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October 19, 2005

Ms. Marlene H. Dortch, Secretary
Federal Communications Commission
445 Twelfth Street, S.W.
Washington, D.C. 20554

Re: WT Docket Nos. 03-103 and 05-42
Notice of *Ex Parte* Presentation

Dear Ms. Dortch:

This is to inform you that representatives of AirCell, Inc. ("AirCell") participated in *ex parte* meetings on October 17 and 18, 2005 to discuss a number of issues in the above-referenced proceedings. Specifically, Jack Blumenstein, AirCell Chairman and CEO, Bill Gordon, AirCell Vice President for Regulatory Affairs, and I, counsel to AirCell, met with Commissioner Kathleen Abernathy and her Legal Advisor John Branscome; Commissioner Jonathan Adelstein and his Senior Legal Advisor Barry Ohlson; and John Giusti, Legal Advisor to Commissioner Copps.

During the meeting, the following issues were discussed (as described below and in the attached one-page hand-out):

- AirCell repeated its request that the Commission provide a 35% bidding credit for very small businesses in the upcoming ATG auction. AirCell explained that it has the proven resources needed to deploy a nationwide ATG network, given that only about 135 cell sites would be required, but that a higher bidding credit is needed to ensure that it will be able to compete against extremely well-funded bidders for the spectrum.
- AirCell continued to question Verizon Airfone's need for a two-year transition period to move its current narrowband ATG network from 4 MHz to 1 MHz. AirCell expressed its concern that a two-year transition period could unnecessarily delay AirCell's effort to deploy a broadband ATG network should it acquire a license to provide the service.

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To clear up any confusion on this issue, AirCell suggested that the Commission should ask Airfone to submit a detailed description of, and rationale for, the changes needed for the transition, as well as a corresponding schedule of milestones for when those changes will be made.

In addition, AirCell discussed its recent ATG technology demonstrations, as described in the attached article provided during the meetings. AirCell also generally reiterated its positions from previous filings made in the above referenced dockets.

Pursuant to Section 1.1206(b)(1) of the Commission's rules, I am filing this notice electronically in the above-referenced docket. In addition, I am sending one copy of this notice via e-mail to the FCC representatives listed below. Please contact me directly with any additional questions.

Respectfully submitted,

/s/ Michele C. Farquhar

Michele C. Farquhar
Counsel to AirCell, Inc.

Attachment

cc: Commissioner Kathleen Abernathy
Commissioner Jonathan Adelstein
John Branscome
John Giusti
Barry Ohlson

Issues Raised by AirCell in the Pending Air-to-Ground (ATG) Proceedings

Airfone's two-year migration and five-year license renewal are longer than needed and impact the value and potential deployment of the ATG licenses:

The FCC granted Verizon Airfone a two-year transition period to migrate from the full 4 MHz ATG band to 1 MHz. Yet this transition does not begin until two years after the new ATG license or licenses are granted, even though the incumbent could have started the transition process after the FCC's initial ATG decision. Should AirCell emerge as the successful bidder for a 3 MHz ATG license, this transition could unnecessarily delay AirCell's efforts to deploy a broadband ATG network (whereas if Airfone wins a license, it could make the necessary adjustments and begin operations immediately). Any winning bidder of an ATG license – except for Airfone – effectively may win an 8-year rather than a full 10-year license.

Airfone did not seek a two-year transition period, but merely sought a “limited transition period” in its FCC filings, and the FCC has not explained why two full years would be necessary for Airfone to move its narrowband operations to a smaller segment of the same band (rather than relocate to an entirely new band). The FCC has granted shorter transition periods in previous cases where parties were shifting spectrum use from a larger to a smaller segment of the same band (*i.e.*, Globalstar). AirCell strongly believes that Airfone does not need a full two years from the date of license grant (effectively a 3 or 4-year transition period), and Airfone still has not demonstrated why such a lengthy period would be necessary.

AirCell has recommended that the FCC ask Airfone to submit a detailed description of and a rationale for a two-year transition period, as well as a corresponding schedule of milestones for when these changes will be made (similar to the milestones and interim benchmark adopted in the FCC's recent 800 MHz rebanding proceeding). *Finally, AirCell urges the FCC to note the potential harm to new ATG licensees should Airfone unnecessarily delay its transition, and to develop a framework to address any concerns that may emerge in the migration process.*

AirCell has demonstrated a need for higher bidding credits given the unique features of the ATG auction:

Both AirCell and Space Data support a 35% bidding credit for very small businesses (and 25% for small businesses) in the upcoming ATG auction. AirCell has already deployed a nationwide air-to-ground network using different spectrum, and obtained the necessary infrastructure (hardware for the sites, FAA-certified equipment for the planes, other customized hardware and software) for narrowband operations. Because a nationwide ATG network only requires 135 sites, the most capital-intensive element will be purchasing the ATG spectrum itself, especially in competition with much larger companies with virtually unlimited resources. The FCC has used bidding credits for other nationwide spectrum auctions, especially for smaller blocks such as ATG.

In addition, the novel format of the ATG auction – in which bidders will have the opportunity to bid for either one monopoly license or one of two “shared” licenses – elevates the importance of the bidding credit issue. Smaller businesses and new entrants are more likely than Airfone to bid on one of the two shared ATG licenses, but the resulting ATG marketplace competition may never emerge if smaller entities cannot effectively compete in the auction against a nationwide carrier with deep pockets.

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AirCell Broadband!

As the revamping of the US wireless in-flight connectivity and voice system continues, the FCC (in conjunction with the FAA) is preparing for an auction of the wireless bandwidth in the 800 and 900 Megahertz frequency bands. Previously called NATS, the bandwidth auction next year will no doubt bring a virtual Noah's Ark of teamed competitors to the party. Names like Boeing, AirCell, Verizon will be most assuredly be on the bidders list but we think names like Sprint, T-Mobile will be there too. What would attract names like this to a mere 2 Megahertz of bandwidth? For one thing, future airborne high-speed data and voice usage with the technically acceptable PED's for starters, and another, a new way to reach, connect and entertain airline passengers. But let's start at the beginning.

Conceived and implemented in the 80's and 90's, in-flight telephony was the child that never quite grew up. Names like In-Flight Phone Corporation, GTE Airphone, Magnastar, AirOne, AT&T Wireless, Verizon, AirCell have been associated with telephones on airplanes in the US. The fate of onboard passenger phone and data connections on commercial aircraft, however, would be dealt a fatal blow by pricing and universal connectivity on the ground. The ubiquitous cell phone won. While rates dropped lower there were other factors that influenced the demise of NATS as we knew it. Billing was a big issue; passengers wanted to pay one bill and connectivity providers scrambled to deliver cross platform payment solutions...and some succeeded. Aircraft equipment pricing also presented challenges for some. In the end, there was no escaping the ugly truth: passengers wanted to talk on their cell phones on planes and wanted to do so at rates comparable with cell phone ground charges. They also wanted ground-like speeds for Internet connectivity. For many reasons that was never to happen, at least in the air. The FCC noted the clamor and wisely saw that technology could come to the aid of an underused spectrum. The rest, as they say, is history.



Jump to September 2005 and an airfield outside Boulder Colorado. AirCell, an in-flight connectivity provider who in the past adapted cell and satellite technology for aircraft usage, taxied leased and modified Falcon Jet 2000 in position for takeoff. The plane had one slightly different outward appearance...an unusually small antenna, about the size of a deck of playing cards, on the rear underbelly. The plane continued roll, lift-off and proceeded toward Kansas City to an experimental cell tower site where something different was to be demonstrated. The aircraft was full of technicians, marketers, a few journalists, cell phones, laptops, and a very small set of black boxes all connected to the small, external antenna. At 11,000 feet the fun began! Broadband, AirCell Broadband to be exact.



We tested GSM and CDMA phones first. While the handsets were not optimized for background noise, they were very acceptable. Ground listeners were able to hear our words clearly and we did find an onboard tendency to raise our voices. The hands-down winner was Skype for voice, a flavor of VOIP. Thru a laptop and headset, conference calling was spectacular. This solution is by far the best voice option and this author clearly talked to a conference room full of people and could be heard by all. Not to mention the noise canceling boom microphone and earpiece aided in hearing on the noisy plane environment and required lower levels of talking.

Email over Wi-Fi was perfect. The speed was DSL-like and email and Internet surfing worked flawlessly...even when there were some 8 people using the system. This is an addictive problem as we noted earlier, if you can get your email while flying, you are gonna do it! The PDA's using Wi-Fi worked equally well.

We further tested an interesting technology called SlingBox.

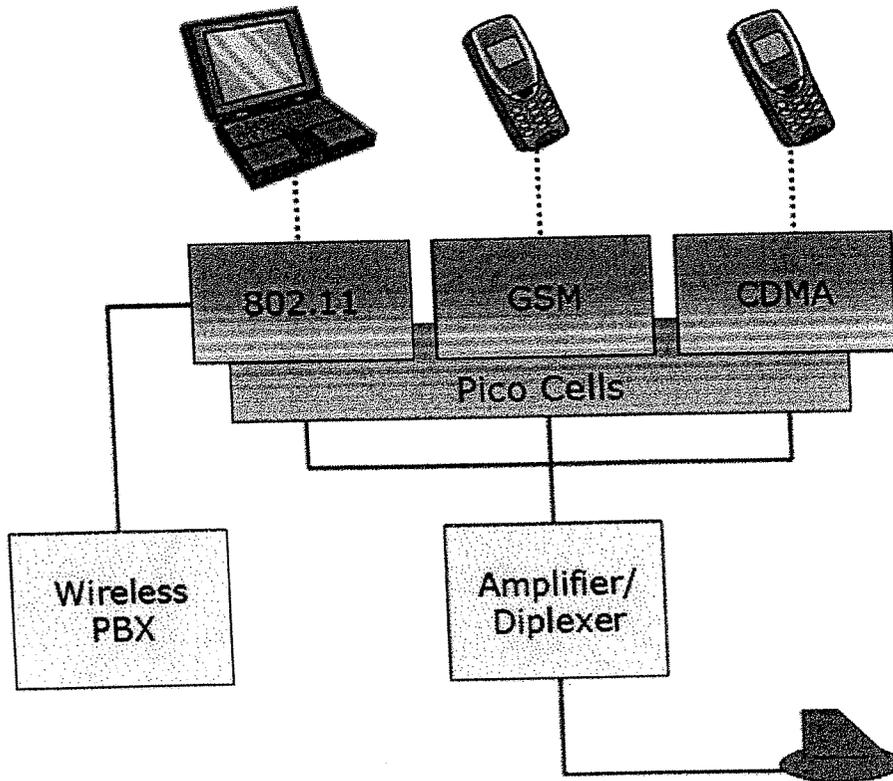
Essentially, SlingBox is an inexpensive black box connected to your ground-based television (like TIVO), but unlike TIVO, it is also connected to your high-speed Internet router. So, we in the air could watch what the ground TV was playing...and we did. Think of the possibilities!

As a personal note, this author had not been too impressed by the possibility of working on an airplane. I'm always jealous of those corporate boys and girls glued to their laptops and PDA's in an environment that is just slightly quieter than a pressroom or machine shop...too much computer work with too little room. But when the old "e" of Internet Explorer became active on my computer, I was glued to my screen! Actually everybody, and I mean everybody who had a laptop or wireless PDA, was getting his or her email.

IF Express Inflight Rule 1 - If high speed email and/or Internet connectivity is available on an airplane, you cannot resist.

AirCell CEO Jack Blumenstein, noted the many ways that airlines could use his new system. By providing almost every ground-based connection option (CDMA, GSM, Wi-Fi), and the means to control it, the AirCell approach would let airlines

choose their solution to in-flight telephony. Those that did not want to tackle the cell phone issues in the air could choose to provide different options in different locations in the plane...perhaps voice & data in business class and text messaging and Wi-Fi in economy. Choice is the operable word here.



The system tested was of a COTS nature. An amplifier/diplexer is connected to the external antenna and lined to 3 picocells that delivered phone and data in 3 flavors: 802.11, GSM, and CDMA. AirCell patents (14 and more in the works) gives them a strong position for the forthcoming auction/selection. Their experience in high altitude cell phone development proved very useful in the understanding and manipulation of transmission problems emanating from Doppler effects. Cell to cell hand-off is another challenging issue in air-based cell telephony systems but their name should be indicator enough for the reader.

The net result from all this technology was expressed by Blumenstein; "the AirCell network will bring the cost of airborne connectivity features down from \$4 bucks a minute to prices closer to what cell phone subscribers pay for roaming in the US, Canada and parts of the Caribbean today. After all, this market comprises some 40% of the worlds airline traffic."

But there is more here than meets the eye! Look at it this way: this system, when coupled with an appropriate server, becomes a "new IFE". I wont elaborate on this possibility but there has never been such a IFE opportunity, indeed, one in which the passenger brings the seat hardware! Vendors, think about this one.

With these AirCell Broadband, the airline has a new pipe for customer interface on their airplanes, bigger than ever before. As newer and newer handheld products appear in passenger's hands, entertainment and communications options open up. The airline controls the wireless interface and also has the opportunity to provide more services. And more possibilities for revenue, dare we say it? Take smartphones, for example, with a Windows interface; smartphones should provide a very serviceable computer-like phone GUI in locations where Internet connectivity was previously unavailable or physically impossible - think economy. Wi-Fi, VOIP, email, streaming audio and video, high data rate cell and voice comms may be in your future, even if enough legroom isn't!

Data upload to, and down from the aircraft can be much larger and cost less at the same time with AirCell Broadband. If you are thinking of ACARS, you have also uncovered another application, Aircraft trend data, crew information, IFE content, spares and maintenance updates as well as airline communication are also possible at 2.4 megabits/sec to, and 150 kilobits/sec from, the airplane.

"My only worry about the forthcoming auctions is an irrational buyer in a monopolistic marketplace," said Jack. Loosely translated he means that a spectrum bidding environment that gets very expensive and provides only one solution/winner will be the "perfect storm" AirCell would like to avoid. Although, we think their patent position and the possibility of attracting high

value partners still places them in a very good light, especially since their worldwide Iridium satcom connection solution has been very successful and continues to grow.

All in all, we all were all impressed by the speed and clarity of the AirCell Broadband System and if there was one reservation, it was the urp-potential presented by flying at sub-ten thousand foot altitudes in choppy air, with lots of head-down, computer time. Airlines will undoubtedly solve the problem by shutting the system down before take-off and during approach...and we will not mind at all. Trust me.

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