



Protect Our Airspace Before 'The Big One' Hits

Story by Dawn Zoldi • 2mo

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In this photo illustration, a small drone hovers in place on Dec. 15, 2021 in Miami, Florida. Joe Raedle/Getty Images© Provided by The Messenger

To make significant changes in our government, history indicates that a crisis must first occur before Congress passes a law to prevent future such events. The unprecedented events of 9/11 resulted in the creation of the Department of Homeland Security (DHS) and the related restructuring of the intelligence and law enforcement communities. In the aftermath of Hurricane Katrina, Congress reorganized the Federal Emergency Management Agency (FEMA). But do we really have to wait for a horrific drone-related incident to make the required safety adjustments now?

All one has to do is look at what is happening in the Russia-Ukraine war to see that small drones, when unchecked, can have big impacts. [The risks from careless, clueless, criminal, and combatant drone operators are real](#) and, in some cases, occur daily right here in the United States.

We just haven't had the big one yet.

In the meantime, the clock keeps ticking for the 118th Congress to make some critical decisions about its legislative priorities and funding for the Federal Aviation Administration (FAA), including perhaps one of the most pressing homeland security issues: the protection of our skies, people, and facilities from drones.

The current FAA Reauthorization expires soon — and with it, so does funding and authority for the FAA for critical programs and operations. For example, [Section 383 of the FAA Reauthorization Act of 2018](#) mandated the FAA to test counter-uncrewed aircraft system (UAS) technologies and systems at airports and to convene an Aviation Rulemaking Committee (ARC) to make recommendations for a plan to certify and allow this tech in the national airspace system (NAS). The [FAA just formed the required ARC](#) in May and doesn't plan to issue a final report until early 2024. How can the ARC make informed recommendations on the safety of counter-UAS tech if the ability for the FAA to test it will expire?

The proposed bi-partisan Reauthorization, [Securing Growth and Robust Leadership in American Aviation Act \(H.R. 3935\)](#) just passed. But even with as much support as it received, it still fails to address the feds' expiring counter-UAS authorities for the Department of Homeland Security (DHS) and Department of Justice (DOJ) to detect, identify, track and mitigate credible domestic drone threats.

It's one thing for the FAA to be prohibited from testing counter-UAS equipment at a handful of airports (which, by the way, [report about 100 drone sightings](#) monthly); it's quite another for our homeland security agencies to be hamstrung from protecting us.

Instead, the House bill clarifies Section 2209, originally in the [2016 FAA Extension, Safety, and Security Act of 2016 \(FESSA\)](#). This section required the FAA, by 2020, to create a process enabling operators and proprietors of critical infrastructure to apply for airspace restrictions or prohibitions to prevent UAS from operating in close proximity. The House package tightens up the catch-all in Section 2206 and pushes back due dates for the final rule to 2025. This is all good, except that none

of these sites would have the authority to use a full range of technologies to detect UAS that might be encroaching on the airspace around them. According to FEMA, the private sector owns about 85% of the nation's critical infrastructure and key resources. Those private actors do not have counter-UAS authority.

Nor do our frontline first responders.

Last year, Congress proposed a couple of counter-UAS bills. Notable among these, the [Safeguarding the Homeland From the Threats Posed by Unmanned Aircraft Systems Act](#) of 2022 would it have extended and enhanced DHS and DOJ counter-drone authorities and enabled state, local, tribal, and territorial law enforcement, as well as owners and operators of critical infrastructure, to detect drone threats. It withered on the vine.

We need action on a few things right now. First, we need a robust FAA Reauthorization Act that maintains Section 383 authorities and demands movement on Section 2209. Second, our federal agencies need their counter-UAS authorities extended indefinitely. Third, our first responders and those in charge of our critical infrastructure need to be able to detect rogue drones, at a minimum. Ideally, they could take appropriate action, using safe and approved technologies, with the right processes in place, should they encounter a credible drone threat.

And yet new generation technologies exist to support these first responders, critical infrastructure defenders, and the federal government in a manner that doesn't disrupt the airspace. New technology categories, such as non-jamming, non-kinetic radio frequency cyber takeover counter-UAS systems, pioneered by innovative defense tech companies such as D-Fend Solutions, have emerged to confront rogue drones without disrupting communications or operations or risking collateral damage. The innovative methods in such C-UAS technology can complement other new technologies such as the Artificial Intelligence (AI) and Machine Learning techniques employed in the SHIELD System by Liteye. Varied technologies can be combined in a layered defense to provide an escalating response, if needed, all integrated together by prime contractors such as SAIC and others.

But there's more required.

Someone within the federal government also needs to lead counter-UAS in a more centralized cross-departmental manner. In the [2020 Consolidated Appropriations Act](#), Congress approved funding for the creation of a DHS CUAS

coordinator. It seems this person would be in the right position to lead a whole-of-government CUAS effort. The FAA's job #1 is safety, not security.

And part of that CUAS effort should include a relook at all laws, regulations, and associated interpretations that have been blocking the employment of CUAS technology. It's time, because things have changed with the rapid proliferation of commercial drones, the development of new counter-drone technologies and the implementation of the [Remote Identification rule](#) which requires drone pilots to broadcast their drone's location, velocity and even, in most cases, the location of the pilot, to the public.

Finally, if — or when — authorities flow to first responders and critical infrastructure owners — and they should — then funds need to follow. Unfunded requirements don't work.

It may seem a tall order, but the key question is: Do we tackle airspace awareness and protection now — or do we wait until after the big one?

Dawn Zoldi served for 28-years in the U.S. Air Force, retiring as a colonel. She is a licensed attorney, founded [P3 Tech Consulting](#), and is an internationally recognized expert on uncrewed aircraft systems and advanced air mobility law and policy, She is the author of the book "[Unmanned Aircraft System Legal and Business Considerations](#)."