WILKINSON ) BARKER ) KNAUER ) LLP

2300 N STREET, NW
SUITE 700
WASHINGTON, DC 20037
TEL 202.783.4141
FAX 202.783.5851
www.wbklaw.com
MICHAEL DEUEL SULLIVAN
+1.202.383.3332
msullivan@wbklaw.com

February 19, 2004

Mr. B.C. "Jay" Jackson
Mobility Division
Wireless Telecommunications Bureau
Federal Communications Commission
445 12th Street, N.W.
Washington, D.C. 20554

**VIA ECFS**

Re: AirCell, Inc. Petition for Extension of Waiver
WT Docket No. 02-86
Response to December 18, 2003 FCC Letter

Dear Mr. Jackson:

AT&T Wireless Services, Inc., Cingular Wireless, and Verizon Wireless ("Petitioners"), by their attorneys, hereby submit their response to the Commission's December 18, 2003 letter. As Petitioners indicated in their letter of January 16, 2004, Petitioners contracted with V-Comm, L.L.C. to capture information regarding the output power of airborne AirCell mobile units communicating through a number of AirCell ground stations. V-Comm's full report is enclosed herewith as Exhibit A.

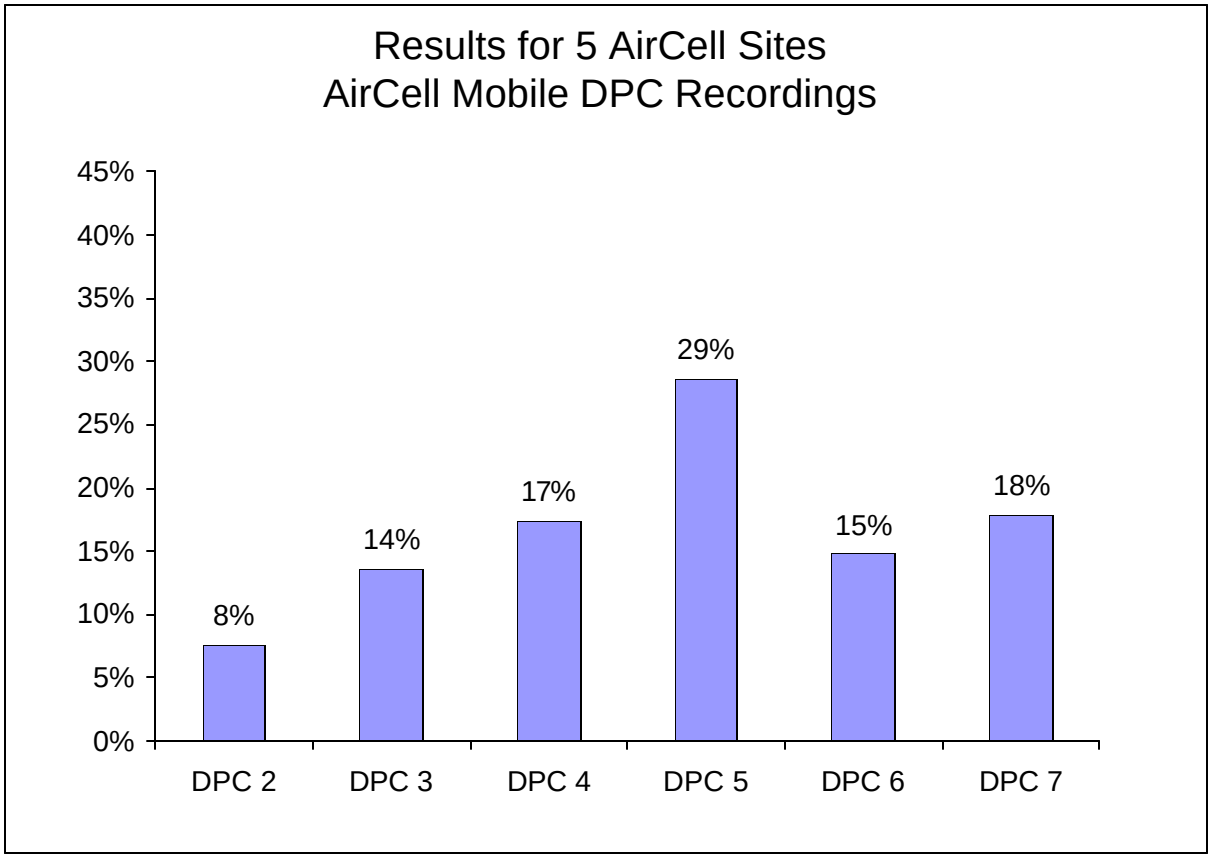
The Commission's letter sought "ordinary, everyday operating data" for the AirCell system, and not "data recorded during special tests conducted by parties or their consultants under controlled conditions." V-Comm's report provides the Commission with the very information it sought: the airborne mobile power levels used by ordinary AirCell customers in the course of using their phones. V-Comm used sophisticated equipment to record the DPC (dynamic power control) levels — and thus the mobile transmit power — of actual airborne calls through five AirCell ground stations in the Northeast over the course of four to eight days.

Over the course of 33 days of measurements, airborne power levels from 98 calls were captured, representing 134 minutes of use. V-Comm states:

> The results of the study show a distribution of airborne transmit power levels that utilize each Dynamic Power Control (DPC) level

for a significant percent of time. The two highest power levels DPC 2 and DPC 3 were utilized 22% of the time.

V-Comm presents the data in a variety of forms to aid the Commission's analysis. The overall distribution of power levels observed over the entire monitoring project, depicted in the histogram below, makes clear that AirCell customers' mobiles in actual operation operate at a wide variety of power levels, and that the highest power levels permitted under the waiver are very commonly utilized. As a result, the Commission must address the interference potential of AirCell operations at the highest power levels utilized and cannot rely on AirCell's assurances that "typical" operations do not present a significant likelihood of interference.




In addition to describing the mobile power levels used in actual real-world operations communicating through five AirCell sites, V-Comm makes a number of observations concerning the data previously submitted by AirCell in response to the Commission's December 18 letter:

- AirCell's response to the Commission's letter lists what it describes as the "typical" power levels of its units at the various DPC steps; the power levels provided by AirCell are significantly lower than the nominal power

set forth in industry standards for the various DPC levels, taking into account the losses involved in an AirCell installation. AirCell's recent explanation that it used typical production line power levels does not address actual maximum power levels, which will vary. As a result, use of AirCell's figures could result in understating the interference potential of airborne operations.

- AirCell's response provides data from controlled flight tests, totaling nine calls, as opposed to the actual day-to-day usage that the Commission requested. Over the course of several years of operation, with a database of a million miles of operational data, AirCell was able to find only nine tests with airborne power level data — and none of these involved the capture data in the course of actual customer usage.

- V-Comm notes that AirCell claims that it is able to operate at lower received signal levels because it has "cleared" its channels from usage at nearby sites. Such spectrum clearing is not typical in the industry and is not an efficient use of spectrum. (Moreover, it is surprising, given that AirCell has been permitted by the FCC to operate co-channel with analog operations of nonparticipating carriers.) Nevertheless, it would explain why several AirCell partners claim that they have experienced no interference from AirCell operations.

- V-Comm observes that the handful of controlled tests used as the basis for AirCell's filing does not provide a representative range of distances, altitudes, and flight paths, and thus does not even begin to approximate the characteristics of actual day-to-day usage by customers. We note, in this connection, that the Court of Appeals has previously criticized the FCC for relying on limited data that "did not represent the full range of operational conditions in which AirCell's phones are likely to be used." *See AT&T Wireless Services, Inc. v. FCC*, 270 F.3d 959, 968 (D.C. Cir. 2001).

As a related matter, Petitioners note that AirCell has engaged in several actions that can only be viewed as attempts to prevent Petitioners from gathering and reporting the information that the Commission has sought. Specifically:

- On January 29, in the middle of the study period, AirCell emailed V-Comm indicating that it had become aware that V-Comm would be conducting tests at two AirCell ground stations (Altoona and Oswego) in conjunction with AT&T Wireless, the licensee of the sites in question. AirCell, which the Commission has held to be a mere reseller of the licensee's service, informed V-Comm that "[u]nder no circumstance is V-Comm authorized to touch the AirCell RF chain or to change any translatable parameters in the switches." *See* Exhibit B. V-Comm

response, on February 6, emphasized that V-Comm "is under contract and working under the direction of AT&T Wireless, who is the licensed operator of the Altoona and Owego AirCell sites. As AirCell is made aware, and in accordance with the FCC's Dec 18th request, AWS & Cingular are collecting such data so it can be filed in the FCC record." V-Comm also informed AirCell that the measurements were being taken off the air and that "V-Comm hasn't touched the RF chain." *See id.*

- On January 30, also in the middle of the study period, AirCell requested that Cingular "immediately terminate operation of the AirCell network at [the] Ellendale and Marlboro cell sites," even though these sites were contractually scheduled to continue operating as AirCell ground stations for several more months. *See* Exhibit C. The AirCell radios at those sites were taken out of service 90 minutes later, once AirCell's emailed request had been verified. *See id.* V-Comm, however, had already completed monitoring activities lasting four days at Marlboro and eight days at Ellendale. V-Comm had intended to conduct additional monitoring at Marlboro because of the minimal sample size (only fourteen calls totaling about four minutes), but the decommissioning of this site prevented the collection of additional mobile power level data. *See* Exhibit A, V-Comm report, at 6-7.

- AirCell's January 29 email also warned V-Comm that each site had a "ground-based monitoring system (CTSU)" — a fixed mobile unit — "that could lead to false high signal readings." *See* Exhibit B. V-Comm's February 6 response noted that an additional issue posed by the CTSUs was that their operation would "also falsely add to the customer call DPC readings being collected at the sites." Because such transmissions would not constitute "'actual customer calls,' as the FCC requests," V-Comm asked AirCell to supply the numbers of all AirCell monitoring and test units at the sites. *See id.* This would permit data resulting from operation of AirCell's monitoring and test units to be filtered out easily, to avoid polluting the data. AirCell never responded to this request. As a result, V-Comm had to rely on transmission patterns and other criteria to filter out the spurious calls, in cases where the monitoring and test unit numbers were not already known.

Petitioners trust that this information will assist the Commission in reaching a decision as to AirCell's interference potential. If we can be of further assistance, please contact the undersigned.

Respectfully submitted,

/s/ MichaelDSullivan
L. Andrew Tollin
Michael Deuel Sullivan

cc: Michelle Farquhar (by email)

**Exhibit A**

**(submitted as a separate file)**

**Exhibit B**

From: Sean Haynberg <sean.haynberg@vcomm-eng.com>
To: "'BGordon66@aol.com'" <BGordon66@aol.com>
CC: "'Michael Sullivan (WBK Law)'"
<MSullivan@wbklaw.com>
Subject: RE: AirCell site testing
Date: Fri, 6 Feb 2004 09:54:24 -0500

Bill,
To respond to your e-mail, I should notify you that V-COMM is under contract and working under the direction of AT&T Wireless, who is the licensed operator of the Altoona and Owego AirCell sites. As AirCell is made aware, and in accordance with the FCC's Dec 18th request, AWS & Cingular are collecting such data so it can be filed in the FCC record. In regards to your issues raised, V-COMM hasn't touched anything in the RF chain, as the recordings are simply being made off-the-air. For any additional questions specifically concerning the cell site equipment at those sites, please direct them to AWS.

I appreciate that you have brought to our attention the Call Boxes (CSTU) at the AirCell sites. In addition to leading to false high signal readings, they will also falsely add to the customer call DPC readings being collected at the sites. Since any calls to/from those AirCell's test phone MINs are not "actual customer calls", as the FCC requests, we request AirCell's test phone MINs at the 4 monitored sites listed below. In that way, AirCell's test phone calls can be removed from the data, and allow the remaining call data to reflect only "actual customers", which will be filed in the FCC record.

For example, we have noticed a few of AirCell's test calls made to Call Boxes (CTSU) and Test Phones at these sites, and they generally appear to follow a consistent pattern. For example, at Ellendale the MIN (319)540-7010 is one of AirCell's test phone #s. And, at the Pecks PA site the MINs (319-540-7525 & 319-540-7524) appear to be AirCell's test calls as well, since they follow the exact call pattern every night, seizing the voice channel at the exact same moment (i.e. at 10:18:50 pm ET), with precisely the same hold time between calls (i.e. 8 seconds), as if dialed by a computer routine as part of a remote monitoring system.

Therefore, we are asking for AirCell's cooperation in this matter to provide the AirCell test phone MINs for the Call Boxes (CTSU), and any Test Phones, at the 4 sites listed below:

1. Ellendale, DE Test Phone: (319)540-7010 CTSU:???
2. Pecks, PA (RSA PA5) Test Phone: ???? CTSU:??? (319-540-7525 & 319-540-7524)
3. Altoona, PA Test Phone: ???? CTSU:???
4. Owego, NY Test Phone: ???? CTSU:???

This will allow the FCC record for these sites to be representative of only "actual customer calls".

Thank you,
Sean

Sean Haynberg
Director of RF Technologies
V-COMM, L.L.C.
3 Cedar Brook Drive
Cranbury, NJ 08512
Tel. 609-655-1200 ext. 327
Fax 609-409-1927
Web Page http://www.vcomm-eng.com

-----Original Message-----
From: BGordon66@aol.com [mailto:BGordon66@aol.com]
Sent: Thursday, January 29, 2004 4:08 PM
To: shaynberg@vcomm-eng.com
Subject: AirCell site testing

Sean:

It has come to our attention that V-Comm, in cooperation with AT&T Wireless, is planning on conducting tests at several AirCell cell sites (Altoona & Owego).

Under no circumstance is V-Comm authorized to touch the AirCell RF chain or to change any translatable parameter in the switches. Also, please be aware that those cell sites have a ground-based remote monitoring system (CSTU) in the equipment rooms that could lead to false high signal readings. The CSTU's are permanently mounted cell phones that AirCell uses for monitoring network quality control.

If you have any questions, please call me at (202) 659-0300.

Bill Gordon
VP, Regulatory Affairs
AirCell, Inc.

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**Exhibit C**

From: Waldron, William [william.waldron@nemail.cingular.com]
Sent: Friday, January 30, 2004 4:25 PM
To: Wilding, Les; Richards, David
Cc: Cooke, John
Subject: RE: AirCell termination

AirCell radios have been taken out-of-service at both the Ellendale and Marlboro cell site locations as of 3:34pm today.

Bill

-----Original Message-----
From: Wilding, Les [mailto:les.wilding@semail.cingular.com]
Sent: Friday, January 30, 2004 3:13 PM
To: Richards, David
Cc: Cooke, John; Waldron, William
Subject: RE: AirCell termination

David

I spoke with Bill Gordon and he said that it is a legitimate request. He has fedex'd hard copier to you, Bill Waldron and Spectrasite.

Les

-----Original Message-----
From: Richards, David
Sent: Friday, January 30, 2004 2:52 PM
To: Wilding, Les
Cc: Cooke, John; Waldron, William
Subject: RE: AirCell termination
Importance: High

Les,

Do you have Bill Gordon's phone number.

If you do, please call him to confirm that he sent the email below.

David G. Richards
(404) 236-5543 (voice)
(404) 236-5575 (facsimile)

-----Original Message-----
From: Waldron, William [mailto:william.waldron@nemail.cingular.com]
Sent: Friday, January 30, 2004 2:24 PM
To: Richards, David
Cc: Cooke, John
Subject: FW: AirCell termination

David -

Is this a legitimate request? I'm somewhat skeptical since it came from an AOL email address, and we have had an instance in the past where AirCell warned about former employees contacting us on their behalf.

We will wait for verification before proceeding with any deactivation of AirCell radios.

Thanks, Bill Waldron

William B. Waldron, Jr.
Manager of Performance Engineering
Cingular Wireless - Philadelphia
610-995-5238

-----Original Message-----
From: BGordon66@aol.com [mailto:BGordon66@aol.com]
Sent: Friday, January 30, 2004 2:03 PM
To: william.waldron@cingular.com
Cc: david.richards@cingular.com
Subject: AirCell termination

January 30, 2004

William Waldron
Cingular Wireless
200 North Warner Road
King of Prussia, PA 19406

Dear Bill:

In accordance with Section II, Paragraph D, of the contract between AirCell Inc. and Cingular Wireless (originally Comcast Cellular Communications) dated June 9, 1997, AirCell Inc. hereby requests that you immediately terminate operation of the AirCell network at your Ellendale and Marlboro cell sites.

The operations at Ellendale and Marlboro have not been in compliance with AirCell's technical specifications, and Cingular Wireless has repeatedly refused to make the changes necessary to bring these two sites into proper configuration. The sites are interfering with AirCell's other sites in the area and are degrading the quality of the network.

AirCell through its attorneys gave notice as required under the contract on August 13, 2003, that operations at the Marlboro and Ellendale sites were not in accordance with the terms of the contract. Cingular never responded to the notice, and has instead notified AirCell that it will not renew the contract upon expiration on June 9, 2004.

AirCell will contact you to arrange the removal of the antennas and mounts at the Ellendale and Marlboro locations.

Sincerely

William J. Gordon
VP, Regulatory Affairs

cc: David Richards
Cingular Wireless

Steve Cockman
SpectraSite Communications