

June 26, 2007

Mr. Leonard St. Aubin
Director General
Telecommunications Policy Branch
Industry Canada
300 Slater Street
Ottawa, Canada K1A 0C8

Subject: Mobile Satellite Ventures (Canada) Inc. - Reply Comments on Consultation on Framework to Auction Spectrum in the 2 GHz Range including Advanced Wireless Services, Canada Gazette No. DGTP-002-07, *Canada Gazette*, Part I, February 16, 2007

Dear Mr. St. Aubin,

Mobile Satellite Ventures (Canada) Inc. ("MSV Canada") would like to acknowledge the diligent work of the Department in the development of the above-noted Consultation document. The Department has requested comments on the impact of the band plans proposed in the Consultation document on services operating in bands that are adjacent to those under consideration in the Consultation document.

MSV Canada currently provides GSO Mobile Satellite Services in the L band (1500/1600 MHz) in Canada. This service is extremely important to many Canadians for safety and emergency response purposes and it serves as a critical communications link to Canadians who live and work in underserved areas of the country. MSV Canada has also taken a leadership role in developing a next-generation MSS satellite system to replace MSAT-1 and, to this end, it has received an approval in principle from Industry Canada to construct and launch a new, next generation mobile satellite system. This revolutionary satellite system will provide Canadians with advanced MSS communications services over a single consumer-electronic sized and priced device. Customers will have access to high speed data and voice services anywhere in Canada at reasonable prices.

In these Reply Comments, MSV Canada would like to provide additional information on the impact of the proposed licensing of the 1670-1675 MHz band for a new mobile terrestrial service application.

MSV Canada participated in the development and contributed to the comments which were filed in this proceeding by the Radio Advisory Board of Canada ("RABC") as well as the Canadian Satellite and Space Industry Forum ("CSSIF"). However, in reviewing the submissions of other parties to this proceeding, and in consideration of the recent discussions which have taken place within the RABC on the Standard Radio System

Plan (“SRSP”) dealing with the 1670-1675 MHz band, MSV Canada would like to take this opportunity to provide the following more specific reply comments.

In particular, MSV Canada would like to clarify its position with respect to the proposed future licensing of the 1670-1675 MHz band for a new mobile terrestrial service similar to what has been licensed in the USA. MSV Canada’s next generation satellite system is well under construction and the Critical Design Review (CDR) phase is underway with the prime contractor, the Boeing Corporation. The next generation satellite service has been designed to provide service to small MSS user handsets, very similar in size and form to current cellular/PCS handsets (referred to as the “transparency mode of operation”). To accomplish this transparency mode of operation, an L-band satellite antenna diameter of 22 meters is required to provide sufficient antenna G/T performance to overcome the path loss and low gain of the user handset.

Another key aspect of the satellite design is the ground-based beam forming (“GBBF”) which provides full flexibility to form the narrow L-band spot beams and assign spectrum to meet the traffic requirements. With the GBBF architecture, the detection and conversion in frequency of the signal received by each antenna feed element is required on the satellite. This detection and conversion has been optimized to cover the 1626.5 - 1660.5 MHz MSS spectrum, and was designed to be compatible with current terrestrial usage of the 1670-1675 MHz band. However, MSV Canada is concerned that the licensing of the 1670-1675 MHz band for higher powered base stations with EIRP levels of up to 40 kW could produce excessive aggregate power level from all of these base stations into the sensitive satellite antenna feed elements and, thus, could overload the front-end conversion stages, degrade the G/T and interfere with the desired signal.

In light of these considerations, MSV Canada respectfully requests that the Department take into account the need to limit the aggregate power level directed towards the satellite to less than 34dBW from any newly licensed service in each major core urban area and its immediate vicinity in Canada operating in the 1670-1675 MHz band. This can be achieved by a combination of limiting the number of base stations authorized in each urban center and the maximum EIRP level transmitted by each base station toward the satellite, while taking into account ground/terrain reflections/scattering which limits the effective discrimination of a base station towards the satellite to no more than 20 dB.¹ MSV Canada will be participating in the RABC discussions relating to the development of the appropriate SRSP for the 1670-1675 MHz band and will provide additional technical information to substantiate the need for a limit on the aggregate power level into the satellite receiver.

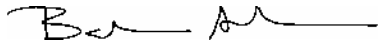
In addition, MSV Canada proposes that a Tier 1 or Tier 2 service area licence for the 1670-1675 MHz band is the most appropriate way to manage and limit the aggregate power level transmitted toward the satellite.

¹ Based on measurements performed by MSV wherein a base station antenna is transmitting linear polarization and the satellite is receiving circular polarization.

For all of the foregoing reasons, MSV Canada kindly requests that the Department take into account the reply comments set out above in carrying out the relevant technical analysis and in developing the appropriate licensing conditions for the 1670-1675 MHz band.

Yours truly,

Bahman Azarbar
Vice President, Regulatory Affairs

A handwritten signature in black ink, appearing to read 'Bahman Azarbar', with a long horizontal flourish extending to the right.