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May 25, 2009

Ms. Pamela Miller
A/Director General
Telecommunications Policy Branch
Industry Canada
16th Floor,
300 Slater Street
Ottawa, Ontario
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Dear Ms. Miller:

Subject: Canada Gazette, Part I, December 2008/February 21, 2009, Consultation Paper on Using a Portion of the Band 14.5 – 15.5 GHz for Tactical Common Data Link (TCDL) Systems, Notices DGTP-004-08/DGTP-002-09; Reply Comments

TELUS Communications Company (TELUS) appreciates the opportunity to provide Reply Comments to the responses to Industry Canada's (the Department) questions arising from Canada Gazette Notices DGTP-004-08 (Consultation Paper) and DGTP-002-09 wherein the Department granted an extension for both the responses to the Consultation Paper and the following Reply Comments.

TELUS notes that there were seven responses to the Department's Consultation Paper received from various and interested parties. It is important to note at the outset that none of the responses received from any party objected to the carve-out of 320 MHz from this band for use by the Department of National Defence (DND) in order to use this carve-out for TC DL systems. What did emerge were differences that relate to both time and money. In essence the DND stated that they wanted a much faster transition of Fixed Service systems out of the carve-out but didn't want to reimburse the fixed service operators for this accelerated displacement. The call for the accelerated displacement of Fixed Service systems was supported in the response of the Royal Canadian Mounted Police (RCMP) although they were silent on the issues of compensation to the fixed service operators. The Canadian Broadcasting Corporation's (CBC) submission was relatively neutral dealing with neither timing nor compensation but only seeking protection for the high end of their systems. The Radio Advisory Board of Canada's submission outlined the views of both DND/RCMP and those of the Fixed Service operators. The issues faced by the Fixed Service operators were outlined by both the TELUS response and that of Rogers

Communications Inc. (Rogers) and supported by the response of the Canadian Wireless Telecommunications Association (CWTA).

The cost impact to the Fixed Service operators was outlined on the first page of the CWTA's response when they said "There is considerable investment in this band in the fixed service, which is used principally for backhaul for cellular and PCS systems. More than 1,000 fixed service links are at risk of being displaced from the 15 GHz band, with few alternatives for the operators."¹ The TELUS response contained the same message when it stated "In this band TELUS has 100's of systems providing service. In total, currently all Fixed Service carrier's systems in this band number approximately 1,000 systems providing Canadians with the mobile services they demand."² Rogers in their response also voiced a similar concern when they stated "Apart from creating a void, the proposed displacement of fixed service microwave backhaul systems from the affected portions of the 15 GHz band will be costly. Rogers alone has over 300 microwave links in the affected sub-bands. Telus (sic) has over 400 links in these sub-bands. Given the average capital cost per microwave link, the cost of displacing Roger's links could be in the order of tens of millions of dollars. Added to this is the cost associated with engineering and installing new links and the fact that scarce engineering and technical resources will need to be devoted to replacing existing microwave backhaul links instead of implementing advanced new services and enhancing coverage."³ There were no dissenting opinions expressed in any of the responses that the Fixed Service operators face considerable costs by having the current embedded and working systems displaced by the carve-out for TCDL systems. At a time of increased competition, rising costs for spectrum and a contracting economy the last thing the Department should do is to inflict huge and unnecessary costs on the Fixed Service operators. Instead the Department should seek to mitigate in so far as is possible the negative economic impacts on these operators.

Facing displacement when Spectrum Management imperatives change has and will continue to be a fact of life when using the radio spectrum. There are many examples of incumbents being displaced by new spectrum allocations that affect the spectrum they were using. The deleterious impacts of such displacements can be lessened or mitigated in two main ways. The first is by giving the incumbents to be displaced time. Time allows the incumbents to obtain the full use of the economic life of the systems they have, in good faith, installed. TELUS believes that the Department recognized the multi-million dollar impact on the Fixed Service operators when they proposed the two stage 10 year transition period for full implementation of the carve-out. The second mitigation technique used by the Department is allowing the new entrant faster access to

¹ CWTA response to Canada Gazette Notice DGTP-004-08: Consultation Paper on Using a Portion of the Band 14.5-15.35 GHz for Tactical Common Data Link (TCDL) Systems, page 1.

² TELUS response to Canada Gazette Notice DGTP-004-08: Consultation Paper on Using a Portion of the Band 14.5-15.35 GHz for Tactical Common Data Link (TCDL) Systems, page 2.

³ Rogers response to Canada Gazette Notice DGTP-004-08: Consultation Paper on Using a Portion of the Band 14.5-15.35 GHz for Tactical Common Data Link (TCDL) Systems, page 5, paragraph 14.

the re-allocated spectrum by coming to an arrangement whereby the entrant compensates the incumbent for the costs incurred in vacating the spectrum earlier. The Department proposed just such an avenue in the Consultation Paper at section 5.1 (5). Only DND of the two respondents calling for accelerated displacement commented on these costs with the terse “DND does not have the resources to help service providers vacate the band earlier.”⁴ This statement is at least neutral in that DND is not stating that they are opposed to the Fixed Operators obtaining much needed compensation, or that they don’t recognize that there is a real cost to the Fixed Service Operators, just that they don’t have any money to contribute. The RCMP, “... realizes that this spectrum is important to the operation of the fixed service’s systems.”⁵ but remains silent on whether they will enter into a mutually acceptable arrangement with the Fixed System operators in order to effect an earlier displacement. TELUS advocated for deserved compensation in return for an accelerated displacement when we stated in our response “In those cases where TCDL proponents want a particular Fixed Service system displaced earlier than called for by the Transition Policy such displacement should be funded by the TCDL operator after arriving at a mutually acceptable arrangement with the Fixed Service operator.”⁶ Rogers echoed this sentiment when they said “If TCDL proponents require an earlier displacement of fixed service systems, then they should be required to fully fund the displacement cost of the incumbent fixed service users.”⁷ The useful economic life of a microwave system in this band is typically between eight and twelve years before replacement or refurbishment is necessary.

It appears that no one is offering to compensate the Fixed Service operators for the very real, very substantial costs of a premature displacement. As outlined above, in order to mitigate these millions of dollars of costs there appears to remain only one alternative; allowing sufficient time for the Fixed Service to transition to be displaced in the carve-out by DND. The Department in their Consultation Paper proposed a ten year two stage displacement process. Once the TCDL licences were awarded the Department would afford the fixed stations affected a minimum notification period of five years and following this period five years after the date served in the notification fixed system operators would no longer be protected but could continue to operate, and then ten years after the date served in the notification fixed service operators must not interfere with TCDL systems and in fact must demonstrate that they will not adversely affect TCDL operations. TELUS supports the Department’s proposed Transition Policy because it recognized the multi-million dollar investment that Fixed Service operators have in the spectrum to be carved out and allows them to obtain the majority of the economic benefits of these embedded systems prior to the requirement of displacement and relocation. Such a view was supported by the CWTA when they stated “CWTA requests, however that the Department recognise the significant embedded investment and growing capacity of the fixed service when

⁴ DND’s response to Canada Gazette Notice DGTP-004-08: Consultation Paper on Using a Portion of the Band 14.5-15.35 GHz for Tactical Common Data Link (TCDL) Systems, page 8.

⁵ RCMP’s response to Canada Gazette Notice DGTP-004-08: Consultation Paper on Using a Portion of the Band 14.5-15.35 GHz for Tactical Common Data Link (TCDL) Systems, page 3.

⁶ TELUS Op. Cit., page 3.

⁷ Rogers Op. Cit., page 6, paragraph 16.

they establish the transition period for this band. CWTA therefore supports the Department's proposals to provide a minimum notification period of five years and an additional five years in which fixed service operators may continue to operate on a no-protection basis."⁸ Rogers also supported the Department's proposed Transition Policy "Rogers supports the revisions to footnote CX as outlined in the RABC's comments, such that the footnote explicitly provides for the continued operation of the fixed service in the affected sub-bands, as outlined in the proposed transition policy."⁹

In contrast to the Fixed Service operators who potentially face severe economic harm if a shortened transition period is mandated and they receive no compensation for either the shortened useful life of their current systems nor the costs of moving to another band, TCDL proponents, both government agencies who are not constrained by the forces of competition and the marketplace, advocate for a much shorter transition period and no compensation in lieu of adequate time to fully realize the economic life of the embedded systems carrying the growing volume of cellular and PCS backhaul traffic. This is a one sided and unreasonable position in TELUS's view.

Moreover the TCDL proponents confuse the moratoriums on new systems in the sub-band by Industry Canada with the proposed transition period after the spectrum management policy for this sub-band has been set, based on the current consultation. The RCMP makes reference to "... and a more recent firm moratorium since December 2008 (SAB-001-08), we are of the opinion that the current fixed incumbents are to be moved to other parts of the band within a 5-year period."¹⁰ DND goes further back in time and references the soft moratorium of 2006, "DND would like to argue that Industry Canada should include the moratorium time in the 5 year notification period."¹¹ A moratorium, either soft or hard is "a temporary prohibition or suspension (of an activity)."¹² Alternatively a transition is "a passing or change from one place, state, condition etc. to another."¹³ In other words two completely different things that should not logically be co-mingled. When Industry Canada discouraged fixed service implementation in the sub-band (soft) or blocked it (hard) this had absolutely nothing to do with the status of the fixed systems in the sub-band, the only thing affected was the total number of fixed systems in the sub-band. The fixed service systems in the sub-band remained then and remain now, Primary. The act of imposing a moratorium of whatever type by Industry Canada did not start any clock running as to the status of the Fixed Systems in the sub-band with respect to primary, co-primary or any other status, it merely contained the growth of the fully legal and protected systems already there. A decision, as a result of the present consultation, to change the status could, it seems logical to assume, begin the transition to displacement process i.e. start the clock running. The transition period can not start until after a decision has been made that would change the current status of these systems, imposing a retroactive start time would be arbitrary and punitive

⁸ CWTA, Op. Cit., page 2.

⁹ Rogers, Op. Cit., page 7, paragraph 19.

¹⁰ RCMP, Op. Cit., page 1.

¹¹ DND, Op. Cit., page 7, section b 3.

¹² The Concise Oxford Dictionary of Current English, 8th Edition, Oxford University Press, page 770.

¹³ The Concise Oxford Dictionary, Op. Cit., page 1297.

to Fixed System operators and not something that Industry Canada has proposed to do as evidenced by the proposed transition period contained in the Consultation Paper.

With respect to the final five years of the transition period and beyond, in its response to the Consultation Paper DND has raised the issue of interference and the DGSE EMC studies conducted and the calculated separation distance of 650 Km arising from these studies. TELUS does not contest the result of the studies but suggests that there is a lot more of Canada beyond a 650 Km radius. It is our understanding that the TCDL systems will be mostly urban and very concentrated in geographical area and time limited. This means that the second transition period should be able to accommodate the majority of fixed service systems in the sub-band. Further, as outlined in our response “TELUS feels that many of its systems especially those in more rural and remote areas can continue to operate after the 10 year transition period without causing interference into TCDL systems.”¹⁴ This reasonable approach was supported by Rogers “As discussed above, Rogers believes that the Department should allow the operation of incumbent fixed service systems in these bands indefinitely, where such systems would not interfere with the proposed TCDL systems.”¹⁵ TELUS respectfully requests the Department give this approach serious consideration.

The fact that the planned carve-out in this band is not the only potential contraction of currently available prime spectrum for fixed systems for cellular and PCS backhaul purposes was raised by two other parties besides TELUS. The CWTA stated “the Department has not provided corresponding additions for backhaul demand. CWTA notes that the reduction in available fixed service spectrum in this band is occurring at the same time as proposals to reduce fixed service spectrum in the 11 GHz band. CWTA does not believe this is consistent with the Department’s role in ensuring “the orderly development and efficient operation of radiocommunication in Canada”.”¹⁶ Rogers stated that it was “concerned with the Department’s proposal to displace fixed service microwave backhaul systems from the affected portion of the 15 GHz band at the same time that it is also proposing to limit the use of portions of the 11 GHz band by fixed service microwave backhaul systems. These bands are required for the provision of mid-range backhaul links and limiting the use of fixed services in these bands will create a void in the options available to fixed service users.”¹⁷ TELUS had made the same point in its response when we stated “A holistic view would entail the recognition that the growing demand for mid-frequency wireless backhaul systems is being met by potential displacements in both the 11 GHz. and 15 GHz bands.”¹⁸

In conclusion TELUS repeats what it said in its response regarding a holistic view of fixed system spectrum developments, namely “At the very least this recognition would confirm that the current systems need all the transition period proposed by the Department for the 15 GHz

¹⁴ TELUS, Op. Cit., page 3.

¹⁵ Rogers, Op. Cit., page 9, paragraph 27.

¹⁶ CWTA Op. Cit., page 2.

¹⁷ Rogers, Op. Cit., page 10, paragraph 10.

¹⁸ TELUS, Op. Cit., page 3.

band i.e. the full 10 year period.”¹⁹ Rogers agreed when they said “Rogers respectfully submits that its significant investment in microwave backhaul systems in this band warrants the provision of the minimum displacement period proposed by the Department in the Consultation Paper.”²⁰ CWTA made the same point “CWTA therefore supports the Department’s proposals to provide a minimum notification period of five years and an additional five years in which fixed station operators may continue to operate on a no-protection basis.”²¹ As discussed above there are only two ways to mitigate the damage that displacement from the TCDL carve-out will inflict on the current Fixed Service systems and that is either time or money. As the main proponent has stated it has no funds to alleviate the damage an accelerated transition would cause to the Fixed Service TELUS respectfully requests that the Department adopt the transition period it proposed in the Consultation Paper.

Yours truly,

{ filed electronically }

Ed Prior

¹⁹ Ibid

²⁰ Rogers, Op Cit., page 7, paragraph 20.

²¹ CWTA, Op. Cit., page 2.