Submission to Industry Canada by

SSI GROUP OF COMPANIES

In Response to

Canada Gazette Notice DGSO-011-14

“Consultation on a Policy, Technical and Licensing Framework for Use of the Bands 2000-2020 MHz and 2180-2200 MHz”

June 23, 2014
A. Introduction and Context

1. The SSi Group of Companies (“SSi”) is pleased to submit these comments to Canada’s Minister of Industry (“Industry Canada” or the “Department”) in response to Canada Gazette Notice DGSO-002-12, “Consultation on a Policy, Technical and Licensing Framework for Use of the Bands 2000-2020 MHz and 2180-2200 MHz”, from May 31, 2014 (the “Consultation”).

2. SSi is the licensee of BRS (formerly known as MCS) spectrum in the 2500 MHz band in Nunavut and the Northwest Territories, as well as a licensee of PCS spectrum in the 1900 MHz band in all three Northern Territories. We have extensively deployed satellite and terrestrial wireless facilities across Canada’s North, and we continue our wireless network deployment and the expansion of our service offerings and operations. As such, we have an interest in the Consultation and we appreciate the opportunity to provide these comments.

3. Indeed, we support and agree fully with the Department in its observations and assessment in the Consultation to the effect that:

   “9. Given the geography, demographics and other factors, the availability of wireless telecommunications services vary from region to region. Industry Canada is committed to facilitating access to telecommunications services for Canadians in all regions of the country. Combining MSS and ATC offers the best opportunity to achieve this goal.

   “10. The Department is proposing measures that support all of the above objectives. This band has the potential to further the objective of providing reliable mobile services in remote areas with handheld devices comparable to those available in urban areas. MSS is currently the only technology available to enable mobile communications in a large portion of the Canadian territory that is out of reach of terrestrial networks. Because of the unique potential for MSS to reach rural and remote areas, the Department considers that the provision of MSS in this band should be maintained and protected.”

4. Of further information for the Department, SSi has been working for some time now with TerreStar Solutions Inc. to develop a manner in which we may work together effectively going forward. As the Department may be aware, TerreStar is proposing to develop an open network model for terrestrial deployment and operations in the 2 GHz band.

5. SSi is very interested in working to complete a network partnership arrangement with TerreStar. Availability of this new spectrum band for terrestrial system deployment, and the potential of MSS offerings into Canada’s rural and remote regions, including the North, should lead to greater investment in technologies, more competitive mobile offerings, and new and innovative services that will be of great value and use to across Canada.
6. Our comments below are, for the most part, prepared as direct responses to the questions posed by the Department in the Consultation.

B. Background on SSi

7. SSi is a leader in the field of remote and rural connectivity. Headquartered in Yellowknife, Northwest Territories, we specialize in the design, deployment and operation of communications networks to support the needs of communities that have limited or no access to terrestrial transport and interconnection to the outside world. Our networks deliver broadband Internet via advanced satellite delivery platforms, and we provide local distribution of communications services within communities using terrestrial wireless and broadband technologies.

8. One of the first Internet service providers in the Northern Canada, SSi is proud to have deployed and to operate broadband wireless networks using 2500 MHz spectrum in over 50 of the communities within Nunavut and the Northwest Territories. These two territories account for one-third of Canada’s landmass, yet have a total population of some 80,000 people.

9. As a relatively recent licensee of spectrum in the 1900 MHz band, over the last three years we have made extensive investments in state-of-the-art mobile equipment, RF and network planning, partnership arrangements in Canada and abroad, systems development and testing, and regulatory interventions and processes. With all of this as preparatory work, we now stand poised to launch mobile services as a “Wireless CLEC” in Canada’s North.

10. As a wireless network operator providing service in some of the harshest climates and remote locations on earth, we understand first-hand and in detail the challenges faced in providing effective and affordable communications services to remote and outlying areas, and in providing a competitive alternative to incumbent operators in small and remote markets.

11. With the goal of giving all northern residents equal access to quality communications services, SSi has deployed infrastructure in even the smallest of hamlets, some of which have as few as 55 residents.

12. There are many facets to remote area connectivity, and we are constantly evaluating and developing new technologies and integrating these to ensure our offerings remain attractive and competitive. We are very encouraged by the promise the 2000 MHz band holds for effective deployment and ever more extensive network coverage in remote areas of the country, if the Department adopts the proposals put forth in the Consultation.
C. Specific Comments on the Consultation

13. Set out below are SSi’s responses to each of the questions raised by the Department, in the order and with the numbering used in the Consultation document.

- **A-1 Industry Canada proposes to adopt the 2 GHz band plan and the block pairing shown in Figure 2.**
  - Comments are being sought on these proposals. In providing responses, include supporting arguments for or against these proposals.)

  **SSi Comments:**

14. SSi fully supports the adoption of the 2 GHz band plan proposed by the Department, particularly giving that it will harmonize the Canadian band plan with that of the United States.

15. As the Department points out in the Consultation, noting a practice followed with which Si is in agreement:

   “7. Industry Canada has often aimed to harmonize rules pertaining to wireless services within North America. Harmonization leads to larger markets and lower manufacturing costs of wireless handsets and equipment due to economies of scale, which results in reduced costs and increased availability for Canadian consumers.”

- **B-1 Industry Canada proposes to maintain the provision of MSS in this band.**

- **B-2 Industry Canada proposes to remove the dual-mode requirement in the 2 GHz band, and to modify RP-023 and RSS-170 accordingly.**

- **B-3 Industry Canada proposes to modify the spectrum and licensing policy principles on the implementation of ATC mobile services in RP-023 with regard to the 2 GHz band.**

- **B-4 Industry Canada proposes that the deployment of ATC service not constrain the deployment of MSS.**
  - Comments are being sought on these proposals. In providing responses, include supporting arguments for or against these proposals.

  **SSi Comments:**

16. On item B1, with respect to maintaining MSS in the band, while SSi certainly sees the value of the 2 GHz band being used for terrestrial deployment. As the Department states in paragraph 28:

   [Paragraph content]
“Aligning with the United States by removing regulatory barriers to allow for the deployment of terrestrial-only and dual-mode terminals could provide more options for consumers who do not require the satellite service. This could increase the economic viability of the overall MSS and terrestrial business case, thus fostering the provision of mobile services in rural and remote areas.”

17. With respect to maintaining MSS in the band, given our base of operations in Northern Canada, SSI also sees incredible value in MSS not only for our serving area, but across Canada. We therefore support maintaining an MSS requirement for the band.

18. We would, however, note the following proposal by the Department, again at paragraph 28:

“However, as stated above, the Department believes that the authorization to deploy a stand-alone terrestrial network should still be tied to the provision of MSS in Canada.”

19. This statement also ties to proposed condition of licence 15 “Deployment related to provision of MSS”.

20. If MSS service is for some reason or another not available – consider that the FCC does not require MSS to be available under its new rules for the 2 GHz band – then this proposed policy could lead to a complicated situation in Canada.

21. For example, as a potential network partner / sub-licensee of the spectrum, if SSI were to invest in and deploy network equipment at 2 GHz, we would need to have some certainty that a lack of MSS – through no fault of our own or the 2 GHz licensee - would not jeopardize our own investment and operations in the 2 GHz band.

22. In this regard, there is a need for some flexibility by the Department in the event that MSS is not available in Canada, for technical or other valid reasons.

23. For item B2, we agree with the Department’s proposal to remove the dual-mode requirement in the 2 GHz band. Indeed, in the United States, this same obligation has been removed, and, as noted above, and stated by the Department in the Consultation, “Harmonization leads to larger markets and lower manufacturing costs of wireless handsets and equipment due to economies of scale, which results in reduced costs and increased availability for Canadian consumers.”

24. On item B3, once again, this proposal will assist in the development of a North American equipment market for 2GHz, including broadband services in the spectrum band.

25. And on point B4, SSI agrees with the Department that ATC service should not constrain deployment of MSS. Indeed, for SSI, one of the great benefits for use of the band and the policy set forth in in the Consultation is in fact the MSS component. Given our operating territory, we
would be in agreement with this proposal by the Department, but noting our comments with respect to item B1, above, in the event that MSS is not available for some reason.

• **C-1 Industry Canada proposes to extend the spectrum assigned in existing 2 GHz MSS licences and ATC authorization to 2000-2020 MHz and 2180-2200 MHz.**

• **C-2 Industry Canada proposes to issue new spectrum licences to incumbent 2 GHz licensees, with terms commencing on April 1, 2015, that reflect the proposed revisions to the band plan and new conditions of licence if a letter indicating interest is received from both incumbents.**

• **C-3 Industry Canada proposes that the ATC licensee be allowed to decide if the use of the band 2000-2020 MHz will be for uplink or downlink operations and notify Industry Canada by May 20, 2016; and further proposes that the decision apply to all of Canada and for the rest of the licence term.**

  o **Comments are being sought on these proposals. In providing responses, include supporting arguments for or against these proposals.**

_SSI Comments:_

26. On item C1, SSI agrees with the proposal of the Department, which aligns with the United States. Again, we believe that harmonization and alignment within North America can only serve to benefit Canada and Canadians with greater choice and availability of devices, better cost and more rapid deployment of network services in the band.

27. For items C2 and C3, SSI has no position to offer the Department.

• **C-4 Industry Canada proposes a Tier 1 Service Area for the MSS and ATC spectrum licences.**

  o **Comments are being sought on this proposal. In providing responses, include supporting arguments for or against this proposal.**

_SSI Comments:_

28. SSI definitely agrees with the proposal for a Tier 1 service area for both the MSS and ATC spectrum licenses.

29. Indeed, given the nature of MSS, and the fact that all of Canada can readily be covered by the satellite beam, along with the open network approach to be adopted by Terrestrial, an incumbent licensee, for both spectrum and network services, Tier 1 makes the greatest sense for the high mobility applications of MSS and for the partnerships Terrestrial is working to develop – including with SSI.
• **C-5 Industry Canada proposes that spectrum licences in the 2 GHz band have a licence term of 20 years.**

• **C-6 Industry Canada proposes that the licensees not be permitted to transfer any of the ATC spectrum to a large wireless service provider for the term of the licence. For any other transaction, the transferability and divisibility provisions outlined in Section 5.6.4 of CPC-2-1-23 will apply to any ATC spectrum transfers.**

• **C-7 Industry Canada is proposing deployment obligations for MSS licensees, within 5 years, to ensure that MSS is available and being offered throughout Canada.**

• **C-8 In case of an emergency leading to the lack of availability of the satellite for the provision of the MSS, Industry Canada proposes to give the satellite operator 48 months to replace the satellite in order to continue MSS operations.**

• **C-9 Industry Canada proposes that the ATC licensee be required to demonstrate that, within 5 years, MSS is available and being offered in the Tier 1 area; this condition would apply for the term of the licence provided that the EchoStar T1 satellite or its replacement is operational.**

• **C-10 Industry Canada is proposing deployment obligations for ATC licensees, within 5 years and 10 years, as specified in Annex C.**

• **C-11 Industry Canada proposes that an interim site licensing procedure be used for radio stations operated by the ATC licensees until a spectrum licence fee is finalized.**

  o Comments are being sought on these proposals and on the proposed conditions of licence in annexes A and B, as well as the deployment requirements proposed in Annex C. In providing responses, include supporting arguments for or against these proposals.

**SSI Comments:**

30. SSI agrees with issuing the spectrum licences with a 20-year licence term.

31. On item C6, SSI would generally agree with restrictions on transfers to large wireless service providers as proposed by the Department in the Consultation. However, we would suggest two modifications in this regard.

32. One, we believe that the definition of a “large wireless service provider” should not include a company with a 20% market share in a province, but only those companies with a 10% or more national market share. This restriction could prevent a new entrant or a regional player with national aspirations from working with the 2 GHz incumbents to develop a more effective and expansive operation.
33. Secondly, while we support the restriction on transfers to large wireless service providers, qualified as mentioned above, given the 20 year licence term, consideration should perhaps be given for a policy provision whereby the Minister could intervene after a certain period of time and allow such a transfer, provided that there is demonstrably no impact, or there is a demonstrably positive impact, on the competitive environment and market for wireless services in Canada. (In this regard, we do note Proposed Condition of Licence 14, which provides that “The Minister of Industry retains the discretion to amend these terms and conditions of licence at any time.” The Department can determine if condition 14 provides adequate discretion in this regard.)

34. For item C7, SSI agrees with the Department’s proposed deployment obligations.

35. Concerning items C8, C9 and C10, with respect to emergencies leading to lack of availability of the satellite, time frames for an ATC licensee to demonstrate MSS is available, and deployment obligations, we have no position to advance on the length of time needed to develop a new satellite and have service available, apart from noting that it will be essential for an orbital slot to be available to whichever 2 GHz licensee is proposing or required to have MSS up and running. We also point to our comments at item B1, above.

36. For item C11, the only comment SSI has on spectrum licence fees, is that the Department make all efforts to minimize the burden of fees on the licensee. This is a general statement not only for the 2 GHz spectrum, but for all spectrum allocations.

- **D-1 Industry Canada proposes to develop technical rules for the 2 GHz band, harmonizing with the U.S. rules to the extent feasible and to issue the applicable SRSP and RSS.**

  - Comments are being sought on this proposal and the proposed technical rules in Annex D. In providing responses, include supporting arguments for or against this proposal.

**SSI Comments:**

37. As stated throughout these comments, speaking generally, SSI agrees that the Department should seek to harmonize with the United States when it comes to spectrum, and that includes technical rules to be developed for the 2 GHz band.

38. SSI appreciates the opportunity to provide these comments to the Department.

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