

Universal Hydrogen Kicks Off Flight Test Campaign for Its Hydrogen Regional Aircraft at the Mojave Air & Space Port

9/26/2023

MOJAVE, Calif.--(BUSINESS WIRE)-- **Universal Hydrogen Co.** today hosted a kickoff event for a flight test and maturation campaign for its regional products. The campaign comes on the heels of **a successful March 2023 first flight** of the world's largest hydrogen fuel cell-powered airplane and the largest airplane ever to cruise principally on hydrogen. The record-setting first flight was followed by **a successful June 2023 ferry** of the aircraft from Moses Lake, Wash. to Mojave, Calif., which also included several "firsts" and demonstrated an expanded operating envelope for the hydrogen fuel cell powertrain. Universal Hydrogen has now achieved 10 test flights as it marches towards its goal of commercial entry into service in 2026.

Lightning McClean cruising the skies of Mojave (Photo: Business Wire)

Today's kickoff flight lasted approximately 20 minutes

during which the flaps and landing gear were retracted and the aircraft reached 5,000 feet MSL before returning for several passes over the airport with the conventional engine throttled back and the hydrogen powertrain at full power to measure noise level reduction that fuel cell-electric propulsion is expected to deliver. The hydrogen fuel cell powertrain was operated at maximum power during takeoff and operated throughout the flight.

"It's truly exciting to see Universal Hydrogen's zero emission plane flying over California's skies," said Angelina Galiteva, ARCHES CEO. "It's a great example of how California based companies like Universal Hydrogen are working to alleviate the impacts of climate change and improve local air quality all while bringing tangible community benefits like good paying jobs and technological innovation to California. We look forward to partnering with Universal Hydrogen, as part of the Alliance for Renewable Clean Hydrogen Energy Systems (ARCHES) hydrogen hub,

to make zero emission flight a commercial reality for everyone!"

Today's flight marks the beginning of a two-year flight test campaign that will first continue to optimize the performance of the hydrogen fuel cell powertrain including the introduction of new hardware, including a new custom-developed, aviation-grade turbocompressor that will allow flights up to 25,000 feet MSL, the operating ceiling of the Dash 8. Second, the test program will introduce Universal Hydrogen's patented modular liquid hydrogen fuel storage system. And finally, it will commence certification testing to prove that the production configuration of the aircraft meets all of the FAA-mandated airworthiness and safety requirements. The company reached a major milestone recently with **the issuance by the FAA of the G-1 issue paper**, which—in an important "first" for the aviation industry—details the certification basis for hydrogen-powered commercial passenger aircraft.

"Aerospace Valley continues to operate on the cutting edge of flight technology," said California Assemblyman Tom Lackey. "The Mojave Air & Space Port has a long-standing history of innovation that we are very proud of. This partnership with Universal Hydrogen will not only benefit the region but will also keep California competitive in sustainable energy for our future."

The company settled on the Mojave Air & Space Port for its aircraft and flight test base to increase its presence in California, where it already has its Hawthorne-based headquarters and engineering center, as well as to draw on the strong engineering talent pool in the Los Angeles and Mojave regions. "We are excited to work with Universal Hydrogen to pave the way to reducing aircraft emissions using a sustainable, green, and increasingly available fuel — hydrogen! Their innovative technology, paired with the use of existing regional aircraft, will revolutionize the industry, leading to a systematic, affordable, and rapid transition to zero-emission transportation," said Tim Reid, General Manager, Mojave Air & Space Port.

"Universal Hydrogen is one of the partners we're working with on our ambition to replace our Q300 regional turboprops with a lower emissions fleet from 2030. We're incredibly encouraged by their progress and the milestones achieved to date. We'll be watching closely as they continue their journey towards certification and entry to service," said Kiri Hannifin, Chief Sustainability Officer, Air New Zealand.

About Universal Hydrogen

Universal Hydrogen is making hydrogen-powered commercial flight a near-term reality. The company takes a flexible, scalable, and capital-light approach to hydrogen logistics by transporting it in modular capsules over the existing freight network from green production sites directly to the airplane anywhere in the world. The company is targeting regional and narrowbody/single aisle airplanes as the near-term and most impactful decarbonization opportunities. Universal Hydrogen is also working to certify a powertrain conversion kit to retrofit existing regional aircraft to fly on hydrogen.

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Source: Universal Hydrogen Co.