Before the FEDERAL COMMUNICATIONS COMMISSION Washington, DC 20554

In the matter of)	
SkyWave Mobile Communications Corp. Application for Modification of Blanket License to Operate Mobile Earth Terminals with Inmarsat 4F2 at 52.75°W))))	File No. SES-MFS-20051207-01709 (Call Sign E030055)
Satamatics Inc. Application for Modification of Blanket License to Operate Mobile Earth Terminals with Inmarsat 4F2 at 52 75°W)))	File No. SES-MFS-20051202-01665 (Call Sign E020074)

CONSOLIDATED OPPOSITION OF INMARSAT VENTURES LIMITED

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SUMMARY

No one opposes Commission grant of the Applications of SkyWave and Satamatics to continue to use the Inmarsat-4 ("I-4") replacement spacecraft to provide the same Inmarsat services they have been providing for years. The only entity to comment, MSV, seeks only to delay use of the I-4 spacecraft for two reasons: (i) MSV wishes to effectuate a new L-Band spectrum realignment that benefits MSV's next-generation hybrid ATC/MSS broadband network; and (ii) MSV claims that the continued use of non-contiguous segments of the L-Band to support existing services creates uncertainty for the development of MSV's next-generation system. There is no basis to cease the provision of existing Inmarsat services to the American public in order to improve the coordination prospects for MSV's *future* ATC/MSS business, particularly when doing so would occur at the expense of a spacecraft that is *currently* in orbit and is *today* providing essential MSS services to the United States.

Changes in the way that the L-Band is shared on a global basis could provide benefits for *everyone* involved, but the solution is nowhere near as simple or as quick as MSV makes it seem. Inmarsat cannot unilaterally require a host of other operators to change the way the L-Band is *currently* used over approximately twenty spacecraft, simply to accommodate MSV's *future* business needs, and it is not realistic to expect (as MSV suggests) that such a global realignment of the L-Band could occur in the next six months.

Moreover, this is not the appropriate forum for addressing MSV's spectrum disputes with Inmarsat. As the Commission has repeatedly recognized, the international spectrum negotiation process established under the Mexico City Memorandum of Understanding ("MOU") is the correct forum for addressing how the L-Band is divided and shared among different MSS systems. Furthermore, the Commission has long held that the types of *DISCO II*

considerations that MSV attempt to invoke—concerns whether there is adequate L-Band spectrum for MSV's own system—are not legitimate considerations in L-Band licensing decisions, but rather should be addressed in the Mexico City MOU process.

MSV's withdrawal from the Mexico City MOU process in 1999 left other MSS operators with no practical alternative other than ensuring, as they have since December 1999, that they conduct their L-Band operations over North America on a non-harmful interference basis. Contrary to MSV's assertions: (i) the Inmarsat MSS network in the Atlantic Ocean Region has been internationally coordinated; (ii) it has been operated fully in accordance with ITU Radio Regulations ever since the 1999 spectrum sharing agreement expired; and (iii) the operation of the new I-4 spacecraft will be no different.

MSV makes three basic claims with respect to the operation of I-4. First, MSV explains that MSV now wishes to start using portions of the L-Band that Inmarsat has been using for years to serve the United States. This desire for additional spectrum is merely a symptom of the larger impasse that exists in the L-Band; it is not a type of "interference presented by Inmarsat's new satellite." To the contrary, it is a reason for MSV to return to the international spectrum negotiation table where the Mexico City MOU provides for these types of matters to be resolved.

Second, MSV alleges that interference is inevitable because it claims that Inmarsat "intends to operate wherever it chooses in the L Band." This is false. Inmarsat is on record that I-4 will use the same portions of the L-Band to serve the United States that Inmarsat has been using for years. Thus, the scenario MSV posits simply will not arise.

Third, MSV alleges that the technical characteristics of I-4 will necessarily result in interference. MSV fails to provide any *technical analysis* to support its assertions that the

continued provision of services over I-4 presents an interference threat. As Inmarsat has explained before, there will be no interference issue because, in the absence of a new spectrum sharing agreement among the L-Band operators, Inmarsat will operate I-4 within the technical envelope under which Inmarsat has successfully coexisted with MSV for almost a decade and without causing harmful interference. Thus, grant of these Applications will not adversely affect MSV in any manner whatsoever.

Granting these Applications with a non-harmful interference condition, in the absence of an L-Band spectrum sharing agreement, is fully consistent with longstanding Commission practice and policy. Just last year, the Commission authorized MSV *on two separate occasions* to deploy new broadband services using next-generation L-Band spacecraft that have not been coordinated, and which MSV touts as far more powerful than I-4. The Commission did not condition MSV's authorization on achieving coordination with Inmarsat or any other L-Band operator. Consistent with its longstanding L-Band spectrum policy, the Commission simply authorized MSV to operate on a non-harmful interference basis. Similarly, the Commission can and should grant these applications, as it has done consistently in the past in authorizing L-Band service, subject to the outcome of the international L-Band negotiation process.

Granting MSV's requested relief, by (i) withholding authority until the L-Band is rechannelized to accommodate MSV's uncoordinated, next-generation spacecraft, or (ii) resolving the current dispute between MSV and Inmarsat over a portion of the L-Band, would be inconsistent with the Commission's long-established spectrum policy. Since 1999, the Commission has consistently determined not to use *DISCO II* spectrum considerations as a barrier to U.S. market entry and has determined that spectrum sufficiency issues should be

"addressed in the L-band coordination process." Unfortunately, MSV has failed to live up to its obligations in that process. Moreover, it would contravene United States WTO obligations to use the Commission's licensing processes to provide MSV and its affiliate, the Canadian-licensed MSV Canada, with leverage in international spectrum negotiations, or to treat Inmarsat differently than the Commission treated MSV *twice* last year when it authorized MSV to launch uncoordinated L-Band spacecraft.

Inmarsat therefore respectfully requests that the Commission promptly grant these Applications without any conditions, other than the customary condition that, in the absence of an L-Band spectrum sharing agreement, operations must be conducted on a non-harmful interference basis.

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CONSOLIDATED OPPOSITION OF INMARSAT VENTURES LIMITED

Inmarsat Ventures Limited ("Inmarsat") submits its Consolidated Opposition to the Petitions to Hold in Abeyance of Mobile Satellite Ventures Subsidiary LLC ("MSV"). 1

I. OVERVIEW

These proceedings involve requests by SkyWave Mobile Communications Corp. ("SkyWave") and Satamatics Inc. ("Satamatics") for license modifications to authorize the continued provision of existing Inmarsat services over the new Inmarsat-4 ("I-4") satellite at 53°

MSV Petition to Hold in Abeyance, File No. SES-MFS-20051207-01709 (filed Jan. 20, 2006) ("MSV SkyWave Petition"); MSV Petition to Hold in Abeyance, File No. SES-MFS-20051202-01665 (filed Jan. 27, 2006) ("MSV Satamatics Petition"). MSV's petitions are substantively identical and are cited to collectively as the "MSV Petition."

In order to minimize repetition of arguments already made in related proceedings, Inmarsat incorporates by reference the following in their entirety: Inmarsat Opposition, File No. SES-LFS-20050930-01352 *et al.* (Dec. 7, 2005) ("Inmarsat Telenor BGAN Opposition") (opposing MSV's Petition regarding Telenor's application to provide BGAN over I-4) and Inmarsat Consolidated Response, File No. SES-STA-20051216-01756 *et al.* (Jan. 6, 2006) ("Inmarsat E&E STA Response") (responding to MSV objection to request for STA to continue to provide longstanding Inmarsat services using I-4).

W.L.² SkyWave and Satamatics have provided these very same services for years over the Inmarsat-3 ("I-3") spacecraft that has been replaced by I-4.³ SkyWave and Satamatics are now using I-4 to provide those same services pursuant to Special Temporary Authority ("STA") that was granted pending action on these underlying Applications.⁴

No one opposes the grant of these Applications. The only entity to comment, MSV, admittedly seeks only to delay use of I-4 for two reasons: (i) MSV seeks to effectuate a new L-Band spectrum realignment that unlocks the "key" to MSV's next-generation hybrid ATC/MSS broadband network, and (ii) MSV claims that I-4's continued use of non-contiguous segments of the L-Band "will only impede the development of [MSV's] next-generation networks."

Inmarsat believes that changes in the way that the L-Band is shared on a global basis could provide benefits for *everyone* involved. Unfortunately, the solution is nowhere near as simple or as quick as MSV makes it seem. The L-Band is shared by approximately twenty different spacecraft, and a change in how the spectrum is used in one region of the world (*i.e.*, over North America) can have profound effects on L-Band systems that operate in Europe, Asia and Africa, and require the consent of those systems. Inmarsat cannot unilaterally require a host of other operators to change the way they use the L-Band simply to accommodate MSV's

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For simplicity, Inmarsat refers to the nominal location of this spacecraft, rather than the precise 52.75° W.L. location where it will be operated.

I-3 is being relocated to 142° W.L to replace an I-2 spacecraft that is running out of fuel.

See STA Grant, File No. SES-STA-20051222-01788 (January 18, 2006) (related to SkyWave); STA Grant, File No. SES-STA-20051223-01790 (January 18, 2006) (related to Satamatics).

⁵ MSV Petition at 2-3.

⁶ MSV Petition at 3.

business needs, and it is not realistic to expect (as MSV suggests) that such a global realignment of the L-Band could occur in the next six months.⁷

Putting aside the impracticalities of implementing MSV's requested relief, this is not the appropriate forum for addressing MSV's L-Band spectrum concerns. As the Commission has repeatedly recognized, the international spectrum negotiation process established under the Mexico City MOU is the correct forum for addressing how the L-Band is divided and shared among different MSS systems. Moreover, the Commission has long held that the types of DISCO II considerations that MSV attempts to invoke—concerns whether there is adequate L-Band spectrum for MSV's own system—are not legitimate considerations in L-Band licensing decisions, but rather should be addressed in the Mexico City MOU process. Unfortunately, MSV abandoned that MOU process over six years ago, believing that doing so might help it in international spectrum negotiations and keep other L-Band systems from gaining access to the United States market.

To Inmarsat's knowledge, there have been no interference problems with the manner in which SkyWave's or Satamatics' service has been provided to date, or with the

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⁷ *Cf.* MSV Petition at 19.

SatCom Systems, Inc., et al., 14 FCC Rcd 20798, 20802-20803 ¶ 8 (1999) ("TMI Market Access Order"). That is also the process where any issues MSV may have with respect to the use of global beams to support longstanding Inmarsat service to ships should be addressed. *Id.*

⁹ *Id.* at 20813 \P 30.

TMI Market Access Order, 14 FCC Rcd at 20813-20814 ¶¶ 30-32. The Commission's own account of events confirms that MSV ended the MOU process. See Brief for Appellee (FCC), AMSC Subsidiary Corporation v. FCC, Case No. 99-1513, p. 34-35 (D.C. Cir. May 17, 2000) (Public Copy) ("One is reminded of the man who killed his parents and asked for mercy because he was an orphan. As AMSC acknowledges in its brief . . . it was AMSC that vetoed the proposed extension of the operating agreement, despite the absence of any immediate interference problem, believing it was better strategically to force the issue of how to deal with the spectrum shortage.") (emphasis added). Cf. MSV Petition at 18, n.38.

manner in which those services are proposed to be continued. There will be no interference issue as a result of the provision of service over I-4 because, in the absence of a new spectrum sharing agreement among the L-Band operators, Inmarsat will operate I-4 within the technical envelope under which Inmarsat has successfully coexisted with MSV for almost a decade without causing harmful interference. Thus, grant of these Applications will not adversely affect MSV in any manner whatsoever.

Granting MSV's requested relief by (i) withholding authority until the L-Band is rechannelized to accommodate MSV's uncoordinated, next-generation spacecraft, ¹¹ or (ii) resolving the current dispute between MSV and Inmarsat over a portion of the L-Band, would be inconsistent with the Commission's long-established policy in the L-Band that such matters "are best addressed in the L-band coordination process." Moreover, it would contravene United States WTO obligations to use the Commission's licensing processes to provide MSV and its affiliate, the Canadian-licensed MSV Canada, with leverage in international spectrum negotiations, ¹³ or to treat Inmarsat differently than the Commission treated MSV *twice* last year when it authorized MSV to launch uncoordinated L-Band spacecraft.

Inmarsat therefore respectfully requests that the Commission promptly grant the Applications without any conditions, other than the customary condition that, in the absence of an L-Band spectrum sharing agreement, operations must be conducted on a non-harmful interference basis.

¹¹ See MSV Petition at 2.

COMSAT Corporation d/b/a Comsat Mobile Communications, et al., 16 FCC Rcd 21661, 21698-21699 ¶ 72 (2001).

See, e.g., TMI Market Access Order, 14 FCC Rcd at 20813 ¶¶ 30-31 ("AMSC requests that we keep foreign carriers out of the U.S. market long enough for AMSC to use its monopoly power over U.S. customers to increase its traffic so significantly that it justifies its increased spectrum assignment.").

II. THERE IS NO INTERFERENCE ISSUE

A. Operation of I-4 Will Not Increase Interference to MSV

Once again, MSV fails to provide any *technical analysis* to support its assertions that using I-4 to provide the same services previously provided over I-3 would adversely affect the interference environment under which MSV and Inmarsat currently operate, and have operated for years.¹⁴ Thus, MSV again fails to meet its burden to prove that grant of requested authority is *prima facie* contrary to the public interest,¹⁵ and to substantiate its interference allegations with more than mere speculation.¹⁶ Commission precedent is clear that neither Inmarsat, SkyWave nor Satamatics needs to prove a negative—that there will *not* be interference.¹⁷

In contrast, the Applications provide a full technical description of the services that have been transitioned from I-3 to I-4, including all of the technical information required by Part 25 of the Commission's Rules. Furthermore, the Applications seek to (i) provide the same services as are provided today, (ii) use the same mobile earth terminal types as always have been

Comments of MSV, File No. SES-STA-20051216-01760 et al. (filed Dec. 28, 2005) ("MSV

E&E STA Comments").

MSV has similarly failed to make such a demonstration in nine other pleadings it has filed against I-4. *See* (1) MSV SkyWave Petition; (2) MSV Satamatics Petition (3) MSV MVS BGAN Petition; (4) MSV Telenor BGAN Petition; (5) MSV FTMC BGAN Petition; (6) MSV Stratos BGAN Petition; (7) MSV Petition to Hold in Abeyance or Grant with Conditions, File No. SES-MFS-20051123-01626 *et al.* (filed Jan. 6, 2006) ("MSV Telenor E&E Petition"); (8) MSV Petition to Hold in Abeyance or Grant with Conditions, File No. SES-MFS-20051122-01614 *et al.* (filed Jan. 6, 2006) ("MSV Stratos E&E Petition"); (9)

¹⁵ 47 C.F.R § 25.154(a)(4).

See, e.g., Revision of Part 15 of the Commission's Rules Regarding Ultra-Wideband Transmission Systems, 18 FCC Rcd 3857, 3909 ¶ 135 (2003).

AMSC Subsidiary Corporation, 8 FCC Rcd 4040, 4043 ¶ 17 (1993) (dismissing COMSAT's concerns about potential interference from the MSV (AMSC) into Inmarsat because "[a]pplicants . . . are not required to demonstrate non-interference to other satellite systems . . . as a condition to receiving a license").

used, (iii) operate within the same technical envelope as those services have been provided for years, and (iv) use the same portions of the L-Band that Inmarsat has been using to serve the United States for years. In any event, contrary to MSV's view, 18 "the burden of resolving potential interference does not rest solely on one party." 19

Inmarsat has previously explained that the technical envelope within which it has been operating, and within which it intends to continue to operate, is the one established in the 1992 bilateral agreement between the United States and the United Kingdom²⁰ with respect to the MSV and Inmarsat MSS networks.²¹ That agreement established interference protection criteria in the form of carrier to interference (C/I) levels that Inmarsat and MSV have agreed to accept from each other. Nothing in any subsequent spectrum sharing agreement changed the technical protection criteria established between MSV and Inmarsat. MSV argues that the 1992 agreement is "merely a sharing matrix based on the I-3 satellite beam configuration which does not address the key technical parameters of L band operations on the Inmarsat 4F2 satellite."²² What MSV fails to recognize is that the 1992 agreement also contains detailed interference calculations which define the levels of interference that MSV and Inmarsat agreed to accept from each other's MSS networks.²³ The sharing matrices contained in that agreement were *based on* those calculations and agreed interference protection levels. It is a straight-forward matter for

¹⁸ MSV Petition at 11.

¹⁹ *AMSC Subsidiary Corporation*, 8 FCC Rcd at 4043 ¶ 17.

The United Kingdom has assumed the international spectrum agreements that Inmarsat entered into prior to its privatization.

²¹ See Inmarsat Telenor BGAN Opposition at 6.

MSV Petition at 15, n.34.

See Summary Record, Fifth Inmarsat/USA Meeting L-Band Satellite Coordination, Washington, D.C. 22-25 September 1992.

Inmarsat to provide MSV with the same level of protection from Inmarsat-4 operations, and Inmarsat has repeatedly assured that it will do so.²⁴

MSV's pejorative mischaracterization of I-4 as "uncoordinated" and "simply a rogue satellite that has no internationally recognized rights" ignores the facts and the governing law. As an initial matter, Inmarsat's MSS network at 54° W.L. was coordinated with MSV and notified to the ITU for inclusion in the Master International Frequency Register. The relocation of that network to 53° W.L. (one degree further away from MSV) has no adverse impact on MSV. Nor does anything in the ITU Radio Regulations limit the "make" or the "model" of the spacecraft that Inmarsat may employ in its ITU registered MSS network. Rather, the ITU process provides for the coordination of the use of specified radio frequencies within certain delineated technical parameters. Inmarsat may therefore operate the I-4 satellite under the parameters for its coordinated MSS network, as long as Inmarsat respects the protection criteria agreed with MSV.

about the scope of that agreement.

the fact that the 1999 spectrum sharing agreement has expired moots MSV's allegations

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See, e.g., Inmarsat Opposition, File No. File No. SES-MFS-20051123-01634 at 13 (Jan. 26, 2006) ("Inmarsat MVS BGAN Opposition"); MSV mischaracterizes the MOU proceedings when it speaks of "Inmarsat's previous commitment to abide by the 1999 SSA." MSV Petition at 17. That several operators at one time may have expressed an interest in extending the 1999 spectrum sharing agreement became irrelevant once MSV refused to do so. The 1999 agreement required unanimous consent to extend it. Once MSV refused to extend, the 1999 spectrum sharing agreement expired and, over six years later, no longer governs the rights or responsibilities of MSV, Inmarsat or the other L-Band operators.
 Inmarsat does not agree that the frequency assignments made in the now-expired 1999 spectrum sharing agreement under the Mexico City MOU were limited for use by, among other things, specific "earth stations and services (carrier types and emission levels)." See MSV Petition at 5. Nothing in the 1999 spectrum sharing agreement says any such thing. It was simply a matrix of particular spectrum segments and beam combinations. In any event,

²⁵ MSV Petition at 10.

The ITU Radio Regulations expressly contemplate that changes in the equipment that is used to provide a service, and changes in a service itself, *do not require any further coordination* either: (i) when the technical characteristics of a "new or modified frequency assignment . . . are within the limits of those of a frequency assignment which has previously been coordinated; or (ii) when the characteristics of an existing assignment are changed in such a way as not to increase interference to or from, as appropriate, the assignments of other administrations." ²⁶ In this case, I-4 will continue to operate within the same technical umbrella that Inmarsat last coordinated with MSV in 1992 and Inmarsat thus will be able to continue to provide the same agreed level of interference protection to MSV, even though Inmarsat may be using a different piece of "hardware" in outer space. Contrary to MSV's claim, nothing in the Mexico City MOU constrains the operation of a new spacecraft within the technical umbrella established for its predecessor. ²⁷

With respect to the absence of a spectrum sharing agreement under the Mexico City MOU, the Commission itself has acknowledged that it was MSV's predecessor who made the strategic decision not to renew or extend the last L-Band coordination agreement that expired in December 1999, ²⁸ deciding that doing so might help it in international spectrum

See ITU Radio Regulations, Appendix 5 (Rev. WRC-03), AP-5-2 at ¶ 6(b), (c).

See infra 20-21 (demonstrating that I-4 meets the definition of "replacement satellite").

Contrary to what MSV argues, the fact that the parties to the MOU have operated on a non-harmful interference basis since the 1999 spectrum sharing agreement expired, and have periodically informed each other about changes in their operations, does not mean that the 1999 agreement "continues to effectively govern the operations of L band MSS providers." MSV Petition at 13. Without an agreement in place, there is no specific spectrum assignment to any party; thus, no party has anything to "loan" or "recall." In fact, that "there is no permanent assignment of specific spectrum to any L-band operator" was confirmed in the *COMSAT Order. See infra* at 18 & n.59.

negotiations.²⁹ MSV's withdrawal from the Mexico City MOU process in 1999 left other MSS operators with no practical alternative other than ensuring, as they have since December 1999, that they conduct L-Band operations over North America on a non-harmful interference basis. Thus, since the expiration of the 1999 L-Band spectrum sharing agreement, Inmarsat has permissibly operated on a co-channel basis with MSV, without causing harmful interference,³⁰ in accordance with ITU Radio Regulations,³¹ and in accordance with a long line of Commission precedent.³²

Despite the impasse that has existed in the L-Band ever since, and as detailed at length in Inmarsat's earlier pleadings, ³³ Inmarsat has made considerable efforts to coordinate the full scope of I-4 operating parameters that potentially could be employed. ³⁴ Inmarsat's latest efforts, last summer, were rebuffed because MSV wishes to address other commercial business first. MSV's unwillingness to fulfill its obligations under the Mexico City MOU, and coordinate

See Brief for Appellee (FCC), AMSC Subsidiary Corporation v. FCC, Case No. 99-1513, p. 34-35 (D.C. Cir. May 17, 2000) (Public Copy) ("One is reminded of the man who killed his parents and asked for mercy because he was an orphan. As AMSC acknowledges in its brief . . . it was AMSC that vetoed the proposed extension of the operating agreement, despite the absence of any immediate interference problem, believing it was better strategically to force the issue of how to deal with the spectrum shortage.") (emphasis added). *Cf.* MSV Petition at 18, n.38.

To Inmarsat's knowledge, there has not been any harmful interference from Inmarsat into MSV (co-channel or non-co-channel) from "high speed data" or any other Inmarsat services, and Inmarsat and MSV have routinely resolved the typical, occasional operational issues that arise between spacecraft that share spectrum.

³¹ ITU Radio Regulation No. 4.4 (operations on a non-harmful interference basis).

³² See MSV 101° Order at ¶ 59; MSV 63.5° Order at ¶ 39. See also Exhibit A (listing ten additional Commission cases in which the relevant condition in the absence of an L-Band spectrum sharing agreement is that "harmful interference" not be caused, rather than "any" interference).

See, e.g., Inmarsat E&E STA Response at 9-11.

Inmarsat similarly has made considerable efforts to coordinate the operation of its I-2 spacecraft at new orbital locations as well. *See* Inmarsat E&E STA Response at 9-11.

in good faith with Inmarsat, provides Inmarsat no alternative but to continue to operate in accordance with long-standing Commission policy and ITU Radio Regulations.

MSV's vague assertions about the aggregate operations of I-4³⁵ again disregard Inmarsat's technical data and explanation how the spacecraft actually will be operated. Almost any spacecraft is theoretically capable of being used in a manner that could cause harmful interference to another spacecraft. The key parameters in analyzing interference potential are the technical characteristics of the specific services actually to be provided. Indeed, Inmarsat's prior-generation I-3 satellite was capable of causing interference, but Inmarsat constrained I-3's operations to ensure that harmful interference did not occur.

Contrary to MSV's assertions,³⁷ the technical characteristics and service offerings that are the subject of these Applications are clearly set out in the dozens of pages comprising the Schedule S that is appended to the Applications. Paramount among the salient technical characteristics is the fact that the EIRP spectral density of the services to be continued on I-4 (thus, the potential co-channel emissions generated toward MSV) will not, either in the uplink direction or in the downlink direction, exceed the EIRP spectral density under which Inmarsat has successfully coexisted with MSV for almost a decade. MSV conveniently ignores this critical fact—how the available power on the spacecraft will be spread over the bandwidth.³⁸

³⁵ MSV Petition at 10, 16-17.

³⁶ See Inmarsat Telenor Opposition at 21-22; Inmarsat STA Response at 5.

³⁷ See MSV Petition at 3.

See MSV Petition at 14. Thus, the higher power available on I-4 (relative to the I-3 spacecraft it has replaced) that MSV cites will not be used to increase EIRP spectral density. Rather, it will be used to support additional MSS users and to support the provision of new BGAN services along with the Inmarsat services that have already been transitioned over to I-4 (such as those that SkyWave and Satamatics seek to continue). Although BGAN is not the subject of this proceeding, it bears noting that the EIRP spectral density of the BGAN

MSV similarly ignores the aspects of I-4 that make it more "interference friendly" than the I-3 satellite that it has replaced: (i) its narrower spot beams with steeper antenna side lobes reduce interference to adjacent areas, and (ii) its higher gain spot beams allow the use of terminals that radiate less than one-tenth the power of existing Inmarsat high speed data terminals.³⁹

MSV is likewise wrong that I-4 is more susceptible to interference than I-3. As an initial matter, the global beam on I-4 has the same receive sensitivity as the global beam on I-3. The regional and narrow spot beams on I-4 have better receive performance than I-3, as well as better side-lobe roll-off. Overall, the sensitivity of I-4 to interference from MSV's co-channel MSS operations is not much different than it is today with I-3.

carriers will be no higher than the carriers with the highest EIRP density that Inmarsat has successfully employed for years.

- Nor was there anything in the last spectrum sharing agreement that required Inmarsat to conduct further coordination to address non-co-channel interference from Inmarsat's "High Speed Data" services. *Cf.* MSV Petition at 13 & n.27. If MSV truly had the concerns it expresses now, *see id.*, those issues, which were discussed in 1998, would have been addressed in the context of the 1999 spectrum sharing agreement which superseded the 1998 agreement. They were not. MSV's attempt to rewrite history almost seven years later therefore is unavailing.
- MSV's citation to the February 2003 *ATC Order* is inapposite. MSV Petition at 16, n.35. The analysis which MSV cites considered the potential impact on an I-4 narrow spot beam of sharing spectrum in the immediate vicinity of North America with the current generation MSV spacecraft. Those beams are not the subject of these Applications. Moreover, the Commission's analysis indicates that Inmarsat will not be able to employ co-channel sharing only on narrow spot beams in the *immediate vicinity* of North America. Whether I-4's narrow spot beams will in fact suffer unacceptable interference from MSV depends entirely on how Inmarsat chooses to operate its narrow spot beams. Inmarsat is of course fully aware of the potential interference impact of MSV's current-generation operations and will plan its operations in order to avoid unacceptable interference.

Contrary to what MSV argues, see MSV Petition at 16, n.35, the 37 dBW aggregate out-of-band interference limit, allocated in the I-4 design and explained in more detail in Inmarsat's February 3 2005 ex parte submission, remains valid. See Letter from John P. Janka to Marlene H. Dortch, IB Docket No. 01-185 et al. (filed February 3, 2003) (attached paper entitled "ATC and Overloading of the I4 Satellites"). MSV has misinterpreted the limit as well as over-estimated the level of interference likely to be produced by its current-generation system. See MSV Petition at 16, n.29.

In sum, Inmarsat has committed to providing these services within the technical umbrella under which they have been provided to the United States for years, and over the same frequency bands, and MSV has failed to demonstrate that Inmarsat's continuing to do so presents an interference threat. The Commission therefore should simply authorize the continued provision of SkyWave's and Satamatics' services with a condition that service must be provided on a non-harmful interference basis in the absence of an L-Band spectrum sharing agreement.⁴¹

B. MSV's Remaining Allegations Are Unrelated to the Operations of Inmarsat-4

Because MSV cannot make a technical interference showing, MSV attempts to characterize unrelated issues within the "interference" rubric:⁴² (i) MSV complains about spectrum Inmarsat is using that MSV would like to use, which is the subject of an international spectrum dispute; (ii) MSV misconstrues the way in which Inmarsat has said it would operate I-4; and (iii) MSV takes issue with Commission precedent that, in the absence of an L-Band spectrum sharing agreement, Commission policy does not restrain L-Band operators to specific L-Band frequency assignments, but requires operations on a non-harmful interference basis. None of these arguments has any bearing on Inmarsat's continued provision of longstanding Inmarsat services over I-4.

1. The Spectrum Dispute Has Nothing to Do With Inmarsat-4

As MSV notes, there is a longstanding dispute about the use of certain portions of the L-Band that MSV has not used for years, but which Inmarsat demonstrably uses to serve the United States and needs to continue to use. MSV indicates that it wishes to modify its own

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Consistent with ITU Radio Regulation No. 4.4 and Commission precedent, the relevant condition in this type of a case is that "harmful interference" not be caused, rather than "any" interference, as MSV mistakenly has suggested. *See* Exhibit A.

These are MSV's first and third claimed sources of interference. MSV Petition at 12-13, 17-19.

operations to begin testing a hybrid ATC/MSS system in those portions of the L-Band spectrum that Inmarsat currently uses. 43 MSV claims that if MSV started using this part of the L-Band, interference would result.

As an initial matter, these circumstances have nothing whatsoever to do with the new I-4 spacecraft—the same result would have occurred had MSV unilaterally modified its own operations while I-3 continued to operate. Thus, this is not a type of "interference presented by Inmarsat's new satellite." Rather, it is a dynamic created solely by MSV's own actions, and it is a reason for MSV to return to the international spectrum negotiation table where the Mexico City MOU provides for these matters to be resolved. Moreover, any such interference problem would violate MSV's own obligations to operate on a non-harmful interference basis. 45

Second, MSV's argument presumes the outcome of a spectrum dispute in MSV's favor—that MSV has the right to commence operations in a specific part of the L-Band and in the absence of an L-Band spectrum sharing agreement. As discussed below, international L-Band spectrum disputes are appropriately resolved under the resolution process established under the Mexico City MOU.⁴⁶ Similarly, the appropriate forum for designating specific L-Band

⁴³ MSV Petition at 12.

MSV Petition at ii. This is MSV's first alleged interference scenario. Inmarsat does not in any way "admit" that it is causing or has caused interference by using the disputed spectrum.

⁴⁵ *TMI Market Access Order*, 14 FCC Rcd at 20814 ¶ 34.

Inmarsat E&E STA Response at 12-13; Inmarsat Telenor BGAN Opposition at 12 (citing *TMI Market Access Order*, 14 FCC Rcd at 20814 ¶ 34, 20826 ¶¶ 63-64; *COMSAT Order*, 16 FCC Rcd at 21698-21699 ¶ 72, 21712 ¶ 115; *MSV* 63.5° *Order* at ¶ 23; *MSV* 101° *Order* ¶ 34).

MSV mischaracterizes Inmarsat's 2005 securities filing in claiming that Inmarsat has acknowledged MSV's rights in this dispute. MSV Petition at 6, n.12. Inmarsat simply acknowledged the existence of MSV's claim, but then explained that Inmarsat has rejected that claim, and that Inmarsat believes the appropriate forum for addressing that matter is "the

segments to a specific operator is in multi-lateral negotiations pursuant to the MOU. Nothing in the Commission's grant of the Applications needs to decide the spectrum dispute raised by MSV or make "permanent" any use of L-Band spectrum. Rather, the Commission can condition the grant of authority on the outcome of international spectrum negotiations.

2. MSV Has Misrepresented Inmarsat's Stated Intentions

There is no validity to MSV's claim that Inmarsat "propos[es] to operate throughout the entire MSS L band." To the extent there ever was any question about the bands Inmarsat intends to use, Inmarsat has clarified that I-4 will use the same portions of the L-Band that Inmarsat has been using to serve the United States for years. MSV simply ignores Inmarsat's repeated commitments to provide service over the I-4 using the same portions of the L-Band over which it successfully has provided services to the United States for years. This commitment not to expand the portion of the band over which Inmarsat currently provides service to the United States, in the absence of a new spectrum sharing agreement, renders MSV's concerns moot.

next round of multilateral co-ordination meetings of the North American operators." *Inmarsat April 2005 Form F-20* at 10.

Inmarsat does not agree with MSV's recitation (at various places in MSV's Petition) of the history of spectrum assignments under the Mexico City MOU, its characterization of the terms and conditions under which various operators used or use portions of the L-Band, its assertions whether a specific portion of the L-Band was ever "loaned," its assertions about which Inmarsat satellites are covered by the MOU, or its assertions that Inmarsat somehow is improperly holding on to spectrum that Inmarsat is and has been using.

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⁴⁷ MSV Petition at 17.

⁴⁸ See e.g., Inmarsat MVS BGAN Opposition at 4; Inmarsat E&E STA Response at 5.

⁴⁹ *Id*.

3. MSV Misconstrues Commission Policy That Applies in the Absence of a Spectrum Sharing Agreement

Inmarsat's commitment to restrain its L-Band spectrum usage, however, does not alter the consistent Commission policy that has governed L-Band spectrum assignments over the last six years. All of the Commission's L-Band authorizations since 1999, including those of Satamatics and SkyWave, contain two different conditions (i) one allowing service *potentially* to be provided anywhere in the L-Band (1525-1544 and 1626.5-1645.5 MHz) *on a non-harmful interference basis*, in the absence of a spectrum sharing agreement, and (ii) one constraining the licensee to the "portions" on the band specified in a spectrum sharing agreement when such an agreement is in existence. ⁵⁰

The genesis of these conditions is the October 1999 *TMI Market Access Order*. In that case, the Commission explicitly considered the impact of the expiration of the 1999 spectrum sharing agreement, when addressing how operations would occur "without an agreement assigning each of the five operators L-band frequencies." In other words, the Commission clearly understood that when the 1999 agreement expired on December 31, 1999, so, too, would the frequency assignments embodied in that agreement. That makes sense, because the only thing the 1999 spectrum sharing agreement did was to assign specific band

See Exhibit A (providing ten examples of L-band authorizations from 1999-2005 that demonstrate this licensing policy). MSV has specifically retracted its prior proposal that the Commission exclude certain frequency bands from the grant of authority, and thereby effectively set them aside for MSV and MSV Canada's use. MSV Telenor BGAN Petition at 1-2, n.1.

TMI Market Access Order at 20814 ¶ 33 (operations "will be on a non-interference basis until a future operator-to-operator agreement is reached."); see also Mobile Satellite Ventures Subsidiary LLC, 19 FCC Rcd 4672, 4675 ¶ 8 (2004) (in the absence of a continuing annual operator-to-operator coordination agreement . . . operation . . . will be on a non-harmful interference basis.).

segments to specific operators.⁵² The licensing conditions that the Commission adopted to cover the absence of a spectrum sharing agreement provided the possibility for operations anywhere in the 33 MHz of L-Band uplink or downlink spectrum, as long as those operations are conducted on a non-harmful interference basis.⁵³

The Court of Appeals for the D.C. Circuit had reason to examine those licensing conditions, when MSV's predecessor challenged the TMI Market Access Order as an impermissible modification of MSV's license, because it allowed TMI to operate in bands previously coordinated for MSV's exclusive use. In denying MSV's challenge, the court provided the following explanation of the licensing framework in the TMI Market Access Order:

> Although METs would be licensed to receive MSS from the TMI satellite throughout the Upper L-band, their licenses would be conditioned upon receiving service only in those portions of the Upper L-band coordinated for the use of the TMI satellite, and not on spectrum coordinated for [MSV].

This license condition comes into play, however, only when there is a coordination agreement in effect. . . . If no new coordination agreement was reached, [MSV] argued, then the new METs would be free to operate anywhere in the band.

The Commission responded to this concern by further conditioning the new earth station licenses upon non-interference in the absence of any continuing operator-to-operator agreement in the L-Band.⁵⁴

In other words, the court recognized that in permitting TMI's entry into the United States market in 1999, the Commission allowed L-Band operators potentially to operate on frequencies that

As explained above, the 1999 SSA did not establish the technical umbrella under which MSV and Inmarsat are able to coexist with one another. That was done in a 1992 bilateral agreement.

TMI Market Access Order at 21712 ¶ 115(d).

AMSC Subsidiary Corp. v. FCC, 216 F.3d 1154, 1158 (D.C. Cir. 2000) (emphasis added).

previously had been coordinated for MSV, because the spectrum assignments established in the 1999 spectrum sharing agreement were, and are, no longer in effect.⁵⁵

MSV's attempts to characterize this discussion by the court as *dicta* is unavailing. It was a fundamental underpinning of MSV's appeal that TMI was free, under the Commission's licensing conditions, to operate in bands not assigned to TMI in the 1999 spectrum sharing agreement. MSV's appeal was based on the theory that TMI's ability to operate in "MSV's spectrum" constituted an impermissible modification of MSV's license. In addressing that argument, the Commission and the court all thought the same thing—that TMI was not constrained to using the 1999 band segments after the expiration of that agreement.

Indeed, if the Commission had intended to constrain operations to the spectrum last designated in the 1999 spectrum sharing agreement, there would have been no debate about what "operation on a non-harmful-interference basis" means or how the Commission would implement or enforce this type of license condition.⁵⁶ Rather, the Commission simply would have specifically constrained the bands in which TMI service could be provided to the portions designated for TMI's usage in the 1999 spectrum sharing agreement. Notably, the Commission did not do so.

The Commission followed this same course, and went through the same type of debate with MSV, in granting market access to the Inmarsat system in the 2001 *COMSAT Order*.

⁵⁵ *Id.* at 1158-1159 (citing *TMI Market Access Order*, 14 FCC Rcd at 20826 ¶¶ 63-64).

See TMI Market Access Order at 21697, 21699 ¶¶ 68, 72. MSV voiced its concern to the Commission that lack of an agreement "could take away lower L-band spectrum coordinated for [MSV's] system in the 1999 operator-to-operator agreement" and that, "under these circumstances," the Commission should "explain what operation on a non-interference basis means or how the Commission will implement or enforce this license condition." *Id.* at 21997 ¶ 68. The Commission rejected MSV's argument, stating: "We believe that the non-interference requirement promulgated in our rules and in the ITU Radio Regulations is sufficiently clear and needs no further explanation" *Id.* at 21699 ¶ 72.

MSV's claim that the *COMSAT Order* constrained Inmarsat distributors to the frequency assignments that expired when the last spectrum sharing agreement terminated on December 31, 1999⁵⁷ is belied by the express language of that decision. The Commission recognized that two years had passed since the TMI decision, and that there still was no spectrum sharing agreement. Even in the face of these different facts, the Commission expressly rejected MSV's request to constrain Inmarsat's L-Band distributors to using the frequency assignments last made in an expired spectrum sharing agreement:

[U]nlike the *TMI Order*, we cannot state that Inmarsat will be operating on frequencies coordinated for it and that there is no chance of interference. The absence of [an operator-to-operator spectrum sharing] agreement, however, is not a sufficient basis upon which to deny the pending applications.

* * *

[T]he absence of an operator-to-operator agreement since 1999 has not led to any complaints of harmful interference by any of the five L-band operators. . . . This experience provides additional support for our belief that spectrum limitation concerns are best addressed in the L-band coordination process.

* * *

[T]here is no permanent assignment of specific spectrum to any L-band operator. Thus, no operator can assert any claim with respect to a specific piece of spectrum.⁵⁸

Recognizing that the last spectrum sharing agreement had expired, the ordering clauses in the *COMSAT Order* both (i) provide for the *possibility* of service anywhere in L-Band (1525-1544 and 1626.5-1645.5 MHz) *on a non-harmful interference basis*, in the absence of a spectrum

⁵⁷ MSV Petition at 12.

COMSAT Order, 16 FCC Rcd at 21698-21699 ¶¶ 71-73. MSV claims, without providing any support, that "in the view of everyone except Inmarsat," Inmarsat is expected to "return" the disputed spectrum to MSV "upon demand." MSV Petition at 6. However, as the COMSAT Order indicates, in the absence of a spectrum sharing agreement, "no operator can assert any claim with respect to a specific piece of spectrum;" thus, no operator and has the right to "demand" the return of any piece of spectrum.

sharing agreement, and (ii) once such an agreement is in existence, constrain the licensee to the "portions" on the band specified for its use in that spectrum sharing agreement.⁵⁹ That the Commission did not constrain the frequencies that could be used in the absence of a spectrum sharing agreement is reinforced by the express recognition that Inmarsat distributors were not being limited to operation on "frequencies coordinated for [Inmarsat]" in that circumstance.⁶⁰

These are precisely the conditions that the Commission included in the Satamatics and SkyWave licenses authorizing their operation of Inmarsat D+ terminals with I-3.⁶¹ MSV is wrong that these ordering clauses constrain L-Band uses to the segments last assigned in the 1999 spectrum sharing agreement. MSV's reading ignores the express text in the *COMSAT Order*, discussed above, as well as the plain language of the ordering clauses.

⁵⁹ *Id.* at 21712 ¶¶ 115(c)-(d).

Id. at 21698 ¶¶ 71, 72 & n.175. Paragraph 115(c) of the COMSAT Order – limiting spectrum assignments to "the most recent annual L-Band operator-to-operator agreement" – is fully consistent with this interpretation. Paragraph 115(c) provides a mechanism for conforming the license terms to each subsequently entered into spectrum sharing agreement under the MOU.

As Inmarsat has indicated in this proceeding, there has been no change for years in the amount of spectrum or the specific frequencies that Inmarsat uses to serve the United States, which is largest telecommunications market in the world. And Inmarsat intends to serve the United States from I-4 over the very same portions of the L-Band that Inmarsat has been using to serve the United States. For purposes of securities disclosure, it therefore was entirely accurate for Inmarsat to characterize its North American L-Band spectrum as effectively "frozen" for all intents and purposes. *Inmarsat April 2005 Form F-20* at 7, 48. But that does not mean, as MSV asserts, *see* MSV Petition at 6, n.12, that the 1999 spectrum sharing agreement is still in effect, or that it still governs the rights or obligations of the parties. To the contrary, Inmarsat's obligations to operate on a non-harmful interference basis continue to govern.

Satamatics, Inc. License (Call Sign E020074, Special Condition 5899); SkyWave Mobile Communications, Corp. License (Call Sign E030055, Special Condition 5899).

In any event, the simple fact is that Inmarsat will not, as MSV alleges, "operate on each and every frequency in the L band." The portions of the L-Band that will be used to provide service over I-4 are the *very same portions that Inmarsat is using to serve the United States today* under the very same technical umbrella, including the same EIRP spectral density levels, under which Inmarsat has successfully coexisted with MSV for years. Thus, any debate about whether Inmarsat will operate on all parts of the L-Band is moot.

III. A NEW COORDINATION AGREEMENT IS NOT A PRE-CONDITION TO L-BAND OPERATIONS

Commission precedent is clear that the successful negotiation of an international coordination agreement is not a prerequisite to commencing, or even continuing, operations in the L-Band.⁶³ This very policy was affirmed twice last year, in January and May, when the Commission authorized MSV to operate two next-generation L-Band spacecraft (i) with fundamentally different technical parameters from MSV's existing spacecraft, and (ii) with operations that had not been coordinated, and which today have yet to be coordinated.⁶⁴ In MSV's own words:

The satellites will be among the most powerful commercial satellites ever built. Each satellite's primary antenna will be twice as large as any previous commercial satellite, and the satellites will have significantly more power available over the U.S. compared to any other MSS system providing or seeking to provide service to the United States ⁶⁵

That these new MSV spacecraft are fundamentally different than the spacecraft with which Inmarsat has coexisted for ten years was no barrier to MSV being authorized. In fact, MSV was

⁶³ See id.; MSV 101° Order at ¶ 34; MSV 63.5° Order at ¶ 23.

⁶² MSV Petition at 17.

⁶⁴ MSV 101° Order at ¶ 34; MSV 63.5° Order at ¶ 23.

⁶⁵ MSV Petition at 2.

authorized to employ carriers that are up to 1000 times wider than MSV's existing carriers.⁶⁶ Moreover, MSV was allowed to add an entirely new continent to its service area (South America), and one new L-Band MSV spacecraft will be located *approximately 40° closer to* Inmarsat's L-Band satellite than MSV ever has operated before.⁶⁷

In authorizing the operations of "the most powerful commercial satellites ever built," the Commission acknowledged that no coordination agreement was in place, ⁶⁸ but simply required that MSV operate on a non-harmful interference basis. The Commission explained that MSV may operate its new, uncoordinated satellites on a non-harmful interference basis until such time as it successfully completes coordination. ⁶⁹ The Commission further reaffirmed that, in the absence of a coordination agreement, all L-Band satellite operators "have continued to coordinate their operations informally and have been operating interference-free." ⁷⁰

MSV is wrong that the January and May 2005 Commission orders allowing MSV to launch and operate uncoordinated next-generation spacecraft can be distinguished because launch of those spacecraft is years away. Nothing in those decisions presumed that MSV would be able to complete coordination prior to launch, and there is no condition requiring that MSV effectuate coordination prior to operating either new satellite, even when one will be about 40° closer to Inmarsat than MSV currently operates. Indeed, by MSV's own admission, its new

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⁶⁶ See Inmarsat Telenor BGAN Opposition at 22-24.

⁶⁷ MSV 101° Order at ¶ 1; MSV 63.5° Order at ¶ 1.

⁶⁸ MSV 101° Order at ¶ 34; MSV 63.5° Order at ¶ 23.

⁶⁹ MSV 101° Order at ¶ 59; MSV 63.5° Order at ¶ 39.

⁷⁰ MSV 101° Order at ¶ 34; MSV 63.5° Order at ¶ 23.

⁷¹ MSV Petition at 18, n.39.

spacecraft are well ahead of the Commission's milestone schedule, with operations now only three years away.⁷²

Moreover, those two MSV decisions are consistent with Commission precedent authorizing the immediate provision of uncoordinated L-Band services over the current MSV spacecraft, in frequencies designated for Inmarsat's exclusive use over the United States. In 2002, Inmarsat raised interference concerns related to OuterLink, an earth station applicant proposing to provide certain L-Band MSS services using MSV's satellite at 101° W.L. in a portion of the lower L-Band that was coordinated for Inmarsat's sole use over the United States. 73 Significantly, OuterLink's services had not been coordinated between Inmarsat and MSV. Inmarsat expressed concerns that grant of OuterLink's application could allow OuterLink to claim interference protection from Inmarsat's operations, and thereby limit Inmarsat's use of the spectrum last assigned to it in international coordination negotiations. Thus, Inmarsat requested that OuterLink instead use spectrum that MSV had already coordinated with Inmarsat, or else that its application be denied. In this regard, Inmarsat specifically characterized OuterLink's proposed operations as "inconsistent with the current state of coordination between Inmarsat and MSV," explained that it had urged MSV (then AMSC) to move OuterLink to spectrum previously coordinated for MSV and MSV Canada, and noted that OuterLink had complained about receiving interference from the Inmarsat system because of the uncoordinated frequencies that OuterLink was using. Thus, Inmarsat expressed concern about the impact of continuing OuterLink services on Inmarsat customers, including the United States Navy.⁷⁴

MSV Petition at 12.

⁷³ *OuterLink, Inc.*, 17 FCC Rcd at 12757 (2002).

Letter from John P. Janka to Thomas S. Tycz, File No. SES-LIC-19980415-00436 (filed Apr. 23, 2002).

Ultimately, recognizing longstanding Commission policy to authorize even uncoordinated services in the L-Band, Inmarsat indicated that it would withdraw its formal objection at the Commission if OuterLink were authorized on a non-interference basis, in the absence of a coordination agreement between Inmarsat and MSV. Consistent with its prior precedent in the L-Band, Commission held to its policy of not requiring coordination as a prerequisite to operating in the L-Band. Rather, the Commission expressly recognized the absence of a coordination agreement between Inmarsat and MSV regarding OuterLink services in its ordering clauses, and permitted OuterLink's operations on a non-harmful interference basis, even though the MSV spacecraft would be providing an *uncoordinated* service in *uncoordinated* frequency bands.

⁷⁵ *OuterLink, Inc.*, 17 FCC Rcd at 12760-12762 ¶¶ 10-12.

Id. at 12763 ¶ 16. The three C/Ku band FSS cases that MSV cites for the proposition that coordination must be achieved prior to receiving operating authority are inapposite and readily distinguishable in any event. See MSV Petition at 10 & n.21. First, as discussed above, Inmarsat's MSS network in the Atlantic Ocean Region has been coordinated, and the operation of the I-4 spacecraft is fully consistent with those coordinated technical parameters, which were successfully used by its predecessor spacecraft for years. Second, none of the three cases involved a frequency band that is subject to the policies under which the subject L-Band services are being provided—those involving the Mexico City MOU. In the L-Band, the Commission authorized the deployment of wholly uncoordinated spacecraft—two of MSV's next-generation satellites—just last year. Third, none involved the provision of services on a replacement satellite at the functionally equivalent orbital location, using the same frequencies, and within the same technical umbrella, under which service had been provided interference free for years and were proposed to continue. Moreover, in the unpublished PanAmSat letter ruling, the Commission did not "refuse" to authorize PanAmSat's C-band FSS operations in the absence of a coordination agreement. PanAmSat expressly agreed to seek "further Commission authority prior to activating the C-band transponders." See Letter from Thomas S. Tycz, Chief, Satellite and Radiocommunication Division, to Joseph A. Godles, SAT-STA-19980902-00057 (Sep. 15, 1998). The BT case is entirely inapposite because the Commission did not even address what would have occurred had the petitioner not withdrawn its objections after reaching a commercial arrangement with the applicant's satellite service provider. Applications of BT North America Inc., 15 FCC Rcd 15603 (2000) ("BT"). The Loral case involved a request to operate a Ku-band spacecraft a mere 0.5° away from an existing Ku-band spacecraft, where co-channel

MSV attempts to justify different treatment of Inmarsat based on the theory that the operation of I-4 "creates uncertainty for the development" of MSV and MSV Canada's next generation MSS systems, which are three years away from launch, claiming that "WTO members may exercise their domestic spectrum and frequency management policies when considering whether to allow foreign-licensed satellites to service the U.S. market." What MSV ignores is that the Commission already has in place a very clear L-Band spectrum management policy, and that its WTO obligations mandate that Inmarsat be treated no less favorably than the U.S.-licensed MSV system, or the Canadian-licensed MSV Canada (fka TMI) system. Thus, MSV is wrong that *DISCO II* allows the Commission to exclude I-4 from the United States market to benefit MSV.

Beginning with its order authorizing market access by TMI in 1999, and consistently through 2005, the Commission has implemented an L-Band policy of simply requiring, in the absence of a spectrum sharing agreement, that service be provided on a non-harmful interference basis, and not requiring that L-Band satellites be coordinated before they are permitted to provide United States service, ⁷⁹ as MSV requests here. In developing this policy, the Commission has expressly rejected "spectrum availability concerns" as a basis for excluding non-U.S. licensed L-Band systems from serving the United States. ⁸⁰ Moreover, the

operation of the two spacecraft was impossible and harmful interference was a certainty. *Loral Orion Services, Inc.*, 14 FCC Rcd 17665 (1999). In the L-Band, as noted above, the operators successfully have been sharing spectrum on a co-channel basis for years, and there is no reason to believe they cannot continue to operate interference free.

MSV Petition at i.

MSV Petition at 9 n.23.

⁷⁹ *Cf.* MSV Petition at ii.

TMI Market Access Order, 14 FCC Rcd at 20814 ¶ 33; see COMSAT Order, 16 FCC Rcd at 21699 ¶ 72 ("spectrum limitation concerns are best addressed in the L-band coordination process").

history of the L-Band makes clear that L-Band operations can be conducted on a non-harmful interference basis, and that the imposition of a "non-harmful interference condition," coupled with the Commission's enforcement authority, has been a more than effective spectrum management tool in the United States. Having provided MSV's next-generation, high-powered, broadband MSS spacecraft the benefit of that policy *twice* within the past year, there is no basis now to suddenly change course and to treat the similarly-situated Inmarsat I-4 spacecraft differently. Granting MSV's request to treat Inmarsat differently would violate the Commission's national treatment and most favored nations obligations under the WTO.

In sum, Inmarsat has done all it reasonably can do to resolve the current L-Band impasse. The record is clear that it is MSV who has refused to fulfill its coordination obligations and honor the commitments the United States made when entering into the Mexico City MOU. Nothing in the ITU Radio Regulations, the United States WTO commitments, or in Commission precedent allows MSV to stymie the continued provision of satellite services by other operators by withholding coordination, and by erecting regulatory roadblocks, as MSV seeks to do here (and in other Commission proceedings) in order to provide greater certainty for the deployment of MSV and MSV Canada's next-generation ATC MSS system. Withholding authority to use I-4 would simply delay the provision of a competitive service to the American public.

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⁸¹ See AMSC v. FCC, 216 F.3d at 1159-1160.

⁸² Id.; See also FCC Hails Historic Agreement on International Satellite Coordination, Report No. IN 96-16 (rel. Jun. 25, 1996) ("Spectrum allocations to individual operators will be reviewed annually on the basis of actual usage and short-term projections of future need.") (emphasis added).

IV. NO OTHER ISSUE PROVIDES A REASON TO WITHHOLD AUTHORITY

MSV raises two additional issues, neither of which warrants delaying grant of the Applications, and each of which has been fully briefed on multiple occasions before. 83

MSV is wrong that I-4 is not a "replacement" for I-3 under the Mexico City MOU. As detailed above, the operating parameters of I-4 are compatible with the I-3 satellite that it replaced, I-4 will be operated in a manner that does not impose further sharing constraints than I-3, and I-4 will be operated in a manner that does not require more protection from interference than I-3.⁸⁴ With regard to Commission policy, I-4 will serve the same parts of the United States, from the functionally equivalent orbital location, using the same frequencies as were specified for use on the I-3 spacecraft, and operating within the same technical umbrella as I-3 operates today. MSV has provided no basis upon which the Commission could find that I-4 is any less a replacement satellite than MSV's own next-generation satellite at 101° W.L.: "among the most powerful commercial satellites ever built," with significantly expanded geographic coverage. Thus, by any definition, I-4 is a "replacement satellite."

See, e.g., Inmarsat Telenor BGAN Opposition at 24-25; Inmarsat FTMC BGAN Opposition at 24-25; Inmarsat Stratos BGAN Opposition at 13-15.

Moreover, nothing in the Mexico City MOU limits the parameters of replacement spacecraft when, as here, there is no current operating agreement under the MOU and none has been in place for six years.

The Commission retains discretion to treat a satellite as a "replacement satellite" even if the satellite covers additional areas beyond that of the spacecraft it replaces. *Amendment of the Commission's Space Station Licensing Rules and Policies*, 18 FCC Rcd 10760, 10857 ¶ 258 (2003) (confirming that the Commission "will consider replacement satellite applications that request greater coverage areas."). Indeed, MSV's substantial geographic coverage expansion *to reach an entirely new hemisphere* did not prevent the Commission from deeming MSV's next-generation satellite at 101° W.L. a "replacement." *MSV 101° Order* at ¶ 14. In the *AfriSpace* decision cited by MSV, the Commission rendered the "replacement satellite" question moot by waiving the modified processing round procedures that apply to NGSO-like satellites. *AfriSpace, Inc.*, IB File No. SAT-LOA-20050311-00061, DA 06-4 at ¶ 12 (citing *MSV 63.5° Order* at ¶ 8).

Second, MSV's arguments regarding I-4's station-keeping tolerance are nothing but an attempt to further an unrelated Petition for Reconsideration that MSV has pending regarding its own license. MSV acknowledges that "the Commission rule requiring FSS satellite to operate with ±0.05° East-West station keeping does not apply to MSS satellites," such as I-4. Whatever circumstances may have led to the Commission imposing such a requirement on MSV's operations at 101° W.L. are not present here. ⁸⁶

V. CONCLUSION

For the foregoing reasons, the Commission should deny MSV's Petition to Hold in Abeyance and grant the Applications without any conditions other than requiring that, in the absence of a spectrum sharing agreement, service be provided on a non-harmful interference basis.

Respectfully submitted,

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While there is no station-keeping tolerance requirement of general application to MSS satellites, the Commission reserved discretion to impose a condition on station-keeping tolerance on a case-by-case basis. *Mitigation of Orbital Debris*, 19 FCC Rcd 11567, 11587 ¶ 47 (2004).

EXHIBIT A

The following are examples of L-Band precedent showing two conditions: one constraining spectrum assignments when a spectrum sharing agreement is in effect; and one allowing service potentially to be provided anywhere in the L-Band on a non-harmful interference basis in the absence of a spectrum sharing agreement. In the latter case, the applicable standard is "non-harmful interference" as provided by ITU Radio Regulation No. 4.4.

1. TMI Market Access Order (1999)

SatCom and TMI are authorized to use the spectrum in the 1545-1559 and 1646.5-1660.5 MHz bands coordinated for the TMI satellite network in the 1999 annual operator-to-operator agreement, as well as any subsequent or appropriate agreements. In the absence of any continuing operator-to-operator agreement in the L-band, SatCom and TMI's operations -- like those of AMSC -- and the other operators with overlapping North America coverage areas, will be on a non-interference basis until a future operator-to-operator agreement is reached.

* * *

Without an agreement assigning each of the five systems to specific operating frequencies, all systems must operate on a non-interference basis consistent with the ITU Radio Regulations.⁸⁸

FN88. Operations will be on a non-interference basis in accordance with 47 C.F.R. § 25.111(b) and ITU Radio Regulation S4.4.

* * *

IT IS FURTHER ORDERED . . .TMI Communications and Company, L.P. IS AUTHORIZED to operate . . . in the portions of the 1545-1558.5 and 1646.5-1660 MHz band coordinated for the TMI satellite network in the most recent annual L-band operator-to-operator coordination agreement, to the extent indicated herein, in accordance with the technical specifications set forth in its application and its Radio Station Authorization, and consistent with the Commission's rules. In the absence of a continuing annual operator-to-operator coordination agreement, TMI's operation in the 1545-1558.5 and 1646.5-1660 MHz band will be on a non-interference basis until a future operator-to-operator agreement is concluded.

SatCom Systems, Inc., et al., 14 FCC Rcd 20798, 20814 ¶¶ 33-34 & n.88, 20826 ¶ 64 (1999) (emphasis added).

2. **COMSAT Order** (2001)

[U]nlike the TMI Order, we cannot state that Inmarsat will be operating on frequencies coordinated for it and that there is no chance of interference. The absence of [an operator-to-operator spectrum sharing] agreement, however, is not a sufficient basis upon which to deny the pending applications.

* * *

[T]he absence of an operator-to-operator agreement since 1999 has not led to any complaints of harmful interference by any of the five L-band operators. . . . This experience provides additional support for our belief that spectrum limitation concerns are best addressed in the L-band coordination process. As in the TMI Order, we require that all services authorized herein be provided on a non-interference basis. We believe that the non-interference requirement promulgated in our rules and in the ITU Radio Regulations is sufficiently clear and needs no further explanation as Motient suggests. 175

FN175. 47 C.F.R. § 25.111(b) and ITU Radio Regulations, Article S4.2 [sic].

* * *

[T]here is no permanent assignment of specific spectrum to any L-band operator. Thus, no operator can assert any claim with respect to a specific piece of spectrum.

* * *

IT IS FURTHER ORDERED . . .

- c. Operations shall be limited to the portions of the 1525-1559 and 1626.5-1660.5 MHz band coordinated for the Inmarsat satellite system in the most recent annual L-Band operator-to-operator agreement;
- d. In the absence of a continuing annual L-band operator-to-operator coordination agreement, operations of METs in the 1525-1559 and 1626.5- 1660.5 MHz bands will be on a non-interference basis until a future operator-to-operator agreement is concluded.

COMSAT Corporation d/b/a Comsat Mobile Communications, et al., 16 FCC Rcd 21661, 2168-21699 ¶¶ 71-73 & n.175, 21712 ¶ 115 (2001) (emphasis added).

3. Mobile Satellite Ventures Subsidiary LLC (2002)

IT IS FURTHER ORDERED that Mobile Satellite Ventures Subsidiary LLC's MET operations shall be limited to the portions of the 1525-1559 and 1626.5-1660.5 MHz band coordinated for the satellite being accessed in the most recent annual L-band operator-to-operator agreement.

IT IS FURTHER ORDERED that, in the absence of a continuing annual operator-tooperator coordination agreement, Mobile Satellite Ventures Subsidiary LLC's operation in the 1525-1559 and 1626.5-1660.5 MHz band will be on a *non-harmful interference* basis.

Mobile Satellite Ventures Subsidiary LLC, 17 FCC Rcd 12894, 12896-12897 ¶¶ 9-10 (2002) (emphasis added).

4. National Systems & Research Co. (2002)

IT IS FURTHER ORDERED that National Systems & Research Co.'s MET operations shall be limited to the portions of the 1525-1559 and 1626.5-1660.5 MHz band coordination for the satellite being accessed in the most recent annual L-band operator-to-operator agreement.

IT IS FURTHER ORDERED that in the absence of a continuing annual operator-to-operator coordination agreement, National Systems & Research Co.'s operation in the 1525-1530 MHz, 1530-1544 MHz, 1626.5-1645.5 MHz frequency bands (lower L-band) and the 1545-1559 MHz and 1646.5-1660.5 MHz (upper L-band) frequency bands will be on a non-interference basis until a future operator-to-operator agreement is concluded. National Systems & Research Co. shall not cause *harmful interference* to any other lawfully operating satellite or radio facility and shall cease operations upon written notification of such interference.

National Systems & Research Co., 17 FCC Rcd 12011, 12015 ¶¶ 11-12 (2002) (emphasis added).

5. Vistar Data Communications, Inc. (2002)

IT IS FURTHER ORDERED that Vistar Data Communications, Inc.'s MET operations shall be limited to the portions of the 1525-1559 and 1626.5-1660.5 MHz band coordinated for the satellite being accessed in the most recent annual L-band operator-to-operator agreement.

IT IS FURTHER ORDERED that in the absence of a continuing annual operator-to-operator coordination agreement, Vistar Data Communications, Inc.'s operation in the 1525-1559 and 1626.5-1660.5 MHz band will be on a *non-harmful interference* basis. Consequently, in the absence of a coordination agreement, Vistar Data Communications, Inc. shall not cause harmful interference to any other lawfully operating satellite or radio facility and shall cease operations upon written notification of such interference.

Vistar Data Communications, Inc., 17 FCC Rcd 12899, 12903 ¶¶ 17-18 (2002) (emphasis added).

6. Infosat Communications, Inc. (2002)

IT IS FURTHER ORDERED that Infosat Communications, Inc. IS AUTHORIZED to operate in the 1525-1530 MHz, 1530-1544 MHz, and 1626.5-1645.5 MHz frequency bands (lower L-band) subject to the following conditions:

b. Operations shall be limited to the portions of the lower L-band coordinated for TMI satellite network in the most recent annual L-band operator-to-operator agreement;

IT IS FURTHER ORDERED that in the absence of a continuing annual L-band operator-to-operator coordination agreement, Infosat's operations of METs in the 1530-1559 and 1631.5-1660 MHz band will be on a *non-harmful interference basis* until a future operator-to-operator agreement is concluded.

Infosat Communications, Inc., 17 FCC Rcd 1610, 1615 ¶¶ 14-15 (2002) (emphasis added).

7. Richtec Inc. (2003)

IT IS FURTHER ORDERED that Richtec's mobile earth station operations shall be limited to the portions of the 1525-1544 and 1626.5-1645.5 MHz band coordinated for the satellite being accessed in the most recent annual L-band operator-to-operator agreement. In the absence of a continuing annual L-band operator-to-operator coordination agreement, Richtec's operation in the 1525-1530 MHz, 1530-1544 MHz, 1626.5-1645.5 MHz frequency bands (lower L-bands) will be on a non-interference basis until a future operator-to-operator agreement is concluded. Richtec shall not cause harmful interference to any other lawfully operating satellite or radio facility and shall cease operations upon notification of such interference.

Richtec Inc., 18 FCC Rcd 3295, 3301 ¶ 17 (2003) (emphasis added).

8. MSV AMSC-1 (2004)

IT IS FURTHER ORDERED that Mobile Satellite Ventures Subsidiary LLC's MET operations shall be limited to 2.0 MHz of spectrum in each direction of the 1626.5-1645.5 MHz and 1530-1544 MHz band coordinated for the satellite being accessed in the most recent annual L-band operator-to-operator agreement, and that no additional spectrum will be requested or used.

IT IS FURTHER ORDERED that, in the absence of a continuing annual operator-to-operator coordination agreement, Mobile Satellite Ventures Subsidiary LLC's operation in the 1626.5-1645.5 MHz and 1530-1544 MHz band will be on a *non-harmful interference* basis.

Mobile Satellite Ventures Subsidiary LLC, 19 FCC Rcd 4672, 4675 ¶¶ 7-8 (2004) (emphasis added).

9. SkyWave Mobile Communications, Corp. (2004)

Licensee's mobile earth station operations shall be limited to the portions of the 1525-1544 and 1626.5-1645.5 MHz band coordinated for the satellite being accessed in the most recent annual L-band operator-to-operator agreement. In the absence of a coordination agreement, Licensee's operation in the 1525-1544 and 1626.5-1645.5 MHz band will be on a *non-harmful interference* basis.

SkyWave Mobile Communications, Corp. License (Call Sign E030055, Special Condition 5899) (emphasis added).

10. Satamatics, Inc. (2005)

Licensee's mobile earth station operations shall be limited to the portions of the 1525-1544 and 1626.5-1645.5 MHz band coordinated for the satellite being accessed in the most recent annual L-band operator-to-operator agreement. In the absence of a coordination agreement, Licensee's operation in the 1525-1544 and 1626.5-1645.5 MHz band will be on a non-harmful interference basis.

Satamatics, Inc. License (Call Sign E020074, Special Condition 5899) (emphasis added).

CERTIFICATE OF SERVICE

I, Jeffrey A. Marks, hereby certify that on this 2nd day of February, 2006, I caused to be served a true copy of the foregoing "Opposition of Inmarsat Ventures Limited," by first class mail, postage pre-paid (or as otherwise indicated) upon the following:

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/s/	
Jeffrey A. Marks	

^{*}Via Electronic Mail