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JAN 26 2001

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

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January 26, 2001

Ms. Magalie Roman Salas
Federal Communications Commission
445 Twelfth Street, SW
The Portals – Room TW-B204F
Washington DC 20445

Re: Ex Parte Presentation in Re: ET Docket 00-221

Dear Ms. Salas :

Pursuant to Section 1.206 of the Commission's rules, MicroTrax™ hereby provides notice and disclosure of its meeting with members of the staff of the Office of Engineering and Technology. The meeting occurred on Tuesday, January 23, 2001. Present were Mr. Julius Knapp, Ms. Lisa Gaisford, Mr. Thomas Derenge, and Mr. Ira Keltz. Present on behalf of MicroTrax™ were Mr. Yung Wong, Mr. Ron Glover, Mr. Brian Holt, Mr. Charles Jackson and the undersigned.

The matters discussed were the spectrum allocations at 1670-1675 mHz and a 2385-2390 mHz, and the timing anticipated for decision and action in the docket. MicroTrax™ presented information about its system contained in the attached brochure.

Should you have any questions with respect with this meeting or with respect to this letter, kindly contact the undersigned.

Sincerely,


Gregg P. Skall

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Enclosure

cc: Mr. Julius P. Knapp Ms. Lisa Gaisford Mr. Yung Wong Mr. Ron Glover
 Mr. Thomas Derenge Mr. Ira R. Keltz Mr. Brian Holt Mr. Charles Jackson

GPS/jlt
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Personal Location and Monitoring Service (PLMS)

MicroTrax™



**For Further Information on the FCC Notice of Proposed Rulemaking:
www.fcc.gov/Bureaus/Engineering_Technology/Notices/2000/fcc00395.txt**

Agenda

MicroTrax™

***Need For Personal Locating and Monitoring Service
(PLMS)***

A PLMS Demonstration

Request Your Support for Spectrum Dedicated to PLMS

The Need for PLMS

MicroTrax™

The screenshot displays the MicroTrax software interface. At the top, a menu bar includes "LocationMonitor", "File", "Edit", "Tools", "View", "Aerials", and "Help". Below the menu is a toolbar with various icons for navigation and map manipulation. The main area features a map with several camera viewports overlaid. The viewports show different scenes: a street view with a car, a person holding a mobile phone, a person on a motorcycle, a person in a uniform, and a person in a uniform. The map includes labels for "Melbourne Village" and "Melbourne". A scale bar at the top indicates a distance of 3000 ft. The status bar at the bottom shows "Ready".

LocationMonitor
File Edit Tools View Aerials Help

3000 ft
Lon -80.63163, Lat 28.05948

Melbourne Village
Melbourne

Ready

MicroTrax™

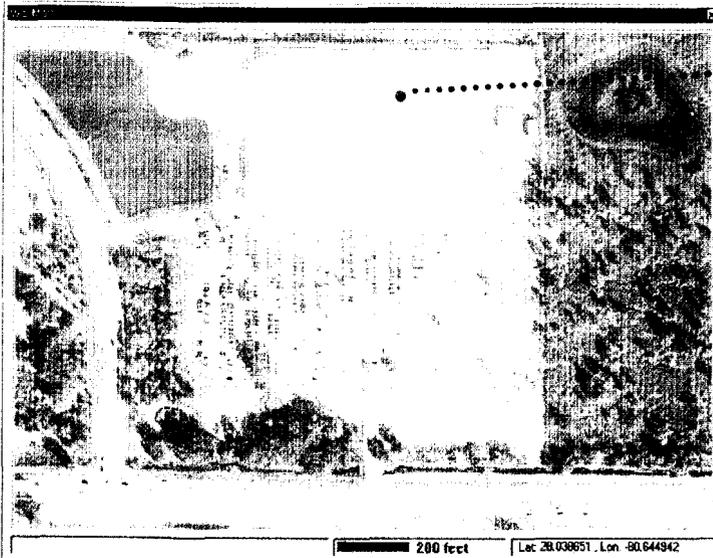
Demonstration of the MicroTrax™ PLMS

(Recording of Actual Demonstration. Run Time Approximately 5 Minutes)

Actual Performance

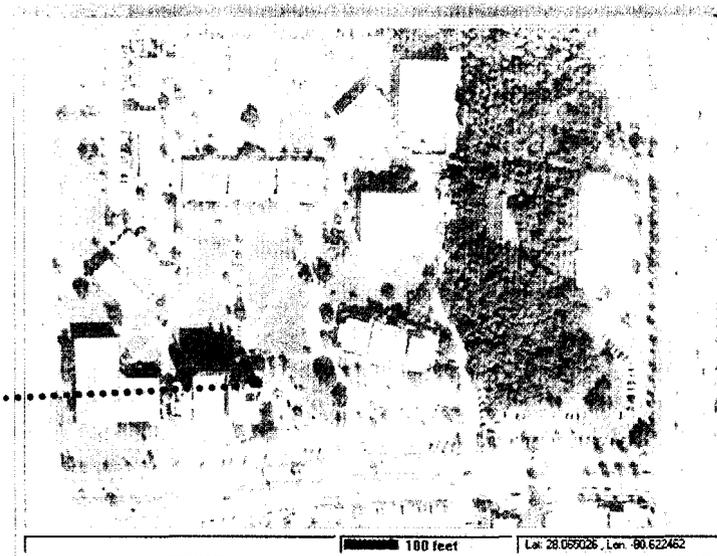
MicroTrax™

MicroTrax™ Accurately Locates and Tracks People and Assets Indoors Where GPS and Cell-Phone Based Systems Fail



**Body-worn Tag Located in
North-East Corner of Wal-Mart
Superstore***

**Body-worn Tag Located in
Sub-basement Stairwell of 7-Story
Building Where Cell-Phones Fail***

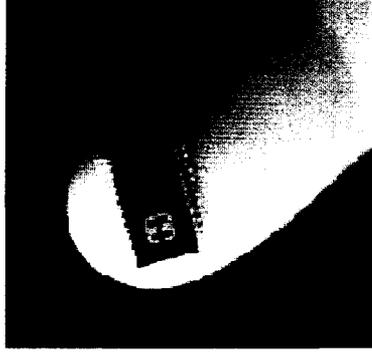
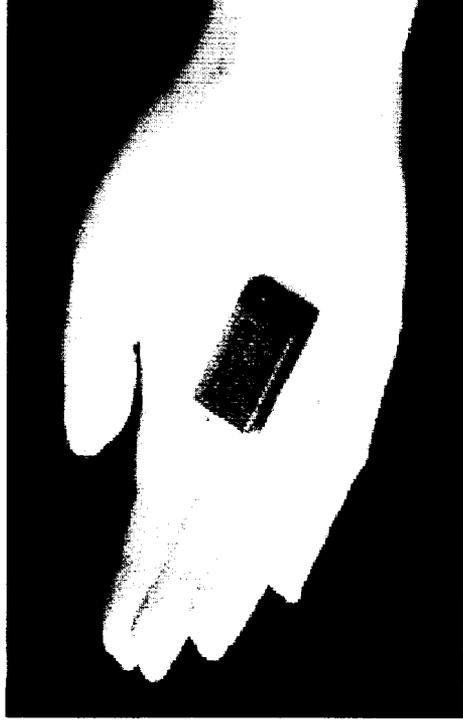


***Screen Prints of Display From Actual Demonstration of MicroTrax™ Operating Under FCC Experimental License.**

The Mobile Unit (Tag)

MicroTrax™

***An Effective PLMS Requires Small Tags
With Many Months of Battery Life
Which Are Easily Located Indoors or Outdoors
With High Accuracy***



Spectrum

MicroTrax™

Congress Mandated the FCC to Reallocate and Auction Several Bands of Spectrum*

MicroTrax™ Petitioned the FCC to Allocate Spectrum for Personal Locating and Monitoring Service (PLMS)

FCC Issued Notice of Proposed Rulemaking (NPRM)

Recognized Public Benefit of PLMS and Suggested Bands Which Could be Used for PLMS

Seeks Comment on Service Rules

*** Balanced Budget Act of 1977 And Omnibus Budget Reconciliation Act of 1993**

***We Would Like Your Organization to Respond to the
FCC Request for Comment in Support of the Allocation of
Spectrum to PLMS.***

- ***PLMS Will Provide Public Safety, Law Enforcement and Consumer Services Not Available by Other Means***
- ***Dedicated Spectrum is Required for Effective PLMS***
- ***Service Rules Should Ensure That the Spectrum is Used to Deliver Personal Location and Monitoring Services***

Recommended PLMS Service Rules

MicroTrax™

National Service

Voice Services Prohibited, Data Restricted to Monitoring

User Device Types Required: Embedded, Remote Control, Local Control

Size: Can Be Body-worn or Hidden in Assets

Indoor/Outdoor Operation Without Material Performance Degradation

Accuracy: < 30 Meters RMS

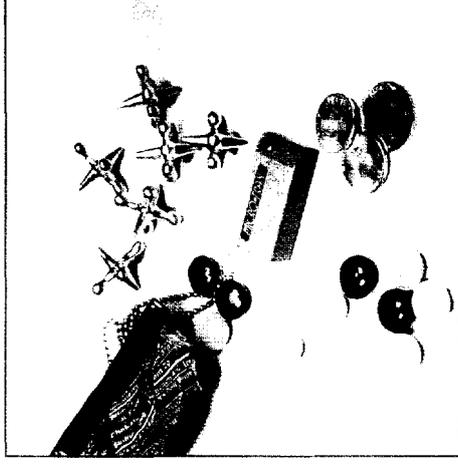
Locating Children

MicroTrax™

A Major Wireless Carrier's Consumer Market Research Validated the Demand for Child Locating Services

Market Testing

- Product Management tested this concept positioned as "Lojack for Kids." This version of the concept featured a keychain sized device with a locator chip, when the panic button is pressed the signal goes directly to 911 to dispatch help.
- Price Point: \$9.95/month
- Scored a top 2 box of 30.6%, and did particularly well among pager users (40.3%), Families with NO kids (32.5%), singles of all ages (40.7%), and African Americans (61.1%).



This Blue Slide Insert From Carrier's Market Test Report

Miniature, Low Cost Tags With Long Battery Life That Can Be Located Accurately Inside and Outdoors Allow the PLMS to Address Many Safety Applications

Safety and Emergency Services:

Policemen, Paramedics,...

Civil Services:

Road Crews, Postal Carriers,...

Special Medical Needs:

Alzheimer's, Aged, Infirm,...

Cell-Phone Locator:

E9-1-1 Services,...



Offender Tracking & Monitoring MicroTrax™

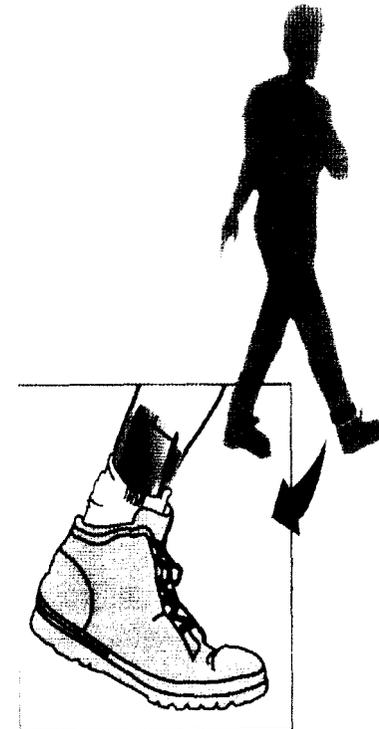
PLMS Will Lead to a Significant Improvement in the Monitoring of Offenders

Current House Arrest Systems Have a Service Price of \$150 Per Month Despite the Fact that They Have Significant Limitations:

... Only Determine Presence/Absence of the Monitored Person at Their Residence.

... Manpower is Required to Install an Expensive Receiver in the Residence of Each Monitored Person.

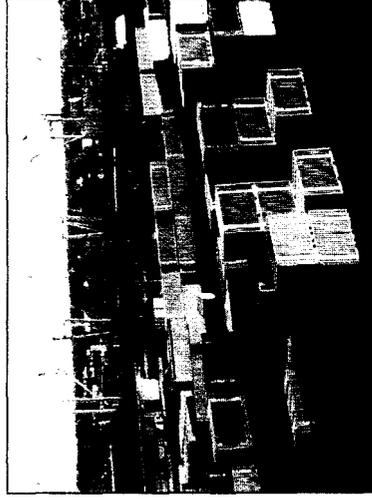
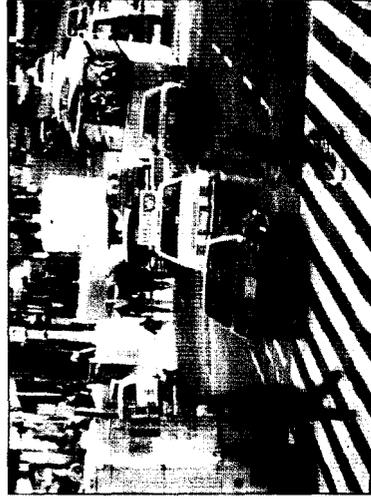
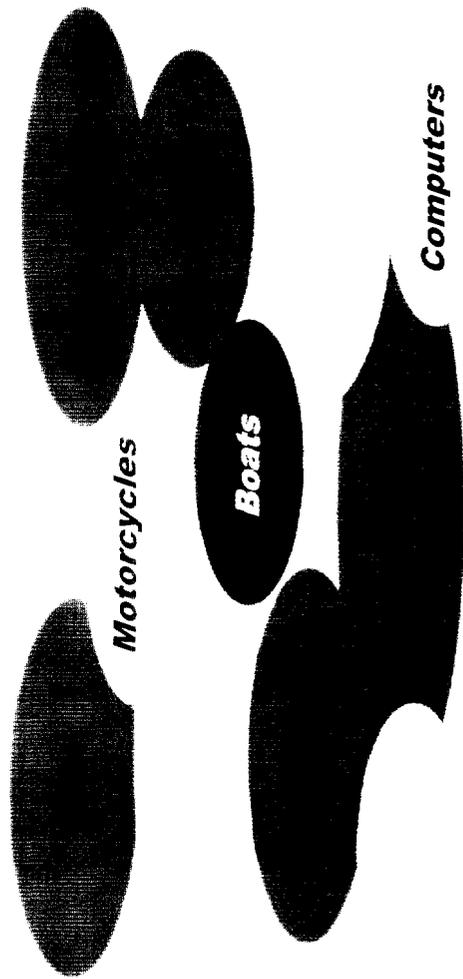
PLMS Will Allow 24 X 7 Monitoring Indoors and Outdoors With Significant Reductions in Manpower and Cost



Asset and Valuables Tracking

MicroTrax™

PLMS Will Reduce Theft Of Assets and Valuables



**Fixed and Portable PLMS Systems Will Fulfill Needs
Such as Locating Firefighters**

Locating and Monitoring The Firefighter

“Highest Priority Technology”

*as Stated by the Firefighter Task Force and
International Association of Firefighters*



U.S Statistics:

35,000 Fire Departments

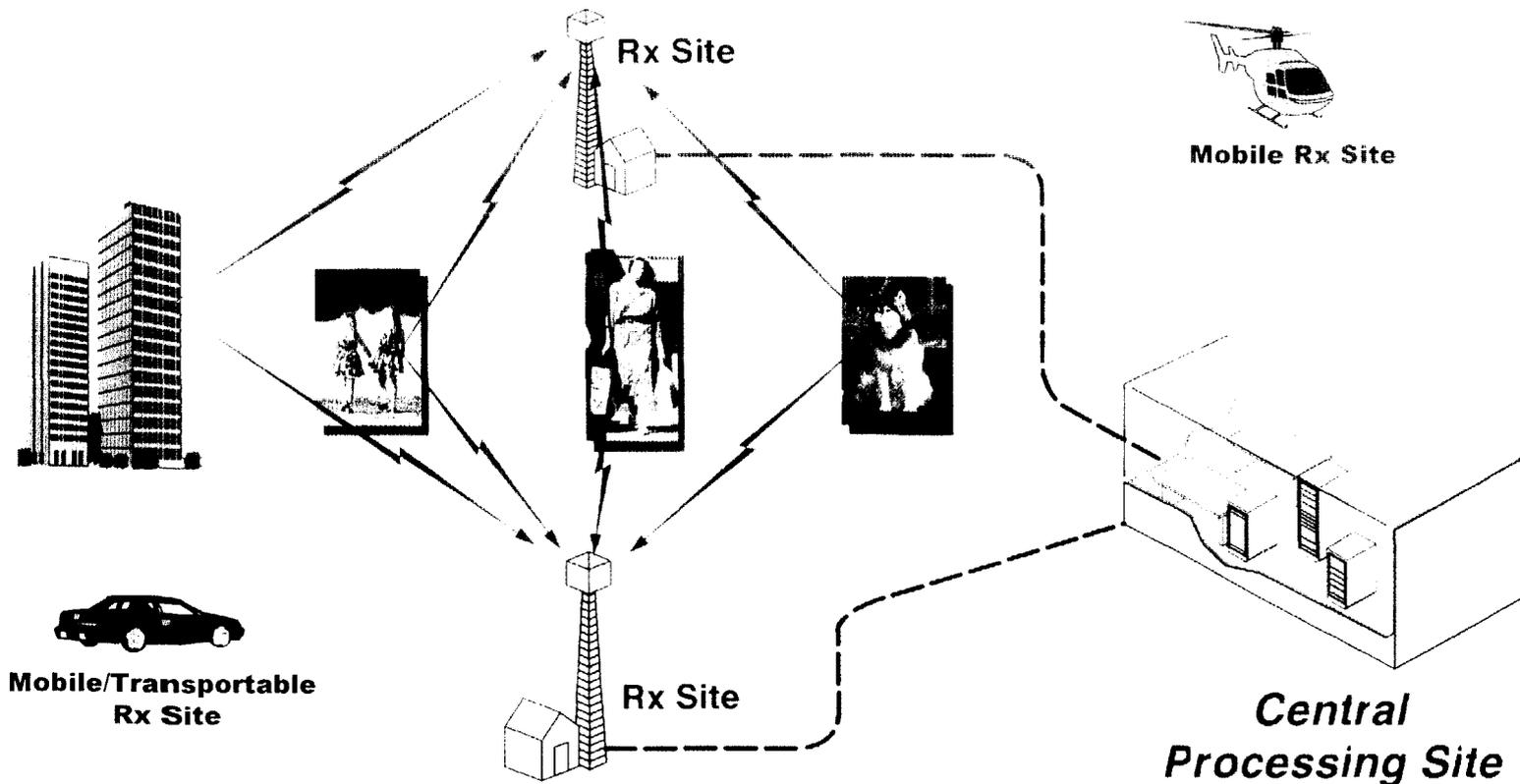
**20% in Metro Areas with High-
Rises and Warehouses**

1.2 Million Firefighters

**Approximately 100 Deaths Per
Year in the Line of Duty**

Created Specifically for Locating, Tracking and Monitoring

- Spread Spectrum
- Short Duration Burst
- Digital Modulated ID & Status
- Single Frequency
- AOA & TOA
- High Capacity
- Low Cost Components



The Location of the Tag is Calculated Using Both Time and Angle of Arrival Data From The Receive Sites.

GPS and Cell-Phone Based Systems Do Not Work for Many PLMS Applications

	In-building Operation	Wide-Area Accuracy	Battery Life	Jamming Resistance	Tag Cost/Size	Communication Service Cost
GPS		15-100 m				
MicroTrax™	Robust	7-50 m	Months	Very Good	Low(\$X) Domino	Very Low
Cell Based	Marginal			Poor	Moderate (\$2X) Deck of Cards	

KEY: Excellent Marginal Poor