

UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549

DIVISION OF CORPORATION FINANCE

September 27, 2010

Mr. Christopher S. DiFrancesco Vice-President, General Counsel and Secretary Telesat Canada 1601 Telesat Court Ottawa, Ontario, Canada K1B 5P4

> Re: Telesat Canada Form 20-F for the fiscal year ended December 31, 2009 Filed March 3, 2010 File No. 333-159793

Dear Mr. DiFrancesco:

We have reviewed your filing and have the following comments. Please provide us with the requested information so we may better understand your disclosure.

Please respond to this letter within ten business days by providing the requested information or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing the information you provide in response to these comments, we may have additional comments.

Form 20-F for the Year Ended December 31, 2009

Item 5- Operating and Financial Review and prospects Management's discussion and analysis of financial condition and results of operations Critical Accounting Policies

Goodwill and other Intangible assets with indefinite useful lives, page 72

1. We note that goodwill represents 47% or more of your assets as of December 31, 2009. Due to significance of your goodwill balance and in light of the risk factors related to your business disclosed on pages 4 to 18, we expect robust and comprehensive disclosure both in your footnote and in your critical accounting policies regarding your impairment testing policy. This disclosure should provide investors with sufficient information about management's insights and assumptions with regard to the recoverability of goodwill.

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Specifically, please disclose the following information for each reporting unit (with material goodwill) that is at risk of failing step one of the goodwill impairment test:

- Percentage by which fair value exceeded carrying value as of the most recent step-one test
- Amount of goodwill allocated to the unit
- Description of the methodology used to determine fair value
- Description of key assumptions used and how the key assumptions were determined
- Discussion of the uncertainty associated with the key assumptions and any potential events and/or circumstances that could have a negative effect on the key assumptions.

Otherwise, disclose if true, in your critical accounting policies that none of your reporting units with significant goodwill is at risk of failing step one of the goodwill impairment test.

- 2. We note that you took a significant goodwill and intangible assets impairment charges of \$483 million in the fiscal year 2008. You should expand your MD&A to discuss your expectations regarding your future operating results and liquidity as a result of taking an impairment charge. You should clearly explain to your investors, if true, that you expect that historical operating results will not be indicative of future operating results. You should also discuss the primary drivers in your assumptions that resulted in the goodwill impairment charge. For instance, did you significantly reduce projected future revenues or net cash flows or increase the discount rates? In addition, discuss whether and when you considered a recovery of the economy in your cash flow projections.
- 3. Please provide us with the proposed disclosures which you intend to include in your next Form 20-F to comply with the above comments.

Please file all correspondence over EDGAR. We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

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In responding to our comments, please provide a written statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

You may contact Claire DeLabar, Staff Accountant, at (202) 551-3349 or Terry French, Accountant Branch Chief, at (202) 551-333828 if you have questions regarding comments on the financial statements and related matters. Please contact John Harrington at (202) 551-3576 or me at (202) 551-3810 with any other questions.

Sincerely,

Larry Spirgel Assistant Director