UNMANNED AERIAL SYSTEMS (UAS) IN MOSQUITO AND VECTOR CONTROL

ISSUE: Legislation introduced in the 118th Congress including H.R. 820, the Foreign Adversary Communications Transparency Act, and H.R. 2864, the Countering CCP Drones Act, if enacted, will restrict the use of UAS for public health and vector control purposes. Legislation needs to effectively balance the need to maintain public safety and privacy, while allowing the use of drones to manage mosquito populations and protect the public's health.

AMCA members have been transitioning to the use of drones for both mosquito monitoring, and public health focused pesticide applications. A 2023 AMCA member survey revealed that 56% of respondents are currently using drones and an additional 32% are planning to deploy drones. The most common uses for UAS by mosquito control professionals are to perform larvicide applications in rural areas and survey for standing water in these remote areas, mapping, and targeted applications in urban areas where large aircraft usage is impractical. Three types of drones are utilized by AMCA members: large spray drones, small spray drones, and camera/sensor drones. Of these, drones manufactured by DJI make up the largest proportion of drones operated in mosquito control. DJI drones make up 81% of camera/sensor drones, nearly half (45%) of small spray drones, and a smaller proportion (26%) of large spray drones. These drones represent a significant portion of these programs budget and would take years to replace with American made systems.

The benefits of drones in mosquito control include allowing for more timely and precise access to areas that produce mosquitoes to detect standing water, apply mosquito control products or larvicides to the standing water. UAS also eliminates environmental impacts from traditional mosquito control methods in sensitive areas such as walking through wetlands with backpack sprayers, using amphibious tracked vehicles, using helicopters or fixed wing aircraft on smaller target areas or near populated areas.

Drones manufactured by DJI have been a good choice, and in many cases the only choice for many public health applications. They are easy to use, less than half the cost of comparable drones. In addition, they've had more flight hours demonstrating airworthiness leading to faster approvals from the Federal Aviation Administration (FAA) compared to U.S. manufactured drones. Public health uses of drone technology require significant and lengthy operational, regulatory, and, at times, hardware, and software customization to be safe and effective at performing mosquito control related operations. Because each drone system is different, this process must be repeated and significant public expense for each new system a mosquito control agency acquires.

As introduced in the 118th Congress, the U.S. House Committee on Energy and Commerce has favorably reported and H.R. 820, the Foreign Adversary Communications Transparency Act, and H.R. 2864, the Countering CCP Drones Act to the full House for consideration. Both bills were bi-partisan on introduction and unanimously supported in Committee.

UNMANNED AERIAL SYSTEMS (UAS) IN MOSQUITO AND VECTOR CONTROL

H.R. 820 would require the Federal Communications Commission (FCC) to annually publish a list of entities that hold a license or other authorization granted by the FCC and have ties to specified countries. An entity must be listed if the government of China, Cuba, Iran, North Korea, Russia, or Venezuela (or an organization subject to the jurisdiction of any of those governments) owns an equity interest in the entity. The FCC may list additional entities that do not meet these requirements after consulting with an appropriate national security agency.

H.R. 2864 would require the inclusion of telecommunications and video surveillance equipment or services produced or provided by Shenzhen Da-Jiang Innovations Sciences and Technologies Company Limited (a Chinese drone maker commonly known as DJI Technologies) on a list of communications equipment or services determined by the Federal Communications Commission (FCC) to pose an unacceptable risk to U.S. national security. Current law prohibits the use of federal funding available through specified FCC programs for purchasing or maintaining listed equipment or services.

AMCA understands that there may be cybersecurity concerns surrounding the fact that DJI is a Chinese company, however, it is important to realize that vector control uses of UAS by public agencies do not generally operate in and around critical infrastructure, nor do we engage in sensitive aerial data collection. Further, the limited budgetary resources available to mosquito control districts require that AMCA members exercise fiscal responsibility with the purchase and operation of the tools that we use to protect public health. Banning DJI drones will result in significant public expense to replace, or if the funding is not available, increase risk of public health emergencies.

NEEDED ACTIONS:

AMCA requests that any legislation prohibiting access to drones manufactured by specific companies provide reasonable accommodation for those already purchased and utilized for public health and safety programs, including mosquito control and surveillance operators.