Major Defense Acquisition Program (MDAP) Trail Boss Overview and Joint Strike Fighter Decontamination Shelter System

Stephen Beaudoin
Platform Manager for Aircraft & Transportable Platform CBRN Survivability
508-233-5136
stephen.beaudoin@us.army.mil

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<th>5b. GRANT NUMBER</th>
<th>5c. PROGRAM ELEMENT NUMBER</th>
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<th>5f. WORK UNIT NUMBER</th>
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<tr>
<td></td>
<td>Joint Program Executive Office for Chemical and Biological Defense (JPEO-CBD), Joint Project Manager, Protection (JPM P), Washington, DC, 20301</td>
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**13. SUPPLEMENTARY NOTES**

7th Bi-Annual DOD JOCOTAS Meeting with Rigid & Soft Wall Shelter Industry & Indoor & Outdoor Exhibition, 1-3 Nov 2011, Panama City Beach, FL

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**15. SUBJECT TERMS**

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**19a. NAME OF RESPONSIBLE PERSON**

Standard Form 298 (Rev. 8-98)

Prescribed by ANSI Std Z39-18
## JPEO-CBD New Organizational Structure Implemented FY11

**Nine (9) Joint Project Managers**

- Joint Project Manager Collective Protection (MDAP Trail Boss)
- Joint Project Manager Individual Protection
- Joint Project Manager Decontamination

**Seven (7) Joint Project Managers**

- Integrates three JPMs and Trail Boss Initiative:
  - Individual Protection
  - Collective Protection
  - Decontamination
  - MDAP Trail Boss

<table>
<thead>
<tr>
<th>Joint Project Manager</th>
<th>Chemical Biological Medical Systems (Biosurveillance Trail Boss)</th>
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<tbody>
<tr>
<td>USMC</td>
<td>Joint Project Manager Transformational Medical Technology</td>
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<td>USA</td>
<td>Joint Project Manager Contamination Avoidance (Non-Traditional Agent Trail Boss)</td>
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<td>USN</td>
<td>Joint Project Manager Biological Defense</td>
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<td>USAF</td>
<td>Joint Project Manager Guardian (Integrated Base Defense Trail Boss)</td>
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<tr>
<td>DoD</td>
<td>Joint Project Manager Information Systems (Information Mgt/Technology Trail Boss)</td>
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</table>
JPM Protection: A diverse and accomplished workforce drawn from Stafford HQ, NSWC Dahlgren, ECBC and Natick (NSRDEC)
**Mission**
Facilitate the research, development, testing, procurement, operations and sustainment, and delivery of CBRN Survivability and Force Protection systems in support of DoD programs designated as CBRN Mission Critical and those requiring CBRN capabilities

**Vision**
Develop, demonstrate, and provide CBRN Survivability and Force Protection solutions that are integrated into DoD acquisition program architectures and schedules in order to provide capabilities that allow missions to be successfully performed in CBRN threat environments
Maximize DoD Return on Investment by Leveraging JPEO-CBD Expertise and Product Portfolio to Provide Programs with CBRN Survivability Capabilities
CBRN Survivability Support and Services

- Acquisition Strategy Development Support
- Systems Engineering of CBRN systems
- CBRN Assessment Support
- Technical Requirements Analysis, Development, and Management
- Customized, comprehensive CBRN defense solution for each weapon system program
- Development/Integration of CBRN equipment (as needed)
- Test & Evaluation (T&E) Support
- Logistics Support
- Modeling & Simulation (M&S) Support
- Documentation
- Technical Review Support
- IPT Support
- CBRN Subject Matter Expertise

Full Range of Acquisition Support
MDAP Trail Boss Support Process

Tailored to Meet the Customer’s Needs
## MDAP Support Status Snapshot

<table>
<thead>
<tr>
<th>Product Area</th>
<th>System</th>
<th>Support Status</th>
<th>Agreements</th>
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<tbody>
<tr>
<td>Fixed Site</td>
<td>US Strategic Command (USSTRATCOM)</td>
<td>Actively Supporting</td>
<td>MOU Approved</td>
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<tr>
<td></td>
<td>Missile Defense Agency (MDA)</td>
<td>Actively Supporting</td>
<td>MOA Being Staffed</td>
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<tr>
<td>Ships</td>
<td>DDG-51 FLT III</td>
<td>Actively Supporting</td>
<td>MOU Approved</td>
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<tr>
<td></td>
<td>USCG Off-shore Patrol Cutter (OPC)</td>
<td>Actively Supporting</td>
<td>IAA In process</td>
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<td></td>
<td>Ship to Shore Connector (SSC)</td>
<td>Actively Supporting</td>
<td>MOU Being Staffed</td>
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<tr>
<td>Ground Mobile</td>
<td>Brigade Combat Team Modernization (BCTM) <em>(Only Supporting MULE and SUGV Systems)</em></td>
<td>Actively Supporting</td>
<td>MOA Approved <em>(Being Updated)</em></td>
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<tr>
<td></td>
<td>Joint Lightweight Tactical Vehicle (JLTV)</td>
<td>In Discussions to Support</td>
<td>—</td>
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<tr>
<td></td>
<td>Ground Combat Vehicle (GCV)</td>
<td>In Discussions to Support</td>
<td>MOA In Process</td>
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<tr>
<td></td>
<td>Stryker Armored Fighting Vehicle</td>
<td>In Discussions to Support</td>
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<tr>
<td>Aircraft</td>
<td>Joint Strike Fighter (JSF)</td>
<td>Actively Supporting</td>
<td>MOA Approved</td>
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<td>KC-46A Tanker</td>
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<td>MOU In Process</td>
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<td>Integrated Aircrew Ensemble (IAE)</td>
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<td>Transportable</td>
<td>Mounted Soldier System (MSS)</td>
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<td>Air Soldier System (AirSS)</td>
<td>In Discussions to Support</td>
<td>MOA In Process</td>
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Actively Supporting All Services, Joint Organizations, and U.S. Coast Guard
• MDAP Trail Boss is the “Go-To” resource for assisting CBRN Mission Critical programs in meeting their CBRN requirements

• Maximize DoD return on investment by leveraging JPEO-CBD expertise and product portfolio to provide programs with CBRN Survivability capabilities
  – Reduce risk to CBRN solution development and integration
  – Maximize affordability
  – Provide single access point to the full spectrum of CBRN expertise
  – Tailored services to support programs’ cost, schedule, and performance requirements

• Ability to provide full range of acquisition support

• Weapon system programs get maximum benefit when MDAP Trail Boss Team engages early in the acquisition lifecycle
  – Pre-CDD is the optimal time
Joint Strike Fighter (JSF)
Decontamination Shelter System
• MOA between JPEO-CBD and PEO-JSF signed Jan 2010
• Deliverables
  – Joint Service Aircrew Mask-JSF Variant
  – Aircraft Decontamination System
• Live Fire Test & Evaluation 4QFY15
• Decontamination Processes
  – Chemical Agent: Hot Air - Dry
  – Biological Agent: Hot Air - Humid
JSF Decontamination Shelter System

Wide-Span Airbeam Shelter (HDT-Vertigo)

Large Capacity Field Heaters (HDT)

Chemical/Biological Protective Liner (Production Products)

Decontaminant Delivery System (STERIS)

Prototype to demonstrate Decon capability at the JSF Live Fire T&E 4QFY15
JSF Decontamination Shelter System

Wide-Span Airbeam Shelter (HDT-Vertigo)

Chemical/Biological Protective Liner (Production Products)

Large Capacity Field Heaters (HDT)

Decontaminant Delivery System (STERIS)
JSF Decon Shelter

- HDT Expeditionary Systems, Inc. Lake Elsinore, CA
- 5-beam version of the Aviation Inflatable Maintenance Shelter (AIMS)
- 112’L x 85’W x 39’H
JSF Decon Shelter Liner

- Production Products, St. Louis, MO
- Decon Liner, Insulation, Clam Shell Door, Shelter Attachment, Non-Destructive Anchoring, Airlocks

Half-scale liner

Full-size liner
JSF Decon System
Thermal/Airflow Analysis

HDT Engineering Services, Inc., Fredericksburg, VA

Air Temperature

Air Velocity w/16” ducts

Air Velocity Vectors

Air Velocity w/24” ducts
JSF Half-Scale Liner

- Erect/Strike Time
- Form/Fit/Function
- Heater Tests
- Negative Pressure Evaluation
- MeS Challenge/HAD Cycle
• Shelter/Liner/Heater integration and demonstration – Jan 2012
• Complete System Integration/Demonstration – 2QFY14
• Live Fire T&E – 4QFY15
Questions??