

May 31, 2006

Via Hand Delivery

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

RECEIVED - FCC

MAY 31 2006

Federal Communication Commission
Bureau / Office

**Re: Northrop Grumman Space & Mission Systems Corporation
File No. 0245-EX-PL-2006**

Dear Mr. Burtle:

Mobile Satellite Ventures Subsidiary LLC ("MSV"), the United States L band Mobile Satellite Service ("MSS") licensee, hereby requests that the Office of Engineering and Technology ("OET") in acting on the above-captioned application for an experimental authorization to impose the same terms and conditions, along with certain clarifications requested by MSV, that OET and the International Bureau have recently imposed on grants of authority to operate with the uncoordinated Inmarsat 4F2 satellite.¹

As MSV has explained in other proceedings, the Inmarsat 4F2 satellite has not been coordinated among the North American L band operators and, as a result, presents a significant risk of interference.² OET and the International Bureau have recognized this by imposing conditions on authorizations permitting access to the uncoordinated Inmarsat 4F2 satellite.

On May 12, 2006, the International Bureau granted Special Temporary Authority ("STA") to operate Broadband Global Area Network ("BGAN") terminals with the uncoordinated Inmarsat 4F2 satellite, but subject to a number of conditions essential to help mitigate the harmful interference that will result to MSV's customers from uncoordinated BGAN operations in the United States. ("*IB Conditions*"). See Exhibit A.³ Among other things, the conditions (i) require that operations pursuant to the STA be conducted on an unprotected basis;

¹ See Exhibits A, B, and C.

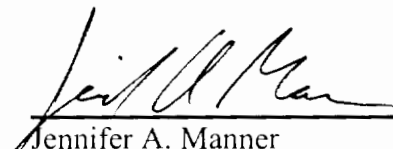
² See, e.g., Mobile Satellite Ventures Subsidiary LLC, Petition to Hold in Abeyance, File No. SES-LFS-20060303-00343, File No. SES-AMD-20060316-00448 (Call Sign E060076) (April 14, 2006). MSV hereby incorporates by reference this filing in the above-referenced proceeding.

³ See, e.g., Stratos Communications, Inc., Request for Special Temporary Authority, File No. SES-STA-20060310-00419 (filed March 10, 2006; granted with conditions on May 12, 2006) (attached as Exhibit A).

(ii) mandate that certain EIRP densities cannot be exceeded; (iii) ensure that adequate guard bands are provided between the band edges of Inmarsat's carriers and the band edges of MSV's operations in order to preclude the possibility of unacceptable interference to MSV's operations; (iv) make clear that grant of the STA is not based on a finding that Inmarsat's L band operations are consistent with operation on a non-interference basis; and (v) specify that grant of the STA is without prejudice to any future determination that the Commission may make as to whether Inmarsat's L band operations are consistent with operation on a non-interference basis. *Id.* On May 26, 2006, MSV asked the International Bureau to clarify certain of these conditions to improve their effectiveness.⁴

On February, 23, 2006, OET authorized Inmarsat to test BGAN terminals with the uncoordinated Inmarsat 4F2 satellite, but subject to a number of conditions, including the requirements to (i) immediately shut down in the event interference is caused; (ii) notify MSV prior to commencing operations and identify a point of contact for interference complaints; (iii) mandate that certain EIRP densities cannot be exceeded; (iv) ensure that the occupied bandwidth of the signal emissions remain within certain band limits; and (v) ensure that adequate guard bands are provided between the band edges of Inmarsat's carriers and the band edges of MSV's operations in order to preclude the possibility of unacceptable interference to MSV's operations ("*OET Conditions*"). *See* Exhibit C.

To mitigate the harmful interference to other L band users from operation of the uncoordinated Inmarsat 4F2 satellite, MSV requests that OET apply both the *IB Conditions*, as clarified as requested by MSV, and the *OET Conditions* to any grant of the above-referenced application. Please contact the undersigned with any questions.



Jennifer A. Manner
Vice President, Regulatory Affairs
MOBILE SATELLITE VENTURES
SUBSIDIARY LLC
10802 Parkridge Boulevard
Reston, Virginia 20191
(703) 390-2700

⁴ *See* Letter from Ms. Jennifer A. Manner, MSV, to Ms. Marlene H. Dortch, FCC, File No. SES-STA-20060310-00419 et al (May 26, 2006) (attached as Exhibit B).

Exhibit A

Stratos Communications, Inc.
IBFS File No. SES-STA-20060310-00419

The request of Stratos Communications, Inc. (Stratos) for special temporary authority (STA) IS GRANTED. Accordingly, Stratos is authorized for a period of 60 days, ending July 11, 2006, to operate up to 5,000 Broadband Global Area Network (BGAN) mobile earth terminals (METs) using the Inmarsat 4F2, in accordance with the terms, conditions, and technical specifications set forth in the Commission's rules and this document.

1. Neither the aggregate uplink EIRP densities in the direction of any other L-band satellite serving the United States, nor the downlink EIRP densities at any geographical point within the United States, shall be increased, above the levels previously authorized in connection with operations using the Inmarsat 3F4 satellite, as a result of the operations authorized by this STA.
2. Operations on the Inmarsat 4F2 satellite shall be on an unprotected basis. Stratos shall not claim protection from, and is required to accept interference from, other lawfully operating satellites or radiocommunication systems.
3. Operations are permitted on those frequencies previously used for authorized U.S. MET operations on the Inmarsat 3F4 satellite, except that operations are not permitted on certain frequencies, made available to Inmarsat by MSV USA and MSV Canada as part of the operator-to-operator coordination process, the use of which is currently an issue pending in connection with Stratos's request for regular authority.
4. Adequate guard bands shall be provided between the band edges of the carriers used by Stratos and the band edges of MSV's operations in order to preclude the possibility of unacceptable interference to MSV's operations.
5. Any action taken or expense incurred as a result of operations pursuant to this special temporary authority is solely at Stratos's own risk.
6. The grant of this STA is not based on a finding that Inmarsat's L-band operations are consistent with operation on a non-interference basis.
7. The grant of this STA is without prejudice to any future determination that the Commission may make as to whether Inmarsat's L-band operations are consistent with operation on a non-interference basis.
8. This STA may be terminated or modified at the International Bureau's discretion, without a hearing, if conditions warrant.
9. Stratos must notify each customer, in writing and prior to initiation of service, that BGAN operations on the Inmarsat 4F2 satellite are pursuant to a grant of special temporary authority that may be terminated or modified at any time.
10. Authority granted in this STA is without prejudice to the disposition of any related applications for regular authority.
11. This grant is issued pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 C.F.R. § 0.261, and is effective immediately.

Stratos Communications, Inc.
IBFS File No. SES-STA-20060310-00419

12. Stratos is afforded thirty days from the date of release of this action to decline this special temporary authorization as conditioned. Failure to respond within this period will constitute formal acceptance of the special temporary authorization as conditioned.

Exhibit B

May 26, 2006

Via Hand Delivery
Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

RECEIVED

MAY 26 2006

Federal Communications Commission
Office of Secretary

Re: Mobile Satellite Ventures LP
***Ex Parte* Presentation**
File No. SES-STA-20060310-00419 (Call Sign E050249)
File No. SES-STA-20060313-00430 (Call Sign E050276)
File No. SES-STA-20060314-00438 (Call Sign E050284)
File No. SES-STA-20060315-00445 (Call Sign E060076)
File No. SES-STA-20060316-00454 (Call Sign E050348)

Dear Ms. Dortch:

The May 12, 2006 decisions granting the above-captioned requests for Special Temporary Authority ("STA") to operate Broadband Global Area Network ("BGAN") terminals using an uncoordinated Inmarsat satellite, Inmarsat 4F2 at 52.75°W, contain a number of very important and appropriate conditions that are essential to help mitigate the harmful interference that will result to customers of other L band Mobile Satellite Service ("MSS") operators once Inmarsat begins its uncoordinated BGAN operations. Mobile Satellite Ventures Subsidiary LLC ("MSV") requests that the International Bureau clarify certain of these conditions to improve their effectiveness.

Condition 1. The May 12th decisions require the "downlink EIRP densities" at any geographical point within the United States to not exceed the levels previously authorized in connection with operations of the Inmarsat 3F4 satellite. As it did in limiting the aggregate uplink EIRP density, the Bureau should specify that the downlink EIRP limit is an aggregate limit. The Bureau should also clarify that the aggregate uplink and aggregate downlink EIRP density limits specified in Condition 1 apply in the aggregate to all Inmarsat satellites visible over North America. The condition as written appears to address only the emissions contributed by Inmarsat 4F2 to the aggregate emissions from all of Inmarsat satellites operating over North America. At least some of the frequencies used on the Inmarsat 4F2 at 52.75°W, however, are reused by Inmarsat on its other satellites visible over North America, which operate at 15.5°W, 98°W, 142°W, 143°E, and 178°E. The Bureau should make clear that the aggregate uplink and aggregate downlink EIRP densities from all Inmarsat satellites, including Inmarsat 4F2, must not exceed the level that existed before launch of Inmarsat 4F2.

Conditions 2 and 5. The May 12th decisions impose conditions on Inmarsat's service providers which should apply to Inmarsat as well. In Condition 2, the Bureau specified that BGAN operations are permitted only on a strictly unprotected basis. Because MSV has no means of determining which of the Inmarsat BGAN service providers may be responsible for causing interference to MSV's operations, we urge the Bureau to make clear that upon MSV's notice to Inmarsat of interference, Inmarsat and its service providers are jointly and severally responsible for taking immediate action to rectify any interference. In Condition 5, the Bureau explained that any action taken or expense incurred as a result of operations pursuant to this STA by a BGAN service provider is solely at the service provider's own risk. MSV urges the Bureau to similarly explain that any action taken or expense incurred by Inmarsat as a result of operations pursuant to this STA is solely at its own risk.

Condition 3. The May 12th decisions prohibit the STA holders from operating on certain disputed frequencies. The STA holders, however, do not have access to the specific frequencies covered by this condition. To ensure that the STA holders comply with this condition, MSV urges the Bureau to require each of the STA holders to submit a certification from Inmarsat declaring that Inmarsat has not and will not assign any unauthorized frequencies for operation of the earth stations covered by the STA.

Condition 4. The May 12th decisions require "adequate guard bands" to be provided between the band edges of the carriers used by the BGAN service provider and the band edges of MSV's operations to preclude the possibility of unacceptable interference to MSV's operations. Rather than relying on Inmarsat to determine what constitutes an "adequate guard band," the Bureau should specify a guard band of at least 50 kHz between the band edges of the carriers used by the BGAN service provider and the band edges of MSV's coordinated frequencies. This specification is essential because MSV has already suffered interference from Inmarsat's assignment of inadequate guard bands on other Inmarsat wideband carriers. Based on MSV's initial observation of experimental BGAN signals, a guard band of at least 50 kHz is needed to limit interference to MSV's narrowband carriers to the levels accepted under the Operators' Agreements developed pursuant to the *Mexico City MOU*. While MSV may discover during the course of coordination or from operations pursuant to these STAs that a different guard band is required to protect MSV, specification of a 50 kHz minimum guard band now in advance of coordination will reduce the material risk of harmful interference to MSV's customers while still enabling BGAN service. Moreover, because BGAN operations are permitted only on a strictly unprotected basis, the Bureau should also clarify that the 50 MHz guard band must lie entirely within Inmarsat's coordinated frequency assignments and may not lie within the frequencies coordinated for MSV or MSV Canada.

Conditions 6, 7, and 10. In Conditions 6, 7, and 10, the May 12th decisions explain that grant of the STA (i) is not based on a finding, and is without prejudice to any future determination the Commission may make, that Inmarsat's L band operations are consistent with operation on a non-interference basis, and (ii) is without prejudice to disposition of the pending applications for permanent authority to operate BGAN terminals. Consistent with these conditions, the Bureau should also explain that it expects Inmarsat to diligently conclude coordination of its Inmarsat 4F2 satellite with respect to the current and planned operations of

Ms. Marlene H. Dortch

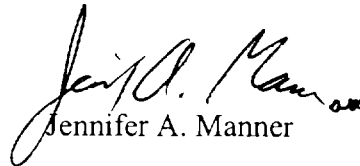
May 26, 2006

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MSV and MSV Canada before it can make a definitive determination that operation of the Inmarsat 4F2 satellite will not result in unacceptable interference and before it can grant the pending applications for permanent authority.

Please contact the undersigned with any questions.

Very truly yours,

A handwritten signature in black ink, appearing to read "Jennifer A. Manner". The signature is fluid and cursive, with a small "or" at the end.

Jennifer A. Manner

Exhibit C

**United States of America
FEDERAL COMMUNICATIONS COMMISSION
EXPERIMENTAL
RADIO STATION CONSTRUCTION PERMIT
AND LICENSE**

EXPERIMENTAL
(Nature of Service)

XD MO
(Class of Station)

WD2XWM
(Call Sign)

0059-EX-PL-2006
(File Number)

NAME Inmarsat, Inc.

Subject to the provisions of the Communications Act of 1934, subsequent acts, and treaties, and all regulations heretofore or hereafter made by this Commission, and further subject to the conditions and requirements set forth in this license, the licensee hereof is hereby authorized to use and operate the radio transmitting facilities hereinafter described for radio communications in accordance with the program of experimentation described by the licensee in its application for license.

Operation: In accordance with Sec. 5.3(d, f, g, j) of the Commission's Rules

Station Locations

(1) MOBILE: NATIONWIDE

Frequency Information

MOBILE: NATIONWIDE

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1627.1-1627.7 MHz	MO	200KD7W 200KD7W 50K0D7W	79.4 W (ERP)	
1627.1-1627.7 MHz	MO	200KD7W 200KD7W 50K0G7W	25.1 W (ERP)	
1627.1-1627.7 MHz	MO	25K0G7W 200KG7W	7.9 W (ERP)	

This authorization effective February 23, 2006 and
will expire 3:00 A.M. EST September 01, 2006

**FEDERAL
COMMUNICATIONS
COMMISSION**

Frequency Information

MOBILE: NATIONWIDE

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1639.3-1639.5 MHz	MO	200KD7W 200KD7W 50K0D7W	79.4 W (ERP)	
1639.3-1639.5 MHz	MO	200KD7W 200KD7W 50K0G7W	25.1 W (ERP)	
1639.3-1639.5 MHz	MO	200KG7W 25K0G7W	7.9 W (ERP)	
1642.5-1642.7 MHz	MO	200KD7W 200KD7W 50K0D7W	79.4 W (ERP)	
1642.5-1642.7 MHz	MO	200KD7W 200KD7W 50K0G7W	25.1 W (ERP)	
1642.5-1642.7 MHz	MO	200KG7W 25K0G7W	7.9 W (ERP)	
1643.9-1644.3 MHz	MO	200KD7W 50K0D7W 200KD7W	79.4 W (ERP)	

Frequency Information

MOBILE: NATIONWIDE

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
1643.9-1644.3 MHz	MO	200KD7W 50K0G7W 200KD7W	25.1 W (ERP)	
1643.9-1644.3 MHz	MO	200KG7W 25K0G7W	7.9 W (ERP)	
1646.5-1647.7 MHz	MO	200KD7W 50K0D7W 200KD7W	79.4 W (ERP)	
1646.5-1647.7 MHz	MO	200KD7W 50K0G7W 200KD7W	25.1 W (ERP)	
1646.5-1647.7 MHz	MO	200KG7W 25K0G7W	7.9 W (ERP)	

Special Conditions:

- (1) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (2) Licensee should be aware that other stations may be licensed on these frequencies and if any interference occurs, the licensee of this authorization will be subject to immediate shut down.
- (3) All customers participating in the experiment shall be informed that this operation is for experimental purposes only and can be cancelled at any time.
- (4) POINT OF COMMUNICATION: INMARSAT 4F2 Satellite.
- (5) Inmarsat shall assure that adequate guard bands are provided between the band edges of its carriers and the band edges of MSV's operations in order to preclude the possibility of unacceptable interference to MSV's operations.

Special Conditions:

- (6) Neither the aggregate uplink EIRP densities in the direction of any other L-band satellite serving the United States, nor the downlink EIRP densities at any geographical point within the United States, shall be increased as a result of the addition of experimental BGAN operations on the Inmarsat 4F2 satellite over those densities previously authorized on the Inmarsat 3F4 satellite.
- (7) Inmarsat, Inc. shall notify MSV prior to commencing operations and identify its point of contact.

CERTIFICATE OF SERVICE

I, Jennifer A. Manner, hereby certify that on this 31st day of May 2006, I served a true copy of the foregoing by first-class United States mail, postage prepaid, upon the following:

Julius Knapp*
Office of Engineering and Technology
Federal Communications Commission
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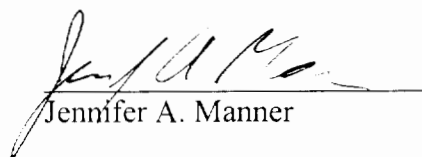
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Jennifer A. Manner

*By hand delivery