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Via Email: wireless@ic.gc.ca

Ms. Pamela Miller
Acting Director General
Telecommunications Policy Branch
Industry Canada
300 Slater St
Ottawa ON K1A 0C8

Dear Ms. Miller:

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

1. Astral Media Inc. ("Astral") is pleased to provide these comments in response to Industry Canada's *Consultation on the Possible Use of the Extended-Ku Spectrum Bands for Direct-to-Home (DTH) Satellite Broadcasting Services*. Astral owns and operates, on its own or with partners, 18 specialty and pay television services. We also own two small television stations located in northern British Columbia.

2. We have been actively participating in industry discussions related to this process, through the Radio Advisory Board of Canada ("RABC"), the Canadian Broadcast Distribution Association ("CBDA") and the Canadian Association of Broadcasters ("CAB").

3. Given the current digital transition environment, and in particular the move to HDTV, Astral sees the requirement for satellite spectrum growing rapidly over the next two-to-three years. Astral, therefore, wishes to support Telesat's proposal to segment the Extended KU band between FS and FSS uses, allowing for ubiquitous DTH operation. As we will detail below, we believe that this licensing policy change would:

   - provide the necessary capacity to meet the HDTV transition demands
   - provide for efficient use of valuable Canadian satellite spectrum
   - maintain a competitive DTH marketplace in Canada
   - meet the urgent timelines for increased capacity (if the licensing policy is changed as soon as possible)

Astral Media

Why Extended KU?

4. The Shaw Broadcast Services (SBS) system is the primary satellite-to-cable delivery platform for Canadian programming services. This platform also serves a significant Canadian subscriber base (about 900,000 Canadian homes) via the associated Star Choice DTH service. The combined synergy of cable delivery and DTH operation provides an extremely efficient use of valuable satellite spectrum.

5. The existing Ku capacity on the satellites Star Choice/SBS uses at 107.3˚ and 111.1˚ is fully allocated. In order to meet the pressing satellite capacity demand of the 2011 digital transition, the overall industry transition to HDTV and to provide capacity for new Canadian channel launches, Star Choice/SBS require a significant spectrum increase in their existing "neighbourhood".

6. As a member of both the CAB and the CBDA, Astral actively supported the positions of both organisations during the licensing round for new orbital frequency allocations that Industry Canada ran in 2006-2007. One of the key issues was to strongly encourage the Department to secure all useful satellite capacity in Canada's two DTH "neighbourhoods". Specifically, the Extended KU spectrum at Star Choice's two current orbital locations (107.3˚ and 111.1˚) was noted as very valuable spectrum for growth in the Star Choice neighbourhood.

7. In considering all the expansion options in the Shaw/Star Choice neighbourhood for a combined DTH/cable-delivery operation, only KU, 12Ghz DBS, RDBS, Ka and Extended KU allocations can potentially fit the requirement:

    - All KU band and 12Ghz BSS capacity in the neighbourhood is fully allocated.
    - RDBS is an emerging band with no commercial equipment available. Further, lengthy multinational discussions for orbital planning and coordination will be required before RDBS can be put into use. We feel that RDBS can provide a good long term (5+ years) solution for DTH capacity growth, but it can not meet the near term (~ 3 year) requirement for the HDTV transition.
    - The use of Ka band capacity at 109˚ has also been suggested. Astral notes that Ka band at 109˚ is seriously constrained for DTH use, due to the high operating frequency of Ka band and the 2˚ spacing (as a result of the existing Ka band operation at 111.1˚ and the allocation at 107˚). We believe that these constraints create issues for both satellite feasibility (full Canada coverage into small dishes) and for a practical consumer terminal.

8. Given either the unavailability, unsuitability or time-to-implement concerns with all other frequency allocations, we conclude that the only viable solution for a timely capacity expansion in the SBS/Star Choice neighbourhood is Extended KU.

Sharing Extended KU between terrestrial service (FS) and satellite DTH operation (FSS).

9. Astral agrees with the industry consensus that the full Extended KU-band can not be shared between ubiquitous DTH FSS services and FS services on a co-primary basis, i.e. the current licensing status for this band in Canada. It is neither feasible nor consumer friendly to offer small dish DTH in an environment where the interference from newly licensed terrestrial links could completely disable DTH reception for established customers.

10. Astral fully supports the segmentation of the band as suggested by the Department, i.e. that the 10.95-11.2 GHz and 11.45-11.7 GHz portions of the 10.7-11.7 GHz band should be designated for priority use by the Fixed Satellite Service (FSS) to support provisioning of DTH and broadcast signal delivery services.

Options for FS users in a transition to a new licensing policy for Extended KU

11. As we noted above, Extended KU is the only viable option to meet the urgent satellite expansion requirements in the SBS/Star Choice neighbourhood. In contrast, Astral believes that the FS terrestrial operators have a number of options (including the 6 GHz, 15GHz, 18GHz and 23GHz bands). The proposed segmentation of the Extended KU band also provides FS with priority in the bands 10.7 – 10.95 GHz and 11.2 – 11.45 GHz.

12. Given the limited number of existing terrestrial links in the upper portion of the Extended KU band, Astral suggests that these existing links could be migrated to either the lower part of the Extended KU band, or to one of the other frequency bands noted above, over a 3 year transition period.

13. In conclusion, Astral submits that there is a critical need for additional satellite capacity in the SBS/Star Choice neighbourhood, to be able to provide future satellite-delivered services of vital importance to Canada's television broadcasters. We believe that Extended KU offers the only feasible solution to meet this capacity demand in a timely manner and that a segmentation of the band between FS and FSS users, as discussed above, is necessary to allow for ubiquitous DTH operation. Finally, given the typical satellite implementation lead time of 30-36 months, Astral encourages the Department to

render a decision expeditiously, to clear the way for Telesat to begin the urgent planning for satellite expansion in the SBS/Star Choice neighbourhood.

Respectfully submitted,

Sophie Emond
Vice-President
Regulatory and Governmental Affairs

c.c. Chris Bell, Vice President, Technology, Astral Television Networks

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