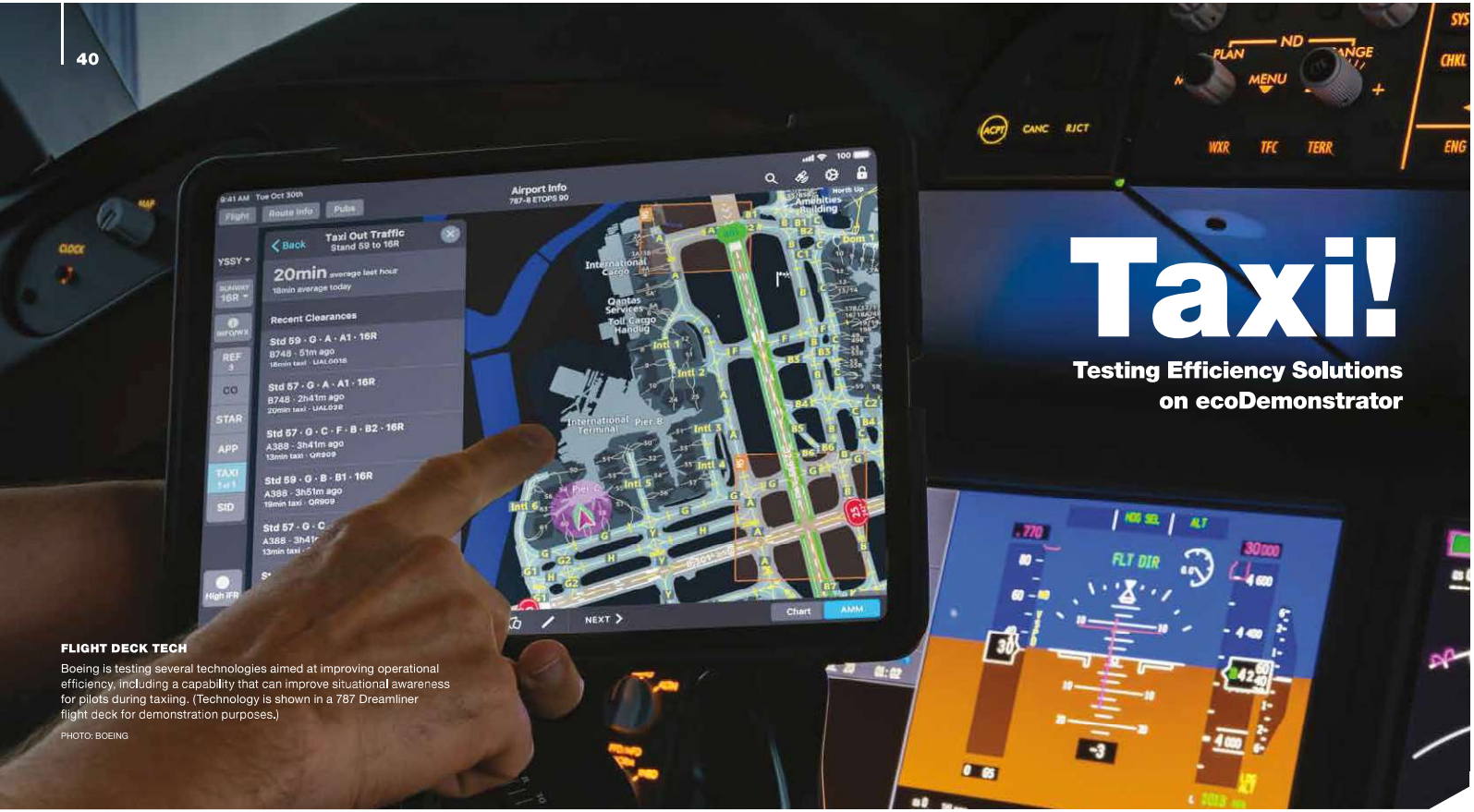

FLIGHT DECK TECH

Boeing is testing several technologies aimed at improving operational efficiency, including a capability that can improve situational awareness for pilots during taxiing. (Technology is shown in a 787 Dreamliner flight deck for demonstration purposes.)

PHOTO: BOEING

Taxi!

Testing Efficiency Solutions on ecoDemonstrator

Capabilities could reduce ground time, cost and fuel consumption for airlines

BY BRIAN RANTALA, BOEING WRITER

Every time the 2022 Boeing ecoDemonstrator taxis to the runway, pilots will have several new flight deck technologies to test that could help airlines increase operational efficiency and reduce their carbon footprint.

The flying test bed, a Boeing-owned 777-200ER (Extended Range), includes two new digital capabilities — Taxi Time Information and Taxi Clearance — designed to help airlines reduce turnaround times on the ground and eliminate delays, leading to better fuel efficiency.

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“Our flight deck capabilities on board the ecoDemonstrator this year include technologies aimed at improving efficiency and pilot situational awareness during airplane taxiing, which could in turn reduce fuel consumption.”

THORSTEN WIESEMANN,
DIRECTOR,
SMART DATA SERVICES

TARMAC TESTS

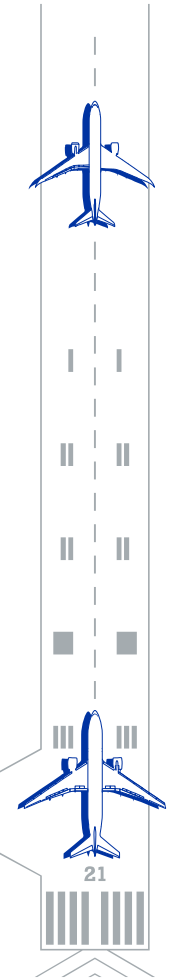
The 2022 Boeing ecoDemonstrator is testing 30 technologies to enhance safety and sustainability.

PHOTO: BOEING

“Our digital solutions deliver on our commitments and support Boeing’s sustainability goals and those of our customers and our industry, including to achieve net-zero carbon emissions by 2050,” said Thorsten Wiesemann, director of Smart Data Services for Boeing Global Services.

“Our flight deck capabilities on board the ecoDemonstrator this year include technologies aimed at improving efficiency and pilot situational awareness during airplane taxiing, which could in turn reduce fuel consumption.”

Airlines typically spend up to 25% of their operating budgets on fuel alone. The Digital Aviation Solutions team at Boeing Global Services has a suite of fuel-efficiency solutions available to customers today. The team is also developing tools that can help operators reduce this cost and alleviate environmental impacts.



For example, the Taxi Time Information capability is designed as a better way for flight crews to anticipate their inbound clearance and taxi times. Using averages compiled from the current day, or even the current hour, to plan their gate maneuvers, pilots will be able to estimate the taxi time needed to travel between their parking stand and their assigned runway.

“Looking at sustainability through the operational-efficiency lens, we are helping customers realize cost, time and fuel savings,” said Marco Gärtner, a senior product manager for Smart Data Services. “Taxi Time Information could provide pilots the ability to better manage slot and pushback requests, with a greater understanding of the prevailing taxi situation. This would support single-engine taxi operations and, as a result, would reduce fuel consumption on the ground.”

The new capabilities being tested build on the Boeing foundation of helping customers plan the most efficient route, optimize flight planning, and provide real-time weather and traffic information to pilots. Combined, these tools help lower fuel consumption and minimize the carbon footprint of airplanes in service. **IQ**

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MARCO GÄRTNER,
SENIOR PRODUCT MANAGER,
SMART DATA SERVICES

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