Bell ExpressVu

26 AVR. 2002

April 22, 2002

Mr. Michael Helm
Director General
Telecommunications Policy Branch
Industry Canada
300 Slater Street
Ottawa, Ontario
K1A 0C8

Dear Mr. Helm:

Subject: Bell ExpressVu Comments *Canada Gazette* Notice DGTP-001-02 dated 2002-01-19: Consultation on Revisions to the Spectrum Utilization Policies in the 3-30 GHz Frequency Range

Introduction

Bell ExpressVu commends the Department for consulting Canadians on issues relating to the management and use of electromagnetic spectrum in the 3 – 30 GHz range.

Bell ExpressVu is Canada's premier provider of direct-to-home satellite services and currently provides such services to over 1.1 households in Canada. These services are provided in the BSS Ku-band (12.2 – 12.7 GHz) with feederlinks and customer services planned in a portion of the Ka-band (17.3 – 17.8 GHz), which are subject to the provisions of Appendixes **30** and **30A**, respectively, of the ITU *Radio Regulations*. Bell ExpressVu foresees continued growth and development of such services and urges the Department to adopt policies that generally favour such development, thereby strengthening Canada's cultural framework. In the specific comments that follow, Bell ExpressVu addresses only those issues of relevance to the satellite direct-to-home services.

17.7 – 17.8 GHz

In the consultation paper, the Department indicates that "no change is proposed to the status of services in this band."

Bell ExpressVu notes that use of the 17.7 – 17.8 GHz band by the fixed service in Canada is governed by domestic footnote **C45**, which states, in part:

In the band 17.7 – 17.8 GHz Canadian stations in the fixed service shall not claim protection from and shall not cause harmful interference to Canadian domestic stations in the broadcasting – satellite service after 1 April 2007.

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As noted above, currently Bell ExpressVu makes use of the entire 17.3 – 17.8 GHz band as a feederlink for its BSS services. Feeder link stations are amenable to frequency coordination in shared frequency bands, since they are relatively few in number and are characterized by large aperture antennas. However, the ITU *Radio Regulations* allocate the 17.3 – 17.8 GHz band in ITU Region 2 to the BSS after April 1, 2007. Bell ExpressVu believes that this BSS band will be of considerable interest, first for expansion of services similar to those now provided in the 12.2 – 12.7 GHz band, and second for the provision of new and innovative services, such as distribution of signals of local interest (through spotbeams), provision of interactive television, distribution of extremely high resolution or other broad band signals, etc. The greater flexibility afforded by use of a BSS band that is not subject to an ITU Plan is a key factor in the successful implementation of such innovative services.

In view of the importance of the band for BSS purposes after April 1, 2007, Bell ExpressVu supports the Department's suggestion that no change be made in the status of services within the band. However, tangible steps are required to meet this objective. Bell ExpressVu strongly urges the Department to issue an immediate moratorium on the licensing of new fixed services in the 17.7 – 17.8 GHz band. Furthermore, since BSS receivers are ubiquitously deployed and are highly sensitive to in-band interference, it is difficult to conceive of <u>any</u> usage in the fixed service that could be compliant with the provision of footnote **C45** quoted above. Therefore, Bell ExpressVu urges the Department to undertake a consultation to deal with means of relocating existing stations in the fixed service licensed in the 17.7 – 17.8 GHz band. The procedures that were adopted in earlier radio station frequency relocations, such as those followed in the PCS and 2 GHz relocations would provide a useful framework.

24.75 – 25.25 GHz

In the consultation paper, the Department did not raise any specific issues with respect to this band.

Bell ExpressVu notes that the ITU *Radio Regulations* allocate the 24.75 – 25.25 GHz band in ITU Region 2 exclusively to the fixed satellite service, subject to footnote **5.535**, which states:

In the band 24.75 – 25.25 GHz, feeder links to stations of the broadcasting-satellite service shall have priority over other uses in the fixed-satellite service (Earth-to-space). Such other uses shall protect and shall not claim protection from existing and future operating feeder-link networks to such broadcasting satellite stations.

The 24.75 – 25.25 GHz band therefore is the ideal feeder-link band for the BSS in the 17.3 – 17.8 GHz band.

In the Canadian Table of Frequency Allocations, Bell ExpressVu notes that the band is subject to domestic footnote **C44** which states:

Feeder links to broadcasting-satellite space stations operating in the band 17.3 – 17.8 GHz shall be implemented in the bands 24.75 – 25.25 GHz. In areas where fixed systems have been licensed using a competitive process, future earth stations (Earth-to-space) in the band 25.05 – 25.25 GHz will be permitted provided that such installations will not cause interference to any fixed service to be deployed in the authorized service area.

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Bell ExpressVu suggests two changes with respect to this footnote:

1. Bell ExpressVu supports the priority given to feeder links of the BSS relative to other uses of the FSS for this band, as indicated in international footnote **5.535**. However, it may be desirable to host BSS payloads operating at 17.3 – 17.8 GHz on Canadian satellites that also offer service in other FSS bands. Depending on the nature of the service, some flexibility to allow for cross-strapping would be desirable. Also, some of the new and innovative services that will be deployed in the 17.3 – 17.8 GHz band will require a degree of interactivity. Hence, it is anticipated that the 24.75 – 25.25 GHz band might be used for other signals associated with the BSS, in addition to the feeder-link signals. Accordingly, Bell ExpressVu suggests that the first sentence of domestic footnote **C44** be reworded as follows:

The use of the fixed-satellite service (Earth-to-space) in the band 24.75-25.25 GHz is limited to feeder links to broadcasting-satellite space stations, or to other digital carriers in the fixed satellite service that are associated with the broadcasting-satellite service, operating in the band 17.3 – 17.8 GHz.

2. Bell ExpressVu notes that the second sentence of domestic footnote **C44** contravenes the international table, where the allocation to the fixed-satellite service is exclusive in ITU Region 2. We also note that this allocation issue was raised in the August 1998 *Consultation on the 24 and 38 GHz Frequency Bands: Proposed policy and Licensing Procedures*, and that subsequently the Department decided to include the 25.05-25.25 GHz band in the spectrum that was auctioned for wireless broadband services, i.e. for the fixed service. The second sentence in domestic footnote **C44** will pose limitations on where feederlink stations may be located, especially since the fixed service is licensed on an area (ubiquitous) basis. Furthermore, as noted above, Bell ExpressVu believes that the 24.75-25.25 GHz band will be used, not only for feederlinks to the BSS, but also for associated interactive purposes, which could involve transmissions from ubiquitous earth stations. Accordingly, Bell ExpressVu urges the department not to award any additional fixed service licences in the 24.75-25.25 GHz band, and not to re-allocate any forfeited fixed service licences in the 24.75-25.25 GHz band.

Yours sincerely,

Terry Snazel
VP Technology