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To Whom It May Concern:

RE: Canada Gazette Part I, June 2018, Consultation on Revisions to the 3500 MHz Band to Accommodate Flexible Use and Preliminary Consultation on Changes to the 3800 MHz Band, SLPB-004-18

Corus Entertainment Inc. (Corus) extends its appreciation to Innovation, Science and Economic Development Canada (ISED) for the opportunity to respond to this consultation and provide input into use of the 3500 and 3800 MHz bands. We provide responses to some of the specific consultation questions below. While this submission responds primarily to the preliminary consultation into the future use of spectrum in the 3800 MHz band (3700-4200 MHz), we note that some fixed satellite services (FSS) downlink operations fall below 3700 MHz.

Q15 – ISED is seeking comments on the importance of the 3700–4200 MHz band to future FSS operations

The 3800 MHz band (C-band) has traditionally been preserved for FSS downlink globally and is used extensively by American television networks for delivery of programming and news services to Canadian broadcasters. Many American sources of content can only be accessed by satellite, and satellite is an important substitute for terrestrial communication paths. C-band has proven to be a more reliable means of delivering foreign content than the 12000 MHz band (Ku-band FSS downlink in the Americas), which has higher susceptibility to interference from weather.

As one of Canada's leading broadcasters, Corus depends on its multiple unlicensed receivers in the 3800 MHz band to deliver live and pre-recorded foreign (mostly American) content to Canadian viewers. In order to continue providing successful programming services to Canadians, broadcasters like Corus will continue to require the flexibility to acquire content from a variety of sources and to make acquisition decisions with little notice. C-band FSS provides us with that flexibility. As we face ever-greater competition from massive, online, unregulated streaming services, Canadian broadcasters will continue to require reliable access to C-band FSS in the years to come.



Q16 – ISED is seeking comments on whether unlicensed operators in the 3700–4200 MHz band should be required to submit their technical parameters to ISED to assist in frequency management

Corus agrees that existing, unlicensed FSS operators should be required to submit technical parameters to ISED to assist in frequency management. For ISED’s reference, a list of relevant Corus downlink sites is included in Appendix A to this submission.

Q17 – ISED is seeking comments on which steps Canada should take to optimize the use of the 3700–4200 MHz band in consideration of the current services being provided and the developing technologies that would permit the use of new services in this band (e.g. exclusion zones).

Corus believes that if ISED intends to make the 3700-4200 MHz band available to new services then it should absolutely establish exclusion zones to protect existing FSS downlink reception sites. As we elaborate further in our response to Question #18 below, expanding the 3800 MHz band to include mobile and wireless access would introduce significant interference risk to FSS downlink operations. That will in turn compromise broadcasters’ ability to serve customers at high levels of quality and reliability. Exclusion zones would be needed to mitigate that interference risk.

Canadian broadcasters continue to support Canadian content all the while facing serious competitive challenges in a global communications landscape. They do this after having already absorbed the costs of transitioning out of the 700 MHz spectrum and facing millions of dollars in new transition costs associated with the Government’s 600 MHz repack plan. Without establishing exclusion zones to protect existing downlink reception sites, expanding access to the 3800 MHz band would create yet more transition costs for Canadian broadcasters. We simply cannot be expected to shoulder the costs of yet another spectrum change in this environment without negative impacts for Canadians. Moreover, Corus strongly advises against imposing any transition costs on foreign content providers, as these will inevitably be passed along to Canadian broadcasters.

Corus notes that paragraph 96 of ISED’s consultation document alludes to spectrum sharing and improved efficiency, and points to the Federal Communication Commission’s (FCC) work on investigating multi-tiered sharing approaches.¹ The US mobile industry has proposed loosening emission restrictions and gradually migrating the 3800 MHz band spectrum to the mobile industry. Corus has concerns about this proposal. It is unproven whether spectrum sharing can be accommodated without affecting FSS reception.² Canada and the United States share a common border, and Canadian broadcasters are dependent on American signals. It is thus essential that Canada collaborate with the United States on a unified plan. But, that

¹ In FCC 12-148, the FCC asks about the feasibility and cost of improving and upgrading existing downlink equipment to mitigate interference susceptibility from new shared technologies in adjacent frequencies.
² Jose Albuquerque, formerly of Intelsat, outlines the opinion of satellite operators on the suitability of shared use of 3800 MHz spectrum in an ITU publication article at:
<http://www.itu.int/itu-news/manager/display.asp?lang=en&year=2007&issue=08&ipage=C-band>



plan should preserve spectrum equities for Canada and recognize the rights of Canadian broadcasters and the consumers they serve.

Q18 – ISED is seeking comments on the challenges and considerations related to the coexistence of other services, such as mobile and/or fixed wireless access, in the 3700–4200 MHz band

FSS downlink sites receive extremely weak signals from satellites high in orbit, making these transmissions particularly fragile and susceptible to interference. While satellite downlink sites have long coexisted with terrestrial microwave relay links, it would prove much more difficult for them to coexist with mobile and fixed wireless links (as proposed in ISED’s consultation document). Qualified relay link operators have designed frequency coordinated fixed links that mitigate the risk of interference to satellite downlink sites. By contrast, mobile device and wireless use would be uncoordinated and unpredictable.

Expanding the 3800 MHz band to include mobile and wireless access would therefore introduce significant interference risk to FSS downlink operations. That will in turn compromise broadcasters’ ability to serve customers at high levels of quality and reliability. Canadian television and streaming viewers continue to develop higher and higher expectations regarding service quality, and are increasingly unwilling to tolerate interruptions to content. The onus is on broadcasters to meet these standards. For example, a broadcaster providing viewers with live sports or news event coverage cannot risk signal interference from unpredictable, transient services. In short, broadcasters will continue to depend on reliable FSS links to meet the demands of 21st century consumers of content.

Corus appreciates the opportunity to submit comments in this important consultation.

Yours sincerely,



Matt Thompson
 Director, Legal Counsel
 Corus Entertainment Inc.

Attachment

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