Receipt of this information does not constitute a commitment, intended or implied, on the part of the US Government to sell or furnish the equipment, systems, or information discussed in the data or briefing until such time a final US Government decision has been made concerning the sale of such equipment, systems or information.
# LOWER TIER PROGRAM

## OVERVIEW (U)

### Technology & Development

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### Software

- PDB-6.5.2 (Fielded)
  - Initial MSE
  - Mode 5 IFF
  - Single Bit
  - ECP 24

- PDB-7 Software
  - MAP, MMS

- PDB-8 Software
  - EWCC-E
  - FSC-R
  - RDP-C
  - PE-1

- US Appropriations
- US Unique w/ FMS
- Shared with International / FMS

## Recap

- • ECP (Field Surveillance Program)
- • GEM (Guidance Enhanced Missile)
- • GSE (Guidance Enhanced System)
- • LW (Low Rate Initial Production)
- • MAP (Modern Adjunct Processor)
- • MSE (Missile Segment Enhancement)
- • MRT/ERT (Missile Round Trainer/Empty Round Trainer)
- • PAC-3 (PATRIOT Advanced Capability 3)
- • PDB-7 (Post Deployment Build Number)
- • PDB-8 (Post Deployment Build Number)
- • RDP (Radar Digital Processor)
- • JTAGS (Joint Tactical Ground Station)
PATRIOT BATTALION
OVERVIEW (U)

Battalion Headquarters
- Tactical Command Station (TCS)
- Information and Coordination Central (ICC)

Firing Battery (Up to 6 Per Battalion)
- Phased Array Radar Set (RS)
- Semi-Active (GEM-T)
- Active (PAC-3)
- Engagement Control Station (ECS)
- Guided Missiles (GM)
  - 16 Ready-to-Fire PAC-3 Missiles – Hit-to-Kill
  - 4 Ready-to-Fire GEM-T Fragmentation Warhead

- Electric Power Plant (EPP)
- Launching Station (LS)
  - 4 GEM-T Launchers
  - 2 PAC-3 Launchers

Communications Relay Group (CRG)
Antenna Mast Group (AMG)
Battalion Maintenance Equipment (BME)
PATRIOT MISSILE & LAUNCHER INVENTORY(U)

**Anti-Tactical Missile (ATM) (PAC-2)**
- TBM HE warhead kills against threats
- Kills against more stressing threats
- Lower altitude intercepts

**Guidance Enhancement Missile (GEM)**
- Improved TBM HE warhead kill vs more stressing threats
- Robust performance against air breathing threats
- Robust cruise missile defense

**PAC-3 Missile (Initial Production)**
- Improved anti-TBM performance
- Lower altitude intercepts

**GEM Upgrade (Cost Reduction Initiative)**
- Reduction of missile cost
- C 8X band uplink / down link capability
- Improved reliability
- Maintains PAC-3 Missile Performance Capability

**PAC-3 MSE Missile (Missile Segment Enhancement)**
- Increased Engagement Envelope
-Insensitive Munitions (IM) Improvements

**Inventory**

**Upgrade / Recert**

**Production**

**EMD**

**M901**
- Currently Fielded
- GEM Only

**M902**
- Currently Fielded
- Incorporates Enhanced Launcher Electronic System (ELES)
- 4- GEM or 16 PAC-3

**M903**
- Fielding in conjunction with MSE FUE
- Incorporates ELES & MSE Modifications
- 12 MSE or 4-GEM or 16 PAC-3
- Mix load capable; as depicted
PATRIOT GROUND SUPPORT SYSTEM (U)

- Radar Set (RS) (1)
- Antenna Mast Group (AMG) (1)
- Electric Power Plant III (EPP III) (1)
- Engagement Control Station (ECS) (1)
- PAC-3 Launching Station (LS) (2)
- PAC-2 Launching Station (LS) (4)
- Battery Command Post (BCP) (1)
- Heavy Expanded Mobility Tactical Truck (HEMTT) (7)
- Small Repair Parts Trailer (SRPT) (1)
- Large Repair Parts Transporter (LRPT) (1)
- Battery Maintenance Center (BMC) (1)
• Radar Digital Processor Configuration (RDP-C)
  - Supports Full Performance of PAC-3 MSE missile
  - 40% Improvement in reliability of the radar
  - 64 Module Types Replaced with 6
  - 432 Total Modules to 12

• Modern Adjunct Processor (MAP)
  - Platform for future capabilities growth via S/W
  - Facilitates Integration of MMS,RDP
  - Incorporates communications Upgrades

• Modern Man Station (MMS)
  - Enhanced situational awareness & modernized user interface
  - Upgrade Replaces 221 Obsolete Parts in 41 Assemblies

• Missile Segment Enhancement (MSE)
  - Engages Maneuvering and Advanced Threats Early
  - Designed to Provide Increased Maneuverability
  - Single Canister Provides Desired Logistical Flexibility

• Enhanced Launcher Electronic System (ELES)
  - Upgrades Existing legacy Launcher to Fire PAC-3/ MSE
  - Provide operational flexibility

• Enhanced Weapons Control Computer (EWCC)
  - Provides 35-50% additional processing throughput for software enhancements to address the evolving threats
  - Replaces obsolete EWCC assembly, with a single SBC and EWCC emulation SW in the MAP Chassis

PATRIOT Weapon System Acquisition Strategy Captures the P3I Modernization & Incremental Improvements
PATRIOT TRAINERS SUPPORTS END TO END TRAINING (U)

**PCOFT**
Operation Training
(Running on RT3 Platform)
(Operational)

**POMT**
Org Maint Trainer
(Maintenance)

**PMET**
Intermediate Maint Trainer
(Maintenance)

Training Benefits:
• Increased Student Throughput
• Less Reliance on MEIs
• Decrease O&S Costs

Equals =
• Leverages Existing Hardware to Facilitate IM Level Training
• Reduces dependency on tactical equipment

PCOFT – PATRIOT Conduct of Fire Trainer
RT3 – Reconfigurable Table Top Trainer
P-MET – PATRIOT Multi-Echelon Training
POMT – PATRIOT Organizational Maintenance Trainer
PMT – PATRIOT Maintenance Trainer