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BY ELECTRONIC FILING

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 Twelfth Street, SW
Washington, D.C. 20554

**Re: Ex Parte Presentation of Polaris Wireless, Inc.
PS Docket No. 07-114, CC Docket No. 94-102, and WC Docket No. 05-196**

Dear Ms. Dortch:

On October 25, 2007, Polaris Wireless, Inc. (“Polaris”) representative Martin Feuerstein, Chief Technology Officer, along with the undersigned, counsel to Polaris, met with Aaron Goldberger, legal advisor to Chairman Martin, and also with Bruce Gottlieb, legal advisor to Commissioner Capps, Renee Crittendon, legal advisor to Commissioner Adelstein, Wayne Leighton, advisor to Commissioner Tate, and Angela Giancarlo, legal advisor to Commissioner McDowell, in separate meetings. Polaris discussed the attached presentation regarding wireless E911 issues raised in the above-captioned proceeding, consistent with its prior filings.

During the meetings, Polaris provided background information regarding its E911 network-based and hybrid technologies, including its continuing efforts to improve location accuracy and to test its system in different urban and indoor environments for GSM and UMTS networks. Specifically, Polaris discussed the potential for hybrid systems, including its Wireless Location Signatures (“WLS”) system, to improve location accuracy—especially in dense urban environments. Polaris also briefly corrected the record with regard to recent *ex parte* filings from Motorola, Inc. concerning definitions and implementations for hybrid solutions, as described in Polaris’s October 1, 2007 *ex parte* filing in this proceeding.

In addition, Polaris discussed the international interest in E911 and E112 regulations, including in Canada and Japan, and how the Commission’s leadership in this area is creating a global demand for improved location accuracy technologies. Polaris also addressed the need for

wireless infrastructure vendors to implement open, standard interfaces (particularly to the radio network controller) to external location systems. Technology innovators such as Polaris need open interfaces to ensure continued progress towards the Commission's E911 goals. Blocking or stalling activities by infrastructure equipment manufacturers, on the other hand, can hinder the continued development and deployment of systems with improved E911 location accuracy.

Pursuant to Section 1.1206(b)(2) of the Commission's rules, I am filing this notice electronically in the above-referenced dockets. Please contact me directly with any questions.

Respectfully Submitted,

/s/ Michele C. Farquhar

Michele C. Farquhar
Counsel to Polaris Wireless, Inc.

Enclosure

cc: Aaron Goldberger
Bruce Gottlieb
Renee Crittendon
Wayne Leighton
Angela Giancarlo

Hybrid Location Systems



October 25, 2007

Polaris Wireless Background

- **Sixteen operating carrier E911 Phase II network deployments with 26.1 M POP's covered in 33 states**
 - **About ten thousand E911 Phase II emergency call locates processed per day**
 - **Five infrastructure vendors supported in GSM, three in TDMA**
- **Fundamental technology research and development for network-based and hybrid location technologies**
 - **Fourteen patents granted**
 - **Additional 24 patents pending**

Current E911 Phase II Deployments



Total coverage area: ~2.8 M km²

No. of towers: ~10,000

Wireless Location Signatures (WLS)

- Signatures based on standard radio network measurements (signal strengths, time delays, etc.)
- Pattern match against a prediction database to estimate location



- WLS is fully supported in UMTS and GSM – No handset change outs
- Software-only solution – No radio hardware network overlay

Accuracy Example: Urban San Francisco



GSM:
<44m, 67% cases
<135m, 95% cases
100% Yield

Hybrid WLS Plus A-GPS

Polaris WLS

- **WLS performs best in high cell density areas (urban)**
- **WLS performs well indoors**

A-GPS

- **A-GPS performs best in open sky areas (rural, suburban)**
- **A-GPS does not perform as well urban and indoors**

- **Hybrid combining can provide more consistent accuracy across the range of call environments**
 - **Can be implemented as fallback (pick WLS or A-GPS) or joint location estimate (combine information from both)**
 - **Supported by current generation A-GPS handsets in market**
 - **2G and 3G air interfaces**

Hybrid Systems Update 1

- Continued testing of hybrid technologies in urban and indoor environments for GSM & UMTS
- Current A-GPS handsets in the market are capable of supporting the type of hybrid systems implemented by Polaris
 - Differs from hybrid technologies as defined in Motorola ex parte filing on Sept. 20, 2007
- International interest in E911/E112 systems through government recommendations or mandates
 - Potential to create more global demand for high accuracy emergency call systems
 - Could replace current paradigm of E911 in USA in contrast to LBS in rest of the world
 - Other countries looking to the USA's model and potentially following FCC's lead

Hybrid Systems Update 2

- Some wireless network technology trends could help to improve E911 location accuracy
 - Femtocells being considered by many operators
 - Many different implementation modes and distribution models are possible
- Implementation of open, standard interfaces needed to keep pushing the performance envelope
 - Some radio network interfaces for location are standardized but not implemented in infrastructure
 - Further accuracy improvements possible with standards evolution if supported by wireless carriers and vendors