

April 18, 2017

**VIA EMAIL**

Mr. Martin Proulx  
Director General  
Engineering, Planning & Standards Branch  
Innovation, Science & Economic Development Canada  
235 Queen Street, 6<sup>th</sup> Floor  
Ottawa, ON K1A 0H5  
Email: [ic.satelliteauthorization-autorisationsatellite.ic@canada.ca](mailto:ic.satelliteauthorization-autorisationsatellite.ic@canada.ca)

Dear Mr. Proulx:

**Re: *Consultation on the Licensing Framework for Non-Geostationary Satellite Orbit (NGSO) Systems and Clarification of Application Procedures for All Satellite Licence Applications, Canada Gazette, Part I, March 4, 2017 and April 1, 2017, Notice No. SMSE-009-17 with “Extension to the comment period”***

**I. Introduction**

1. This letter constitutes a joint submission to the Department of Innovation, Science & Economic Development Canada (“ISED” or the “Department”) filed in connection with the above-noted consultation (the “Consultation”) by the following Canadian satellite operators and industry stakeholders who are also members of the Canadian Satellite and Space Industry Forum (“CSSIF”) (hereinafter referred to as the “Coalition”):

- Ciel Satellite Limited Partnership
- Meridian Global Connection Inc.
- Northpoint Spectrum Development Inc.
- Parscom Management
- WorldVu Satellites Limited (d/b/a “OneWeb”)

2. Some of the foregoing members of the Coalition may also submit comments to the Department under separate cover in order to supplement or expand upon the positions reflected in this submission.
3. Both the Government of Canada (the “GOC”) and the Department have repeatedly espoused two important guiding principles regarding Canada’s approach to its economy which are relevant to this Consultation. The first is a clear commitment to support “*Innovation*” and the second is the position that “*Canada Is Open for Business*”. For example, the Department’s website states that its mission is the following:

*Innovation, Science and Economic Development Canada (ISED) works with Canadians in all areas of the economy and in all parts of the country to **improve conditions for investment, enhance Canada's innovation performance**, increase Canada's share of global trade and **build a fair, efficient and competitive marketplace**.*<sup>1</sup> [Emphasis added]

4. These statements align with the Prime Minister’s message to the World Economic Forum in January 2016 that “*Canada is open for business, investment*”<sup>2</sup> as well as the Finance Minister’s 2016 Budget Speech in which the Minister observed that “*New ideas drive economic growth. That’s why Budget 2016 defines a new vision for Canada’s economy as a centre of global innovation.*”<sup>3</sup>
5. The federal government’s *Global Markets Action Plan* further states that “*Canada’s economic prosperity depends on international trade and investment,*”<sup>4</sup> and the Department’s own decision to modernise the licence fee framework for FSS and BSS spectrum was premised on this objective. As noted by the Department:

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<sup>1</sup> ISED Mission Statement, available online: <https://www.canada.ca/en/innovation-science-economic-development.html>

<sup>2</sup> *Trudeau's Message at World Economic Forum: Canada Open for Business, Investment*, Canadian Press, January 2016, available online: <https://www.questia.com/newspaper/1P3-3929447281/trudeau-s-message-at-world-economic-forum-canada>

<sup>3</sup> GOC, Budget 2016, available online: <http://www.budget.gc.ca/2016/docs/themes/economy-economie-en.htm>

<sup>4</sup> Global Affairs Canada, *Global Markets Action Plan*, available online: <http://international.gc.ca/global-markets-marches-mondiaux/plan.aspx?lang=eng>

*Industry Canada's objective was to modify the licensing process for the FSS and BSS satellite spectrum **in order to establish an attractive licensing framework, comparable with those of other satellite-licensing jurisdictions.***<sup>5</sup> [Emphasis added]

6. Messages of this kind, namely “*open for business*” and “*enhancing innovation*”, are championed by the Department and the GOC on a daily basis. Clearly, they are important policy objectives, which should inform and guide the Department’s determinations in this Consultation. If ISED wishes to “*enhance Canada's innovation... and build a fair, efficient and competitive marketplace,*” then it must carefully consider the impact, and potential unintended consequences, of some of the proposals on which it is seeking comments in this Consultation. The Department should not rely on policies or approaches that might have been utilized or might have worked in the past, but which are now inconsistent with the current economic climate and technological developments in the satellite industry sector.
7. Canadian satellite operators and entrepreneurs welcome the opportunity to compete domestically and internationally, but in order to have any reasonable chance of commercial success, satellite operators and entrepreneurs require a level playing field – and should not be handicapped by domestic policies and rules which may be well-intentioned, but are not consistent with the GOC’s “open for business” policy.
8. Satellite telecommunications markets are global in nature – perhaps none more so than NGSO satellite communication constellations. The adoption of liberalised trade rules in 1998 by the members of the WTO through the General Agreement on Trade in Services (“GATS”) significantly changed the global satellite regulatory landscape. Formerly, when domestic markets were served by only one or two operators, the GOC could use licensing conditions as instruments of national policy without adversely affecting Canadian spectrum assets or Canadian-based satellite operators. Nowadays, foreign-licensed operators often serve many dozens of markets in WTO member states, including Canada.

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<sup>5</sup> ISED, SMSE-021-14, *Fee proposal for fixed-satellite service (FSS) and broadcasting-satellite service (BSS) satellite spectrum in Canada*, *Canada Gazette*, Vol. 148, No. 50, p. 3007.

It is vitally important, therefore, that Canada maintain a spectrum development environment that is competitive with that of other WTO members, is consistent with its international obligations and does not handicap Canadian operators in their efforts to compete with other global players.

9. As aptly stated by Telesat in its comments in the Department's Consultation on the licensing framework for FSS/BSS satellite networks:

*"Many other administrations, including those that are major licensors of commercial satellites, have less onerous licensing regimes than Canada. **If the Canadian regulations are not modernized and simplified, operators, even Canadian-based operators, will migrate to other administrations for authorizations to operate satellites, including satellites that are capable of serving Canada.**"<sup>6</sup> [Emphasis added]*

10. This statement is even more relevant and important with respect to NGSO licensing – and especially so in an era of increasing satellite operator consolidation – where the threat of operators using other foreign administrations for licensing raises a much larger concern for maintaining a vibrant Canadian satellite communications industry. **The importance of Canada maintaining a spectrum development environment that is comparable to, and competitive with other administrations, and which does not inequitably burden Canadian operators and entrepreneurs, cannot be stressed enough.**
11. In fact, considering the deployment costs of commercial NGSO FSS constellations, typically in the billions of dollars, these constellations are not always going to be built, launched, and maintained by a single company, or even companies from a single country – such massive projects often require capital investment and expertise from multi-national firms, and partnerships that cross borders. Canadian licensing rules should take into account that Canadian firms would benefit from rules that encourage foreign investment in and participation by these firms in such ventures.

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<sup>6</sup> Comments of Telesat Canada, Consultation on the Licensing Framework for Fixed-satellite Service (FSS) and Broadcasting-satellite Service (BSS) in Canada", SMSE-003-12, issued March 2012.

## II. **Answers to specific questions raised in the Consultation**

12. Set out below are the Coalition’s responses to the specific questions raised in the Consultation document.

### ***A. ISED seeks views on the following:***

- 1. Whether to impose a limit on the number of licences issued per band for commercial systems;***
  - 2. If so, what would be an appropriate limit; and***
  - 3. If a limit is imposed, whether to exclude systems whose purpose is data gathering and that transmit to a small number of fixed earth stations and non-commercial systems (i.e. academic, government and developmental) from this limit.***
13. The Coalition submits that setting arbitrary limits for the number of licensed commercial NGSO systems could have the unintended consequence of stifling innovation and preventing the growth of these systems in Canada. This is the opposite of what the Department is presumably trying to achieve in this Consultation and, indeed, its objective to *“establish an attractive licensing framework, comparable with those of other satellite-licensing jurisdictions.”* A more open, market-based approach would be more consistent with this objective because it would provide participants with the opportunity to work together to maximize the market potential for all industry stakeholders through innovative technical solutions and creative sharing arrangements.
14. It bears noting in this regard that the Coalition’s primary concern is not on imposing limits as a means to address concerns regarding the amount of spectrum available for multiple NGSO systems – but rather on whether or not multiple operators of large NGSO constellations can find ways to share, or technically coexist and coordinate operations. We do not believe that the Department can make this determination, as demonstrated by the licensing moratorium on new NGSO FSS applications issued in June 2016 – nor should it. The Federal Communications Commission in the United States (the “FCC”) has never

imposed such a limit and has not proposed a maximum number of licences in its own consultations on NGSOs.<sup>7</sup> We are not aware of any administration that does.

15. If it is not possible for the Department to determine coexistence, then we respectfully submit that this matter should be left to the operators to resolve from a business and coordination potential perspective. Studies referenced in the Consultation document that were prepared by (or for) the International Telecommunication Union (the “ITU”) in the 1990s do not represent all of the technologies that have been developed since that time, which suggest that it is possible for many more constellations to share and operate in one band. Furthermore, if a limit on the number of licences issued were to be adopted, real projects that have financing and are ready to be implemented could stand at risk of not receiving an authorization as a result of prior-filed applications that may never materialise.
16. With respect to the Department’s proposal that academic, GOC and/or developmental licences be excluded from the proposed limits, the Coalition reiterates that such limits are not necessary, and are inevitably arbitrary and artificial. However, should the Department decide to establish limits, then academic/GOC/developmental systems should only be excluded from the limits if they operate in frequency bands designated for MSS (below 3 GHz), EESS, SRS and the Amateur-Satellite service. In other words, they should not be excluded if they operate in FSS-designated commercial bands where NGSO systems operate such as in the C, Ku, Ka and Q/V bands. This would ensure that a fair and level playing field is applied to all NGSO systems operating in FSS commercial bands and that academic or governmental programs do not bypass the rules by offering commercial services in competition with commercial entities.

***B. ISED seeks comments on the following proposals:***

- 1. Primary TT&C and network operations centre for all NGSO systems must be located within Canadian territory;***

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<sup>7</sup> FCC, *Updates to Part 2 and Part 25 Concerning Non-Geostationary, Fixed-Satellite Service Systems and Related Matters*, IB Docket No. 16-408.

- 2. A description and planned location of the facilities must be included in licence applications;**
  - 3. Confirmation of the final location of these facilities will be included in the second implementation milestone as part of the conditions of licence; and**
  - 4. Construction of the facilities will be included in the milestone associated with the first satellite(s) being in operation.**
17. Regulations and requirements that do not make business or operational sense to satellite operators will not only have a chilling effect on the market, but will also act as a clear disincentive to do business in Canada – and run contrary to the GOC’s principle that “Canada is open for business”. Removing artificial roadblocks to efficient and innovative satellite operations, such as outdated “commercial presence” requirements, are the most effective means of encouraging NGSO operators to seek licensing in Canada, and to serve Canadians with new and innovative services.
18. Consistent with this approach, it should not matter whether a TT&C facility is located within Canada or outside of Canada, regardless of the type of system being operated (i.e., NGSO or GSO). As long as the licensee can demonstrate that it has operational control over its network, and can turn off transmissions in the event that the network is causing harmful interference to other networks, then the actual location of the TT&C facilities should be irrelevant. The *Radiocommunication Act* does not state that TT&C or other facilities must be located in Canada, and it is inappropriate to interpret the phrase “direction or control”, as set out in subsection 3(3) of that Act, otherwise.
19. The same holds true with respect to the requirement to maintain a network operations centre (“NOC”) in Canada. This requirement goes well beyond what is currently required of GSO operators and will do nothing other than make Canada an unattractive jurisdiction for licensing – especially when other jurisdictions do not enforce similar measures. This proposal would also act as a barrier to trade – something which is at odds with the GOC’s “open for business” principle.
20. If the concern underlying the Department’s TT&C and NOC proposals is to ensure that Canadian law enforcement authorities can gain access to Canadian NGSO networks via an

interception point in Canada, this could be easily addressed by routing traffic to a Canadian switching centre for this purpose.

21. Taking the foregoing into account, the Coalition submits that the three corresponding reporting milestones referenced in “B” above are also unnecessary, for the very same reasons.
22. Having said that, the Coalition does wish to highlight a concern that currently arises from locating TT&C facilities in Canada. On previous occasions, industry stakeholders have noted that Canada’s earth station licensing fees are punitive and serve as a true disincentive to locating these facilities in Canada. If the Department is truly interested in attracting TT&C and related operations to Canada, it is vitally important to address this concern. Otherwise, Canada will lose facilities and jobs to nearby jurisdictions where the corresponding fees are significantly lower.

***C. ISED seeks comments on the following proposals on Canadian coverage:***

- 1. All commercial NGSO FSS/BSS satellites must cover 100% of Canadian territory on a 24/7 basis;***
  - 2. There must be a sufficient number of gateway stations located in Canada to provide services throughout 100% of Canadian territory:***
    - a. Two for LEO systems without ISL;***
    - b. One for LEO systems with ISL; and***
    - c. One for MEO and HEO systems;***
  - 3. A description and planned location of the gateway stations must be included in the licence application;***
  - 4. Confirmation of the final location of the gateway stations will be included in the second implementation milestone;***
  - 5. The completion of the gateway stations will be included in the milestone associated with the first satellite(s) being in operation; and***
  - 6. No waivers will be granted from the coverage requirement unless the applicant is already operating a constellation that provides coverage to 100% of Canadian territory.***
23. New satellite networks are often designed to provide significant steerable coverage, and usually have the ability to reassign all or a portion of their capacity to meet demand. Examples of these networks are O3b, HNS Jupiter and ViaSat-3. New NGSO systems need

this flexibility in order to compete and to meet changing customer demands. Otherwise, their businesses will not be sustainable. In fact, the inability to customize capacity based on demand could place a new network into business distress at the very outset of its service offerings, when every new customer counts the most.

24. How can mandated coverage and service in Canada remain relevant – or be assured – in an age of steerable capacity, beam switching, and beam hopping? The creation of arbitrary service requirements and measurement criteria will inhibit or negate the innovative use of new technologies that the Department and the GOC are attempting to foster. The evolving NGSO landscape should be more open and unfettered, and rely on market forces, so that operators can provide new, cost effective and innovative services to the Canadian marketplace and contribute to overall economic growth.
25. The Coalition also questions the apparent premise of the proposed coverage requirements which appears to be that Canadian licensed providers must provide coverage of Canada because there is a real risk that Canada would not otherwise be “covered” by FSS networks. If this is the premise underling the proposal, it is entirely inconsistent with the present day realities. There are currently multiple FSS networks that cover Canada, operating in the C, Ku and Ka bands, and even more will cover Canada in the very near future. In the face of these facts, the Department’s proposed “coverage” requirement is unnecessary. Canada is now, and will be in the future, well covered by FSS networks. Any attempt, therefore, to impose artificial and unnecessary coverage requirements on prospective NGSO licensees will only serve to make Canada less attractive as a licensing jurisdiction.
26. The Coalition further notes that the specific coverage requirements proposed in “C” above are somewhat ambiguous. For example, the equatorial orbit planes proposed to be utilized for LEOVantage (CANPOL-2 mod-1) will not cover northern parts of Canada, and other equatorial orbits like O3b MEO also cannot reach all of Canada. Similarly, some of the proposed HEO NGSO satellite systems, such as CANPOL-2, may not be able to serve

southern parts of the landmass. Steerable beams will not cover all of Canada 24x7, but will point and shoot to areas where there is demand.

27. In addition, the proposed requirements to cover Canada could lead to a number of distortive and anti-competitive effects, which will mostly impact licensed Canadian operators. In particular, they will make it difficult for licensed Canadian operators to compete with operators who have much greater flexibility in how they configure their service coverage of Canada.
28. With respect to the requirement to operate a minimum number of gateway facilities in Canada, the Coalition notes that this proposal appears to be tied to the Canadian coverage requirement which, as noted above, is outdated given technological and market developments. Not only does it inequitably penalize NGSOs (who often compete with GSOs that do not have similar obligations), it is antithetical to the Department's objective to implement a more open and attractive licensing regime. If the Department is truly intent on creating such a regime, then it should not impose "protectionist" rules which require the location of gateway or other types of facilities in Canada (e.g., TT&C and NOC), or which require 100% coverage of Canada. These are not features of other open licensing regimes.
29. In this regard, and as noted previously, one of the challenges that arises from locating gateway stations in Canada is that the licence fees for the spectrum used by these facilities are punitive and act as a disincentive to locating these facilities in Canada. In fact, the financial impact of onerous license fees is even more critical for gateways than it is for TT&C stations. While a TT&C station typically uses a few MHz of bandwidth, each gateway of an NGSO FSS system may transmit and receive hundreds of Mbps of traffic, or even several Gbps of traffic over several GHz of bandwidth. With each gateway potentially serving dozens of NGSO FSS satellites within a constellation, the licence fees alone could be well in excess of three hundred thousand dollars annually, a 100-fold premium compared to fees imposed in the United States.

30. As a final observation, the Coalition notes that the proposal that LEO systems with no ISL must establish at least two gateways in Canada appears to be premised on flawed engineering. Even at a very low orbit of 1200 km, an NGSO constellation comprising several hundred satellites could provide service to all of Canada using only gateways located outside the country. Once again, if the Department's objective is to ensure that gateway facilities are located in Canada in the hopes that this will create economic stimulus and bring good jobs, reducing the regulatory burden for satellite operators, including the licence fees for gateway facilities, will serve as a far greater incentive for the location of these facilities in Canada, than the imposition of outdated and unnecessary commercial presence requirements.

***D. ISED seeks comments on the following proposals related to capacity for Canadian users:***

- 1. Licensees of LEO systems must reserve 100% of capacity for the Canadian market while the satellites are over Canada, as described in section 6.3.2;***
  - 2. Such capacity must be reserved for the term of the licence;***
  - 3. Licensees of MEO and HEO systems must reserve, for each satellite, capacity for use by Canadians that is equal to the proportion of the Canadian territory covered vis-à-vis the total territory covered by that individual satellite; and***
  - 4. Such capacity must be reserved until time of launch.***
31. As noted above, the Department recently established a new licence fee mechanism for FSS and BSS spectrum which was designed with the express purpose of making Canada more attractive as a licensing jurisdiction – a decision that is perfectly aligned with the GOC's principle of ensuring that Canada is "open for business" and "investment" from its trading partners. In order to ensure that this goal is actually achieved, the Coalition believes that several elements of the regulatory framework for satellite licensing in Canada should be updated.
32. This submission has already touched on a few of these outdated elements, such as local presence requirements for TT&C, NOCs and gateway facilities, as well as service coverage requirements which, as noted above, are entirely unnecessary given the massive amount of FSS capacity that is currently and will soon be available over Canada.

33. Another element of the current satellite licensing framework that is outdated is the capacity reservation requirement. Specifically, the Department is proposing a 100% Canadian capacity reservation requirement for LEO systems for the entire term of the licence, and a “proportional” capacity reservation requirement for MEO and HEO systems which will only be applied until the launch of these systems.
34. These requirements, particularly for LEO systems, are punitive and go well beyond the current GEO-FSS requirements which only require a reservation of capacity for Canadian users for a limited period of time. As noted earlier, NGSOs often compete with GSOs in the market, and any licensing requirement that inequitably burdens or penalizes NGSOs is unacceptable to the Coalition. The Coalition is not aware of any other administration that has established a capacity reservation requirement along the lines proposed in the Consultation, and the likely reason why is because these types of requirements are unnecessary given the proliferation of FSS systems that are currently and will soon be in operation. In fact, there may not be sufficient demand to reserve capacity for Canada given the reported exponential capacity increase from High-Throughput-Satellites (“HTS”) and the large number of current and planned FSS systems serving Canada. In these circumstances, having a ‘reservation regime’ makes it very difficult for a satellite operator to market capacity to other customers, such as large or anchor tenants, who cannot receive assurances they will be able to retain or obtain capacity should a ‘Canadian’ customer arise at a later date.
35. In this regard, the members of the Coalition cannot recall a Canadian-licensed satellite program that has provided a meaningful amount of capacity (more than a few transponders) for a Canadian user since the Ku-band Nimiq and Anik-F series were sold to Bell and Shaw for DTH services – the scope of which from the golden era of DTH is unlikely to be repeated. In today’s market, where there is more than ample FSS capacity, there is simply no business case to support a capacity reservation regime of any kind. The only Canadian customer that has leased any meaningful capacity from broadband satellites is Xplornet - which has announced additional Ka-band capacity across Canada

from EchoStar XIX, ViaSat-2 and ViaSat-3. Xplornet's service is almost exclusively focused on consumer/SOHO broadband services – where NGSO steerable antenna costs may make equipment costs/subsidies initially prohibitive. It is inconceivable that the proposed 'reservation' requirement would somehow encourage more Canadian users, further enhance any business arrangement being considered, or support any Departmental efforts to ultimately serve more Canadians.

36. In fact, the proposed capacity reservation requirements will actually have the perverse result of making licensed Canadian satellite operators less competitive than their non-Canadian counterparts who are not subject to these types of rules. In fact, the requirements for LEO systems are particularly discriminatory because they are prohibited from selling their Canadian capacity to other parties *for the entire term of their licences*, even if they have no Canadian customers for this capacity. The Consultation document does not provide any rationale for the differential treatment of LEO networks on the one hand and MEO/HEOs on the other, making these proposals all the more questionable.
37. The engineering basis for the capacity reservation requirement is also questionable. For example, the concept of a LEO satellite "being over Canada" reveals a misunderstanding of how such networks operate. For example, a LEO satellite that is currently north of the Great Lakes is equally capable of serving Detroit and Windsor. However, under the Department's proposal, the entire capacity of that satellite would have to be reserved for Canadian use for the entire term of the licence, even though there could be several more LEO satellites in the constellation capable of providing capacity over that area of Canada. Conversely, a few minutes later when that same satellite traverses the border, there would be no capacity reservation requirements.
38. Although the Department's capacity reservation proposals for MEO and HEO satellites are not as absolute as they are for LEOs, these proposals also seem to lack any logical or scientific basis. For example, the proposal to reserve capacity on a proportional basis to the area covered may seem reasonable at first glance, but if a satellite is equally capable of serving the US and Canadian territories, it is not entirely clear why capacity must be

reserved on a geographically proportional basis given the 10:1 population ratio between the two countries.

39. As a final comment, the Coalition notes that the concept of capacity reservation is reminiscent of traditional C-band and Ku-band broad-beam or DTH, GSO satellites, where capacity was sold as full transponders or partial channel bandwidth. Newer generations of GSO HTS satellites and the proposed new NGSO constellations are all premised on dynamic capacity allocations based on demand. As a consequence, the long-term contracts that were seen in the past for full transponders and partial channel bandwidth do not apply to such systems.

***E. ISED seeks comments on the proposal to no longer assess coexistence with authorized and approved Canadian NGSO systems as part of the licence application process.***

40. The Coalition fully supports the removal of coexistence as an assessment criterion. No other country assesses coexistence and there are no means for the Department to verify compliance. This is a prime example of identifying a regulation that no longer makes sense in the modern and evolving satellite market and the Coalition fully supports the Department 's proposal to remove this roadblock. The process for coordinating NGSO satellite systems is governed by the ITU *Radio Regulations* for operations internationally and there is no reason to believe that it could not also be used between Canadian-licensed operators, or between Canadian licensees and foreign systems seeking Canadian access, potentially with some safeguards, as discussed in "H" below.

***F. ISED seeks comments on the following proposals to modify the implementation milestones for large NGSO systems to require that:***

- 1. One-third of the authorized constellation be deployed by Year 6; and***
  - 2. The full constellation be deployed by Year 9.***
41. The members of the Coalition are still evaluating the Department's proposals regarding the implementation milestones for NGSO systems. However, at this stage, a few questions are raised by the proposals. For example, one difficulty with assessing the impact of the proposals is that the consequences of not meeting the milestones are not

discussed. Specifically, if the proposed 1/3 of the constellation has not been deployed, but the deployment is nevertheless underway and the constellation is providing a useful service, would the licence be revoked and the operator forced to shut down operations? At a minimum, some flexibility may need to be afforded to the Department, and perhaps the operator, in order to prevent the disconnection of services to paying subscribers.

42. The Coalition notes in this regard that, long before an application for an NGSO constellation is submitted, operators develop a business plan based on many assumptions including technology, costs, market share and service-pricing. As the network evolves over the years many of these assumptions will certainly change, prompting revisions to the business model and possibly the size and configuration of the constellation/network. Some technical aspects that benefit from Moore's law can be affected by an order of magnitude during the 5-6 year construction and launch cycle of a large constellation. New breakthroughs in modulation and coding like DVB-S2X, improved silicon/chip performance, or new steerable array antenna improvements can dramatically affect network throughput and performance. In this type of business environment, fixed milestones, or penalties if business plans change, may not make sense.
43. It would also be helpful to understand what is meant by the terms "Year 6" and "Year 9", especially if they are not calculated from the date that the licence is awarded. For example, an application for a NGSO FSS system could take a few weeks to be assessed, or it could take much longer to be authorised. It would be helpful if the Department could clarify the baseline date from which "Year 6 and "Year 9" would be calculated.
44. In a similar vein, the proposal raises the question of what service standards will be adopted by the Department in connection with the processing of applications and how do NGSO operators demonstrate compliance with their authorizations. For example, how long will it take to receive an NGSO FSS spectrum licence once the launch of the satellites in the constellation commences? Are there a certain number of satellites that must be launched before the licence is issued? And how do licensees certify or demonstrate compliance with licence conditions, such as capacity and coverage requirements, at Year

6 and at Year 9? Do the requirements to demonstrate compliance change from Year 6 to Year 9? Once again, it may be necessary to build in a certain amount of flexibility into the licensing framework in instances of *force majeure* and/or where not all satellites in a constellation are launched, but the licensee can nonetheless demonstrate that the as-launched network effectively meets the overall capacity or other conditions of the authorization.

***G. ISED seeks comments on the proposal to define large constellations as those with 30 or more satellites***

45. The members of the Coalition do not support the creation of a definition for a “large constellation”. The only purpose in creating such a definition would be to differentiate between different types of commercial NGSO FSS systems – something which is inconsistent with the principles of technological and competitive neutrality.
46. The members of the Coalition are also concerned that the creation of such a definition would result in “regulatory gaming”, especially if the conditions that apply to “small constellations” differ from those of “large constellations.”
47. All commercial NGSO FSS satellite constellations should be required to comply with the same conditions of licence, regardless of their size. The use of a definition to differentiate between different sizes of constellations is entirely unnecessary and inherently arbitrary.

***H. ISED seeks views on the following mechanisms that could be implemented in the event of unsuccessful domestic coordination:***

- 1. The imposition of spectrum sharing during in-line interference events;***
- 2. What would be an appropriate angle to define in-line events;***
- 3. Whether the spectrum should be split on an equal basis or reflect the regulatory status (authorization) of the systems involved;***
- 4. The mandated use of a third party dispute resolution process, prior to seeking the Department’s assistance in resolving a coordination dispute; and***
- 5. Which of the two dispute resolution processes referenced in paragraph 46 should be adopted.***

48. The Coalition is still evaluating the Department's proposals regarding domestic coordination. The members of the Coalition expect to be in a better position to comment on the Department's proposals once they have had the opportunity to review the first round of submissions in this proceeding.

***I. ISED seeks comments on its proposal to continue approving the use of foreign-licensed NGSO systems in Canada if coordination has been completed with Canadian networks, without requiring international coordination to be completed.***

49. The members of the Coalition do not support this proposal – at least as currently drafted – because it would allow authorized Canadian networks to control the timing of market entry and access by non-Canadian systems to the Canadian market.

50. This is not to say, however, that the Coalition's members are opposed to a requirement that non-Canadian networks carry out coordination with Canadian networks. The Coalition agrees that coordination with Canadian networks is necessary, but it should be governed by three fundamental principles:

- First, non-Canadian networks should not be required to coordinate with Canadian networks that have later ITU date priority than the non-Canadian networks;
- Second, non-Canadian networks should not be required to wait indefinitely for Canadian network operators to “respond” to reasonable coordination requests that demonstrate adequate protection of Canadian satellite filings. Therefore, if the parties to the coordination negotiation are not able to successfully conclude coordination within 90 days from the date of the initial coordination request, then either operator may refer the matter to the Department for resolution; and
- Third, the receipt of the Department's approval to use a foreign licensed system in Canada should not be predicated on the completion of international coordination.

51. In the view of the Coalition, the foregoing principles will go a long way to ensuring that the Canadian coordination exercise runs smoothly and does not result in unnecessary and inappropriate delays.

***J. ISED seeks comments on the following proposals:***

- 1. Spectrum that is returned to the Department will not be immediately available for re-assignment;***
- 2. ISED will publish a notice on its website indicating that spectrum has been returned; and***
- 3. ISED will begin to receive applications for the returned spectrum 30 calendar days after the notice has been published on ISED's Spectrum Management and Telecommunications website.***

52. This proposal represents a positive step in ensuring fairness and transparency in the availability of spectrum resources in the Canadian marketplace. The Coalition's members therefore agree with the Department's proposed approach to improve its existing licensing process. However, in order to ensure that this process does not unintentionally favour incumbents that return spectrum licences, the Coalition recommends that the Department commence receiving applications for returned spectrum 90 days after the notice of returned spectrum has been published on the Department's website.

53. The members of the Coalition further submit that the notice that is published on the Department's website should specify very clearly the date and exact time of day (including time zone) after which applications for the spectrum are receivable.

**III. Conclusion**

54. Several of the proposals contained in the Department's Consultation document are timely and appropriate, and match the new technologies that are driving this sector. However, some of the proposals are not supportive of the satellite industry sector and, indeed, are contrary to Canada's "open for business" economic agenda. Moreover, in an age of new and innovative technologies driving this sector, they are also inconsistent with a government agenda that is supposed to be "innovation" driven. Finally they often treat NGSOs inequitably when weighed against GSO licensing terms.

55. The Coalition fully supports rules that are aligned with the GOC's "open for business" philosophy and supportive of new innovative approaches to business, technology and

services. Any proposal that is a disguised barrier to trade or is designed to protect incumbents in the market should be rejected.

56. The Coalition thanks the Department for this opportunity to comment on this important Consultation and looks forward to the reply stage of this proceeding.

Yours very truly,

*[original signed by Scott Gibson]*

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Scott Gibson  
Vice President & General Counsel  
Ciel Satellite Limited Partnership

*[original signed by David Lewis]*

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David Lewis  
Chairman & CEO  
Meridian Global Connection Inc.

*[original signed by Brian Olsen]*

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Brian Olsen  
President  
Northpoint Spectrum Development Inc.

*[original signed by Mike Razi]*

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Mike Razi  
President  
Parscom Management

*[original signed by Marc Dupuis]*

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Marc Dupuis  
Policy Director  
WorldVu Satellites Limited