May 23, 2012

Mr. Marc Dupuis  
Director General  
Engineering, Planning and Standards Branch  
Industry Canada  
19th Floor  
300 Slater Street  
Ottawa, Ontario  
K1A 0C8

Re:  Canada Gazette, Part I, Gazette Notice No. SMSE-003-12 (March 24, 2012) – Consultation on the Licensing Framework for Fixed-Satellite Service (FSS) and Broadcasting-Satellite Service (BSS) in Canada

Dear Mr. Dupuis:

Hughes Network Systems, LLC and Gamma Acquisition Canada ULC (the “Satellite Commenters”)¹ jointly submit the following comments in response to Industry Canada’s Consultation on the Licensing Framework for Fixed-Satellite Service (FSS) and Broadcasting-Satellite Service (BSS) in Canada (“Consultation”).² The Satellite Commenters applaud the efforts of Industry Canada to update its satellite licensing framework. Industry Canada’s obvious commitment to a more streamlined, less costly framework will help Canada meet its desired objective of establishing a path to licensure that is beneficial to all Canadians. The Satellite Commenters offer specific observations here on two aspects of the Consultation that the Satellite Commenters believe could enable Industry Canada to better achieve its laudable objectives.

The first aspect involves the interrelationship between the domestic and international regulations to which satellite systems are subject. In the case of domestic rules, these are set and enforced by the domestic regulator to reflect national statutes and objectives. However, international rules are treaty level commitments for which the satellite operator depends on the support of the national regulator to navigate. As a result, the licensee must work in close partnership with the domestic regulator to secure the requisite international approvals of the International Telecommunication Union (“ITU”) in order for the project to succeed.

The Satellite Commenters believe that support of the satellite licensee through the ITU process must be a key benchmark against which any new rules are assessed. While the factors

¹ Hughes Network Systems, LLC (“Hughes”) is the leading provider of satellite-delivered broadband in North America with more than 1 million terminals in operation. Next month, Hughes is scheduled to launch the EchoStar XVII satellite, an all Ka-band FSS satellite capable of broadband output speeds of more than 100 gigabits per second. Gamma Acquisition Canada ULC (“Gamma Canada”) is the licensee of TerreStar-1, a satellite that is used to provide mobile satellite services to Gamma Canada’s subscriber earth stations in Canada.

² See Canada Gazette, Part 1, Gazette Notice No. SMSE-003-12 (March 24, 2012).
listed in Section 2.1 of the Consultation fairly reflect Industry Canada’s national responsibilities, they should be expanded to encompass its support of the licensee with regard to the ITU process. Such support is critical to ensure that any new domestic rules do not have a profound negative impact on the applicants’ likelihood of successfully negotiating the ITU process for securing access to the orbital/spectrum resources required for their networks.

In this regard, the Satellite Commenters invite Industry Canada to consider elements of the regulatory model employed by the United Kingdom’s Office of Communications (“Ofcom”). Ofcom allows advance ITU filings (which gives operators time to gauge the feasibility of particular orbital/spectrum combinations), competing filings among UK-regulated entities, and no bonds or fees. These rules bolster the operators’ chances of success in the international regulatory environment while relying on ITU due diligence requirements to separate out filings that will not go forward. Marketplace innovation is not only encouraged, it is given a realistic chance to succeed. The ITU processes are self-regulating and generally effective; domestic regulators should not be hesitant to use the ITU processes as means to an end – implementation of satellite networks and systems – rather than as some kind of parallel and unrelated phenomenon.

Some of the actions contemplated in the Consultation for domestic implementation could also have the effect of making the already challenging and long process of implementing satellite networks even more difficult, as they could rob operators of flexibility and leave them extremely vulnerable to failure in the international regulatory arena. For example, the limitations on the number of pending applications any one operator may have would nominally advance the goal of preventing warehousing of the orbital spectrum resource.3 In a quite another sense, these same limitations would make it much more difficult for an operator that seeks to establish a satellite network to pursue several options through the preliminary coordination stages at the ITU to determine which one has a viable path to successful international implementation. The potential financial measures that Industry Canada identifies as alternatives to application limits (e.g., performance bonds and fines) would have the same effect of locking applicants/operators to an orbital location that they may not have had time to explore for viability through the ITU coordination process.4

There is no question that domestic regulators of satellite network operators need to establish regulations that enable them to satisfy their international obligations in a manner that is consistent with their national policy. However, it is important to synchronize these domestic regulatory decisions from the perspective of their impact on the process contained in Articles 9 and 11 of the ITU Radio Regulations. The lack of such consideration could lead to domestic rules that impede Canada’s ability to achieve national and commercial goals.

3 See Section 2.3.5 of the Consultation.

4 In the U.S., implementation bonds, strict milestone compliance, along with a policy determination that orbital locations are not fungible, has made success at the ITU level challenging to most satellite operators.
The Satellite Commenters also provide observations regarding Industry Canada’s fee proposals. At the outset, the Satellite Commenters note that satellite networks serve some of the most remote communities in Canada, and offer services to those in rural settings for which there is no alternative at all. This fact, which is noted in the Consultation, seems to be considered as independent from the fact that fees charged to satellite operators are inevitably passed along to users of the network. The Satellite Commenters believe the two points are intimately related. The consumers who will bear the fee charges envisioned in the Consultation are the same consumers who both need the services the most and are the least likely due to socioeconomic circumstances to be able to afford the marginal increases the fees represent. Exacerbating this dilemma is the fact that urban areas have access to broadband and other increasingly essential services provided by terrestrial means, which would not be subject to similar fees.

To be sure, the proposed annual fees reflect a welcome reduction in the existing fees imposed by Canada. The proposed fees, however, still significantly exceed those of other administrations.\(^5\) The proposal also appears to have a discriminatory effect. Three levels of annual fees are proposed, with the most costly being assessed on a single category of operation—that is, Ka-band FSS operations not shared with terrestrial services. No explanation is offered as to why the Ka-band FSS spectrum is considered to have a higher commercial value than other bands. Even if there are distinctions to be drawn between the relative values of spectrum bands, those distinctions will certainly vary over time as the perceived value of the spectrum evolves. The proposed fee structure also leaves unaddressed the questions of whether frequency reuse is taken into account and how satellites with multiple beams or multiple polarizations should be treated. Fees could go up significantly, for example, if frequency reuse has a multiplier effect—especially where high throughput broadband operations in Ka-band are concerned. Such increased fees would invariably be passed on to end users, thereby potentially dampening demand for broadband service.

The proposal to set fees on a per-megahertz basis also has the potential to discriminate against both satellite operators and rural users. The future of satellite broadband delivery lies in the higher frequency bands (such as the Ka-band, but also the emerging V-band FSS spectrum), where high throughput service requires more bandwidth. A per-megahertz fee will discourage expansion of satellite service into these higher frequency levels. The unavoidable consequence

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\(^5\) The difference in fees between those proposed here and those imposed by other administrations may be greater than Industry Canada appreciates. Table 1 of the Consultation, which compares the annual fees of various administrations, factors in costs such as those associated with insurance policies, application fees, performance bonds and auctions. Each is inapplicable to a license fee calculation. An insurance policy offers a desired benefit to the policy holder and thus is not completely analogous to a license fee. Application fees and performance bonds costs are one-time, up-front payments that should be amortized over the life of the satellite if they are to be accounted for at all. An auction reflects the value of a specific orbital position at a given point in time and is not generally indicative of all spectrum. When these inapplicable factors are stripped away and one annual license fee is compared to another, the difference can be significant. The U.S. Federal Communications Commission, for example, recently proposed a Fiscal Year 2012 annual regulatory fee for geostationary space station licensees of $132,350 (U.S.). In the future, were Hughes to license through Canada a satellite identical to EchoStar XVII, the annual license fee for the satellite (which uses 3000 MHz of Ka-band and extended Ka-band spectrum) under Industry Canada’s proposal would exceed $440,000 (Canadian).
will be to drive satellite operators from Canada to other licensing administrations with more competitive fee structures that do not discriminate against operations in higher frequency bands. In addition, a per-megahertz pricing policy will invariably lead to higher subscription fees, thereby disproportionately hurting end users in rural and remote communities (a particular concern for Canada given its widely dispersed population) who must rely on satellite-delivered broadband in the absence of terrestrial options. To avoid these discriminatory results, The Satellite Commenters recommend that Industry Canada consider setting fees without regard to the amount of spectrum licensed.

Finally, the Satellite Commenters question the proposal to charge annual fees upon approval of an application. Charging this fee for spectrum when the spectrum is not being used unfairly penalizes licensees. This problem is exacerbated where the annual fee in question exceeds those of other jurisdictions. In such a case, imposing the fee upon approval will serve to discourage bona fide applications as well as frivolous applications.

The Satellite Commenters commend Industry Canada for the significant steps it has taken toward updating its satellite licensing framework. The objective of establishing a framework that attracts more applications is of considerable importance to Canada, and the foregoing comments are offered for the purpose of helping to meet that goal. The Satellite Commenters respectfully urge Industry Canada to take these comments into consideration as it formulates Canadian satellite policy.

Respectfully submitted,

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