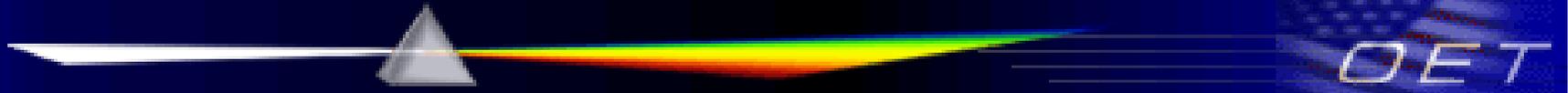# Office of Engineering and Technology
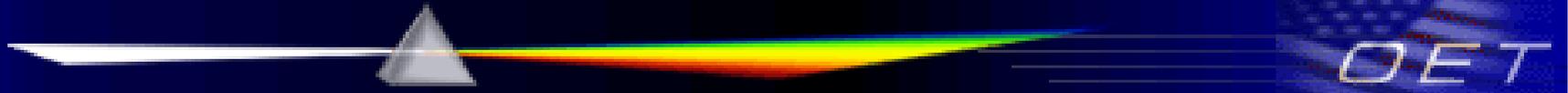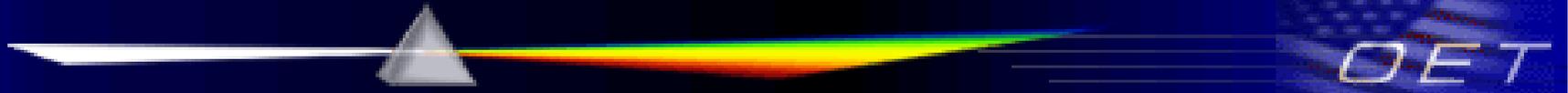
JANUARY REPORT

January 20, 2006

OET's Mission

Manage the spectrum and provide technical leadership to create new opportunities for innovation and economic growth.
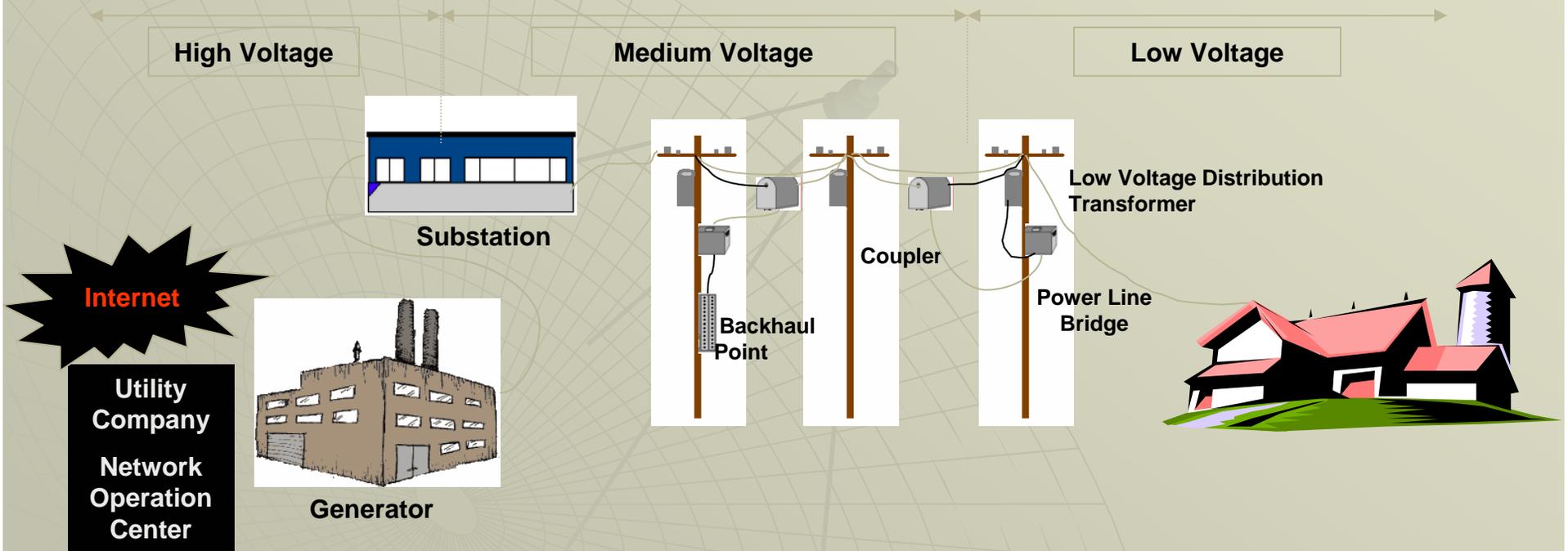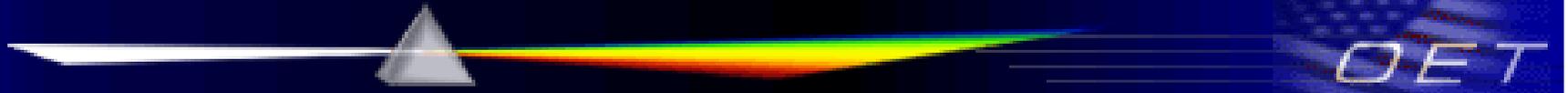
Broadband

- ◆ **Increased Spectrum for Unlicensed Broadband Services**
  - • Additional 255 MHz at 5 GHz

- ◆ **Introduction of New Broadband Technologies**
  - • Broadband over Power Lines (BPL)
  - • Ultra-wideband (UWB) devices

OET

Broadband:
Broadband over Power Lines (BPL)

High Voltage

Medium Voltage

Low Voltage

Substation

Low Voltage Distribution Transformer

Coupler

Internet

Power Line Bridge

Backhaul Point

Utility Company

Network Operation Center

Generator

- ◆ **Authorized BPL Experiments**
- ◆ **Developed Rules To Enable BPL Deployment and Protect Existing Radio Services**
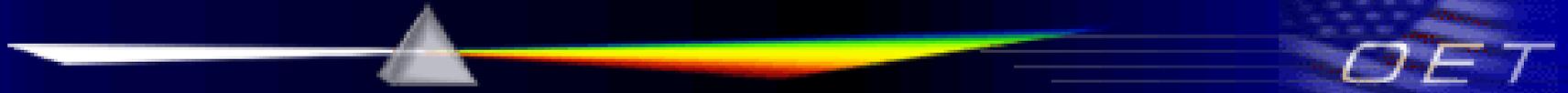
Broadband: Ultra-wideband Transmission Systems (UWB)

- ◆ **Authorized 18 New UWB Products**

- ◆ **New Provisions for Wideband Devices**

- ◆ **Waiver for Certain UWB Techniques**

- ◆ **International UWB Standards**

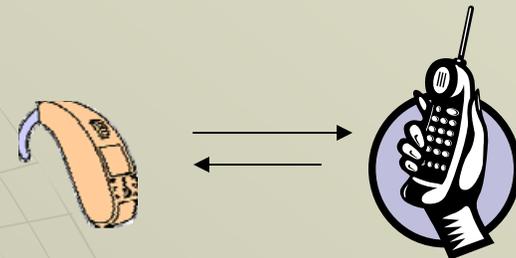**UWB Testing at the FCC Laboratory**

Competition

- **Advanced Wireless Services**
  - Spectrum Allocations
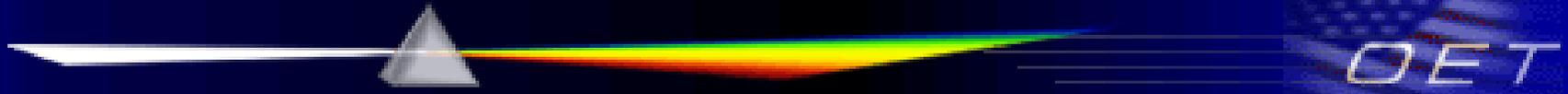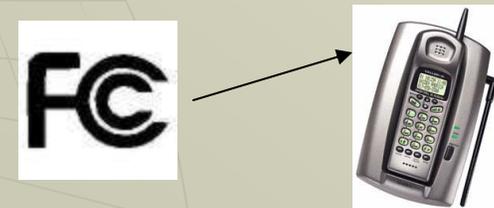 - Relocation of Federal Operations
  - Trust Fund Implementation

- **Hearing Aid Compatibility**
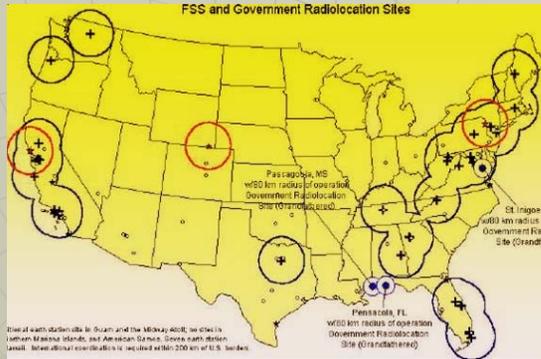 - Standards development
  - Product compliance

- **Equipment Authorization**
  - Speed of Service
  - TCB Program
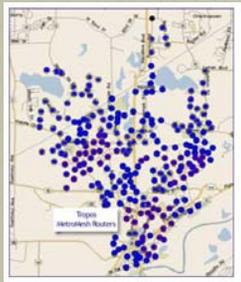 - Mutual Recognition Agreements
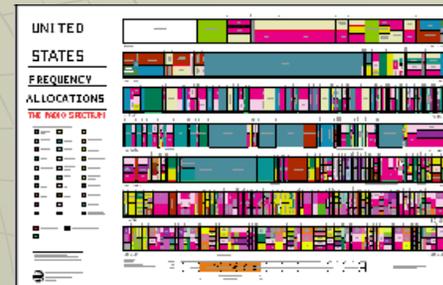
Spectrum:
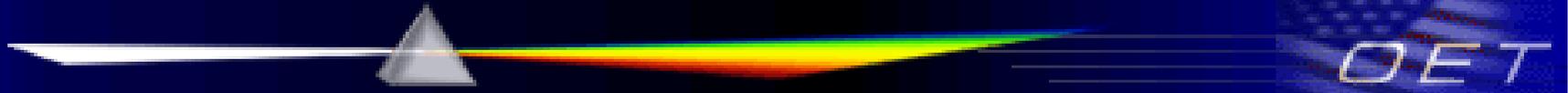# New Allocations and Services

"3650 MHz" Service

Cognitive Radio

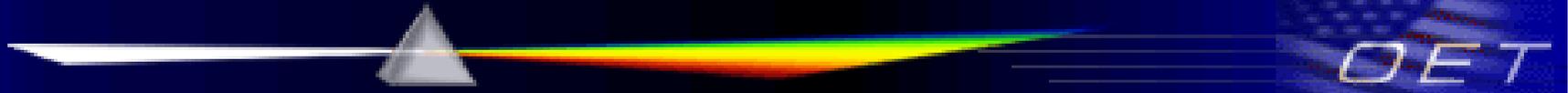
Unlicensed Devices

Presidential Spectrum Initiative

Media:
Digital Television (DTV) Transition

◆ DTV Tuner
Requirements

◆ DTV Table of
Channel Allotments

◆ SHVERA Report to
the Congress

FCC Digital Television Lab

Homeland Security

- ◆ Network Outage Reporting

- ◆ Hurricane Relief

- ◆ Public Safety Spectrum

- ◆ CALEA

Modernize the FCC

- FCC Laboratory Reorganized

- Knowledge Data Base

- Modernize Equipment
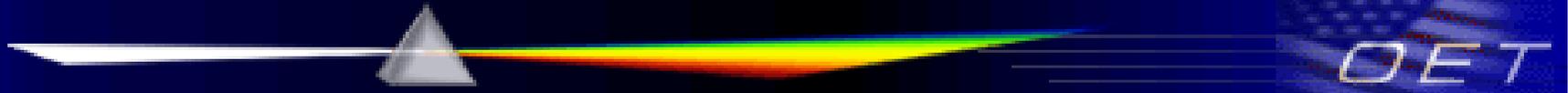
OET Goals for 2006

◆ **Continue aggressive rule making program to foster strategic goals of Broadband, Spectrum, Competition, Homeland Security and Modernization**

◆ **Initiate Proceeding for Advanced Medical Technologies**

◆ **Develop Improved Spectrum Management Techniques:**
- **Spectrum Test Bed**
- **Cognitive Radio & Dynamic Spectrum Access**

◆ **Advance Homeland Security**
- **Work with first responders to solve interoperability**
- **Facilitate Improvements to Network Security, Reliability and Integrity**
- **Continue to Work with NRIC to improve "Best Practices"**

OET