



Testimony of

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Looking Forward: Aviation 2050

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Mr. Chairman, Ranking Member Graves, and Members of the Subcommittee, it is a privilege to be here before you today to discuss the role Uber will play in delivering aerial ridesharing services in the years ahead.

My name is Eric Allison and I am excited to lead Uber Elevate. Last year, Uber changed its mission statement to reflect its ambition and purpose; we ignite opportunity by setting the world in motion. Uber Elevate is the embodiment of that mission statement. Our vision of the future provides users an opportunity to substantially reduce their commuting time while simultaneously utilizing a carbon neutral option that requires minimal infrastructure and can all be summoned through the Uber app. The product, Uber Air, will be the result of our development of a real-time, on-demand network of aircraft that will deliver time savings on a massive scale.

When we envision aviation in 2050, Uber sees a future that looks substantially different from what we rely on today. Autonomous control of aircraft and airspace will ultimately enable a fully scaled network that can support thousands of flights per hour - over every major city in the world. This scaled network is key to Uber Elevate and our vision of urban aviation.

The United Nations predicts that 68% of the world's population will reside in urban areas by 2050, up from 55% today. To support an additional 2.5 billion residents, something drastic must be done to address the transportation problems created by this increased population density. The *Los Angeles Times* reports that L.A., one of our pilot markets, is the most congested city in the world, where residents spend over 100 hours annually stuck in traffic. This problem will only continue to worsen as populations grow and ground infrastructure is unable to keep up. Time spent in traffic ultimately represents less time with family, fewer hours growing our economies, and more pollution in our world.

As a multimodal transportation platform, Uber believes solving this problem is core to fulfilling our mission. Just as cities looked to the skies to expand, urban aerial ridesharing will use three-dimensional airspace to alleviate transportation congestion on the ground. We started this journey in 2016, publishing our *Elevate White Paper*¹ to answer the following questions: why is urban aviation not a viable form of mass transportation, and what barriers must be overcome.

¹ Uber Elevate: Fast-Forwarding to a Future of On-Demand Urban Air Transportation: <https://www.uber.com/elevate.pdf>

Since 2016, we have worked diligently to answer these questions. Our analysis projects that aerial ridesharing is not only feasible, but can be launched at affordable prices. Once at scale, we believe we can operate at rates that may be cheaper than owning and driving your own car, making everyday flight accessible around the world.

To achieve this vision, we aim to conduct meaningful demonstrations over the next three years in Texas and California and commence certified commercial operations in 2023. We know this timeline may sound ambitious, but we believe that big, bold bets require pushing the boundaries of what's possible. During our demonstration phase, we intend to prove the safety, reliability, and low noise footprint of our aircraft while working with the respective communities to ensure we receive their feedback on how to best serve their residents. In all markets, our service holds the promise of reducing congestion and improving quality of life.

Ultimately, no one company can do this alone. We recognized early on that broad-based partnerships with government and industry are critical to achieving this vision. Partnering with industry leaders in aircraft manufacturing, infrastructure development, battery engineering, and forward-thinking regulators will ensure our product best serves the community.

Together with our partners we are actively designing new aircraft to lead a revolution in urban aviation in cities around the globe. We're proud to be collaborating with these job creators to chart the future. Our partners include Boeing, Bell, Embraer, Pipistrel, and Karem Aircraft; these leading manufacturers and innovative new entrants are perfectly positioned to pave the way for safe, reliable, and affordable Uber air taxis.

The Federal Aviation Administration (FAA) is another incredibly important partner in this journey to make urban aviation a reality. Our collaborative work to develop this new ecosystem has made us increasingly optimistic about the future of air transportation in the United States. We encourage the FAA to continue its innovative approach to aircraft and operational certification without sacrificing safety. Specifically, if we want to see aircraft certified safely and expeditiously, we implore the FAA to commit to a certification pathway that considers long term operational impacts and does not stifle innovation. We firmly believe that certification through the recently reorganized Part 23 structure, which was supported by this subcommittee in the form of the Small Airplane Revitalization Act (SARA), is the best path forward for all manufacturers and operators.

In addition to our partnership with the FAA, we're pleased to have signed two Space Act Agreements with NASA, one for the development of UAS Traffic Management (UTM) concepts and technologies, and another to explore Urban Air Mobility (UAM). UTM is paving the way for Uber and other companies to drive innovation and develop airspace services that manage the vehicles safely and efficiently without putting an undue burden on existing air traffic operations or air traffic controllers. Both of these efforts are essential to achieving fully scaled operations by 2050.

Our plan is to operate our aircraft along precise virtual route networks that can be dynamically adjusted to the needs of air traffic safety and control, noise and other community considerations as well as air traffic demand. These networks will provide high predictability and transparency of our operations. In developing these systems, we are taking a highly systematic approach to integration and validation in simulations and field testing to ensure interoperability with

the FAA's air traffic systems as well as other UAS service suppliers. These partnerships are critical for devising the path for safely sharing the airspace amongst all users.

The FAA and NASA's ongoing investment in the future of aviation is partially thanks to committees like this one working to encourage our government partners to embrace the future. We ask Congress to continue prioritizing this developing ecosystem, and we look forward to extending our collaborations with government partners to work on aircraft and pilot certification, airspace integration, and air traffic management.

In addition to our daily work to advance urban aviation, this June we will be holding our 3rd annual Elevate Summit right here in Washington DC, presenting never before seen developments and showcasing exactly how close we are to making aerial ridesharing a reality. We want to do this in concert with policymakers like yourselves as we move closer to bringing Uber Air to major cities in the United States. We hope you'll be able to join us for what will undoubtedly be an exciting two days.

At Uber, we are investing in aerial ridesharing because we believe in the future of aviation and changing the way the world moves. We see incredible and growing demand across all urban markets for safe, reliable and fast transportation services, and our network will be an excellent supplement to public and private transit options. In 2050, we will no longer be discussing our work to develop battery technology, our transition from piloted aircraft to autonomous, or our ability to fully integrate into the urban airspace. Rather in 30 years, we intend to be operating millions of daily flights; safely, autonomously, fully integrated into the National Airspace System (NAS) and with zero carbon emissions. Working with world class leaders in the aerospace industry and our government partners, we believe we can bring about lasting positive change for the world in 2050 and beyond.

To give you a sense of how users will live this future transportation experience, I would like to close with a short video illustrating Uber Air. I hope you enjoy this fast-forwarding to the future, and look forward to answering your questions about our vision and approach. Thank you.

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