

Gogo In-flight WiFi Service

In 1991, a company called AirCell started offering satellite-based air-to-ground voice and data services for private aircraft (mainly corporate jets). When the FCC auctioned off licenses in the 800MHz radio spectrum (previously used by Verizon's unpopular air-to-ground phone service) in 2006, AirCell won their \$31.3 million bid and announced their intentions to offer in-flight WiFi services.⁽¹⁾ After initially starting with a pilot program aboard selected American Airlines flights in 2008, Gogo is now offered on seven different carriers with increasing availability.⁽²⁾

Whereas other in-flight services use a satellite-based network, Gogo uses a less expensive method of roaming between AirCell's 92 cell towers on the ground which provide coverage over the continental United States.⁽³⁾ Each plane is equipped with 3 antennas that form a picocell of overlapping WiFi signals; the signals are then communicated to the ground.⁽²⁾ To ensure that the WiFi signal doesn't interfere with crucial communications between the aircraft and the tower, the service is only available after reaching an altitude of 10,000 feet.⁽⁴⁾ Unlike cell phones, Gogo also uses a frequency that doesn't interfere with navigational controls.⁽²⁾

AirCell reports connection speeds of roughly 3.1 Mb/s, which could decrease depending on the number of uses online at the same time.^(3;5) At these speeds, passengers can use email, chat programs, and VPNs to work even when on the go, or download videos and music that could make in-flight entertainment obsolete. Although applications like VoIP are possible, all the airlines participating in Gogo's program have asked that this feature be blocked for reasons of social etiquette. One spokesman from Frontier Airlines said, "We're running pretty full planes...If you're not sitting next to two people, you're sitting next to at least one person, and it just would be a difficult experience"⁽²⁾ and an American Airlines executive stated that after conducting surveys of its passengers, "there was a very loud chorus telling us, 'Do not allow voice-over-IP calls in the cabin'". Pornographic sites are also blocked from the Gogo service for similar reasons concerning the comfort of nearby passengers.⁽⁵⁾

Passengers pay \$5.95 for certain redeye flights, \$7.95 for the use of PDAs and smartphones, and \$9.95 for flights shorter than 3 hours. Flights longer than 3 hours are charged \$12.95 for a 24-hour pass, and a 30-day pass is regularly \$49.95; however, passes used during multiple flights must be on the same airline.⁽⁶⁾ These access fees are shared between AirCell and the airline, which helps the carriers recoup their estimated \$100,000 per plane equipment costs.^(3;5) Occasional promotions are offered in partnership with other companies; Delta teamed up with eBay to offer complimentary access for the week around Thanksgiving, and American Airlines and Lexus had a similar program a month earlier.⁽⁶⁾

Currently, the only airlines with 100% fleet coverage are Airtrain Airways and Virgin America, and Delta hopes to have access on all domestic flights by 2010. American Airlines has outfitted all 767-200s, and during 2010 will expand the service to some of its MD-80s and 737s. United Airlines, Air Canada, and US Airways are in the process of outfitting a portion of their planes (primarily those used on coast-to-coast

routes such as New York to San Francisco).⁽⁶⁾ Only two airlines, Alaska Airlines and Southwest Airlines, have chosen to pursue contracts with satellite-based competitor Row 44; both airlines plan to outfit their entire fleet with the service.

Despite the convenience of this relatively new service, there are practical considerations to take into account. The length of coast-to-coast flights typically outlasts the standard laptop battery life. To combat this, more airlines are offering power outlets for business class passengers and other select rows; one website, www.seatguru.com, offers detailed seat information so you can determine ahead of time which rows are near an outlet.⁽⁷⁾ Another consideration was that until recently, there was no way to know ahead of time if your flight had Gogo service (unless you were flying on an airline that you knew had 100% fleet coverage). Delta maintains a blog regarding WiFi flight information that provides the tail numbers of each Gogo-enabled plane, but the particular plane being used is not always known well enough in advance.⁽⁷⁾ American Airlines is the first to actually provide a widget at <http://www.aa.com/wifiwidget> that allows users to look up the WiFi availability of certain flights based on departure airport or flight number, and they will soon display a WiFi symbol at the gate along with regular flight information.⁽⁶⁾

In a world where we're expected to be in constant communication with others, the mandatory reprieve we used to get for a few hours during our flight was often a refreshing change of place. Then again, I was recently on a plane from Dallas to Seattle that offered Gogo, and having internet access as an alternative to the in-flight movie ("Land of the Lost") was much appreciated. I can't help but wonder, however...what will become of simply bringing along a good book?

Works Cited

1. **Reardon, Marguerite.** JetBlue wins air-to-ground wireless license. [Online] June 2, 2006. [Cited: November 26, 2009.] http://news.cnet.com/JetBlue-wins-air-to-ground-wireless-license/2100-1039_3-6079558.html?tag=mncol;txt.
2. **Broache, Anne.** Wi-Fi: Coming soon on board U.S. airplanes. [Online] June 5, 2006. [Cited: November 26, 2009.] http://news.cnet.com/Wi-Fi-Coming-soon-on-board-U.S.-airplanes/2100-7351_3-6080252.html.
3. **Samuels, Alana.** In-flight wireless Internet to expand to hundreds of American Airlines planes. [Online] March 30, 2009. [Cited: November 26, 2009.] <http://latimesblogs.latimes.com/technology/2009/03/airplanesinflightwireless.html>.
4. **Reed, Dan.** American to add Wi-Fi service to domestic flights. [Online] March 31, 2009. [Cited: November 26, 2009.] http://www.usatoday.com/tech/news/2009-03-30-american-delta-airlines-wifi_N.htm.
5. **Koenig, David.** American Airlines to expand in-flight Web access. [Online] March 30, 2009. [Cited: November 26, 2009.] http://news.yahoo.com/s/ap_travel/20090331/ap_tr_ge/travel_brief_airborne_internet_american.
6. **Gogo.** [Online] [Cited: November 26, 2009.] <http://www.gogoinflight.com/jahia/Jahia/site/gogo/lang/en/participatingairlines#>.
7. **Tuttle, Brad.** Wi-Fi in the Sky. [Online] November 2009. [Cited: November 26, 2009.] <http://www.budgettravel.com/bt-dyn/content/article/2009/10/03/AR2009100303214.html>.