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

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.
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. 

“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.”

MARCO GÄRTNER, SENIOR PRODUCT MANAGER, SMART DATA SERVICES