

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

In the Matter of :	)	
Mobile Satellite Ventures Subsidiary LLC	)	
	)	
Application for Minor Modification of Space Station License (AMSC-1)	)	File No. SAT-MOD-20090429-00047
	)	
Application for Minor Modification of Space Station License (MSV-1)	)	File No. SAT-MOD-20090429-00046
	)	
Application for Minor Modification of Blanket License to Operate Mobile Earth Terminals (MSAT-1)	)	File No. SES-MOD-20090429-00536
	)	
	)	
_____	)	

**REPLY COMMENTS OF SKYWAVE MOBILE COMMUNICATIONS,  
CORP. AND SKYWAVE MOBILE COMMUNICATIONS, INC.**

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August 4, 2009

## Table of Contents

I.	INTRODUCTION AND SUMMARY .....	1
II.	SKYWAVE AND ITS END-USERS HAVE A PARAMOUNT INTEREST IN AVOIDING INTERFERENCE FROM SKYTERRA'S ATC SYSTEM .....	3
III.	SKYTERRA'S PROPOSED WAIVERS WOULD SUBSTANTIALLY INCREASE INTERFERENCE TO SKYWAVE'S MOBILE SATELLITE SERVICE .....	6
IV.	SKYTERRA'S ERRONEOUS ASSERTION THAT ITS WAIVERS WOULD OVERRIDE 47 C.F.R. §25.255 UNDERMINES ITS ENTIRE ARGUMENT .....	12
V.	CONCLUSION.....	13

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**REPLY COMMENTS OF SKYWAVE MOBILE COMMUNICATIONS,  
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**I. INTRODUCTION AND SUMMARY**

SkyWave Mobile Communications, Corp. and SkyWave Mobile Communications, Inc. (collectively, "SkyWave") hereby file their comments on the above-captioned SkyTerra applications (collectively, "Applications") to waive seven Commission Rules.<sup>1</sup>

As SkyWave emphasized in its Comments, it has the utmost respect for its MSS space segment suppliers, SkyTerra and Inmarsat. It is necessary to file comments in this proceeding because waiving the Commission's Rules would result in significant

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<sup>1</sup> On July 6, 2009, SkyWave filed a letter, explaining that it would respond to the identical above-captioned applications in a single filing on July 10, 2009 in response to the two public notices issued. *Policy Branch Information; Space Station Applications Accepted for Filing*, Report No. SAT-00609, File Nos. SAT-MOD-20090429-00047, SAT-MOD-20090429-00046 (June 5, 2009); *Satellite Commc'ns Servs.; Satellite Radio Applications Accepted for Filing*, Report No. SES-01145, File No. SES-MOD-20090429-00536 (June 10, 2009).

increased interference from SkyTerra's ATC system, and because the strong interest of SkyWave and its 55,000 users in the U.S. in avoiding more interference than permitted by the Commission's Rules does not appear to have been preserved by the SkyTerra-Inmarsat agreement. That agreement was a private commercial agreement where Inmarsat agreed to "more relaxed operating rules for" SkyTerra, and to make "spectrum available" for SkyTerra's ATC system in return for hundreds of millions of dollars in cash payments and SkyTerra stock. Such an agreement does not supersede the Commission's Rules designed to protect primary MSS end-users and service providers from interference from the ATC system.

The proposed waivers would substantially increase interference from SkyTerra's ATC system. Not satisfied with the Commission's ATC Reconsideration Order in 2005 increasing ATC base station EIRP 8 dB to 31.9 dBW, SkyTerra now wants to change the rule again to increase the limit by another 10 dB to 42 dBW. This substantial 10 dB increase would expand the area that would be impacted by overload interference where the mobile terminal is at least 2 MHz from the ATC base station to 1.4 square kilometers around the base station using the WI-LOS propagation model, and 11.3 square kilometers using the free space propagation model. Where the mobile terminal is less than 2 MHz from the ATC base station, the area that would be impacted by interference would expand to 5.7 square kilometers using the WI-LOS propagation model, and 71.5 square kilometers using the free space propagation model. SkyTerra's proposed 10dB increase would expand the area impacted by intermodulation interference to 33.6 square kilometers around the base station using the WI-LOS propagation model, and 715 square kilometers using the free space propagation model.

## **II. SKYWAVE AND ITS END-USERS HAVE A PARAMOUNT INTEREST IN AVOIDING INTERFERENCE FROM SKYTERRA'S ATC SYSTEM**

Today, SkyWave provides service to approximately 55,000 land mobile terminals in the United States using both SkyTerra and Inmarsat satellites. By the end of September 2009, all 55,000 terminals will operate on the Inmarsat system, giving SkyWave considerably more U.S. terminals on the Inmarsat system than any other service provider.

Contrary to SkyTerra's suggestion, SkyWave is no mere "reseller."<sup>2</sup> SkyWave has more than 100 engineers designing, developing and implementing MSS solutions for its customers. Unlike most MSS providers, SkyWave designed, owns and operates the terrestrial portion of the satellite network; designs and sells the terminals; and purchases satellite capacity to complete the end-to-end terminal and service package it provides its end-users.

SkyWave's U.S. end-users include the Department of Defense Counter-Narcoterrorism Technology Program Office, the Naval Surface Warfare Center, Department of Homeland Security, Drug Enforcement Agency, Tennessee Valley Authority, Washington State Department of Transportation, American Red Cross, Southern California Edison, Union Pacific and more than 500 trucking companies. These end-users rely on SkyWave's ubiquitous coverage throughout the entire United States (and beyond). Federal government agencies and transportation companies select SkyWave for their mission-critical tracking, monitoring and control requirements because the service is reliably available in both urban and rural environments.

SkyWave and its federal government and commercial end-users have a critical stake in ensuring that SkyWave's service operates without interference from SkyTerra's ATC system. Contrary to SkyTerra's suggestion, the issue in this proceeding is not

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<sup>2</sup> SkyTerra Opposition at 13.

whether SkyWave's terminals are entitled to "unnecessary additional protection,"<sup>3</sup> but whether SkyTerra can increase ATC base station EIRP by 10 dB above the limit in the Commission's Rules, and can similarly re-write six other well-established Commission Rules.<sup>4</sup>

SkyTerra acknowledges that the FCC's "ATC rules focus on operational limits designed to protect the L-band MSS operations of Inmarsat."<sup>5</sup> While SkyTerra and Inmarsat entered into a private commercial agreement that included operator-to-operator coordination ("SkyTerra-Inmarsat agreement"), those parties do not have the power to re-write the Commission's Rules protecting existing L-band users.

SkyTerra has reported to the Securities & Exchange Commission that Inmarsat has agreed to "more relaxed operating rules for" SkyTerra, and to make "spectrum available" for SkyTerra's ATC system.<sup>6</sup> In return:

- SkyTerra must issue Inmarsat \$31.25 million in SkyTerra voting stock if SkyTerra obtains an investment of more than \$100 million;
- SkyTerra can exercise a first option to facilitate ATC by paying Inmarsat \$250 million in cash and providing Inmarsat an additional \$87.5 million of equity in Sky Terra; and
- SkyTerra can exercise a second option by paying Inmarsat \$115 million per year.

This exchange of cash and equity consideration for spectrum rights creates at least a potential divergence of interest between Inmarsat and the service providers and end-users on the Inmarsat satellite system.

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<sup>3</sup> SkyTerra Opposition at iii.

<sup>4</sup> Elsewhere, SkyTerra more soberly frames the issue as its request for granted "waivers of seven rules." SkyTerra Opposition at 5.

<sup>5</sup> SkyTerra Opposition at 5.

<sup>6</sup> SkyTerra SEC Form 8-K at 3 (December 21, 2007) (Exhibit 1).

While the SkyTerra-Inmarsat agreement may be in the private interests of both SkyTerra and Inmarsat, that does not necessarily mean that these “more relaxed operating rules” are in the public interest. The Commission must perform its own independent determination of whether each requested waiver of the FCC’s Rules would “undermine the purposes of the rule. . . .”<sup>7</sup> In making this determination, the Commission must consider the interests of the actual end-users, and of the companies that actually provide the primary mobile satellite services in the L-band to these end-users.

SkyTerra argues that its agreement with Inmarsat is entitled to “deference.”<sup>8</sup> SkyTerra asserts that this deference is enshrined Sections 25.253(a)(2) and (3) of the Commission’s Rules.<sup>9</sup> However, these rules explicitly relate only to satellite operator-to-operator interference. Since these rules are intended to prevent another L-Band operator’s satellite system from receiving interference from the operator of the ATC system, these two specific sub-sections rationally defer to a private agreement between the two satellite operators.

Significantly, none of the seven rule waivers sought by SkyTerra relate to Sections 25.253(a)(2) and (3). Indeed, SkyTerra cannot identify a single rule it seeks a waiver from that provides for any deference to a satellite operator coordination agreement. There simply is no basis in the Commission’s Rules for asserting that a private commercial agreement involving the exchange of cash and stock for spectrum

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<sup>7</sup> *Rainbow DBS Company LLC; Consent to Withdraw and Unconditionally Release Bonds and Request for Waiver of the Bond Requirement*, Memorandum Opinion and Order, 22 FCC Rcd 4272, ¶¶7-8 (2007), *citing WAIT Radio v. FCC*, 418 F.2d 1153, 1157 (D.C. Cir. 1969) and *Northeast Cellular Telephone Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990)).

<sup>8</sup> SkyTerra Opposition at 11.

<sup>9</sup> SkyTerra Opposition at 12.

rights can trump the Commission's Rules protecting end-users and service providers from ATC interference.

In addition to the Rules, SkyTerra relies on the Commission's statement in the *2003 ATC Order* that "[w]e support and encourage private negotiations **among interested parties in the band** and will consider waiver requests of these rules based on negotiated agreements."<sup>10</sup> However, the SkyTerra-Inmarsat agreement critically did not include all of the interested parties in the band, including SkyWave which will have more terminals in the U.S. on the Inmarsat system than any other company. Accordingly, that agreement can neither bind SkyWave nor preempt the Commission's Rules.

### **III. SKYTERRA'S PROPOSED WAIVERS WOULD SUBSTANTIALLY INCREASE INTERFERENCE TO SKYWAVE'S MOBILE SATELLITE SERVICE**

SkyTerra's proposed waivers would substantially increase interference to SkyWave's mobile satellite services. For example, SkyTerra's proposed 10 dB increase in ATC base station EIRP would dramatically expand the territory around the base station that would be impacted by both overload and intermodulation interference.

SkyTerra's leading technical point is that SkyWave "radically overstates" the ATC base station power level increase sought in the waiver due to a "misunderstanding."<sup>11</sup> SkyTerra does not dispute that the waiver as drafted would permit an increase in power from the 31.9 dBW permitted by the Commission's Rules<sup>12</sup> to 45 dBW. Instead, SkyTerra asserts that a secret provision in the SkyTerra-Inmarsat agreement limits the

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<sup>10</sup> SkyTerra Opposition at 11, *quoting Flexibility for Delivery of Communications by Mobile Satellite Service Providers in the 2 GHz Band, the L-Band, and the 1/6/2.4 GHz Bands*, 18 FCC Rcd 1962 (2003) ("*2003 ATC Order*") ¶ 143 (emphasis added).

<sup>11</sup> SkyTerra Opposition at 7.

<sup>12</sup> 47 C.F.R. §25.253(d)(1).



increase in base station power to “only” 10 dB above the Commission’s limit to 42 dBW.<sup>13</sup>

SkyWave pointed out in its initial Comments that the Commission first determined that the proper balance between ATC and MSS would be achieved by a peak EIRP limit of 23.9 dBW, and then increased the limit another 8 dB to 31.9 dBW on reconsideration at SkyTerra’s request.<sup>14</sup> As shown in the attached Technical Appendix, SkyTerra’s proposed additional increase of 10 dB would result in substantially increasing overload and intermodulation interference, preventing the use of SkyWave MSS terminals in a dramatically larger region around the ATC base station.

In terms of overload interference, SkyTerra’s proposed 10 dB increase, where the mobile terminal is at least 2 MHz from the ATC base station, would expand the impacted area from 0.03 square kilometers to 1.4 square kilometers around the base station using the WI-LOS propagation model, and 11.3 square kilometers using the free space propagation model. Where the mobile terminal is less than 2 MHz from the ATC base station, the area that would be impacted by interference would expand from 0.03 square kilometers to 5.7 square kilometers using the WI-LOS propagation model, and 71.5 square kilometers using the free space propagation model.<sup>15</sup>

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<sup>13</sup> SkyTerra Opposition, Technical Appendix at 3. Of course, any “misunderstanding” would have been avoided if SkyTerra’s waiver had simply stated that it was asking for an increase to “only” 42 dBW instead of implying 45 dBW, or if SkyTerra filed the agreement it heavily relies on in this proceeding.

<sup>14</sup> SkyWave Comments at 5 & nn. 8-9, citing *Flexibility for Delivery of Communications by Mobile Satellite Service Providers in the 2 GHz Band, the L-Band, and the 1/6/2.4 GHz Bands*, 18 FCC Rcd 1962 (2003) (“2003 ATC Order”); *Flexibility for Delivery of Communications by Mobile Satellite Service Providers in the 2 GHz Band, the L-Band, and the 1/6/2.4 GHz Bands, Memorandum Opinion and Second Order on Reconsideration*, 20 FCC Rcd 4616 (2005) ¶¶ 53-55 (“ATC Reconsideration Order”).

<sup>15</sup> Technical Appendix at 10-11 and Table 4.1-2.

The attached Technical Appendix also recalculates the intermodulation interference range using SkyTerra's revised ATC base station EIRP of 42.0 dBW, and revised intermodulation limit of -70 dBm. SkyTerra's proposed 10 dB increase would expand the area impacted by intermodulation interference to 33.6 square kilometers around the base station using the WI-LOS propagation model, and 715 square kilometers using the free space propagation model.<sup>16</sup>

Attempting to minimize the dramatic impact of the proposed increase of 10 dB, SkyTerra's Opposition makes three arguments.<sup>17</sup> First, without providing any basis, SkyTerra asserts that SkyWave does not provide reliable service in urban areas due to building blockage. As shown in the Technical Appendix, SkyTerra's claim of 15 dB of attenuation is substantially overstated because the attenuation for the Inmarsat satellite at 98° West serving the SkyWave terminals will be only about 0.5 dB.<sup>18</sup> In addition, SkyTerra's analysis does not recognize that the SkyWave terminals will almost never be held by humans or be inside buildings or automobiles. Instead, the SkyWave terminals are typically mounted on the exterior of trucks and trailers, avoiding the blockage from buildings, vehicles and bodies SkyTerra assumes in their calculations.<sup>19</sup>

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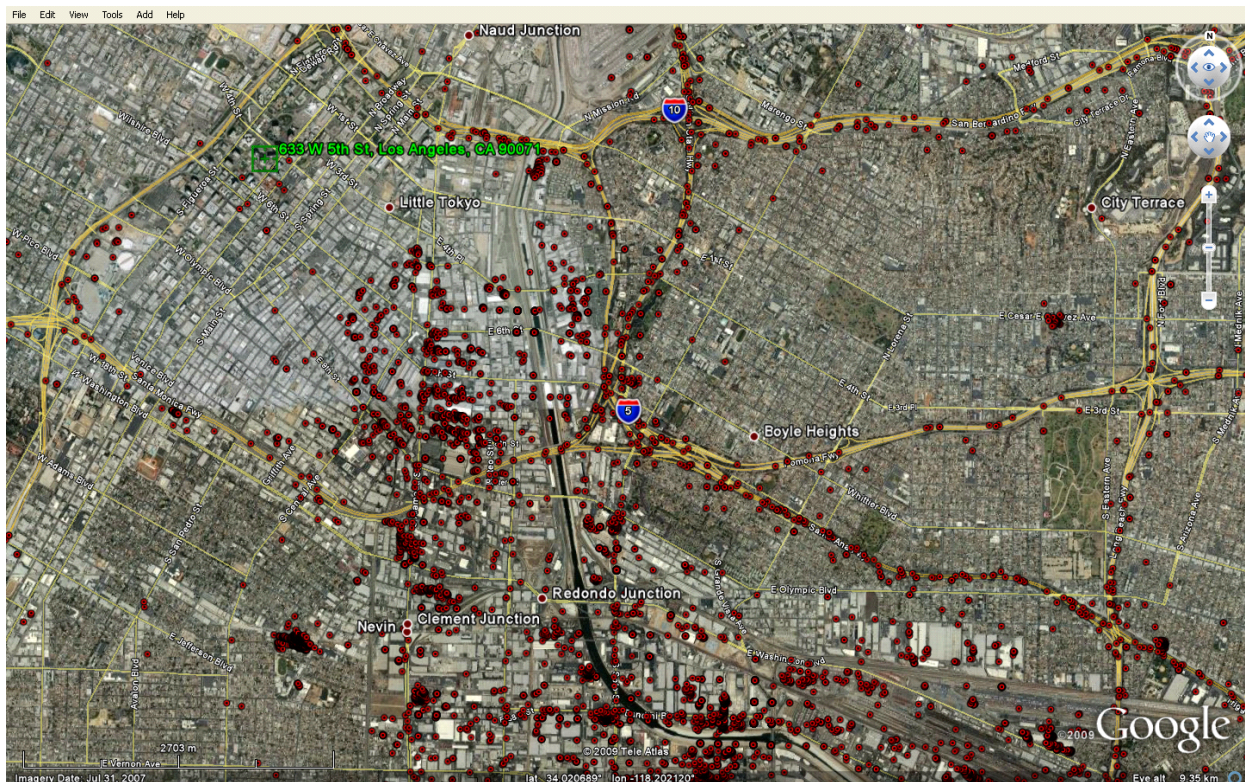
<sup>16</sup> Technical Appendix at 11-12.

<sup>17</sup> SkyTerra Opposition at 8-9.

<sup>18</sup> Technical Appendix at 2-3.

<sup>19</sup> Technical Appendix at 3-4.

Fortunately, SkyWave's end-users know that they currently enjoy reliable service in urban environments. A large portion of SkyWave's U.S. terminals are in the freight transportation business. For these customers, reliable service in urban areas is critical in order to cover freeways, other major transit corridors and freight yards. The map from the Technical Appendix shown below is a Google Earth depiction of downtown Los Angeles, with each of the dark circles representing the location of a SkyWave terminal reporting over the SkyWave network.<sup>20</sup> As can be seen, there are a large number of terminals on freeways and also likely in freight yard and other locations just off of major transportation arteries.



<sup>20</sup> Technical Appendix at 4-5. Each circle represents a position reported from a SkyWave terminal during the first five months of 2009.

SkyTerra's assertion that SkyWave's customers find its service reliable in urban and suburban areas "only because it is in fact terrestrial service" from SkyWave's dual-mode terminal is specious. Approximately 98.5% of SkyWave's U.S. terminals operate only over the satellite, while only 1.5% are dual-mode. In addition, the relatively few SkyWave customers in the U.S. who select dual-mode terminals are not necessarily driven by reliability as SkyTerra assumes. They may also opt for a dual mode solution for several other reasons, including faster data transmissions and lower communications costs in some circumstances.<sup>21</sup>

Second, SkyTerra's claim that SkyWave could handle increased interference with its store-and-forward capability is similarly erroneous. Many customers use SkyWave's service for security applications where timely transmission of security alarms – such as on open cargo door -- is paramount. SkyWave's security alarm functionality provides near real-time communications. This is a critical feature for most customers. If the forward link is interrupted by interference, then the terminals will not be allowed to transmit and the information will be delayed, potentially too long for the information to be useful in solving a critical security issue.<sup>22</sup> SkyWave's reliability for security applications is a critical feature for most DOD, DHS, DEA, transportation and other end-users.

Third, SkyTerra has it exactly backwards when it asserts that SkyWave should redesign its receivers to accept additional interference from SkyTerra's ATC base stations because "[t]he ATC rulemaking has been a matter of public record since 2001

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<sup>21</sup> Technical Appendix at 4-5.

<sup>22</sup> Technical Appendix at 5.

and the Cooperation Agreement since late 2007.”<sup>23</sup> The Commission’s ATC Rules struck a balance between promoting ATC and preserving the ability of existing and future users of the primary mobile satellite services to operate. In increasing the limit for ATC base station EIRP in the *ATC Reconsideration Order* four years ago, the Commission considered the potential improvements in Inmarsat receivers. SkyWave was entitled to rely on the Commission’s Rules when designing and deploying its receivers. It is SkyTerra that should have designed its ATC system based on the existing FCC Rules, and should not have waited four years since the 2005 *ATC Reconsideration Order* to try to re-write those Rules. At this late juncture, SkyTerra needs to demonstrate that the waiver would not “undermine the purposes of the rule. . . .”<sup>24</sup> The Commission’s power limit on ATC base stations was intended to protect L-band MSS users from any greater interference and to inform MSS terminal manufacturers of the level of interference they must accept. It would clearly undermine the balance struck by the Commission to force SkyWave to modify the tens of thousands of terminals already deployed in the United States, and to change its design for tens of thousands of additional terminals that will be deployed in the future.

SkyTerra’s assertion that SkyWave should have designed its receivers to accommodate the increased interference anticipated by the 2007 SkyTerra-Inmarsat agreement is hypocritical at best. SkyTerra repeated its refusal to make that agreement

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<sup>23</sup> SkyTerra Opposition at 8-9.

<sup>24</sup> *Rainbow DBS Company LLC; Consent to Withdraw and Unconditionally Release Bonds and Request for Waiver of the Bond Requirement*, Memorandum Opinion and Order, 22 FCC Rcd 4272, ¶¶7-8 (2007) (citing *WAIT Radio, WAIT Radio v. FCC*, 418 F.2d 1153, 1157 (D.C. Cir. 1969) and *Northeast Cellular Telephone Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990)).

public at the same time that it insisted that SkyWave should have used the agreement for the last two years to design its terminals.<sup>25</sup> In any event, that agreement does not *ipso facto* supersede the Commission's Rules.

#### **IV. SKYTERRA'S ERRONEOUS ASSERTION THAT ITS WAIVERS WOULD OVERRIDE 47 C.F.R. §25.255 UNDERMINES ITS ENTIRE ARGUMENT**

SkyTerra contends that if its waivers are granted its ATC service should be able to cause harmful interference to SkyWave's MSS service without any obligation to resolve such interference.<sup>26</sup> Section 25.255 provides in pertinent part that:

If harmful interference is caused to other services by ancillary MSS ATC operations, either from ATC base station operations or mobile terminals, the MSS ATC operator must resolve any such interference.

As SkyWave noted in its initial Comments, Section 25.255 provides a critical safety valve to ensure that, regardless of compliance with the band-specific rules in 25.252-254, an ATC operator cannot cause harmful interference to the primary MSS services (or to services in other bands).<sup>27</sup>

There is nothing in the text of Section 25.255 that limits its application to MSS operators, or authorizes harmful interference to mobile satellite service providers and

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<sup>25</sup> Compare SkyTerra Opposition at 9-10 (SkyWave should have designed its terminals to account for the "Cooperation Agreement") with SkyTerra Opposition at 14 ("Amtech and SkyWave do not have a legitimate reason to review the Cooperation Agreement"). Of course, SkyTerra gave SkyWave a legitimate reason to review the Cooperation Agreement when it chose to rely heavily on that agreement to support its requested waivers. The APA and Due Process Clause preclude the Commission from relying on the agreement to decide this matter adversely to SkyWave unless the agreement is placed in the record and SkyWave is provided an opportunity to make additional arguments.

<sup>26</sup> SkyTerra Opposition at 13.

<sup>27</sup> SkyWave Comments at 10.

their end-users. Further, there is nothing in Section 25.255 that allows a coordination agreement to trump the Commission's no harmful interference rule, as there is with Section 25.253(a)(2) and (3).

SkyTerra's attempt to remove Section 25.255 from the Commission's Rule Book without even asking for a waiver undermines the seven waivers SkyTerra explicitly seeks. SkyTerra recognizes that granting these waivers would allow it to cause harmful interference to the mobile satellite services of SkyWave, and insists it should be able to do so.

SkyTerra's breathtaking assertion that ATC should be able to cause harmful interference to the primary mobile satellite services in this band completely undermines SkyTerra's request for waivers. The fundamental cornerstone of the Commission's ATC policy is that MSS will remain primary and ATC will be offered on an ancillary, non-interference basis. SkyTerra's attempt to turn this policy on its head by making ATC primary over MSS should lead (1) to rejection of SkyTerra's interpretation of Section 25.255, and (2) to putting aside SkyTerra's controverted waiver requests until it is clear that they will not increase interference to the mobile satellite services.

## **V. CONCLUSION**

The Applications do not meet the heavy burden of justifying the requested waivers because the waivers would permit SkyTerra's ATC system to cause substantial interference to tens of thousands of land mobile METs used throughout the U.S. by the military, government, security, first responders, critical industry and transportation sectors.

SkyWave repeats its offer to work with SkyTerra and Inmarsat to resolve the interference issues raised by the waivers.<sup>28</sup> SkyWave appreciates the offer of Inmarsat

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<sup>28</sup> SkyWave Comments at 11.

to engage in constructive dialog,<sup>29</sup> and regrets that SkyTerra has not deigned to reciprocate as well. Until acceptable solutions have been developed that assure that SkyWave's mission-critical services will remain reliably available throughout the U.S. to military, law enforcement, security, first-responders, critical infrastructure, transportation and commercial users, the waivers should not be granted.

Respectfully submitted,

SKYWAVE MOBILE COMMUNICATIONS, INC.  
SKYWAVE MOBILE COMMUNICATIONS, CORP.

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August 4, 2009

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<sup>29</sup> Inmarsat Opposition (July 23, 2009) at 2-3.



### **Certification**

I, Tom Houtman, Director, Product Development for SkyWave Mobile Communications, Inc., certify that I am the technically qualified person with overall responsibility for preparation of the information contained in the foregoing comments. I am familiar with the requirements of Part 25 of the Commission's rules, and the information contained in the comments is true and correct.

/s/

\_\_\_\_\_  
Tom Houtman  
Director, Product Development  
SkyWave Mobile Communications, Inc.

August 4, 2009

# Technical Appendix

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## 1 Introduction

### 1.1 Overview

This annex contains technical discussion of some of the points raised by SkyTerra and Inmarsat in their Consolidated Oppositions to the *Comments of SkyWave Mobile Communications, Corp. and SkyWave Mobile Communications, Inc.*, dated July 10, 2009 and the *Petition to Deny of Amtech Systems LLC*, dated July 10, 2009.

### 1.2 References

In this Annex, FCC 03-15 refers to *Flexibility for Delivery of Communications by Mobile Satellite Service Providers in the 2 GHz Band, the L-Band, and the 1/6/2.4 GHz Bands*, 18 FCC Rcd 1962 (2003), while FCC 05-30 refers to *Flexibility for Delivery of Communications by Mobile Satellite Service Providers in the 2 GHz Band, the L-Band, and the 1/6/2.4 GHz Bands, Memorandum Opinion and Second Order on Reconsideration*, 20 FCC Rcd 4616 (2005). The SkyTerra modification request that is referred to is titled *Modification and Request for Expedited Consideration*, dated April 29, 2009. This document is referred to here as the Modification.

The *Comments of SkyWave Mobile Communications, Corp. and SkyWave Mobile Communications, Inc.*, dated July 10, 2009 is referred to here as the SkyWave Comments. The *Petition to Deny of Amtech Systems LLC*, dated July 10, 2009 is referred to here as the Amtech Petition. Collectively these two documents are referred to here as the Comments and Petition.

The *Consolidated Opposition of Inmarsat Global Ltd.*, dated July 23, 2009, is referred to here as Inmarsat's Opposition, while SkyTerra's *Consolidated Opposition*, dated July 23, 2009, is

referred to here as SkyTerra's Opposition. Collectively these two documents are referred to here as the Oppositions.

## **2 Blockage and Service Reliability**

In their Opposition SkyTerra states: "Studies cited by the Commission in the *ATC Order* discuss building blockage causing as much as 15 dB of attenuation in cities"<sup>1</sup>. To support this they cite the Commission's *ATC Order*<sup>2</sup>. The studies cited in FCC 03-15 are in fact SkyTerra's (then MSV), brought forth "in their analyses of the potential for ATC MT interference to Inmarsat's satellites"<sup>3</sup>, and included attenuation averaging for terminals inside vehicles and buildings that are only reasonable for handheld devices, and not for SkyWave/Amtech terminals. The fact that the Commission cited them does not prove that they are correct or suggest that the Commission accepted their findings in the least. In fact we believe that the average blockage figure that the Commission's findings support is not -15 dB but only -0.5 dB.

In FCC 03-15, Table 1.2.3.B gives the expected average outdoor satellite blockage to the United States. For the MSV satellite at 101° West longitude, the value that the Commission has determined is -0.5 dB as shown in the table. The SkyWave GlobalWave network currently operates on this satellite. The majority (82%) of SkyWave terminals (and 100% of Amtech terminals) will experience this insignificant average blockage. In the future, it is expected that the GlobalWave network will operate on the Inmarsat satellite at 98° West longitude. Given that

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<sup>1</sup> SkyTerra Opposition, page 8.

<sup>2</sup> SkyTerra Opposition footnote 13, citing FCC 03-15 at section 1.2 of Appendix C2.

<sup>3</sup> FCC 03-15, at page 181 of Appendix C2.

the difference between elevation angles to these two satellites will be only a degree or two, the same average blockage will apply.

In their Opposition, SkyTerra claims that “(t)he Commission reached a conservative conclusion that at least half of the time in cities, satellite service would be attenuated by building blockage” citing FCC 03-15 Appendix C2, Table 1.2.3.B. It is not clear what the basis is for SkyTerra’s contention. There is no evidence in the table to support the argument that the Commission reached such a conclusion, or that such a hypothesis has any merit. As discussed previously, the average blockage of -0.5 dB is of little significance to the SkyWave network link performance.

To reach their conclusions on service reliability, SkyTerra may have misapplied studies, field trials and reasoning geared towards their own intended customers and applications for the ATC. Their commercial literature is heavily focused on delivery of voice services with relatively little attention paid to industrial data service delivery<sup>4</sup>. This may mean that their studies, field trials and reasoning are biased towards handheld terminals and in-building/in-vehicle utilization. This is borne out by their reference to studies showing “building blockage causing as much as 15 dB of attenuation in cities”.<sup>5</sup> The citation supporting this comment points to FCC 03-15, Appendix C2, section 1.2. In this section (and particularly in section 1.2.1) the Commission describes the reasoning that MSV (now SkyTerra) used to reach a figure of 15.5 dB of blockage, including factors such as a distribution of user locations in which 30% were inside vehicles and 40% were inside buildings while only 40% were outside, and “3 dB due to Radio Frequency (RF)

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<sup>4</sup> See, for example, the SkyTerra brochure titled “Learn About the Future”, retrieved July 30, 2009 from [http://www.skyterra.com/literature/SkyTerra\\_TheFuture.pdf](http://www.skyterra.com/literature/SkyTerra_TheFuture.pdf), which describes SkyTerra’s MSS/ATC services. This brochure devotes only 3 bullets to data services while allocating 18 bullets to voice services.

<sup>5</sup> SkyTerra Opposition at page 8, citing FCC03-15 at section 1.2 of Appendix C2.

absorption by the human head and body”<sup>6</sup>. None of these factors apply to SkyWave/Amtech’s terminals.

SkyTerra states in their Opposition, “Amtech and SkyWave ignore the fact that their user’s current experience with satellite reception in a mobile environment in urban and suburban areas is already far worse than any interference they will receive from ATC base stations”<sup>7</sup>. This unsupported assertion shows that SkyTerra does not understand the Amtech/SkyWave customer applications or the propagation environment. Our customers’ terminals spend no time in vehicles and virtually no time within buildings; rather, they are typically mounted on the exterior of trucks and trailers. They are typically found on railways, expressways and interstates, and in container yards, train yards and warehouse parking lots rather than in high-density urban environments (although very often in close proximity to high-density urban locations). These sites typically have clear lines of sight to the relatively high elevation SkyTerra and Inmarsat satellites at 101°W and 98°W.

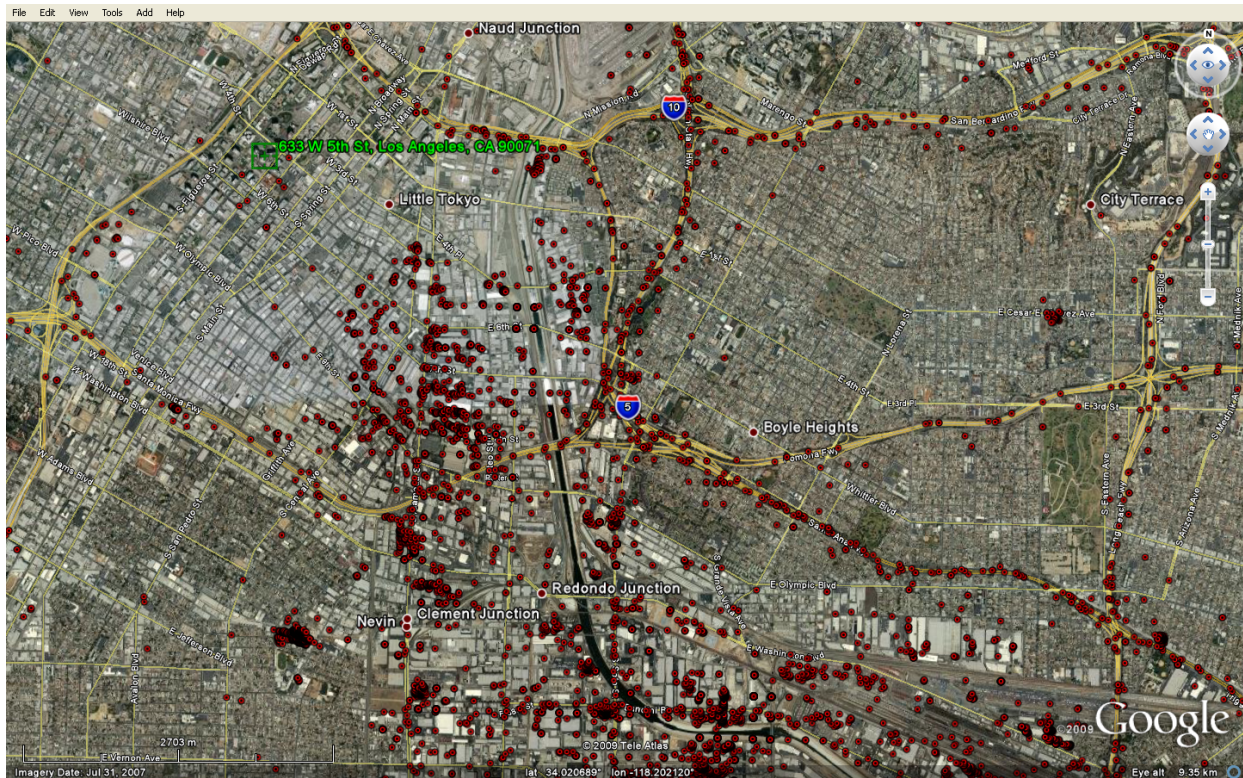
An illustrative example location is shown in the figure below; in this figure the dark circles mark the locations of SkyWave/Amtech terminals reported via the GlobalWave network,<sup>8</sup> and the green rectangle marks the location of the US Bank Tower, which is the ninth-tallest building in the US and is located in the heart of Los Angeles’ high-rise Financial District. A large number of the terminals reside in the industrial zone within 1-3 km of this building.

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<sup>6</sup> FCC 03-15, Appendix C2, at section 1.2.1.

<sup>7</sup> SkyTerra Opposition at page 8.

<sup>8</sup> Each circle represents a position reported from a SkyWave terminal during the first five months of 2009.



In the SkyTerra Opposition the fact is stated that SkyWave “fails to mention that it offers a data device that combines Inmarsat satellites service in the L-band with terrestrial service in four terrestrial bands, which suggests that its urban and suburban service may be reliable today only because it is in fact terrestrial service”<sup>9</sup>. This was not mentioned because it is not significant: less than 1.5% of terminals operating in the US on SkyWave’s networks are dual mode satellite/terrestrial capable at this time. Dual mode capable terminals did not factor into our statement on service reliability, which pertained to satellite-only service. It should be noted that SkyWave customers have many reasons other than service availability to desire dual mode capability. For example, it is occasionally necessary for some terminals to transfer larger data files that would take too long to send or receive via low data rate satellite services.

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<sup>9</sup> SkyTerra Opposition at pages 8-9.

In their Opposition, SkyTerra proposes that “store-and-forward service would also tolerate the transient interference of driving near an ATC base station”<sup>10</sup> This statement is faulty for two reasons. Firstly, it ignores the fact that many of the SkyWave/Amtech terminals are used in security applications for which time is of the essence. A typical example is over-the-satellite notification that the door of a trailer has been opened, potentially by thieves. The SkyWave networks can provide this notification in seconds, unless interfered with. Secondly, only mobile usage is considered. For terminals that are stationary near an ATC base station, there would be no relief from interference. Past investigations of terminals operating on the GlobalWave network in the US have found that on average, terminals are in fact stationary considerably more than half of the time.

### **3 Propagation Model**

In their Opposition, SkyTerra bases their computation of ranges of interference from ATC base stations to L-band MSS terminals on the WI-NLOS model. They present a justification for this with a curve fit to a single data set of path losses taken from a drive in the vicinity of Baltimore-Washington.

We believe that SkyTerra has misunderstood the correct application of the Walfisch-Ikegami propagation model. As explained in an NIST presentation, the model “distinguishes between LOS and non-line-of sight (NLOS) propagation situations”<sup>11</sup>, so the two sub-models should be applied with insight into the LOS and NLOS condition that applies at each individual location, rather than as a blanket condition.

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<sup>10</sup> SkyTerra Opposition at page 9.

<sup>11</sup> See [http://www.antd.nist.gov/wctg/manet/calcmmodels\\_dstlr.pdf](http://www.antd.nist.gov/wctg/manet/calcmmodels_dstlr.pdf), at page 6.

The fact that SkyTerra achieved a good curve fit with the NLOS-only model suggests that in the test which they present results for, line-of-sight conditions between the fixed and mobile ends were virtually non-existent. We believe that this is unlikely to be representative of links between ATC base stations and SkyWave/Amtech terminals. If this is the case in SkyTerra's test, it could be due to placement of the fixed antenna in locations surrounded by taller buildings. Standard practices in cellular networks include placement of base station antennas as high as economically possible, and not on low buildings surrounded by taller ones which would satisfy the condition of dominant NLOS conditions in both urban and suburban areas. If this is true of SkyTerra's test conditions then they are unrepresentative of the links between ATC base stations and SkyWave/Amtech METs. A second possibility for dominance of NLOS conditions might be the route driven during the test. This was unspecified apart from its general location within the Baltimore-Washington area, and could have been unrepresentative of the links between ATC base stations and SkyWave/Amtech METs.

A further possibility that could reconcile the measured path loss results with the Walfisch-Ikegami propagation model is that line-of-sight conditions were usually or always present, but that there was some additional fixed loss in the link from antenna placement within the cabin or perhaps the trunk of the mobile vehicle. This too is unrealistic for links between ATC base stations and SkyWave/Amtech terminals. As previously noted, these terminals are mounted on the exterior of trailers and trucks for clear line-of-sight, typical of MSS installation.

We believe that a common propagation situation for interference between ATC base stations and SkyWave/Amtech METs will comprise base stations located near or at the periphery of high density urban cores, and METs outside in open areas in close proximity to the urban core as previously described. In this type of situation, the WI-LOS and free space propagation models



will provide accurate assessments of interference ranges. As the Commission has noted, “in urban areas with large open spaces, such as airports and harbors, and possibly near navigable waterways, free-space propagation loss should be assumed. Depending upon the geographic area we analyze we use the WI (LOS and non-LOS) and free space propagation as appropriate.”<sup>12</sup>

It should also be noted that there is no rule in part 25 that would prevent SkyTerra from deploying ATC base stations on towers in suburban environments. Here, too, the WI-LOS and free space propagation models provide accurate assessments of interference ranges.

As in the Comments and Petition Technical Annexes, the WI-LOS propagation model assumptions used here are a frequency of 1545 MHz, a base station height of 30m, and a mobile height of 2.5m.

## **4 ATC Basestation Downlink Interference Ranges**

In this section revised interference link budgets and interference ranges are presented, for suburban environments. The revisions are performed to account for a lower ATC base station EIRP of 42 dBW which is the limit that SkyTerra now says in its Opposition is all they seek; also, for the intermodulation budget an interference level of -70 dBm has been applied similarly to SkyTerra’s analysis in their Opposition. As in our previous analyses, we apply WI-LOS and free space propagation models to compute interference ranges.

### **4.1 Overload Interference Ranges**

As in our previous analyses in the Comments and Petition, four link budget versions are included here, based on overload limits of -52 dBm and -60 dBm for cases where frequency separation

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<sup>12</sup> FCC 03-15, Appendix C2 at section 1.6.

between ATC signals and the SkyWave networks' are greater than and less than 2 MHz respectively (as explained in the Technical Annexes of the Comments and Petition), and for ATC base station EIRPs of 31.9 and 42 dBW:

<u>Link Budget</u>	<u>Total Peak EIRP per sector</u>	<u>Interference limit</u>
A	31.9 dBW	-52 dBm
B	42.0 dBW	-52 dBm
C	31.9 dBW	-60 dBm
D	42.0 dBW	-60 dBm

**Table 4.1-1 Suburban Environment Link Budget Variations – Overload Interference**

As previously noted, the WI-LOS and free space models are used to compute propagation ranges from the required link budget path losses below. The ranges for the two models are included in separate rows in the link budget; however the path losses in both cases are identical as required to close the budgets. Free space ranges are computed as follows:

$$D = 10^{\frac{L - 30 \log_{10} f - 32.44}{40}}$$

in which D is the distance in km, L the path loss in dB and f the frequency in MHz.

The link budgets are shown below:

Parameter	Units	Link A	Link B	Link C	Link D
Total EIRP per sector	dBW	31.9	42.0	31.9	42.0
<b>BS to MET Propagation Loss</b>	<b>dB</b>	<b>91.7</b>	<b>101.8</b>	<b>99.7</b>	<b>109.8</b>
Power Control	dB	5.2	5.2	5.2	5.2
Voice Activation	dB	4.0	4.0	4.0	4.0
Polarization Isolation	dB	1.0	1.0	1.0	1.0
MET Gain to BS	dB	-7.0	-7.0	-7.0	-7.0
BS Gain to MET	dB	-5.0	-5.0	-5.0	-5.0
Received Interference	dBW	-82	-82	-90	-90
Saturation Level	dBW	-82	-82	-90	-90
Saturation Level	dBm	-52	-52	-60	-60
Margin	dB	0	0	0	0
<b>Distance (WI-LOS model)</b>	<b>m</b>	<b>270</b>	<b>670</b>	<b>550</b>	<b>1350</b>
<b>Distance (free space model)</b>	<b>m</b>	<b>590</b>	<b>1900</b>	<b>1490</b>	<b>4770</b>

**Table 4.1-2 Suburban Environment Link Budgets – Overload Interference**

As can be seen from the propagation ranges, with the increased EIRP of 42 dBW that SkyTerra now says in its Opposition is all they seek in their waiver request, the ranges from each ATC base station in which service to SkyWave and Amtech Mets is interrupted by downlink overload interference will increase substantially.

With this analysis, we have shown that the area around each suburban 42 dBW ATC base station affected by overload interference is expected to increase from the 0.03 km<sup>2</sup> assumed by the FCC in their analysis (i.e. 100 m interference range) to 1.4 km<sup>2</sup> and 11.3 km<sup>2</sup> respectively with WI-LOS and free space propagation, for terminals separated by more than 2 MHz from ATC base

station downlink frequencies. For terminals separated by less than 2 MHz from ATC base station downlink signals, the area around each suburban 42 dBW ATC base station affected by overload interference is expected to increase to 5.7 km<sup>2</sup> and 71.5 km<sup>2</sup>, depending on whether propagation follows the WI-LOS model or free space propagation.

## 4.2 Intermodulation Interference Range

In this section the intermodulation interference range calculated in the Comments and Petition is recalculated, based on a revised ATC base station EIRP of 42.0 dBW, and a revised intermodulation limit of -70 dBm as has been used by SkyTerra in their Opposition.

Parameter	Units	Value
Total EIRP per sector	dBW	42.0
<b>BS to MET Propagation Loss</b>	<b>dB</b>	<b>119.8</b>
Power Control	dB	5.2
Voice Activation	dB	4.0
Polarization Isolation	dB	1.0
MET Gain to BS	dB	-7.0
BS Gain to MET	dB	-5.0
Received Interference	dBW	-100.0
Intermodulation Level	dBW	--100.0
Intermodulation Level	dBm	-70.0
Margin	dB	0
<b>Distance (WI-LOS model)</b>	<b>m</b>	<b>3270</b>
<b>Distance (free space model)</b>	<b>m</b>	<b>15090</b>

**Table 4.2-1 Suburban Environment Link Budget – Intermodulation Interference**

With this analysis, we have shown that the area around each suburban 42 dBW ATC base station affected by intermodulation interference to METs with -70 dBm intermodulation thresholds is expected to be 33.6 km<sup>2</sup> and 715.4 km<sup>2</sup>, depending on whether propagation follows the WI-LOS model or free space propagation. This is significantly larger than the 0.03 km<sup>2</sup> assumed by the FCC in their overload interference analysis.

## **5 Intermodulation Spectrum and Coordination**

In the Comments and Petition, we have commented that broadband modulations, such as those SkyTerra has requested authorization for in their Modification, can cause intermodulation products potentially covering the entire MSS band from 1525-1559 MHz and precluding the ability to achieve intermodulation relief through coordination of operating frequencies. In their Opposition, SkyTerra states: “Amtech and SkyWave are wrong when they suggest that the deployment of broadband carriers eliminates the ability to coordinate effectively to reduce the effects of intermodulation. In fact, SkyTerra has successfully coordinated with Inmarsat.”<sup>13</sup>

By consideration of a few examples and only a subset of the intermodulation products, the fact that the ATC base station generated intermodulation spectrum will fill the entire MSS spectrum from 1525-1559 MHz can be shown. SkyTerra has stated they plan “to have up to two 10 MHz or four 5 MHz bandwidth carriers/sector in a BTS sector”<sup>14</sup>. As a first example, consider such a configuration in which all these carriers are contiguous at the low end of the band. The ATC signal would then form a near-continuous spectrum from 1525-1545 MHz. In MSS receivers, this would cause an intermodulation spectrum centered at 1535 MHz with triple the bandwidth as

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<sup>13</sup> SkyTerra Opposition, Technical Appendix at page 7.

<sup>14</sup> Modification at page 9.

is well known for third order intermodulation. This spectrum would then extend from 1505-1565 MHz, causing intermodulation at all frequencies in the MSS band. Similarly if the carriers were contiguous at the high end of the band, the spectrum would extend from 1519-1579 MHz, causing intermodulation at all frequencies in the MSS band. As a second example, consider a configuration in which the ATC base station is transmitting with two 10 MHz carriers centered at the high and low extremes of 1530 MHz and 1554 MHz. The low carrier by itself will generate intermodulation products from 1515-1545 MHz, while the high carrier by itself will generate intermodulation products from 1539-1569 MHz. Taken together, these intermodulation products would fill the entire MSS spectrum without any gaps. As a third example, consider a configuration in which the ATC base station is transmitting with two 5 MHz carriers centered at the high and low extremes of 1527.5 MHz and 1556.5 MHz, and two other 5 MHz carriers centered in between these extremes. The low carrier by itself will generate intermodulation products from 1520-1535 MHz, while the high carrier by itself will generate intermodulation products from 1549-1564 MHz. The other two carriers will each generate intermodulation spectra that are 15 MHz wide. Given that the remaining gap between the intermodulation spectra generated by the high and low carriers is only 14 MHz wide, it is not possible to choose any centre frequencies for the remaining two carriers that will not cause the entire MSS L-band spectrum from 1525-1559 MHz to be filled with intermodulation products.

# **EXHIBIT 1**

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549**

**FORM 8-K**

**CURRENT REPORT  
PURSUANT TO SECTION 13 OR 15(d) OF THE  
SECURITIES EXCHANGE ACT OF 1934**

Date of report (Date of earliest event reported):  
December 21, 2007 (December 20, 2007)

**SkyTerra Communications, Inc.**  
(Exact name of registrant as specified in its charter)

Delaware  
(State or Other Jurisdiction of  
Incorporation)

000-13865  
(Commission File Number)

23-2368845  
(IRS Employer  
Identification Number)

10802 Parkridge Boulevard  
Reston, VA 20191  
(Address of principal executive offices, including zip code)

703-390-1899  
(Registrant's telephone number, including area code)

N/A  
(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
  - Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
  - Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
  - Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
-



## Section 1 - Registrant's Business and Operations

### Item 1.01 Entry into a Material Definitive Agreement.

On December 20, 2007, SkyTerra Communications, Inc. (the "Company"), Mobile Satellite Ventures LP ("MSV"), Mobile Satellite Ventures (Canada) Inc. ("MSV Canada", and together with the Company and MSV, the "MSV Parties") and Inmarsat Global Limited ("Inmarsat") entered into a Cooperation Agreement (the "Cooperation Agreement") relating to the use of L-band spectrum (i.e., 1.5 GHz/1.6 GHz) for both mobile satellite services (MSS) and ancillary terrestrial component (ATC) services in and around North America. MSV, MSV Canada and Inmarsat represent three of the five L-band mobile satellite system operators in North America that are included in the 1996 Mexico City Memorandum of Understanding (the "Mexico City MOU"), entered into by the United States, Canada, the United Kingdom, Mexico and Russia governing L-band satellite network coordination in North America.

The Cooperation Agreement addresses a number of regulatory, technology and spectrum coordination matters involving L-band spectrum, including:

- Coordination of the parties' respective next generation satellite systems covering North America (both the new Inmarsat 4s and the new MSV-1 and MSV-2 satellites), among other satellite networks;
- Provisions for re-banding the parties' L-Band spectrum in North America, which provide each party with increased contiguous spectrum bandwidth for their operations. This increased contiguity will occur in a phased approach, with certain phases dependent on the payment of designated amounts to Inmarsat by the MSV Parties, and upon the occurrence of various financial, regulatory and other governmental actions (as described more fully below);
- Provisions for increased flexibility in system operations and system enhancements (including improved filtering) that will result in greater protection from harmful interference for all relevant systems operations, and that progressively increases flexibility and supports more robust MSS/ATC operations, from the onset of the Cooperation Agreement through the various options that the MSV Parties may exercise (as described more fully below);
- Provisions for increased reuse of a substantial segment of North American L-band spectrum to support the deployment of new services and to provide increased innovation and customer service to all users throughout North America;
- Settlement of outstanding regulatory disputes presently pending regarding the operation of certain L-band MSS and MSS/ATC services;
- Establishment of a cooperative framework to address future coordination and technical issues between the parties;
- Provisions for continued cooperation to address future business, technology, and spectrum issues, including further coordination and cooperation on business activities throughout North America;
- Pre-negotiated financial and operational terms for an option for the MSV Parties to obtain additional spectrum and technical flexibility for the deployment and operation of a 4-G ATC network (as described more fully below).

Except as otherwise noted, the foregoing provisions became effective upon the signing of the Cooperation Agreement.

For a period of two years following signing, upon receipt of a designated investment into the Company of \$100,000,000 or more (the "Effective Date"), the MSV Parties would also be able to expand their trials and deployments to a broadband ATC trial using even wider spectrum bandwidths, on a specific designation of combined Inmarsat and MSV spectrum in a pre-agreed market. Simultaneously upon the designation of such an investment by the MSV Parties, the Company is required to issue to Inmarsat \$31,250,000 of the Company's voting stock.

In addition, upon the achievement of certain events, including regulatory approvals and coordination among the other L-band operators, MSV and MSV Canada, would, over time, have the potential for coordinated access for up to 2 x 23 MHz (including large blocks of contiguous channels). Should MSV and MSV Canada elect to exercise these rights, the consideration due Inmarsat under such arrangement would include the following:

Phase 1 Option: For the period between the Effective Date and September 1, 2011, the MSV Parties have the option (the "Phase 1 Option"), subject to certain conditions, to effect a transition to a modified band plan within an 18 to 30 month period. Such transition will include modification of certain of Inmarsat's network and end user devices and a shift in frequencies between the MSV Parties and Inmarsat which would lead to additional spectrum contiguity and more relaxed operating rules for the MSV Parties. Over the timeframe of the transition, the MSV Parties will be required to make payments to Inmarsat of \$250,000,000 of cash and an additional \$87,500,000 million of equity. In addition, the MSV Parties also have the option to accelerate such transition time by immediately paying \$50,000,000 of the \$250,000,000 in cash payments.

Phase 2 Option: Following the exercise of the Phase 1 Option, between January 1, 2010 and January 1, 2013, the MSV Companies have the option (the "Phase 2 Option") for Inmarsat to modify its North American operations in a manner that will make additional spectrum available for ATC at a cost of \$115,000,000 per year, payable in quarterly installments, resulting in substantially more spectrum to the MSV Companies available for MSS/ATC. If the MSV Companies do not exercise the Phase 2 Option, then between January 1, 2013 and January 1, 2015, Inmarsat would have the option to require the MSV Parties to exercise the equivalent of the Phase 2 Option upon the same terms.

In consideration for the operational transition of spectrum to one or more of the bandplans described above, the MSV Parties have agreed to allow Inmarsat continued use of loaned spectrum under dispute (subject to a potential dispute resolution process) and an additional loan of a lesser amount of spectrum.

A substantial number of provisions in the Cooperation Agreement are subject to receipt of applicable regulatory approvals. There can be no assurance that such approvals will be received, or that the conditions necessary for the operation of certain other provisions of the Cooperation Agreement will be met.

The Cooperation Agreement contains customary representations and warranties and indemnification provisions. A copy of the Cooperation Agreement is filed as Exhibit 10.1 hereto and is incorporated herein by reference.

In addition, on December 20, 2007, the Company entered into a Subscription Agreement (the "Subscription Agreement") with Inmarsat, pursuant to which the Company agreed to issue up to \$118,750,000 of the Company's voting common stock to Inmarsat, subject to the satisfaction of the conditions and other terms of the Cooperation Agreement described above and certain anti-dilution provisions, if both options described above are exercised. The Subscription Agreement also grants Inmarsat the right to receive non-voting common stock of the Company if Inmarsat is prohibited from receiving the voting common stock by law at any time. The shares of non-voting common stock are exchangeable on a one-for-one basis with shares of voting common stock, subject to legal and stock exchange restrictions. The Subscription Agreement contains customary representations, warranties and closing conditions. A copy of the Subscription Agreement is filed as Exhibit 10.2 hereto and is incorporated herein by reference.

Lastly, the Company and Inmarsat entered into a registration rights agreement (the "Registration Rights Agreement") pursuant to which, upon the later of two years from the Effective Date or receipt of a written request by Inmarsat, the Company will agree to file a shelf registration statement with the SEC relating to the resale of shares of common stock issuable to Inmarsat. A copy of the Registration Rights Agreement is filed as Exhibit 10.3 hereto and is incorporated herein by reference.

**Section 3 - Securities and Trading Markets**

**Item 3.02. Unregistered Sales of Equity Securities.**

Pursuant to the terms of the Cooperation Agreement, upon the Effective Date, the Company will issue to Inmarsat a number of shares of the Company's common stock having an aggregate value of \$31,250,000 based on the fair market value of the common stock on the Effective Date, determined in the manner set forth in the Cooperation Agreement. Upon the date that the parties commence Phase 1 of the transition of their respective spectrum use rights, the Company will issue to Inmarsat an additional number of shares of the Company's common stock having an aggregate value of \$31,250,000 based on the same fair market value described in the immediately preceding sentence, subject to anti-dilution provisions. Upon the completion of the transition of the spectrum use in Phase 1 of the spectrum use plan, the Company will issue to Inmarsat a number of shares of the Company's common stock (the "Phase 1 Shares") having an aggregate value of \$56,250,000 based on the average closing price of the Company's common stock for the forty five (45)-trading day period immediately preceding the date of issuance of such Phase 1 Shares. Upon agreement of Inmarsat, the MSV Parties may instead satisfy all or part of their obligation to issue shares to Inmarsat by the payment of up to \$118,750,000 in cash to Inmarsat.

The shares of common stock of the Company will be issued in private transactions in reliance upon the exemption from registration contained in Section 4(2) of the Securities Act of 1933. Accordingly, the shares may not be offered or sold in the United States without registration or an applicable exemption of registration requirements. The Company has agreed to file a shelf registration statement with the SEC relating to the resale of shares of common stock issuable to Inmarsat, as described further under Item 1.01 above.

**Section 8 - Other Events**

**Item 8.01 Other Events.**

On December 21, 2007, the Company and MSV issued a press release announcing the transaction with Inmarsat. A copy of such press release is attached hereto as Exhibit 99.1 and incorporated herein by reference.

**Section 9 - Financial Statements and Exhibits**

**Item 9.01. Financial Statements and Exhibits.**

(d) *Exhibits.*

<b>Number</b>	<b>Description</b>
10.1	Cooperation Agreement, dated as of December 20, 2007, by and among SkyTerra Communications, Inc., Mobile Satellite Ventures LP, Mobile Satellite Ventures (Canada) Inc. and Inmarsat Global Limited.
10.2	Subscription Agreement, dated as of December 20, 2007, by and between SkyTerra Communications, Inc. and Inmarsat Global Limited.
10.3	Registration Rights Agreement, dated as of December 20, 2007, by and between SkyTerra Communications, Inc. and Inmarsat Global Limited.
10.4	Phase 0 Block Loan Agreement, dated as of December 20, 2007, by and among Mobile Satellite Ventures LP, Mobile Satellite Ventures (Canada) Inc., SkyTerra Communications, Inc. and Inmarsat Global Limited.
99.1	Press release issued by SkyTerra Communications, Inc. and Mobile Satellite Ventures LP, dated December 21, 2007.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereto duly authorized.

Date: December 21, 2007

By: /s/ SCOTT MACLEOD

Name: Scott Macleod  
Executive Vice President and  
Chief Financial Officer

**EXHIBIT INDEX**

<b>Number</b>	<b>Description</b>
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99.1	Press release issued by SkyTerra Communications, Inc. and Mobile Satellite Ventures LP, dated December 21, 2007.

**CERTIFICATE OF SERVICE**

I hereby certify that on August 4, 2009, I caused a true and correct copy of the foregoing to be served by first-class mail, unless noted otherwise, on the following:

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