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January 8, 2001

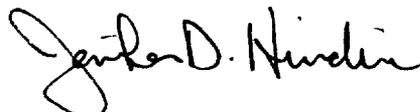
Magalie Roman Salas
Office of the Secretary
Federal Communications Commission
The Portals
445 Twelfth Street, S.W.
Room TW-A325
Washington, D.C. 20554

Dear Ms. Salas:

Re: **FWCC Request for Declaratory Ruling on Partial-Band
Licensing of Earth Stations in the Fixed-Satellite Service That
Share Terrestrial Spectrum, IB Docket No. 00-203, RM-9649**

In accordance with the requirements set out in the above referenced Notice of Proposed Rulemaking ("NPRM"), Telesat Canada submits its comments to the Federal Communications Commission. As required by paragraph 105 and 106 of the NPRM, Telesat Canada submits an original copy of its comments, six (6) additional copies of those comments, and a diskette copy of the comments in read-only format.

Sincerely,



Jennifer D. Hindin

Enclosure: Comments and diskette

cc: International Transcription Service, Inc.

No. of Pages: 176
List: 600 E

Before the
Federal Communications Commission
Washington, D.C. 20554

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| In the Matter of |) | |
| |) | |
| FWCC Request for Declaratory Ruling on |) | |
| Partial-Band Licensing of Earth |) | IB Docket No. 00-203 |
| Stations in the Fixed-Satellite Service |) | RM-9649 |
| That Share Terrestrial Spectrum |) | |
| |) | |
| FWCC Petition for Rulemaking to Set |) | |
| Loading Standards for Earth Stations |) | |
| In the Fixed-Satellite Service that |) | |
| Share Terrestrial Spectrum |) | |
| |) | |
| Onsat Petition for Declaratory Order that |) | |
| Blanket Licensing Pursuant to Rule 25.115 (c) |) | SAT-PDR-19990910-00091 |
| Is Available for Very Small Aperture |) | |
| Terminal Satellite Network Operations at |) | |
| C-Band |) | |
| |) | |
| Onsat Petition for Waiver of Rule 25.212 (d) |) | |
| To the Extent Necessary to Permit Routine |) | |
| Licensing of 3.7 Meter Transmit and Receive |) | |
| Stations at C-Band |) | |
| |) | |
| <i>Ex parte</i> Letter Concerning Deployment of |) | |
| Geostationary Orbit FSS Earth Stations in the |) | |
| Shared Portion of the Ka-Band |) | |

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

COMMENTS OF TELESAT CANADA

Telesat Canada ("Telesat" or "the Company") is pleased to provide the following comments on matters raised in the Notice of Proposed Rulemaking ("the NPRM") released by the Commission on October 24, 2000, relating to the petitions filed by the Fixed Wireless Communications Coalition ("FWCC"), Onsat Network Communications, Inc. ("Onsat"), and Hughes Network Systems ("Hughes"). Telesat is a Canadian licensed satellite facility operator and the Company's three Fixed Satellite Service ("FSS") satellites have been included on the FCC's Permitted Space Station List. Telesat therefore has a keen interest in many of the issues being addressed in this proceeding and in the new rules proposed by the Commission in response to these issues.

EXECUTIVE SUMMARY

Telesat is concerned that certain of the proposed rule changes, and particularly those associated with issues raised by the FWCC, fail to fully take into account the inherent differences in the provisioning of FSS vis-à-vis terrestrial Fixed Services (“FS”), and/or fail to recognize that further study is required (and in some cases is already underway in other ITU fora) before a properly informed decision can be rendered as to the best course of action. In this regard, it should be noted that the FS and FSS operators have a long tradition of cooperation and compromise, allowing both sectors to effectively address the needs and requirements of their respective customers. The FWCC’s petitions notwithstanding, changing the rules under which this cooperative spirit has developed will upset this delicate balance. Summary comments on each of the specific proposals follow:

The FWCC Proposals:

- the interests of all parties in frequency coordination are best served through negotiation and compromise rather than through regulation. The proposed rules would prove to be an administrative nightmare for both the FCC and the industry, and run counter to the recent thrust of the Commission to lighten the regulatory burden.
- the proposed rules do not take into account the structure and realities of the satellite industry. In many instances the actual frequencies used at an earth station are beyond the control of the earth station licensee.
- the portions of C-band and Ku-band that are shared by the FSS and FS are not suitable for ubiquitous deployments in either service. Individual coordination of each site needs to be retained.
- the effect of interference is cumulative and interference attenuation due to man-made structures will vary over time. The rules must take into account these physical realities.

- whatever sharing rules are adopted to the C and Ku-bands should not be extended to shared bands above 15 GHz, since the physics of the sharing environment are very different.

The ONSAT Proposals:

- introduction of blanket licensing for C-band VSATs would be a welcome reduction in administrative burden.
- coordination of each C-band VSAT earth station must be retained to protect the FS. No other special constraints should apply.

The Hughes Proposals:

- the issue of sharing between high density services in the FS and FSS in bands above 15 GHz is under active study internationally. It is premature to develop new domestic rules at this time.
- as an interim measure, receive stations could be licensed in these bands on the basis of no protection from interference.

I. THE FWCC PROPOSALS

General Considerations (¶¶ 26-31)

The FWCC petitions question whether the FCC's current policies, as set out in Parts 25 and 101 of the Commission's Rules, ensure efficient and equitable use of spectrum in bands shared on a co-primary basis by the FS and FSS. In response to the concerns expressed by the FWCC, the Commission seeks comment on whether the evolving requirements of both satellite and terrestrial systems necessitate a further revision of the FCC's current policies and rules. Specifically the Commission asks if the proliferation of ubiquitously-deployed satellite user terminals and point-to-multipoint fixed stations in certain frequency bands has affected the conduct of inter-service coordination, and, if so, whether modification of the FCC's rules, in addition to those proposed in the NPRM, or changes to the procedures used by frequency coordinators, would help to ensure that the principles of spectrum efficiency and equity among band-sharers are more fully realized in bands shared by the FS and FSS.

Telesat agrees that new technologies, new applications in both terrestrial and satellite communications, and the exploitation of new shared frequency bands will impact coordination. For example, sharing between NGSO satellite networks and both terrestrial and GSO networks has been the subject of extensive study, both domestically and internationally, over the past decade. In the current ITU-R cycle, means of sharing between ubiquitously deployed terrestrial (HDFS) and satellite (HDFSS) networks will be investigated. Methods for such sharing in bands above 15 GHz are currently the subject of discussion within ITU-R WP 4/9S. In Telesat's view, once new methodologies dealing with these situations have received general acceptance, they should be reflected in the Commission's rules. That said, Telesat notes that the technical bases for sharing at C-band have changed little, except for increasing usage by both services, since the dawn of commercial satellite communications. The sharing environment is still between point-to-point microwave relay stations and satellite earth stations, both at known locations.

The Commission requests comment on the extent of FS and FSS sharing difficulties, including numbers of cases in which the FS and FSS have experienced such difficulties and whether these difficulties have occurred in particular band segments and under which specific circumstances.

Telesat's experience has been that, where difficulties have arisen in the coordination of earth stations and terrestrial stations, it has generally been with respect to provision of service in urban areas and areas where geographic features and angular alignment make sharing problematic. In some urban areas, in order to successfully coordinate on a full band/full arc basis it is necessary to shield earth stations artificially, using berms, RF fences and other measures. Despite the cost of these measures, they have been justified by the increased reliability and reduced backhaul costs resulting from shorter distances between customers and earth stations.

The Commission asks how might the FCC's proposal to consider auctioning of geographic area licenses for fixed microwave facilities, made in the recent Part 101 NPRM, affect the nature and extent of the current FS and FSS sharing problem.

In response, Telesat notes that auctioning frequencies in a band that is shared between services will create problems. It will be necessary for the Commission to condition the expectations of the successful bidder. That is, the winner of the auction gains exclusive rights within the service that is subject to auction, but still must abide with all FCC rules that govern sharing between services.

Moreover, licensing for ubiquitous deployment (e.g., area licensing in the FS) greatly increases the difficulty of coordination. Since the geometry of the interference paths cannot be determined, the analysis must be of a probabilistic nature. While the propagation characteristics at frequencies above 15 GHz make this an acceptable approach, such is not the case in the lower frequency shared bands. In Telesat's view, implementation of ubiquitous deployment in the lower frequency shared bands can only lead to cases of harmful interference in both the FS and FSS. Similarly, small aperture terminal satellite earth stations in the C-band ("CSATs") should be required to be coordinated on an individual basis.

The Commission further notes that the proposed rule changes concerning coordination and sharing between FSS earth stations and FS stations apply in the C and Ku-bands where the two services share a primary service allocation, and asks whether they should also apply in other bands.

In response, Telesat notes that sharing in the higher frequency bands differs in two important ways from sharing in the C and Ku-bands. First, usage of the higher frequency bands in both the FS and FSS is characterized by a large number of ubiquitously deployed services, often at individual residential and business premises. In the lower bands, usage is characterized by fewer stations, often carrying traffic that is aggregated over a number of customers. The second factor is the propagation environment. In the higher frequency bands, attenuation due to atmospheric causes can be significant, and links are normally designed with large fade margins to ensure an acceptable availability of service. Since the attenuation on the desired and interfering signal paths may not be correlated, the impact of interference is best determined in a probabilistic manner. Therefore, the efficient sharing of spectrum would be facilitated by employing different rules for sharing in the bands below 15 GHz and those above 15 GHz.

Demonstrating “Actual Need” (¶¶ 32-44)

The FCC proposes to require an FSS earth station operator to demonstrate to the frequency coordinator, at the time an FS operator requests and is denied coordination, that the FSS earth station is using, or has imminent plans to use, the spectrum in question. Comment is requested on this proposal, as well as possible alternatives.

Telesat notes and agrees with the statements on the record of this proceeding concerning the differences in the technical, operational and business elements of the FS and FSS sharing the band. The Company is also encouraged that the Commission has recognized this (at ¶ 38) and denied the FWCC “actual need” proposal on the grounds of impracticality (at ¶ 41). However, Telesat disagrees with the Commission’s proposal regarding “demonstrated use” once coordination is denied. The difficulties associated with predicting satellite and transponder usage based on the historical record would be equally applicable in this case. The earth station operator has no control over future use of spectrum as a result of satellite equipment failures, satellite coordination agreements and facility management constraints of satellite operators. For this reason, using current or past spectral usage as an indicator of potential future use is fundamentally flawed.

It has been Telesat’s experience as both a satellite and earth station operator that cooperation, rather than regulatory intervention, is the best facilitator of successful coordination. In the long

term, both parties are best served by flexibility and compromise. By being unreasonable in denying an FS operator coordination, the earth station operator increases the likelihood of being treated similarly when attempting to coordinate new or expanded facilities, i.e., when the “shoe is on the other foot”. In many cases, it may be possible to coordinate with some effort and expense on the part of one or both parties. For example, measurements might indicate more attenuation on the interfering path than predicted, or additional interference attenuation might be achieved through the introduction of artificial shielding, more directive antennas, or other measures.

As an alternative to the Commission’s “demonstrated use” proposal, Telesat suggests that the Commission encourage cooperation between the parties. If need be, an appeal or arbitration process could be implemented to handle difficult cases where the parties cannot reach agreement. If this process were to be implemented on a cost recovery basis, there would be further incentive for the parties to reach agreement between themselves.

Demonstrating “Use” (¶¶ 45-61)

The FCC proposes to adopt a new coordination procedure to increase efficient and equitable use of shared bands, which would be initiated by the frequency coordinator only if an FSS earth station licensee denies an FS station applicant’s request to coordinate spectrum. Pursuant to this new procedure, the FCC proposes to require that an FSS earth station operator denying a coordination request certify to the frequency coordinator: its current and recent actual use of the requested spectrum, by identifying the applicable satellite locations, transponder frequency bands, and the timeframes they were in use; and any imminent use of the requested spectrum.

As outlined above, Telesat’s view is that the concept of demonstrating “use” is unnecessary and would lead to an increased burden for all involved. If, however, the Commission proceeds with its proposal, the term “use” will have to be very carefully defined, taking into account the many different facets of the satellite industry (e.g., Occasional Use vs. Full Period, Partial Channel vs. Whole Channel, and Protected vs. Unprotected Service).

The Commission asks if the proposals would provide for equity in co-frequency sharing and achieve the goal of promoting spectrum efficiency in shared bands.

In response, Telesat does not believe that the proposals would provide for equity in co-frequency sharing. In some instances, earth station operators may have made significant investments, for example in teleports, with the expectation of growth as new satellites and new markets appear. This investment could be jeopardized if the proposed rules are adopted. The Company notes that the proposed rules do not appear to place any onus on the FS operator once a coordination request is denied by an earth station licensee. For example, could an alternate path geometry be selected that would result in successful coordination, or is there a possibility of selecting an alternate frequency band, or different implementation, such as selecting alternate bi-directional frequencies? As stated above, the additional record-keeping and paperwork burden on all parties and on the Commission would be substantial.

The Commission also asks if FSS earth station licensee information should receive confidential treatment by the Commission.

In response, Telesat notes that the information that would be provided under the Commission's proposals would be of a sensitive commercial nature for both the earth station and satellite operator. Accordingly, this information should receive confidential treatment.

The Commission calls for comment on how FSS earth station licensees could demonstrate "use", taking into account various factors such as: frequency diversity, intermittent use, transponder usage, future use or commitments, space segment assignment, equipment failure, and balancing of future and current use in the coordination process.

Regarding frequency diversity, Telesat notes that in the satellite industry, some services are provided on a "fully protected" basis, for which customers normally pay a premium. These customers are guaranteed access to a different transponder, possibly on a different satellite, in the event of in-orbit failure or other inability to use their prime frequencies. Even though the backup frequencies may seldom be "used", it is essential that they be frequency coordinated. In many cases, such fully protected services are essential to either public security or health and welfare.

With regard to intermittent use and transponder usage, Telesat notes that Occasional Use services are an important offering of the satellite industry. Clients for these services are largely in the

broadcast industry where Occasional Use traffic is generated primarily for newsgathering and live transmission of sports events, as well as political conventions and music concerts. Corporate clients employ Occasional Use for training and corporate communications purposes. While some usage of Occasional Use is predictable, other usage, such as coverage of fast-breaking news stories, is not. Telesat's experience is that there are monthly and seasonal trends to transponder usage, but that it is very difficult to predict future usage from historical data. In order to meet this non-uniform demand, satellite operators re-allocate transponders to Occasional Use during peak periods. Therefore, attempting to quantify usage of a frequency at an earth station, based on historical minutes of usage, would not take into account the fact that the actual frequencies used for the same services could vary over time.

Furthermore, the design of a wideband data service is a function of a number of variables, including desired error performance, satellite power, and earth station diameter. Since satellite operators usually charge for capacity based on the power or bandwidth (whichever is larger) consumed, system designers aim to develop the minimum cost solution. There is an economic incentive to develop a spectrally efficient design. It is Telesat's view that there is therefore no need to regulate a minimum data throughput to constitute use.

With regard to future use or commitments and use of specific transponders, satellite operators do not take any decision to change or modify their customers' spectrum assignments lightly. However, as a result of satellite equipment failures, satellite coordination agreements and facility management constraints, customers may be assigned to different transponders for their services. In general, these reassignments are beyond the control of the customer. It should also be noted that the earth station licensee may not be the customer for the space segment, and therefore has even less control. The earth station licensee may not be able to provide evidence of a financial commitment to lease transponder capacity, even though such a commitment has been made by an intermediary.

With regard to space segment assignments, as outlined above, the satellite operator normally has final control of frequency assignments. The resulting difficulty in accurately determining future spectrum use based on current and historical use is a serious weakness in the proposed policy of "demonstrating use".

Equipment failure is the major reason why frequencies are reassigned by the satellite operator. In most cases, such failures are not predictable. Therefore, satellite equipment failure illustrates the difficulty in arriving at a reasonable criterion for “demonstrating use”.

As also indicated above, the relationship between current and future spectrum use by an earth station is complex and not easily predictable. Clearly, current usage must be protected to prevent denial of service to current customers. In addition, accommodation of reasonable future usage scenarios is essential to ensure that service need not be denied in the future.

The Commission also requests comment on whether the proposed initial 24-month exempt loading period should vary depending on the type of FSS earth station or FS station involved, with rationale for any recommended differences in treatment.

In response, if a demonstrated use provision is implemented, account should be taken of different types of earth stations. For example, construction of a multi-customer teleport requires a significant investment, and the associated business case may be based on growth over a number of years to recover the capital and generate a profit. An earth station located on customer premises, on the other hand, would represent a smaller investment with typically a shorter useful life, and earlier capital recovery.

The Commission asks for comment on whether Section 101.141 and Section 25.203(e)(1) should be amended to include other bands shared by the FS and FSS, in addition to the C and Ku-bands.

As mentioned above, propagation effects at frequencies above 15 GHz greatly influence the sharing environment between the FS and the FSS, and this issue is currently under active study in the ITU-R. Therefore, although Telesat does not believe it necessary, if the Commission does makes the proposed changes in the shared C and Ku-bands, these changes should not be extended to shared bands at higher frequencies.

The Commission asks for comment on the procedural aspects of the FCC proposal. Specifically, in the case where an FS station has been successfully coordinated on spectrum not currently used by the FSS earth station, the Commission requests comment on how the results of such a

coordination could be recorded for future reference and whether frequency coordinators should maintain such results and report to the Commission.

If the Commission proceeds with the proposed rule changes, Telesat believes it will be necessary that an impartial body maintain comprehensive records of all coordinated spectrum and associated time periods, but not the underlying evidence of current and future use which is commercially sensitive. These records should be made available in electronic form for access by FSS operators, FS operators and frequency coordinators.

The Commission asks for comment on the most practicable means to apply the new rules to existing FSS earth station licensees, and whether conditions, on a forward-looking basis, should be imposed on FSS earth station licenses that would allow the FCC to implement this new coordination rule.

In general, and particularly in light of the fact that investments have already been made to serve existing customers, Telesat believes that if the rule changes are adopted, they should apply only to new earth stations, and that all currently licensed stations should be grandfathered.

The Commission asks for comment on whether the FCC should require an FSS earth station licensee to make a showing of actual use at the time of each license renewal in order to retain the full licensed bandwidth, in addition to imposing the requirement for a showing at the time of a coordination request.

In Telesat's view, there should be no requirement to make a showing at the time of licence renewal. The intent of the proposed changes is to address the concern of the FS operators about alleged inequity of spectrum sharing. Earth stations which have not been involved in any coordination dispute should retain the maximum flexibility in the use of spectrum. Furthermore, provision of information on actual usage at license renewal time is valid for that instant in time and does not reflect past usage or future plans.

The Commission seeks comment on whether it should fashion a spectrum efficiency standard for FSS earth stations, with particular consideration given to the type of station, technology employed, timeframe for meeting standards, bandwidth, functionality, and other factors such as

the earth station operator's business routinely requiring ready access to multiple satellites, an earth station complex having multiple antennas pointing at multiple and changing satellites, and the earth station operator providing service to independent third parties with unpredictable space segment needs.

Regarding the type of station and functionality, the diversity of earth stations in use is such that a "one size fits all" approach is not practical. The design of each satellite link is governed by a number of factors, including satellite characteristics, user requirements, earth station networks, etc. Attempting to categorize these variations and derive reasonable loading standards for each would be an administrative nightmare.

Also, TT&C links should be excluded from the proposed rule changes. Such links are critical to the safe operation of satellites which represent enormous investments. In addition, TT&C stations are few in number and normally operate in very limited portions of spectrum.

With regard to technology employed, the Commission specifically asks, if a loading standard were to be adopted, should the standard vary based upon the type of technology involved, and, as an example, indicates that if a particular satellite system used a Time Division Multiple Access ("TDMA") wideband architecture, it would seem appropriate that individual user earth stations and gateway stations would have different loading standards. That being the case, the Commission asks what should those standards be.

In Telesat's opinion, this example illustrates one of the pitfalls of attempting to impose loading standards. In a TDMA system, different stations in the network may be assigned different capacities on the basis of the burst length. From the point of view of frequency coordination, all the earth stations pose the same coordination constraints, since all use the same bandwidth for some portion of time during each frame.

On the matter of timeframes, imposing loading standards on all earth stations would be difficult to implement on an equitable basis. Should they be imposed, earth station operators and satellite link designers would need considerable lead time. In some cases, equipment might need to be replaced and the Commission would need to take into account a reasonable period for recovery of invested capital in such equipment.

If loading standards are imposed, there should also be an exemption for small bandwidth applications. Telesat feels that the minimum should be at least 80 MHz in each direction. This would allow for a prime and backup transponder. In this regard the Company would note that C-band transponders typically have center frequencies 40 MHz apart.

Regarding the other factors identified by the Commission, these factors illustrate some of the difficulties in applying loading standards on earth stations. For example, teleports are characterized by multiple antennas accessing multiple satellites. (Would loading standards be applied collectively on the teleport, or on each antenna?) Furthermore, the earth station operator does not control the actions either of his customer base, or in many cases of the satellite link designer. The earth station operator would be responsible to the FCC for achieving loading factors, yet lacks the control to meet them.

The Commission also requests comment on whether any spectrum use or efficiency standards are appropriate in situations where FSS earth station use already is substantially restricted and, if so, whether they should be tailored to the unique situations involved.

Telesat notes that the restrictions cited are intended to limit the number of earth stations to facilitate use by other services in these shared bands. Should loading standards be imposed, they should not apply in these bands, since the earth stations are already constrained and should pose coordination difficulties to the FS in few, if any, cases.

Interference Coordination (¶¶ 62-80)

In an attempt to better balance the competing needs of the FSS and FS services in shared bands and to promote, during the coordination process, the most efficient use of this shared radio spectrum, the FCC proposes that if an FSS earth station or FS station applicant employs certain interference mitigation techniques in order to coordinate its station successfully, then to the extent that those same conditions exist for subsequent requests for coordination between an FSS and FS station applicant and licensee, the FSS earth station or FS station licensee must give those interference mitigation factors the same weight as in the original coordination. Further, if an FSS earth station applicant, during its coordination, accepts a level of interference that is

recognized to be below accepted interference objectives along a set of azimuths and elevation angles, then the FSS earth station licensee would not be entitled to protection from interference from future FS applicants on those same frequencies within that same set of azimuths and elevation angles. The FCC proposes that these rule changes would apply across all frequency bands where the FSS and FS share a primary service allocation.

In Telesat's view, these proposed rule changes raise two major concerns. First, the amount of interference received on a given path in an urban area is constantly changing as a result of changes in the urban landscape through construction and demolition. For example, new buildings may cause reflections even though they are not directly in the interference path. Freezing the amount of attenuation attributed to manmade structures {25.203 (e)(2)} does not take this into account. Also, changes in technology such as the use of higher orders of modulation may result in the greater requirement for protection from the external sources of interference. Secondly, while the Commission accepts (at ¶ 75) that interference sources are cumulative, the proposed rule change {25.203 (e)(2)} does not account for this fact. The assumption seems to be that if a certain level of interference can be accepted, so too can twice (or any multiple) of that interference be accepted.

To facilitate the process of coordinating future requests, the Commission also requests comment on whether the FCC should place conditions on the license of an FS station or FSS earth station to specifically identify those particular frequencies and interference paths where the station has not successfully cleared coordination, and is therefore not entitled to protection.

In response, should the Commission proceed with this rule change, Telesat believes that this information would have to be included in the comprehensive database maintained by an impartial body.

II. THE ONSAT PROPOSAL (¶¶ 81- 97)

The FCC proposes to adopt changes to its rules to authorize, under a single license, networks of prior-coordinated CSATs, based on its current licensing rules for VSATs with modifications to reflect the prior frequency coordination required in the C-band because of FS/FSS co-primary

frequency sharing in this band. This licensing will require CSAT applicants to complete frequency coordination for each individual earth station antenna, but allow licensing for a system of technically-identical stations so coordinated.

Telesat operates a CSAT network in Canada. Based on that experience, the Company would offer a few comments on the specifics of the FCC's proposed rules. Specifically, in regard to Frequency Coordination, the FCC proposes to licence CSAT networks for no more than 20 MHz of C-band spectrum and for no more than three satellite locations within the visible geostationary satellite arc, with comment also requested on whether the FCC should limit the licensing of all CSAT networks to a particular identified portion of the C-band. Telesat believes that there should be no restriction imposed as to the portion of the C-band to be used for CSATs. The portion of the band allocated to low level carriers such as CSATs is determined by international satellite coordination agreements and maximum flexibility is required.

The Commission also notes that the required individual coordination with terrestrial users of C-band frequencies may effectively limit CSAT networks to rural areas and seeks comment on whether the rules should limit the CSAT service to rural areas, or, alternatively, whether service be permitted wherever frequency coordination allows the installation of an earth station.

In Telesat's opinion, CSAT stations should only be limited by frequency coordination constraints.

III. THE HUGHES PROPOSAL (¶¶ 98-107)

The FCC calls for comment on the petition filed by Hughes in the 18 GHz Proceeding, concerning the proposed deployment of earth stations for GSO FSS systems in the shared portion of the Ka-band under a "blanket" licensing approach in these shared bands, with the option of registering for interference protection on a site-by-site basis in accordance with the coordination procedures of Sections 25.203 and 25.251.

In response, as Telesat has noted above, sharing between the FS and FSS is under active study in the ITU-R. The traditional approach, based on deterministic calculations (as outlined in AP S7

of the ITU *Radio Regulations*) appears to be unduly conservative and thus may lead to a less efficient use of spectrum. Probabilistic methods which calculate the net effect of interference, under line-of-sight conditions, into the FSS receiver as measured by impact on availability are under development. The Company therefore recommends that a final determination on this issue be delayed pending completion of the technical studies. In the meantime, earth stations could be licensed on a non-interference basis.

CONCLUSION

Telesat appreciates the opportunity of being able to comment on the issues and proposed rule changes in this important proceeding. The Company trusts that its comments will prove useful to the Commission in its deliberations.

All of which is respectfully submitted by Telesat Canada this 8th day of January, 2001.

A handwritten signature in black ink, appearing to read "Paul D. Bush". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Paul D. Bush
Vice President, Corporate Development