AAM: Once Impossible, Now Undeniable

By Angelo Collins, VFS Executive Director

VFS has been a champion for electric vertical takeoff and landing (eVTOL) technology — now grouped under the more generic moniker of advanced air mobility (AAM) — for more than a decade, with numerous events, short courses, articles and technical content produced for our members and the public.

Today, AAM is an exciting field of study with many stakeholders that are not only brand new to vertical flight, but to aviation in general. The newfound interest and excitement in the field has been partially brought on by visibility from some of the largest players in the aerospace and defense industry. The Paris Air Show, a biannual premier event dedicated to the aviation and space industry, gave special attention to AAM this year. Its "Paris Air Mobility" event showcased the latest innovations and emerging technologies in eVTOL and brought together key players through *Aviation Week's* series of panels centered among various mock-ups from some of the leading companies in the community (see "AAM Showcase at Paris Air Show," pg. 40).

Similarly, this year's AirVenture, organized by the Experimental Aircraft Association (EAA), brought over 600,000 attendees to Oshkosh, Wisconsin, for a celebration of aviation. Booths and lectures showcased AAM this year, as did Boeing's Wisk, which flew its two-seat Cora demonstrator in what the company said was the world's first-ever public demonstration of a fully autonomous eVTOL fixed-wing air taxi. At the conclusion of the show, Jack Pelton, CEO and chairman of EAA was quoted in saying, "The truth of the matter is… [AAM is] going to blow the lid off… everybody is going to come and we're going to have a new node for the AAM folks. So, when the Archers and Jobys bring their stuff to the show, I want to see them fly."

It may be hard to believe for some now, but for the first several years that VFS was leading what we then called "The Electric VTOL Revolution," there were serious doubts about the viability of eVTOL. The Society's support for efforts to identify and address the major challenges was often met with stiff skepticism and cynicism — even ridicule in some cases. I was a chair of the first Transformative Vertical Flight (TVF) Workshop in 2014 and saw firsthand the tremendous promise and incredible challenges of electric VTOL.

Through the adversities, there was one person who stood tall in the center of it all, and the Society is incredibly vibrant because of it. Instead of allowing the then-American Helicopter Society to be pigeon-holed, then-Executive Director Mike Hirschberg poured all his energy into evolving into the Vertical Flight Society, and made it even stronger. Electric VTOL was "the house that Hirschberg built." He tended to the conventional wisdom and technology that makes VFS great, while also inviting new thought leaders into the VTOL fold. As such, new events began to join the lineup, including the Electric VTOL Symposium, the Electric Aircraft Symposium (EAS), and the H2-Aero Symposium.

This year's 17th Annual Electric Aircraft Symposium, administered by VFS since 2020, just concluded in Oshkosh. With a record in-person attendance of 198 and 38 virtual participants, it was a smashing success. You could just feel the energy and excitement in the room, with the final minutes culminating in a group photo with all smiles and thumbs up (see "Electric Aircraft Symposium Highlights AAM Progress," pg. 40).

The excitement was not limited to EAS, as many spoke of their eagerness to participate in our 7th Workshop on AAM Infrastructure in Cape May, New Jersey, Sept. 26–28, 2023, with the support of the FAA US Federal Aviation Administration (FAA) Hughes Technical Center. The workshop will serve as an open forum for stakeholders to discuss operations, safety requirements and expectations as they relate to AAM technology and infrastructure.

Also on the horizon is TVF 2024, which includes the 6th Decennial VFS Aeromechanics Specialists' Conference, on Feb. 6–8 at the Santa Clara Convention Center, in the heart of Silicon Valley. The highly anticipated event will offer a forum for dozens of technical paper presentations on revolutionary new vertical lift concepts and applications of emerging aeromechanics technologies to new missions, and other interdisciplinary technologies. The event also includes the 11th Annual Electric VTOL Symposium, where leaders will present the latest advancements in eVTOL, and the challenges that remain. We hope to welcome as many as 1,000 attendees, 10 times as many as attended the first TVF Workshop in 2014.

As the AAM community grows, VFS will grow with it, and as new engineers and interested parties begin to enter the industry, VFS will welcome them with open arms. In any community, especially one that is healthy and in an upward trajectory, it is important that everyone comes together, learns together and grows together. VFS has provided, and will continue to provide, opportunities, events, workshops and forums that will keep the house that Hirschberg built strong.

To those who have their doubts with respect to eVTOL, we hope you will engage to help overcome the challenges that remain and visit the **www.evtol.news** website VFS established in early 2017. It's been over 80 years and we're still the society that our members know and love, but with some new and exciting technologies and ideas to explore. Our community is one that is small, but passionate and driven.

VFS advocates for the advancement of vertical flight, and we'll continue to do so for another 80 years and beyond.

What do you think? Let me know at ***director@vtol.org***