

**10**  
 YEAR ANNIVERSARY  
 ecoDemonstrator

# Decade of Demonstration

The newest Boeing ecoDemonstrator will serve as a test bed for 30 new technologies to help decarbonize aviation

BY JOSH GREEN, ELISA HAHN AND TED LAND, BOEING WRITERS



In June, Boeing unveiled its 2022 ecoDemonstrator airplane, marking 10 years of testing technologies through the program.

**CLOUD LAB**

The Boeing-owned 777-200ER (Extended Range) will enhance safety and sustainability as the 2022 ecoDemonstrator.

IMAGE: BOEING

30

new technologies

**The Boeing-owned 777-200ER (Extended Range)** will serve as a test bed for 30 new technologies, including a water and weight conservation system and new additively manufactured (3D-printed) parts that help reduce fuel consumption and weight. The team will also test new methods using ultraviolet light for disinfecting, an environmentally preferred refrigerant and new tools to improve operational efficiency.

30-70

blend of sustainable aviation fuel and conventional jet fuel

**“Everything we do supports the legacy of Boeing’s engineering excellence with safety and quality as the cornerstones,” said Ricole Johnson, a project engineer and technology integration leader for the ecoDemonstrator Program.**

The team plans to power the 777-200ER throughout its test period using a 30-70 blend of sustainable aviation fuel and conventional jet fuel. The program is continuing its multiyear partnership with NASA to study the emission improvements of sustainable aviation fuel.

2050 goal

to reach net-zero carbon emissions

“When the industry talks about 2050 goals for getting to net-zero carbon emissions – 2050 isn’t really an abstract idea to me,” said Addison Salzman, an airplane platform leader with the program. “That’s going to happen well before I retire. So when I think about 2050 goals, I think about what are the goals for my career. It’s really all of our jobs to think about sustainability and how it affects our work so that we can make the right choices.”

**Throughout the next year, Boeing will highlight some of the technologies now in use that were proved with the ecoDemonstrator Program. Some of those include a split-tipped winglet that is now on the 737 MAX family, touch screens now on the 777X family and continuous testing that has already led to better understanding of how to eliminate noise from airplanes.**

“Since 2012, we’ve tested more than 200 technologies, and a third of those made it into our products and services, and those technologies aid in reduction of noise, reduction of fuel, cleaner emissions, safety of the passengers and environmental impacts,” said Rae Lutters, the ecoDemonstrator program manager. “Our ecoDemonstrator motto is ‘innovate, collaborate and accelerate,’ and we’ve held to that motto since we started in 2012.” **IQ**

Since 2012

**the Boeing ecoDemonstrator has tested more than 200 technologies, a third of which are now part of Boeing products and services.**

**FRESH PAINT**

The Boeing 2022 ecoDemonstrator is towed out of a paint hangar at San Bernardino International Airport in California in early June.

PHOTO: PAUL WEATHERMAN/BOEING



**SCAN CAM HERE,  
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Video: Meet some of the ecoDemonstrator team.

**HERE TOO  
FOR MORE IQ!**

Video: See the paint job happen.

