HOGAN & HARTSON

L.L.P.

COLUMBIA SQUARE
555 THIRTEENTH STREET, NW
WASHINGTON, DC 20004-1109
TEL (202) 637-5600
FAX (202) 637-5910
WWW.HHLAW.COM

January 15, 2004

BY HAND DELIVERY

James Burtle
Chief, Experimental Licensing Branch
Office of Engineering and Technology
MS 1300E1
Federal Communications Commission
445 -12th Street, S.W.
Washington, D.C. 20554

Re: Experimental License Interim Report
AirCell, Inc., Call Sign KI2XCS
FRN: 0005-8845-31

Dear Mr. Burtle:

On behalf of AirCell, Inc. ("AirCell"), I am enclosing AirCell's regular interim report on its activities under its experimental license, KI2XCS, for the period of calendar year 2003. Please contact me if you have any questions.

Sincerely,

David L. Martin
Counsel for AirCell, Inc.

Enclosure

Report to the

Federal Communications Commission
Office of Engineering and Technology
Experimental Licensing Branch

Radio Station KI2XCS

December 31, 2003

AirCell, Inc.
1172 Century Drive
Building B, Suite 280
Louisville, CO 80027

AirCell, Inc.
Radio Station KI2XCS

Experimental License
Interim Progress Report
December 31, 2003

Introduction

AirCell, Inc. ("AirCell") submits this report to the Federal Communications Commission ("FCC") in accordance with the terms and conditions of its grant of authority to conduct technical tests of its air-ground communications system. The information below reflects AirCell's past 12 months of operation under the experimental license referenced above.

Background

On December 24, 1998, the Wireless Telecommunications Bureau ("WTB") granted a waiver of the airborne cellular rule to AirCell and seven cellular licensees ("Waiver Order"). Since that time, the WTB has extended the waiver of the airborne cellular rule to additional cellular licensees, bringing the total number of cellular licensees participating in the AirCell service to 27. On June 9, 2000, the FCC affirmed each of the Waiver Orders the WTB granted to AirCell and its cellular licensee partners. *See* Memorandum Opinion and Order, FCC 00-188 (rel. June 9, 2000). At that time, the full Commission expressly indicated that AirCell may continue to conduct testing under the experimental licenses, deploying up to the 1800 mobile units authorized thereby, wholly apart from whatever commercial operations AirCell conducts pursuant to the Waiver Orders. *Id.* at ¶ 51 and n.66.

At the time of the original waiver grant, the WTB limited cellular licensees participating in the AirCell service to the use of analog channels. This condition was placed on participating cellular licensees because the WTB did not believe that sufficient information had been placed on the record to conclude that use of AirCell's technology on digital channels would not cause interference. The Bureau observed that, "[a]lthough it is possible that the AirCell system does not interfere with digital cellular systems, we cannot reach that conclusion at this time based on the record [to date] in this waiver proceeding." Waiver Order at ¶ 23.

Current Status and New Developments

AirCell completed its laboratory and field-testing of potential interference to TDMA and CDMA cellular systems, and submitted the results in its March 28, 2002, Petition For Extension of Waiver (WT Docket 02-86). These digital tests conclusively demonstrated that the AirCell system poses an even lower likelihood of interference to terrestrial digital signals than to terrestrial analog signals. Moreover, as with the tests relied upon by the FCC in granting a waiver of the airborne cellular rule, the tests show that AirCell's system will not cause any harmful interference to terrestrial digital operations.

On April 10, 2003, AirCell's opposition filed a technical rebuttal to AirCell's waiver extension request, using data primarily from tests conducted by V-COMM at the Cingular-owned Marlboro cell site. AirCell conducted another round of extensive flight tests and on-site field tests at the Marlboro site to investigate V-COMM's findings. AirCell's new test data reconfirmed its earlier data that showed no interference to cellular operations, and it also pointed out considerable errors and omissions by V-COMM. A summary of those results can be obtained from AirCell's Reply Comments filed in WT Docket 02-86.

AirCell has also continued to conduct its real-world tests using a single channel (AirCell control) at each of 30 cell sites co-channel with TDMA digital cellular service. These tests have been conducted in strict conformance with the terms and conditions of AirCell's experimental license. All co-channel non-participating cellular licensees have been notified of AirCell's testing. These licensees are given specific information, including the exact location of all AirCell sites co-channel with TDMA channels, and the exact channel being used. Cellular licensees have the opportunity to monitor the impact the AirCell channel is having on their corresponding TDMA channel and can request AirCell billing information to cross-check with suspected interference events.

As of December 31, 2003, AirCell has not received a single inquiry about potential interference resulting from the AirCell control channel test, nor have AirCell or its cellular licensee partners identified any such interference. Tests will continue and increased call traffic will provide additional opportunities for co-channel neighboring cellular operators to monitor for any interference events.

In 2003, AirCell signed an agreement with Frontier Airlines for a trial of AirCell service on an Airbus A319. AirCell is placing credit card activated cordless telephone handsets on the aircraft bulkheads. These phones will be

available for passenger use with priority access for flight crew. The cordless handsets and the entire AirCell system have been subjected to a comprehensive FAA certification process to ensure safety and non-interference with aircraft avionics. The final FAA Supplemental Type Certification has been approved. Market tests of the system will begin in January.

AirCell has also reached an agreement with another major commercial airline to test application of the AirCell service for emergency security and medical communications.

AirCell continues to work with a range of cellular providers looking toward third generation (3-G) and other new digital technologies as the next generation improvement of the AirCell system. AirCell also continues to work with agencies of the federal government on security applications for commercial aircraft and for government-owned aircraft used in high-priority security missions. In the last 12 months AirCell has demonstrated full-featured prototype hardware to the Department of Homeland Security and recently received a multi-million dollar award for development of the system.

* * * *

As of December 31, 2003, AirCell has 135 cell sites in operation. As indicated in AirCell's previous reports, there continue to be NO reported incidents of interference involving AirCell's technology. Neither AirCell nor any of its cellular licensee partners have received any indication from any source that interference is being caused to any cellular service.