



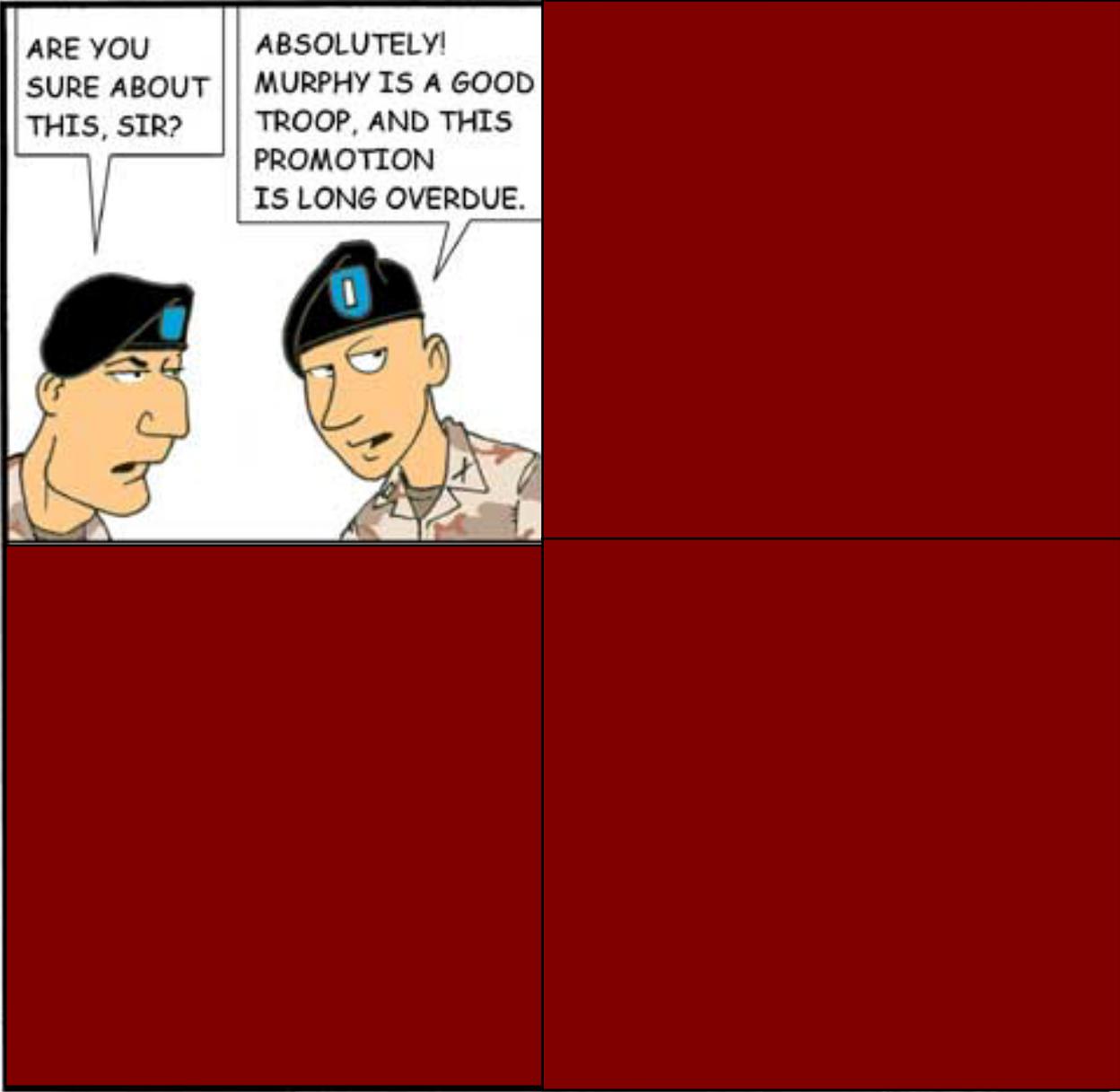
# Food Safety Update

## Beyond Sanitation

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<http://nationalguardwarrior.com/>

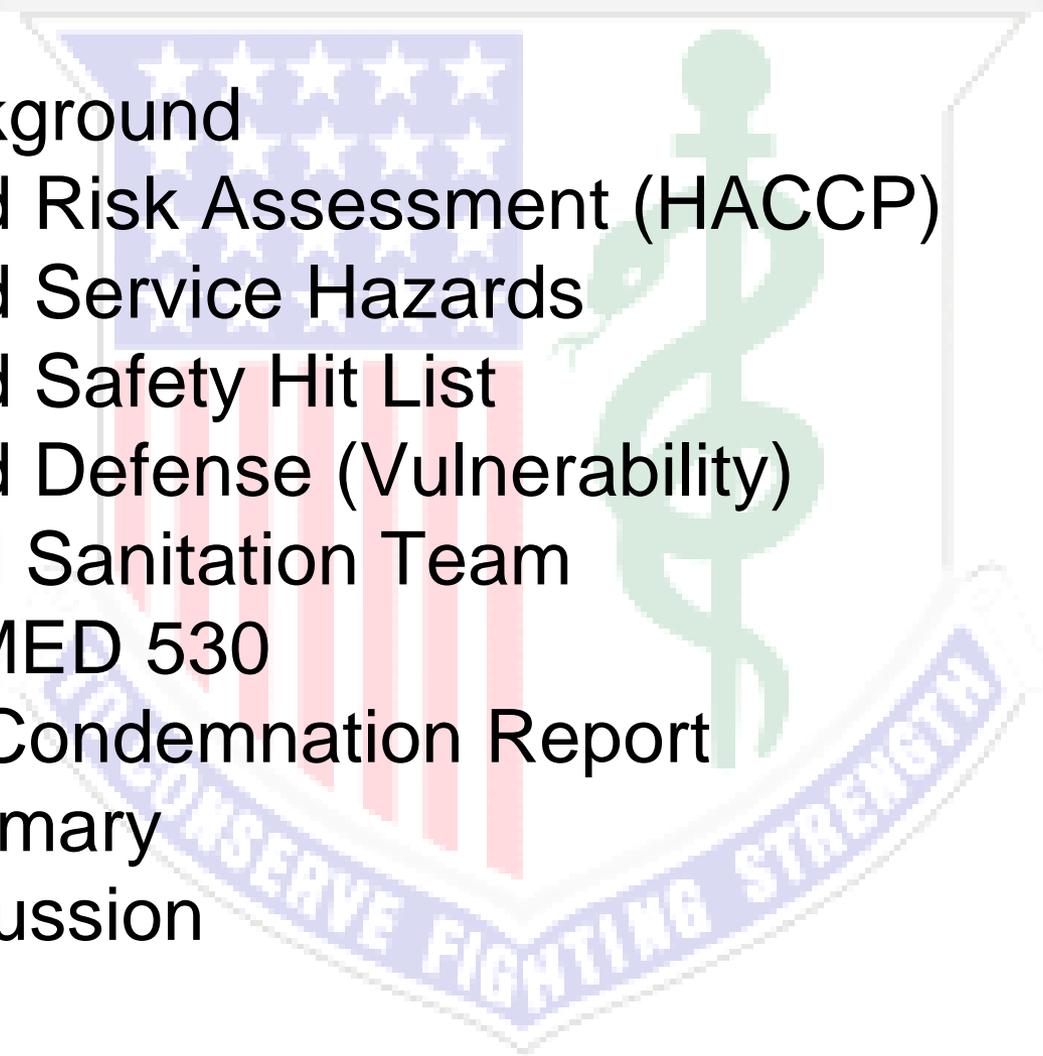




# AGENDA



- Background
- Food Risk Assessment (HACCP)
- Food Service Hazards
- Food Safety Hit List
- Food Defense (Vulnerability)
- Field Sanitation Team
- TB MED 530
- Vet Condemnation Report
- Summary
- Discussion





# INTRODUCTION



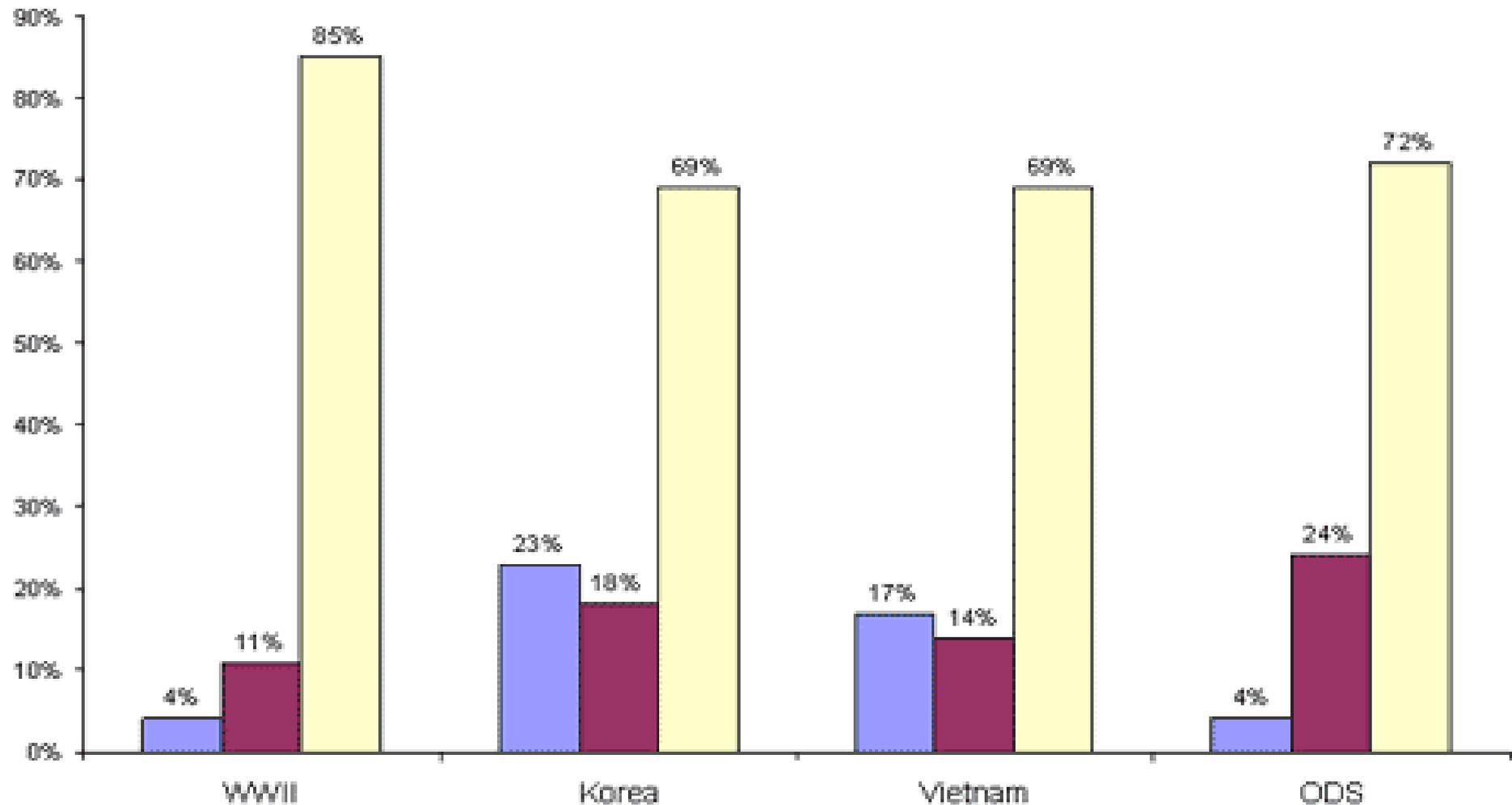
- US Forces continue to mobilize and deploy in support of the Global War on Terror and Humanitarian Operations
- Environmental and Occupational Health Hazards including **FOOD and WATERBORNE DISEASE** are Significant Medical Threats to Combat Power and Mission Readiness



**DNBI**

## % of Hospitalizations Due to Battle Injury, Non Battle Injury, and Disease

■ Battle Injury    
 ■ Non Battle Injury    
 ■ Disease



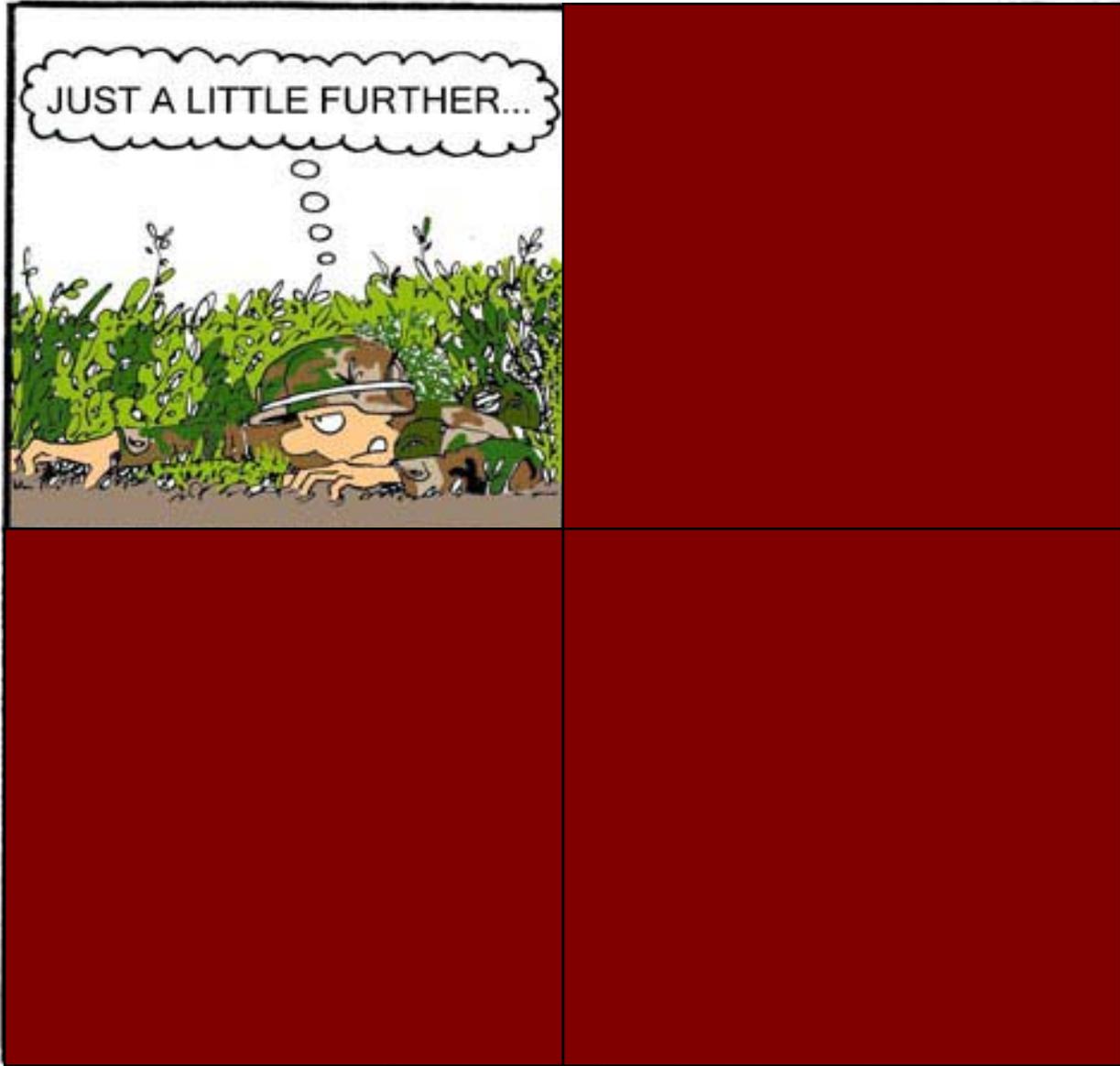


# BACKGROUND

## *Iraq and Afghanistan 2003-2004 of 15,500 Soldiers Surveyed*

- Diarrhea: 76.8% Most Common
- Respiratory Illness: 69.1%
- Non-Combat Injuries: 34.7% (77% requiring evacuation. 3 times greater than combat evacuations)
- Leishmaniasis: 2.1%







**2. Determine Critical Control Points**

**2 Assess Hazards**

**3. Establish Critical Limits**

**3 Develop Controls & Make Decisions**

**4. Monitor CCPs**

**5. Develop Corrective Actions**

**1. Conduct Hazard Analysis**

**HACCP**



**Identify Hazards**

**4 Implement Controls**

**6. Verify Program (Review, Revise, Evaluate)**

**7. Establish a Record Keeping System**

**5 Supervise & Evaluate**



# FOOD SERVICE HAZARDS

## FOOD

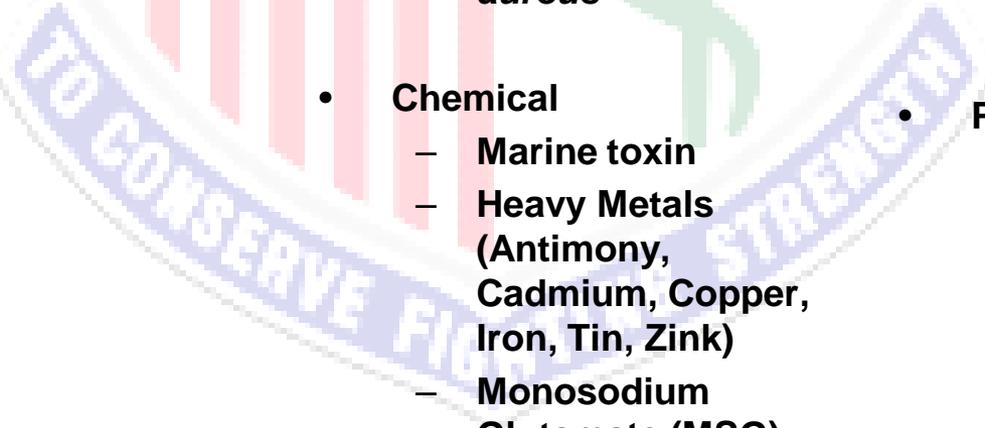
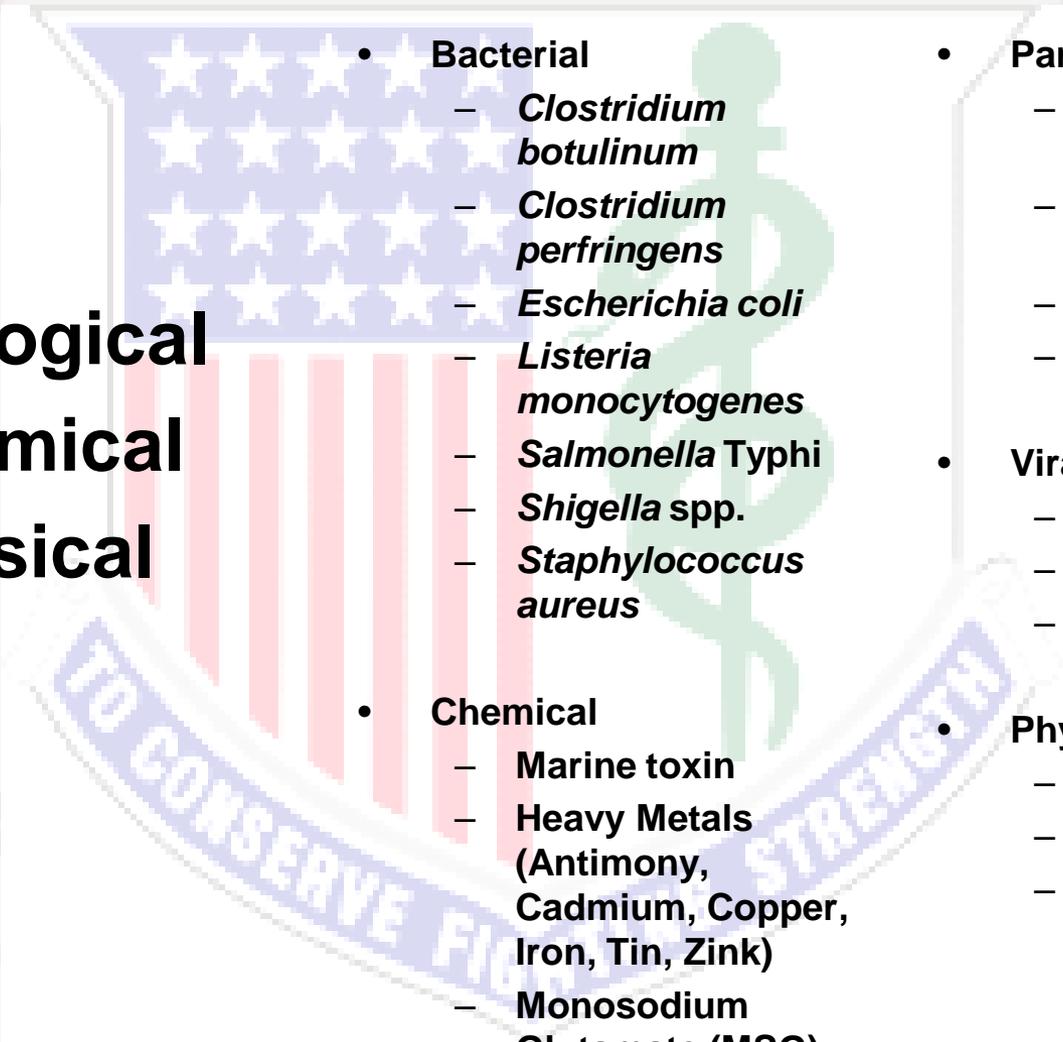
- **Biological**
- **Chemical**
- **Physical**

- **Bacterial**
  - *Clostridium botulinum*
  - *Clostridium perfringens*
  - *Escherichia coli*
  - *Listeria monocytogenes*
  - *Salmonella Typhi*
  - *Shigella spp.*
  - *Staphylococcus aureus*

- **Chemical**
  - Marine toxin
  - Heavy Metals (Antimony, Cadmium, Copper, Iron, Tin, Zink)
  - Monosodium Glutamate (MSG)
  - Mushroom Toxins

- **Parasitic**
  - *Cryptosporidium parvum*
  - *Cyclospora cayetanensis*
  - *Giardia lamblia*
  - *Trichinella spp.*
- **Viral**
  - Hepatitis A
  - Norwalk-like
  - Astrovirus

- **Physical**
  - Bones
  - Hair
  - Jewels



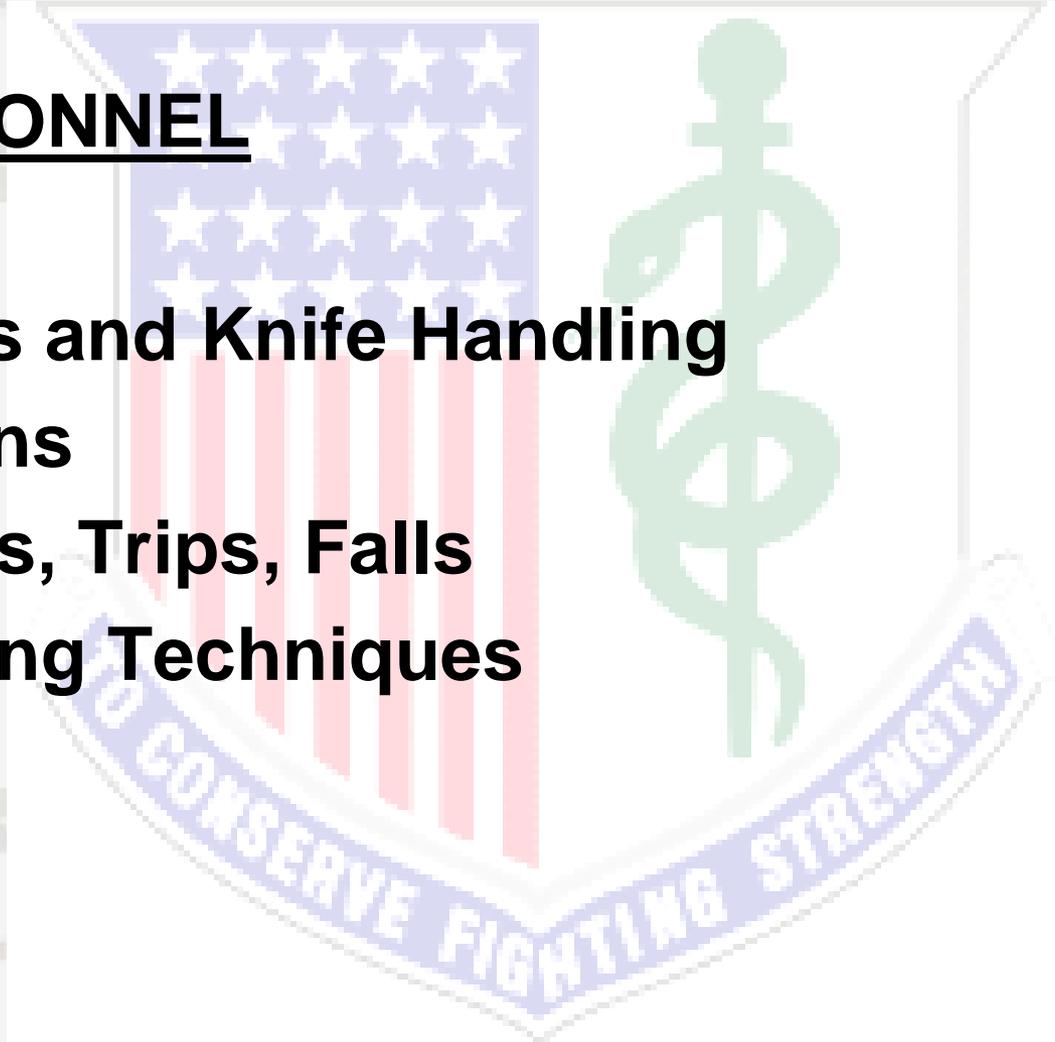


# FOOD SERVICE HAZARDS



## PERSONNEL

- **Cuts and Knife Handling**
- **Burns**
- **Slips, Trips, Falls**
- **Lifting Techniques**





# FOOD SAFETY HIT LIST



- ❑ Sanitation Center
- ❑ Ware Washing
- ❑ PHFs
- ❑ TTDZ
- ❑ Storage Cold & Dry
- ❑ Leftovers
- ❑ Thermometers
- ❑ Tasting
- ❑ Handwashing
- ❑ Hair Restraints
- ❑ Hot Holding
- ❑ IPM
- ❑ Waste Control
- ❑ Training & Records
- ❑ Equipment
- ❑ FIFO
- ❑ Thawing
- ❑ Structure
- ❑ Uniforms & Jewelry
- ❑ Smoking

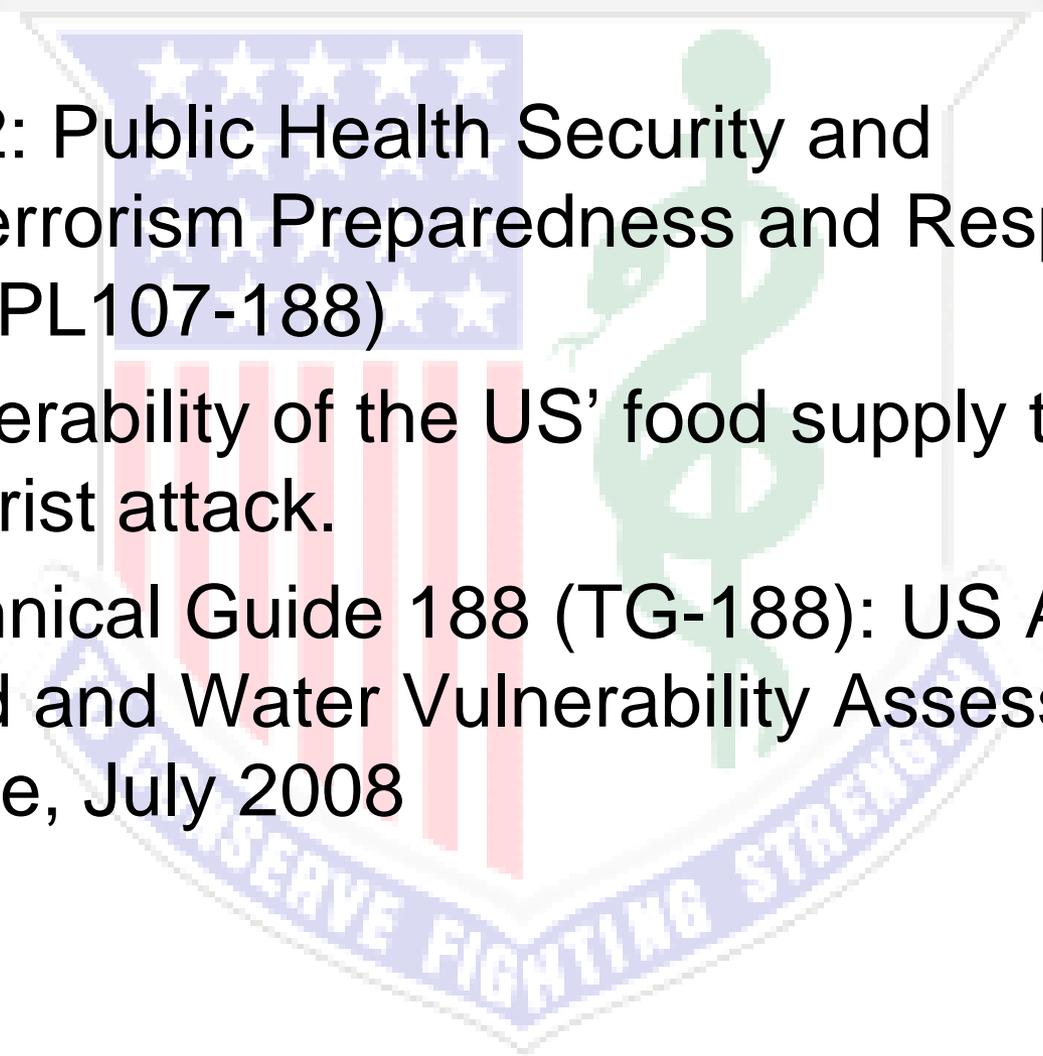




# FOOD DEFENSE



- 2002: Public Health Security and Bioterrorism Preparedness and Response Act (PL107-188)
- Vulnerability of the US' food supply to terrorist attack.
- Technical Guide 188 (TG-188): US Army Food and Water Vulnerability Assessment Guide, July 2008





# FOOD DEFENSE



- February 2007, FDA released the ALERT: web-based training module
- Purpose of ALERT is to raise awareness of the issues related to food defense.
- Provides information needed to begin thinking about ways to prevent intentional food contamination within their span of control and facilities.
- <http://www.cfsan.fda.gov/~dms/alerttoc.html>.

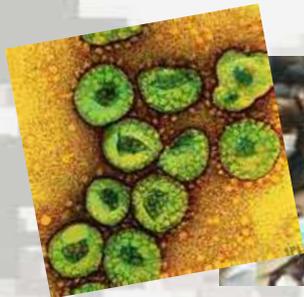
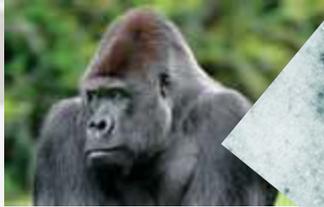
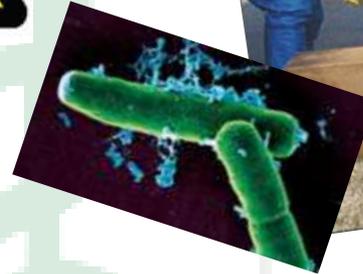
**In today's world it is important to be ALERT to protect your business.**

- A** How do you **ASSURE** that the supplies and ingredients you use are from safe and secure sources?
- L** How do you **LOOK** after the security of the products and ingredients in your facility?
- E** What do you know about your **EMPLOYEES** and people coming in and out of your facility?
- R** Could you provide **REPORTS** about the security of your products while under your control?
- T** What do you do and who do you notify if you have a **THREAT** or issue at your facility, including suspicious behavior?



# THREATS

- CBRNE
- Bioterrorism
- Pandemic





# FOOD DEFENSE



- **TG 188**, Food and Water Vulnerability Assessment Guide (July 2008)
- **TG 248**, Guide for Deployed Preventive Medicine Personnel on Health Risk Management (August 2001)
- **Food and Water Risk Management**, Veterinary/Medical Supplement to TG 248 (June 2008)



# FOOD DEFENSE



- Army Center of Excellence, Subsistence
  - **Environmental Science and Food Safety**
    - CPT Richard Ramos
    - CW4 Ron Biddle
- U.S. Army Center for Health Promotion and Preventive Medicine
  - **Environmental Health and Food Safety**
    - Mr. Tom McNeil (MAJ Ret.)
- U.S. Army Veterinary Command
  - **Command Food Defense Program**
    - Mr. Ronald R. Jech (CW5 Ret.)
    - CW2 Frank M. McLaughlin, Food Safety Officer







# FIELD SANITATION TEAM



- **AR 40-5, Chapter 14**
  - Required at Company Level
  - 1 NCO & 1 Enlisted
  - At least 6 months remaining in unit
  - Formal certification by Preventive Medicine Unit (40-hr Course)
- **FM 4-25.12, UNIT FIELD SANITATION TEAM (JAN 02)**
- **FM 21-10, FIELD HYGIENE AND SANITATION (JUN 00)**



**Advise Commander: Disinfecting water; Food sanitation; Personal hygiene; Waste management; Arthropod/rodent control; Injury prevention; Soldier training on PMM...**



# THE MEDICAL THREAT



- ✓ *Arthropodborne Disease*
- ✓ *Field Water and Ice Quality*
- ✓ *Food Service Sanitation*
- ✓ *Environmental Stress: Heat, Cold, Altitude*
- ✓ *Solid and Liquid Waste Disposal*
- ✓ *Hazardous Waste and Regulated Medical Waste*
- ✓ *Soil Contamination*
- ✓ *Ambient Air Contamination*
- ✓ *Toxic Industrial Materials*
- ✓ *Munitions from War (e.g. Depleted Uranium)*
- ✓ *Adverse Weather (Storms)*
- ✓ *Poor Personal Hygiene Habits*
- ✓ *Communicable Diseases (e.g. Anthrax, CA-MRSA)*
- ✓ *Poisonous Plants & Animals*
- ✓ *Displaced Civilians and Enemy Prisoners of War*
- ✓ *Eating w/ Indigenous People*





# FOR INSTANCE

**A U.S. Commander of a Bright Star operation was eager to reward his troops for a job well done, so he allowed them to go out to eat the night before their scheduled return flight.**

**The Soldiers ate unapproved food and drank unapproved water.**

**The next day during the fifteen-hour flight home, more than 30% of the Soldiers suffered from shigellosis, which causes projective vomiting and bombastic diarrhea at the same time.**



# MEDICAL INTELLIGENCE



- U.S. Army Center for Health Promotion and Preventive Medicine (CHPPM)  
<http://chppm-www.apgea.army.mil/> (TG 276)
- Armed Forces Medical Intelligence Center (AFMIC)  
[www.afmic.detrick.army.mil](http://www.afmic.detrick.army.mil) (MEDIC CD)
- United States Army Medical Research Institute for infectious diseases (USAMRIID) [www.usamriid.army.mil](http://www.usamriid.army.mil)
- Centers for Disease Control (CDC) [www.cdc.org](http://www.cdc.org)
- World Health Organization (WHO) [www.who.int](http://www.who.int)
- FM 4-02 (FM 8-10) FORCE HEALTH PROTECTION IN A GLOBAL ENVIRONMENT, FEB 2003



# TB MED 530



- Currently under revision
- Initiative for a Single, Tri-Service Food Regulation initiative...ended
- Each service will maintain their respective publication
- Language, definitions, temperature, etc. will be consistent and IAW with FDA Food Code
- Initial draft of TB MED 530 complete
- Near future meetings with Services to settle continuity issues
- Will be staffed through AMEDD and ACES



# VET CONDEMNATION REPORT



- AFMIS, SCP-14 Provides Automated Condemnation Tracking System
- Effective 1 June 2008, Army Veterinary Service personnel directed implementation
- Replaces DA FORM 7538
- Provides digital record for garrison and deployed feeding
- Provides visibility for Army G4 and stakeholders to monitor condemnation trends



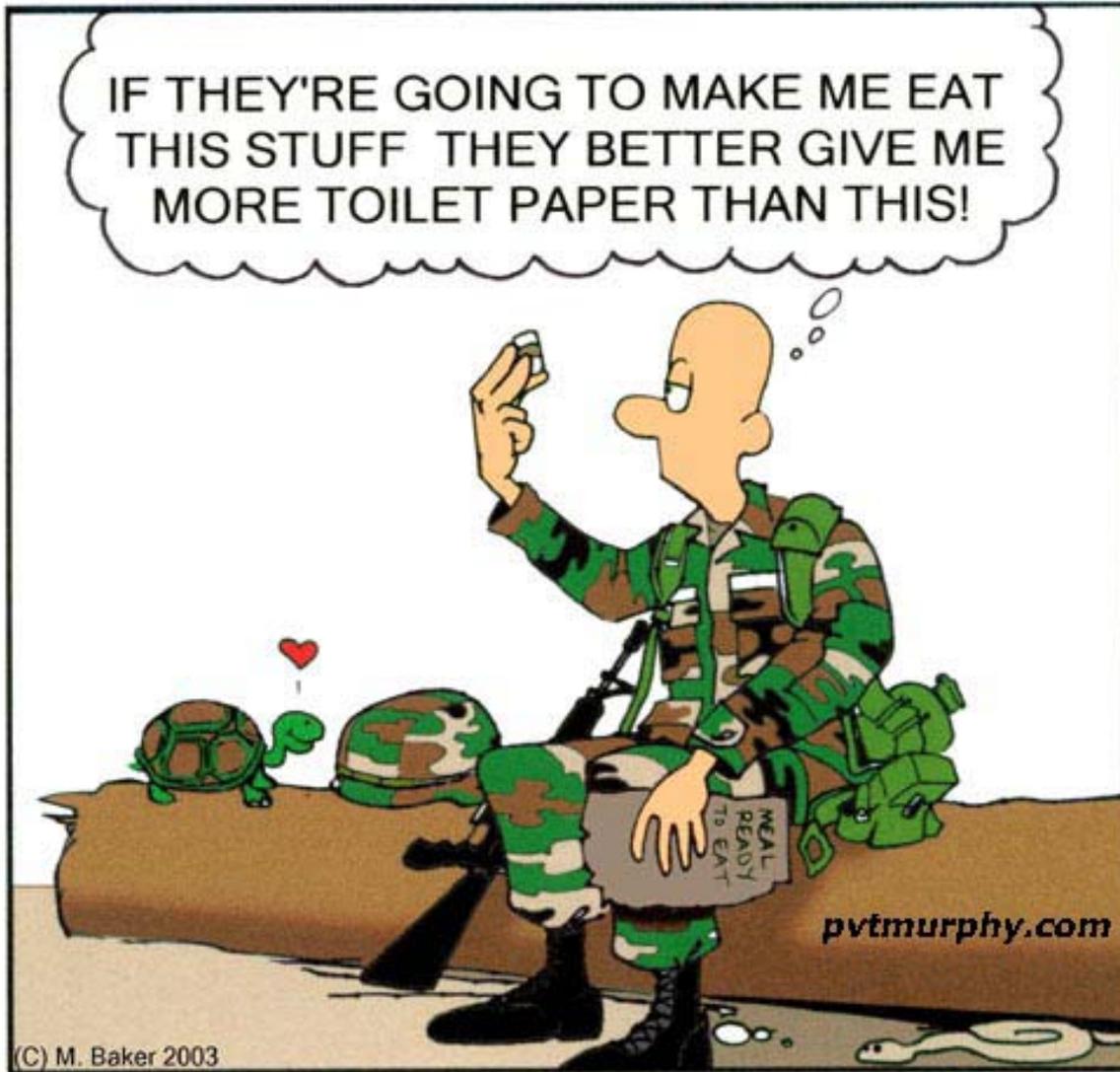
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# DISCUSSION





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