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October 15, 2009

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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 and CC Docket No. 94-102

Dear Ms. Dortch:

On October 14, 2009, Polaris Wireless, Inc. ("Polaris") Chief Technology Officer Martin Feuerstein along with the undersigned, counsel to Polaris, met with Ronald Repasi, Walter Johnston, James Miller, and Salomon Satche of the Office of Engineering and Technology ("OET") and Renée Crittendon, senior legal advisor to Commissioner Clyburn. During the meetings, Polaris responded to questions about its Wireless Location Signatures ("WLS") and hybrid technology and discussed the attached presentation regarding recent location accuracy test results for urban and indoor environments.

Pursuant to Section 1.1206(b) 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.

Enclosures

cc: Ronald Repasi
Walter Johnston
James Miller
Salomon Satche
Renée Crittendon

Polaris Wireless

The Power of Signatures

Global Leader for High Accuracy Wireless Location Systems

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Introduction – Who is Polaris Wireless?

Polaris Wireless is the global leader in providing high accuracy, software-based, location systems to wireless operators, law enforcement agencies and application companies

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Polaris Wireless

About Polaris

Customers

20 Operators in the US – Nationwide and Regional

- Founded in 1999 with Location Technology as core focus
- Venture funded – DFJ and Palisades Ventures
- Headquarters in Santa Clara, California
- Satellite offices around the world
- 45 patents filed, 18 granted
- Highly experienced R&D, management team
- Government Customers: Law Enforcement Agencies in APAC

http://www.polariswireless.com

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Polaris WLS Solution

Polaris WLS → A software-only solution

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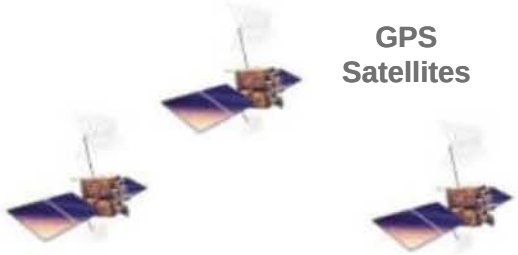
Competing Location Solutions

Triangulation (U-TDOA)



Assisted-GPS

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WLS Core Benefits

Polaris WLS Solution

Accuracy

Blind trial: New York City
- 74% calls within 50m
- 99.1% calls within 150m

Ubiquity

- Covers all subscribers
- Active and idle mode

Reliability

- Uses standard interfaces
- 100% location yield

Scalability

- Easily handle LBS call volumes with additional computing power

Time To Market

- Software solution
- Can be rolled out in a few months for the top markets

Polaris's proven track record → a valuable long-term partnership

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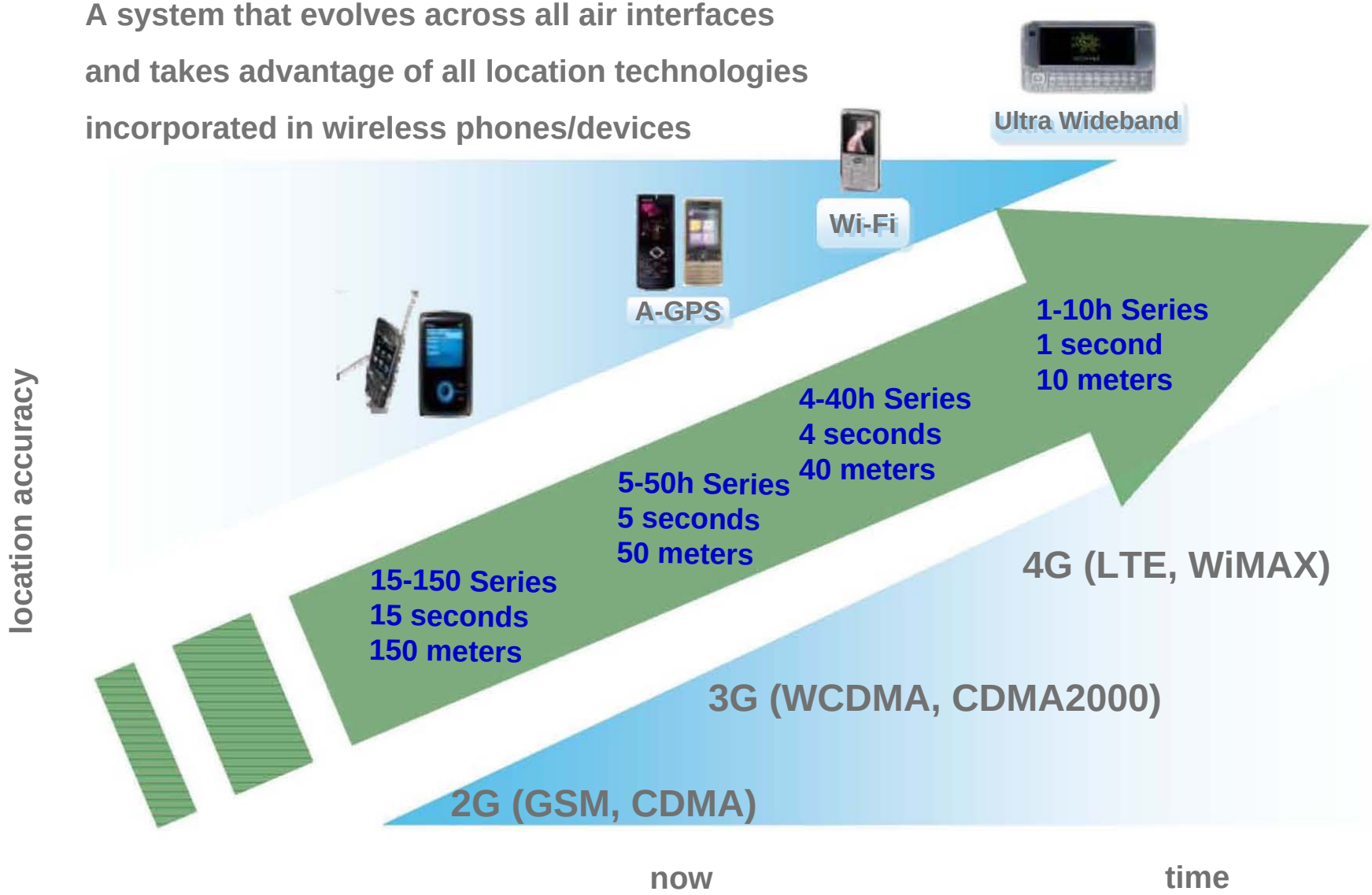
The Polaris Vision

A system that evolves across all air interfaces and takes advantage of all location technologies incorporated in wireless phones/devices



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Wireless Location Signatures (WLS)

Polaris Wireless

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

- **WLS supported in UMTS, GSM, CDMA2000 – No handset change-outs**
- **Software-only approach – No radio hardware network overlay, no GPS chip**

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WLS Performance Overview

New York City

WLS Urban Accuracy
iDEN
<50m, 74% of cases
<150m, 99% of cases

Toronto

WLS Urban Accuracy
UMTS
<50m, 69% of cases
<150m, 96% of cases

Tokyo

WLS Indoor Accuracy
UMTS
<60m, 67% of cases
5 second fix time

San Francisco

WLS Urban Accuracy
GSM
<44m, 67% of cases
<135m, 95% of cases

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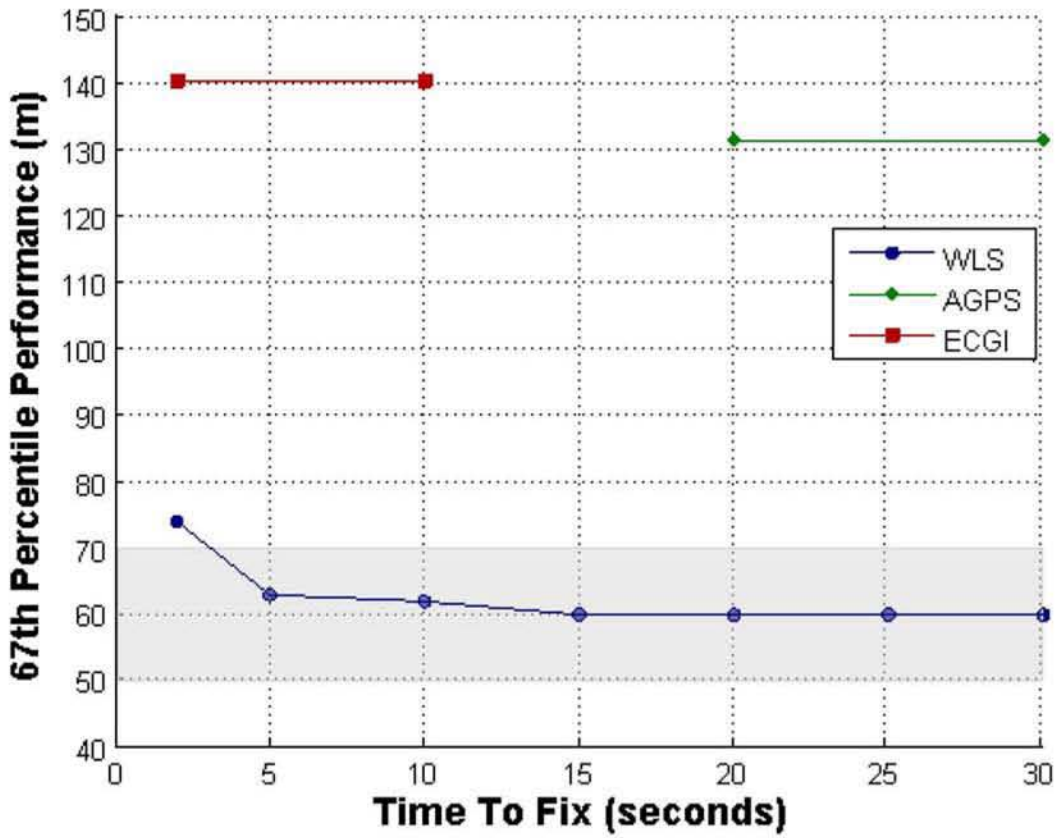
Urban Indoor Performance vs. Alternatives



- *Indoor test points in Tokyo urban area*
- *Shaded area is the desired accuracy*
- *A-GPS performance marked in Green*
- *ECGI (Enhanced Cell Global Identity) marked in Red*
- *WLS performance indicated in Blue for different time-to-fix with 100% location yield*

WLS Achieves High Accuracy in Short Time to Fix

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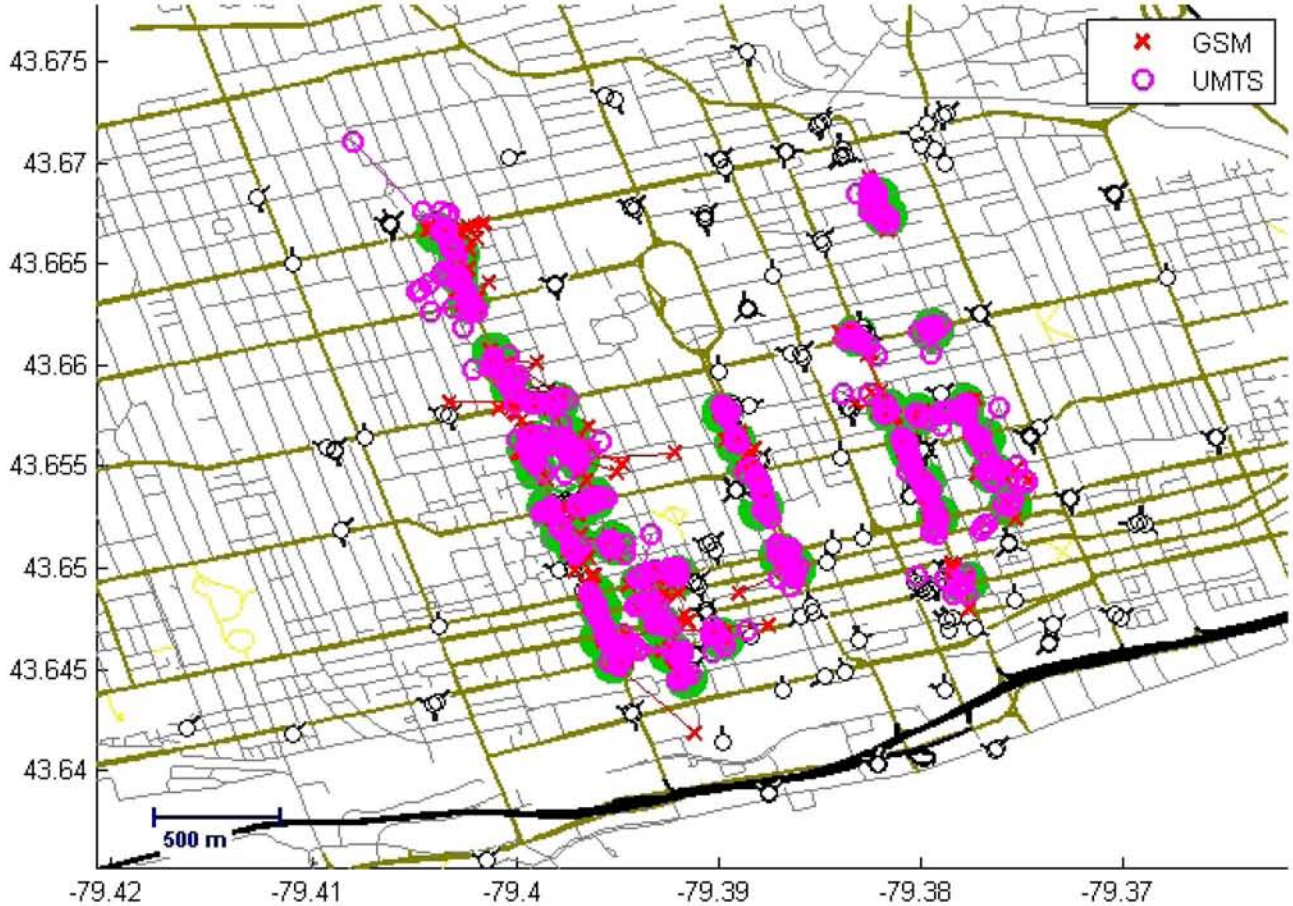
Example Stationary Points



	67%	95%	%<100	%<300	cnt
GSM:	56,	170,	84.6,	98.7,	531
UMTS:	48,	140,	90.2,	99.8,	591

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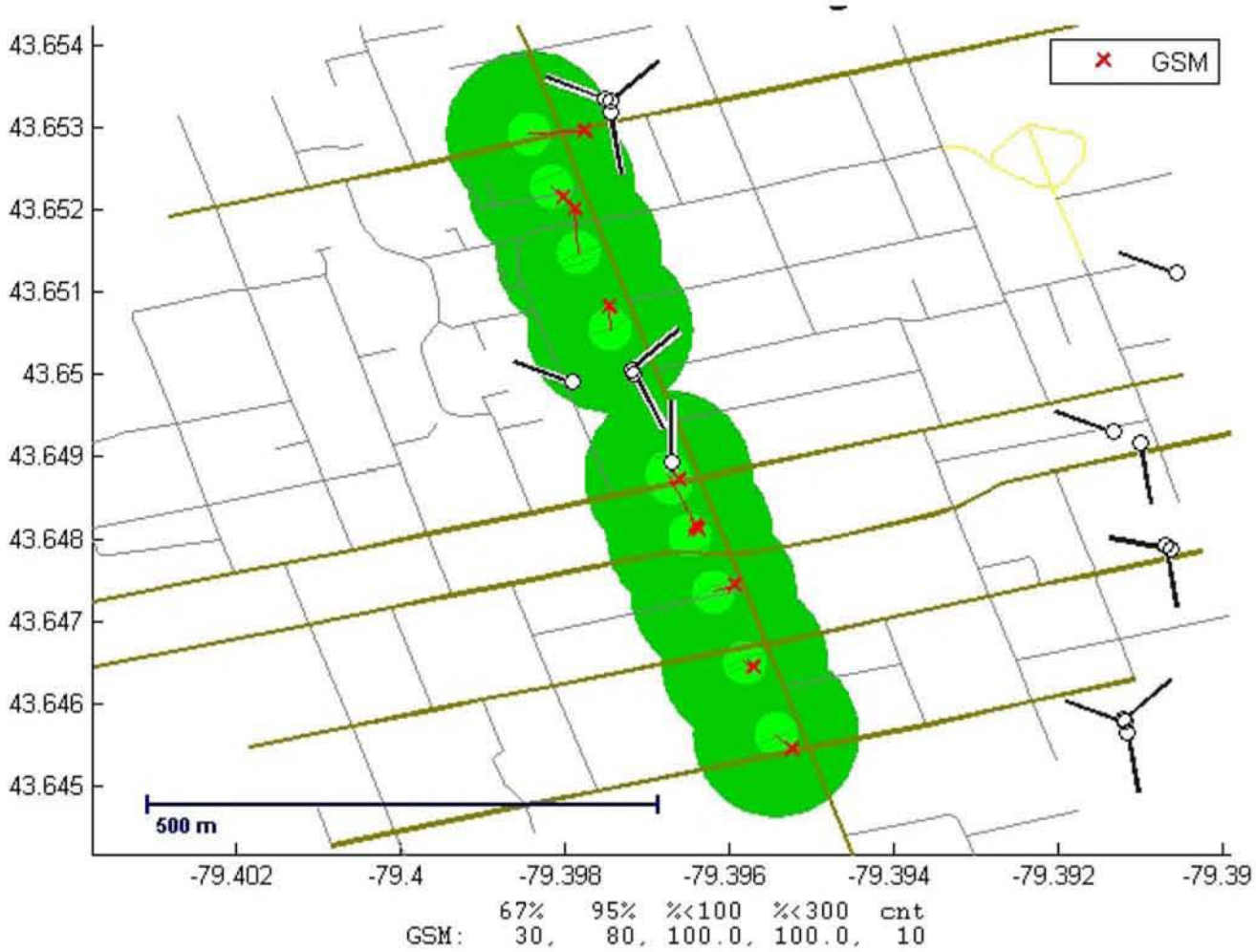
Example Pedestrian Route



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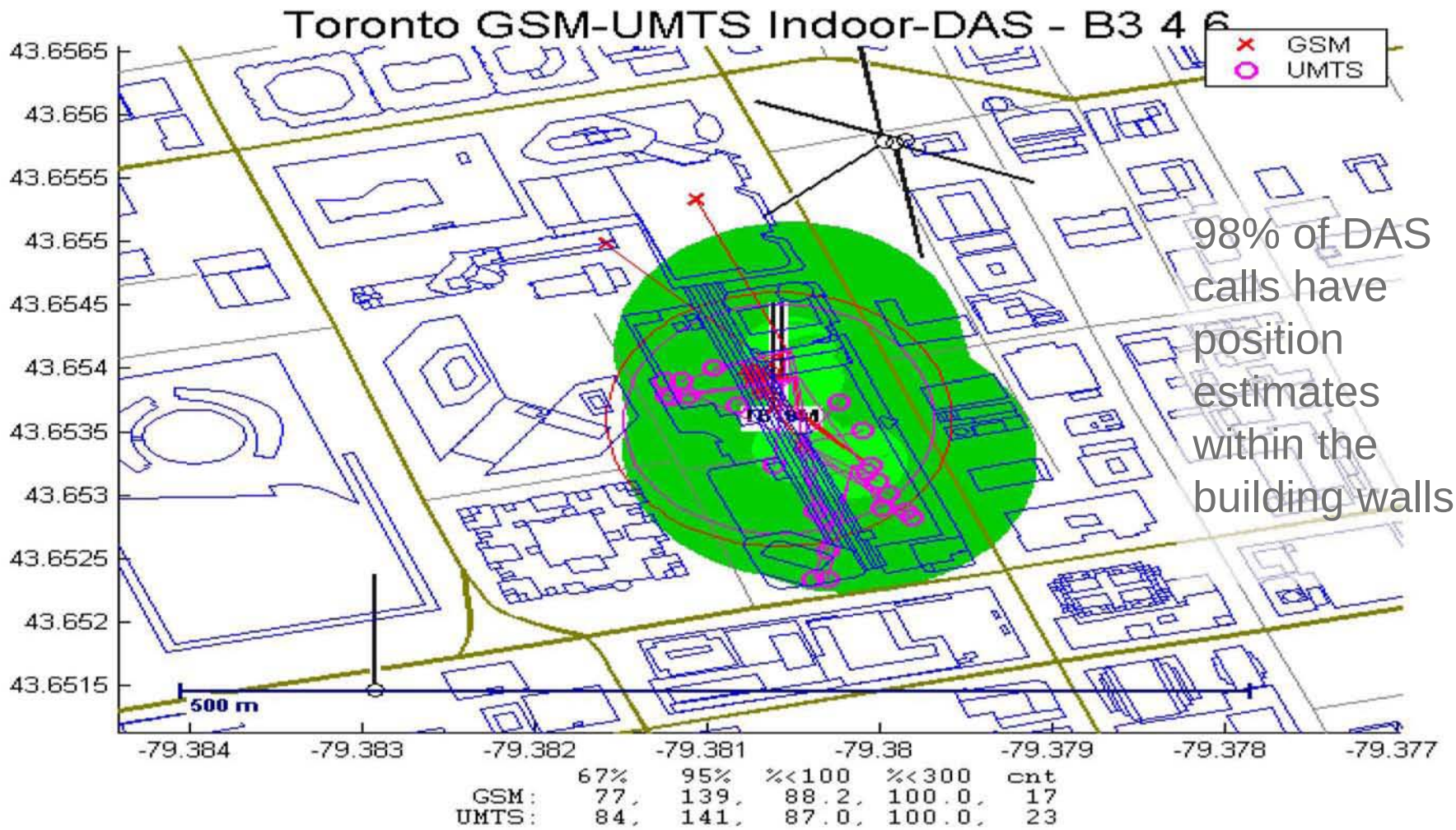
Example Indoor Building



98% of DAS calls have position estimates within the building walls

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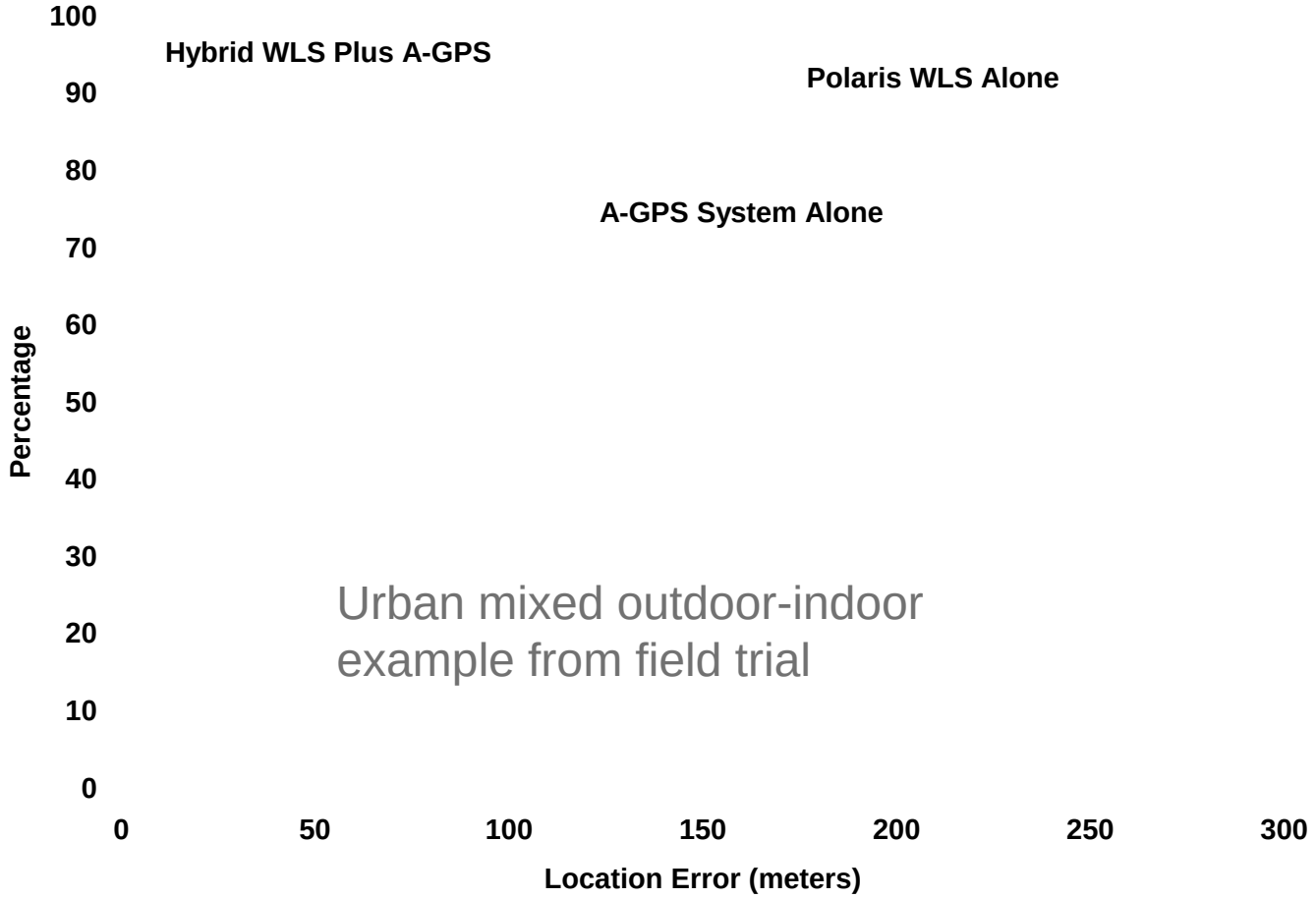
Urban UMTS Results:
WLS vs. AGPS System (AGPS/AFLT) vs. Hybrid

A-GPS has large error tails that WLS does not have



Urban mixed outdoor-indoor example from field trial

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Conclusions

- Future E911 Phase II solutions require hybrid approaches blending handset- and network-based systems

- Urban and indoor performance is critically important and requires solutions like Wireless Location Signatures in these challenging environments

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