Honeywell Begins Testing with Sustainable Aviation Fuel

The Honeywell location in Phoenix, Arizona USA has begun testing sustainable aviation fuel (SAF) for the development and production testing of auxiliary power units (APUs) and propulsion engines. Honeywell's repair and overhaul facility at the site will also test the fuel on fielded units.

The sustainable aviation fuel was developed by World Energy LLC in Paramount, California, using Honeywell's UOP Ecofining™ technology and distributed by World Fuel Services. According to the World Energy's website, SAF is a 100% sustainable fuel made entirely of renewable resources and contains no fossil-based feedstock. It is not co-processed with fossil fuel in traditional oil refineries, and its carbon attributes comply with all state and U.S. federal regulations for advanced biofuels. Its lifecycle carbon emissions are currently up to 85 percent lower than conventional jet fuel. It is approved at a 50/50 blend level with conventional jet fuel for commercial use.

In a recent press release, Honeywell stated that its blended SAF requires no changes to engine or aircraft fuel systems or fuel infrastructure. Honeywell also has plans to test other SAF blends and to run engines and APUs on 100% SAF in the future. "At Honeywell, we see SAF as a logical path to decarbonize the aviation industry and we consider our facilities as laboratories for sustainable innovation," said Dave Marinick, president of Engines and Power Systems, Honeywell Aerospace. "Honeywell has a wide variety of ready-now solutions to help create a more sustainable future for the aviation sector, and we are proud to make this progress on our sustainability commitments in our propulsion and power systems portfolio. Running our engines and APUs on SAF is a further demonstration of our commitment to our customers to do our part to reduce our carbon footprint."

Honeywell's first auxiliary power unit took to the skies in 1950, and the company has built more than 100,000 since then. More than 36,000 APUs, including both fixed wing and rotary wing, are in service today across more than 150 regional, executive, commercial and military applications. Honeywell engines have been at the forefront of aircraft propulsion since 1953. Honeywell's propulsion engines, like the HTF7000 with more than 1.7 million flight hours, focus on safety, performance and reliability, offering business jet operators enhanced performance and fuel efficiency at a lower cost of ownership. Honeywell is committed to achieving carbon neutrality in its operations and facilities by 2035. About 60 percent of Honeywell's new product introduction research and development investment is directed toward products that improve environmental and social outcomes for customers. (Source: www.honeywell.com)

Erickson's S-64 Composite Main Rotor Blades are a Success Story

Several years ago, Erickson faced a critical decision for its S-64 Air Crane® helicopter. The six-blade heavy-lift helicopter had aluminum blades that were manufactured with extrusion equipment developed in WWII. These blades wore out due to the harsh demands on the workhorse S-64 helicopters—they are integral to the management and fighting of wildfires and lifting heavy loads.

The old blades were retired and so came an opportunity—Erickson partnered with Toray Advanced Composites to develop a composite rotor blade. Toray's BT250E-6 resin system was chosen for Erickson's design.

To highlight the success of the new blade, Erickson created an infographic titled: "From Legacy to Legendary: Composite Main Rotor Blade." The document lists the benefits of the new blade:

- Significant fuel burn reduction
- Reduced maintenance costs
- Increased performance at hot and high-altitude conditions due to advanced airfoils developed by NASA
- A payload increase by 88%—that's an additional 755 gallons of water

According to Toray Advanced Composites, there are several more benefits of the composite rotor blade:

- Dramatic reduction in engine torque required when lifting objects out of the water
- Dramatic reduction in vibration, especially during transition from forward flight to hover, resulting in less wear and fatigue on the whole airframe and the pilot

Read more about the S-64 helicopter and Toray Advanced Composites at www.ericksoninc.com and www.toraytac.com.

An Erickson S-64 Air Crane helicopter fights a wildfire over Mount Hymettus, Greece. Photo credit: 248837368 © Lefteris Papaulakis | Dreamstime.com