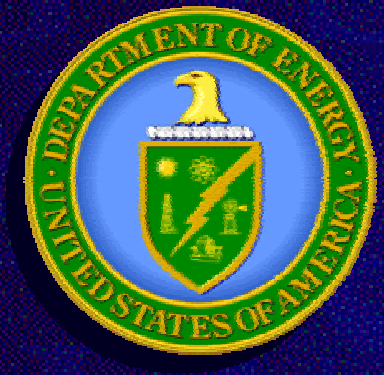
TECHNICAL SUPPORT WORKING GROUP



Mr. Gabriel Ramos
Program Manager
CBRN Countermeasures

TSWG Mission & Objectives

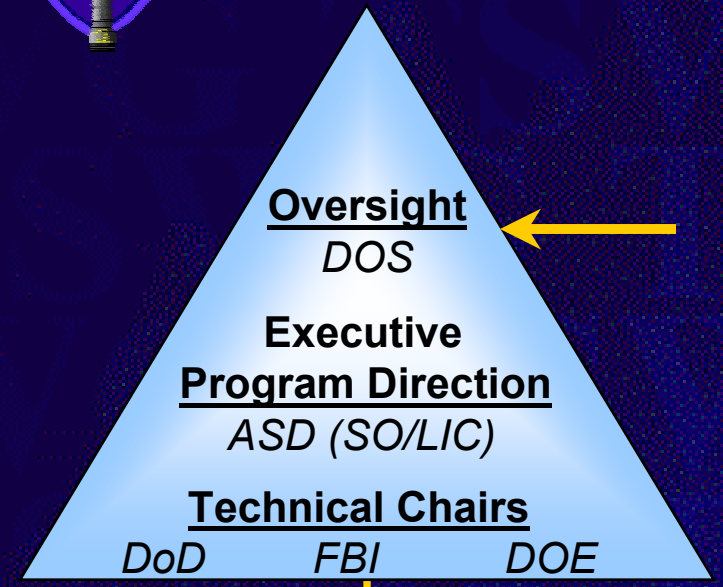
Mission:

Conduct the U.S. national interagency research and development program for Combating Terrorism.

Objectives:

- Provide interagency forum to coordinate R&D requirements for combating terrorism
- Sponsor interagency advanced technology development
- Promulgate technology information transfer
- Influence basic and applied research

TSWG Structure



COORDINATOR FOR COUNTERTERRORISM

PROGRAM MANAGEMENT
National International

DoD-Combating Terrorism Technology Support Office

… MULTI-AGENCY MEMBER SUBGROUPS …

Chemical, Biological, Radiological, Nuclear Countermeasures — FBI / IC	Improvised Device Defeat — FBI / ATF	Investigative Support & Forensics — FBI / USSS	Physical Security — DoD	Tactical Operations Support — DoD	
Explosives Detection — FAA	Infrastructure Protection — FBI / DoD	Personnel Protection — USSS	Surveillance, Collection, & Operations Support — IC		

Updated 8-17-01

TSWG Membership

Department of Defense

- OASD (SO/LIC)
- OASD (C3I)
- OATSD (NCB)CP/CBD
- OUSD (A&T) DDR&E and S&TS/LW
- Defense Computer Forensics Laboratory
- Defense Intelligence Agency
- Defense Logistics Agency
- Defense Threat Reduction Agency
- National Reconnaissance Office
- National Security Agency
- The Joint Staff
- Unified Commands
- U.S. Special Operations Command
- U.S. Air Force
  - Air Combat Command
  - AFOSI
  - Force Protection Battle Laboratory
  - Force Protection System Programs Office
  - Security Forces Center
- U.S. Army
  - 52nd ORD
  - SBCCOM / ECBC
  - Corp of Engineers / WES / PMDC/WES
  - Criminal Investigations Command
  - Maneuver Support Center
  - Technical Escort Unit
  - National Guard Bureau
- U.S. Navy
  - JPO / STC
  - Naval Criminal Investigative Service
  - Naval Facilities Engineering Service Center
  - Naval Special Warfare
  - NEODTD / DTRG
- USMC Chemical Biological Incident Response Force

Department of Agriculture

- Food Safety and Inspection Service
- Office of the Inspector General
- Animal and Plant Health Inspection Service

Department of Commerce

- National Institute of Standards and Technology
  - Office of Law Enforcement Standards

Department of Energy

- National Nuclear Security Administration
- Office of Security
- Office of Energy Intelligence
- National Assessment Team

Department of Homeland Security

- Animal and Plant Health Inspection Service (part)
- Critical Infrastructure Assurance Office
- Federal Emergency Management Agency
- Federal Protective Service
- National Infrastructure Protection Center
- Office of Domestic Preparedness
- Transportation Security Administration
  - Office of Civil Aviation Security
  - Technical Center
- U.S. Coast Guard
- U.S. Customs Service
- U.S. Secret Service
  - Forensic Services Division
  - Technical Security Division

Department of Health & Human Services/USPHS

- Food and Drug Administration
- Office of Emergency Preparedness

Department of the Treasury

- Office of Enforcement

Department of Justice

- Bureau of Alcohol, Tobacco, Firearms & Explosives
  - Explosives Technology Branch
  - Office of Laboratory Services
    - Forensic Science Laboratory
- Drug Enforcement Administration
- Federal Bureau of Investigation
  - Counterterrorism Division
    - WMD Countermeasures Unit
  - Laboratory Division
    - Bomb Data Center
    - Forensic Science Training Unit
    - Hazardous Materials Response Unit
- Federal Bureau of Prisons
- National Institute of Justice
  - Office of Science and Technology
- U.S. Marshals Service

Department of State

- Office of the Coordinator for Counterterrorism
- Bureau of Diplomatic Security
- Foreign Buildings Operations

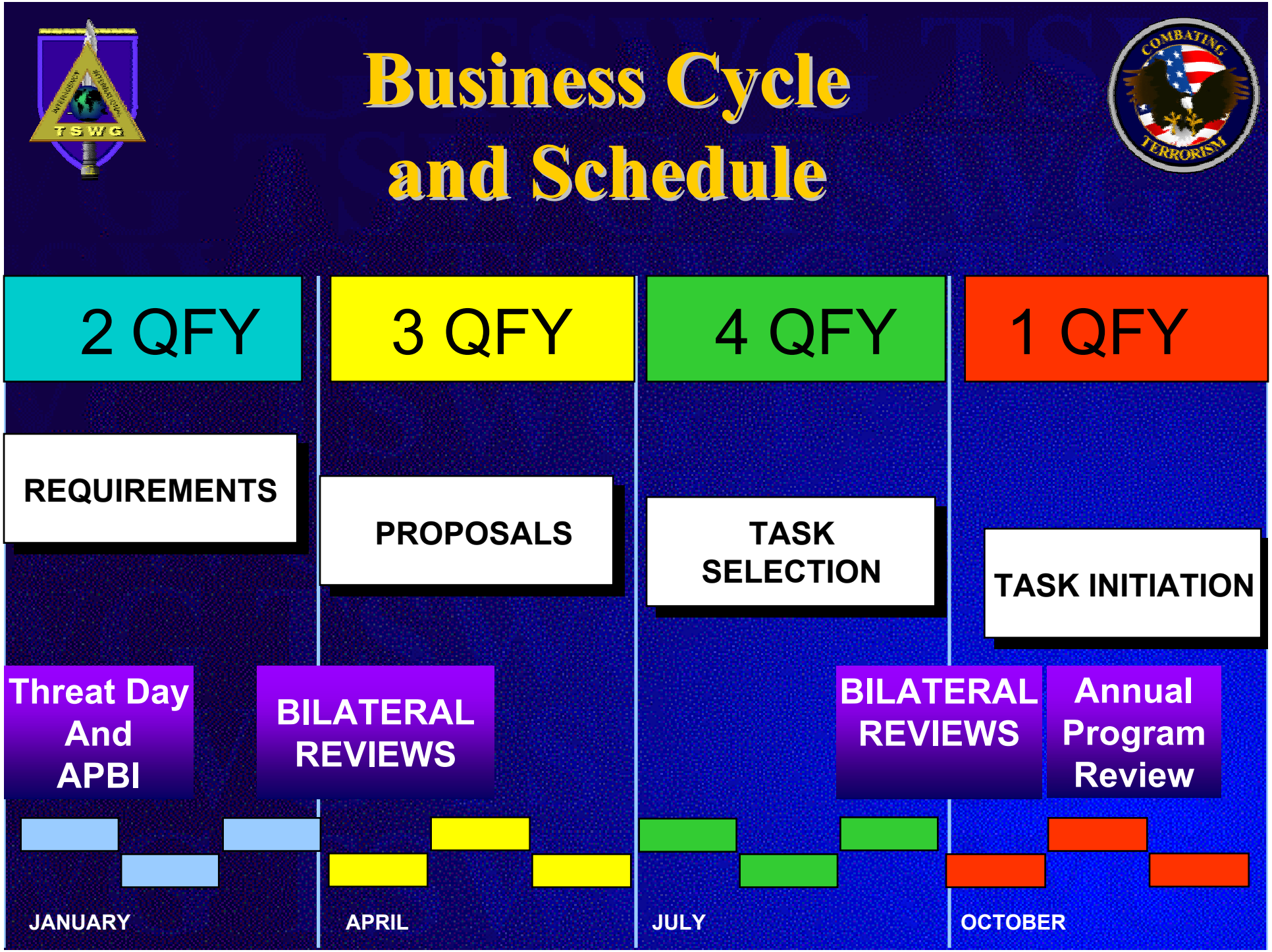
Department of Transportation

- Intelligence and Security Division
- Volpe Center

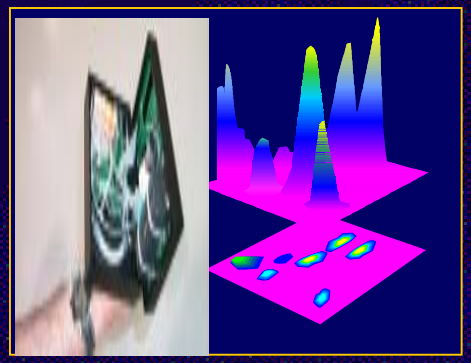
Independent Agencies

- Central Intelligence Agency
  - Counterterrorism Center
  - Center for CIA Security
  - Central MASINT Organization
- Environmental Protection Agency
- General Services Administration
- Nuclear Regulatory Commission
- Office of Science and Technology Policy
- U.S. Capitol Police
- U.S. Postal Inspection Service
- U.S. Supreme Court Police

Business Cycle and Schedule



Department of Homeland Security
FY 03 Requirements



Detection

Decontamination

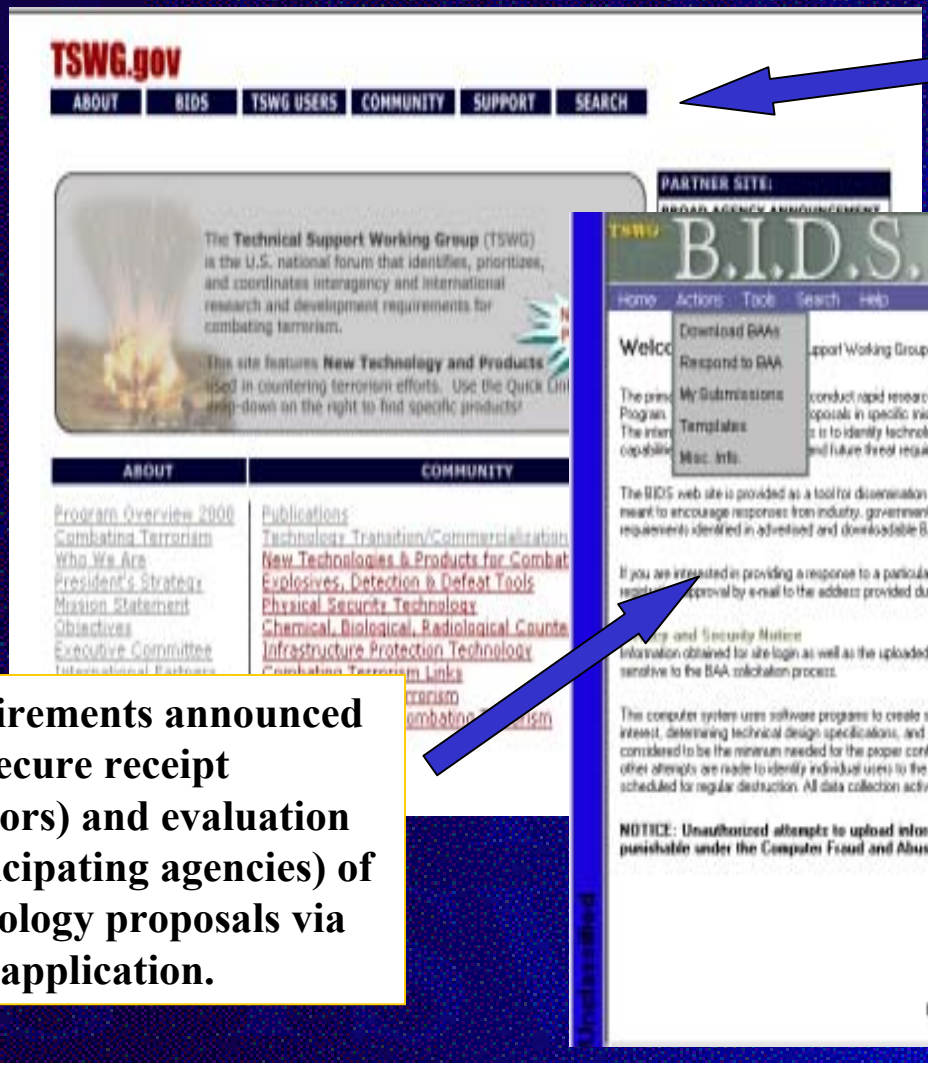
Protection

Information Resources

Training Support

BAA Solicitation Process
http://www.bids.tswg.gov

User community products availability and technology opportunities for contractors.



Requirements announced and secure receipt (vendors) and evaluation (participating agencies) of technology proposals via www application.

BAA 2003 Schedule

- **Navy 03-Q-4070**
  - BAA submissions closed on 3 Apr 03
    - ED, IDD, IP, PS, PP, and TOS
- **USARMAC DAAD05-03-T-0023**
  - BAA submissions closed 4 Apr 03
    - CBRNC and IS&F
- **USARMAC DAAD05-03-T-0024**
  - DAAD05-02-T-0215 released 10 Feb 03
  - BAA Package available after 28 Feb 03
    - Homeland Security Requirements (CURRENTLY PENDING RELEASE)

- **Phase I responses due 30 days after announcement and BAA package availability**

- **White paper and Proposals due 30 days after notification of acceptance – Notification via BIDS email to account POC**

BAA Selection Criteria

- **Basic Requirement**
  - Meets letter and intent of stated requirement.
- **Technical Performance**
  - Feasible, achievable, and complete.
- **Cost**
  - Reasonable and affordable for work performed.
- **Schedule**
  - Proposed schedule is complete and achievable.
- **Past Performance**
  - Where applicable, similar efforts were within cost and schedule.

Refer to BAA Package, Section 4, Proposal Evaluation

HSR1030 Next Generation Fire Fighter Turnout Gear

- Same level of flame/heat protection and also providing protection against liquid, vapor and aerosolized hazardous contaminate.
- The the following are required:
  - Flexible and easy to don, light-weight (less than 10% increase from standard gear weight), durable and have an equivalent service life in all environments with a similar level of cleaning as standard gear.
  - Affordable by State and local agencies.

HSR1015 Low Cost Shelter in Place Training and Tools for Public Buildings

- Low-cost shelter in place kit for use in schools, libraries and government offices.
  - Assess effectiveness across a range of environmental conditions and threat scenarios.
  - Reduce the inhalation and percutaneous risk during a chemical or biological attack.
  - Deploy procedures and materials (< 5 min).
  - Include training resources (video, CD or booklet) and inexpensive means for mitigating the risk of exposure.
- The priorities are nerve and blister agents, toxic industrial chemicals and aerosolized bacteria.

HSR1079 Rapid Semi-Empirical Tool for Estimating Air Flow in Facilities

- Software tool that accurately and rapidly provides air flows and residence times for a facility.
  - Air flow predictions will guide physical security procedure and sensor employment, optimize sensor placement, predict the spread of biological and/or chemical contamination from a given source release, and develop hazard management/response practices for chemical and biological events.
  - Testing, data input and computer hardware costs shall be minimized.
  - Identify a set of simple measurements to iteratively refine and confirm the building air flow model.

HSR1001 Statistical Design Tool for Sampling Contaminated Buildings

- Determine the required sampling (air and surface) density (pre- and post-).
  - Inputs: assay type, minimum detectable level, detection variance, acceptable contamination level and confidence level required.
  - Output: building sampling plan allowing the user to state contamination level at various locations.
  - Additional input parameters may include: contaminant type, release method, collection process and release location.
  - Building design and operation factors may be used.

HSR1014 CBR Mitigation in Mass Transit Terminals

- Mitigation techniques reducing airborne contaminate concentrations in rail, subway, bus or other mass transportation terminals.
  - 90% removal of airborne threat within five (5) minutes.
  - Eye-safe, non-toxic by inhalation or ingestion and safe for exposed skin and mucous membranes.
  - Require < one (8) hour training session.
  - Cost < $1,000,000 for the prototype and installation.
  - Annual maintenance/consumables < $10,000.

HSR1027 Chemical Agent Risk Assessment Tool

•Develop an personal protective equipment emergency response tool.

- Address specific chemicals, identify suitable protective equipment, and assess stay times versus risk to personnel.
- Quick and efficient access to contaminant hazard concentration levels (IDLH, AEL, ERPG).
- Consolidate multi-source information into electronic “user friendly” device.
- Incorporate odor thresholds; initial symptoms of exposure and break through times for filters, suits, gloves and boots.

HSR1063 Real-Time Radioisotope Identification and Reporting

- Identifies radioactive material and nuclear weapons material. Provide spectral analysis and isotope identification.
  - Low-cost (< $35K), battery-powered, hand held and able to operate in close proximity.
  - Transmits high resolution spectra from remote locations.
  - Identify target shielded by 6" of borated polyethylene, 1/2" lead, or 1" of iron.
  - 30% gamma intrinsic efficiency and neutron detector intrinsic efficiency for thermal neutrons equal to a 6-inch long, 1-inch diameter He-3 tube.

H-R1031 Stand-off Maritime Radiological Gamma/Neutron Detector

•Detect and localize gamma and neutron emissions from a source within the confines of the lock (up to a 766'x 40'x 30').

- Detection in 20- 30 minutes;
- Operate over a wide environmental range to include: temperature (0 – 40°C); humidity (10 - 100% RH); and in rain.
- Low false negative rate (as low as possible) with an acceptable initial false positive rate < 1%.
- "Simple to use", wireless transmission operator interface.

HSR1090 Expedient Mitigation of a Radiological Release

- Develop and evaluate equipment and procedures to minimize spread of radioactive particles
- Technologies should be:
  - Simple to use;
  - Environmentally benign;
  - Pose minimal health risks;
  - Address surface contamination and subsequent restoration activities. Other surfaces include concrete, metals, building interiors/exteriors, ventilation systems, grass, etc.

Summary

- Forum to Identify, Prioritize, and Rapidly Resolve Technology Needs
- Selected Research Efforts are User Driven
- Support Transition to Acquisition and Commercial Production

Subgroup Contact Information

cbrncsubgroup@tswg.gov