# Akim<sup>\*</sup> **Autonomous Akin**

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Our newsletter reflects the focus of Akin's cross-practice autonomous systems and advanced mobility team on developments in the regulatory, policy, trade, intellectual property, and cybersecurity and privacy spaces. Autonomous Akin brings you the latest news and developments so that you can keep a pulse on what is happening in government and industry that is impactful for your business. For our new readers, you can subscribe to future issues of this newsletter here.

In this late summer edition, we'd like to call your attention to several big developments with respect to federal regulation of uncrewed aircraft systems (UAS). Just before Labor Day, the Federal Communications Commission released long-awaited rules for uncrewed flight using 5 GHz spectrum. We've included a brief write-up on the new rules below, and you are more than welcome to reach out to us with any questions as you navigate this new framework. Also of note, the House of Representatives passed the Countering CCP Drones Act, which would place drone maker DJI on the FCC's "Covered List." Covered entities are unable to obtain FCC equipment authorization, which is required to import, market, or sell equipment that emits radiofrequency in the U.S. This would hamstring DJI's ability to market new products, likely with far-reaching impacts given DJI's outsized market share in the United States. More on this development is below. Thank you, as always, for reading!

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## Akin Spotlight

The Federal Communications Commission (FCC) recently adopted rules that will support initial drone operations in the 5 GHz spectrum band. Citing the growing use of UAS, the FCC developed these rules to enable wireless communications that are necessary for the safe operation of UAS flights.

The rules specifically establish initial service rules allowing operators to apply for direct frequency assignments in the central portion of the 5030-5091 MHz band for non-networked operations. While the FCC did not adopt all the proposed changes from its earlier Notice of Proposed Rulemaking (NPRM) on this topic, it does focus on non-networked access control links to allow for low-cost spectrum access for direct ground-to-air UAS control communications within radio line of sight. To do so, the FCC outlines a dynamic frequency management system that will manage the temporary use of frequency and assignment of frequencies based on the UAS operator's flight plan.

While the dynamic frequency management system is being developed, an operator seeking to transmit in this band will first have to submit a request to the Federal Aviation Administration (FAA), and once approved, complete and submit an online registration form with the FCC.

The adopted rules, approved by the full Commission excepting Commissioner Anna Gomez (who did not participate in the vote), can be found <u>here</u>.

## **Updates from Washington**

## On the Hill

## U.S. House Approved DJI Drone Ban Bill - Commercial UAV News

"Efforts to restrict or ban Chinese-made drones in the US took a step forward yesterday with the passage of the Countering CCP Drones Act in the US House of Representatives. The bill, which received bipartisan support, would add DJI to the Federal Communications Commission's (FCC) Covered List, meaning that new models of DJI drones would be effectively prohibited from operating on communications networks in the US. Introduced by Representative Elise Stefanik (R-NY), the bill will now move to the Senate, where it will be reviewed and possibly added to the Senate version of the 2025 National Defense Authorization Act (NDAA)."

## Read the Article

## In the Executive Branch

## Lisa Ellman Appointed to FAA's Aviation Rulemaking Advisory Committee - Drone Life

"The Commercial Drone Alliance (CDA) has announced that its Executive Director, Lisa Ellman, has been appointed to the Aviation Rulemaking Advisory Committee (ARAC). U.S.

Department of Transportation Secretary Pete Buttigieg selected Ellman to represent the commercial drone industry for a two-year term. This appointment is significant, as the CDA becomes the first drone organization to participate on the ARAC, highlighting the growing influence of the drone sector in aviation."

## Read the Article

## **Industry News**

## **Unmanned Aircraft Systems**

## Britain to Trial Use of Drones in Deliveries, Emergency Services - Reuters

"Britain's aviation regulator has selected six projects, including one by e-commerce giant Amazon, opens new tab, to test the use of drones in deliveries, inspection of infrastructure and emergency services, it said on Thursday. The UK's Civil Aviation Authority (CAA) had said earlier this year that it wanted to permit more drone flying for such uses. Currently drone users in Britain are only permitted to fly beyond the visual line of sight as part of trials with strict restrictions. The projects include Amazon's drone delivery service, called Prime Air, Airspection to carry out inspections of offshore windfarms and Project Lifeline, which aims to deliver medical supplies."

## Read the Article

# First-Responder Drone Program May Take Flight in Perrysburg Twp., Rossford - Toledo Blade

"A drone could soon become the first responder to a fire, pursuit, or other emergency situation in Rossford and Perrysburg Township. The communities' police chiefs have been in talks with a Seattle company to bring a first-responder drone to a central part of their area in northern Wood County. This is different than a regular drone in that it could be sent by dispatchers to an emergency call, arriving in seconds."

#### Read the Article

## China Trials Cargo Drone With Biggest Payload Capacity Yet - Reuters

"Chinese aviation logged a new milestone with a test flight of an unmanned civilian drone capable of carrying up to 3.2 metric tons of cargo, as drone makers trial larger and larger drones in anticipation of future domestic demand. The unmanned SA750U developed by a drone maker based in southern Hunan province completed a 40-minute test flight on Thursday morning, the official Hunan Daily reported on Friday, adding the aircraft can operate as high as 7,300 metres (24,000 feet) and fly as far as 2,200 kms (1,367 miles)."

#### Read the Article

## Nokia and Swisscom to Deploy Drone Service Across Switzerland - The Star

"Nokia has partnered up with Swisscom to deploy a drones network across Switzerland to improve emergency responses and infrastructure inspection, they said in a joint statement

on Thursday. The Finnish telecom gear maker will supply 300 un-manned vehicles that mobile provider Swisscom will operate through a drones-as-a-service (DaaS) network across the country. DaaS is a business model that allows clients to use drones on demand without having to buy or operate them. Swiss public safety agencies such as police or firefighters will be able to request a drone flight from Swisscom Broadcast and access collected data... Nokia and Swisscom said they would cooperate with aviation and spectrum regulators and comply with data protection laws."

## Read the Article

# Tourists Scaling the Great Wall Of China Can Now Get Takeout Delivered By Drone - CNN

"Hungry tourists hiking on the Great Wall of China can now get their lunch delivered - from the air. Chinese food delivery giant Meituan says its new drone service, announced last week, will bring food, drinks and other goods such as medical supplies to customers at a far-flung section of the ancient monument on the outskirts of Beijing."

## Read the Article

## A2Z Rolls Out Delivery 'Drone-Network-As-A-Service' Offering - Freight Waves

"California-based A2Z Drone Delivery on Monday launched a suite of autonomous drone docks — portable or permanent sites where drones can charge and pick up or drop off packages, with no human interaction. Accompanying the firm's new AirDock offering, which comes in four configurations, is a companion drone specially designed to integrate with the system."

#### Read the Article

## IKEA Employees Are Getting New Al Drone Coworkers in the U.S. - Gizmodo

"IKEA plans to introduce autonomous AI-enabled drones in its Perryville, Maryland, distribution center, according to a press release Friday. And while the Swedish company has been experimenting with drones globally since 2021, this is the first time those UAVs are going to be working alongside IKEA workers in the U.S. to do inventory checks and reduce the physical strain on human workers."

#### **Read the Article**

# Drones Successfully Fly Blood Packs in Longest Ever BVLOS Flights in UK First - UAS Vision

"Blood packs have been successfully flown by drone in a series of 'beyond visual line of sight' flights, for the first time in the UK. In a research study to check the viability of flying blood via drone, run jointly by NHS Blood and Transplant (NHSBT) and medical logistics company Apian, ten units of packed blood cells were transported on a 68 km journey across Northumbria's skies, while an identical ten packs were transported via road."

#### Read the Article

'We Don't Stop For Red Lights': Drone Deliveries Take Off As Australian Regulators Prepare For Air Traffic Boom - *The Guardian* 

"Widespread reliance on drones may seem years off but industries from food delivery to agriculture are already putting the unmanned aerial vehicles to work across Australia. As regulators prepare for new uncrewed traffic, technology companies are exploring ways around connection black spots, to prevent drones dropping out of the sky."

## Read the Article

## UK's First Drone Mail Service Extended in Orkney - BBC News

"The UK's first commercial drone mail service, in Orkney, is to be extended to 2026, it has been announced. The Orkney I-Port operation was launched by Royal Mail and drone firm Skyports in August last year. The electric drones take letters and parcels between islands, where staff then complete their usual delivery routes."

## Read the Article

## **Advanced Air Mobility**

# LA to Get Air Taxi Service in Time to Host Major Sports Events, Including 2028 Olympics

"Urban air mobility developer Archer Aviation on Aug. 8 announced plans to launch a network of air taxis in Southern California as soon as 2026, when the FIFA World Cup comes to Los Angeles. The city will also host the Super Bowl in 2027 and the 2028 Summer Olympics.

Archer's largest investor, global automaker Stellantis, will contribute up to \$400 million to help ramp up manufacturing capacity to 650 electric vertical takeoff and landing aircraft annually. Stellantis is helping to build Archer's assembly plant in Covington, Georgia."

## Read the Article

# Seoul's Gimpo Airport Area to Turn into Urban Air Mobility Hub by 2030 - *The Korea Times*

"The area around Seoul's Gimpo International Airport will be redeveloped into an Urban Air Mobility (UAM) hub by 2030, the Seoul city government said Sunday. The Gimpo Airport Innovation Zone, comprised of three blocks, will be built on 350,000 square meters of land in the Gimpo Airport Innovation District in western Seoul's Gangseo District, according to the city.

The first block, now a parking lot for the airport's domestic terminal, will host a complex transfer facility, including a UAM take-off landing site. The UAM take-off and landing site will be located on the fifth to seventh floors of the facility."

## Read the Article

# St. Pete Leaders to Create Air Mobility Tasks Force With New Era of Transportation on the Horizon - AOL

"Something new may soon be landing at St. Pete's Albert Whitted Airport. "The first of these aircrafts are supposed to be certified for flight as early as next year, so you would expect

that they would be trying to roll out some of the initial, maybe air taxi type routes, or some type of established routes, soon after that," said Richard Lesniak, the airport manager for the City of St. Pete at Albert Whitted Airport. Lesniak is talking about eVTOLs, short for "electric vertical takeoff and landing aircrafts." Some call them air taxis. They can move people and goods. They're cheaper, safer, quieter and better for the environment, Lesniak said."

#### Read the Article

# Australia Anticipates Air Taxis at Brisbane 2032 Olympic Games - *Urban Air Mobility News*

"Australia's air navigation service provider Airservices expects the Brisbane 2032 Olympic Games "to be catalysing event for air taxis", according to Luke Gumley, Airservices head of transformation uncrewed services in an exclusive interview with The Guardian newspaper. Australia is building an air traffic control system for drones as authorities prepare for a surge in uncrewed aircraft flights and flying taxis over the next decade, says the report."

## Read the Article

## **Autonomy & Electric Vehicles**

# Half A Billion Dollars In Grants Awarded To Boost The EV Charging Network - Government Executive

"California will get \$102 million to build a hydrogen- and electric-vehicle charging network along the West Coast, while eight Native American tribes and dozens of local governments secured federal grants to build EV charging stations, the Biden administration announced Tuesday. All told, the Federal Highway Administration announced \$521 million in grants to 29 states to bring electric charging ports to largely underserved areas. The money comes from two programs in the 2021 infrastructure law that fund new charging stations to promote the switch from gas-powered cars to EVs."

## Read the Article

# After EVs, China Seeks to Dominate Al-Powered Autonomous Driving - The Wall Street Journal

"With electric vehicles, China sped past the rest of the world. Now, it is looking to repeat the feat with autonomous driving. Competition is intensifying in driver-assistance software—one pathway to full autonomous driving—among startups such as XPeng and national technology champions including Huawei. To speed up innovation and drive down costs, they are using artificial-intelligence techniques to mimic human driving patterns and navigate cars through many traffic situations, although the latest models still require a human driver to stay alert and at times take control of the car. The Chinese technology isn't yet widely available in the U.S., but American scrutiny is already growing. The Biden administration is probing whether connected vehicles loaded with Chinese software to monitor drivers and connect to networks pose a risk to national security."

## Read the Article

## Technology, Autonomy, and the Environment

# Heavy Lift Drones Deliver Critical Cargo to Offshore Wind Turbines - New Atlas

"Following successful trials last year at a UK wind farm, Denmark's Ørsted has now put heavy lift drones to work at a 94-turbine offshore wind farm in the North Sea - completing resupply missions up to 15 times faster while also reducing costs. Offshore wind farms are a vital part of the renewable energy mix, but getting necessary supplies out to turbines can prove both costly and time consuming. Energy company Ørsted partnered with transport/logistics company DSV in 2022 to trial drone delivery of components to technicians working on turbines instead of transporting them from shore by ship."

#### Read the Article

## Drone Swarms Could Stop Wildfires, Researchers Say - BBC News

"Drones could soon be working together in swarms to put out flames before they become wildfires, UK researchers hope. A team of firefighters, scientists and engineers are working on a project they say will allow swarms of up to 30 autonomous planes to spot and extinguish fires by working collectively using artificial intelligence."

#### Read the Article

# A South African Vineyard is Dropping Predatory Wasps From Drones to Keep its Grapes Free From Bugs - CNN

"Vergelegen Wine Estate in South Africa's Western Cape is using an unconventional method to keep its 130 hectares of vineyards both virus and pesticide free. Pairing technology and nature, the 324-year-old wine estate is using drones to drop predatory wasps that control pests without the use of insecticides. The project is being carried out by SkyBugs, a partnership between Cape Town-based FieldBUGS, which supplies the predatory insects, and agritech company Aerobotics, which works with a network of drone pilots to disperse the bugs accurately."

## Read the Article

## Akin Thought Leadership

Akin Launches Al Law & Regulation Tracker (August 1, 2024)

2024 FAA Reauthorization - Key Developments in Emerging Aviation (June 12, 2024)

GM Touts Racing Innovation, IP Boon as It Bids to Join Formula 1 (March 28, 2024)

<u>Commerce Focuses National Security Scrutiny on 'Connected Vehicle' Supply Chain</u> (March 1, 2024)

<u>FAA Reauthorization Watch: Provisions of Note for UAS and AAM Companies in the Senate Bill</u> (February 13, 2024)

Hot Issues in 2024 for TMT Companies (February 6, 2024)

<u>Three New UK Laws Impacting Autonomous Vehicles, Digital Markets and Personal Data</u> (November 30, 2023)

CPPA Takes Aim at Connected Cars in First-Ever Review (August 23, 2023)

## **Events**



## <u>Horizons 2024 - The Annual DroneDeploy Conference</u>

October 22-23, 2024 Scottsdale, AZ

Horizons is the only reality capture industry conference that brings together the executive, operations and technical leaders who are shaping the way we document the physical world using drones, robotics and AI.

## **Global UTM Association Harmonized Skies 2024**

November 14-15, 2024 Dallas, TX

Harmonized Skies 2024 provides industry leaders, regulators, and other stakeholders a unique opportunity to engage in meaningful discussions on shaping a competitive drone services market.

## Auto IP & Legal USA Summit 2024 | Ardensi UG

November 19-20, 2025 Detroit, MI

Akin partner Rubén Muñoz will be moderating a panel discussion titled "AI and Intellectual Property: Emerging Trends and Future Directions.

## Revolution.Aero

December 4-5, 2024 San Francisco, CA

The theme is "Advanced air mobility (AAM) global harmonization and interoperability: Challenges and opportunities". The symposium will build upon the developments of DRONE ENABLE with attention given to concepts for AAM, electric vertical take-off and landing

(eVTOL) aircraft, vertiports, automation, trust framework and airspace integration. Several dimensions to these new mobility concepts and infrastructure will be considered.



Learn more about Akin's Autonomous Systems and Advanced Mobility practice.

Learn More >

**Questions?** 

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