

January 13, 2002

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Mr. Helm:

Subject: Consultation on an Application to Use Mobile Satellite Spectrum to Provide Complementary Terrestrial Mobile Service to Improve Satellite Coverage -DGTP-009- 01

I am taking this opportunity to reply to comments responding to Canada Gazette, Part I, October 2001, Consultation on an Application to Use Mobile Satellite Spectrum to Provide Complementary Terrestrial Mobile Service to Improve Satellite Coverage, DGTP-009- 01 (the " Consultation").

I am replying as a private citizen with no business connections to the telecom industry. The comments received for December 28 were all similar in that they only expressed the concern of the vested commercial interests responding. No one spoke for the communications consumer and citizen. I would like to provide this balance.

Canadians recognize the vastness of their country. They know that, outside of a few large (by our standards) urban centres, our people are scattered thinly over great distances. Through our history our governments have had to initiate projects or provide incentives for the provision of transportation, communications and utilities to overcome this disparity of circumstances when private business had little interest. The Canadian National Railroad, the Trans Canada Airline, the

Canadian Broadcasting Corporation and many Provincial and Municipal telephone companies are all examples of this. With the coming of the digital age there is again a growing division of opportunity between urban and rural Canadians.

Canadians and their Governments have recognized this. The National Broadband Taskforce labeled it the "Digital Divide". 80% of the communities in Canada do not have high speed internet access and there is little hope that this will change anytime soon. The days of large scale government infrastructure expenditures has also past. Hence Canadians look to their government to use their position as guardian of the public airwaves to advance the cause of equal access across the country and through the north.

Satellites represent the only technology that has any real chance to address this growing disparity of access and opportunity in the future. As such it deserves some special and careful consideration, even encouragement

The permission to use terrestrial repeaters to enable the satellite system to provide reliable signals in urban canyons seems, from a citizen's view, a very small price for having ubiquitous and universal access for every corner of the country. The enabling technology for terrestrial repeaters to enhance satellite signals in urban environments was a Canadian development first used by XM Satellite Radio in the US. There the local Radio folks originally contended that the repeaters were equal to local transmitters. The FCC ruled that, since the repeaters could not broadcast anything other than the satellite signal, that they did not represent a local broadcast. The same principle applies here: if the repeaters can not function independently from the satellites, they do not represent a separate terrestrial network.

Telus raises a valid point in their comments that should be discussed with the applicants: If this system is not to be deployed for another four years, why are we considering such feeble data rates? Surely they can aim to do better than

165.5Kbps. It would be in the country's interest to see them providing broadband speeds. A system that can be scaled for various speed requirements to serve fixed, portable and mobile customer modems is required and needs to be explored. However, for all Canadians in rural, remote and isolated locations even the present proposal would be far better than what they have now.

I was surprised that Microcell did not comment along with Rogers and Telus. They already have deployed a GSM/GPRS terrestrial network similar to that proposed by TMI/Motient partnership (called Mobile Satellite Ventures). Telus suggests that MSV should take on a partner for the terrestrial part of their network. Were that to be a requirement, then Microcell may be the logical choice, not only for their GSM/GPRS network, but also for their still undeveloped MCS (2500Mhz) frequency. Like the promise of mobile satellite service, it was also Microcell/Inukshuk Internet's mandate to provide access to remote and rural areas for distance learning. That was why the 100+ Mhz was not auctioned to the high bidder as the PCS frequency was. Former Industry Minister Manley had this to say to Canadians:

"As some of you probably know, the 2500 megahertz spectrum had been available for many years, but the existing technology did not allow effective exploitation. Well, that technology exists now and Canadians from coast to coast will soon feel the benefits.

This dramatic new development will change the face of Canada's multi-billion dollar telecommunications industry.

Until now, Internet service providers relied upon telephone lines and cable to bring the Information Highway to Canadians. The introduction of high-speed wireless Internet access will have important repercussions for Canadians using the Internet at work and in their everyday lives.

The big winners are Canadians, who will benefit from increased competition and better service. Small- and medium-sized businesses will benefit from this new technology, as will individual Canadians in residential communities across Canada."

Since the MCS spectrum was awarded in March 2000 no substantial progress has happened and Canada's isolated communities are no closer to having the service that MCS promised. Most recently Microcell has run trials on equipment for small cell networks, similar to PCS but aimed at fixed locations. Such equipment is only economic in urban areas. The MCS (also known as MMDS) spectrum has also now been approved by Industry Canada and the FCC for mobile service. Canada does not need another exclusively urban cellular network. Perhaps a MSV – Inukshuk alliance could finally address the digital divide.

Of course, in the end the final decision rests with the FCC. Canada will only reap the potential benefit of the TMI/Motient/MSV proposal if it is first approved in the USA. It is the American urban areas that will supply the market to justify the investment, not the Canadian. Industry Canada's approval will not make the deal but even reserved approval could give fuel to the systems opponents.

Conclusion

Previous attempts to use spectrum licensing to develop internet access for individual residences and small businesses in remote Canada have failed to date.

Industry Canada should seize any opportunity to encourage the development of digital communications from coast to coast to coast without massive taxpayer expenditures.

Satellite communication is the only medium which has the ability to reach all parts of Canada. Ironically the only areas where the service can be impaired are the heavily populated urban centres.

Terrestrial repeaters can be deployed as a complement to the satellites to enhance urban service. Since these repeaters would not function separately from the satellites and would use the same spectrum they should be considered ancillary and not as a separate network.

Industry Canada should encourage the applicants to explore avenues to enhance the proposed data rates and to offer services for fixed broadband internet access for remote locations.

Thank you for the opportunity to comment.

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