



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

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# JPM Protection/MDAP Trail Boss Overview





## JPEO-CBD New Organizational Structure Implemented FY11



Nine (9) Joint Project Managers Seven (7) Joint Project Managers





JPM Protection: A diverse and accomplished workforce drawn from Stafford HQ, NSWC Dahlgren, ECBC and Natick (NSRDEC)



### <u>Mission</u>

<u>Facilitate</u> the research, development, testing, procurement, operations and sustainment, and delivery of CBRN Survivability and Force Protection systems in support of <u>DoD programs</u> designated as CBRN Mission Critical and those requiring CBRN capabilities

#### <u>Vision</u>

Develop, demonstrate, and provide CBRN Survivability and Force Protection solutions that are <u>integrated</u> into DoD acquisition program architectures and schedules in order to provide capabilities that allow missions to be successfully performed in CBRN threat environments



## **MDAP Trail Boss Concept**



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**



Product Area	System	Support Status	Agreements
Fixed Site	US Strategic Command (USSTRATCOM)	Actively Supporting	MOU Approved
	Missile Defense Agency (MDA)	Actively Supporting	MOA Being Staffed
Ships	DDG-51 FLT III	Actively Supporting	MOU Approved
	USCG Off-shore Patrol Cutter (OPC)	Actively Supporting	IAA In process
	Ship to Shore Connector (SSC)	Actively Supporting	MOU Being Staffed
Ground Mobile	Brigade Combat Team Modernization (BCTM) (Only Supporting MULE and SUGV Systems)	Actively Supporting	MOA Approved (Being Updated)
	Joint Lightweight Tactical Vehicle (JLTV)	In Discussions to Support	—
	Ground Combat Vehicle (GCV)	In Discussions to Support	MOA In Process
	Stryker Armored Fighting Vehicle	In Discussions to Support	—
Aircraft	Joint Strike Fighter (JSF)	Actively Supporting	MOA Approved
	KC-46A Tanker	In Discussions to Support	MOU In Process
	Integrated Aircrew Ensemble (IAE)	Actively Supporting	MOA Approved
Transportable	Mounted Soldier System (MSS)	Actively Supporting	—
	Air Soldier System (AirSS)	In Discussions to Support	MOA In Process

Actively Supporting All Services, Joint Organizations, and U.S. Coast Guard

#### Summary

- 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





#### **JSF CBRN Survivability**

- 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





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



## **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 Vectors



Air Velocity w/16" ducts



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



