

September 25,1998

Mr. R. W. McCaughern
Director General
Spectrum Engineering Branch
300 Slater Street
Ottawa, Ontario
K1A 0C8

RE: Gazette Notice SMBR – 002 - 98
“DTV (Digital Television) Transition Allotment Plan”

Dear Mr. McCaughern:

Clearnet is pleased to have the opportunity to provide the attached comments in response to Industry Canada’s Gazette Notice SMBR 002-98 concerning “DTV (Digital Television) Transition Allotment Plan”.

As a major wireless communications company, Clearnet is extremely interested in any proposal which makes use of spectrum which could also be re-allocated for the land mobile service. We trust our comments will prove helpful to the Department.

Should you have any questions or require further clarification, please do not hesitate to contact me at (416) 279-3014.

Yours sincerely,

Serge M. Bertuzzo
Director, Regulatory &
Government Affairs

Attachment

Clearnet Inc. Response to

Gazette Notice SMBR – 002- 98

“DTV (Digital Television) Transition Allotment Plan”

Clearnet is pleased to have the opportunity to review Gazette Notice SMBR – 002 – 98 which announced publication of the DTV Transition Allotment Plan for public comment.

It should also be noted that Clearnet participated in the preparation of the comments of the Radio Advisory Board of Canada (RABC) regarding this Gazette Notice and supports the mobile view of those comments.

Clearnet is very concerned and dismayed with the apparent lack of foresight and resolve displayed in the DTV Transition Plan with respect to the handling of channels 60-69. The Department is well aware that in the US, the critical shortage of available spectrum to accommodate the explosive growth of the Commercial Mobile Radio Services (CMRS) and the requirements of the Public Safety services, has prompted the FCC to review the existing frequency spectrum which could be used to satisfy the needs of these services. One of the most promising of these efforts has been the reallocation of Channels 60 – 69 to the Mobile services, including 24 MHz (764-776/794-806 MHz) for Public Safety and 36 MHz (746-764/776-794 MHz) for CMRS. The FCC has also indicated that it is reviewing the possibility of a further reallocation of additional spectrum (channels 50-59) for mobile use.

It should be rather obvious that given the similarities between the US and Canada that the spectrum requirements of both services are virtually identical. Indeed, because most of the Canadian population lives in the spectrum congested border areas while the bulk of the US population does not, one might expect that the Canadian requirements actually exceed that of the US. Given this situation, Clearnet believes that channels 60-69 should not have been utilized in the DTV Transition Plan at all, other than perhaps for very short term purposes (2 years maximum).

Clearnet recognizes that the purpose of the DTV Transition Allotment plan is based primarily on principles which were developed in government/industry discussions and further enunciated in recommendations of the Canadian Task Force on the Implementation of Digital Television. Clearnet also notes that this plan, which makes use of spectrum in the 746 – 806 MHz range, is still only in the transitional stage and the final plan is expected to developed and evolve once the analogue TV stations have been phased out.

While Clearnet acknowledges and commends the Department’s efforts in attempting to introduce DTV technology as a replacement service to analogue TV, we are quite

concerned that the Plan virtually ignores the dire need/requirement for land mobile spectrum in the Canada's highly congested urban centres.

Clearnet fails to see the requirement to have all existing analogue TV stations (including low power stations) accommodated as part of the plan when there appears to already be a considerable amount of competition in TV broadcast delivery. The ever expanding and improving cable TV networks in Canada already provide Canadians with the vast majority of TV reception in the major urban population centres of the country. Further, the continued development of evolving broadcast delivery systems such as Multipoint Distribution systems (MDS) at 2.5 GHz are also beginning to provide added competition in the delivery of TV reception to the consumer. It is ludicrous that with such effective broadcast delivery systems that such a valuable and limited spectrum resource is allowed to be used solely for DTV.

While we believe that some of the existing analogue TV stations will indeed make use of the transition DTV allotment, we remain pessimistic as to whether every existing station will be able to implement and operate a parallel digital channel. Our skepticism is based on a variety of reasons, not the least of which is the high cost and financial strain to implement such technology. As a result, rather than allocating a DTV channel to each existing station it may have in fact been more appropriate, prudent and in the public interest to preserve channels 60-69 and only allocate spectrum to stations who make a serious commitment to such a transition.

The rather surprising lack of definitive timelines in the DTV Transition Plan is a serious shortcoming, which is uncharacteristic of the care, attention and focus, which the Department normally pays to its spectrum management responsibilities. This will further undermine the Department's ability to make any timely reallocation in the future should it determine that it is in the public interest to do so

As you are no doubt fully aware, there has been a continuous effort in the major urban areas of the country to identify additional spectrum in order to accommodate the existing growing and future requirements of mobile and fixed services. The Department is also fully aware of the ongoing pressing and crucial need for additional spectrum allocation for the land mobile services in Canada. These needs are a direct result of current congestion in existing LM bands coupled with the increasing spectrum scarcity resulting from the industry's growth. Future spectrum requirements will also become even more important as the current LM service moves towards the introduction and provision of more broadband technologies including the integration of voice and data applications.

As you know, the wireless sector in Canada has been one of the fastest growing industries and there is every expectation that this trend will continue into the future. The mobile communications component of this industry has already and will continue to play a vital role as one of the main economic drivers for the country. Being responsible for spectrum management in Canada, the Department must take a more serious view of any spectrum which may become available for re-allocation or assignment to the wireless industry and in particular those services which are facing extreme shortages of spectrum such as the Land

Mobile service.

The UHF channel 60 – 69 spectrum is adjacent to existing land mobile bands operating in the 806 – 890 MHz range. Systems in the existing bands have already taken advantage of using spectrally efficient trunked radio technologies in order to increase the effective use of the spectrum. Unfortunately in the major urban centres of the country, these bands have long been depleted and a serious spectrum shortage is facing the mobile industry. Without additional compatible spectrum existing operators face the undesirable prospect of being forced to offer degraded communications quality and reduced service reliability to the Canadian public. The spectrum currently allocated to channels 60 –69 would greatly assist current land mobile operators to continue to maintain an efficient and quality service as well as accommodate for the growth and enhancement of these services.

In order to expand, the industry has looked to redeployment of spectrum in the lower frequency bands for relief. While there are significant efforts currently being made in the development of narrow band technologies, this is a difficult and expensive exercise, and large investments in existing equipment and infrastructure will be stranded as a result. Furthermore, it is not expected that sufficient amounts of spectrum would be made available through this redeployment to accommodate large spectrally efficient trunked systems such as those currently operating in the 800 and 900 MHz bands. While the transition to narrowband channels may provide somewhat limited relief, the current state of these bands (i.e. the myriad of primary, adjacent, tertiary and offset assignments together with significant power levels and antenna heights) in the major urban centres coupled with their close proximity to similarly heavily congested US centres are but two of the reasons that we remain pessimistic about the success of redeployment. In addition, simply splitting channels into narrower ones does not, in and of itself, absorb the increase the data-handling capacity being demanded of the spectrum. As a result, existing land mobile spectrum in the major urban centres is very close to the limit of its use either because of technical issues which preclude its use or simply due to the extreme congestion which may exist.

It appears that the Department may not have fully considered the serious implications of failing to make a similar spectrum reallocation to that adopted by the FCC. On the surface, it appears that the pro-active stance and actions adopted by the US has been either ignored or overlooked by the Department. In our view, it is imperative that a similar approach be adopted in Canada.

Recommendations:

1. Clearnet urges the Department to seriously address the critical spectrum shortage facing the land mobile service in the DTV Transition Plan, particularly in view of the vital role that such radio systems play in the Canadian economy. It is crucially important that the Department ensure that Plan does not preclude the ability to reallocate UHF channels 60 – 69 to the Land Mobile and Public Safety services on a

timely basis.

2. The FCC also indicated that it is reviewing the possibility of further reallocation of additional spectrum (channels 50-59) for mobile use. It is imperative that the Department undertake a public consultation by the end of 1999 designed to review the medium to long term future of the spectrum occupied by both channels 50-59 and channels 60-69 with a view to possible reallocation to meet future spectrum needs of the land mobile services.
3. The Department must establish clear and definitive timeframes within which analogue TV stations must implement and transition to their DTV allotment. The Department should also establish requirements such that analogue TV stations commit in a serious way to implementing digital before spectrum is provided to them. Channels 60-69 should be withheld from assignment and the balance of the spectrum should be assigned on a first-come, first-served basis. Failure to meet these timelines or meet these commitments should result in the loss of the assignment to that station.