

December 1, 2022

The Honorable Rep. Frank Lucas  
Ranking Member  
House Science, Space, and Technology Committee

**SUBJECT:** Official Letter of Support: “National Drone and Advanced Air Mobility Initiative Act”

Dear Ranking Member Lucas:

AirWise Solutions, Inc. is uniquely an U.S. based Uncrewed Aerial Vehicle (UAV) Manufacturer with academia background(s) that exists in the Jurisdictions of Oklahoma, Tribal Nation and HUBZone allocated lands. We believe that our American small business fully encapsulates the need for U.S. manufacturer development and the entrepreneurial spirit of this proposed bill. It is unquestionable this bill would be transformative for the U.S. based UAV manufacturing industrial base and as such we are honored to write you this Letter of Support for the “National Drone and Advanced Air Mobility Initiative Act”.

I had the privilege of serving in Counter sUAS Tri-Service (Army, Navy, Air Force) Working Groups with Security Clearance(s) in 2019 when the original concerns of covered foreign nation data security breaches in-turn triggered the sanctions of Section 848 of the NDAA for Fiscal Year 2020. Since January of 2021, I have served as the Chief Research & Development Engineer for the largest Oklahoma origin UAV manufacturer. Now on the opposite side of Counter UAV development, in the world of U.S. based UAV industry development, I have the firsthand knowledge of the incredible strain U.S. industry has gone through to meet NDAA Section 848 compliance and/or Defense Innovation Unit (DIU) “Blue List” or “Blue UAS” compliance.

With the passage of the original NDAA Section 848 sanctions, over an estimated ~80% of the commercial UAV market in the U.S. (with DJI, a single China origin UAV vendor accounting for 76.1% of the market), was immediately no longer eligible for supporting federal acquisition of UAV. The effects of the NDAA Section 848 sanctions were largely twofold:

- a) The United States government no longer maintained a strong industrial base to rapidly acquire even basic small UAV and thus a critical supply chain issue exists.
- b) U.S. industry largely did not compete with covered foreign nations (namely the People’s Republic of China) for small UAV advanced technology development and was/is largely unprepared to match United States government more advanced technology needs.

Moreover, with the critical developments in the ongoing Ukraine Invasion, we have seen the emergence of small UAV technology becoming a force multiplier with a critical supply chain that few analyst(s) could have ever predicted in the 21<sup>st</sup> century battlefield. It is important to note, the same small UAV technology emergence in recent military events, is the same technology that is driving a profound scientific/commercial UAV “renaissance” for new use cases in almost every single U.S. based industry. From multi-spectral cameras in agriculture, to methane detection in oil and natural gas safety, to photogrammetry technology in survey grade construction or infrastructure, to ozone-air detection in environmental protection and to even

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last-mile emergency medical delivery. However, currently only 15x total UAVs are even NDAA Section 848 compliant or on the DIU “Blue UAS 2.0” list due to the challenges of even developing a U.S. UAV basic airframe or UAV platform. Even fewer U.S. based companies have either the time nor adequate funding to develop the more advanced NDAA compliant payloads/technologies listed above. If the UAV payloads (ie a chemical methane sensor or advanced photogrammetry camera) are not NDAA section 848 compliant, the U.S. government can not purchase these more advanced commercial capabilities except for very rare exceptions for exclusive scientific research or for Counter UAS. This means that currently, without further targeted U.S. industry development or funding like this “National Drone and Advanced Air Mobility Initiative Act”, the United States government can simply not compete in (or even purchase) new international UAV technologies or development.

The U.S. UAV industry has a strong history of hobbyist, “tinkerers”, “garage shops” and even innovative or efficient (but often underfunded) startups. This means even with nominal targeted funding or development, the U.S. based UAV industry will both use the tax-payers funding support hyper-efficiently and will enable breakthrough technologies. These use cases or challenges outlined are of direct importance to the role, purpose and functions of the esteemed House Science, Space, and Technology Committee. It is up to this Committee and this very bill, to decide if the U.S. UAV industry can not only “catch up” globally but further be a UAV technological global leader as is the American way.

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