



U.S. HOUSE OF REPRESENTATIVES COMMITTEE ON **SCIENCE, SPACE, & TECHNOLOGY**

Opening Statement

Ranking Member Zoe Lofgren (D-CA)

Advanced Air Mobility: The Future of Unmanned Aircraft Systems and Beyond

March 23, 2023

Good morning. I want to thank Chairman Lucas for holding this hearing and also thank Chairman Babin for filling in for Mr. Lucas today. And I would like to thank our expert witnesses for appearing before the Committee today.

As I said in our Space and Aeronautics Subcommittee hearing just a couple of weeks ago, aviation is critical to this country's economy and global leadership. Aviation is also undergoing a transformation. Today's hearing focuses on a few transformative systems—Uncrewed Aircraft Systems, also known as UAS or drones, and Advanced Air Mobility, or AAM—and the role of Federal R&D in advancing their use. The 2018 FAA Reauthorization directed R&D priorities to enable drone operations and integration into the National Airspace System. Reviews and reports conclude that progress is lagging. We need to understand why, because significant economic and societal benefits are at stake.

Both UAS and AAM are projected to be multi-billion-dollar markets, including manufacturing and services. It is no surprise that the U.S. is not alone in recognizing the potential of this sector. Some countries are actively integrating drones into their airspace, and others are dominating the drone manufacturing market. Further, the potential societal benefits are equally compelling. Expanded drone operations, and eventual AAM deployment, can improve wildland fire detection and response; deliver medical personnel and supplies to rural areas and disaster zones; expand environmental monitoring; conduct safer industrial inspections, and so much more. Federal R&D investment can, and should, address these applications.

That is why I am so pleased that we have Dr. Parimal Kopardekar here today. He is a truly exemplary public servant and NASA's expert in the integration and management of next-generation air vehicles into our National Airspace System. In fact, he is the inventor and patent-holder of the NASA UAS Traffic Management System, or UTM, which makes it possible for small drones to safely conduct complex operations in the National Airspace System, and which NASA developed and delivered to the FAA in 2020. Of course, I also want to highlight that he is based at the NASA Ames Research Center, just a stone's throw away from my district. Ames has also been leading an innovative effort that applies the UTM system to real-world emergency response operations, and particularly to the integration of drones in wildland fire detection, response, and mitigation, with government and industry partners at the local, state, and federal levels.

It is clear the American public, businesses, and workers stand much to gain from the innovation of UAS and AAM technologies and their safe integration into the national airspace system. It is also imperative that we understand and mitigate the potential risks associated with their operations.

Today's hearing is an important step in gaining that insight, and I look forward to hearing from our witnesses on: 1) what is needed to support the maturation and operation of a safe, effective, and innovative civil and commercial drone ecosystem; 2) how federal R&D efforts on drones and AAM can be applied to solve our country's key challenges; and, 3) how research and development, including on counter-UAS technologies, can identify and help mitigate potential risks, including those related to safety, privacy, security, emissions, and noise.

Thank you, Mr. Chairman, and I yield back the balance of my time.