



April 17, 2009

Ms. Pamela Miller
Acting Director General, Telecommunications Policy Branch
Industry Canada, 16th Floor
300 Slater Street
Ottawa, Ontario K1A 0C8

Dear Ms. Miller:

**Re: Consultation on the Possible Use of the Extended-Ku Spectrum Bands
for Direct-to-Home (DTH) Satellite Broadcasting Services (DGTP-003-08)**

Introduction

These comments are submitted jointly by SkyTerra (Canada) Inc. ("SkyTerra Canada") and TerreStar Networks (Canada) Inc. ("TerreStar Canada") (collectively, the "Companies") in accordance with the procedures set out in *Consultation on the Possible Use of the Extended-Ku Spectrum Bands for Direct-to-Home (DTH) Satellite Broadcasting Services*, DGTP-003-08 (the "Consultation Paper")

In the Consultation Paper, the Department invites interested parties to comment on a request received by the Department to use the extended-Ku spectrum bands (10.95-11.2 GHz and 11.45-11.7 GHz) for Direct-to-Home ("DTH") satellite broadcasting services in Canada which, if granted, would require amending the existing policy governing the use of the band.

Each of the Companies hold an Approval in Principle ("AIP") from Industry Canada which permits them to utilize the Appendix 30B Allotment Ku band (10.7-10.95 and 11.2-11.45 GHz) for feeder links from their mobile satellite service ("MSS") satellites located at 107.3° WL and 111.1° WL, respectively. Since the Appendix 30B Allotment Ku band is immediately adjacent to the extended-Ku band, which is used by the Companies for feeder downlinks, the Companies' comments in this proceeding deal with those portions of the Consultation Paper that could impact each company's use of the Allotment Ku band.

Before responding to the specific questions posed by the Department in the Consultation Paper, the Companies note that there are special provisions, established under the auspices of the International Telecommunication Union ("ITU"), which restrict usage of the Appendix 30B Allotment Ku band to specific orbital locations for Canada.¹ The Companies further note that the

¹ ITU Radio Regulations, Volume 2, Appendix 30B.

Consultation Paper does not appear to contemplate any changes to these international rules. The Companies therefore assume that any changes being contemplated by the Department domestically will conform with the international rules.

With these preliminary comments in mind, the following are the Companies' responses to Questions 1(a), 1(b) and 5 of DGTP-003-08.

Question 1(a) - *The Department seeks comments as to whether the spectrum utilization policy of the Ku frequency band 10.7-11.7 GHz should be changed to accommodate the provisioning of DTH services and, if so, what the designated use for each of the sub-bands should be.*

The Consultation Paper indicates that the proposed DTH satellites would be co-located with SkyTerra Canada's MSS satellite at the 107.3° WL orbital position and TerreStar Canada's at the 111.1° WL orbital position.

In the view of the Companies, the designation of the 10.7-10.95/11.2-11.45 GHz band for the provisioning of DTH services would not be compatible with the current use of this band for feeder downlinks from the Companies' respective MSS satellites at the 107.3° WL and 111.1° WL orbital locations. In particular, it would not be technically feasible to re-use this feederlink spectrum for DTH services at the same orbital locations because the separation between the satellites would not be sufficient to permit spectrum re-use. It is also noted that the Appendix 30B Allotment plan is based on a minimum antenna size of 2.4m which would not be very attractive to DTH users.

Question 1(b) - *More specifically, should the designation be as requested in section 3.1 above, namely that the extended-Ku bands 10.95-11.2 GHz and 11.45-11.7 GHz be designated only to the fixed-satellite service, and the bands 10.7-10.95 GHz and 11.2-11.45 GHz continue to be designated to the fixed-satellite and fixed services under the current policy stipulations"*

The Companies support the designation of the entire band 10.7 to 11.7 GHz for FSS only usage. The co-existence of small DTH FSS terminals and fixed sites would be difficult to coordinate in this band. Furthermore, while the Appendix 30B Allotment Ku band used by SkyTerra Canada and TerreStar Canada involve larger antennas and fewer locations, it will become increasingly difficult to share this band over time with the anticipated growth in fixed service and their use of smaller and smaller antennas. The required coordination to share this band would also likely become administratively unworkable

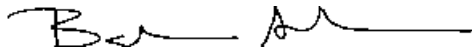
Question 5 - *Comments are sought on the coordination requirements with fixed systems in the U.S. and coordination with other FSS systems.*

It is important to note that the Appendix 30B Allotment orbital locations would be co-located with FSS satellites operating in the other portion of the extended Ku band. As such, co-located satellites using adjacent frequency bands should take special care to fully coordinate the unwanted emissions from their operational and TT&C carriers. In the case of co-located satellites operating in the 10.7-11.7 GHz band, each satellite operator must ensure that its unwanted emissions do not cause interference into the service bands of the other satellite,

especially at the edges of the allocated bands, namely the band edges at 10.95 GHz, 11.2 GHz, and 11.45 GHz. Furthermore, co-located satellite operators would have to closely coordinate their orbital positions to ensure there is no physical interference between the two satellites.

While we recognize that a common satellite controller of two or more co-located satellites (*e.g.*, Telesat) would go a long way in ensuring that appropriate measures can be taken to avoid any interference problems, it should not be assumed that a common satellite controller exists in all instances and/or over the entire life of the co-located satellites in question. For this reason, the Companies recommend that these considerations be taken into account when granting licences to the appropriate operators.

Yours very truly,



Bahman Azarbar
Vice President, Regulatory Affairs



Steven Nichols
Executive Vice President, Operations