

# WSTIAC

Weapon Systems Technology  
Information Analysis Center

## 2008 Homeland Security S&T Stakeholders Conference East "Partnering for a Safer Nation"

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## Take Aways

- WSTIAC Provides Weapon Systems Technology Information and Technical Expertise
- Extensive Weapon Systems Technology Database
- Technical Assistance Provided Through the WSTIAC Contract:
  - Competed, Single-Awarded Contract - Saves Time and Money
  - Long Periods of Performance-Reduces Procurement Costs
- Large Number of Subject Matter Experts to Assist You With Your Needs



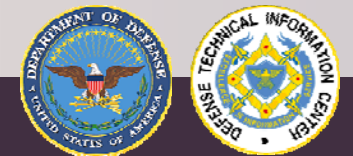
## Agenda

- What is WSTIAC?
- Customers/Work Performed/Functions
- Information Vs. Contract Work
- WSTIAC Website
- Quarterly Publication and eNews
- Training Program
- “WSTIAC 10”
- Alion’s Core Business Areas
- Potential Uses/Benefits for Homeland Security
- WSTIAC TAT: RFID
- Summary



## What is WSTIAC?

- An OSD (Director, Defense Research and Engineering (DDR&E) Program Provided by the Defense Technical Information Center (DTIC)
- Two-Fold Mission for DoD Customers
  - Provide Scientific and Technical Information (i.e. Relevant Information/Data)
  - Provide Technical Services and Solutions (i.e. Expertise/Contracting Vehicle for Solutions)
- Alion Science and Technology Corporation Administers WSTIAC



## Who are the WSTIAC Customers?

- Requirements Developers/Combatant Organizations/Warfighters
- Materiel Developers (PMs)/Acquisition Community/Contracting Officers and Their Representatives
- Engineers and Scientists

## What is the Type of Work Performed?

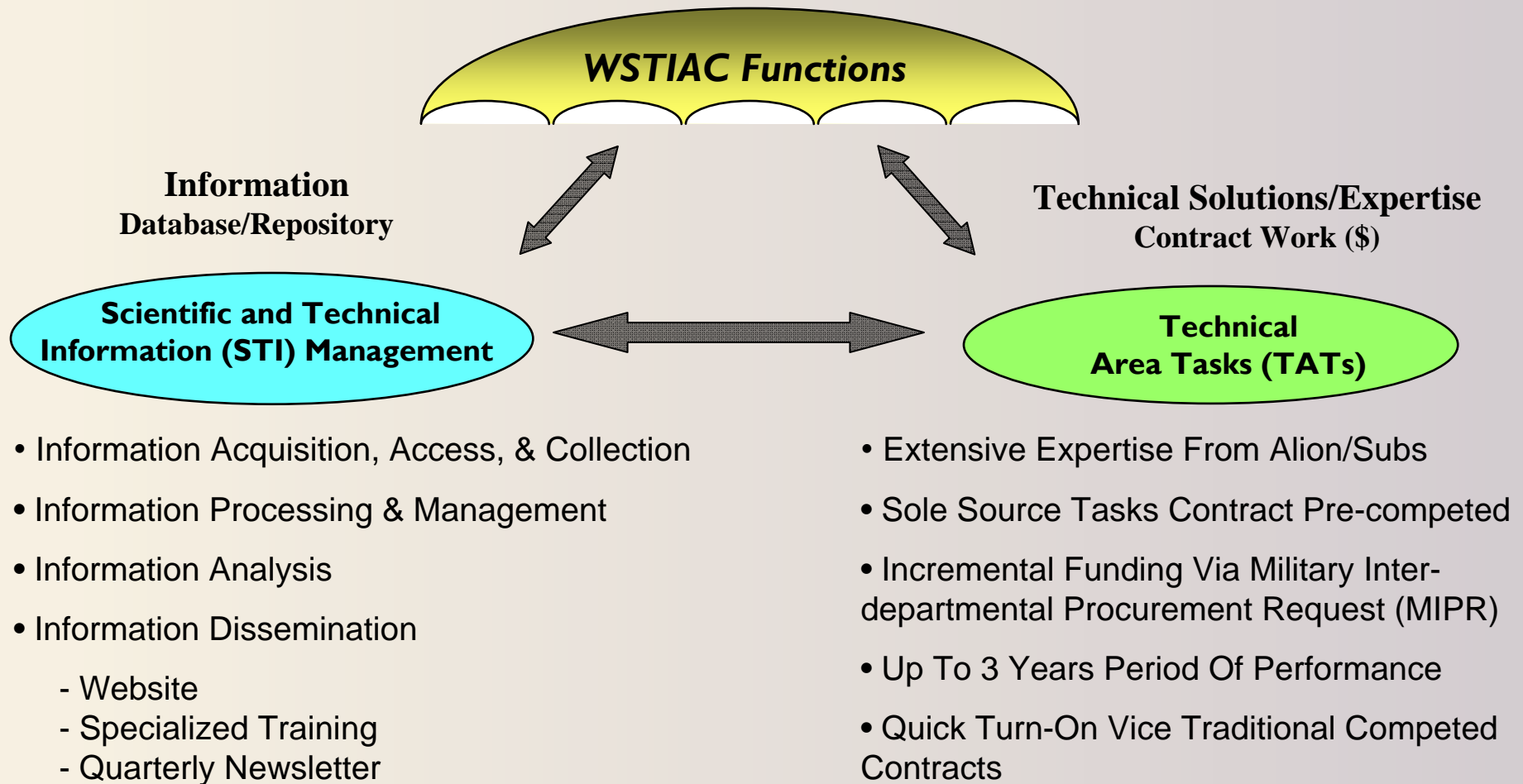
- Requirements Analysis
- Assessment of Weapon Systems Technologies and Capabilities
- Readiness Analysis
- Independent Reviews
- Engineering and Scientific Expertise



### With the Purpose of:




- Supporting Weapons-System Development And Enhancement
- Enhancing Lethality, Accuracy & Affordability
- Providing Subject Matter Expertise For Consultation And Analysis To Solve Problems





## What are the Primary Contract Aspects?

- Research and Development
- Purpose is to Advance Scientific and Technical Knowledge
- Focus is on Product, Not Manpower; Completion Versus Term
- Relies on Technical Experts' Input

 = Go  
 = Caution  
 = Stop; Can't Do

- Item of Interest: Pass Through/Work Share With Subs

### • Areas Outside of Scope

- *Advisory and Assistance Services*
- *Services/Support*
- *Acting as a Government Representative*
- *Evaluating/Advising on a Government Source Selection*
- *Data Not Value Added to DTIC/IAC Library*

**WSTIAC Is For  
Technically Oriented,  
R&D Efforts;  
Not Service Support!**



## What Types of Systems Have Been Worked Under WSTIAC?

- Aircraft
- Ships
- Satellites
- Guns
- Munitions
- Missiles
- Rockets
- Bombs
- Submunitions
- Projectiles
- Mines/Countermines
- Munitions Dispensing Canisters
- Lasers
- Reconnaissance Systems
- Command Guidance Com Links
- Undersea Weapons





## Information

### (Scientific and Technical Information or STIs)

- WSTIAC Library/Database of Scientific and Technical Literature (up to & Including Secret)
- Subject Matter Expert Database
  - Contact information for >400 experts
  - Broad Areas of Expertise
- Website: <http://wstiac.alionscience.com>
- Training Courses
  - Smart/Precision Weapons
  - Introduction to Sensors/Seekers for Smart Munitions/Weapons
  - Directed Energy Weapons
  - Weapon engineering
  - System Engineering for Product Life Cycle Management
  - IEDs (Under Development)

## Contract Work

### (Technical Area Tasks or TATs)

- Separately Funded Work Efforts
- >\$145M since 1999
- Alion Science and Technology With Its Teammates Provide:
  - Requirements Analyses
  - Materiel Development Expertise
  - Business Management Expertise
  - Engineering
  - Science
- Customer Profile; 62 Active TATs
  - Navy 8%
  - Army 25%
  - Marine 2%
  - Air Force 30%
  - DoD 35%





Transforming Weapon Systems Capabilities into Warfighter Superiority

## WSTIAC Website <http://wstiac.alionscience.com>

- Access to Free Services
  - WSTIAC Library/Database of Scientific and Technical Literature >97,000 records
  - Subject Matter Expert Access
  - Calendar of Industry Events
  - Related Website Links
  - WSTIAC Quarterly PDF download
  - Mail list Registration
  - Training Registration

WSTIAC  
Weapon Systems Technology  
Information Analysis Center

IED Defeat Target Identification & Engagement Lethality  
Power & Energy Command & Control Asymmetric & Irregular Warfare  
Weapon Systems & Munition Readiness & Asset Visibility Non-Lethal Weapons  
Embedded Training Systems Capabilities Effectiveness (S) Requirements Analysis

Scientists & Engineers Material Developers Warfighters & Combatant Commanders Search

HOME  
ABOUT WSTIAC  
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The IAC Program  
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TECHNICAL SERVICES  
WSTIAC 10 Key Areas  
Training Programs  
Ask Our Experts

PUBLICATIONS  
Quarterly  
Products

CUSTOMER CORNER  
Scientists & Engineers  
Material Developers (PMs)  
Warfighters & Combatant Commanders

GPS  
Smart Weapons  
Miniaturization  
Sensors & Seekers  
Weapon Engineering  
High Energy Lasers  
High-Power Microwaves  
Directed Energy Weapons  
Environment Protection  
Inertial Navigation Systems

YOUR  
4  
FREE HOURS  
Start Now

Training  
Weapons Experts  
Technical Inquiries  
Literature Searches

WSTIAC offers up to 4 HOURS FREE of technical expertise to our customers.  
Drawing upon our weapon system experts, multiple databases, and vast information repositories,  
WSTIAC supports today's research for tomorrow's war fighters.

It's like having your own team of experts.

IAC NEWS & EVENTS  
WSTIAC QUARTERLY

- First MH-60R Weapons Load Trainer Delivered to Fleet
- Mobile Communications System Undergoes Final Tests
- USS Benfold Receives First Install of Shipboard Protection System
- Air Force Tests X-51 Antennas
- Fiscal 2008 New Start and Additional Fiscal 2007 Joint Capability Technology Demonstrations Announced
- More news...

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Transforming Weapon Systems Capabilities into Warfighter Superiority

## WSTIAC Quarterly and eNEWS

- Quarterly delivered to over 18,000 WS Professionals
  - Relevant, authoritative STI delivered to over 18,000 professionals
- WSTIAC eNews
  - Distribution 5,000
  - Delivers information real-time to user's desktop





Transforming Weapon Systems Capabilities into Warfighter Superiority

## WSTIAC Training Program

- Provides a firm understanding of information related to conventional and directed energy weapons, their development, and production
- Open and Onsite venues
- Expert Instructors
- Most of the weapon systems training is performed on-site and is tailored to meet targeted needs

### Training Courses

- Systems Engineering
- Directed Energy Weapons
- Smart/Precision Weapons
- Sensors/Seekers
- Weaponneering
- IEDs
- Customized Topics



## “WSTIAC 10”

### Key Areas That WSTIAC Provides Capabilities...

- Power and Energy
- Lethality
- Weapon System Command and Control/Situational Awareness
- Non-Lethal
- Weapon Systems and Munition Readiness and Asset Visibility

- Target Identification and Engagement
- Asymmetric and Irregular Warfare Weapon Systems
- IED Defeat
- Embedded Training Systems
- Capabilities, Effectiveness, and Requirements Analyses

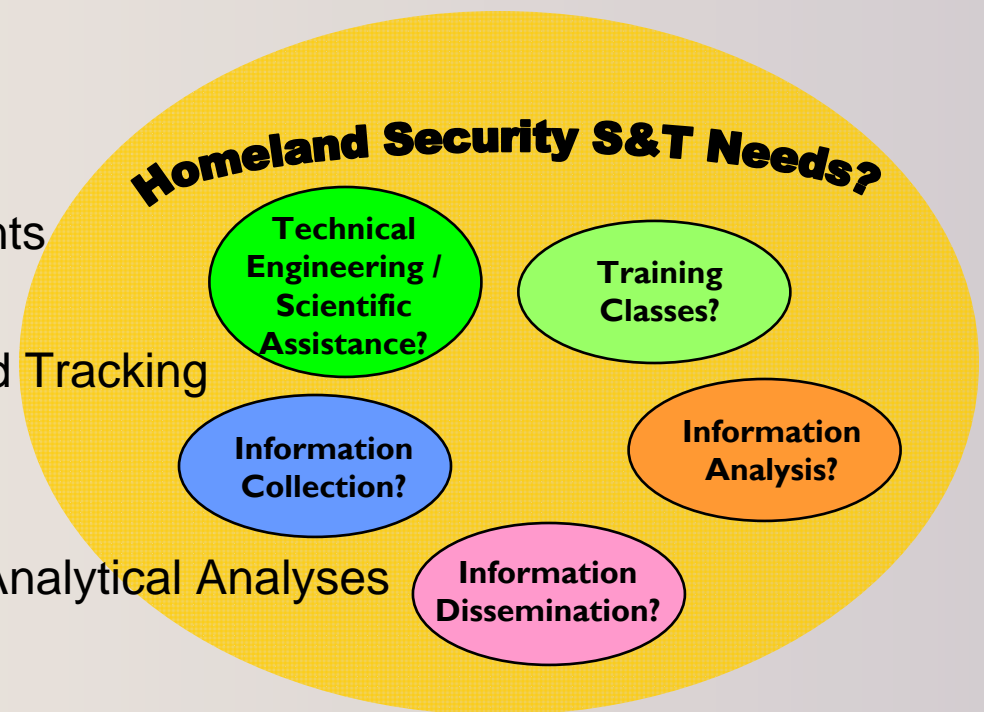
***WSTIAC 10: Critical Focus Areas Across All Services Related to Weapon Systems***



## Potential Uses/Benefits for Homeland Security From WSTIAC

### Areas That WSTIAC Can Help Homeland Security With:

- Counter-IED
- Counter Sniper
- Weapons Performance Analyses
- Weapons Technologies Assessments
- Electronic Warfare
- Weapon System Asset Visibility and Tracking
- Network Aspects
- Non-Lethal Weapons
- Test Equipment, Techniques, and Analytical Analyses
- Weapons Component Analyses
- And Many More Areas...



## WSTIAC TAT Example:

### **Weapon Systems Transformation/Experimentation: Advancing Logistics Techniques...RFID Tracking of Ammunition & Total Asset Visibility**

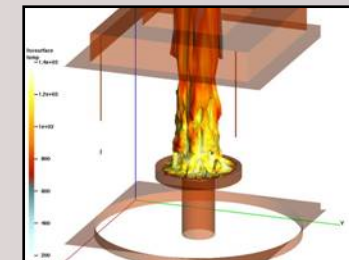
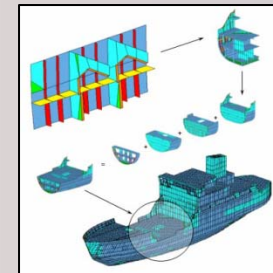
- Customer: US Army
- Objectives:
  - Research, Development, and Analyses for Integrating Automatic Identification Technologies for Ammunition
  - Assessing Technically How to Bring Real Time Visibility (Wireless) to Depots for Inventory Management
- Accomplishments:
  - Awarded In September 07; 36 Month Effort
  - Successfully Integrated Active RFID Networking Devices for Depot Level Operations
  - Integrated State of the Arm Broadband and Equipped Crew Vehicles to Communicate Depot Operations in Real Time
  - Coupled Effort and Integrated Into a 3D Visualization Simulation Model (Model Attached to a Live Database!)
  - All HERO and NetCom Certified



## Alion Science and Technology: WSTIAC Administrator

### Core Business Areas

- Naval Architecture & Marine Engineering
- Defense Operations
- Systems Engineering
- Modeling & Simulation
- Information Management & Technology
- Chemical, Biological, Nuclear & Environmental Sciences
- Wireless Spectrum Engineering
- Industrial Technology





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***Through WSTIAC, Can Get You The Expertise and Capabilities You Need Quickly and Effectively!***

