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Pamela Miller
Director General
Telecommunications Policy Branch
Industry Canada
300 Slater Street
Ottawa, Ontario
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Dear Ms. Miller:

**Subject: Canada Gazette, Part I, December 19, 2009, Notice No. DGTP-010-09:
Consultation on the Spectrum Allocations and Spectrum Utilization Policies for the
Frequency Range 1435-1525 MHz (L-Band)**

TELUS Communications Company (TELUS) is pleased to respond to Canada Gazette, Part I, December 19, 2009, Notice No. DGTP-010-09: Consultation on the Spectrum Allocations and Spectrum Utilization Policies for the Frequency Range 1435-1525 MHz (L-Band) the (Discussion Paper).

TELUS participated in the preparation of the Radio Advisory Board of Canada's (RABC) response to this consultation and supports that response in those areas relating to SRS systems.

Because of the large number of interrelated issues raised in the Discussion Paper, the working group preparing the RABC's response had requested that the filing date for comments be extended to March 31. While we thank the Department for extending the filing deadline to March 12th, we join the RABC in emphasizing that there has been insufficient time to undertake any technical analysis related to the interference questions or to determine what feasible alternatives are available for SRS systems that may be displaced. Unfortunately both those factors are critical for TELUS given the issues arising from this Consultation.

TELUS understands that Industry Canada is proposing to:

1. designate new spectrum for Aeronautical Mobile Telemetry (AMT) at the top of the band which if implemented as outlined would reduce all of TELUS's current SRS systems to secondary status subject to notification;

2. rescind the Digital Audio Broadcasting (DAB) designation in the middle of the band, to be replaced by a designation for flexible use licences; and,
3. provide more flexibility and develop a new band plan in the bottom of the band.

With respect to the first main proposal, given its potential impact on our existing SRS systems, we are concerned with the plan to re-designate the band 1492-1525 MHz for AMT for the following reasons:

- Upon examination it appears that the requirements of the aerospace industry are in fact quite limited. There are only two regions of 320 km radius around Mirabel and Downsview airports that are affected. Yet, the re-designation of the entire band to AMT will change the assignments of hundreds of SRS systems across Canada to secondary status; TELUS believes this to be unnecessary. There is neither demand for AMT applications nor chance of interference between AMT and access to basic phone service in remote areas. To displace the latter at great cost and inconvenience to make room for an alternative use that will never arise in that geography serves no public interest.
- TELUS joins the RABC in calling for further examination to determine whether AMT and SRS can co-exist within the areas in question. In fact there may be only a handful of links (if any) that may need to be changed.
- As outlined below TELUS is concerned about the lack of readily available alternatives for SRS systems, given the CRTC imposed obligation to continue service to the parties currently being served by these systems. For the most part, SRS systems provide essential telephone services to thousands of Canadians. It would seem imprudent to proceed with the proposal without fully understanding the long-term repercussion on these systems. There is no currently developed alternative solution for providing basic telephone services to these Canadians nor is there capital available for deploying any alternative solution that might be developed.

TELUS does not object to the other two main proposals by the Department.

Detailed comments are provided in the following sections of this submission.

Response to Specific Questions

Our responses below adopt the same section numbering scheme as used in the Department's Consultation document.

3.2.1 AMT

Item 1:

The Department proposes to designate the band 1492-1525 MHz for aeronautical mobile telemetry.

The Department seeks comments on this proposal, and on the potential locations of AMT test areas, and particularly whether they would be across Canada or only in certain areas.

The Department also seeks comments on whether other portions of the range 1452-1525 MHz could be used for AMT.

In TELUS'S view re-designating the band 1492 -1525 MHz for AMT across Canada will have unnecessary harmful consequences on existing Subscriber Radio Systems (SRS) on a national basis. For the most part, these systems are used as the only available method of providing essential telephone access facilities in high-cost rural and remote regions of our country.

In their submission the RABC noted;

“On the second question, two aerospace manufacturers have been identified with flight-test telemetry needs. Both manufacturers have ongoing telemetry operations based at the Mirabel Airport (YMX) near Montreal and one has intermittent telemetry operations based at the Downsview Airport (YCD) in Toronto, ON. One of these manufacturers does not foresee, on a short term basis, using L-band spectrum for AMT at either site provided that DND still give access to S-Band spectrum 2360-2400 MHz for AMT. On a long term basis, in order to fulfill ever increasing telemetry needs, the company does not exclude possible use of the L-Band spectrum.

AMT also has the capability to deploy quickly to remote flight test sites. Other Flight Testing operations in Canada are usually done on a temporary basis in remote area, e.g., cold weather testing in the far North (Thompson, MB, LG2, QC,) could continue to be supported in the S-Band spectrum as long as DND continues to coordinate access for AMT.

Due to the risk involved, flight-testing requires that the use of telemetry generally be limited to designated test ranges and airspace. These test areas typically do not extend beyond 320 km from the receive site because of line-of-sight limitations. Therefore, the Department might consider limiting new AMT spectrum allocations to a 320 km radius centered on points located at each of the two airports, Mirabel (YMX) and Downsview (YCD), where telemetry operations are established.”

TELUS agrees, by limiting the AMT test locations to these two geographical locations this would satisfy the flight test requirements of the AMT industry without unnecessarily endangering the deployed SRS systems in the rural and remote areas of Canada.

On the third question under item 1, TELUS suggests that if the aerospace industry has an urgent need for an additional 25 MHz of AMT spectrum in order to meet requirement in the Mirabel area beginning in 2012 that an interim solution could be found in the band 1452-1477 MHz.

As discussed below under Item 3, we suggest that it may be possible for AMT to operate in the band 1492-1525 MHz with minimal interference and/or disruption to existing SRS systems thereby avoiding the need for an interim solution to AMT needs.

3.2.3 Treatment of Incumbent SRS

Item 3:

The Department proposes the following transition policy for SRS in the band 1492-1525 MHz:

- *SRS which may cause or be subject to harmful interference from existing or planned AMT systems will be subject to a transition policy.*
- *The transition policy would provide a five-year notification period during which SRS are protected and may operate as licensed. Five years after receiving such notification, these systems may continue to operate on a no interference, no protection basis. Notification would be issued on an "as required basis."*

The Department seeks comments on the above proposal.

As the RABC response outlines "Firstly, the Department has indicated that within the two flight test areas, their analysis indicates that SRS and AMT are not compatible. In other words, SRS will likely suffer harmful interference from AMT or vice versa. However, members of the working group have questioned the validity of this conclusion. Representatives of the aerospace industry have questioned some of the studies undertaken in this regard and have suggested that the Department's analysis significantly overstates the interference issue. Similarly, following some preliminary analysis, UTC Canada believes that SRS systems operated by the utilities will not interfere with the AMT systems in the test flight zones in the Mirabel or Toronto area and are proposing that the Department allow such SRS systems to continue to operate both during and after the transition period.

Representatives from the aeronautical industry and SRS incumbents have provided the RABC Working Group with equipment operating parameters and have suggested that a review of the impact analysis be undertaken. Affected parties have expressed an interest in undertaking actual flight testing to help resolve the issue.

The RABC believes that further engineering analysis should be undertaken to determine if AMT and SRS can co-exist in the 1492-1525 MHz band. It is entirely possible that the

number of problem sites could be quite small and these could be dealt with on a case by case basis.

If interference problems can be dealt with, there is no need to find an interim solution for AMT. As a minimum, it may be necessary to advise the incumbent SRS operators, through a revision of SRSP-301.4, that there is the possibility of interference to SRS systems due to aeronautical mobile operations in the vicinity of Mirabel and Downsview airports.”

TELUS has 42 radio hops and a total of 84 licences in British Columbia and Alberta for SR500 systems dedicated to the provision of essential and basic telephone services. As noted above, the provision of this service is mandated by the CRTC and despite the seemingly optimistic hopes implicit in the Discussion Paper TELUS has found no suitable replacement technology for these systems. Moreover, capital is scarce and none is currently available to deploy any alternative solution that might be developed or available.

These systems must and are today handling extreme conditions where they are deployed. They are weather hardened, low power draw for solar sites and point to multipoint with add/drop capability. The replacement of these systems, since this technology is no longer available, would entail a complete architecture re-design, and very likely require upgrades to solar power plants, towers and buildings. Most of the sites are helicopter access only which means the builds would be extremely expensive. The replacement cost for all these sites is estimated to be somewhere between \$25-30 million. Any move to designate these systems for displacement places a huge cost burden on already costly systems and should be avoided if possible. TELUS believes it is possible to avoid displacement of our existing systems and calls upon the Department to protect our existing systems.

5.2 Proposal for a Spectrum Utilization Policy for the Band 1435-1452 MHz

Item 7:

The Department seeks comments on the following:

1. *Should the designation to SRS be maintained;*
2. *Should the spectrum utilization allow for flexible use of the spectrum, for both fixed and mobile, and for both narrowband and broadband services;*
3. *Should the spectrum be available only in rural areas, using the first-come, first-served licensing mechanism, and reviewed for use in urban areas in a few years, or should the spectrum be made available in urban areas immediately;*
4. *If the spectrum is to be made available in urban areas immediately, what service and applications should be considered for a spectrum utilization policy?*

TELUS calls upon the Department to grandfather any SRS systems in the lower end of this band.

Item 9:

Considering the characteristics of the new equipment for SRS, the Department seeks comments on a suitable band plan for implementation of TDD technologies.

We believe it is premature to examine such band plans. Other technologies involving FDD could also be deployed efficiently in these bands. An appropriate band plan, including paired spectrum, should be looked at in the context of SRSP 301.4 following a review of the policy and licensing framework for the bands in question. As previously outlined there is no capital available to fund new equipment for the provision of this essential service in Canada's remote regions.

6. General Questions Related to the Band 1435-1525 MHz

The Department is seeking comments on the spectrum requirements of each application (AMT, SRS, and flexible use), the band plan and band division, and any issue that may impact the economic and social benefits that Canadians could derive from the use of this band. In particular, the Department seeks comments on how the different policy proposals could affect the cost of operation, the cost to subscribers, or competition.

In addition, the Department is planning or has already initiated various other consultation initiatives. As a result, the Department seeks guidance as to the timing to implement the outcomes of this consultation, including additional consultation exercises that may be required concerning licensing approaches, etc.

TELUS has a considerable investment in SRS systems in this band, providing necessary and essential services. In our view all existing systems should be grandfathered given the small geographic foot print required for AMT uses. In unforeseen circumstances where the geographical footprint for AMT grows to locations where such SRS systems are in place then on a case by case basis the SRS systems should be subject to a 5 year displacement notice. TELUS requires a 5 year timeline in order to avoid incurring unbudgeted capex and opex to replace these systems. Given the essential nature of the services provided by our SRS systems and the huge cost to replace such systems it seems only prudent to avoid any disruption to these systems and then only on an extremely necessary case by case basis with an adequate and certain, 5 year displacement window. Given the geographical location of our systems TELUS believes that its existing systems can and should be grandfathered by Industry Canada.

Yours truly,

{Filed electronically}

Ed Prior