

OPENING STATEMENT
Ranking Member Eddie Bernice Johnson (D-TX)

House Committee on Science, Space, and Technology
"Urban Air Mobility – Are Flying Cars Ready for Take-Off?"
July 24, 2018

Good morning, and welcome to our witnesses.

Mr. Chairman, thank you for calling this hearing to examine Urban Air Mobility research and development efforts and the potential benefits and challenges that might accrue from this exciting new technology.

Stuck in a traffic jam, who among us has never dreamed of riding in a “flying car” to lift us high above city congestion and leap frog other cars in our way? Well, what some of us could only dream of after watching episodes of the Jetsons might actually happen sooner than we think. Indeed, as we will hear today, many companies believe that we are on the threshold of revolutionary changes brought about by a new generation of vehicles.

A multitude of concepts for vertical take-off and landing vehicles, many of them fueled by recent advances in lightweight electric propulsion and storage capability, are being proposed with the goal of providing convenient urban transportation. If proven to be safe, such concepts could result in changing the way goods are delivered and people move around. In turn, the innovation generated from UAM may result not only in creating new jobs, but also in enhancing the productivity of workers in existing jobs. But as with any new technology, there are challenges to its implementation. This calls for a thoughtful examination.

A panel established by the National Academies found in 2014 that increasingly autonomous aircraft “*pose serious questions about how they will be safely and efficiently integrated into the existing civil aviation structure*”. As defined by the panel, a fully autonomous aircraft would not require a pilot. The aircraft would be able to operate independently within civil airspace, interacting with air traffic controllers and other pilots just as if a human pilot were on board and in command. In addition to technological barriers such as accurately predicting the behavior of systems that can adapt to changing conditions, a feature critical in autonomous aircraft, widespread operation of UAM systems will also require resolution of applicable regulatory and certification requirements. Regulations are needed to ensure that vehicles can operate in airspace above cities without negatively impacting safety. In addition, certification and safety requirements for these types of vehicles will need to be developed.

Finally, a major challenge will be integrating UAM operations into the national airspace. In that regard, we are fortunate that we can leverage NASA’s work on its Unmanned Aircraft System

(UAS) Traffic Management to get a head start examining this issue. Mr. Chairman, I look forward to hearing from our witnesses on the benefits and challenges associated with UAM operations and on the role research can play in enhancing the safety of future UAM operations.

With that final note, I yield back.