

**BY EMAIL to wireless@ic.gc.ca**

Director General,  
Telecommunications Policy Branch,  
Industry Canada,  
300 Slater Street,  
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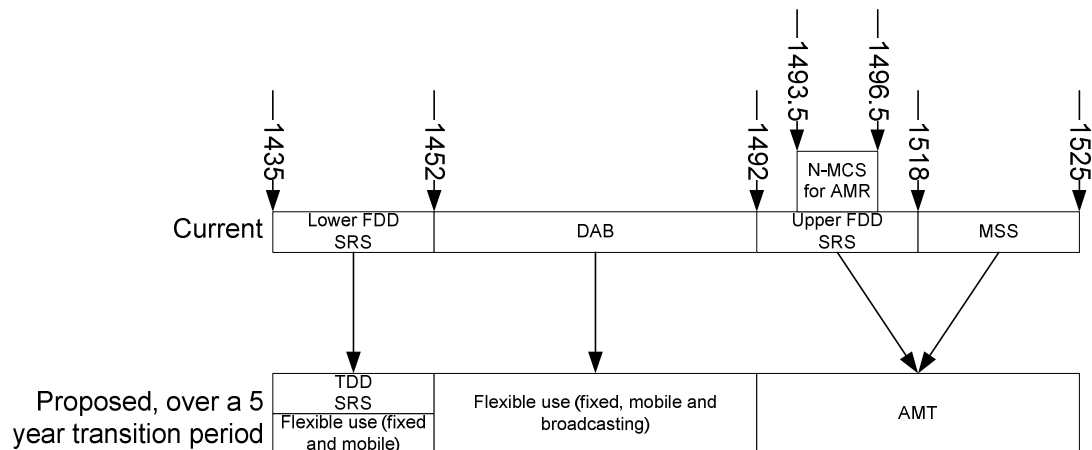
Dear Sir:

**Response to Canada Gazette notice published December 19, 2009, DGTP-010-09, December 2009, Consultation on the Spectrum Allocations and Spectrum Utilization Policies for the Frequency Range 1435 – 1525 MHz (L-Band).**

The following are comments of the Utilities Telecom Council of Canada (“UTC Canada”) in relation to the above-referenced Gazette Notice and Consultation Paper. UTC Canada is an industry association representing Canadian utilities and energy companies, as well as providers of telecommunications infrastructure or information technology services affiliated with these companies. UTC Canada was formed to deal with regulatory issues of common interest and to provide a forum for cooperation on technical and market issues facing its members. UTC Canada is affiliated with the Utilities Telecom Council, a Washington, D.C. based global trade association for electric, gas and water utility telecommunication providers.

UTC Canada understands the main purpose of the consultation is to propose to make spectrum available for aeronautical mobile telemetry (AMT) in the 1492 to 1525 MHz frequency in addition to the re-allocation of the 1435 to 1492 MHz frequency bands.

We believe the following diagram is a fair representation of the Department’s proposal:



The proposal in the consultation document would remove the subscriber radio system (SRS) allocations in the upper part of the band.

For UTC Canada members, Hydro Quebec and Nova Scotia Power have licences in the upper band. We believe that these licences would not interfere with AMT.

The consultation document proposes a 5 year transition period to migrate the services out of the 1492 to 1518 MHz frequency band and thereafter for systems which remain to be allowed to operate on a, “no interference”, “no protection” basis. We would request that the Department allow these systems to continue to operate.

The allocation of 1492 to 1525 to AMT, also removes the upper N-MCS band for AMR being 1493.5 – 1496.5 MHz.

UTC Canada agrees with Industry Canada’s view on removing the upper N-MCS assignment in the 1493.5-1496.5 MHz frequency band. This view is based on the fact that no Canadian electric utility has utilized this allocation to date which has also contributed to the reality that there is no suitable automatic metering reading (AMR) equipment for this band. AMR has evolved into Advanced Metering Infrastructure (AMI) with higher data rates and two way communications. AMI is becoming the norm for electric utilities around the world and as AMI has matured globally the development has favoured other bands. As such UTC is recommending that the Department provide additional licensed spectrum for the utility industry for AMR applications in an alternate band internationally recognized for such use. A possibility is the 901-902, or the 950 MHz frequency band area where licensed AMI equipment is available. The IEEE 802.15 Smart Utility Networks (SUN) Task Group 4g (802.15.4 TGg) has contributions on candidate bands for licensed AMR/AMI operation<sup>1</sup>. A licensed 900 MHz AMI allocation would complement the Canadian 1.8 GHz broadband Smart Grid allocation.

UTC Canada would be please to discuss this with the Department.

The L-Band consultation paper poses a number of questions and requests for comments related to the proposed changes.

Below are our responses to the specific items;

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<sup>1</sup> [https://mentor.ieee.org/802.15/documents?is\\_group=004g](https://mentor.ieee.org/802.15/documents?is_group=004g)

**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.

UTC Canada understands Industry Canada's reasons for wanting to allocate part of the 1452 to 1525 MHz to AMT. There are electric utility SRS allocations in the band that are active; therefore a reasonable transition period is required to relocate these systems if needed into a band with similar properties. We believe that the SRS systems operated by UTC Canada member Hydro Quebec can continue to operate both during the five year transition period and thereafter, since we believe these links will neither cause interference to AMT in their planned fly zones nor suffer any significant degradation of performance from AMT. Nova Scotia Power has 11 licensed systems in the upper part of the SRS, however since these are in the western area of Nova Scotia, and approximately 700 km from Mirabel, we do not believe these will either interfere with AMT systems or need protection from AMT systems. The recent 1.8 GHz allocation provides a suitable migration path when these systems reach the end of life or if expansion of AMT is required.

**Item 2**

The Department proposes to rescind the designation for narrowband multipoint communications systems (N-MCS) in the band 1493.5-1496.5 MHz.

The Department seeks comments on the above proposal.

UTC Canada agrees with Industry Canada's view on removing the upper N-MCS assignment in the 1493.5-1496.5 MHz frequency band. This view is based on the fact that no Canadian electric utility has utilized this allocation to date which has also contributed to the reality that there is no suitable automatic metering reading (AMR) equipment for this band. AMR has evolved into Advanced Metering Infrastructure (AMI) with higher data rates and two way communications. AMI is becoming the norm for electric utilities around the world and as AMI has matured globally the development has favoured other bands. As such UTC is recommending that the Department provide additional licensed spectrum for the utility industry for AMR applications in an alternate band internationally recognized for such use. A possibility is the 901-902, or the 950 MHz frequency band area where licensed AMI equipment is available. The IEEE 802.15 Smart Utility Networks (SUN) Task Group 4g (802.15.4 TGg) has contributions on candidate bands for licensed AMR/AMI operation<sup>2</sup>. A licensed 900 MHz AMI allocation would complement the Canadian 1.8 GHz broadband Smart Grid allocation.

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<sup>2</sup> [https://mentor.ieee.org/802.15/documents?is\\_group=004g](https://mentor.ieee.org/802.15/documents?is_group=004g)

**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.

UTC Canada agrees with the proposal for a transition plan over a five year period to re-assign the SRS systems that are either causing or are being subjected to significant interference from AMT systems.

For the SRS systems used by UTC Canada members that cause no interference to AMT systems in the test flight zones in the Mirabel or Toronto area, we would request that the Department allow these to continue to operate beyond the five year transition period until the end of their life.

**Item 4**

The Department proposes to rescind the DAB Allotment Plan for the band 1452-1492 MHz, including all associated channels to FM and AM stations across the full band 1452-1492 MHz.

The Department seeks comments on this proposal.

UTC Canada has no comment on this proposal.

**Item 5**

The Department proposes to adopt a spectrum utilization policy allowing for flexible use of the spectrum to support a variety of services and technologies for subscription broadcasting, multimedia, fixed and mobile broadband applications.

The Department seeks comments on this proposal.

UTC Canada has no comment on this proposal.

**Item 6**

The Department seeks comments on a suitable band plan and technical criteria (including the need for guard bands) that can facilitate planning the use of this band.

For the unpaired SRS spectrum, UTC Canada supports the use of wireless technologies that can provide broadband. We know of at least two manufacturers who could support broadband in this allocation using TDD technology; however we believe further study is needed. Since TDD may have coexistence issues with the current SRS incumbents using dis-similar technologies, the licence conditions would have to take this into account to ensure satisfactory sharing.

### **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?

UTC Canada is of the view that;

1. The designation of the band to SRS should be maintained, since there are existing services in the upper and lower parts of the existing band that could migrate in their entirety to the lower part of the proposed band should suitable equipment be made available.
2. We agree with the Department's proposal in so far as the spectrum utilization should be for both fixed and mobile for broadband services.
3. Since UTC members have assignments for systems in the existing SRS frequency band, which they wish to continue to operate, UTC's view is that the future SRS allocations should be on a first come, first served basis. We think the spectrum should be available in both rural and urban areas.
4. UTC Canada's existing and expanding requirements for spectrum are based on the communications support needed for its members' power generation and distribution infrastructure. We consider the spectrum requirements needed to support these applications to be equally valid in both urban and rural areas.

### **Item 8**

Should the spectrum be reserved only for rural areas, the Department seeks comments on a suitable definition of rural and urban areas for the application of the spectrum utilization policy for the band 1435-1452 MHz.

UTC Canada is of the view that the spectrum should be available for use in both rural and urban areas.

### **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.

Although some of the UTC Canada members' applications can be supported by TDD, others used to support the power generation infrastructure have latency requirements that are challenged by the inherent characteristics of TDD and may only be fulfilled by FDD systems. Therefore we consider that the Department should give TDD priority in the middle of the allocation and both FDD and TDD priority in the lower and upper sections of the bands. Given our previous comment about the licensing being on a first come, first served basis, the conditions of licence should ensure that the allocation is segmented sufficiently to allow co-existence of dissimilar technologies in different license areas and allocations.

**Item 10**

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.

[UTC Canada understands the desire of Industry Canada to accommodate the spectrum needs AMT and reallocation of SRS in this band. We respectfully request that the Department allows a transition period of five years and that the UTC Canada member SRS systems that either cause no interference to AMT or suffer no significant degradation of performance from AMT systems within the proposed test flight area, be allowed to continue to operate both during and after the five year transition period.](#)

**Item 11**

The Department proposes to remove allocation entry for the mobile-satellite service from the Canadian Table of Frequency Allocations in the bands 1518-1525 MHz and associated footnotes 5.348, 5.348B, 5.351A and C31, as outlined in Annex 1. Also, the Department proposes to adopt international footnote 5.343 next to the mobile allocation. The Department seeks comments on these proposals.

[UTC Canada has no comment on this proposal.](#)

**Item 12**

The Department proposes to merge the two sub-bands 1492-1518 MHz and 1518-1525 MHz, and to adopt international footnote 5.343 next to the mobile allocation. The Department seeks comments on these proposals.

[UTC Canada supports the proposal based on the 5 year transition period.](#)

**Item 13**

The Department proposes to remove the allocation entry of broadcasting-satellite service (BSS) from the Canadian Table of Frequency Allocations in the band 1452-1492 MHz and suppress associated footnotes 5.208B, C28 and C40, as outlined in Annex 1. Comments are sought on this proposal.

[UTC Canada has no comment on this proposal.](#)

**Item 14**

The Department proposes to elevate the status of mobile service to co-primary with broadcasting and fixed services in the band 1452-1492 MHz, as outlined in Annex 1. The Department seeks comments on this proposal.

[UTC Canada has no comment on this proposal.](#)

**Item 15**

The Department proposes to suppress Canadian footnotes C29 and C30 to reflect the co-primary nature of all allocations in the band 1452-1492, as outlined in Annex 1. Comments are sought on this proposal.

[UTC Canada has no comment on this proposal.](#)

**Item 16**

The Department proposes to add international footnote 5.343 for the frequency range 1429-1452 MHz.

Comments are sought on this proposal.

[UTC Canada has no comment on this proposal.](#)

UTC Canada thanks the Department for the opportunity to comment on these spectrum proposals that are of interest to its members.

Yours sincerely



Sol Lancashire  
Chairman of the Board  
Utilities Telecom Council of Canada