

# **4<sup>TH</sup> ANNUAL OAK RIDGE REGIONAL EMERGENCY MANAGEMENT FORUM**

*Emerging Technologies in Emergency Management*

***SPONSORED BY:***

**U.S. DEPARTMENT OF ENERGY (DOE) AND  
TENNESSEE EMERGENCY MANAGEMENT AGENCY  
(TEMA)**

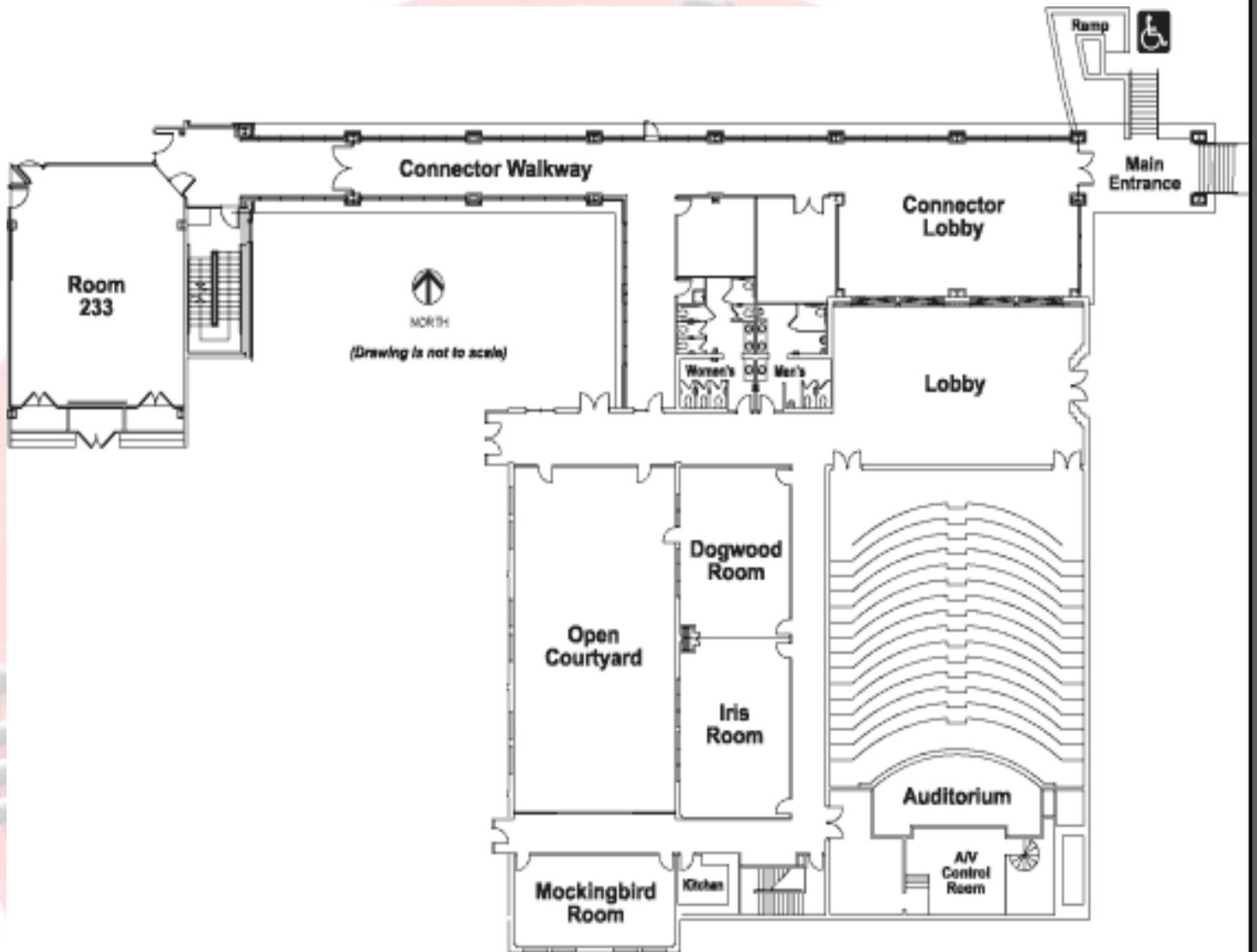
***LOCATION:***

**POLLARD TECHNOLOGY CONFERENCE CENTER**

***DATE/TIME:***

**OCTOBER 26, 2004, 8:00 A.M. – 4:30 P.M.**

# FACILITY LAYOUT



Agency Management

**WELCOME TO  
2004 OAK RIDGE REGIONAL EMERGENCY MANAGEMENT FORUM  
POLLARD TECHNOLOGY CONFERENCE CENTER  
OCTOBER 26, 2004, 8:00 A.M. – 4:30 P.M.**

**AGENDA**

- 8:00 a.m. Registration**
- 8:30 a.m. Sponsor Welcome**  
*Gerald Boyd, Manager, Oak Ridge Operations Office, DOE*  
*Major General James Bassham (Ret), Director, TEMA*
- 8:45 a.m. Forum Moderator**  
*Donald Thress, Assistant Manager for Safeguards, Security, and Emergency Management, DOE*
- 8:55 a.m. Oak Ridge Wide Area Radio System**  
*Ed Hensel, Senior Telecommunications Manager, Information Resource Management Division, DOE*
- 9:40 a.m. 15 Minute Break**
- 9:55 a.m. Strategic National Stockpile/Chempack Program**  
*Dr. Kevin Eidson, PhD, SNS Coordinator, Tennessee Department of Health*
- 10:40 a.m. “Sensor Net” at ORNL**  
*Frank Denap, Program Manager, UT/Battelle, Oak Ridge National Laboratory*
- 11:10 a.m. 15 Minute Break**
- 11:25 a.m. Security has Gone to the Dogs!/Demo**  
*Bobby Beaty, Manager, Special Operations, Wackenhut Services, Inc.*
- 11:55 a.m. Instructions on Break Out Session**  
*Mark Robinson, Leader, Emergency Management Team, DOE*
- 12:00–1:00 p.m. Lunch**
- 1:00–1:30 Exhibits/Vendors**  
*Special Thanks to our Exhibitors:*  
DOE Radiological Assistance Program, Region 2; Anderson County Sheriff’s Department; Knox County Sheriff’s Office, Hazardous Devices Unit; American Red Cross; Oak Ridge Fire Department; Mobile Animal Shelter; Wackenhut Services, Inc.-Oak Ridge; K-9 Search On Site; Visionary Solutions; BWXT Y-12; and Tennessee State Guard

**AFTERNOON BREAKOUT SESSIONS**

- 1:30 – 2:25 p.m. 1<sup>st</sup> Session**  
Auditorium **Why Terrorists are Terrorists-Logic of Suicide Terrors**, *Annette Bartlett, Supervisory Special Agent, Anti-Terrorism Task Force, FBI*
- Dogwood/Iris Rooms **Impact of Weather on Emergency Management Activities**, *Will Pendergrass, Meteorologist, National Oceanic and Atmospheric Administration (NOAA)*
- Mockingbird Room **Contaminated Livestock**, *Dr. Robert Linnabary, Disaster Animal Response Coordinator, Tennessee Department of Agriculture*

## Agenda - Continued

|                                |   |
|--------------------------------|---|
| 2:30 – 3:25 p.m.<br>Auditorium | <b>2<sup>nd</sup> Session</b><br><b>DOE Oak Ridge Reservation Emergency Management Mapping Application (EMMA),</b><br><i>Deidre Tharpe, Program Manager, and Kathy Gaebel, GIS Programmer, Advanced Resource Technologies, Inc.</i> |
| Dogwood/Iris Rooms             | <b>Transportation Emergency Preparedness Program (TEPP) Overview,</b> <i>Dan Hoglund, TEPP Regional Coordinator, Visionary Solutions, LLC</i>   |
| Mockingbird Room               | <b>Canines in Security,</b> <i>Freddie Brasfield, Owner/Director, and Michael Hartmann, Operations Manager, K-9 Search On Site</i>  |
| 3:30 – 4:30 p.m.<br>Auditorium | <b>3<sup>rd</sup> Session</b><br><b>Food as a Weapon,</b> <i>Dr. F. Ann Draughon, Professor and Co-Director, Food Safety Center of Excellence, University of Tennessee</i>  |
| Dogwood/Iris Rooms             | <b>Modular Emergency Response Radiological Transportation Training (MERRTT) Overview,</b><br><i>Dan Hoglund, TEPP Regional Coordinator, Visionary Solutions, LLC</i>  |
| Mockingbird Room               | <b>Joint Information Center (JIC) Facility Overview,</b> <i>Steve Wyatt, Director, Public Affairs Office, DOE</i>   |

**Reminder:** Please leave your completed survey at the reception desk in the lobby or with the instructor in the last breakout session before leaving.

## **BREAKOUT SESSION SUMMARIES**

### **1:30 – 2:20 p.m.**

#### **WHY TERRORISTS ARE TERRORIST**

- This presentation will discuss the logic of suicide terror. Discussions will include perceptions vs. reality of a suicide terror profile, who does it, trends, and who is targeted.

#### **IMPACT OF WEATHER ON EMERGENCY MANAGEMENT ACTIVITIES**

- This presentation will focus on those materials requiring certain protective gear and how weather plays a central role in modifying response to hazardous material releases.

#### **CONTAMINATED LIVESTOCK**

- This presentation will discuss the problems encountered during an emergency related to livestock and the handling of contaminated livestock.

### **2:30 – 3:20 p.m.**

#### **EMERGENCY MANAGEMENT MAPPING APPLICATION (EMMA)**

- This presentation will provide an overview and user training on this interactive GIS-based mapping application developed for the DOE Oak Ridge Reservation.

#### **TRANSPORTATION EMERGENCY PREPAREDNESS PROGRAM OVERVIEW**

- This presentation will be an overview of TEPP—how TEPP is organized, its products and services, who are the points-of-contact, and how to obtain products and training.

#### **CANINES IN SECURITY**

- This presentation will go into the details of who, what, and how on training canines and their uses in security. There will be additional demonstrations during this session.

### **3:30 – 4:30 p.m.**

#### **“FOOD AS A WEAPON”**

- Taken from the article by the same name featured in *Food Protection Trends*, August 2003, this session discusses the vulnerability of the food system, motivation for harm, detection of criminal intent and security measures that may minimize risks.

#### **MODULAR EMERGENCY RESPONSE RADIOLOGICAL TRANSPORTATION TRAINING (MERRTT) OVERVIEW**

- This presentation will provide an overview of MERRTT providing real-world training for real-world issues. It will describe the modules contained within and describe how these might be used for various training populations.

#### **JOINT INFORMATION CENTER (JIC) FACILITY OVERVIEW**

- This session provides an overview of the new JIC facility located on Clinton Highway in Powell, Tennessee. Additionally, there will be discussion on the role the JIC played during two events that occurred earlier this year.

**WELCOME FROM THE SPONSORS AND FORUM MODERATOR**

**GERALD BOYD, MANAGER  
DEPARTMENT OF ENERGY, OAK RIDGE OPERATIONS OFFICE**



**MAJOR GENERAL JAMES BASSHAM (RET), DIRECTOR  
TENNESSEE EMERGENCY MANAGEMENT AGENCY**



**DONALD THRESS, ASSISTANT MANAGER FOR SAFEGUARDS, SECURITY, AND EMERGENCY  
MANAGEMENT  
DEPARTMENT OF ENERGY, OAK RIDGE OPERATIONS OFFICE**



**Oak Ridge Wide Area Radio System (WARS)**  
**Ed Hensel, Senior Telecommunications Manager, DOE**  
**Phone: (865) 576-1112, Email: [Henseles@oro.doe.gov](mailto:Henseles@oro.doe.gov)**



Ed Hensel, Senior Telecommunications Manager, Department of Energy, Oak Ridge Operations, Information Resource Management Division, serves as Spectrum (frequency) Manager for the DOE Oak Ridge Reservation and Wide Area Radio System Federal Project Manager. He has over 13 years of Federal Civil Service in Telecommunications Management. Prior to transferring to the Department of Energy in 2001, he was with the Department of Justice responsible for radio communications in a 5 state region.

### Wide Area Radio System (WARS)

- History
- WARS coverage
- Equipment location
- General Specifications
- System Specifics
- System Features
- INTEROPERABILITY – FEDERAL, STATE AND LOCAL AGENCIES
- Project Schedule
- Contact Information



**Strategic National Stockpile/Chempack Program**  
**Dr. Kevin Eidson, PhD, SNS Coordinator, Tennessee Department of Health**  
**Phone: (615) 253-2311, Email: [Kevin.eidson@state.tn.us](mailto:Kevin.eidson@state.tn.us)**



Kevin Eidson is the Strategic National Stockpile (SNS) Coordinator for the State of Tennessee and is responsible for working with State, Municipal and Local agencies to secure operational agreements for the delivery of SNS assets to the State of Tennessee. Additional responsibilities include planning for the forward placement of chemical antidotes in various locations in the state, and overseeing the State of Tennessee's medication cache that would be used in the event of man-made or natural disaster.

Mr. Eidson has 11 years of experience in the diverse field of pharmacy, and has been an adjunct professor at Mercer University Southern College of Pharmacy in Atlanta, Georgia. Mr. Eidson has a lengthy background in geriatric pharmacy, metabolic support, and now biological and chemical treatment regimens. Before joining the State of Tennessee, he was a consultant and practiced community pharmacy in Fort Myers, Florida. Mr. Eidson is a member of the Tennessee Pharmacist Association, Tennessee Public Health Association, Tennessee Hospital Advisory Committee and Tennessee Public Health Emergency Advisory Committee. Mr. Eidson is licensed to practice pharmacy in Tennessee, Georgia, and Florida. He graduate-level degrees from Mercer University Southern College of Pharmacy and Doctorate of Pharmacy.

## **STRATEGIC NATIONAL STOCKPILE AND THE CHEMPACK PROGRAM**

### **Strategic National Stockpile**

- What is the Strategic National Stockpile?

### **Strategic National Stockpile Program**

- Rapid deployment of medical assets to save lives

### **Strategic National Stockpile Mission**

- Provide critical medical assets to the site of a national emergency
- Provide rapid delivery of a broad spectrum of support for an ill-defined threat in the early hours of an event
- Provide large shipments of specific material when a threat is known
- Provide technical assistance to receive and distribute medications and materials during an event

### **Echelons of Support**

- 12-Hour Push Packages (PPG)
- Vendor Managed Inventory (VMI)
- Vaccines, Antivirals and Antitoxins

### **12-Hour Push Package**

- Tailored package containing items within the SNS formulary.
- Delivered anywhere within the United States in 12 hours or less.
- Located in 12 different locations around the United States.
- Designed for rapid movement by ground or air.

### **Each 12-hour Push Package:**

- 130 cargo containers
- Each container 43" W X 60" L
- Tall container 80" H
- Short container 65" H
- Heaviest container 1500 lbs.
- Total Push Package Weight 50 Tons
- Air and ground transportable

### **Topics of Discussion**

- What is VMI?
- What is VMI's role during an event?
- How will VMI work with the Push Package?
- What does the SNS Program do to maintain the VMI?

## Strategic National Stockpile/Chempack – Continued

### **Vendor Managed Inventory**

- The majority of SNS assets are in VMI.
- Maintained within the manufacturer's control.
- “Federally owned”

### **What is Vendor Managed Inventory?**

- SNS Partners rotate and monitor the VMI stock.
- The VMI team of the SNS Program has oversight over the following:
  - ♦ Requirements and purchases.
  - ♦ Deployment of VMI material from numerous sites in the case of an event.
  - ♦ Quality assurance and control (QA/QC).

### **Vendor Managed Inventory’s Role During an Event**

- VMI has 3 roles during an event:
  - ♦ Resupply the Push Package as products are issued.
  - ♦ Supplement the PPG stock.
  - ♦ Issue products directly to dispensing/treatment sites.

### **Apportionment**

- What do we do when we have more patients than supplies?
- Apportionment is the dividing of available assets to dispensing sites based on expected patient counts.
- Augment PPG with VMI assets.

### **What types of items are in the Strategic National Stockpile Push Package?**

- Oral Antibiotics
- IV Supplies
- Nerve Agent Antidotes
- Airway Supplies
- Pediatric Supplies
- Med/Surg Supplies (Clear)

### **Medical / Surgical Supplies**

- IV administration supplies
  - ♦ Sterile Water for Injection
  - ♦ NaCl flush
  - ♦ Syringes/needles/catheters
  - ♦ Y site administration sets
  - ♦ Iv solutions (1000ml/100ml)
  - ♦ Gloves
  - ♦ Tape/dressings/gauze/tourniquets
  - ♦ Alcohol pads, betadine swabs, antibiotic ointment
- Airway Supplies
  - ♦ ET tubes/stylettes
  - ♦ NG tubes
  - ♦ Oropharyngeal airways
  - ♦ Laryngoscopes
  - ♦ Oxygen masks/tubing
  - ♦ Manual resuscitators (bag-mask-valve)/CO2 detectors
  - ♦ Pediatric and adult sizes where applicable

## Strategic National Stockpile/Chempack – Continued

### **Pediatric Supplies**

- Broselow Tape
- Suction Catheters
- Nasogastric Tubes
- Endotracheal Tubes, Stylettes and Laryngoscopes
- Oropharyngeal airways
- AMBU bags
- Non-rebreather masks
- IV catheters, 24 g
- Oral dosing syringes

### **Equipment**

- Ventilators (VMI)
- Suction Units (VMI)
- Tablet counting machines (VMI)

### **Pharmaceuticals**

- Antibiotics
- Chemical agent antidotes
- Pain medications
- Other emergency medications
- Vaccines, antitoxins and antivirals

### **Antibiotics**

- Doxycycline
- Ciprofloxacin
- Gentamicin
- Amoxicillin

### **Chemical Agent Antidotes**

- Atropine
- Pralidoxime
- Diazepam

### **Other Emergency Medications**

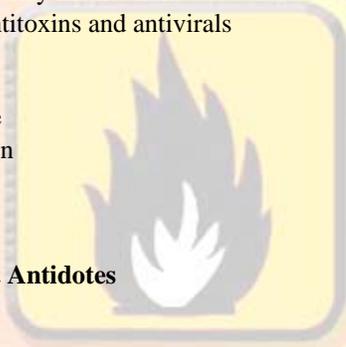
- Dopamine
- Epinephrine
- Methylprednisolone
- Albuterol

### **Radiation and Burn/Blast**

- Items for Radiation
  - ♦ Prussian Blue, Ca and Zn-DTPA, Neupogen, Nausea and Pain Medications
- Items for Burn and Blast
  - ♦ Bacitracin, Silvadene, IV fluids (Lactated Ringers, D5 ½ NS)

### **Types of Vaccines in the Strategic National Stockpile Program**

- Anthrax Vaccine
- Smallpox Vaccine/with Ancillary Supplies
- Immune Globulin Plasma
- Botulism Antitoxin



## Strategic National Stockpile/Chempack – Continued

### **Strategic National Stockpile IND Changes**

- “Project Bio-shield” signed into law July 2004 to ensure that resources are available to pay for “next-generation” medical countermeasures, strengthen and speed research and development and give FDA the ability to make promising treatments quickly available in a event
- In an event, IND and IRB review will be waived on certain INDs

### **Chempack Program**

- The Centers for Disease Control and Prevention (CDC) plays a major enabling role to state emergency response systems for chemical and biological antiterrorism. One of the key enablers is the CDC’s Strategic National Stockpile Program (SNS).
- SNS Program Mission
  - ♦ Deliver critical medical assets to the site of a national emergency
- SNS Program Concept of Operations
  - ♦ Response Options
    1. 12-Hour Push Packages
    2. Vendor Managed Inventory (VMI) Packages
    3. Storage & Rapid Deployment of Vaccines and Antitoxin
    4. Buying Power/Surge Capacity
    5. Technical Assistance
- SNS Program has a 12-hour response time, too long in the event of a nerve agent attack
- Some state and local governments don’t have any nerve agent antidote stocks
- Hospitals carry limited supplies of treatments for nerve agent exposures
- Nerve agent antidotes have variable shelf lives (are not an easily sustainable resource)

### **CHEMPACK Project**

- Mission: Implement a nationwide project for the “forward” placement of nerve agent antidotes. To provide state and local governments a sustainable resource that increases their capability to respond quickly to a nerve agent event.

### **SNS Goals for 2004**

- CHEMPACK Deployment
- CDC/SNS Chempack Mission: “Develop and implement a program for the “forward” placement of nerve agent antidotes to provide state and local governments a sustainable resource; and improve their capability to respond quickly to a chemical attack agent
- Ensures delivery of antidotes to hospitals, first responders and other EMA facilities within 1 hour

### **Standard Containers**

- The CHEMPACK Project provides two types of containers:
  - ♦ Emergency Medical Service (EMS) Container: Designed for emergency responders; materiel packaged mostly in auto-injectors.
  - ♦ Hospital Container: Designed for hospital dispensing, with multiuse vials, for precision dosing and long term care.

### **Standards EMS Containers**

### **Standards Hospital Containers**

### **SNS 2004 CHEMPACK**

- Sites selected per CDC Guidelines and BT Projects areas
- Site visits in progress to assure compliance with CDC/SNS requirements
- MOUs written and awaiting Legal approval for signing by sites
- Plan for deployment prior to November elections

## Strategic National Stockpile/Chempack – Continued

### **Shelf Life Extension Program (SLEP)**

- FDA program originally established with DoD to extend shelf-life of pharmaceuticals for cost efficiency and longevity
- SLEP guidelines provide the quality assurance techniques used to determine the condition of materiel in storage to ensure a ready-for-issue status over the long-term

### **Operational Concept**

#### **Medications Mechanism of Action**

- Atropine – alleviates symptoms such as excess salivation, urination, defecation, vomiting, and excess secretions
- Pralidoxime – helps reactivate the enzyme that is compromised by the nerve agent and alleviates symptoms such as muscle weakness, rapid heart rate, high blood pressure, and muscle twitching
- Diazepam – stops seizures that may occur

#### **Pharmaceuticals**

#### **Symptoms of Nerve Agent Poisoning**

#### **Pediatric Issues**

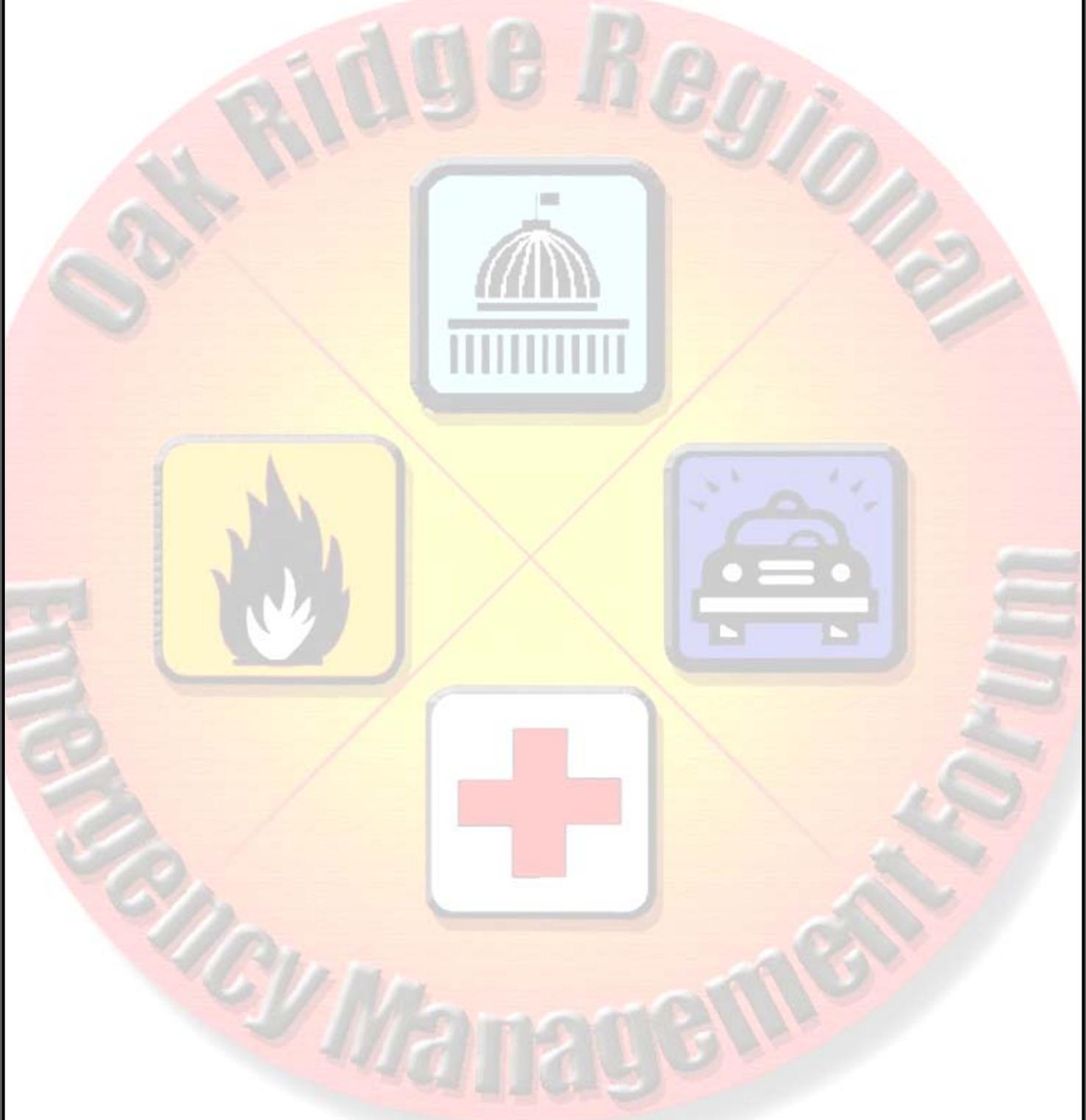
- Pediatric Atropen - FDA recently approved in various strengths.
- Pralidoxime (2PAM-Cl) – not FDA approved for children <16, either in multidose vial or auto-injector. High priority for FDA.
- Some medical protocols describe an off-label use. This is between individual physician and patient.

#### **Dosing Reference Guide for Nerve Agent Antidotes**

#### **Chempack Project Goals**

- Chempacks will be distributed prior to November 2004
- Chempack Regional Plans to be completed by March 2005

Sensor Net  
Frank Denap, Program Manager, Oak Ridge National Laboratory  
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**Security has gone to the Dogs!/Demonstration**  
**Bobby G. Beaty, Manager, Special Operations, Wackenhut Services, Inc.**  
**Phone: (865) 576-4263, Email: [beatybg@wsi-or.net](mailto:beatybg@wsi-or.net)**



Bobby Beaty has worked in security beginning at Y-12 in 1982. He has served on the SRT as Captain and Commander and has been a Sector Commander. Mr. Beaty currently is the Manager, Special Operations for Wackenhut Services, Inc. In this capacity, Mr. Beaty is in charge of SRT operations, training, equipment, canine operations, and Special Nuclear Material (SNM) movements.

Mr. Beaty is a member of the SRT Quality Panel which determines and recommends SRT policy, training and equipment for all DOE SRT forces. He also is member of the Chemical Defense Assessment Team for DOE that evaluate sites on chemical and biological attacks.

See biographies on Freddie Bradfield and Michael Hartmann on page 20 of this program.

**Security has Gone to the Dogs!/Demonstration**

 A Highly Precise Detector

- 10 thousand to 10 million times more sensitive than human olfactory system
- 220 million scent cells (5 million in humans)
- Dog scent cells line a membrane at the rear of the snout that if smoothed out would be bigger than the dog's body

 Laboratory Testing: Sensitivity

- Dogs have been able to detect concentrations as low as 500 parts per trillion of some substances. J. M. Johnston, PhD, Auburn University

 Laboratory Testing: Selectivity

- "It may be that dogs' ability to discriminate among target and non-target odors is even more impressive than their sensitivity." J. M. Johnston, PhD, Auburn University
- Selectivity: Ability to discriminate between very similar chemical compounds, which results in very few false alerts.

*Note: This year, K-9 SOS conducted more than 284,000 searches nationwide and is operating at a false alert percentage of .003%*

 Laboratory Testing: Other Capabilities

- Rapid: The only readily available "real-time" detection tool.
- Mobile: Able to interrogate a large area per unit time and be employed in very varied settings.
- Versatile: Able to be tasked for detection of large spectrum of substances and to add target odors quickly.

 Laboratory Testing: Other Capabilities

- Filtering Ability: Can operate in an "odor-noisy" environment
- Gradiometry Ability: No instrumental device presently is capable of tracking a vapor to its source.
- *Bottom line: The properly trained and maintained EDD is the most effective, readily available explosive detection tool and, across most parameters, exceeds the capability and especially the utility of available instrumental technology.* L. Paul Waggoner, Ph.D., Interim Director Canine and Detection Research Institute, Auburn University

 How Do You Measure Success? Results!

- In FY 1997, U.S. Customs Canine Enforcement Teams were used in more than 9,200 narcotic or currency-related seizures.
  - The street value of the narcotics discovered exceeded \$3.1 billion.

## Security has Gone to the Dogs – Continued

- The dogs also detected \$12,021,142 in currency.
- Peace of Mind! *Using the best detection tool today to establish that vehicle was explosives-free.*
- 🐕 K-9 SOS Dogs: Selection and Training
  - Many selected from top European breeders
    - Bred to be reliable for:
      - Their work ethic.
      - The ability to maintain focus for extensive periods of time.
  - Thoroughly trained and tested by K-9 SOS before they are deployed.
    - Initial imprint in 20 days
    - Environmental introductions in 30 days
    - Work initialization in 30 days
    - Performance tested initially and regularly
- 🐕 K-9 SOS Categories of Detection Nationwide
  - Explosives – live aides
  - Human Concealment – “Trojan Horse”
  - Narcotics – live aides, illegal and legal
  - Chemical WMD – trace amounts
  - Patrol – tracking and air scenting to clear large areas
- 🐕 K-9 SOS Annual Search Activities Nationwide
  - Canine protection for 5 Federal and several private facilities
  - 250,000 vehicle searches
  - 300,000 article searches
- 🐕 Future
  - Off-leash work
  - Personal searches

**Why Terrorist are Terrorists—Logic of Suicide Terror**  
**S. Annette Bartlett, Supervisory Special Agent, Anti-Terrorism Task Force**  
**Federal Bureau of Investigations**  
**Phone: (865) 560-5960, Email: [sabartle@leo.gov](mailto:sabartle@leo.gov)**

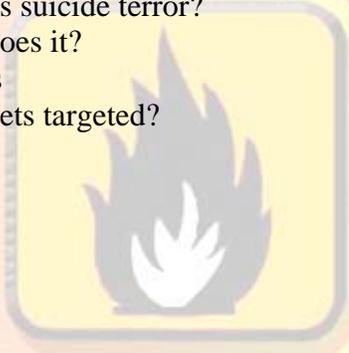


Ms. Annette Bartlett is currently the Knoxville Supervisor over the Joint Terrorism Task Force (JTTF). The JTTF has only been in existence since February 9, 2003. The JTTF is a combination of Federal, State and Local law enforcement entities. JTTF works as a team, each entity bringing their expertise to the table in our efforts to thwart any terrorist attacks and/or material support of terrorism stemming from Eastern Tennessee.

Ms. Bartlett has been with the FBI for over thirteen years. She has worked terrorism matters, both international and domestic for her entire career. She has worked numerous high-profile investigations to include: Waco - Koresh, Oklahoma - McVeigh, and Dar es Salaam - Al Qaeda. Ms. Bartlett was a headquarters supervisor in the Terrorism Division for over three years.

**Logic of Suicide Terror**

- Perceptions vs. Reality - What is the profile?
- What is suicide terror?
- Who does it?
- Trends
- Who gets targeted?



**Impact of Weather on Emergency Management Activities**  
**Will Pendergrass, Meteorologist, National Oceanic and Atmospheric Administration (NOAA), Atmospheric Turbulence and Diffusion Division**  
**Phone: (865) 576-6234, Email: [will.pendergrass@noaa.gov](mailto:will.pendergrass@noaa.gov)**



Will Pendergrass is a research meteorologist with NOAA's Atmospheric Turbulence and Diffusion Division, located in Oak Ridge, TN. He has been a resident of Oak Ridge, TN since 1982.

He received undergraduate degrees in Political Science and Geography from the University of North Carolina, Chapel Hill in 1973. After serving as a weather forecaster in the US Army, he returned to North Carolina State University and obtained undergraduate and master degrees in Meteorology. He is currently pursuing his doctorate in civil engineering at the University of Tennessee.

Mr. Pendergrass has been involved in Emergency Management activities since the mid 1980's when he supported Oak Ridge Operations Emergency Management Program. Following the Gulf War he served as Science Advisor to the US Embassies in Saudi Arabia and Kuwait. This work continued with support to the Gulf War Illness Office. Current assignments include development of an urban meteorological monitoring network for Washington, DC and New York City and development of the next generation hazardous materials atmospheric response system for the National Weather Service.

**Impact of Weather on Emergency Management Activities**

First Responders are intimately aware of the impact of weather on response activities. Ask about the weather as responders don layers of protective equipment in 90 degree weather. This breakout session will focus on those materials requiring certain protective gear and how weather plays a central role in modifying response to hazardous material releases.

There are large uncertainties in the assessment of impacts from the release of hazardous materials into the atmosphere. Local weather conditions have the potential to modify the dispersal behavior of those materials and impact long term exposures and remediation of surface contamination. Relatively small temperature or wind variations can produce air concentrations considered immediately life threatening or air concentrations leading to minor impacts. For example, within the East Tennessee Valley, in general the local winds will move materials up-valley during the day and down-valley at night; materials released near morning or evening transition periods have the potential of reversing directions producing secondary impacts. Also within the Valley, hazardous materials released at night will tend to persist in the local region until sunrise when local surface heating dissipates the material.

It is important to understand how local weather conditions can alter surface concentrations/exposures from hazardous materials releases. Recognition of weather impacts leads to a more effective emergency management program.

**Contaminated Livestock**  
**Robert D. Linnabary, BSc, DVM, MSc., Disaster Animal Response Coordinator**  
**Tennessee Department of Agriculture**  
**Phone: (865) 974-5763, Email: [Robert.linnabary@state.tn.us](mailto:Robert.linnabary@state.tn.us)**



As the Disaster Animal Response Coordinator for the Tennessee Department of Agriculture (TDA), Dr. Robert Linnabary is responsible for updating TDA Emergency Response Plans, developing educational materials for first responders in agriculture, collaborating with other US and state agencies in developing WMD education and training aids, developing and conducting TDA tabletop exercises involving animal diseases and other disasters, taking part in Homeland Security activities as directed by the State Veterinarian and/or the Commissioner of Agriculture, and collaborating with the University of Tennessee and other state agencies in developing education and training for first responders to Weapons of Mass Destruction events.

Dr. Linnabary earned a BS and DVM from Ohio State University and MS from Vanderbilt University. He holds memberships with American Veterinary Medical Association, Tennessee Veterinary Medical Association, American Association of Veterinary and Comparative Toxicologists, American Veterinary Academy of Disaster Medicine, American Association of Bovine Practitioners, American Association of Small Ruminant Practitioners, and Council for Agriculture Science and Technology. Dr. Linnabary's most recent professional experiences include Retired, Professor Emeritus; Emergency Animal Care Coordinator, Tennessee Department of Agriculture; USDA Foot and Mouth Disease Task Force to England; and USDA Exotic Newcastle Disease Task Force to California. In addition to his many teaching commitments, Dr. Linnabary has co-authored many publications including topics such as Tennessee beef producers regarding evacuation during an emergency, characterizing biological activity in livestock blood cholinesterase activity by biomonitoring organophosphate nerve agent exposure, evacuation of horses in emergencies, results of a survey of emergency evacuation of dairy cattle, vasoconstriction in bovine vasculature induced by the tall fescue alkaloid lysergamide, and Johne's disease in cattle. Dr. Linnabary has also co-authored FEMA Independent Study Course Modules on animals and livestock in disasters. He was a section author for a FEMA Guide on Personal Disaster Preparedness and contributor to American Veterinary Medical Association Disaster Preparedness Response Guide. He was also the Chairman for the Tennessee Disaster Animal Response Plans, Department of Agriculture and Tennessee Emergency Management Agency.

### **Contaminated Livestock**

- Economic Values of Selected Commodities
- Value of Tennessee Agriculture
- Emergency Support Function 16
  - Developed as an "all hazard-all animal" working document for use at the County and State level.
  - All emergency and disaster events happen locally
- Types of Disasters
  - Natural Disasters
  - Man-made Disasters
- ESF 16 – The Origins
- ESF 16 T-Dart Members
- TEMA's ESF Concept of Operation
- Emergency Support Function 16 Subfunctions
- Goals for Implementing ESF 16
- Appendices
  - Appendices A – H: Evacuation and host sites information for companion animals, livestock, equine and zoo and non-domestic animals.
  - Appendices I- R: These are guidelines from the USDA on topics such as: Field Investigations, Euthanasia, Appraisal and Compensation, Biosecurity, Quarantine, Personal Protective Equipment, Epidemiological Reports, Animal Disposal and Disinfectants

## Contaminated Livestock- Continued

- Credentialing
  - All persons working at a emergency / disaster site must have a visible photo identification showing that they are persons capable of handling a particular class of animals.
  - Every credentialed worker must take a course in Incident Command System (ICS) and be validated by the Tennessee Department of Agriculture to be qualified to work with animals.
  - Qualifications may be from experience, on-the-job training or special classes.
- Why Credential?
  - Safety of people and animals
  - Security of site, people, and animals
  - Identification of qualified persons able to work with animals during an emergency or disaster
- Components of Credentialing
  - Knowledge of Tennessee Emergency Management Plan
  - Knowledge of ESF-16
  - Basic ICS
  - Update on Emerging Diseases
  - Understanding of Foreign Animal Diseases
- The Incident Command Organization Chart
- Disaster Animal Decon, Disinfection, Euthanasia & Disposal Issues
- Decision to Decon/Disinfect
- Euthanasia/Decon

**ORR Emergency Management Mapping Application (EMMA)**  
**Deidre Tharpe, Program Manager, and Kathy Gaebel, GIS Programmer**  
**Advanced Resource Technologies, Inc. (ARTI)**  
**Phone: (865) 220-0324, Email: [tharped@gsystems.net](mailto:tharped@gsystems.net)**



Deidre Tharpe is the Program Manager for Application and Database Development, Maintenance, User Support and Training for Advanced Resource Technologies, Inc. (ARTI), located in Oak Ridge, TN. She currently manages three environmental data management systems, EMMA, and three other GIS application projects. She has over 19 years experience in project management, application design, development, and programming using structured methodologies and database management systems.

Kathy Gaebel has worked in ARTI's Geographical Information Systems (GIS) Department since 1999. She is a GIS programmer and EMMA technical support team member. She is responsible for development, maintenance, and user training of ARTI GIS applications. She has over 8 years experience in information technology utilizing Global Positioning Systems (GPS).

### **Emergency Management Mapping Application**

- What is EMMA?
- Utilizing EMMA During an Emergency
- Other Functions and Features of EMMA
- Questions & Answers

Website: <http://www.emmaoakridge.net/>  
E-mail address: [EOCtsg@emmaoakridge.net](mailto:EOCtsg@emmaoakridge.net)

**Transportation Emergency Preparedness Program (TEPP) Overview**  
**DAN HOGLUND, TEPP REGIONAL COORDINATOR, VISIONARY SOLUTIONS, LLC**



**PHONE: (865) 482-8670, EMAIL: DHOGLUND@VS-LLC.COM**

Mr. Hoglund is responsible for DOE's Region 2 & Region 5 Transportation Emergency Preparedness Program (TEPP), which encompasses 18 States, Puerto Rico, and the Virgin Islands. Mr. Hoglund works for Visionary Solutions and has been involved in DOE-ORO, DOE-Chicago, and DOE-HQ hazardous materials transportation training and emergency response preparedness since 1987.

Dan holds a doctorate in education from the University of Tennessee, Knoxville.

**Transportation Emergency Preparedness Program (TEPP)**

TEPP's mission is to prepare the emergency response community along DOE shipping corridors, to respond to a transportation incident involving radioactive material. As such, TEPP provides States, Tribal, Local, & Federal governments with planning products and training. The TEPP training package is called: Modular Emergency Response Radiological Transportation Training or MERRTT (to be discussed next session).

**Purpose of TEPP**

TEPP assists DOE and other federal, state, tribal, and local authorities to prepare for response to a transportation incident involving DOE shipments of radioactive material.

**TEPP integrates activities**

Department-wide program

Provides technical assistance to State & Tribal governments

- Understand radiological risks
- Develop transportation emergency plans
- Train first responders
- Test plans for needed improvements

**TEPP Implementation**

Thru Regional Coordinating Offices

- Overlay DOE Radiological Assistance Program

TEPP Coordinator identified for each region

**TEPP Coordinators. . .**

**TEPP "Tools" Available**

Planning

- Needs Assessment
- Plans & Procedures
- Drills-In-A-Box

Modular Emergency Response Radiological Transportation Training (MERRTT)

**TEPP Planning Tools**

Model Needs Assessment:

- Assists in determining readiness
- Identifies strengths & weaknesses

Model Planning Annex:

- Provides basic structure and annotated guidance for transportation addendum to existing plans

## Transportation Emergency Preparedness Program - Continued

### **TEPP Planning Tools**

Model Initial Response Procedures

- Hazardous Materials Incident Response
- Model First Responder Procedure
- Emergency Medical Services Care Provider
- Medical Examiner/Coroner Procedure
- RAM or Multiple HAZMAT Decontamination

### **TEPP Training**

Modular Emergency Response Radiological Transportation Training (MERRTT)

- Addresses training concerns of states, tribes and local jurisdictions
- Developed with input from end users

### **TEPP Training -- MERRTT**

- Provides fundamental knowledge for responding to radioactive material transportation incidents
- Builds on existing hazardous material curricula
- Designed to meet the needs of fire services, law enforcement, emergency medical service, emergency management, public works, or a HAZMAT team.

MERRTT is flexible

- Instructor-delivered training
- Student-paced self-study

Modular format

- Allows for easy incorporation into existing curricula
- Includes instructor guide, student manuals, and overheads

### **TEPP Opportunities**

- Develop mechanisms to consistently gather and share information
- Decrease duplication of effort
- Consolidate responsibility for off-site transportation emergency preparedness interfaces

### **TEPP Working with FEMA**

Reduces duplication by Federal agencies

FEMA activities include:

- Compendium of Federal Radiological Training (FEMA/DOE)
- Incorporate TEPP needs assessment into FEMA Capabilities Assessment Readiness System (CAR)
- Joint efforts in CHER-CAP

### **Available Resources**

TEPP web site

- Exercise Reports
- Planning Tools
- Case History/Lessons Learned
- Training Aids
- Transportation Forum
- Points of Contact

## Canines in Security

**Freddie R. Brasfield, Owner/Director, K9 Search On Site (K9 SOS), LLP**

**Cell: (865) 216-5765, E-mail: fbrasfield@k9sos.com**

**Michael T. Hartmann, Operations Manager, (865) 363-2627**



Freddie Brasfield, Owner and Director, K9 Search On Site (K9 SOS), LLP, employs 17 full-time canine teams. Each team consists of one canine and one handler. K9 SOS currently supplies canine teams to support the Department of Energy sites at Y-12 National Security Complex, East Tennessee Technology Park, and Oak Ridge National Laboratory in Oak Ridge, TN; Los Alamos National Laboratories, Los Alamos, New Mexico; Sandia National Laboratories, Albuquerque, New Mexico; and several private corporations. K9 SOS currently is contracted to supply these Federal and private facilities with patrol, narcotics, explosives, human detection, and other special detection canines. Mr. Brasfield holds an ATF license and a DEA license. He stores and uses live explosives in the training of the canines as well as stores and trains with live drug aides. Mr. Brasfield currently has 27 trained explosive detection canines. In addition, he has three narcotic and four human detection canines as well as several other canines at different stages of training.

Michael Hartmann, Operation Manager, has 20 years of progressive experience in law enforcement. His experience includes criminal investigations with specializations in bombings, improvised explosive devices, arson, dive rescue and recovery, search and rescue, marine, environmental crimes, explosive detection canine trainer and handler, police academy instructor, weapons of mass destruction and operations management. Currently, Mr. Hartmann is the Operations Manager in charge of the day-to-day operation of approximately 11 canine detection teams working various posts at a Department of Energy (DOE) plant, including on-site maintenance, training, and testing. He is instrumental in the selection of new canines for detection training and the training of selected canines for explosive, narcotics and/or human detection.

### Canines in Security

-  Different Types of Detection Dogs
-  Hands-on Demonstrations
-  Question and Answers



**FOOD AS A WEAPON**  
**DR. F. ANN DRAUGHON, PROFESSOR AND CO-DIRECTOR,**  
**UNIVERSITY OF TENNESSEE, FOOD SAFETY CENTER OF EXCELLENCE**  
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Dr. F. Ann Draughon is a Professor, Food Microbiology and Co-Director, Food Safety Center of Excellence. Dr. Draughon earned her Ph.D. from University of Georgia, College of Agricultural and Environmental Sciences. Dr. Draughon's areas of research include food microbiology and safety and food toxicology. She teaches courses in Food Microbiology, Food Microbiology Lab, and Food Toxicology.

**Food as a Weapon**

- Introduction
  - Vulnerability of the food system
  - Motivations for weaponizing food
- Potential Agents to Weaponize Foods
- Detecting Criminal Adulteration or Contamination of Food
- Preparing for a Terrorist or Criminal Act
  - Attack from a distance
  - Attack from the vicinity
  - Attack from within
- Conclusion
- Food Safety Center of Excellence website: [HTTP://WWW.FOODSAFE.TENNESSEE.EDU/](http://www.foodsafe.tennessee.edu/)

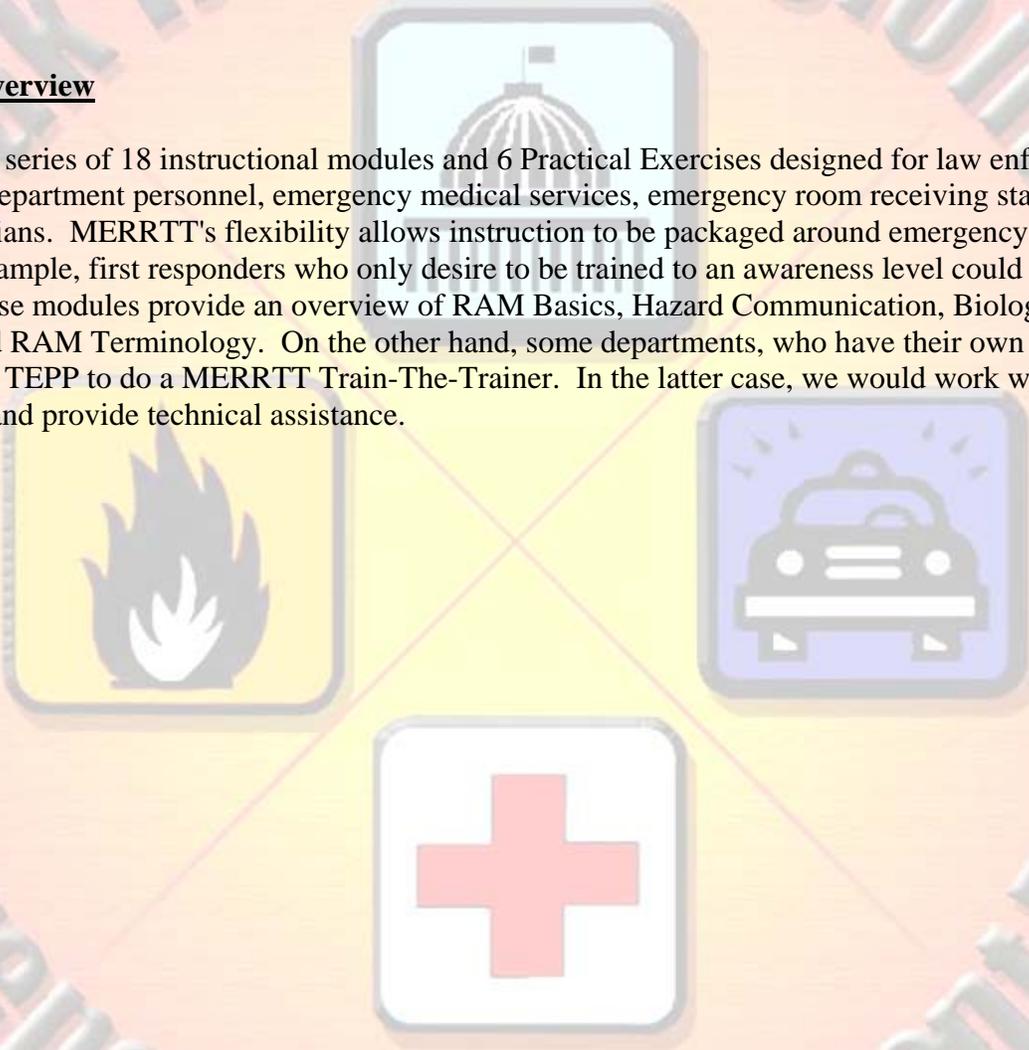
**Modular Emergency Response Radiological Transportation Training (MERRTT)**  
**Dan Hoglund, Visionary Solutions, LLC, TEPP Regional Coordinator**  
**PHONE: (865) 482-8670, EMAIL: DHOGLUND@VS-LLC.COM**



Mr. Hoglund is responsible for DOE's Region 2 & Region 5 Transportation Emergency Preparedness Program (TEPP), which encompasses 18 States, Puerto Rico, and the Virgin Islands. Mr. Hoglund works for Visionary Solutions and has been involved in DOE-ORO, DOE-Chicago, and DOE-HQ hazardous materials transportation training and emergency response preparedness since 1987. Dan holds a doctorate in education from the University of Tennessee, Knoxville.

**MERRTT Overview**

MERRTT is a series of 18 instructional modules and 6 Practical Exercises designed for law enforcement officers, fire department personnel, emergency medical services, emergency room receiving staff, and radiation health technicians. MERRTT's flexibility allows instruction to be packaged around emergency responder needs. For example, first responders who only desire to be trained to an awareness level could select the first 6 modules. These modules provide an overview of RAM Basics, Hazard Communication, Biological Effects of Radiation, and RAM Terminology. On the other hand, some departments, who have their own training staff, would like for TEPP to do a MERRTT Train-The-Trainer. In the latter case, we would work with that agencies training staff and provide technical assistance.



**Joint Information Center (JIC) Facility Overview**  
**Mr. Steve Wyatt, Director, Public Affairs Office, Department of Energy**  
**Phone: (865) 576-0888, Email: [wyattsa@oro.doe.gov](mailto:wyattsa@oro.doe.gov)**



Steven Wyatt has served as the Director of Public Affairs of the U.S. Department of Energy's (DOE) Oak Ridge Office (ORO) since June 1994. The DOE Public Affairs Office is responsible for a comprehensive communications program that includes news media relations, community relations, emergency public communications, intergovernmental relations, employee communications, and management of ORO's external Web site. Mr. Wyatt is responsible for program planning and coordination of public affairs and community relations activities within ORO and its contractor organizations. His office also provides public affairs support for the National Nuclear Security Administration at the Y-12 National Security Complex.

Mr. Wyatt previously served as ORO's Senior Public Affairs Specialist prior to his promotion in 1994. He joined ORO in 1987 as a Public Affairs Specialist. Prior to joining DOE, Mr. Wyatt was employed by Martin Marietta Energy Systems, Inc., and was a Public Relations Representative for Oak Ridge National Laboratory. Before coming to Oak Ridge in 1981, Mr. Wyatt was a staff writer for the Tennessee Valley Authority (TVA) in Chattanooga. He began his public affairs career as a student intern in the TVA Information Office in Knoxville.

He is a past president of the Volunteer Chapter of the Public Relations Society of America and a recipient of the Harvey I. Cobert Award of Excellence for his contribution to public relations profession in East Tennessee. He is a member of the Oak Ridge Rotary Club and is a Paul Harris Fellow. He also is a member of Leadership Oak Ridge, UT "Pride of the Southland" Marching Band Alumni Association, and the UT Chancellor's Associates.

A native of Chattanooga, Mr. Wyatt received a B.S. in communications from The University of Tennessee in 1978. He and his wife, Susan, who is a marketing and public affairs representative for the University of Tennessee Medical Center, live in Farragut.

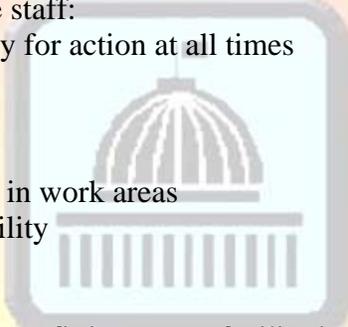
### **Oak Ridge Reservation Joint Information Center (JIC)**

Serves the emergency public communications needs for DOE's Oak Ridge Complex

- Why a New JIC was necessary?
  - Previous facility was inadequate for sustained operations
  - Required extensive setup
  - Mission incompatibility since 9/11
- Building the New JIC
  - Search for a new JIC began in early 2003
  - Team effort involved DOE and Contractor Real Estate, Public Affairs & Emergency Management Offices
  - ORISE served as Project Manager
  - 10-year lease signed in August 2003
  - Design finalized in Fall 2003
  - Construction completed in January 2004
  - Move from the previous facility completed in February, with installation of new phone lines and DOE/State T-1 lines
  - Staff orientation held on March 3, 2004
  - New JIC declared operational March 15, 2004
  - Equipping new facility continues

## Joint Information Center Facility Overview – Continued

- Oak Ridge Reservation Joint Information Center Features of the New ORR JIC
  - Location better meets needs of the media:
    - Located about 12 miles from the Oak Ridge Reservation in an area with excellent line-of-sight coverage for television satellite trucks
    - Separate work area available with reference materials (library)
    - Audio/video hookup for satellite trucks
    - Briefing room can serve a large number of reporters, with seating for 150
  - Location better meets needs of the staff:
    - New facility is set up and ready for action at all times
    - Built for sustained operations
    - Better work flow
    - Improved access control
    - Enhanced training capabilities in work areas
    - Expansion of electronic capability
    - Available for other uses
- Closing thoughts ...
  - Planning, designing, building, and outfitting a new facility is not possible without:
    - Strong management support
    - A team approach
    - Project Manager
    - Attention to detail



# THANK YOU!!!

The following organizations provided handouts:

- Department of Energy, Oak Ridge Operations Office
- BWXT Y-12
- K-25 Federal Credit Union

The following organizations provided exhibits and displays:

- American Red Cross
- Anderson County Sheriff's Office
- BWXT Y-12
- City of Oak Ridge Fire Department
- Department of Energy, Oak Ridge Operations Office
- DOE Radiological Assistant Program, Region 2
- K-9 Search On Site
- Knox County Sheriff's Office-Hazardous Devices Unit
- Mobile Animal Shelter
- Tennessee State Guard
- Visionary Solutions, Inc.
- Wackenhut Services, Inc.