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June 18, 1999

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JUN 18 1999

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Ms. Magalie Roman Salas
Secretary
Federal Communications Commission
The Portals, 445 12th Street, S.W.
Washington, D.C. 20554

Re: Northpoint Technology's Notice of Ex Parte Presentation Meeting Regarding ET Docket No. 98-206, RM-9147, RM-9245 and Northpoint's Washington Testing

Dear Ms. Salas:

Northpoint Technology Ltd. ("Northpoint") hereby submits for filing in the above-referenced docket its notice of a meeting on June 17, 1999. Sophia Collier, Carmen Tawil, Saleem Tawil and Linda Rickman of Northpoint, Bob Combs and Ed Reinhardt, consultants to Northpoint, Antoinette Cook Bush and Eric Broyles of Skadden, Arps, Slate, Meagher & Flom LLP met with Harry Ng and Julie Garcia of the International Bureau, Dale Hatfield, Tom Derenge, Julius Knapp, Geri Matisse, Bruno Pattan and Doug Young of the Office of Engineering and Technology, and Shellie Blakeney and Michael Pollak of the Wireless Telecommunications Bureau to discuss Northpoint's experimental license (FCC call sign WA2XMY) and the successful results of experimental testing under that experimental license in Kingsville and Austin, Texas.

The Northpoint representatives also discussed Northpoint's planned experimental testing under its Washington, D.C. area STA. Enclosed herewith is also a technical exhibit that was presented.

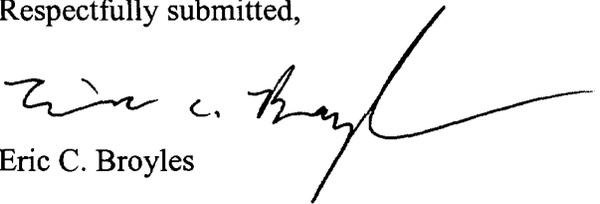
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Ms. Magalie Roman Salas
March 30, 1999
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In accordance with Section 1.1206 of the Commission's Rules, the original and one copy of this notice are being filed with the Secretary, and an additional copy is being served on all parties involved.

Please date-stamp the attached duplicate upon receipt and return it via the messenger for our records. If any questions arise concerning this matter, kindly contact the undersigned.

Respectfully submitted,



Eric C. Broyles

Enclosure

cc: Sophia Collier
Carmen Tawil
Saleem Tawil
Linda Rickman
Bob Combs
Ed Reinhart
Harry Ng (IB)
Julie Garcia (IB)
Dale Hatfield (OET)
Tom Derenge (OET)
Julius Knapp (OET)
Geri Matise (OET)
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6 June 99

Memo to File

Subject: Isolation from Linear to Circular Polarization

The isolation from linear to circular polarization is one-half power, or three dB of isolation¹, and is true for all angles of reception. Circularly polarized (CP) antennas typically use quarter-wave dipoles oriented at right angles to receive the CP signal, rotating at a given rate (ω). A linearly polarized wave can excite one or the other of these dipoles, or at most, excite them equally at one-half of the power. In this fashion, one-half of the power available from a linear polarized (LP) wave is lost when received by a CP antenna.² The existence of this three dB isolation was recognized by DIRECTV in its 1994 report to the Commission on terrestrial interference.³

A linear polarized wave can be converted to circular polarization if it passes through a circular polarizing filter, such as a grid of quarter-wave plates.⁴ By inspection, the DSS antenna does not consist of a polarizing filter. A linearly polarized wave can also be rotated by atmospheric phenomenon, (Faraday rotation), but this is limited to a few degrees at frequencies above a few GHz.⁵ Therefore, a three dB isolation from linear into circular polarization should be continue to be taken into account in the interference budget.

¹ Electronics Engineer's Handbook, Fourth Edition, Edited by Donald Christiansen, Ronald K. Jurgen, Edward A. Torrero, Donald G. Fink; McGraw-Hill, 1997; pp. 22.10-12.

² Antenna Theory and Design, Second Edition, Warren L. Stutzman, Gary A. Thiele, John Wiley and Sons, 1998.

³ Terrestrial Interference in the DBS Downlink Band, DIRECTV, 1994., pp 6-15

⁴ Antennas, L.V. Blake, Artech House, Inc, 1984; pp. 329.

⁵ Antenna Handbook, Volume II, Edited by Y. T. Lo; Van Nostrand Reihold, 1998; section 12-10.

DBS Availability in the Northpoint Service Area

