**Before the**
**Federal Communications Commission**
**Washington, D.C. 20554**

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| In the Matter of | ) |
| Expanding Access to Mobile Wireless Services | ) WT Docket No. 13-301 |
| Onboard Aircraft | ) |

## REPLY COMMENTS OF AT&T

AT&T Services Inc., on behalf of AT&T, Inc. and its affiliates, submits these reply comments in the matter captioned above.

On December 13, 2013, the Federal Communications Commission ("the Commission" or "FCC") released a notice of proposed rulemaking ("NPRM") "to revise outdated rules and adopt consistent new rules governing mobile communications services aboard airborne aircraft."[1] The Commission intends to give the airlines, subject to rulings by the Department of Transportation ("DOT") and the Federal Aviation Administration ("FAA"), the choice of enabling mobile communications on aircraft equipped with an Airborne Access System. The proposed rules would also replace the existing rules, which forbid airborne use of mobile services in some, but not all, of these bands. The proposed rules would forbid the use of all mobile services in aircraft unless the plane is equipped with an Airborne Access System.

In fashioning its rules for mobile service, the Commission has long recognized that flexibility is necessary to promote innovation and the rapid introduction of new services to customers. The mobile market and the public have benefited from this approach. The provision of onboard mobile services is a natural extension of the services that carriers already offer their customers

[1] In the Matter of Expanding Access to Mobile Wireless Services Onboard Aircraft, *Notice of Proposed Rulemaking,* WT Docket 13-301, FCC 13-157 (2013) at ¶ 1 ("*IFC NPRM*").

today. In fact, many airlines today provide their customers the ability to use data services through the provisioning of WiFi.

The FCC has proposed an airborne mobile services plan that:

1. Removes existing, narrow restrictions on airborne use of mobile devices in the 800 MHz cellular and Specialized Mobile Radio (SMR) bands, replacing them with a more comprehensive framework encompassing access to mobile communications services in all mobile wireless bands;
2. Harmonizes regulations governing the operation of mobile devices on airborne aircraft across all commercial mobile spectrum bands;
3. Adds the authority to provide mobile communications services on airborne aircraft across all commercial mobile spectrum bands to existing Part 87 aircraft station license;[2]
4. Allows mobile communications services on airborne aircraft only if managed by an Airborne Access System certified by the FAA, which would control the emissions of onboard portable electronic devices ("PEDs") by requiring them to remain at or near their lowest transmitting power level; and,
5. Limits authorization for mobile communications services to aircraft travelling at altitudes of more than 3,048 meters (approximately 10,000 feet) above the ground.[3]

The FCC's lead licensing proposal would amend an existing aircraft station license to permit operation of an Airborne Access System ("AAS"). The AAS would communicate with passengers' mobile devices through a picocell[4] arrangement encompassing all domestic commercial mobile spectrum bands.[5] In conjunction with a network control unit ("NCU"), the AAS would keep the transmit levels of the PEDs at, or close to, their minimum power output levels. In this way, the Commission believes that harmful interference to terrestrial systems can be avoided.[6]

[2] 47 C.F.R. § 87.18
[3] *IFC NPRM* at ¶ 3.
[4] *Id.* at ¶ 30.
[5] *Id.* at ¶ 54.
[6] "[T]he picocell controls the power levels of all transmitting mobile broadband devices operating onboard aircraft, keeping them at or near their minimum output power. A picocell is analogous to an in-building distributed antenna system (like those used in large buildings, malls, etc.) for use in the aircraft. The signal travels from the handset to the picocell, which then relays the call to the ground via a separate airground link, e.g., via a satellite band or the 800 MHz Air-Ground band, after which it can be transferred to the terrestrial network.82 In addition, the NCU raises the noise floor within the cabin to prevent devices from attempting to communicate with terrestrial networks" *Id.* at ¶ 30. (citations eliminated).

AT&T supports the Commission's review of the current prohibition; clearly, all mobile services should be subject to the same rules. However, AT&T believes that the FCC's proposal raises a number of questions that should be addressed in a straight-forward and serious manner.

**1. Onboard Wi-Fi use is more than sufficient to support passengers' current and future mobile needs.**

Inflight voice communication is not currently authorized in the United States. Nor is it likely to be approved. On February 24, 2014, the Department of Transportation ("DOT") published in the Federal Register an Advanced Notice of Proposed Rulemaking ("ANPRM")

> [S]eeking comment on the effects and implications of adopting a rule to ban voice communications on passengers' mobile wireless devices on flights within, to and from the United States. [7]

In the ANPRM, the DOT noted

> [T]he Department believes that this practice [inflight voice communications] may be harmful or injurious to the passenger and there may not be a way for the passenger to reasonably avoid the harm. Allowing voice calls on passenger aircraft may be harmful because people tend to talk louder on cellphones than when they're having face-to-face conversations. They are also likely to talk more and further increase the noise on a flight, as passengers would not be simply talking to the persons sitting next to them but can call whomever they like. While some planes may already have seat-back phones in place, we believe that most are rarely used and the Department's concern is not about individual calls but rather the cumulative impact of allowing in-flight calls in close quarters.[8]

Given this state of affairs, AT&T does not think it a good use of resources to embark upon a proceeding debating the merits of highly complicated system whose only purpose is to provide a service that is unlikely to win approval from the DOT.[9]

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[7] 55 Fed. Reg. 10050 (2014).
[8] *Id.* at 10051
[9] In addition, the proposal to authorize others to use spectrum already licensed exclusively to commercial mobile wireless providers would be unlawful. There is, however, no need for a protracted proceeding on this point when the service for which the AAS/NCS/picocell proposal is designed is unlikely to win endorsement from the DOT. Consumers will be better served in a shorter time by focusing on a system to provide broadband data services, which would not necessitate the use of licensed spectrum.

Passengers today can, on many flights, use their PEDs for Internet access and for a variety of other data services, including voice mail and text messaging. Indeed, AT&T recently announced[10] a plan to enter the market for providing data connectivity on planes through Wi-Fi connectivity and believes that this data connectivity is where there is market demand. In current systems (and AT&T's proposed service), the in-cabin communication with PEDs relies upon Wi-Fi, an unlicensed spectrum band that is widely available and on which all laptops and tablets and most smart phones operate. Unlike the problems presented by modifying aircraft station licenses to operate in the mobile bands, use of Wi-Fi involves no licensing issues and many fewer interference problems. Indeed, Wi-Fi has been in use aboard aircraft for some time. Its use is understood and quickly deployed without fear of risking interference to licensed wireless spectrum. In addition, Wi-Fi will continue to meet domestic passenger communication requirements for the foreseeable future.

By encouraging the use of Wi-Fi, the FCC can stimulate innovation and new businesses without impairing existing licenses or engaging in the complicated frequency planning that the proposed Airborne Access System would require. Moreover, because the bottleneck in most airborne systems is the air-to-ground component, encouraging a simpler and less expensive cabin access system may well lead to greater competition in the provisioning of the transport links from the airplane to the ground. This, in turn, would redound to the benefit of consumers, who would enjoy more mobile services at better prices.

**2. The question of interference to terrestrial systems from airborne mobile communications has not been resolved.**

In the *IFC NPRM,* the Commission pointed to the European Conference of Postal and Telecommunications Administration ("CEPT") study of Airborne Access System mobile communi-

[10] http://about.att.com/story/mobilizing_the_sky_att_building_4g_lte_in_flight_connectivity_service.html

cations operating in 1800 MHz band above 10,000 feet bolster its conclusion that a similar domestic requirement would mitigate fears of interference to terrestrial networks from airborne mobile service.[11] This conclusion remains unsupported by any study done within the domestic spectrum environment. Moreover, the European and other national GSM networks are able to set aside a dedicated frequency band for airborne use, eliminating the potential for interference to terrestrial systems. Furthermore, CEPT's testing was done in a band not used for American mobile service and within an environment of national, homogeneous licensing plans. Also, unlike the US mobile market, European markets are generally characterized by a uniformity of modulation access schemes, all growing out of GSM. Domestically, the US has several competing access systems all of which are moving to broadband digital channels with multiple access technology to permit many calls to occupy a single channel. These digital channels are used simultaneously at multiple sites spaced closely together. In this environment, the problem of interference becomes vastly more complicated, and relying upon the results of a study done in an entirely different environment is fraught with the potential of error.

Further study of the interference risks in the domestic market would be necessary before permitting aircraft station licenses to be modified in the manner proposed by the *IFC NPRM*.

## Conclusion

While AT&T supports the Commission's proposal to revise outdated rules and adopt consistent new rules governing mobile communications services aboard airborne aircraft, the proposal to have airborne access systems use spectrum licensed exclusively to mobile wireless providers--spectrum that is now in extensive use by hundreds of millions of Americans--would be unwise and unlawful. Moreover, it is also unnecessary. Wi-Fi can provide adequate access to

[11] *Id.* at ¶¶ 12-15; 29.

mobile broadband services in aircraft cabins, especially as it appears that in-flight voice communications are unlikely to be permitted in U.S. air space. Using unlicensed spectrum for cabin access would avoid interference issues with licensed terrestrial systems as well as the unlawful impairment of the rights of the incumbent licensees. Furthermore, this approach will encourage rather than forestall the development of emerging airborne systems.

Respectfully submitted,

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