PREPARING FOR LIFTOFF: A TIMELINE OF SUSTAINABLE AVIATION FUEL (SAF) MILESTONES

Honeywell is taking sustainability to new heights. Learn how we got here.



2007

In partnership with the U.S. Defense Advanced Research Projects Agency (DARPA), the UOP Renewable Jet Fuel Process™ was introduced to produce renewable military jet fuel for the U.S. military.



2011

Honeywell made history at the Paris Air Show after landing its Gulfstream 450 jet, the first transatlantic flight using biofuel. The 50/50 blend of Honeywell Green Jet Fuel™ was used with standard Jet-A fuel.



2012

AltAir founder Bryan Sherbacow begins development of world's first commercial SAF facility using UOP Renewable Jet Fuel Process TM .



2016

Using UOP Renewable Jet Fuel Process™, AltAir facility in California becomes first commercial facility producing SAF in the world. In conjunction, United Airlines becomes the first airline globally to use SAF continuously in regular operations.



2018

The first <u>Trans-Pacific flight</u> from Los Angeles to Melbourne, Australia, was completed using Honeywell Green Jet Fuel™. The SAF biofuel used for the flight was produced with sustainable oil from carinata seeds, a non-edible industrial mustard seed.



SEPTEMBER 2021

With a rich history of working together, United Airlines and Honeywell announce a new venture by investing in Alder Fuels, founded by Bryan Sherbacow. Alder Fuels will implement a first-of-its-kind technology for producing SAF from sustainable biomass. Honeywell first pioneered SAF production using the UOP Ecofining™ Process and will use its expertise and proven development method along with Alder Fuels to commercialize this new pathway.

The new pathway uses sustainable residual biomass, such as forest and agricultural crop waste, and converts it into a carbon-neutral or carbon-negative biocrude. The biocrude can be processed into SAF and could serve as a 100% drop-in replacement for petroleum jet fuel.

Commercialization of Alder Fuels' technologies could be implemented at existing refineries as early as 2025.



DECEMBER 2021

Aviation history was made on Dec. 1 as the first aircraft full of passengers landed in Washington, DC using 100% sustainable aviation fuel (SAF) in the right engine of the plane.

Listen: Find out the importance of powering planes with plant materials: https://www.honeywell.com/us/en/podcast/the-future-is-jet-fuel-made-from-mustard-seeds

Listen: Tune in to listen about United's plan for the future of flying: https://www.honeywell.com/us/en/podcast/the-future-is-flying-with-united

Listen: Environmental issues are more important than ever before. Hear more about Honeywell's sustainability story: https://www.honeywell.com/us/en/podcast/the-future-is-sustainability

THE FUTURE IS WHAT WE MAKE IT

