



Wiley Rein & Fielding LLP

EX PARTE OR LATE FILED

RECEIVED

ORIGINAL

SEP 28 2001

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Robert L. Pettit
202.719.7019
rpettit@wrf.com

1776 K STREET NW
WASHINGTON, DC 20006
PHONE 202.719.7000
FAX 202.719.7049

Virginia Office
7925 JONES BRANCH DRIVE
SUITE 6200
McLEAN, VA 22102
PHONE 703.905.2800
FAX 703.905.2820

www.wrf.com

September 28, 2001

Magalie Roman Salas
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: Ex Parte Notification in ET Docket No. 98-153

Dear Ms. Salas:

On September 27, 2001, Jeff Ross of Time Domain Corporation and David Hilliard and I of Wiley Rein & Fielding LLP met with Peter Tenhula and William Quirk of Chairman Powell's office to discuss the above-captioned proceeding. The substance of our discussions are reflected in the attached documents.

In accordance with the Commission's rules, an original and one copy of this notification are being filed. If you have any questions or would like anything further, please let me know.

Sincerely,

Robert L. Pettit
Counsel for Time Domain Corporation

Enclosures

cc: Peter Tenhula, Esquire
William Quirk

No. of Copies rec'd 0+1
List ABCDE

Below is a list of government contracts involving ultra-wideband technologies:

Time Domain (including contracts awarded but not yet signed)

National Institute of Standards and Technology (NIST) Advanced Technology Program

Internal communications and tracking system for medical equipment

National Aeronautics and Space Administration (NASA)

Astronaut / Space Station Extra Vehicular Activity communications and position location and tracking for space walks: Phase II Small Business Innovation Research contract

National Science Foundation

Universal Home Networking: Phase I Small Business Innovation Research contract

Department of Commerce

Firefighter locator: Phase I Small Business Innovation Research contract

DOD Military Operations in Urban Terrain Advanced Concept Technology Demonstration

Introduction and evaluation of RadarVision in military operations in urban terrain to clear buildings by detecting human presence through walls

Office of Naval Research (ONR)

Location and status tracking system for environmental conditions history and shelf life of ammunition in storage depots to circumvent the need for destructive testing and lot sampling

Office of the Assistant Secretary of the Navy for Safety and Survivability

Personal Position Location and Tracking System to locate sailors aboard ships during life-threatening situations

Defense Advanced Research Projects Agency (DARPA) Advanced Technology Office

Self-Healing Minefield program that cause mines to autonomously fill in minefield breaches

Army Missile and Aviation Command (AMCOM) Advanced Concept Office

Over-the-horizon communications link using unmanned aerial vehicles: Phase II Small Business Innovation Research contract

Army Missile and Aviation Command (AMCOM)

Blue Laser research: Phase II Small Business Technical Transfer Research contract

Army Tank Automotive and Armaments Command (TACOM) Tank Automotive RDE Center (TARDEC)

Terrain mapping radar sensor to provide ground truthing for Grizzly mine-breaching program: Phase II Small Business Innovation Research contract.

Army Corps of Engineers

Cooperative Research and Development Agreement to mark locations of unexploded ordnance on training ranges, for subsequent munitions clearing

Army Simulation Training and Instrumentation Command (STRICOM)

Advanced Tactical Engagement Simulation Program for the Objective Infantry Combat Weapon to detect hits on non line-of-sight targets during military exercises: Phase II Small Business Innovation Research contract

Army Space and Missile Defense Command, Battle Lab (SMDCBL)

Wireless communications for Future Operations Center local area network, the next generation tactical operations center

Army Simulation Training and Instrumentation Command (STIRCOM)/ Univ. of Central Florida

Cooperative Research and Development Agreement to introduce time modulated ultra-wideband technology into military training.

Army Simulation Training and Instrumentation Command (STIRCOM)

Lightweight Personnel Detection Device to track soldiers during military exercises at the National Training Center (ultra lightweight gear with precision location and tracking)

National Security Agency (NSA)

Technology license for Army Research Laboratory to study how and where time modulated ultra wideband communications should be implemented for the Army

Æther Wire & Location, Inc.

DARPA

Grant for development of a position location system with a network of RF transceivers (ultra wideband localizers) (Æther Wire web site)

Intelligent Automation Incorporated (IAI)

Department of Commerce

Contract to develop a communication and tracking system for firefighters, police, and similar personnel (FCC Comment 9/6/00)

NASA

Contract to apply ultra-wideband technology to the next generation space suit so that the motions of an astronaut can be tracked (FCC Comment 9/6/00)

U.S. Army Simulation and Training Command

Contract to develop ultra-wideband for use in training exercises to track the motions of trainees and equipment (FCC Comment 9/6/00)

U.S. Army

Contract to apply ultra-wideband technology to the Grizzly Minefield Breaching Vehicle (FCC Comment 9/6/00)

U.S. Air Force

Contract that demonstrated the many advantages of ultra-wideband in phased array radar and in synthetic aperture radar (FCC Comment 9/6/00)

DOD's DARPA (Defense Advanced Research Projects Agency)

Working to evaluate distance learning in U.S. Dependent Schools on U.S. military bases abroad and the potential of wireless access to high bandwidth access (FCC Comment 9/6/00)

Multispectral Solutions, Inc. (MSSI)

Numerous Agencies

MSSI's Short Pulse Communications Systems (SPCS) has been evaluated by numerous government agencies for low detection voice and data communications (FCC comments)

U.S. Marine Corps Warfighting Laboratory

Contract for collision avoidance sensor (FCC comments)

Naval Air Systems Command

Contract for multifunction precision altimeter, collision avoidance sensor and low data rate communications system (FCC comments)

U.S. Navy

Contract for miniaturized high speed ultra-wideband video data link (FCC comments)

DOD's DARPA

Sub-contract for ultra-wideband precision geolocation system for urban warfighter applications (FCC comments)

Naval Air Warfare Center - Aircraft Division

Contract to develop ultra-wideband wireless intercom systems for Navy Aircraft (Press Release)

National Institute for Occupational Safety and Health (NIOSH)

Contract for development of ultra-wideband vehicle backup sensors for mobile mining equipment (Press Release)

Naval Facilities Engineering Command

Contract for development of Asset Location & ID System (Press Release)

U.S. Marine Corps

Contract for development of network-capable radios (Press Release)

U.S. Special Operations Command

Contract for development of ultra-wideband radar sensors for wide area surveillance, and intrusion detection (Press Release)

Department of Transportation

Contract for the development of an ultra-wideband tagging system for the detection of problem drivers (Press Release).

Navy Surface Warfare Center (Hummingbird Project)

Contract to develop precision altimetry and collision/obstacle avoidance applications
(Press Release)

U.S. Army Research Laboratory

Contract for the development of an ultra wideband radar proximity fuze (Press Release)

U.S. Army Missile Command

Contract to develop high-speed ultra wideband (UWB) link for the transmission of command & control and live video data to/from an unmanned aerial vehicle (Press Release)

DOD's DARPA

Collision avoidance radar for use in DOD's Organic Aviation Vehicle (International Defense Review, 3/1/2001)

National Academy of Science

Contract to develop electronic license plates with dual function of collision avoider and RF tagging for vehicle to roadside communication (Press Release)

DOD's Office of Special Technology

Contract to develop an ultra-wideband voice/data packet radio using groundwave propagation for non-line-of-sight communications. (Jane's Int'l Defense Review 2/99)

ITT Industries

Air Force

Contract to research and develop ultra-wideband sources and antennas for communication systems (Sec. of Defense News Release)

Department of Energy - Lawrence Livermore National Laboratory

Defense Special Weapons Agency & U.S. Army's Humanitarian Demining Office

Working on development of a fieldable man-portable land mine detection system (Jane's Int'l Defense Review 2/99)

GOVERNMENT AND DEFENSE PROJECTS

TIME DOMAIN GOVERNMENT PROJECTS

National Institute of Standards and Technology Advanced Technology Program

- Internal communications and tracking system for medical equipment

NASA Johnson Space Center

- Astronaut / Space Station Extra Vehicular Activity communications and position location and tracking for space walks: Phase II Small Business Innovation Research contract
-

National Science Foundation

- Universal Home Networking: Phase I Small Business Innovation Research contract

Department of Commerce

- Firefighter locator: Phase I Small Business Innovation Research contract

NASA Glenn Research Center

- Phased Array and SAR Radar: Phase I Small Business Innovation Research contract

NASA Goddard Space Flight Center

- Interspacecraft Communication: Phase I Small Business Innovative Research contract

NASA Marshall Space Flight Center

- Terahertz waveform Cooperative Research and Development Agreement (CRADA)

TIME DOMAIN DEFENSE PROJECTS

DoD Military Operations in Urban Terrain Advanced Concept Technology Demonstration

- Through wall radar for military operations in urban terrain to clear buildings by detecting human presence through walls

Office of Naval Research

- Location and status tracking system for environmental conditions history and shelf life of ammunition in storage depots to circumvent the need for destructive testing and lot sampling

Office of the Assistant Secretary of the Navy for Safety and Survivability

- Personal, Position, Location, and Tracking System to locate sailors aboard ships during life-threatening situations

Army Missile and Aviation Command Advanced Concept Office

- Over-the-horizon communications link using unmanned aerial vehicles: Phase II Small Business Innovation Research contract

Army Missile and Aviation Command Weapons Sciences Directorate

- Blue Laser research: Phase II Small Business Technical Transfer Research contract

Army Tank Automotive and Armaments Command Tank Automotive RDE Center

- Terrain mapping radar system to provide ground truthing for Grizzly mine-breaching program: Phase II Small Business Innovation Research contract

Army Simulation Training and Instrumentation Command

- Advanced Tactical Engagement Simulation Program for the Objective Infantry Combat Weapon to detect hits on non line-of-sight targets during military exercises: Phase II Small Business Innovation Research contract

Army Simulation Training and Instrumentation Command

- Cooperative Research and Development Agreement to introduce time modulated ultra wideband technology into military training

National Security Agency

- Technology license for Army Research Laboratory to study how and where time modulated ultra wideband communications should be implemented for the Army

Marine Corps

- Personnel Identification System: Phase I Small Business Innovative contract

Defense Threat Reduction Agency

- Evaluation of UWB for airborne surveillance and ground penetrating radar

Land Warrior Program

- Evaluation of UWB for Land Warrior Program

Army STRICOM

- Development of Mobile ad hoc networking BAA with military and commercial dual-use capability

Army STRICOM

- Aim-point determination and geometric pairing solution for OICW weapon system: Phase II Small Business Innovative Research contract

DoD Office of Science and Technology

- OST IDIQ Program

Navy Sea Systems Command (NAVSEA)

- UWB engineering expertise for technology insertion into Naval Applications

Navy Research Lab (NRL)

- To provide precise timing via wireless

COMPLETED PROJECTS

Defense Advanced Research Projects Agency Advanced Technology Office

- Self-Healing Minefield program that causes mines to autonomously fill in minefield breaches

Army Corps of Engineers

- Cooperative Research and Development Agreement to mark locations of unexploded ordnance on training ranges, for subsequent munitions clearing

Army Space and Missile Defense Command Battle Lab

- Wireless communications for Future Operations Center local area network, the next generation tactical operations center

Army Simulation Training and Instrumentation Command

- Lightweight Personnel Detection Device to track soldiers during military training exercises

L3 Communications

- Provision of 3 full duplex evaluation PulsON radios with propagation software.

Navy Training Command

- Demonstration of Time Domain's PulsON[®] radio to track weapons on a training range: Phase 1 Small Business Innovation Research contract

Army Material Command

- Proposal to support intelligent mines with PulsON[®] radar sensor and PLT

National Telecommunication & Information Agency

- Utilization of the PulsON[®] pulsers to facilitate interference testing in support of the FCC NPRM

National Telecommunication & Information Agency

- Utilization of PulsON[®] pulsers to facilitate interference testing in support of the FCC NPRM

Johnson Space Center

- Astronaut / Space Station Extra Vehicular Activity communications and position location and tracking for space walks: Phase I Small Business Innovation Research contract

Army Missile and Aviation Command Advanced Concept Office

- Over-the-horizon communications link using unmanned aerial vehicles: Phase I Small Business Innovation Research contract

Air Force Rome Labs

- UWB SAR Research: Phase I Small Business Innovation Research contract

Army Missile and Aviation Command Weapons Sciences Directorate

- Photonics Research Support: Phase I Small Business Innovation Research contract

Army Missile and Aviation Command Advanced Concept Office

- Over-the-horizon communications link using unmanned aerial vehicles: Phase I Small Business Innovation Research contract

Army Tank Automotive and Armaments Command Tank Automotive RDE Center

- Terrain mapping radar system to provide ground truthing for Grizzly mine-breaching program: Phase I Small Business Innovation Research contract

Army Simulation Training and Instrumentation Command

- Advanced Tactical Engagement Simulation Program for the Objective Infantry Combat Weapon to detect hits on non line-of-sight targets during military exercises: Phase I Small Business Innovation Research contract

*National Fraternal Order of Police • National Volunteer Fire Council
Houston Police Department • County of Los Angeles Sheriff's Dept.
Fairfax County, VA Search & Rescue • American College of Nurse Practitioners
Virtual Education, Inc. • RUSH – Presbyterian – St. Luke's Medical Center
Iowa Department of Education • University of Mississippi
Consortium for School Networking (CoSN) • Irmo Fire District
METRO Area Agency on Aging • Leesburg Fire Department
Community Technology Center's Network (CTCNet) • NAMI Ohio
STEP – Support and Techniques for Empowering People
Senior Citizens, Inc. • City of Farmington Dept. of Public Safety
University of Arkansas for Medical Services • Singing River Hospital
Groveland Police Department • Tallahassee Senior Center
The Amyotrophic Lateral Sclerosis Association • Comprehensive Cancer Institute
Columbian Presbyterian Medical Center • Tennessee Disability Coalition
American Academy of Dermatology • Roane County Committee on Aging, Inc.
Maricopa County Dept. of Emergency Management • NAMI Kansas
South Dakota Coalition of Citizens with Disabilities • The Arc of Tennessee
Assoc. of Medical Professionals with Hearing Losses • Iberia Medical Center
Healthcare Association of New York State • Rural Wisconsin Health Cooperative
Ohio Statewide Independent Living Council • The Disability Network
iTelehealth, Inc. • American Telemedicine Association • Southern Sierra Medical Clinic*

Date: September 20, 2001

Re: ET Docket 98-153

The Honorable Michael Powell
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

Dear Chairman Powell:

We are writing to you in response to the Federal Communications Commission's notice of proposed rulemaking on ultrawideband technology. We encourage the FCC to quickly move forward to allow this new wireless technology to be put to use in the service of public safety, education and public health.

As representatives of organizations and individuals who serve the public in a variety of ways, we are interested in the benefits that this new technology can bring to help us do our jobs. For example:

- Providing public safety personnel with short-range communications technologies for emergencies, tracking firefighters inside a building or detecting victims under earthquake rubble.

- Supporting low cost, high-speed wireless devices for schools and students connecting to the Internet and local area networks, and helping to solve the expensive problem of retrofitting older buildings or providing broadband connectivity to support educational applications in the classroom.
- Creating new ways for medical personnel to monitor and track the location of patients and medical equipment, enabling real-time transmission of health information to emergency personnel, and enhancing the safety and independence of elderly individuals or persons with disabilities.

We encourage you to move forward with consideration of this important issue and to provide Americans with the opportunity to put new technologies to use to save lives and benefit the public. Thank you for your consideration of this important issue.

Respectfully submitted,

By: /s/
 National Fraternal Order of Police
 Steve Young
 National President
 5900 Jefferson NE, Suite F
 Albuquerque, NM 87109
 Contact: Tim Richardson 202 547-8189

By: /s/
 National Volunteer Fire Council
 Philip C. Stittleburg
 Chairman
 1050 17th Street, NW, Suite 490
 Washington, DC 20038
 Contact: Craig Sharman 202-887-5700 x12

By: /s/
 Virtual Education, Inc.
 Michelle Robinson
 President & CEO
 161 E. Lake Brantley Drive
 Longwood, FL 32779
 Contact: Michelle Robinson 407-774-8001

By: /s/
 RUSH – Presbyterian – St. Luke’s Medical Center
 Russ Zajtchuk, M.D.
 Vice President
 Advanced Technology and International Health
 707 South Wood Street, Suite 220
 Chicago, IL 60612
 Contact Russ Zajtchuk: 312-942-6348

By: /s/
Iowa Department of Education
John O'Connell
Consultant Instructional Technology
Bureau of Instructional Services
Des Moines, IA 50319-0146

By: /s/
University of Mississippi
Robert C. Khayat
Chancellor
P.O. Box 1848
University, MS 38677

By: /s/
Houston Police Department
Richard Kleczynski
Lieutenant
Tactical Operations Division
1200 Travis
Houston, TX 77002-6000

By: /s/
County of Los Angeles Sheriff's Department
Sid Heal
Sergeant
4700 Ramona Boulevard
Monterey Park, CA 91754-2169

By: /s/
Fairfax County Search & Rescue
Mike Regan
Search Team Manager
3101 Hodge Place
Falls Church, VA 22042

By: /s/
American College of Nurse Practitioners
Nancy J. Sharp, MSN, RN
ACNP Telehealth Consultant
8819 Ridge Road
Bethesda, MD 20817

By: /s/
Consortium for School Networking (CoSN)
Keith Krueger
Executive Director
1555 Connecticut Avenue, NW
Suite 200
Washington, D.C. 20036

By: /s/
Irmo Fire District
Greg Mundy
Deputy Chief
P.O. Box 31
Irmo, SC 29063

By: /s/
METRO Area Agency on Aging
James D. Recco
Director
P.O. Box 518
Institute, WV 25112-1000

By: /s/
Leesburg Fire Department
Geoff Beyer
Deputy Fire Chief
201 S. Canal Street
Leesburg, FL 34748

By: /s/
Community Technology Centers' Network (CTCNet)
Steve Ronan
Managing Director
372 Broadway Street
Cambridge, MA 02139

By: /s/
NAMI Ohio
Terry L. Russell
Executive Director
747 E. Broad Street
Columbus, OH 43205

By: /s/
STEP – Support and Techniques for Empowering People
Dan MacDonald
Res. Prog. Director
1501 14th Street West, Suite 210
Billings, MT 59102

By: /s/
Senior Citizens, Inc.
Kelly Blair
Director Senior Companion Program
1801 Broadway
Nashville, TN 37203

By: /s/
City of Farmington Department of Public Safety
Gary M. Goss
Public Safety Director
23600 Liberty Street
Farmington, MI 48335

By: /s/
University of Arkansas for Medical Services
Ann Bynum
Director, UAMS Rural Hospital Program
1123 S. University, Suite 400
Little Rock, AR 72204

By: /s/
Singing River Hospital
Mark S. Lyell, MD
Chief of Staff
2809 Denny Ave.
Pascagoula, MS 39581

By: /s/
Groveland Police Department
R.S. Barr
Sergeant
408 West Orange Street
Groveland, FL 34736

By: /s/
Tallahassee Senior Center
Sheila Salyer
Director
1400 North Monroe Street
Tallahassee, FL 32303

By: /s/
The Amyotrophic Lateral Sclerosis Association
Sally Dwyer
Director
8340 Mission Road, Suite B-4
Prairie Village, KS 66206

By: /s/
Comprehensive Cancer Institute
Noel Estopinal, M.D.
201 Sivley Road SE
Huntsville, AL 35801

By: /s/
Columbia Presbyterian Medical Center
David Liss
Vice President, Government Relations & Strategic Initiatives
161 Fort Washington Avenue
New York, NY 10032

By: /s/
Tennessee Disability Coalition
Carol Westlake
Executive Director
480 Craighead Street, Suite 200

By: /s/
American Academy of Dermatology
Cheryl Hayden
930 N. Meacham Road
Schaumburg, IL 60168-4014

By: /s/
Roane County Committee on Aging, Inc.
Scott McClanahan
Executive Director
811 Madison Avenue
Spencer, WV 25276

By: /s/
Maricopa County Department of Emergency Management
Bob Spencer
Director
2035 North 52nd Street
Phoenix, AZ 85008

By: /s/
NAMI Kansas
Elizabeth Adams
Executive Director
112 SW 6th Ave., Suite 505
Topeka, KS 66601

By: /s/
South Dakota Coalition of Citizens with Disabilities
Shelly Pfaff
Executive Director
221 South Central Avenue
Pierre, SD 57501

By: /s/
The Arc of Tennessee
Walter Rogers
Executive Director
1719 West End Avenue, Suite 300E
Nashville, TN 37203

By: /s/
Association of Medical Professionals with Hearing Losses
Danielle N. Rastetter
President and Director
1216 Tiber Hawk Trail
Dayton, OH 45458

By: /s/
Iberia Medical Center
James Youree
Interim Chief Executive Officer
2315 East Main Street
New Iberia, LA 70562-3338

By: /s/
Healthcare Association of New York State
Daniel Sisto
President
One Empire Drive
Rensselaer, NY 12144

By: /s/
Rural Wisconsin Health Cooperative
Tim Size
Executive Director
880 Independence Lane
Sauk City, WI 53583

By: /s/
Ohio Statewide Independent Living Council
Woody Osburn
Executive Director
259 East Livingston Avenue
Columbus, OH 43215

By: /s/
The Disability Network
Mike Zelley
Executive Director
3600 S. Dort Hwy #54
Flint, MI 48507

By: /s/
iTelehealth
Loretta Schlachta-Fairchild, PhD
President & CEO
6935 North Clifton Road
Frederick, MD 21702

By: /s/
American Telemedicine Association
Rosa A. Tang, M.D.
President, ICOT
Room 336 Clinical Sciences Bldg.
Galveston, TX 77555-0787

By: /s/
Southern Sierra Medical Clinic
Earl W. Ferguson, M.D.
1041 N. China Lake Blvd.
Ridgecrest, CA 93555



Future Tech

Making Air Travel Safer

, Forbes.com, 09.13.01, 5:24 PM ET

No airport security system is foolproof. But new technology could make it more difficult for terrorists to get onboard planes, says **David Fine**, chief executive at **Cyterra**, a Waltham, Mass.-based company whose projects offer a glimpse of what the airport of the future may look like.

One Cyterra project uses ground-penetrating radar to look through clothing and see bombs or plastic weapons. Another jostles luggage to shake loose traces of explosive materials and detect hidden explosives.

Cyterra is a tiny startup with only 34 employees and very little in the way of sales. Fine founded Cyterra in July 2000 after working for 28 years in research and development at Thermo Electron, a \$2.3 billion measurements-and-instrumentation company in Waltham. At Thermo Electron, Fine led development of a sophisticated bomb-detection machine called EGIS that is used in airports in 26 countries, including the U.S.

The most promising of Fine's new ideas is a product that uses ground-penetrating radar to screen passengers. Under contract from the U.S. Army, Cyterra first developed the technology as a way to find buried land mines. But Fine's researchers realized the same technology could be used to view items hidden under clothing.

"Our prime interest with this project is to go after the suicide bomber," Fine says. "You can see plastic explosives strapped to someone's chest. Or a plastic knife."



Cyterra submitted a proposal on this product to the FAA in August. He has asked the FAA to help fund development of the product. Fine says he expects a faster-than-normal response in the wake of the terrorist attack. Cyterra has a simple version up and running in its lab. But it will take another six to nine months before a real demonstration is possible, Fine says.

Closer to completion is a product called Discovery that jostles luggage to shake loose chemicals from explosive devices. A prototype has been used at Ben Gurion Airport in Israel. The device used in Israel handled entire pallets of luggage at a time. Fine is building a smaller machine that will handle three or four suitcases per load.

He reckons airports can use them behind the counter to screen checked bags before they are carried away. They may also be useful in screening hand luggage.

"Until this week, we were only thinking it would be useful with checked luggage. We thought nobody in their right mind would carry a bomb onto a plane in their hand luggage. But now the book has to be rewritten," Fine says.

The Discovery machine works in conjunction with a bomb detection device like Thermo Electron's EGIS machine. With EGIS, an operator swipes an object, then inserts the paper swipe into the machine. The machine "reads" the sample, looking for traces of chemicals used in explosives.

The problem is that it is possible for a clever person to stash a bomb in a piece of luggage in such a way that no traces are left on the outside, so a swipe turns up nothing. The Discovery machine jostles the bags in a pressurized chamber, then pumps out the air and examines the sample in a machine like an EGIS.

Cyterra also is developing a biometric security system that will read fingerprints before letting people into restricted areas. The technology is fairly simple, Fine says. But Cyterra has only just begun developing a

biometric system.

Fine concedes that technology is only part of the solution. A bigger problem, he says, is the people who are operating the machinery at airports. "We have security companies hiring minimum-wage workers to operate X-ray machines. It's like giving someone one day's training and then letting them be a radiologist. This is going to have to change."

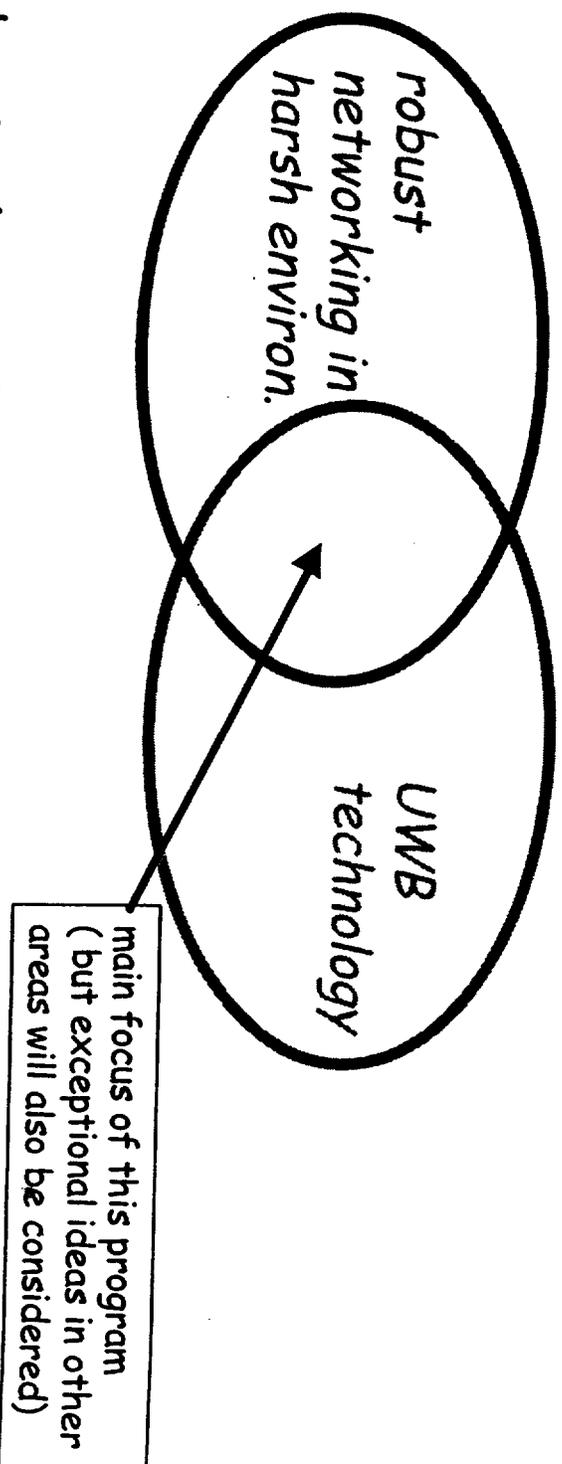
**Networking In the Extreme
(NETEX) Program**

**Industry Day
Sept 10, 2001**

**Mari Maeda
Program Manager
Information Technology Office
DARPA**

Program Goal

Robust and rapid wireless networking in complex,
hostile environments using UWB technology



- robust - immunity to fading/outages
- complex - harsh settings, urban, indoor
- hostile - low probability of jam/detect
- rapid - on-the-fly networks, no spectrum assignment