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Marlene H. Dortch
Office of the Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: WT Docket 07-54; RM-11043

Dear Mrs. Dortch:

On August 10, 2007, William Chapman, Dick Evans, Jennifer Manner of Mobile Satellite Ventures Subsidiary LLC (“MSV”), David LaFrance of Terrestar, Bruce Jacobs of Pillsbury Winthrop Shaw Pittman LLP and the undersigned met with Stephen Buenzow, Michael Pollak, John Schauble and Brian Wondrack of the Wireless Telecommunications Bureau. In the meeting, MSV and Terrestar reiterated their positions of record in this proceeding and discussed the attached presentation.

Sincerely yours,

/s/

Glenn S. Richards
Counsel to MSV

Cc: Stephen Buenzow
Michael Pollak
John Schauble
Brian Wondrack

Attachment

Sharing of Appendix 30B Ku-Band Downlink Frequencies between the Fixed Service and MSV Feederlink Earth Stations

WT Docket No. 07-54

August 10, 2007

Introduction

- The 10.7 – 11.7 GHz band is allocated to FS and FSS
- This band is used by FSS exclusively for downlink only (reception) at fixed site satellite gateways; uplink transmissions from FSS earth stations occurs in the 12.75-13.25 GHz band
- There is no potential for interference from the FSS earth stations to the FS operators
- The FS and FSS users in the band coordinate to avoid installations that would cause unacceptable interference to the FSS sites
- The current coordination process is informal (the FCC rules do not specify the interference thresholds or the methodology); it traditionally has been based on a “single-entry analysis” that does not consider the cumulative interference at a victim FSS location

Docket 07-54

- Fibertower has requested a modification to the FCC Fixed Service (FS) rules to permit the installation and use of smaller microwave antennas (61 cm) in the 10.7-11.7 GHz band
- One of the goals of this request is to promote the broader proliferation of microwave installations in the 10.7-11.7 GHz band
- MSV has significant concerns that the current coordination rules do not provide sufficient protection to satellite gateways/operators from the expected proliferation of new microwave installations
- MSV has proposed specific rules for coordination and a process for monitoring if necessary to verify the accuracy of the predictive analysis:
 - -162 dBW/MHz in band; -125 dBW/MHz out-of-band
 - based on either single-entry or aggregate interference
- Limited to the very small number of geographic areas where MSS feederlink earth stations will be located

MSV

- MSV currently operates feederlink earth stations receiving in the 10.7-10.95 GHz band (Reston, VA and Alexandria, VA) with MSV's existing satellite service
- MSV has been licensed to build two new, state-of-the-art MSS satellites (MSV-1 and MSV-2) – currently scheduled for launch in the second half of 2009
- These satellites will provide nationwide communications to consumers and to public safety officials/first-responders; including possibly as part of the 700 MHz public safety broadband deployment
- The Next-Generation program costs are more than \$1B, including more than \$100M for the earth stations.
- MSV plans to build/operate two new earth stations receiving in both the 10.7-10.95 GHz and 11.2-11.45 GHz bands for the downlinks for these next generation satellites; the existing earth stations will be decommissioned once services have been transitioned to the next generation system. The cost to construct a new earth station is more than \$25 million.
- As part of its efforts to locate sites for the two new earth stations, MSV has had difficulty finding locations where the cumulative interference environment is below the required thresholds

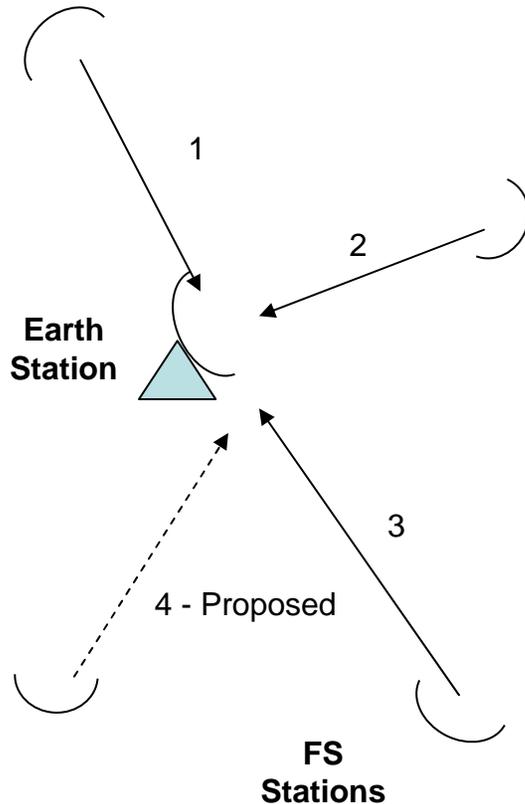
Coordination Analysis

- Present Approach
 - Inputs: FS EIRP, maximum allowable interference power density, antenna patterns, frequency, modulation, path obstacles, etc.
 - For each existing FS site, the power density received at the victim FSS site is calculated
 - If the received power density is less than the maximum allowable interference power density, then it is concluded that the two sites may both operate successfully

Coordination Analysis - Issues

- Current coordination analysis considers single-entry interference only
 - Each potential interference case is considered independently
 - The possibility of multiple interference cases occurring simultaneously is **not** considered.
- Considering Single-Entry only is adequate if:
 - Interferers are active intermittently
 - Margins on the victim link are high enough to tolerate occasional “piling up” of multiple interference paths
- Considering Single-Entry only is *inadequate* if:
 - Interferers are active continuously
 - Margins on the victim link are relatively low, as is the case for satellite to Earth links

Single-Entry vs. Aggregate Interference



- Single-entry interference calculation
 - Cases 1, 2, and 3 considered independently
 - Sum is not Considered
 - Proposed Case 4 is approved if, considered by itself, does not produce unacceptable interference at the earth station
- MSV Proposal Considers Impact of Aggregate interference
 - Cases 1, 2, and 3 considered independently
 - Proposed Case 4 is approved if the aggregate interference at the earth station from Case 1 + Case 2 + Case 3 + Case 4 is acceptable

Proposed Protection Criteria

- MSV proposes the following addition to the existing Part 101 rules in order to protect MSS feederlink earth stations in the handful of geographic areas where they will be located:
- 101.115(g) Additional Protection for GSO MSS feederlink earth stations
- (i) Notwithstanding the coordination requirements of Section 101.115(f), an application for a new station will be permitted in the same market as a Fixed Satellite Service earth station licensed to communicate with a GSO Mobile Satellite Service satellite only if it can demonstrate that its operations (either alone or in aggregate with other co-frequency operations) will not exceed the following limits:
 - (a) -162 dBW/MHz in any part of the 10.7-10.95 GHz or 11.2-11.45 GHz bands and
 - (b) -125 dBW/MHz in any part of the 10.95-11.2 GHz or 11.45-11.7 GHz bands

Proposed Protection Criteria

- (ii) The applicant's calculation of received signal power shall be based on a predictive analysis that is consistent with ITU-R SF.1006 and must take into consideration the aggregate interference from all co-frequency terrestrial interference sources at the output of the earth station antenna, taking into account the earth station antenna reference gain mask as defined in Part 25.209 of the Commission's Rules
- (iii) Once a new station is operational, the licensee of an MSS feeder link earth station is entitled to take field measurements to determine whether the operations of one or more Fixed stations are or will exceed the prescribed power limits, in which case the responsible Fixed station licensees will be required to reduce their transmit power levels, or cease operations on those frequencies. To facilitate such field tests, Fixed station licensees are required to cooperate with the MSS feeder link earth station licensees in providing information regarding their operations. The field measurements shall be considered valid if the proponent certifies that they were performed with a calibrated spectrum analyzer, a gain calibrated antenna, low noise amplifiers, and low loss cables, using standard procedures established by the National Spectrum Managers Association