Dear Mr. Shaw,

Revisions to Allocations in the Band 2500-2690 MHz
and Consultation on Spectrum Utilization

I am writing on behalf of Air TV Limited and Air TV Canada Inc. (collectively “Air TV”). Air TV Canada Inc. is a company to be incorporated that is in the process of applying to Industry Canada for space station and earth station licences to provide global direct-to-aircraft television and Internet access services using frequencies in the band under review. Air TV Canada Inc. will be structured to qualify as a radiocommunication carrier under the Radiocommunication Regulations.

In its review of the various services that are currently authorized to make use of the 2500-2690 MHz band, the Department devotes several paragraphs at page 6 of DGTP-004-04 (the “Notice”) to the Broadcasting-Satellite Service (“BSS”). It notes that international footnote 5.416, as modified at WRC-03, applies to the band 2520 – 2670 MHz for the use of BSS limited to national and regional systems for community reception. Because of the global nature of these frequencies and the substantial
bandwidth available for multi-channel television services, Air TV has chosen to use this band for its global satellite system.

Air TV is a global content delivery system designed to provide a wide range of live video programming and data services to commercial airlines. When the system is operational, it will provide a broadband connection directly to the aircraft, delivering live multi-channel video entertainment, and Internet/e-mail service to passengers, as well as essential operational and safety data to the cockpit. The system has been designed to provide seamless global service to all airline routes except for certain areas over the poles. The system will consist of a constellation of four geostationary satellites covering the earth and delivering its signals down to the aircraft at 2535 to 2655 MHz. Uplinks to the satellites will be delivered in the 18.1-18.4 GHz band. Return links, which are required for the Internet/e-mail services, will be provided through the existing Inmarsat Aero-H system already onboard virtually all long-haul aircraft.

As noted on page 6 of DGTP-004-04, Canada is the notifying administration for three of Air TV’s satellites to be located at 12° W longitude (not 55° W as indicated in the Notice), 86° W longitude and 180° W longitude. These satellites will be operated and controlled by Air TV Canada, Inc., the Canadian licensee, from earth stations located in Canada, making use of Canadian satellite management expertise.

The Canadian Marconi Company (“CMC”), based in Montreal, Quebec, has designed and will construct the specialized airplane antennas needed to receive the service. Air TV estimates that some 3500 to 5500 of these antennas will be required by the airlines expected to provide the Air TV service to their customers.

As indicated in the Notice, the current international regulations applicable to BSS systems such as the Air TV network are contained in Table 21-4 of Article 21 of the ITU Radio Regulations. An excerpt from this table is reproduced in Annex C of the Notice, which sets out the acceptable pfd limits for BSS transmissions at different elevation angles. These pfd limits are designed to protect terrestrial services in the band, and are based on the best information on sharing available at the time of their elaboration. The Air TV system has been designed to comply fully with these limits which, as the Notice states, would in all likelihood apply to all systems for which notification is in progress and which commence operations prior to the completion of WRC-07. As also indicated in the Notice, item 1.9 of the WRC-07 agenda involves a review of Table 21-4 and other regulations applicable to space services in the 2500-2690 MHz band in order to facilitate sharing between those services and current and future terrestrial services. Studies are just now getting underway under the auspices of the ITU’s JTG 6-8-9 to determine the conditions for sharing based on up-to-date technical information.
Air TV has participated actively in the work of JTG 6-8-9 both in Canada through the CNO JTG 6-8-9 and at the ITU. This process of studies and analysis will continue through to WRC-07. If the studies to be carried out are based on realistic technical parameters with a view to maximizing the efficient use of the band in question, Air TV is confident that sharing regulations can be crafted that are workable and that will permit the successful roll-out of the Air TV network and of next generation MS and FS systems.

The development of these new sharing regulations is a dynamic process and technical contributions will come in from time to time from interested parties. In our view, Industry Canada should not prejudge the outcome of that process by prematurely formulating domestic rules, such as new pfd values, that may sell short one service at the expense of another without benefiting from the work of the JTG 6-8-9. Such an outcome could lead to an unjustified disparity in the rules applicable in Canada and those applicable in the rest of the world. It could also harm the prospects for Air TV to take wing and flourish as an innovative satellite venture based and managed in Canada, and incorporating significant Canadian technology.

DGTP-004-04 has proposed certain changes to the Canadian Table in section 3 headed “Revisions to the Canadian Table of Frequency Allocations”. Among other proposed changes are the insertion of various international footnotes including footnote 5.416 to the sub-bands 2596-2655 MHz and 2655-2686 MHz. Footnote 5.416 already applies to the sub-band 2500-2596 MHz and the proposed change is merely to update that footnote. International footnote 5.416 as modified at WRC-03 states as follows:

(WRC-03) The use of the band 2520-2670 MHz by the broadcasting-satellite services is limited to national and regional systems for community reception, subject to agreement obtained under No. 9.21.

Comments have been specifically solicited in the Notice on the proposed changes to the Canadian Table of Frequency Allocations. Air TV submits that the retention or insertion of international footnote 5.416 in the three sub-bands referenced above is absolutely essential to enable the Air TV service to be provided in Canada. Canadian airlines and passengers on foreign airlines flying into Canada should not be denied the benefits of a service that is expected to be widely adopted by airlines flying trans-oceanic routes. We believe that, over time, live multi-channel video and Internet/e-mail access will become a competitive and differentiating service offered by airlines worldwide. Canada is the sponsoring administration at the ITU for three of Air TV satellites, and Canada’s domestic Table of Frequency Allocations should be consistent with that sponsorship. We note in this regard that the Radio Advisory Board of Canada
in its comprehensive comments on the Notice has no objection to the retention or insertion of international footnote 5.416 in the sub-bands in question. Air TV was an active participant in the RABC’s extensive discussions on the Notice.

We thank the Department for the opportunity to comment on these proposed spectrum policy changes in a band of vital interest to Air TV and its Canadian partners and suppliers.

Yours sincerely,

“Original signed by Simon Bennett”

Simon Bennett
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cc John Larkin, Air TV
Stephen Acker, Johnston & Buchan LLP