

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

In the Matter of	)	
	)	
Wireless Telecommunications Bureau	)	WT Docket No. 02-86
Seeks Comment on Petition Filed by	)	
AirCell, Inc. For Extension of Waiver	)	

To: The Wireless Telecommunications Bureau

**COMMENTS OF AIRCELL, INC.**

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## SUMMARY

In their Petition filed on March 28, 2002, AirCell, Inc. ("AirCell") and its cellular licensee partners requested permission to operate the AirCell system: (1) indefinitely or, in the alternative, for a period of ten years; (2) on 19 cellular channel pairs rather than the six pairs currently authorized; and (3) on frequencies used for digital terrestrial cellular operations in addition to those used for analog terrestrial service. AirCell's request for extension of the period and scope of the waiver satisfies the Commission's waiver standards and presents a clear case as to why an expeditious grant of the Petition is necessary and in the public interest. The arguments presented more than a year ago remain equally, if not increasingly, urgent today.

Recent Commission decisions and additional commercial developments related to the AirCell system bolster the already favorable record and lend additional support for an extension of the period and scope of the waiver. On every matter regarding AirCell that has come before it over the course of the past year, the Commission has issued favorable rulings and made positive findings with respect to AirCell's system or operations. Also, despite an economic downturn in the aviation marketplace, AirCell's sales have risen steadily. Over the last four quarters, in each successive quarter, AirCell has achieved an astounding 25 percent average increase in sales over the previous quarter; and both commercial airlines and the federal government continue to show great interest in the AirCell system. In addition, AirCell recently teamed with MedAire, Inc. to create a system that provides an immediate direct link from the air to medical personnel on the ground

in emergency situations. Perhaps most important, as evidenced by an additional year's worth of operation under the waiver and testing under the experimental license, the AirCell system has not caused any harmful interference to analog cellular terrestrial systems. Each of these developments provide additional confirmation of the need to extend the period and scope of the waiver and demonstrate that AirCell continues to provide important public interest benefits.

AirCell has resoundingly demonstrated that extension of the period and scope of the waiver will satisfy the waiver standards set forth in the Commission's rules. Specifically, AirCell has provided examples of how the AirCell system serves the public interest in myriad ways and has proven the existence of exceptional circumstances, given AirCell's demonstrated ability to expand operations without causing harmful interference to terrestrial cellular service, whether analog (as evidenced by more than four years of practical operations) or digital (as demonstrated by the testing set forth in the Petition). Moreover, the company has provided overwhelming evidence to show that extension of the waiver will allow it to continue to provide the public interest benefits inherent in the AirCell system.

Based on the Commission's well-supported grant of the original waiver and related decisions, more than four years of real-world operating experience under the waiver, comprehensive testing with respect to the digital exclusion, and the increased demand and aviation safety needs served by AirCell's unique system, AirCell urges the Commission to expeditiously grant the Petition by extending the period and scope of the waiver.

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**COMMENTS OF AIRCELL, INC.**

AirCell, Inc. (“AirCell”), by counsel, hereby submits comments in response to the March 11, 2003 *Public Notice* released by the Wireless Telecommunications Bureau (“Bureau”) 1/ seeking input on the March 28, 2002 petition filed by AirCell and its cellular licensee partners that seeks to extend the period and scope of the waiver of Section 22.925 of the Commission’s rules (“Petition”). 2/ In sum, AirCell and its cellular licensee partners have asked the Commission to allow them to operate the AirCell system: (1) indefinitely or, in the alternative, for a period of ten years; (2) on 19 cellular channel pairs rather than

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1/ Wireless Telecommunications Bureau Seeks Comment on Petition Filed by AirCell, Inc. for Extension of Waiver, *Public Notice*, \_\_\_ FCC Rcd \_\_\_, DA 03-721 (rel. Mar. 11, 2003) (“*Public Notice*”).

2/ As set forth in Exhibit A, new cellular licensee partner CC Communications seeks to join the underlying Petition. *See infra* at 9.

the six pairs currently authorized; and (3) on frequencies used for digital terrestrial cellular operations in addition to those used for analog terrestrial service.

AirCell's request for extension of the period and scope of the waiver satisfies the Commission's waiver standards and presents a clear case as to why grant of the Petition is necessary and in the public interest. The arguments presented more than a year ago remain equally, if not increasingly, urgent today. In fact, recent Commission decisions and additional commercial developments related to the AirCell system bolster the already favorable record and lend additional support for an extension of the period and scope of the waiver.

As discussed below, due to the Commission's well-supported grant of the original waiver and related decisions, more than four years of real-world operating experience under the waiver, comprehensive testing with respect to the digital exclusion, and the increased demand and aviation safety needs served by AirCell's unique system, AirCell urges the Commission to expeditiously grant the Petition by extending the period and scope of the waiver.

#### **I. RECENT COMMISSION DECISIONS LEND ADDITIONAL SUPPORT FOR EXTENSION OF THE PERIOD AND SCOPE OF THE WAIVER**

Recent Commission decisions lend additional support for extension of the period and scope of the AirCell waiver. On every matter regarding AirCell that has come before it over the course of the past year, the Commission has issued favorable rulings and made positive findings with respect to AirCell's system or operations. Since the Petition was filed, the Commission has:

- extended the waiver pending the Bureau's action on the Petition;

- denied an “Emergency Petition for a Declaratory Ruling” filed on August 29, 2002 by AT&T Wireless Services, Inc., Cingular Wireless LLC, and Verizon Wireless (“Opposing Carriers”);
- denied objections raised in letters filed on July 18 and August 29, 2002 by the Opposing Carriers;
- approved the request for authorization of CC Communications to participate in the AirCell system; and
- issued its *Order on Remand*, reaffirming its conclusion that operation of the AirCell system is not likely to cause harmful interference to terrestrial cellular systems.

**Extension of the waiver.** After the Bureau released its April 23, 2002 public notice seeking comment on the Petition, the Opposing Carriers filed a motion seeking to suspend the comment cycle, contending that “meaningful opportunity for comment is dependent on issuance of the remand order ...” <sup>3/</sup> In response, the Bureau did act to temporarily suspend the pleading cycle, but it also extended AirCell’s current waiver pending action on the Petition. <sup>4/</sup> In reaching its decision, the Bureau reasoned that suspension of the pleading cycle should not inequitably result in the termination of AirCell’s existing waiver before the Commission had a chance to review the Petition and any comments that may be filed as a result. <sup>5/</sup>

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<sup>3/</sup> Motion to Suspend Comment Dates Pending Prompt Action on Remand, filed by AT&T Wireless Services, Inc., Cingular Wireless LLC, and Verizon Wireless (Apr. 26, 2002). See also *AT&T Wireless Services, Inc. v. FCC*, 270 F.3d 959 (D.C. Cir. 2001), *pet. for reh’g denied* Jan. 29, 2002.

<sup>4/</sup> AirCell, Inc., Petition, Pursuant to Section 7 of the Act, for a Waiver of the Airborne Cellular Rule, Or, in the Alternative, for a Declaratory Ruling, *Order*, DA 02-1028 (WTB 2002).

<sup>5/</sup> *Id.* at ¶ 2.

**Denial of an Emergency Petition.** On August 29, 2002, the Opposing Carriers filed an “Emergency Petition for Declaratory Ruling” in which they alleged that AirCell was in violation of the terms of its waiver and of its experimental authorization. <sup>6/</sup> The Opposing Carriers’ allegations were based upon a presentation AirCell made before the technical committee of the World Airline Entertainment Association, a group involved with various projects related to in-flight entertainment, communications and passenger support services. The Opposing Carriers argued that AirCell claimed it had developed technology that would allow the use of unmodified cellular handsets aboard aircraft through the use of airborne repeater/translator stations that would jam certain channels. In response, AirCell stated that the presentation was merely an exploration of possible future technologies that might be employed to expand the communications services available to passengers and crew on commercial airlines, and made clear that it had not deployed, nor tested outside of a laboratory setting, any of the technologies mentioned in the presentation or the petition. <sup>7/</sup> Shortly thereafter, the Bureau emphatically denied the Emergency Petition, finding neither a need for a declaratory ruling nor any basis for an enforcement action. <sup>8/</sup> The Bureau stated that the Opposing Carriers “present no evidence beyond materials from one

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<sup>6/</sup> Emergency Petition for a Declaratory Ruling filed by AT&T Wireless Services, Inc., Cingular Wireless LLC, and Verizon Wireless (Aug. 29, 2002).

<sup>7/</sup> Response to Emergency Petition for Declaratory Ruling filed by AirCell, Inc. (Sept. 9, 2002).

presentation given by AirCell ...” and that “the presentation does not contain any evidence that AirCell has sought to operate the technology that is the subject of its presentation, or that such operation is imminent.” <sup>9/</sup>

**Denial of Informal Objections.** On July 18, 2002, the Opposing Carriers filed the first of two letters in response to AirCell’s June 30, 2002 interim experimental report. <sup>10/</sup> In their letters, the Opposing Carriers objected to the adequacy of the interim report, claimed that the AirCell operations were not truly experimental, and urged the Commission to terminate AirCell’s experimental license. However, the Experimental Licensing Branch of the Office of Engineering & Technology (“OET”) denied all claims raised in the letters and found that they did not warrant any further action. <sup>11/</sup> Moreover, the OET Letter reiterated the Commission’s commitment to experimentation aimed at promoting technical innovation and development of new services as well as the agency’s prior finding that the AirCell waiver serves the public interest. Finally, the OET Letter restated

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<sup>8/</sup> AirCell, Inc., Petition, Pursuant to Section 7 of the Act, for a Waiver of the Airborne Cellular Rule, Or, in the Alternative, for a Declaratory Ruling, *Order*, 17 FCC Rcd 19586 (WTB 2002).

<sup>9/</sup> *Id.* at 19587 ¶ 3.

<sup>10/</sup> Letter from K. Zachem, D. Brandon, D. Richards, and J. Scott to Ed Thomas, Chief, Office of Engineering & Technology and James Schlichting, Deputy Chief, Wireless Telecommunications Bureau (July 18, 2002); *see also* Letter from L.A. Tollin, D. Brandon, J. Carbonell, and J. Scott to Ed Thomas, Chief, Office of Engineering & Technology and James Schlichting, Deputy Chief, Wireless Telecommunications Bureau (Aug. 29, 2002).

<sup>11/</sup> Letter from J. Burtle, Chief, Experimental Licensing Branch, Electromagnetic Compatibility Division, Office of Engineering & Technology, to K.

the Commission's conclusion that "meaningful data were and can be derived from continuing and expanding' AirCell's experiments." 12/

**Approval of CC Communications.** On February 4, 2003, AirCell and CC Communications filed a petition for waiver of Section 22.925 of the Commission's rules and for authorization to participate in the AirCell system, agreeing to the terms of the existing AirCell waiver. 13/ Little more than a week later, the Bureau granted the request, relying on the "legal basis, unique circumstances, and public interest benefits ... that supported and justified the Commission's prior rulings with respect to the AirCell system." 14/

**Order on Remand.** On February 10, 2003, the Commission issued its *Order on Remand*, 15/ which reaffirmed the waiver by concluding, once again, that "operation of the AirCell system is not likely to cause harmful interference to terrestrial cellular systems" and by providing a more complete explanation on two

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Zachem, D. Brandon, J. Carbonell, J. Scott, M. Farquhar, and K. Jochim (Oct. 11, 2002) ("OET Letter").

12/ *Id.* (internal citations omitted).

13/ AirCell, Inc. and CC Communications Petition for Waiver of the Airborne Cellular Rule (filed Feb. 4, 2003).

14/ Wireless Telecommunications Bureau Approves Request for Authorization to Participate in the AirCell System, *Public Notice*, DA 03-420 (Feb. 12, 2003).

15/ AirCell, Inc. Petition, Pursuant to Section 7 of the Act, for a Waiver of the Airborne Cellular Rule, or, in the Alternative, for a Declaratory Ruling, *Order on Remand*, \_\_\_ FCC Rcd \_\_\_, FCC 02-324 (rel. Feb. 10, 2003).

technical aspects of its prior conclusion. <sup>16/</sup> First, the Commission further explained the rationale and derivation for its use of the -117 dBm interference threshold level (“ITL”), rather than adopting a lower ITL. Second, the Commission explained that because it assumed, in a worst case scenario, that certain events would occur simultaneously during operation of the AirCell system – and nevertheless found that operation of the AirCell system is not likely to cause harmful interference to terrestrial cellular systems – the agency did not need to factor in studies of the probability that those events would in fact occur simultaneously. <sup>17/</sup>

The Bureau’s underlying decisions with respect to the AirCell system have withstood the scrutiny of both the Commission and the D.C. Circuit. Moreover, the rulings discussed above bolster the Commission’s multiple determinations that the AirCell system does not cause harmful interference to terrestrial cellular systems and serves the public interest. Nothing in these recent decisions suggests – let alone demonstrates – that extension of the period and scope of the waiver would be inconsistent or problematic.

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<sup>16/</sup> *Id.* at ¶ 1. We note that the Opposing Carriers have petitioned the D.C. Circuit for review of the *Order on Remand*. Petition for Review of AT&T Wireless Services, Inc., Cingular Wireless LLC, and Cellco Partnership d/b/a Verizon Wireless (filed Feb. 26, 2003). On Mar. 14, 2003, AirCell filed a motion seeking leave to intervene in the proceeding. AirCell, Inc. Motion for Leave to Intervene, Case No. 03-1043 (filed Mar. 14, 2003). The court recently granted the AirCell Motion, but has not yet set a schedule for the proceeding. See *Order, AT&T Wireless Services, Inc. v. FCC*, Case No. 03-1043 (D.C. Cir. Apr. 7, 2003).

<sup>17/</sup> *Order on Remand* at ¶ 29.

## II. NEW DEVELOPMENTS LEND FURTHER SUPPORT FOR EXTENSION OF THE PERIOD AND SCOPE OF THE WAIVER

New developments since the Petition was filed provide additional confirmation of the need to extend the period and scope of the waiver and demonstrate that AirCell continues to provide significant public interest benefits. As discussed below, demand for and sales of the AirCell system have risen steadily, and both the federal government and commercial airlines continue to show great interest in the AirCell system. In addition, AirCell has recently teamed with MedAire, Inc. (“MedAire”) to create a system that provides an immediate direct link from the air to medical personnel on the ground in emergency situations. Perhaps most important, as evidenced by an additional year’s worth of operation under the waiver and testing under the experimental license, the AirCell system has not caused any harmful interference to analog cellular terrestrial systems.

**Increased interest in the AirCell system.** Since the Petition was filed, AirCell has seen an increase in sales, evidencing greater demand for the system. Specifically, over the last four quarters, in each successive quarter, AirCell has achieved a 25 percent average increase in sales over the previous quarter – an astounding achievement given the current economic downturn within the aviation industry. This fact makes clear that, as more customers hear about the capabilities offered by AirCell, they are increasingly opting to purchase and install the AirCell system.

In addition, since the Petition was filed, AirCell has increased its operational cell sites to 135. At this point, AirCell's installed base reaches 1,300 aircraft systems and covers 95 percent of our nation's domestic flight routes.

AirCell also extended its commercial reach in 2002 -- a particularly significant development given that Claircom, formerly one of only two air-ground service providers, has gone out of business since the Petition was filed. <sup>18/</sup> First, AirCell signed a Memorandum of Understanding with Frontier Airlines ("Frontier") <sup>19/</sup> for the future provision of AirCell service. AirCell will place credit card activated cordless telephone handsets on the aircraft bulkheads. These phones will be available for passenger use with priority access for the flight crew. The cordless handsets and the entire AirCell system will be thoroughly vetted by the FAA's stringent safety certification process and will comply with the appropriate FCC certification requirements. AirCell expects to begin an in-flight trial with the airline this summer.

Second, AirCell has partnered with Iridium to extend its important public interest benefits internationally. Specifically, AirCell has developed, manufactured, and deployed combination AirCell/Iridium transceivers, which allow

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<sup>18/</sup> See Ben Charny, "Verizon Brings IM to In-flight Phones," *CNET News.com*, Sept. 27, 2002, available at <http://news.com.com/2100-1033-960013.html> (reporting Claircom's exit from the aviation services market). See also Petition at 15.

<sup>19/</sup> Frontier is the second largest jet carrier at the Denver International Airport, with an average of 170 daily, system-wide departures and arrivals. Frontier currently operates a fleet of 36 aircraft, including 16 136-passenger Boeing 737-300 jets, three smaller 737-200s and 17 132-passenger Airbus 319 jets. See <http://www.frontierairlines.com>.

AirCell customers to remain in contact even when flying outside of the United States.

Moreover, AirCell's exploration of the many potential aviation safety uses of its technology in the commercial sector has continued throughout the past year. AirCell has been approached about and/or has under consideration the use of its service for such purposes as pilot-to-ground and crew-to-ground communications, real-time "black box" and aircraft systems monitoring, and cockpit and cabin video surveillance for aircraft security.

Commercial and private entities, as well as governmental agencies, recognize that mission critical communications – the ability to send and receive vital communications, at all times – is paramount in the post-September 11th environment. AirCell has resoundingly met this aviation safety challenge and submits that a prompt grant of the Petition will allow it to continue these and other important efforts in the public interest.

**The MedAire System.** On March 3, 2003, AirCell and MedAire 20/ announced that they had teamed to provide an innovative and integrated solution for handling in-flight medical emergencies. In recognition of the difficulty that airline crews face in consulting with ground-based physicians during an in-flight

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20/ Established in 1986, MedAire offers fully integrated health and security solutions, including remote emergency assistance services, training and education programs, specialized resources such as medical and security kits and a network of international-standard medical clinics in Asia. MedAire provides services to commercial airlines throughout the world, corporate flight departments, government agencies, military maritime operators, and international business travelers and expatriates. See [www.medaire.com](http://www.medaire.com).

emergency (at a time when seatback phones have been removed from a large number of commercial aircraft and access to the cockpit radio is prohibited or not practical), the companies created a lifesaving system that provides expeditious and direct communication from the aircraft cabin to the ground. MedAire CEO Joan Sullivan Garrett noted that “the technology represented by AirCell brings a very economical level of air-to-ground communications to anywhere within the cabin, that is superior to what existed with seatback phones and/or prior to 9/11, [and] will enable our physicians to better meet passenger needs – anywhere in the world.” <sup>21/</sup> Needless to say, AirCell is very proud of this accomplishment. This one-of-a-kind partnership permits the physicians on the ground (in MedAire’s MedLink Global Response Center), who handle upwards of 60 in-flight medical emergencies each day, to speak directly with the persons engaged in the medical event in the air. This is yet another example of how AirCell is using its waiver in furtherance of the public interest.

**No reports of interference.** As a new technology company that constantly strives to pursue innovative solutions for the dynamic and evolving air-ground communications marketplace, AirCell’s developmental efforts have focused on building a detailed, long-term record based on real-world testing. As discussed in the Petition, AirCell’s testing has successfully bolstered the ongoing evolution of its business and the resulting public interest benefits, thus meeting the public

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<sup>21/</sup> MedAire and AirCell Advance In-flight Medical Emergency Communications, *News Release* (Mar. 3, 2003). [http://www.medaire.com/air\\_cell\\_nr.html](http://www.medaire.com/air_cell_nr.html).

interest obligation associated with its experimental license and waiver. <sup>22/</sup> The Petition also discusses the fact that AirCell has not caused any harmful interference to terrestrial cellular operations, including while conducting additional testing with respect to the digital exclusion. <sup>23/</sup> Neither the Opposing Carriers, nor anyone else, has brought to the Commission any complaints or evidence of interference from AirCell's system. <sup>24/</sup> In fact, the situation has not changed in the year since the Petition was filed: *In more than four years of operations and testing, AirCell has not caused any harmful interference to terrestrial cellular operations.* The facts presented in the Petition, as well as the technical record established over the past year, <sup>25/</sup> make clear that extending the period and scope of the waiver will not impact AirCell's ability to operate without causing harmful interference.

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<sup>22/</sup> Petition at 10-16.

<sup>23/</sup> Petition at 21-36.

<sup>24/</sup> We note that AirCell and its cellular licensee partners have an ongoing obligation to report any instances of harmful interference pursuant to Special Condition 3 of the *AirCell Waiver Order*. AirCell, Inc. Petition, Pursuant to Section 7 of the Act, For a Waiver of the Airborne Cellular Rule, Or, in the Alternative, for a Declaratory Ruling, *Memorandum Opinion & Order*, 15 FCC Rcd 9622, 9651 (2000). In this regard, AirCell has established an interference detection process, which, among other things, provides that if a channel is recording an atypical level of interference events, a carrier need only notify the Commission, AirCell, or both, of the interference in order to initiate this process. See *Ex Parte* Letter and "Memorandum of AirCell, Inc." from M. Farquhar, counsel to AirCell, to M. Salas, Secretary, Fed. Communications Comm'n (filed Mar. 22, 2000) (memorandum addresses interference detection questions raised by Commission staff during *ex parte* meetings).

<sup>25/</sup> See Report to the Office of Engineering and Technology, New Technology Development Division, Experimental Licensing Branch For Radio Station KI2XCS, File No. 5349-EX-MR-96 (Dec. 31, 2002) ("As of December 31, 2002, AirCell has not received a single inquiry about potential interference resulting from the AirCell

Increased interest in the AirCell system by the federal government, prominent companies, and commercial airlines, the company's partnership with MedAire to provide a revolutionary solution for handling in-flight medical emergencies, and the fact that – after more than four years of operations and exhaustive testing – the AirCell system has never been shown to cause harmful interference, all highlight the significant public interest benefits provided by AirCell. These recent developments provide additional confirmation of the need to extend the period and scope of the waiver.

In fact, given the recent Commission decisions and new developments, and considering that the Petition was filed over a year ago, AirCell respectfully requests that the Commission accelerate its consideration of this matter. Interested parties have had a lengthy period to review and analyze the Petition and the associated test reports, and to consider their reactions to the filing. For this reason, AirCell is hopeful that the Commission will promptly undertake its consideration of the record as soon as the filing period closes.

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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.”); Report to the Office of Engineering and Technology, New Technology Development Division, Experimental Licensing Branch For Radio Station KI2XCS, File No. 5349-EX-MR-96 (June 30, 2002) (“As of June 30, 2002, 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. Moreover, AirCell has received no requests for any billing data or records during this period, which would indicate a suspicion of interference.”).

### III. THE COMMISSION SHOULD EXTEND THE PERIOD AND SCOPE OF THE WAIVER

The Commission should extend the period and scope of the waiver.

First, AirCell has demonstrated that extension of the period and scope of the waiver will satisfy the standards set forth in the Commission's rules. Second, AirCell has provided overwhelming evidence to show that extension of the waiver will allow the company to continue to provide the public interest benefits inherent in the AirCell system.

**AirCell's request satisfies the Commission's waiver standards.**

AirCell and its cellular licensee partners have thoroughly demonstrated that an extension of the period and scope of the AirCell waiver satisfies Sections 1.3 and 1.925 of the Commission's rules. 26/ First, the Petition makes plain that extending the period and scope of the AirCell waiver will serve the public interest in myriad ways, while not thwarting the underlying purpose of the rule. 27/ Second, the Petition demonstrates that unique, exceptional circumstances exist given AirCell's ability to expand operations without causing harmful interference to terrestrial cellular service. 28/

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26/ 47 C.F.R. § 1.3; § 1.925(b)(3) (The Commission has the authority to waive a rule: (i) if it is shown that the underlying purpose of the rule would not be served or would be frustrated by application of the rule to the matter at hand, and that a grant of the requested waiver would be in the public interest, or (ii) in view of unique or unusual circumstances of the matter at hand, application of the rule would be inequitable, unduly burdensome or contrary to the public interest.).

27/ Petition at 10-16.

28/ Petition at 21-36.

The Petition is supported largely by findings already made by the Bureau and affirmed by the full Commission, which have also survived appellate review. Specifically, the Bureau and Commission found, after thorough testing and analysis, that unlike standard cellular handsets, airborne operation of AirCell's specially designed mobile terminals in conjunction with AirCell base station equipment does not cause harmful interference to terrestrial cellular service. Since the Petition was filed, the Commission has issued its *Order on Remand*, which again confirms its prior conclusion. In addition, as discussed above, testing that has taken place over the course of the past year also demonstrates that the AirCell system does not interfere with terrestrial cellular operations.

The Petition resoundingly demonstrates that the public interest will be advanced by the continued and new use of the AirCell system by a range of existing and prospective federal and state government clients, including state and local executive, administrative, and law enforcement agencies; federal entities such as the U.S. Army Special Operations Command, the U.S. Navy Engineering Logistics Group, and the Tennessee Valley Authority; and agencies such as the Bureau of Reclamation, the U.S. Coast Guard, U.S. Customs, the FAA, the FBI, the Department of Energy, and Civil Air Patrol. These relationships, combined with the important developments that have taken place since the Petition was filed (as described earlier), provide solid evidence as to the ongoing aviation safety benefits associated with the waiver.

The Petition makes clear that extension of the period and scope of the waiver will ensure the continued efficient re-use of cellular spectrum. The cellular licensees operating in rural areas with which AirCell typically partners often have excess capacity on their systems, which means that these scarce spectrum resources are being underutilized. 29/ The Petition explains that an expansion of the period and scope of the AirCell waiver will further advance the public interest in greater use of scarce spectrum resources. 30/

Moreover, extension of the waiver would be consistent with the recently released Spectrum Policy Task Force Report, which recommends that the Commission “provide incentives for efficient spectrum use” and proposes that this objective serve as a “key element” of the agency’s new spectrum policy. 31/ Specifically, the Report urges the Commission to adjust its regulations to prevent “rules that are calibrated to older technologies from inhibiting access by newer, more efficient technologies that develop over time.” 32/ The AirCell system is a perfect example of a technological innovation that provides for the more efficient use of spectrum, but which requires an adjustment (*i.e.*, waiver) of the Commission’s rules -- originally promulgated with an older technology in mind -- to

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29/ Petition at 16.

30/ *Id.*

31/ Spectrum Policy Task Force Report (rel. Nov. 15, 2002) (“SPTF Report”) at 15-16.

32/ *Id.* at 22.

permit recognition of the efficiencies. Grant of the Petition will allow AirCell to expand upon the efficiencies it has already achieved to date.

The SPTF Report also recommends that the Commission “increase incentives and reduce transaction costs on parties seeking access to rural spectrum.” <sup>33/</sup> By expanding the waiver, the Commission will allow AirCell to more efficiently utilize this rural spectrum and provide rural carriers with an additional revenue stream. Moreover, granting a permanent or long-term waiver will greatly ease the transaction costs and burdens associated with the waiver, because neither AirCell nor its cellular licensee partners will need to seek additional regulatory approvals every couple of years.

The Petition firmly demonstrates that AirCell’s ability to operate without causing harmful interference to terrestrial cellular communications constitute unique circumstances that support waivers of the airborne cellular rule. <sup>34/</sup> The Commission has already found that the AirCell system does not cause harmful interference to analog terrestrial cellular communications, and real-world experience has reaffirmed that conclusion. <sup>35/</sup>

Moreover, the extensive testing conducted by AirCell, and described in the Petition, confirms that its system will not cause harmful interference to digital terrestrial cellular communications, nor would extending the scope of the waiver.

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<sup>33/</sup> *Id.*, Recommendation 37 at 68.

<sup>34/</sup> Petition at 16-17.

<sup>35/</sup> Petition at 17. *See also supra* at 14-15.

Prior to filing the Petition and at great expense, AirCell undertook multiple experiments to test this hypothesis. AirCell's tests were well designed and thorough, having been developed by two separate engineering consulting firms. As set forth in the Petition, the tests resoundingly concluded that the same special circumstance supporting a waiver for analog channels (the absence of harmful interference from the AirCell system) applies equally to channels used for terrestrial digital cellular service. <sup>36/</sup> Indeed, the Petition text contains a detailed, technical discussion of these tests and their conclusions. <sup>37/</sup> Moreover, the Petition's exhibits contain over 300 pages in support of these conclusions. <sup>38/</sup> The results of these tests make plain that, just as it causes no harmful interference to analog terrestrial cellular operations, the AirCell system will not cause harmful interference to digital terrestrial cellular systems.

**Overwhelming evidence shows that extension of the waiver will continue the public interest benefits inherent in the AirCell system.**

In its Petition, AirCell has methodically explained why extension of the period and scope of the waiver is necessary to continue the public interest benefits inherent in the AirCell system. There is a real, demonstrable need for extension of the waiver to allow continued service and expanded operation of AirCell's system in the public interest.

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<sup>36/</sup> Petition at 21-36.

<sup>37/</sup> Petition at 21-36.

<sup>38/</sup> See Attachments F and G; Appendices I – III.

As to the duration of the waiver, AirCell has explained that its viability as a going concern – and thus its ability to provide continued and expanded service in the public interest – will be gravely limited as long as it faces imminent termination of its authority to operate. <sup>39/</sup> AirCell must have sufficient regulatory certainty in order to enter into and maintain relations with suppliers, customers and investors. Requiring AirCell to repeatedly come before the Commission to engage in protracted, expensive proceedings for only limited waiver extension periods is neither commercially feasible nor in the public interest. <sup>40/</sup>

With respect to the complement of authorized channels and the “digital exclusion,” AirCell has demonstrated that the need for additional channel capacity becomes more and more critical as the demand for AirCell service grows and the company explores expanded and new applications. The combined force of restrictions against using more than six cellular channel pairs per base station, and against operating on channels used by neighboring licensees for digital terrestrial cellular service, has the potential to hamstring AirCell’s ability to provide its users the high-quality service they expect.

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<sup>39/</sup> Petition at 36-39.

<sup>40/</sup> Indeed, despite AirCell’s diligence, the Opposing Carriers continue to doggedly attack almost every aspect of the company’s operations. As evidenced by the myriad filings made just in the year since AirCell filed the Petition, these parties have challenged almost every AirCell filing and every Commission decision regarding the company. The Opposing Carriers burden the Commission’s limited resources with their ongoing claims that the voluminous record in this six-year proceeding is somehow inadequate.

Similarly, AirCell's government customers, with responsibility for fulfilling critical homeland security functions, also have high expectations that the AirCell system will accommodate their unique needs. Needless to say, these entities must be able to rely on the ability to send and receive sensitive communications at all times. Homeland security applications will require the use of additional channels and AirCell must have the ability to provide the capacity necessary to permit these entities to fulfill their important missions. Extending the scope of the waiver will further the company's ability to serve its government customers.

Indeed, AirCell has made plain the importance of removing the digital exclusion. As more cellular providers convert their terrestrial systems from analog to digital service, it is already increasingly difficult for AirCell to identify a set of analog channels to use at many sites. <sup>41/</sup> Moreover, since the time that AirCell filed its Petition, the Commission has ruled that cellular carriers may phase out their analog channels within the next five years. <sup>42/</sup> Needless to say, this change brings a new urgency to AirCell's request to expand the scope of the waiver.

The Commission has a duty to ensure that AirCell has the ability to continue to serve the public interest as a viable competitor in the air-ground

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<sup>41/</sup> Petition at 41-43.

<sup>42/</sup> Year 2000 Biennial Regulatory Review – Amendment of Part 22 of the Commission's Rules to Modify or Eliminate Outdated Rules Affecting the Cellular Radiotelephone Service and other Commercial Mobile Radio Services, *Report & Order*, 17 FCC Rcd 18401 (2002).

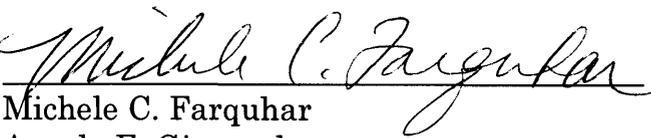
communications marketplace. For these reasons, the Commission must grant the Petition to extend the period and scope of the waiver.

#### IV. CONCLUSION

Based on the Commission's well-supported grant of the original waiver and related decisions, more than four years of real-world operating experience under the waiver, testing with respect to the digital exclusion, and the increased demand and aviation safety needs served by AirCell's unique system, we urge the Commission to expeditiously grant the Petition by extending the period and scope of the waiver.

Respectfully submitted,

AIRCELL, INC.

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April 10, 2003

## **Exhibit A**

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

**In the Matter of** )  
 )  
**AIRCELL, Inc.** ) **WT Docket No. 02-86**  
 )  
**Petition, Pursuant to Section 7 of the Act,** )  
**for a Waiver of the Airborne Cellular Rule,** )  
**or in the Alternative, for a Declaratory Ruling** )

**To: Chief, Wireless Telecommunications Bureau**

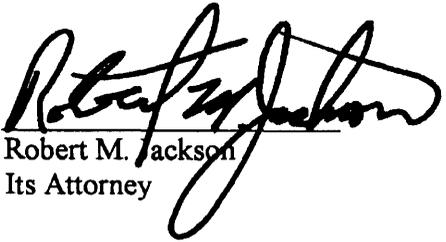
**REQUEST FOR PARTY STATUS AND TO PARTICIPATE**

CC Communications ("CC"), by its undersigned attorney, hereby requests party status in this proceeding and requests to be allowed to join the "Petition for Extension of Waiver," filed by AirCell, Inc. ("AirCell") and its cellular licensee partners on March 28, 2002 (WT Docket No. 02-86) ("Petition"). Because CC was just granted permission to participate in the AirCell system on February 12, 2003 [See "Wireless Telecommunications Bureau Approves Request for Authorization to Participate in the AirCell System," Public Notice, DA 03-420 (February 12, 2003)], it was unable to join the Petition when it was originally filed. Therefore, the Commission should accord CC party status and allow CC to join the Petition at this time since it now has standing to do so by virtue of its participation in the AirCell system.

Respectfully submitted,

**CC Communications**

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By:   
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Its Attorney

Dated: April 10, 2003