Telesat Comments on “Consultation on the Licensing Framework for Fixed-satellite Service (FSS) and Broadcasting-satellite Service (BSS) in Canada”, Issued March 2012

Introduction

Telesat welcomes the opportunity to provide comments on the Industry Canada “Consultation on the Licensing Framework for Fixed-satellite Service (FSS) and Broadcasting-satellite Service (BSS) in Canada,” March 2012, (hereafter referred to as the “Consultation”). It is evident that considerable work was undertaken to produce the Consultation and Telesat commends the Department for producing a comprehensive document that addresses many long standing issues associated with the provision of satellite services in Canada.

Telesat has a long and proud history as Canada’s pioneer in the global satellite services industry. Created in 1969 primarily to provide modern telecommunications services in remote and Northern areas, Telesat launched the world’s first domestic commercial geostationary satellite in 1972. Over the subsequent 40 years, Telesat has: enabled the distribution of CBC services across the country; introduced direct-to-home (DTH) service to virtually all of Canada, vastly increasing competition in the broadcasting sector; enabled the provision of telephony, broadband data and internet access in rural and remote areas; provided necessary communications capabilities to the resource sector; and provided critical defence and safety-of-life services to DND, Coast Guard and Nav Canada.

Telesat has evolved into a diversified, end-to-end satellite services company, with a well-established history of innovation and success and is now the fourth largest fixed satellite services (FSS) provider in the world. It has a global state-of-the-art fleet of 12 satellites, with an additional satellite, Nimiq 6, launched last week. Telesat’s next satellite, Anik G1, is nearing completion and being readied for a launch later this year. Telesat also has a highly skilled workforce that enables it to provide users with a range of advanced solutions and to conduct industry leading research and development. Headquartered in Ottawa (which also houses its
satellite control facilities), Telesat owns and operates satellites serving markets in South America, the Middle East, Europe, Africa and Asia in addition to its satellites with coverage of North America.

Satellite telecommunications markets are global in nature. The adoption of liberalized trade in services in the late 1990s by most nations in the developed world, through the WTO-GATS Agreement, greatly changed the satellite regulatory landscape. When domestic markets were protected, the government could use licensing conditions as an instrument of national policy without adversely affecting Canadian spectrum assets or Canadian-based satellite operators. Now, however, foreign-licensed operators may serve member states, including Canada. 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.

Viasat-1 provides a case in point. There was an opportunity to build upon the pioneering example of Anik F2 in order to upgrade the provision of broadband services in North America by means of a high-throughput satellite (HTS) licensed by Canada. Yet, Industry Canada licensing requirements and fees made a Canadian-licensed HTS uneconomic. While ViaSat-1 does today provide HTS service to parts of Canada, it operates under a United Kingdom ITU filing.

Today, as a result of liberalization for satellite services and increased intermodal facility competition (i.e., competition to satellite services from continuously expanding terrestrial-based communications facilities, both wireless and fixed line), the markets in which satellite operators compete are among the most competitive in the world. The satellite communications industry has transformed and matured over the past two decades. Large worldwide operators have scale advantages in satellite and launch procurement, insurance procurement, the ability to market services worldwide, and other operating efficiencies. While Telesat has grown to be the fourth largest global satellite carrier, it remains small compared to the three largest carriers, all of which have been authorized to provide services in Canada.

If Canada is to maintain its position as a major player in satellite communications, it is essential that it adopt licensing policies and fees that recognize today’s global competitive environment. In
addition, as satellites operate on a multinational basis the Department should support Canadian operators by licensing satellites that serve, in part or in whole, areas outside Canada. Finally, orbital spectrum is an essential building block of satellite communications, and therefore Canada must also be diligent in submitting and maintaining ITU filings to secure international rights for Canadian-licensed satellite operators.

Telesat believes that its ability to continue to compete effectively in global satellite markets will depend heavily on the development of a satellite licensing framework that, at a minimum, creates a level playing field between Canadian-licensed satellite operators and the foreign competitors they face in both global and Canadian markets by ensuring:

- That regulatory fees and licensing policies in Canada are competitive with, or better than, those in the home jurisdictions of other global satellite operators; and
- That the Department licenses satellites that serve, in part or in whole, areas outside of Canada.

Industry Canada is seeking views on modification to various elements of its satellite licensing framework, as described in the Consultation. The elements comprise:

- The use of a first-come, first-served (FCFS) process to assign satellite spectrum at orbital positions for FSS and BSS;
- The fee regime applicable to assignments of FSS and BSS spectrum; and
- The obligations associated with satellite licences.

In the remainder of this document, Telesat provides its comments in each of these areas.
Use of FCFS process to assign satellite spectrum at orbital positions for FSS and BSS

(items 2-1 through 2-6 of the Consultation)

(2-1) the proposal to use a FCFS process

Telesat agrees with the Department that a FCFS process is the best mechanism to award satellite licences, being the “most timely, objective and predictable”\(^1\). There is considerable global experience in the application of a FCFS process, as it used by major licensing administrations such as the USA and the United Kingdom.

As noted by the Department, the alternatives, comparative process and auctions, have considerable drawbacks. Both are slow and inconsistent with the goal that “the licensing process should maximize the time that operators have between licence approval and the deadline to bring the position into use”\(^2\). Comparative processes are also labour-intensive and inherently subjective. They may reward the best-written applications; but not necessarily the best applications. Comparative processes do not take into account the economic realities of the satellite industry, such as the benefits of economies of scale and spectrum aggregation at a GSO location.

Auctions are also slow and are not appropriate for satellite spectrum if it is intended to be multinational in nature (which is almost always the case). Furthermore, unlike the case of terrestrial licences, there is no guarantee that the use of auctioned satellite spectrum will actually be economically viable because of the need to successfully complete the ITU coordination process. In the Consultation, the Department has made a distinction between the ITU planned or unplanned bands, stating that auctions may be appropriate for the former. To date, all allocations that have been implemented in the planned (Ap 30/30A and Ap 30B) bands have been modified to increase the service area beyond the Plan-entry limits in order to ensure economic viability, and thus, there is no practical difference between planned and unplanned bands with respect to

\(^1\text{Consultation at 2.1}\)
\(^2\text{Consultation at 2.2}\)
certainty of obtaining adequate coordination. Telesat is of the view that auctions are inappropriate for all satellite bands, whether unplanned or planned. Nevertheless, if the Department were to consider auctions for any satellite spectrum, Telesat is strongly of the view that spectrum already in use should be exempted.

(2-2) proactive filings to the ITU

When considering the satellite licensing process, it is critical that the mechanics take into account the global nature of satellite networks and the fact that securing orbital spectrum internationally is highly competitive – it is itself a FCFS process. For this reason, a viable FCFS process in Canada must allow for submission to the ITU Radiocommunication Bureau (ITU-BR) of the necessary satellite network filing information as early in the process as possible. Telesat proposes that the applicant prepare and submit an ITU filing package, coincident with the FCFS application, which the Department would then expeditiously forward to the ITU-BR (i.e. prior to evaluation of the application). A condition of application would be that the applicant would be responsible for any ITU filing fees that may result, even if the application were later rejected by the Department.

In other circumstances it may be to the benefit of Canada and Canadian operators for Industry Canada to proactively create and submit ITU filings; therefore Telesat also supports this initiative. Under such circumstances, Telesat’s expectation is that the FCFS process would continue to apply and the applicant should have the ability to choose to make use of Industry Canada’s prior filing or to submit a new ITU filing as described above.

(2-3) rules for implementing a FCFS process

Telesat supports electronic submissions and electronic determination of time of receipt, as well as award to a later-filed compliant application for the same spectrum after an earlier-filed application is dismissed. Telesat proposes that inadequate applications should be granted a reasonable cure period. The cure period should be sufficiently long (for example 15 days) to allow for correction of honest oversights.
To discourage near-simultaneous applications, the Department should not set time windows when applications will be received. Nevertheless, in the unlikely event of simultaneous receipt, the two applicants should be invited to negotiate before imposition of any spectrum splitting.

(2-4) the applicant assessment criteria

Telesat believes that the assessment criteria must be simple, objective and transparent. The Department has identified five criteria.

Telesat supports without qualification the first criterion identified by the Department in Section 2.3.4 of the Consultation, which requires that the applicant be a Canadian entity eligible to hold a licence, and the fourth criterion, which requires that the applicant demonstrate financial capability to implement the proposed system. Telesat believes, however, that elements of the second, third and fifth criteria in Section 2.3.4 of the Consultation (regulatory compliance, viable implementation plan, and benefits to Canadians), need to recognize the global nature of satellite services and the indirect benefits to Canadians of a viable satellite technology base. In this regard, Telesat offers the following views.

With regard to the elements of the second criterion, regulatory compliance, Telesat agrees that compliance with the ITU Radio Regulations is essential, and we support also that the satellite must be under Canadian direction and control; however a requirement to comply with Canadian spectrum allocations and spectrum utilization policies, while an axiom for provision of services within Canada, should not be applied for services intended for markets outside Canada’s national borders. Although every signatory nation in principle adopts the ITU Radio Regulations, the domestic frequency allocations can differ considerably. Therefore, Telesat is of the view that a valid application to the Department could include identification of frequency bands that are not allocated for the relevant service in Canada but may be allocated in the country where the service is intended. Thus “compliance with Canadian spectrum allocations and spectrum utilization policies” should apply only with respect to the portion of an application that covers services in
Canada and should not be included as an assessment criterion with respect to any portion of an application that covers markets outside of Canada’s national borders.

Care must be taken with assessment against the third and fifth criteria, which could both involve subjectivity and must therefore be transparent. There is a danger that inappropriate interpretation of these criteria would make the FCFS process a comparative evaluation by another name. Telesat believes that the third criterion, a viable implementation plan, should demonstrate that the proposed system is compliant with the ITU Radio Regulations and as applicable, Canadian regulations. Furthermore, given that the cost and scope of the build, launch, and operation of satellite systems require that Applicants be credible satellite operators, the third criterion should insure that applicants have the financial and operational capacity and capability to build, launch and operate satellites. To reduce the burden both on applicants and the Department and to lead to timelier issuance of authorizations, Telesat proposes the creation of “pre-approved applicants” who file financial information and evidence of compliance with existing authorizations on a periodic basis. Pre-approved applicants would not need to file financial or good-standing information with each application. Telesat further believes that the fifth criterion, benefits to Canadians, must be broadened to include the strengthening of Canadian operators, which is furthered by licensing satellites that serve other parts of the world. A financially sound domestic satellite industry provides highly-skilled employment opportunities and the potential for innovation in Canada.

(2-5) measures to minimize the potential for abuse

Due to the long lead times (typically 30 months or longer) and significant investments involved in placing a revenue-generating satellite in service and the inherent uncertainty of spectrum access through the ITU filings process, satellite operators must have the flexibility to pursue orbital resources in support of business opportunities that are evolving and may be only partially developed at the time an application is filed. This must be balanced with the potential for abuse through undue spectrum reservation.
Historically, the ITU has struggled with the same issue and resolution has been substantially achieved through the introduction of filing fees and administrative measures. Telesat believes that a similar process that could also work for Canada. For this reason, Telesat supports a reasonable, non-refundable, application fee as a deterrent to excessive speculation. Licensing fees however, should not be collected until the satellite has been brought into commercial service and begins generating revenue. Telesat opposes the introduction of a bond requirement as it is unnecessarily complex and primarily benefits a third party (the bonding agent).

Telesat also opposes universal application limits, which would be inconsistent with fostering strong Canadian-based operators able to compete globally. Operators may have legitimate business plans to develop multiple orbital slots (or frequency bands at one slot) simultaneously. Neither excessive applications nor undue spectrum reservation has been a problem to date and the introduction of licence application fees will serve as a deterrent to abuse of a FCFS process. Telesat would caution against introducing a solution to a problem that does not exist today, and for which there is an effective deterrent. Should there be a demonstrable problem that needs to be addressed in the future, targeted application limits to discourage spectrum speculation could be considered at that time, and tailored to address the problem that has arisen. Reasonable milestones should be included in a licence, with revocation of the licence being the potential penalty for missing a milestone. On this latter point, the Department needs to retain flexibility to waive or amend a milestone in the event of extenuating circumstances.

**(2-6) proposed government service standard**

Telesat supports the proposed 45 day service standard for review of the FCFS application and suggests an associated 20 day service standard for submission of the accompanying ITU filing to the ITU-BR, both time periods being with reference to the date the application and accompanying ITU filing are received by the Department. That is, consistent with the comments in (2-3) above, it is expected that an ITU filing would be included with the FCFS application and this filing should be submitted to the ITU-BR as soon as possible, prior to completion of evaluation of the application itself. We believe that these service standards are reasonable and achievable, particularly if our suggestion for “pre-approved applicants” under 2-4 is
implemented. Ministerial approval should be required to extend the decision period beyond 45 days.

**Fee Structure**

(items 3-1 through 3-9 of the *Consultation*)

**(3-1 through 3-3) process and fees for current bands**

Telesat believes that reform of the current fee structure is long overdue. The fee structure should encourage spectral efficiency, not discourage it as current regime does, and should be less labour-intensive for both the operator and the Department.

As noted in our comments above concerning 2.5 of the *Consultation*, Telesat opposes payment of fees on authorization. The analogy with the terrestrial situation is not apt. While terrestrial systems can be put in place within weeks or months, the reality is that it takes about 30 months to build and launch a satellite and pre-payment of licence fees won’t change this. It is not reasonable to seek fees when the underlying revenue-generating service would commence so far in the future.

The fee regime should maximize economic and social benefit for Canadians, but this must be assessed in light of the ability of operators to seek licences from other administrations (“If operators choose to seek licences in other jurisdictions, Industry Canada would lose the ability to include the conditions of licence that currently help ensure the availability of services in all areas of Canada.”⁴). Different administrations have different fee mechanisms, making comparisons somewhat difficult, but the Nordicity study clearly shows that current Industry Canada fees are not competitive with the major licensing administrations of the USA and the United Kingdom. That said, Telesat strongly disagrees with the assessment of the value of Canadian satellite spectrum contained in the Nordicity Report, as well as Nordicity’s proposed fourfold increase in the current fees. A huge rise in satellite licence fees would simply drive all operators away from seeking Canadian licences.

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⁴ *Consultation* at 3.2
Telesat supports the Department’s proposal to implement spectrum licenses on a per-megahertz basis. Licences should be based on raw spectrum, i.e. independent of the amount of spectral reuse through polarization and/or geographic discrimination. We agree that this approach would encourage efficient use of spectrum and adequately compensate the Canadian public for the operator to access this resource.

Telesat supports a fee structure that is simple and may be readily applied to global satellite services. A simple approach would be to apply one per MHz fee to all bands. The Department’s proposed three-tier scale of fees, which was presumably intended to reflect an interpretation of relative market value of various spectrum segments in Canada, would be inappropriate. Determining market value of spectrum is inexact at best. In addition, the market value of different frequency bands vary over time and are a function of the competitive environment and existing ground segment infrastructure. Furthermore, differing global allocations and sharing situations affect the market value of spectrum. For example, the “extended Ku-band”, while shared with terrestrial services in Canada, is a prime Ku-band segment within ITU Region 1.

Telesat is encouraged that the proposed fees are reduced from current levels; however they are still higher that those charged by the USA and the United Kingdom, the administrations that license Telesat’s major competitors that offer services in Canada. The proposed scale would still leave Canadian-licensed operators at a disadvantage in serving their own country. In sum, Telesat suggests a single per-megahertz fee for all frequency bands that produces fees that are in line with fees collected by other major satellite-licensing administrations.

(3-4) fees for emerging bands

Telesat is not clear how an “emerging band” would be defined and when a band would cease to be “emerging.” A preferred alternative approach would be to issue experimental licences at a nominal annual fee for bands which are used for R&D and experimental purposes and which do not generate material revenue for the operator.
(3-5 through 3-7) implementation

Telesat supports immediate introduction of a new fee structure and urges the Department to help expedite the process required under the User Fee Act. Subsequent to conclusion of this Consultation, we agree that the new fees should apply immediately for existing licences. Requirements for semi-annual traffic reports should also be eliminated at the same time. Existing approvals in good standing (i.e. for which milestones have been met) should be grandfathered and, consistent with the comments above for item (2-5), licence fees should not be payable until the revenue-bearing satellite has been brought into commercial service. Telesat supports application of the new rules to all applications received subsequent to approval of the fee order. Since the fees will be payable annually, proration should apply for approvals granted during the fiscal year.

(3-8 and 3-9) licence terms

Telesat supports a minimum 20 year licence term. Furthermore, as in other jurisdictions, there should be an “expectation of renewal” for authorizations in good standing. Operators invest heavily to build up a community of users for spectrum at a specific orbital location. This investment should not be turned to the benefit of a competing operator upon completion of the licence term. Telesat is of the view that short-term licences should be a relative rarity. Annual fees should be charged, but pro-rated for the duration of the short-term authorization. Establishment of a basic flat fee would ensure that the Department’s costs are recovered.

Obligations associated with satellite licences

(items 4-1, 4-2, and 5-1 of the Consultation)

(4-1 and 4-2) possible changes to or possible elimination of public benefit conditions

The Department and Telesat have a shared experience in the past decade regarding attempts to implement the “public benefit” condition of licence. Although commendable in principle, the “public benefit” condition has proven to be difficult to administer. In some cases, “public
benefit” capacity is indistinguishable from commercial capacity and raises issues of subsidized competition that distorts the market. Telesat believes that the needs of remote and underserved areas may best be served, not through public benefit obligations, but rather through cooperative arrangements involving industry and government, with an example being Telesat’s recent Northern Initiative proposal. Further, public benefit conditions are difficult and labour-intensive for the Department to administer. Finally, the opening of Canada to foreign satellite operators under WTO/GATS has changed the commercial satellite environment and it is essential that Canadian-licensed operators not be placed at a competitive disadvantage. For these reasons, Telesat believes that the public benefit condition should be removed.

(5-1) requirement for minimum Canadian coverage

Over the past decade or more there has been considerable change in Canada’s North. Traditionally considered an underserved area lacking in possibilities for economies of scale, Canada’s North is quickly transitioning to a region where market forces may be sufficient to ensure adequate satellite capacity. Therefore, Telesat sees no compelling reason for the Department to include an explicit condition of licence requiring all-Canada coverage. However should the Department choose to continue with a mandatory approach, Telesat could support an obligation for each Canadian licensed operator to provide all-Canada coverage, but not necessarily on each of their Canadian-licensed satellites.

Either of these approaches (complete elimination or fleet-wide obligation) would be consistent with the global nature of satellite services. Since Telesat believes that Canada should not limit itself to granting licences for GSO orbital positions that are visible from Canada, a full Canada coverage requirement is not practical in all cases. The most successful satellite operators, including Telesat, operate on a worldwide basis. The Department should create policies that recognize the benefits of a viable satellite industry in Canada.
Conclusion

Reform of Canada’s satellite licensing regime is long overdue. This reform needs to recognize the many changes to the global communication satellite environment over the past 20 years. As stated by the Department in the *Consultation*:

As national coverage and the provision of sufficient capacity for Canadians are ensured through conditions of licence in Canada, if operators choose to be licensed by other countries, under what they may perceive to be a more attractive licensing regime, Industry Canada would lose a key instrument to influence the implementation of these capabilities. It is therefore essential that Canada develop an updated, attractive satellite licensing framework.

Telesat submits that the present *Consultation* must result in a satellite regulatory regime that is at least as supportive to its domestically-licensed satellite operators as other countries are to theirs. Only by adopting a regime that is simple to administer and competitive to those of other major licensing administrations, can Industry Canada ensure not only the availability of satellite capacity to meet Canada’s telecommunication needs, but also to foster a vibrant and competitive Canadian-based satellite sector.