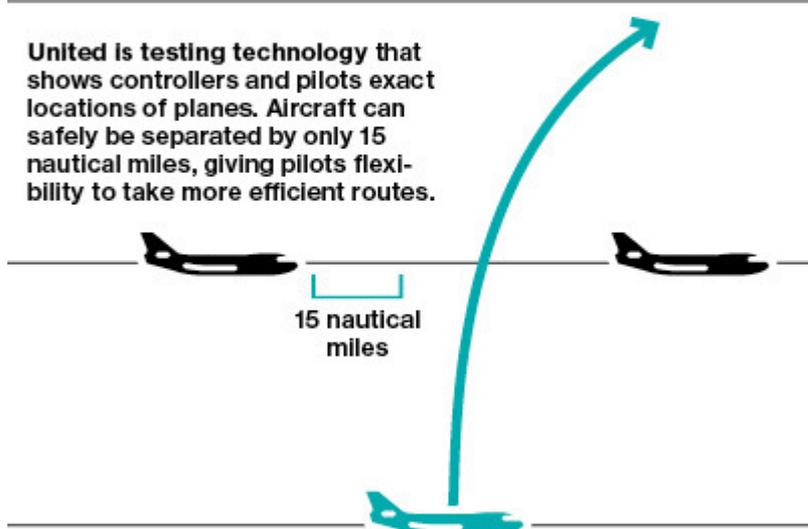
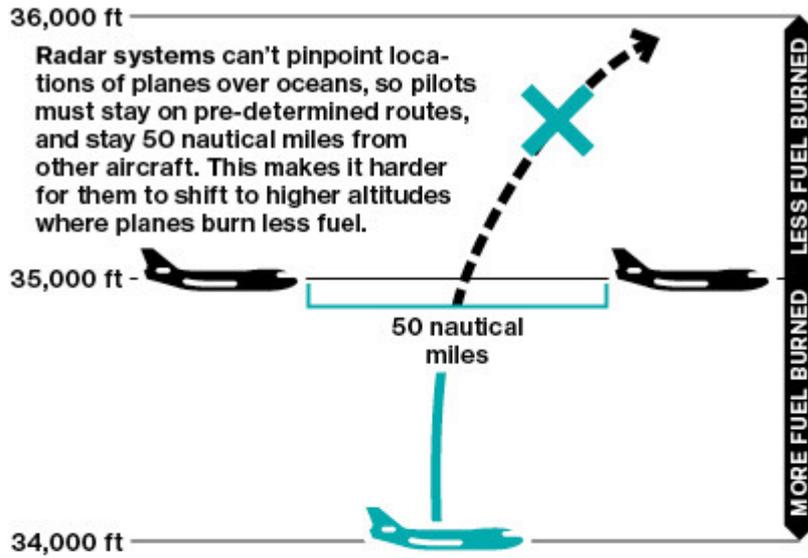


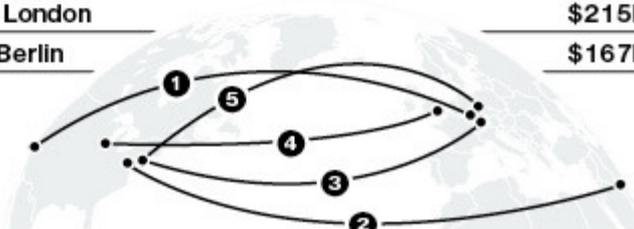
GPS Helps Airlines Stop Flying Blind

As part of a \$42 billion upgrade of the U.S. air-traffic control system, the Federal Aviation Administration is requiring airlines to install new GPS systems. Unlike a lot of regulation, this could actually end up saving consumers money. Right now air traffic controllers use radar to track planes. The 1940s-era technology works well over land where there are plenty of radar stations, but there is no radar over undeveloped mountain ranges or the oceans. So planes traveling in remote areas have to follow established routes and stay more than 50 nautical miles apart to avoid collisions. That's not the most efficient use of gas or time.

Improving Airplane Fuel Efficiency



Route	Est. average annual savings per plane
① San Francisco to Frankfurt	\$605k
② Washington to Kuwait City	\$452k
③ Newark to Munich	\$220k
④ Chicago to London	\$215k
⑤ Newark to Berlin	\$167k



GRAPHIC BY BLOOMBERG BUSINESSWEEK. DATA: UNITED

By 2020 commercial airlines will have to begin using GPS systems that send out a plane's location once a second, compared with once every 4 to 12 seconds now, which will help controllers guide traffic with more precision. United Airlines (UAL) is taking the technology a step further, to reduce its reliance on controllers and increase the efficiency of its routes. The company is testing equipment that captures the locations of all aircraft within 200 nautical miles on a screen in the cockpit. Made by Honeywell International (HON), the system allows pilots to maneuver closer to other planes. That means they can take more efficient paths to their destinations. "We can save them fuel, and we can save them time, which allows the airline to put more passengers or freight on board the aircraft," says Brian Davis, a vice president of airlines and air transport at Honeywell.

Pilots using the Honeywell devices on overseas flights would need to receive permission from controllers to turn or change altitudes but could safely come within 15 nautical miles of other planes, says Davis. That's more than two-thirds less than the current spacing required by the FAA. Having a full picture of air traffic may also improve safety during emergencies and storms, when flight paths may be changed.

George Hamlin, president of Hamlin Transportation Consulting in Fairfax, Va., says the technology United is testing will be "a significant expense, but it's going to save [airlines] likely large amounts of money." United estimates that each year it can save an average of \$190,000 for each plane that flies international routes, according to a company presentation given at an industry conference this year. The airline has tested the technology 16 times, and trials are continuing, says spokeswoman Mary Clark. The question now is how long it will take for all airlines to begin using GPS to broadcast their locations-and whether they'll pass their savings on to consumers in the form of lower ticket prices.

<http://www.businessweek.com/articles/2012-08-30/gps-helps-airlines-stop-flying-blind>