



*U.S. Army Space and Missile Defense Command/
Army Forces Strategic Command*



D3I ACQUISITION STRATEGY

**Presentation for the Design,
Development, Demonstration and
Integration (D3I) Industry Day**

01 March 2011

**Melissa Mitchell, Contracting Officer
256-955-4162
melissa.mitchell@smdc.army.mil**



D3I Industry Day Agenda

9:00 AM- 9:15 AM	Welcome and Opening Remarks	Senior Leadership
9:15 AM- 9:45AM	Proposed D3I Acquisition Strategy Overview	Ms. Melissa Mitchell, Contracting Officer(KO)
9:45 AM- 10:00 AM	D3I Technical Briefing Overview	Ms. Penny Cash, Director, Warfighter Solutions Directorate
10:00 AM- 10:30AM	Break	
10:30 AM- 12:00PM	D3I Technical Briefings	Various Briefers
12:00 PM- 2:30 PM	Lunch	
2:30 PM- 3:30 PM	Discussion/Questions	Various Briefers and Technical Personnel
3:30 PM	Closing Statement	Ms. Melissa Mitchell



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Disclaimer

- The remarks today of Government officials involved in the D3I program should not be considered a guarantee of the Government's course of action in proceeding with the program
- The information provided today reflects current Government intentions of how the program should be carried out, and is subject to change based on a variety of circumstances, including input from prospective contractors
- The solicitation itself is the only document that is relied upon in determining the Government's requirements
- Current and future program efforts are representational examples of efforts that could be procured under the anticipated resulting contract(s); at this time there is no definitive plan to procure current or future requirements under D3I



GROUND RULES

- NO RECORDING
- INFORMATION BRIEFING ONLY
- FORMAL SOLICITATION WILL REFLECT GOVERNMENT'S REQUIREMENT
- SUBMIT ALL QUESTIONS IN WRITING ON THE NOTE CARDS PROVIDED ONLY



D3I Acquisition Strategy

- D3I will provide the Command and its customers with the ability to procure a broad range of missile defense, space and other applicable Warfighter solutions in support of developmental and operational requirements
- Currently USASMDC/ARSTRAT and supported agencies' contracting approach targets requirements individually and compartmentalizes efforts by technical area vice a coalesced approach

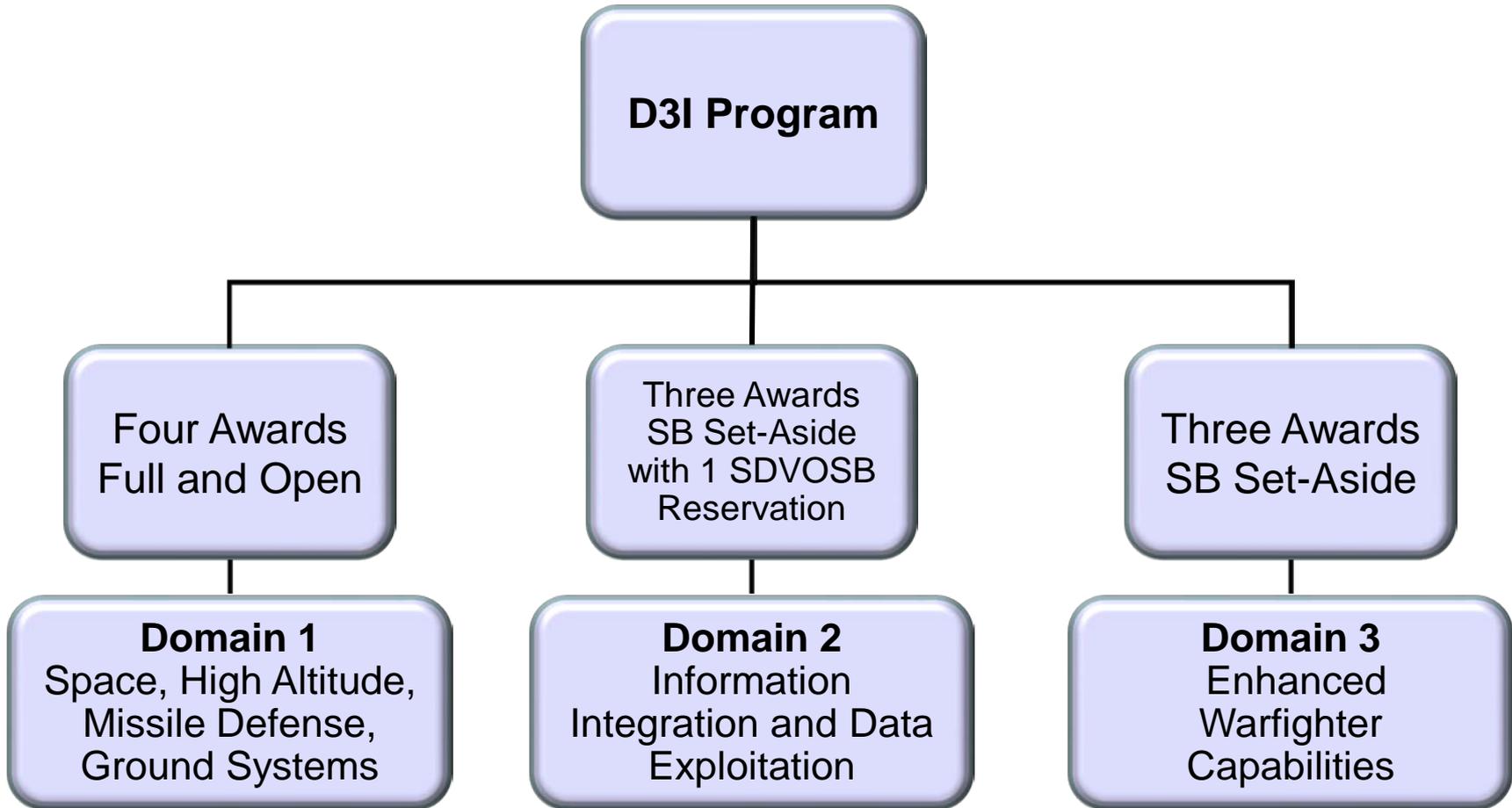


D3I Acquisition Strategy Continued

This proposed acquisition will be a USASMDC/ARSTRAT multiple-award indefinite delivery, indefinite quantity (MAIDIQ) arrangement, which is strategically focused on development of hardware and software solutions for systems and components at different phases of maturity



D3I Proposed Acquisition Strategy





D3I Proposed Acquisition Strategy

- **CONTRACT TYPE**

- Multiple-Award Indefinite-Delivery/Indefinite-Quantity for each Domain
- CPFF and CPIF
- Cost-Reimbursement, No Fee for Incidental Travel and ODC

- **ESTIMATED CEILING**

- \$5.6B programmatic-level ceiling, estimated allocated ceiling among the 3 Domains
 - Domain 1: \$3.7B (Full and Open)
 - Domain 2: \$0.6B (100% SB Set Aside)
 - Domain 3: \$1.3B (100% SB Set Aside)
- Total amount awarded and funded on each task order will be collectively monitored at programmatic-level



D3I Proposed Acquisition Strategy

ORDERING PERIOD

- 5-Year Base Period with One 2-year Option
- 36-month to 60 month period of performance for typical task order, but may include options to provide additional efforts

FAIR OPPORTUNITY

- Competition throughout the life of D3I will be promoted
- IAW DFARS 216.505-70(b), fair opportunity to be provided to all prime contract awardees for each task order exceeding \$100K, unless one of the circumstances described in FAR 16.505(b)(2)(i) through (iii) applies to the order or a statute expressly authorizes or requires that the purchase be made from a specified source
- Task order competitions will utilize best value evaluation criteria



D3I Proposed Acquisition Strategy

ORGANIZATIONAL CONFLICTS OF INTEREST

- Strong potential for conflicts of interest to materialize during contract performance
- Access to proprietary data and other procurement sensitive information will be required
- Pre-Award (contract level) and Post-Award (task order level) mitigation plans will be required
- Contractors will be required to “self-police” and identify to the government potential conflicts



D3I Proposed Acquisition Strategy

ORGANIZATIONAL CONFLICTS OF INTEREST

- No anticipated OCI restrictions between D3I Domains
- Strong potential for OCI between SETAC and D3I
- Potential OCI between SMDIS and D3I
- Should not be an OCI issue between D3I and TESLA or ASTEROID



D3I Joint Venture

Prime contractor roles may be established as a single prime contractor, a formal joint venture (JV), or an informal JV. For purposes of this solicitation, the following definitions apply:



Joint Venture (JV) Guidance Disclaimer

These provisions are based on USASMDC/ARSTRAT interpretation of current federal statutes and regulations concerning JV arrangements as well as proposed rules for 13 CFR 121 and 124 (28 October 2009)



D3I Joint Venture Definitions

- Joint Venture - an entity formed to engage in and carry out a specific business venture for joint profit.
- Formal Joint Venture – a joint venture that has been formed as a separate legal entity, based upon a written legal agreement between all partners and is populated with its own separate employees.
- Informal Joint Venture – a joint venture that merely exists through a written agreement between two or more individual business entities, and performs the work with each of the individual entities' own separate employees (i.e., is unpopulated).



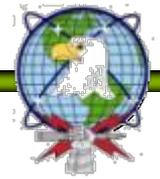
D3I Joint Venture

- In order to qualify as a formal or informal small business JV in Domains 2 and 3, all JV partners must be classified as small pursuant to the assigned NAICS Code 541712 for this procurement
- All informal JVs should be limited to a minimal number of partners



Limitation on Subcontracts Domains 2 and 3

- All prime contractor awardees must comply with FAR 52.219-14, Limitations on Subcontracting, and 13 CFR 125.6
 - Requires that at least 50% of the cost of contract performance incurred for personnel be expended for employees of the small business prime
 - The small business prime contractor must meet the 50% requirement (1) individually, or (2) together with other small business members of a formal JV, or (3) together with a small number of small business subcontractors forming an informal JV (if subcontractors meet the definition of ‘ostensible subcontractor’ as set forth in 13 CFR 121.103(h)(4))



Milestone Schedule

Anticipated Event

Completion Date

Acquisition Strategy Industry Day	01 Mar 2011
Issue Draft Sections L and M of DRFP	Apr 2011
DRFP Release	May 2011
Issue Final RFP	Sep 2011
Pre Proposal Conference	Oct 2011
Proposals Due	Nov 2011
SSA Decision	Mar 2012
Award	May 2012



Please...

- Remember to check **BOTH** of the SMDC/D3I and FBO websites for further information and updates:
 - <https://www.fbo.gov/spg/USA/SMDC/DASG60/D3I-SPECIALNOTICE2/listing.html>
 - <http://www.smdc.army.mil/2008/D3I.asp>



*U.S. Army Space and Missile Defense Command/
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D3I Technical Overview

**Presentation for the Design,
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01 March 2011

***Ms. Penny Cash
Director, Warfighter Solutions Directorate***



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Performance Work Statement Domains

PWSs are available at

<http://www.smdc.army.mil/2008/D3I.asp>

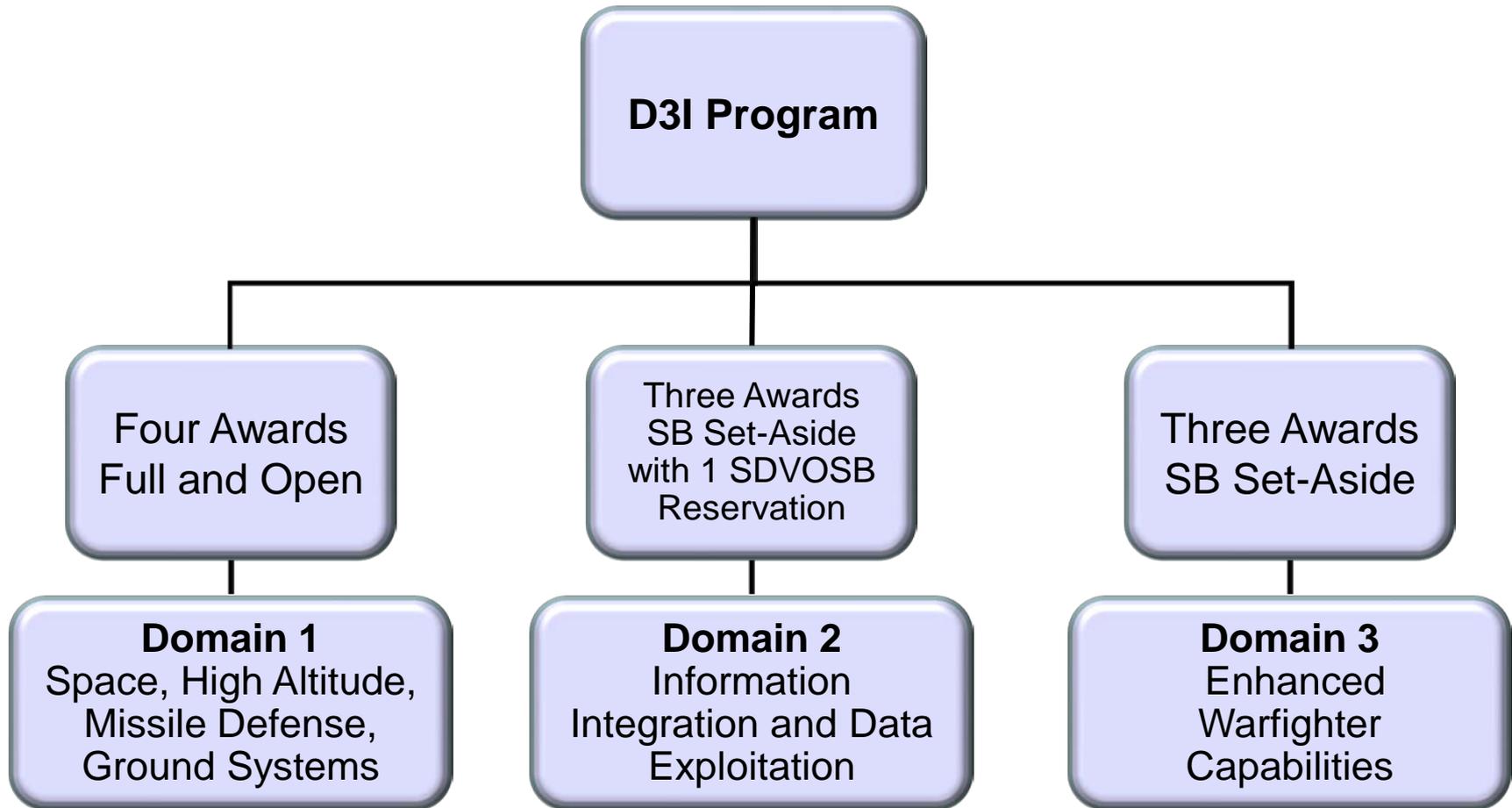
Domain 1: Space, High Altitude, Missile Defense,
Ground Systems

Domain 2: Information Integration and Data
Exploitation

Domain 3: Enhanced Warfighter Capabilities



D3I Proposed Acquisition Strategy





D3I Proposed Acquisition Strategy

- Contract vehicle to procure a broad range of solutions in support of developmental and operational requirements:
 - Mission focused
 - Flexible
 - Improve efficiency
 - Support the Warfighter



D3I Technical Focus

- Evolutionary development focused on a “Concept to Combat” philosophy
- Conduct research and development to demonstrate and integrate hardware and software solutions
- Material and hardware products will be deliverable end items



Task Order Scope

- Task orders may or may not include all phases of D3I PWS performance requirements
 - Small subcomponent technology development
 - Integration of subcomponents into a larger system
 - Software development system design or enhancement
 - All-encompassing task from design to fielding



Common Technical Support Areas Between Domains

- Domains will have common technical support areas
 - Level of significance relative to the overall purpose of the domain
 - Technology that is incidental to the overall product development will be included in the domain in which it is relevant
- For example:
 - C4ISR being incorporated in to a Space payload development task order is incidental to the overall task and therefore will be delegated to Domain 1
 - Enhancements of existing C4ISR capability may be delegated to Domain 2



D3I Requirements

- Requirements will include:
 - Providing solutions to capability gaps
 - Technology research and development
 - Integration of prototypes into systems and subsystems
 - Testing in a laboratory or relevant environment
 - Test and evaluation



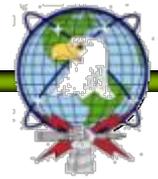
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Technical Briefings

- The next briefings will address representational examples of:
 - Current activities
 - Potential future work



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Space & Cyberspace Technology Directorate

**Presentation for the Design,
Development, Demonstration and
Integration (D3I) Industry Day**

01 March 2011

**Mr. Michael Lee
Chief, High Altitude Technology Division
Space & Cyberspace Technology Directorate
Technology Center**



Space & Cyberspace Technology Directorate

- Vision
 - Be a Recognized Science and Technology Leader and Partner for Army Space, High Altitude, and Cyberspace
- Mission
 - Develop, Integrate, Demonstrate, and Transition Space, High Altitude, and Cyberspace Technologies to PEOs, PMs, and Users to Provide for Current and Future Army and Joint Warfighter Capabilities



Space & Cyberspace Technology

Cyberspace



Cyber Defense Tools and Technologies

Supply-Chain Integrity

Algorithms and Software Applications

Multi-Source Data Integration and Exploitation

Enhanced Network-Centric Capability

Responsive Space



Operationally Relevant Small Satellites & Payloads

Responsive, Low Cost Launch Capability

High Altitude



Tactically Deployable, Unmanned, High-altitude, Platform and Payloads

Long-Endurance Missions

Payloads Capable of Communications, Wide Area Surveillance, Persistent ISR

Space Superiority



Information Superiority for the Tactical Warfighter

Focused Towards the Future Force

Rapidly Deployable

Responsive – Modular / Mission Flexible

Terrestrial Based

Filling Gaps in Warfighter Capabilities



On-going Efforts and Representational Examples

- Domain 1 and/or 3:
 - High altitude payloads, integration, and testing
 - Small satellite system development, integration, and testing
- Domain 2:
 - Exportable Combat Training Center
 - Supply Chain Resource Management program
 - Space-based data exploitation efforts



Anticipated New Initiatives and Representational Examples

- High Altitude
 - Logistics Lift Airship – Heavy-Lift Airship for TRANSCOM (Transportation Command)
- Cyberspace
- Space
 - Nanosat platforms and payloads
 - Ground stations
 - Launch capabilities



Conclusion

- Space & Cyberspace Technology Directorate will continue to pursue and execute large-scale demonstrations and developing supporting technologies
- Contract vehicles such as D3I will be required to leverage industry partners into our programs



*U.S. Army Space and Missile Defense Command/
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Army Space & Missile Defense Command High Energy Laser Technologies

**Presentation for the Design,
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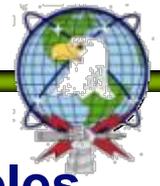
01 March 2011

**Dr. Kip R. Kendrick,
Chief, Directed Energy Division
Directed Energy and Missile Defense Technology
Directorate
Technology Center**

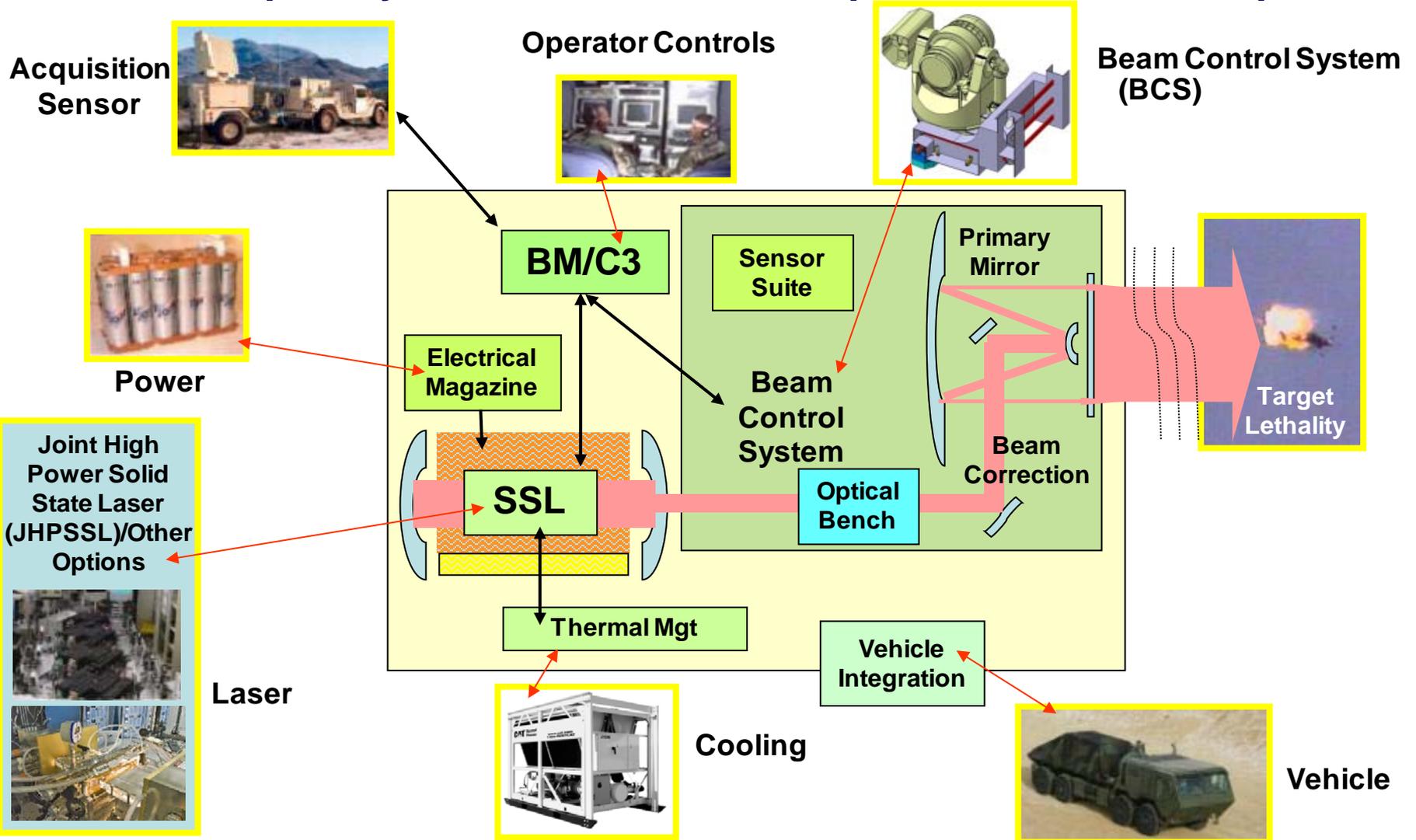
DISTRIBUTION A: Approved for public release; distribution unlimited.

"Secure the High Ground"

The sun never sets on USASMDC/ARSTRAT



HEL Weapon System Elements and Representational Examples



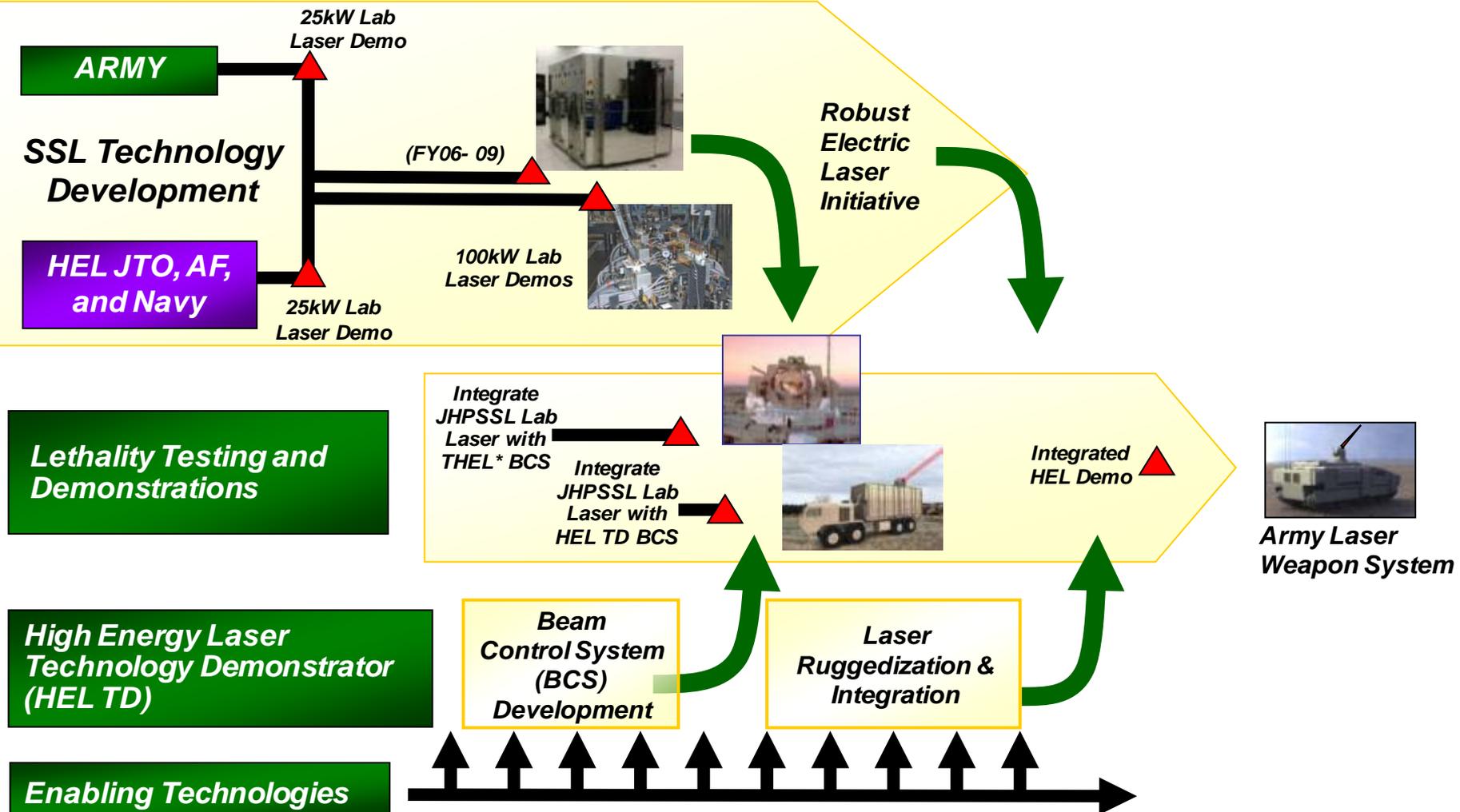
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"Secure the High Ground"

The sun never sets on USASMD/ARSTRAT



Army High Energy Laser S&T Summary and Representational Examples



DISTRIBUTION A: Approved for public release; distribution is unlimited.

"Secure the High Ground"

Fiber, Adaptive Optics, Power, Cooling

The sun never sets on USASMD/ARSTRAT



Representational Examples

- Domain 1 Examples:
 - HEL Weapon systems
 - Major Subsystems
 - High Energy Laser
 - Beam Control System
- Domain 3 Examples:
 - Enabling Technologies

** Existing efforts/programs listed as examples of the types of work that could be contracted under the D3I vehicle correlated to the appropriate D3I domains*



Conclusion

**The DE Directorate envisions
using the D3I contracts in the
future**



*U.S. Army Space and Missile Defense Command/
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Advanced Technology Division

**Design, Development, Demonstration
and Integration (D3I)**

Industry Day

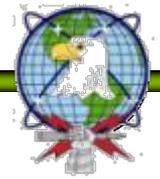
01 March 2011

**Mr. Dale Perry
Chief, Advanced Technology Division
Defense Technology Directorate
Technology Center**



Advanced Technology Division

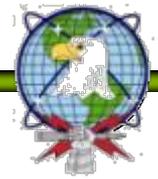
- The primary goal of the Advanced Technology Division is to develop and demonstrate advanced technologies to support the war fighter in the space, directed energy, and missile defense regimes.
- Focus Areas Include:
 - Weapons component development, integration, performance, and life cycle design.
 - Development of new interceptor technologies and systems.



Effort* Correlation to D3I Domains

Title	Description	Domains Supported		
		1	2	3
High Temperature Polymeric Composites	New High Temperature Composites With Higher Temperature, >500°F, Capabilities For Missile Applications	✓		✓
Integrated Composite Thermal Structures	Advanced thermal management of interceptor subsystems providing thermal conductivity comparable to copper at ~10% copper's mass	✓		✓
IED Forensics	New Methods for the Identification of IED components			✓
RF Weapons	New RF technologies to support RF weapons development	✓		✓

** Existing efforts/programs listed as examples of the types of work that could be contracted under the D3I vehicle correlated to the appropriate D3I domains*



Effort* Correlation to D3I Domains

Title	Description	Domains Supported		
		1	2	3
Advanced Strap Down Seeker (Test Bed)	Test bed to facilitate development of a single aperture dual-mode, gimbal-free seeker for space based target acquisition and hit-to-kill tracking involving single or multiple targets at significant ranges.	✓	✓	✓
High Speed Digital Imaging	Develop advanced infrared sensor capabilities to acquire targets at extreme range with high clutter backgrounds in the high endo/exoatmospheric environments.	✓	✓	✓
Advanced Measurements Optical Range (AMOR)	Collecting Electro-optical Signatures Of Missile And Space Objects In The Lab	✓	✓	✓

** Existing efforts/programs listed as examples of the types of work that could be contracted under the D3I vehicle correlated to the appropriate D3I domains*



Conclusion

- The Advanced Technology Division is Involved in the Development of Advanced Technologies for Missile Defense and to Support Our Army's Needs
- The D3I contract vehicle has the scope and will allow streamlined acquisition to develop technologies that will support the soldier:

**On Going Division
Interests (Examples)**

- **High Performance Materials**
- **Counter IED Efforts**
- **High Performance Interceptor/Kill Vehicles**
- **Information Assurance Technologies**



*U.S. Army Space and Missile Defense Command/
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Nuclear Arms Control Technology (NACT)

**Design, Development, Demonstration
and Integration (D3I)
Industry Day**

01 March 2011

**Mr. Buphus Nall
Nuclear Arms Control Technology Program
Test and Warfighter Solutions Center**



MISSION

- **Manage and execute the DOD's Nuclear Arms Control Technology (NACT) Program to enhance U.S. capabilities to meet national and the Comprehensive Nuclear Test Ban Treaty (CTBT) requirements for monitoring foreign nuclear weapons development and testing**
- **Support the DOD Treaty Manager's (ATSD(NCB)) implementation of, and compliance with, Nuclear Arms Control Agreements**





NACT Program: U.S. IMS Management

“Cradle to Grave” Management

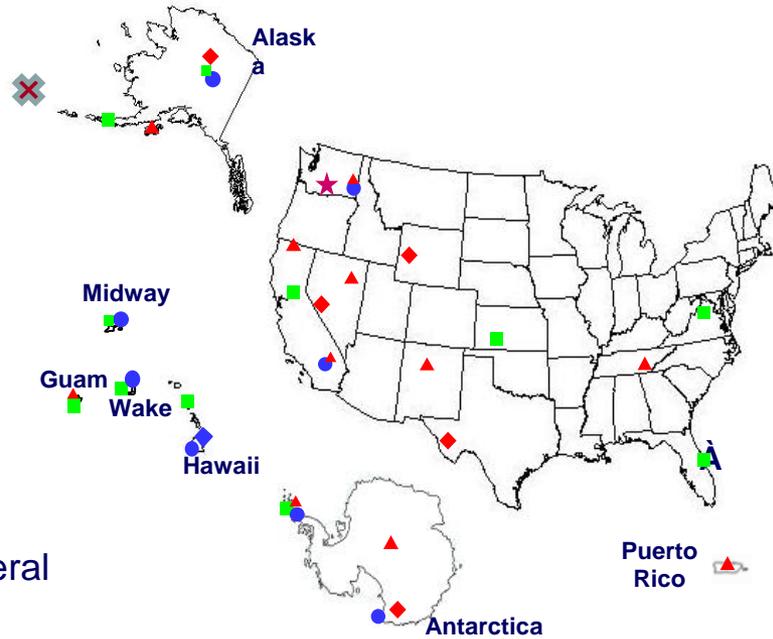
- Site Preparation
- Station Construction / Installation
- Documentation
- Preparing for United Nations Certification
- Operations / Maintenance / Sustainment
- Depot Operations
- Operator Training/Manuals
- Applied RDT&E

Managing / Coordinating

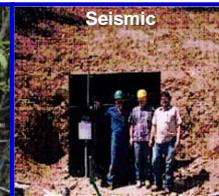
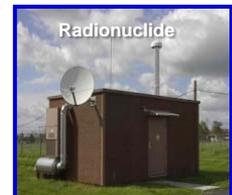
with Multiple Organizations

- O&M contractors
- Technology Development through several Universities
- U.S. DoD, other Federal, State, and Local Government agencies
- International Coordination with representatives from other countries under the CTBT (Comprehensive Nuclear Test Ban Treaty).

37 US International Monitoring System Stations
31 Managed by SMDC, 6 Managed by AFTAC



- ◆ Primary Seismic (5)
- ▲ Auxiliary Seismic (12)
- Infrasound (8)
- ◆ Hydroacoustic (1)
- Radionuclide (11)
- ★ Laboratory (1)
- ✕ Station Closed (1)





Potential Requirements

- Domain 1
 - Monitoring and Maintaining Stations
 - Infrasound
 - Radionuclide
 - Seismic stations
 - Hydroacoustic
 - Treaty
- Domain 3
 - Detection Devices
 - Development
 - Improvements

Existing efforts/programs listed as examples of the types of work that could be contracted under the D3I vehicle correlated to the appropriate D3I domains



Conclusion

**The NACT Program envisions
using the D3I contracts in the
future**



*U.S. Army Space and Missile Defense Command/
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Global Strike Division Advanced Hypersonic Weapon (AHW) Program

**Presentation for the Design,
Development, Demonstration and
Integration (D3I) Industry Day**

1 March 2011

**Mr. Terry Day
Advanced Hypersonic Weapons Program
Test and Warfighter Solutions Center**



Global Strike Division

Advanced Hypersonic Weapon (AHW) Program

Vision

To design, develop, and demonstrate a non-nuclear national capability utilizing hypersonic vehicle technology, to rapidly defeat high value, time-sensitive and decisive targets anywhere on the globe

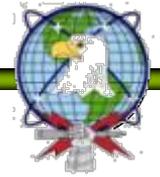
Mission Statement

Support the Test and Warfighter Solutions Center Mission Objectives in the design, development, and flight test of the Hypersonic Glide Body, based on existing technologies derived from the Sandia Winged Energetic Reentry Vehicle Experiment (SWERVE), the Tactical Missile System – Penetrator (TACMS-P), and the Strategic Target System (STARS), to demonstrate a possible solution to the Conventional Prompt Global Strike (CPGS) requirement

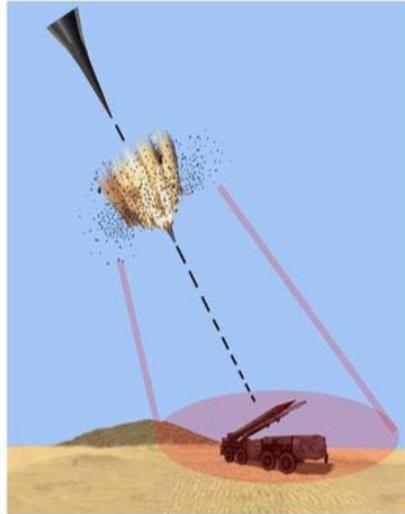
Goals

Focus on developing technologies and demonstrating capabilities applicable across the spectrum of CPGS solutions

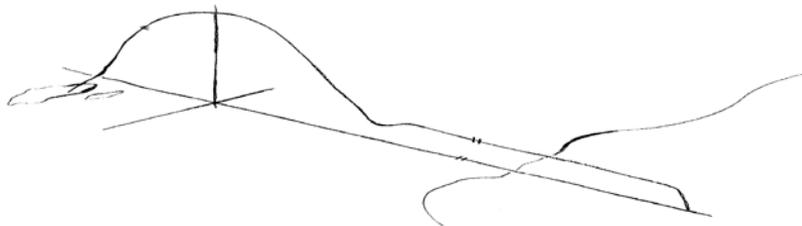
*Fulfill the role of risk mitigation path for the Conventional Strike Missile Program
Support CPGS technology maturation activities toward an operational deployment*



Advanced Hypersonic Weapon



- Designed to demonstrate technologies applicable across the Conventional Prompt Global Strike (CPGS) mission area
- Hypersonic Glide Body with global range capability
- Primary focus on advanced Navigation, Guidance, and Control (NG&C) and Thermal Protection Systems (TPS)





Work in Relation to D3I

- Future AHW type development efforts could be performed under Domains 1 or 3
 - Development of technologies similar to the hypersonic glide body
 - Development based on existing technologies

** Efforts/programs listed as examples of the types of work that could be contracted under the D3I vehicle correlated to the appropriate D3I domains*



Questions

SMDC will attempt to answer some of your questions when we reconvene at 2:30pm



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 - <http://www.smdc.army.mil/2008/D3I.asp>
- Contracting POCs are:
 - Melissa Mitchell, melissa.mitchell@smdc.army.mil, 256-955-4162
 - Steve Hayes, stephen.hayes@smdc.army.mil 256-955-3044
 - Summer McDermott, summer.mcdermott@smdc.army.mil, 256-955-2902