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RIYADH (AFFILIATE)

May 30, 2002

RECEIVED  
MAY 30 2002  
FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

**VIA HAND DELIVERY**

Ms. Marlene Dortch  
Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, SW  
Washington, DC 20554

**Re: *Notice of Ex Parte Presentation***  
**ET Docket No. 98-206; Compass Systems, Inc. DBS application; Northpoint Petition for Rulemaking (RM-9245); Skybridge Petition for Rulemaking (RM-9147); Applications of Broadwave USA, et al., PDC Broadband Corporation, and Satellite Receivers, Ltd. to provide a fixed service in the 12.2-12.7 GHz Band; Requests of Broadwave USA, et al. (DA 99-494), PDC Broadband Corporation (DA 00-1841), and Satellite Receivers, Ltd. (DA 00-2134) for Waiver of Part 101 Rules**

Dear Ms. Dortch:

On May 28, 2002, on behalf of Compass Systems, Inc. ("Compass"), Antoinette Cook Bush, Sophia Collier, and Carmen Tawil met with Ed Thomas, Julius Knapp, Thomas Derenge, Geraldine Matisse, Ira Keltz, and Bruce Franca of the Commission's Office of Engineering and Technology. The Compass representatives discussed the information contained in the attached written presentation.

Pursuant to sections 1.1206(b)(1) and 1.1206(b)(2) of the Commission's rules, we are filing twelve copies of this notice of ex parte presentation with the Office of the Secretary. Please associate two copies of this notice with each of the following proceedings: RM-9245, RM-9147, DA 99-494, DA 00-1841, DA 00-2134, and the proceeding to review the Compass DBS application. We have electronically submitted a copy of this notice in ET Docket No. 98-206.

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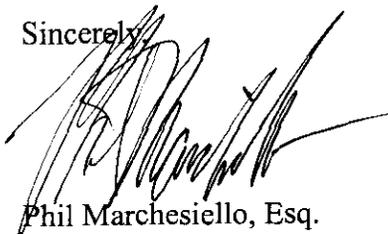
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Ms. Marlene Dortch

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Please contact the undersigned with any questions regarding this matter.

Sincerely,

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

Phil Marchesiello, Esq.  
Counsel for Compass Systems, Inc.

## What Is Northpoint Technology?

- “Northpoint” technology is a set of patented and patent pending techniques that enable satellite and terrestrial services to share the same frequencies in the same time and place.
  - Techniques include among others:
    - Directional transmission: “the path not taken”
    - Power control
- Northpoint was the first technology ever demonstrated to the Commission that accomplished this “triple play” of sharing at the same time, place and frequency.
- Other sharing systems implemented by the Commission rely on frequency (band) segmentation, geographic or time separations (see 18 GHz as example).
- Northpoint is broadly patented including method patents.

## Northpoint Patent's Have Broad Scope

- Commission Order
  - MITRE also reports that look angles for MVDDS other than south, including north, create no more interference, but that care must be taken not to place the antenna too close to the line of sight between a satellite and a DBS receiver. (Paragraph 202)
- Northpoint Patent 6,169,878 B1
  - Example Text of Claim 18
  - 18. An apparatus for simultaneously transmitting terrestrial signals on a common frequency with satellite signals transmitted from a satellite, the satellite transmitting satellite signals at a first frequency to a user location for reception only within a satellite directional reception range about the user location the apparatus comprising:
    - (a) a terrestrial transmitter for transmitting terrestrial signals at the first frequency from a fixed terrestrial location which forms a fixed geometry with the satellite, the terrestrial transmitter being located with respect to the user location such that the terrestrial transmitter transmits to the user location along a route which is outside of the satellite directional reception range.

## **Compass System**

### **An Integrated Satellite-Terrestrial Network**

- Northpoint's next generation technology integrates the best of satellite and terrestrial systems to create the ultimate in spectrum efficiency.
  - Applications filed for western satellite slots at 157 and 166; Eastern slot sought
  - Terrestrial network in the United States
  - Dynamic allocation between space and ground segments

## Services Offered Through Compass

- Local programming and broadband via the terrestrial network
  - Local channels and other local multi-channel content
  - High speed Internet access – 2 Mbps down; 512 kbps upstream
- National programming via satellite
  - Will provide 300+ channels of national programming
- Basic Core Offering
  - 96 video channels (including all local stations) and high speed Internet access for \$39/month –available in all 210 markets.
- Next Generation Set-Top Boxes
  - Modular set top boxes will allow outside innovators to develop an array of new consumer entertainment and information services.

## Spectrum Efficiency through Rightsizing Transmissions

- The Compass combined satellite-terrestrial system is radically more efficient at delivering multi-channel video and internet content than a terrestrial only or satellite only system.
- Delivery of “national” video programming is highly efficient by satellite; highly inefficient by terrestrial means.
  - Without a satellite segment, each terrestrial cell across the nation must re-broadcast the same programming.
- Delivery of “local” video or internet content is highly efficient by terrestrial means; highly inefficient by satellite.
  - Without a terrestrial segment, the satellite must broadcast to areas where the signal is not needed.
- A system combining both segments solves this problem by enabling transmissions to be “right-sized” and delivered by the most efficient means.

## An Integrated Terrestrial-Satellite Network is More Spectrum Efficient than a Terrestrial Only System

- In a terrestrial-only system, capacity must be allocated to uniform “national” video broadcasts that are better broadcast by satellite
- Freeing this resource provides a radical improvement in overall system capacity through improved spectrum efficiency

	Reuse potential	Reuse Factor
Single market video	Each television market	210 X
Internet downstream	Each tower	14,000 X
Combined improvement	(half and half allocation)	7105 X

- Every MHz of “national” video that can be placed on a satellite can be reused over 7000 times on the ground.
- Improved spectrum efficiency enables greater diversity of content and internet download speeds

## **Background on Satellite Slots Sought for Compass Systems**

- No one has succeeded in utilizing the two slots sought for Compass.
- These slots have been allocated for but never been used to provide DBS service.
  - Slot at 166
    - Both applicants failed to deploy and surrendered their licenses.
  - Slot at 157
    - Hughes failed to deploy and surrendered license.
- The Compass Systems' plan remedies the deficiencies of the far Western locations of the two orbital positions by:
  - Supplementing with Northpoint terrestrial services
  - Providing international service to the Pacific region, Canada and Mexico