

THE MIDDLE SEAT

The New York-to-Sydney Flight That Redefines Long Haul

A diary from a test trip on Qantas lasting nearly 20 hours that marks the first step in what's considered the final frontier of commercial aviation; London-to-Sydney is next



By Scott

McCartney

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Sydney

The key to the future of long-distance air travel just might be the Macarena.

In the middle of the night, on the longest commercial-airline flight ever attempted with passengers, about a dozen people danced the 1990s pop craze down the aisle of a Boeing 787 in airline-issued pajamas. But this was no slumber party.

It was serious research on how to defeat jet lag and keep people healthy if they are going to sit on an airplane for most of a full day.

Qantas Airways flew a record-setting nonstop from New York to Sydney, about 10,000 miles, landing Sunday after 19 hours, 16 minutes in the air. It's farther than current aircraft can fly with a full load and beyond what current regulations allow. But Qantas is pushing toward launching both New York-Sydney and London-Sydney nonstop. These routes will in many ways revolutionize travel.

"This is the last frontier in commercial aviation," says Qantas chief executive Alan Joyce. "It's up to us to prove to regulators this can be done safely."

Longer-range airplanes and high demand have let airlines stretch the bounds of flying. Last year Singapore Airlines launched the reigning long-haul champ, a Newark, N.J., to Singapore run of 18½ hours. Qantas launched Perth, Australia, to London nonstop, covering 17½ hours. Travelers like the convenience of avoiding connections. Airlines like the premium prices people pay for that convenience.

A lot has to happen for Qantas to conquer flying halfway around the globe. Australian regulators will have to raise an 18.5-hour cap on pilot duty time for Qantas. (It was waived for test flights.) Qantas's pilots union will also have to agree to the longer trips. And Qantas will have to choose between Airbus's pitch of a new ultralong-range version of the A350 and Boeing's offer of a super long-distance 777.



The flight approached the airport over Sydney Harbour. PHOTO: JAMES D. MORGAN/GETTY IMAGES

Qantas believes the research flight marks the first time crew and passengers have been extensively monitored biologically on an airline flight.

Researchers used brain-activity monitors on pilots while they flew.

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They also tested their levels of the hormone melatonin, which makes you sleepy, every four hours. Passengers and crew did response-time tests on tablet computers and wore monitors on wrists measuring heart rates and physical activity, which included stretching exercises in the rear galley, squats in the aisles and a loud parade with goofy dance moves.

Qantas had just 49 people, including me, aboard, all seated in business class. (Carrying less weight improves fuel efficiency, which extends how far a plane can fly.) There will be two other research trips: an even-longer test from London to Sydney

in November and another New York-Sydney nonstop in December.

Jet lag contributes to cardiovascular disease, obesity and diminished immune-system functioning, according to Marie Carroll, a professor at the Charles Perkins Centre, a University of Sydney organization focused on health. She's leading the passenger research.

So her team designed a radically different schedule for cabin service to reset body clocks quickly to Sydney time.

Typically on long flights, airlines serve a carb-filled meal after takeoff, then darken the cabin for sleep. This time, researchers wanted to keep passengers awake for at least six hours after the 9:27 p.m. takeoff from New York's Kennedy Airport, then hope passengers got a long, uninterrupted sleep before the morning arrival in Sydney.

Cabin lights stayed bright deep into the night. A spicy meal arrived with caffeine after takeoff to ward off slumber.



Qantas served spicy food, like this soup, for its first meal to help keep travelers awake and adjust quickly to the 15-hour time difference. PHOTO: JAMES D. MORGAN/GETTY IMAGES

Exercise sessions, including Macarena hand movements and hip-swivels, were held to keep passengers awake, blood circulating and muscles and joints flexible.

When it was time for sleep, a meal full of carbs and creams was served with wine, chased by sleepy-time tea. And the cabin went from bright to blackout.

“I got almost eight hours of sleep without assistance—no alcohol or sleeping pills,” says Nick Mole, a Sydney investor in private companies and one of the six Qantas frequent fliers who agreed to switch their booked flights home to the research flight to avoid a three-hour stop in Los Angeles.

Participants wore health-monitoring devices on their wrists, kept a log of their sleep seven days before the trip and agreed to continue two weeks after the flight. It can take up to two weeks for jet lag symptoms to dissipate.

Mr. Mole started doing reaction-time tests on an iPad in New York to set his baseline, then did the test, a standard alertness measurement used with truck drivers, shift workers and others, three times in the air. The first score after departure was his best. After staying awake six hours, to 3:30 a.m. New York time, he recorded his worst score. An hour before arrival, he aced the test with his second-highest score.



Cabin crew member Janek Picheta takes a reaction test on an iPad. People on the flight took these tests before and during the flight. PHOTO: JAMES D. MORGAN/GETTY IMAGES

“I can’t say I ever felt more alert after a flight than when I started,” Mr. Mole says.

But he’s skeptical that sedentary passengers will regularly start doing standing push-ups against food-storage lockers in an airplane galley. “Whether or not Qantas lets 230 people do the Macarena every hour remains to be seen,” he says.

Carl Petch, a Sydney-based video-networking manager who travels world-wide for business, found himself enjoying the exercise. “It could be a unique thing to do on a long flight,” he says. Like the other test subjects, he arrived feeling more awake and refreshed than on other trips.

Still, the exercises were a tough sell initially. Four hours into the flight, Prof. Carroll, the researcher who doubled as in-flight exercise guru, fretted that her test subjects weren’t moving enough. Not hard to figure when the choice is squats in a narrow airplane aisle or 1,000 different movies.

She fired up a recording of the Macarena and had test subjects, the airline’s pajama-clad CEO and others dancing.

To get people out of seats on full 20-hour flights, Mr. Joyce says Qantas has already designed an open area in the back of the new planes that will serve as an exercise room/yoga studio for 10 to 15 people, with TVs running a continuous loop of stretching and flexibility exercises. The space could also be used as a children’s play area.

The planes Boeing and Airbus have proposed will need to have reduced seat count, so adding an open exercise area won’t mean sacrificing ticket revenue, he says. Qantas plans to have more room in coach than the 32-inch row width it uses for its nonstop flights between Perth and London. (Other airlines typically have 31-inch seat pitch on long-haul flights.) Singapore opted not to put any traditional coach seats on its ultralong-haul planes—there’s only premium



Passengers exercise during the 20-hour flight. Qantas is considering a dedicated fitness area in the back of the plane for flights this long. PHOTO: JAMES D. MORGAN/GETTY IMAGES

economy and business.

The Perth-London flights have filled 95% of seats and, because of the extra room in coach and premium economy, get the highest satisfaction scores in passenger surveys of any Qantas flight, Mr. Joyce says.

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What are your keys for making it through an extra-long flight? Join the conversation below.

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ut 80% of passengers have been using a yoga studio for stretching at the Perth airport. It’s done in open air because exposure to sunlight is a major factor in combating jet lag.

Travelers often fail to let daylight be their friend in this situation. A survey of 2,000 passengers on long flights into and out of Australia found less than half get out in the sun after the flight, making it harder for body clocks to reset. Of course, landing in London doesn’t help.

The four pilots working the trip, two at a time, underwent intense study. In the cockpit and during sleep they wore EEG monitors to track brain waves. Cameras mounted in the cockpit captured responses to tasks. During long, boring cruise periods, pilots practiced tasks like diverting to an emergency landing strip and rerouting the plane, running through checklists and punching instructions into the flight computer.

Capt. Sean Golding flew for 11 hours total—90 minutes at the start, then a 2.5 hour break, followed by a 5.5 hour shift, 5.5 hours of sleep, then on for the final four-plus hours to taxi the historic flight to a cargo ramp where passengers used stairs to exit.

The plane landed with 70 minutes of fuel remaining, Capt. Golding says, above Qantas's minimums.

Qantas hopes to start the marathon nonstops in 2023. "I'm convinced there is a commercial business case for this," Mr. Joyce says.

As for the Macarena, he's a believer in that as well. "I think it's the first time it's ever been done, certainly on a long-haul flight," he says. "So maybe we'll make a trend of it. Maybe it can become a signature of Qantas."



This in-flight map shows just how much ground this flight had to cover: about 10,000 miles. PHOTO: SCOTT MCCARTNEY/THE WALL STREET JOURNAL

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