

Wi-Fi on planes boosted by satellite constellation

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Credit: European Space Agency

Flight passengers will soon be able to connect to their families and colleagues on Earth via low-orbit telecommunications satellites.

Speeds will be comparable to those at home, substantially boosting the service currently provided by geostationary satellites.

On 19 March, communications company OneWeb signed an agreement to deliver Wi-Fi on aircraft with SatixFy, a British manufacturer of electronic components.

They will develop in-flight connectivity terminals that will work over OneWeb's constellation of low-Earth orbit satellites, as well as on geostationary satellite networks.

OneWeb currently has 110 satellites in orbit but foresees a constellation of about 650.

The terminals will use electronically steered multi-beam antenna technologies to provide multi-beam capability and operate simultaneously via many different satellites.

The terminals use SatixFy's state-of-the-art application-specific integrated circuit chip set, developed with the support of the UK Space Agency through ESA's program of Advanced Research in Telecommunications Systems (ARTES).

Satixfy has formed a [joint venture](#) called JetTalk with Singapore Technology Engineering Ltd to commercialize the terminal for commercial aviation markets.

Elodie Viau, Director of Telecommunications and Integrated Applications at ESA, says: "Space and satellites are becoming increasingly important to the digital economy and there is a need to get data all the time and everywhere—even on board a plane.

"ESA is proud to have supported SatixFy in the design of the chips used

for this terminal—enabling the digital transformation of society using telecommunications satellites."

Catherine Mealing-Jones, director of growth at the UK Space Agency, says: "The past year has shown that connectivity has never been more important to our daily lives, and it is exciting to see SatixFy and OneWeb working together to provide commercial passenger planes with broadband internet for the first time.

"The new aero terminal will make use of chips developed with UK Space Agency backing, which demonstrates how supporting our most innovative companies leads to results that make a real difference for people all over the world."

Yoel Gat, chief executive of SatixFy, says: "The ability to deploy multi-beam, multi-[satellite](#), multi-orbit in-flight connectivity terminals is key in SatixFy's offerings. Aggregating capacity from multiple satellites will give customers the grade of service they expect to get on flights. This great leap forward is made possible thanks to the continuous support by ESA and the UK Space Agency."

Provided by European Space Agency

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