

Nine flagship airplanes have served as flying test beds for the ecoDemonstrator program including the 2024 program.

effort, the ecoDemonstrator program will have evaluated about 285 technologies 28% have progressed onto our products and services, 52% are still being matured and 20% provided helpful learnings but were discontinued. Projects include technologies that reduce fuel use, emissions and noise, and incorporate more sustainable materials. ecoDemonstrator platforms have also tested cabin amenities that improve the passenger experience features such as smart galleys and UV disinfection in addition to products that increase schedule reliability and the efficiency of airline fleets and crews. The program also has tested alternative energy carriers, like our 2012 ecoDemonstrator which tested regenerative hydrogen fuel cell technology for onboard auxiliary power to the galley.

key partners:

2012: American Airlines 737-800

2014: Boeing 787-8 Dreamliner

2015: TUI 757

2016: Embraer E170

2018: FedEx 777 Freighter

2019 Boeing 777-200

2020: Etihad Airways 787-10

2021: Alaska Airlines 737-9

2022-2024: Boeing 777-200ER

2023: Boeing 787-10 Dreamliner (Explorer)

2023: Boeing 737-10 (Explorer), destined for United Airlines

technologies that were evaluated and proven on the ecoDemonstrator program, such as:

More aerodynamically efficient winglets on the 737 MAX

iPad apps that provide pilots with real-time weather and other information, enabling them to improve fuel efficiency and reduce emissions

Custom approach path information to lower community noise

Flight deck touch-screen displays and a camera system on the 777X that enhance safety by helping

emissions with [various blends of SAF](#) on the 2021 ecoDemonstrator, an Alaska Airlines 737-9, conducted alongside a demonstration flight with 100% SAF in one engine. The following year, NASA and Boeing continued [ground emissions testing](#) with SAF on the 2022 ecoDemonstrator, a Boeing-owned 777-200ER (Extended Range) and a 787-10, as reported in [Aviation Week](#). In 2023, the SAF emissions testing took to the skies with [-8 Airborne Science Lab trailing behind the ecoDemonstrator Explorer](#), a 737-10 for United Airlines. The team of researchers measured emissions from 100%

More information about the Boeing ecoDemonstrator program and previous flying test-bed airplanes can be found at [boeing.com/ecoDemonstrator](https://www.boeing.com/ecoDemonstrator) commitments and partnerships at <https://www.boeing.com/sustainability>.

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