection which can be difficult and dangerous. Autonomous drone inspections are also less expensive to perform. Departments of Transportation in Alaska, North Carolina, New York, and other states have found that using autonomous drone technology to monitor and inspect infrastructure can improve workflow efficiency and lower costs.



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Autonomous drones, such as those developed by the company Skydio, can easily be operated by less experienced pilots. Skydio closed [\\$100 million in Series C funding](#) in the summer of 2020. Shortly after that, the Defense Innovation Unit approved a version of the X2 model, along with four other drones, as [trusted purchases for government customers](#). In the summer of 2021, the FAA granted BNSF Railway approval to remotely operate Skydio drones for BVLOS operations, including infrastructure inspection.

Ryan Marlow, UAS Program Coordinator, Statewide Aviation for the Alaska Department of Transportation, remarked that they perform an average of **8–12 bridge inspections each day**. <https://www.aviationtoday.com/2022/08/02/transportation-departments-using-advanced-drone-technology-infrastructure-inspections/>

4Aug22

DRONE DESIGNED FOR NASA-SIMULATED MARS MISSION FLIES OVER AN ITALIAN VOLCANO August 2, 2022 Sally French



Industrial drone company Skypersonic has been spending the last couple years building drone and rover software and hardware to support NASA's simulated Mars mission. And this summer, the Detroit-based drone company completed a fascinating test of its tech inside an active volcano.

Skypersonic sent its Skycopter drone deep inside Mt. Etna, which is an active volcano in Sicily, Italy, which has a landscape similar to Martian geology, for a 15-day test flight. What's wild though is that the controlling crew wasn't anywhere near the volcano.

The drone and rover were controlled by personnel in Houston, Texas, in real time. That's possible thanks to Skycopter tech that can control and track drones in GPS-denied environments (a la a volcano). Most other drones require GPS networks to fly.



NASA is sending four real people to a 1,700-square-foot module called Mars Dune Alpha. It is meant to simulate the challenges of a mission on Mars, including resource limitations, equipment failure, communication delays, and other environmental stressors, and will require crew to execute tasks like simulated spacewalks, scientific research, use of virtual reality and robotic controls, and exchanging



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communications. <https://www.thedronegirl.com/2022/08/04/mars-mission-skypersonic-skycopter-drone/>

White House Summit on Advanced Air Mobility Addresses Security and cUAS Systems Miriam McNabb August 03, 2022



Today, at the [White House Summit on Advanced Air Mobility](#), stakeholders expressed concerns over security, the possibility of uncrewed technology being used by bad actors for terrorism or warfare, and the critical need for the reauthorization and expansion of the [Preventing Emerging Threats Act of 2018](#) set to expire October 5, 2022

Major General Sean Gainey, Director of Counter Unmanned Aircraft Systems of the US Army, gave a keynote discussion emphasizing the use of commercially available drones by bad actors in crime and in current geopolitical conflicts around the world.

Gainey's presentation was troubling, outlining the risks that bad actors pose with easily accessible technology that can be modified relatively simply. In addition to surveillance and identification of targets, criminals can use uncrewed technology to jam or scramble the systems of authorized manned aircraft, deliver contraband, and carry explosives.

The good news is that solutions exist to help ensure drone and Advanced Air Mobility security: sophisticated counter UAS systems that can detect, identify and mitigate threats from uncrewed systems. But, as Summit panelists point out, very few agencies are granted the authorization to use them. <https://dronelife.com/2022/08/03/white-house-summit-on-advanced-air-mobility-addresses-security-concerns/>

DOAV and VIPC Organize an Alliance to Plan for a New Phase of Air Transportation in Virginia Virginia Innovation Partnership Corporation August 02, 2022



VIRGINIA DEPARTMENT
of Aviation

VIPC | VIRGINIA INNOVATION
PARTNERSHIP CORPORATION
Connecting Innovators with Opportunity

RICHMOND, VIRGINIA, UNITED STATES, August 2, 2022 /[EINPresswire.com](https://www.einpresswire.com/)/ -- Virginia is preparing for Advanced Air Mobility (AAM), a safe, accessible, automated, and affordable air transportation system for passengers and cargo that can serve previously hard-to-reach urban and rural locations.

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Representatives from government, including Virginia's Secretary of Transportation Sheppard Miller and Deputy Secretary of Commerce and Trade Chelsea Jenkins, joined industry, education, and research leadership from across the Commonwealth to establish the Virginia Advanced Air Mobility Alliance (VAMA). The alliance will feature two working groups. The Virginia Innovation Partnership Corporation ([VIPC](#)) will lead the technology development and operational framework group and the Virginia Department of Aviation ([DOAV](#)) working group will lead the development of a strategy for the relationships and infrastructure necessary to enable AAM operations.

“Virginia has taken a leadership role in innovative aviation and unmanned systems solutions. VIPC has supported numerous pilot projects and programs, including the Mid-Atlantic Aviation Partnership (MAAP) at Virginia Tech, that are informing plans to get Virginia and our nation ready for the AAM industry,” said Bob Stolle, President, and CEO of VIPC. According to Tracy Tynan, Director of the [Virginia Unmanned Systems Center at VIPC](#), “This alliance represents the critical collaboration of thought leaders from government, world-class academic and research institutions, and advanced technology companies that will support the Commonwealth’s leadership in the continuing evolution of the aviation industry.”

AAM systems include small, **unmanned aircraft systems**, also known as drones, which are operating in Virginia for public safety, utility inspections, and package delivery, among other uses. Larger cargo and passenger air vehicles for Urban Air Mobility and Regional Air Mobility are being developed and are anticipated to be certified and operational within the next few years. <https://www.einpresswire.com/article/584181775/doav-and-vipc-organize-an-alliance-to-plan-for-a-new-phase-of-air-transportation-in-virginia>

Advanced Air Mobility (AAM) for Ports, Warehouses, and Logistics August 1, 2022

Scott Howe



“The logistics industry is the leader of the pack when it comes to using drones.”

That’s according to a recent article in the [American Journal of Transportation](#). The article describes how uncrewed technology has been embraced by companies involved in warehousing, port

management, transportation, and other logistics-focused operations.



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In recent years, major delivery and transportation firms like [Walmart](#), [Amazon](#), and [UPS](#) have begun incorporating drones to bring added value to their logistical operations. At the same time, companies that focus on adapting drones to facilities like warehouses and ports are gaining clients as they bring innovation to the field. [Ware](#), [Flytbase](#), and [Verity](#) are some of the leaders in this area, but many new companies are following their lead.

In many of these environments, drones are used to keep track of inventory. Using people to count the number of packages, containers, and crates in a single place (or in multiple places) is slow, time-consuming, and not always precise. With drones, inventory evaluations can be conducted quickly, accurately, and more frequently.

Drones are also helpful for inspections and security. Flying a drone around a warehouse or port on a regular basis can give operators a detailed, up-to-the-minute look at their assets in a way that simply isn't possible using human inspectors and security personnel.

What's more, delivery drones are increasingly deployed to bring efficiencies to port and warehouse operations. In many cases, drones are used to move goods and supplies around or within a given facility. The process is efficient, quiet, environmentally friendly, and—if used in an indoor space—not always subject to government flying regulations.

https://www.commercialuavnews.com/advanced-air-mobility-aam-for-ports-warehouses-and-logistics?mkt_tok=NzU2LUZXSioWnJEAAAGGCP3CVNDAZogI2ept2UMA1T13icydLXlItIO_IrICAD2pEecaPfoIqQbGZk6gAUDsCVWdLY7RFkEdffTv66-7m7UoIH_Pw3wXICE6ghx7_z0Y

Drone Delivery Canada approved to transport dangerous goods Ishveena Singh - Aug. 4th 2022



Canadian aviation authorities have issued a Transportation of Dangerous Goods (TDG) certificate to drone logistics firm Drone Delivery Canada. The Toronto-based company says it is **the only drone service provider in Canada approved to deliver dangerous goods using drones.**

In Canada, the transportation of dangerous goods is strictly regulated under the [Transportation of Dangerous Goods Act, 1992](#). Transport Canada has over 100 inspectors (including engineers and remedial measures specialists), who conduct close to 6,000 planned and reactive inspections every year under the government agency's TDG program.



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Drone Delivery Canada is being allowed to transport dangerous goods for the University of British Columbia Faculty of Medicine's Drone Transport Initiative (DTI) for remote communities. Gaining the TDG certification was important for the company because in its absence its drones wouldn't have been able to transport some medication and lab specimens that are classified as dangerous goods.

It's worth highlighting that the DTI program is already using Drone Delivery Canada's Sparrow drone and DroneSpot takeoff and landing zones to [transport a variety of cargo](#) for the benefit of the Stellat'en First Nation and the Village of Fraser Lake, located in Central Northern British Columbia. <https://dronedj.com/2022/08/04/drone-delivery-canada-dangerous-goods/>

11 Companies Are Developing High-Speed VTOL Concepts for U.S. Air Force Research Grants

Jessica Reed | August 1, 2022



Horizon's Cavorite X-series VTOL concept

The U.S. Air Force's AFWERX program initiated a market research program last year to encourage development of a high-speed vertical take-off and landing (VTOL) aircraft. The challenge accepted submissions from more than 200 companies that designed high-speed VTOL (HSVTOL)

concepts.

Eleven companies were chosen for a Phase 1 contract award. Phase 1 began in January 2022 and concluded at the end of June. [Bell Textron](#) is one of the companies selected for the Phase 1 contract. Bell, a subsidiary of Textron Inc., partnered with NASA earlier this year to demonstrate detect-and-avoid capabilities of its unmanned Autonomous Pod Transport (APT) aircraft.

Some of the other recipients were [Whisper](#), Jetoptera, Continuum Dynamics, VerdeGo Aero, Valkyrie, Transcend Air, American Aerospace Engineering, and [Jaunt Air Mobility](#).

As revealed last week, one of the 11 recipients—Horizon Aircraft—has successfully completed Phase 1 of the challenge as it continues to develop its Cavorite X-series VTOL aircraft.



Horizon's patented fan-in-wing design for vertical lift

The HSVTOL Challenge was created to develop an aircraft capable of flying **400 knots** and conducting missions such as personnel extraction and aeromedical evacuation.

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Phase 3 of the challenge will enable development of a full-scale technical demonstrator that could replace the Air Force's CV-22 Osprey tiltrotor aircraft, which has a maximum speed of **280 knots**. https://www.aviationtoday.com/2022/08/01/11-companies-developing-high-speed-vtol-concepts-u-s-air-force-research-grants/?oly_enc_id=7021F0632090D7B

5Aug22

Skylift's Electric Drones Perform Medical Deliveries in the UK Jessica Reed | August 2, 2022



The company SkyLift UAV develops unmanned aircraft with vertical take-off and landing capabilities. Their unmanned aerial vehicles were selected by the National Health Service in England for a pilot program in the Isle of Wight. The delivery method was launched in partnership with Apian, a medical drone startup. SkyLift's CEO, Toby Moores, and Operations Manager, Ben

Dexter, provided insights into the development of their UAV in a recent interview with *Avionics International*.

SkyLift's UAVs will deliver chemotherapy drugs from a pharmacy at Portsmouth Hospitals University to St. Mary's Hospital. [The UAV flights](#) will take about **30 minutes** each—a significant **improvement from the four hours** it typically takes to transport a package to the Isle of Wight. Efficient delivery is particularly important for transporting medications with a short shelf life.

Boots, a pharmacy chain in the UK, [announced last week](#) that it had used a SkyLift UAV to transport prescription medications from Portsmouth to the Isle of Wight. Apian selected the SkyLift drone for this project and helped facilitate the test flight. Boots claims that this is the **first time** a community pharmacy in the UK has transported prescription-only medications via UAV or drone. https://www.aviationtoday.com/2022/08/02/skylift-uav-medical-deliveries-uk/?oly_enc_id=7021F0632090D7B

NRO's spy satellite fleet to become more diverse Sandra Erwin — August 4, 2022



A National Reconnaissance Office satellite sits on a Rocket Lab Electron vehicle before its Aug. 4, 2022, launch.

WASHINGTON — The head of the National Reconnaissance Office said the agency will continue to build large, bespoke



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satellites but also will increasingly rely on lower cost commercial smallsats and payloads developed with international partners. “We’re proliferating our architecture,” Chris Scolese, director of the NRO, said Aug. 4 at a Mitchell Institute event.

Earlier this year two [SpaceX Falcon 9 rockets](#) launched national security NRO satellites from Vandenberg Space Force Base, California. But two recent space missions the agency launched [July 13 and Aug. 4](#) were **small satellites** developed jointly with the Australian government, and launched on commercial Rocket Lab vehicles from New Zealand.

Having access to multiple launch sites around the world also is part of the plan, said Scolese. Besides the major coastal ranges and Rocket Lab’s New Zealand sites, the NRO launches missions from [NASA’s Wallops Flight Facility](#) in **Virginia**, and in the future hopes to launch [from the United Kingdom](#). <https://spacenews.com/nros-spy-satellite-fleet-to-become-more-diverse/>