

September 9, 1998

Director General,
Spectrum Engineering Branch,
Industry Canada,
300 Slater Avenue,
Ottawa, Ontario K1A 0C8

GV 195-149-2

Royal Canadian Mounted Police
Response to Industry Canada on
Gazette Notice SMBR-002-98
DTV (Digital Television) Transition Allotment Plan

Dear Mr. McCaughern,

On behalf of the Royal Canadian Mounted Police, I am pleased to respond to Gazette Notice SMBR-002-98. This submission will not specifically address the Transition Allotment Plan for reasons expressed in this letter but will concentrate on the public safety needs for additional spectrum relative to the potential reallocation of spectrum under a Final DTV Plan to land mobile, and particularly to the Public Safety services.

Public Safety Spectrum Needs in Canada

A survey of the situation in Canada reveals that there is barely no spectrum left to allocate in the 800 MHz band in most urban areas and in areas close to the US border. We are also told that the situation is comparable in the 900 MHz band where most channels are allocated in congested areas. The current DTV proceeding and potential Final Allotment Plan open up the possibilities of spectrum that could be made available to reallocation and provides a great opportunity to address the future needs in the public safety.

There is a definite trend towards the sharing of communications facilities over wide geographical areas and multi-jurisdictional boundaries in new public safety communications systems. Unfortunately, these large trunking systems often augmented with non-trunked facilities and tactical channels cannot be done in the current allocated bands in the VHF and UHF due to the scarcity of channels encountered. It is uncertain that the re-deployment initiative of spectrum below 500 MHz undertaken by the Department will provide spectrum suitable for this type of shared initiatives.

In addition to the above undertakings which for the most part do not address data requirements, we also foresee a big demand in spectrum to support public safety data applications both in the near and medium future. Public safety agencies are only at the infancy stage in supporting data communications requirements in a wireless mode when considering the potential heavy demands of high speed data for specialized applications such as video, fingerprints and imagery are envisaged. Although development of applications progress towards this type of service, current data infrastructures and second generation type systems such as PCS do not appear to resolve the situation for these data intensive applications. A potential solution may be a similar infrastructure to the Public Safety Wireless Network (PSWN) being spearheaded in the United States. This type of system (PSWN) would have the advantage of providing a transparent/seamless platform between public safety agencies for communications on a nation-wide scale. Additional spectrum will certainly be needed for public safety in Canada to meet future requirements of this type.

Interoperability amongst public safety agencies is a very critical issue, especially in times of emergencies when little pre-planning has time to occur. These interoperability requirements are expected to become more prevalent in the future for both voice and data communications areas. Recent disasters in Canada have pointed out the needs for enhanced capability in that respect.

In the United States, key recommendations from the PSWAC (Public Safety Wireless Advisory Committee) Final Report were that a substantial amount of spectrum (immediately, 2.5 MHz for interoperability, 25 MHz for the short term needs (within 5 years) and as much as an additional 70 MHz for the longer term) be allocated to meet the critical needs of public safety for communications resources now and for the next decade. It is worth noting that 24 MHz of spectrum has already been put aside for public safety from the TV channels 60 to 69 (Ch 63,64, 68 and 69) and is on an accelerated track for early availability to public safety agencies in the United States.

We firmly believe that equivalent needs exist in Canada to meet the future data and voice communications requirements of the public safety community and that the potential availability of spectrum for reallocation from TV channels is a very good opportunity for these issues to come under consideration at the Department.

DTV Transition Allotment Plan

The DTV Transition Plan was made based on principles enunciated during discussions/papers between government and industry . These principles indicate that DTV should be introduced as an eventual replacement service to current analog NTSC services, with the Transition Plan having to accommodate both analog and digital broadcasting during the change over period. Other planning parameters for the Plan included the implementation of the new advanced TV digital standard (the ATSC A/53 standard) as adopted in past years in both Canada and the United States. Considerations were also given for each regular and low power broadcasting stations to be provided with a new allotment under the Transition Plan to the extent possible.

Although initial measures for possible reallocation of channels above 59 were included in the Plan,

the Canadian transition allotment Plan was not successful in avoiding new allotments above channel 59 due to the above restrictions and also because the US Plan was created first, producing severe constraints in border areas for coordination with existing US regular analog stations as well as new DTV allotments.

It can be regarded as almost a miracle that such a Transition Plan could be created given the magnitude of the various restrictions to be considered and it is understood that there would not be other practical alternatives for a different plan that could minimize use of channels above 59 during the transition period.

One encouraging note is that the proposed plan is of a transitional nature and should not be considered as representing a Final DTV Plan in Canada.

The only reservation that we have with the current proceeding is that it does not include any timing factor for the transition period. Other new advanced services are allocated spectrum under conditions that they would be implemented under a specified time frame and the Department is revisiting the issue on regular intervals to ensure that spectrum usage is done in the most efficient manner and to maximize the benefit to the public. This is done to prevent that spectrum, a very scarce resource, be held in reserve for long periods of time for applications or services that may never materialize.

Similar considerations for a time limit would seem very reasonable if applied to the enhanced television services as well.

Potential Additional Spectrum Availability

Although it is too early to determine how many channels would be released at the end of the transition period, it is understood that there is a good probability that once the analogue TV stations are phased out that channels possibly as low as channel 50 and above may become available for re-allocation. It is also noted under Section 3 of the Gazetted Plan Preamble that 'undertakings operating on channels 60 to 69 may need to move to lower channels in the Final Plan when only digital stations remain'. It was already assumed under the Transitional Plan that channels 60-69 could be subject to re-assignment.

This potential additional spectrum would be a welcome relief to the other land mobile services operating in the already congested adjacent 800 MHz bands. However, this issue is further complicated because Canada, unlike the United States, does not have domestically a Mobile allocation in the TV channels 60 to 69. Canada should initiate a request as early as in the WRC 2000 to have the mobile (and possibly the fixed) services elevated to co-primary levels along with the existing primary broadcasting services.

As a measure to fulfill Canadian public safety needs in the medium term, the Department should consider the reallocation of the same channels as in the United States (TV Channels 63, 64, 68 and 69). These channels would bring interoperability across the border and would be supported

by suitable equipment.

Recommendations

1. We urge the Department to initiate the proceedings to elevate the mobile (and fixed) services to the co-primary level along with the current primary broadcasting services for the spectrum under consideration (possibly as low as TV channel 50 to channel 69). These processes may be lengthy and it would be beneficial that Canada align its domestic plan with the United States in that respect.
2. In view of establishing a Final DTV Allotment Plan and after a specified transition period, it is recommended that the Department undertake a public consultation on the future reallocation of the freed up spectrum for various services including broadcasting, mobile and fixed, and, particularly, in respect to public safety.
3. To maximize benefits of spectrum availability to all users, it is also recommended that there be specific dates established for the transition period to the DTV channels in Canada, after which spectrum is reclaimed and becomes part of the reallocation spectrum under a Final Allocation Plan. All other new public services being rolled out to date include such considerations and the same rationale should be applied to the enhanced television services.
4. Special considerations be given to accelerate access for public safety services to the bands 764-776 MHz and 794-806 MHz (TV channels 63,64, 68 and 69).

We would like to reaffirm the importance of additional spectrum to public safety services in Canada in the years to come to meet the growing data needs and to promote better interoperability. The potential re-assignment, within the scope of a Final DTV Allotment Plan, of spectrum adjacent to land mobile bands operating in the 800 MHz should be considered very seriously by the Department as it will certainly impact the ability of public safety agencies to meet the future communications challenges that are so vital to the safety and welfare of the citizens they represent.

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Note: Copy e-mailed to broadcast.gazette@ic.gc.ca on September 11, 1998 and original correspondence to follow in regular mail.