



File: 3500

2001-09-24

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

Dear Mr. Helm:

**RABC Response to Canada Gazette Notice
DGTP-004-01 – Proposal to Introduce the Mobile
Service on a Co-primary Basis with the Broadcasting
Service in the Frequency Band 746-806 MHz**

The Radio Advisory Board of Canada (RABC) is pleased to provide the following comments on **Canada Gazette Notice No.DGTP-004-01 – Proposal to Introduce the Mobile Service on a Co-primary Basis with the Broadcasting Service in the Frequency Band 746-806 MHz.**

The Board endorses the initiatives of Industry Canada in making changes to the *Canadian Table of Frequency Allocations* to enable the introduction of mobile services and in particular, public safety services, in spectrum currently allocated exclusively to broadcasting in the frequency range 746-806 MHz.

The recognition by Industry Canada that there is, or will in the near future, be a shortage of spectrum, most importantly for public safety in large urban centres, is gratifying to the mobile and personal communications community. The RABC agrees critical levels have already been reached in Montreal, Toronto and Vancouver and further, recognizes that the need for public safety spectrum is not confined to voice and low rate data applications, but extends to much higher data rates that cannot be implemented in any existing spectrum.

The Board strongly supports harmonized spectrum and standards and encourages Industry Canada to adopt not only the same spectrum allocations, including public safety sub-allocations, as were adopted in the United States, i.e. 794-806 MHz paired with 764-776 MHz, but also the public safety band plan adopted by the FCC based on the recommendations of the Public Safety Wireless Advisory Committee (PSWAC).

Consistent with the above recommendation, the Board also considers that Canada should adopt harmonized standards for the protection of television assignments and allotments against mobile interference, during the period when the 746-806 MHz band will be used by both services. In this regard, the RABC considers that it would be appropriate to use the mobile operating parameters

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and spacing/protection criteria that have already been developed by the FCC. These should apply both domestically in Canada and for cross-border services co-ordination with the USA.

The proactive stance of Industry Canada in proposing the identification in the near term of a modest portion of spectrum, in channels 60-69, to accommodate public safety and commercial mobile requirements while meeting the needs of broadcasters in their rollout of DTV, is endorsed by the Board. The RABC agrees that this is an opportune time to begin consultation on the reassignment of some of the spectrum.

The Board notes, however, that due to the nature of the DTV transitional allotment plans in both Canada and the US, Industry Canada will have less spectrum at its disposal than the FCC; this can be expected to constrain the extent to which spectrum is allocated in Canada for public safety and commercial mobile, and this may present a dilemma regarding which use is to be given priority in situations where available spectrum will not satisfy both uses. The Board does not believe that this consultation is the correct forum to address this issue but it stands ready to advise the Department at a more appropriate time.

Canadian DTV Transition Allotment Plan

The Board notes that Industry Canada is not proposing exactly the same approach to UHF-TV spectrum recovery as has been implemented in the US.

As was the case in the US, the Canadian DTV Transition Allotment Plan was designed to minimize the use of channels 52-69 for television wherever possible; however, in both countries a substantial use of this band for TV will be required until the DTV transition is complete. Industry Canada's current proposal will result in the recovery of 60 MHz of spectrum in channels 60-69 for other applications, which is the subject of this consultation.

In the US, the FCC's plan will result in the recovery of channels 60-69 (60 MHz) and channels 52-59 (48 MHz). For the channels 60-69 recovered spectrum, the FCC had separate proceedings for the reallocation of 24 MHz to public safety, 6 MHz for Guard Bands applications and 30 MHz for commercial use including fixed, mobile and broadcasting services. For the channels 52-59 recovered spectrum, the FCC has issued an NPRM (FCC 01-91) on 2001-03-28 proposing the reallocation of the 698-746 MHz band for new commercial mobile services. In another proceeding for 3G Wireless Systems (NPRM released on 2001-01-05), the FCC has identified 48 MHz of spectrum from the 698-746 MHz band (channels 52-59) and 30 MHz of spectrum from the 747-762 MHz and 777-792 MHz bands (portion of channels 60-69) as possible candidate bands for 3G mobile services. Furthermore, the FCC has released on 2001-08-20 a "Memorandum Opinion and Order and Further Notice of Proposed Rulemaking (FCC 01-24)" proposing additional frequency bands for 3G Wireless Services.

For certain radio services, particularly 3G wireless services, the Board believes that it would be necessary to harmonize the spectrum allocations with the US. As may be seen from the above FCC proceedings, there could be considerable delay in the FCC's finalization of 3G spectrum. The Board, therefore, believes that it is appropriate at this time for Industry Canada to consider only channels 60-69 with respect to the addition of mobile and fixed services as co-primary.

FCC Plan for the Use of the 700 MHz UHF Spectrum

The Board has noted the FCC Plan and, as stated above, believes that harmonization with this plan would be in the best interests of Canada, in particular, in terms of availability of equipment and of services.

Revision to the Canadian Table of Frequency Allocations

The Board recognizes and endorses the Canadian initiative to add Canada's name to footnote **S5.293** which allocates certain broadcasting bands on a co-primary basis with the fixed and mobile services. This allocation would provide flexibility for Canada.

Proposed Domestic Allocation Modifications

The RABC has noted the proposal for modification to the *Canadian Table of Frequency Allocations*. The Board suggests inclusion of the Fixed Service on a co-primary basis in the band 746-806 MHz as illustrated hereunder.

Proposal

746-806 MHz	BROADCASTING FIXED MOBILE S5.293 CWW CZZ
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MOD (WRC-2000)

S5.293 *Different category of service:* in Canada, Chile, Colombia, Cuba, the United States, Guyana, Honduras, Jamaica, Mexico, Panama and Peru, the allocation of the bands 470-512 MHz and 614-806 MHz to the fixed and mobile services is on a primary basis (see No. **S5.33**), subject to agreement obtained under No. **S9.21**. In Argentina and Ecuador, the allocation of the band 470-512 MHz to the fixed and mobile services is on a primary basis (see No. **S5.33**), subject to agreement obtained under No. **S9.21**.

ADD CWW The use of the frequency band 746-806 MHz for the fixed and mobile services, as television broadcasting evolves to digital transmission, will be subject to a spectrum utilization policy developed through public consultation.

~~**ADD CZZ** Use of the bands 470-512 MHz and 614-746 MHz by the fixed and mobile services is withheld.~~

Discussion

The Board proposes the inclusion of the Fixed Service as a co-primary service in the band, in order to allow for such applications as fixed wireless access and also to harmonize with the U.S. allocation in this band. The Board notes that the proposed new Canadian footnote **CZZ** is not applicable to the band 746-806 MHz and therefore proposes its deletion. Further, if FN S5.293 is not referenced in the Canadian Table for the bands 470-512 MHz and 614-746 MHz, there would not be a requirement for such a footnote.

With respect to harmonization with the US allocation, it should be noted that the FCC, in their Report and Order (FCC 97-421; ET Docket No. 91-157) released on January 6, 1998, has reallocated the 764-776 MHz and 794-806 MHz bands to fixed and mobile services and has designated this spectrum for the exclusive use of public safety services. Also, the FCC has reallocated the remaining 746-764 MHz and 776-794 MHz bands to fixed, mobile and broadcasting services.

Interim use of Channel 60-69 by Broadcasting

The Board notes that the Industry Canada Gazette Notice encourages broadcasters wishing to implement DTV at an early date to utilize allotted channels below 60. While this may seem reasonable on the surface, the RABC is advised by its Broadcasting Committee that adoption of such a policy by the Department may not be conducive to an early roll-out of DTV services.

Due to the increased requirement for TV channels during the DTV transition period, many of the DTV allotments in the largest Canadian TV markets are in the range 60-69. These consist of 5 different classes - each having a specific coverage capability. In developing the DTV Allotment Plan, it was necessary to pair each existing analog station with a DTV channel that has a suitable class. Therefore, many stations will be compelled to use a DTV channel above 59 in order to obtain an assignment consistent with their analog coverage duplication requirements.

Moreover, any regulatory move that appears to give preference to early occupancy of a limited number of "preferred" channels will inevitably force competitive public hearings by the CRTC for these channels. This is clearly undesirable for both the Commission and the broadcasters, as it will increase the complexity of the DTV licensing process.

Consideration to Identify Some Spectrum for Mobile Services

The RABC recognizes that it is difficult at this time to forecast how quickly over-the-air digital television broadcasting will be implemented. As indicated previously, the RABC supports the identification of the frequency band 746-806 MHz for public safety and possibly for commercial mobile services, taking into account the DTV transition.

Spectrum Policy Considerations

The Board offers the following specific comments addressing issues identified by Industry Canada:

- (a) *a sharing arrangement for the mobile service along the Canada/US border for the frequency band 746-806 MHz*

The RABC believes that a sharing arrangement for the mobile service along the Canada/US border for the frequency band 746-806 MHz should be negotiated along the lines of the present 800 MHz band agreements. Separate provisions for public safety based on equitable band sharing and for cellular/PCS usage based on a maximum pfd at the border, similar to that used for the 800 MHz cellular band, could be made.

(b) *the availability of equipment for mobile services*

The Board considers that equipment availability can best be addressed by ensuring harmonization of spectrum usage and standards with the United States to take advantage of economies of scale.

(c) *the benefit of harmonizing the spectrum band plan with the US*

The RABC favours harmonizing the spectrum band plan with the U.S., both from the viewpoint of minimizing problems in spectrum coordination and to ensure timely availability of equipment.

Related questions

Concerning the related questions, the Board provides the following responses:

(a) For public safety in the 700 MHz band, should Canada harmonize and have the same band plan as adopted in the US, including reserving some channels?

The RABC, as noted elsewhere, supports harmonization of band plans with the United States, recognizing that these band plans were developed by an industry participatory committee (PSWAC). The Board agrees with the reservation of channels, and also with the designation of a significant portion of the public safety spectrum for mutual aid. The Board proposes that the mutual aid channels be shared on an equal access basis with the US.

(b) Should Canada foster a common technical system standard for public safety?

The Board considers that there would be significant advantages to a common technical system standard for public safety.

(c) Should Canada harmonize its band plan with the US band plan and if so, should simplex and duplex requirements be defined for the band plan?

As indicated in the response to (a) above, the Board supports the harmonization of band plans. However, it does not consider that it is necessary to define simplex and duplex arrangements for the band plan.

Yours truly



R.D.C. Coles
President