Evolving Joint Needs & Desired Joint Military Capabilities

Moderator: Mike Knollmann
ADUSD (Joint & Coalition Operations Support)
Defense Research & Engineering

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Capability Transition Environment

Disruptive Innovation

Degree of change

Incremental Enhancement

Highly adaptive solutions to current problems

Evolutionary solutions to future challenges

Revolutionary solutions to future challenges

Program Objective Memorandum

Analyses

Concept Initiation

Experimentation

Prototypes

R&D

Demonstrations

Transition

Test & Evaluation

Acquisition

Joint Training

Incremental enhancements to current capabilities

Evolutionary solutions to future challenges

Program Objective Memorandum years

time

Extended Planning Period
# Joint Capability Areas

## Force Application
- Movement & Maneuver
- Joint Fires
- Territorial Control
- Surface Warfare
- Undersea Warfare
- Maritime Warfare
- Littoral Expeditionary Operations

## Command & Control
- Command Leadership
- Command Structures
- Cdr Intent, Guidance
- Operational Planning
- Govt Interagency Integration
- Mission Partner Leverage

## Net Centric
- Information Transport
- Network Management
- Information Assurance
- Enterprise Services
- Applications
- Knowledge Management

## Battlespace Awareness
- Information Transport
- Network Management
- Information Assurance
- Enterprise Services
- Applications
- Knowledge Management

## Protection
- Conventional Weapon Protection
- Personnel Recovery
- WMD Threat Protection
- Terrorist Threat Protection
- Exploitation Threat Protection

## Logistics
- Joint Deployment/Distribution
- Agile Sustainment
- Operational Engineering
- Joint Health Protection
- Joint Theater Logistics
- Log Information Fusion

## Influence
- Public Affairs Ops Planning
- Public Information
- Community Relations
- Military Diplomacy
- Security Cooperation
- Presence

## Force Support
- Man
- Equip
- Organize
- Skills Development
- Global Posture
- Global Force Management

## Corporate Mgt & Support
Development Model for Acquisition Solutions

Transition to Procurement & Sustainment
- Joint Training

Readiness & Suitability Confirmation
- Test & Evaluation
- Military assessment of utility

Functional Validation; Tailored Form/Fit/Function
- DOTMLPF construct development and confirmation
- Demonstration

Technical Concept Design & Development
- Prototyping

Alternatives Development & Assessment
- Experimentation
- Red Teaming Analysis

Conceptualization
- Needs identification/lessons learned/assessment
- Tech push exploitation

Maturity of Operational Concept and Technology

more

less
Technology-Based Capability Transition Transition Programs

**Defence Research & Engineering**

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<thead>
<tr>
<th>TRL 1</th>
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<tr>
<td><strong>Output</strong></td>
<td><strong>Process Development</strong></td>
<td><strong>System Development &amp; Demonstration</strong></td>
<td><strong>Production &amp; Deployment</strong></td>
<td><strong>Operations &amp; Support</strong></td>
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**Technology Development**

- Initial Product/Process Capability
- Product/Process Development
- Product/Process Insertion
- Product/Process Improvement & Sustainment

**Service S&T, DTRA and DARPA Programs**

- SBIR Phase I
- SBIR Phase II
- SBIR Phase III
- CWID (US)
- JWP
- CWP
- CoCom Initiative Fund
- ACTDs/JCTDs

**COCOM/Joint/Coalition focused – Demo 1-4 yrs**

**USSOCOM R&D and Acquisition**

- USJFCOM: JE/JI&I/JSIC (with Limited Acquisition Authority)
- QRSP Quick Reaction Fund/ RRF – RRTO / JIEDDO
- Joint Test & Evaluation (JT&E)

**USJFCOM: JE/JI&I/JSIC (with Limited Acquisition Authority)**

- 6-12 mos fielding
- Acquisition “On” Ramp – Test to Procure Tech Refresh
- Service, SOCOM Nominated Test to procure
- Congressionally Directed – DOD Lab Tech Push
- Defense Acquisition Challenge
- Foreign Comparative Testing
- Tech Transition Initiative
- Independent Research & Development (Contractor Funding)
- JFIIT/JSIC

**Tech Transfer**

- Manufacturing Technology
- Title III of the Defense Production Act
**Needs to Solutions: Integrated but Separate Processes & Roles**

### Needs Process
1. Develop & specify needs
2. Review & comment on budget-based programming and acquisition solutions
3. Allocate resources to joint/combatant commanders

### Needs Roles
- CJCS/JCS
- CoComs
- Joint Staff
- Military Staffs
- CoCom/Component Cdr Staffs

### Acquisition Solutions Process
1. Consult with needs authorities in development of acquisition solutions
2. Acquire material solutions based on validated needs and budget-based programming
3. Deliver resources (acquisition products) for allocation to joint/combatant commanders

### Solution Roles
- USD (AT&L)/DAE
- Service Secretaries/SAEs
- OSD (AT&L) Staff
- Service Secretariat Staffs
- Systems/Materiel Commands
- Military Agencies

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**PPBES: Program – Budget Process**
CoCom Options: Needs Translation Into Capabilities

Component Commander Advocacy (With Parent Service/Agency)

- Needs must align with core Service/Agency military capabilities
- Normally, constrained to PPBES solutions/out-year solutions

Integrated Priority List (IPL) Submission/ Senior Warfighter Fora (SWarF)

- If long-standing, can be opening input to Service/Agency POM process
- Basis for Service program review & adjustment after Service POM closes
- Some execution year relief; often yield out-year solutions

Capability Transition Program Participation

- Relatively rapid response (0 to 3 years); well adapted for serving joint needs
- Limited funding, limited capability residuals
- Potential on-ramp for spiral technology improvement or program initiation
- Bridges capability gap until PPBES delivers sustained solution
Mr. Doug Richardson, US Special Operations Command

Mr. Mel Chaloupka, US Pacific Command

Mr. Shawn Spencer, US Strategic Command
Evolving Joint Needs & Desired Joint Military Capabilities
### Characterization of Acquisition Processes

<table>
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<tr>
<th>Process</th>
<th>Key Features</th>
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<tr>
<td><strong>JRAC</strong></td>
<td>✓ Attuned to CoCom timelines</td>
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<td>✓ Well adapted for integrating joint solutions</td>
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<td>✓ Rapid, responsive, flexible program</td>
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<td>✓ Decentralized execution</td>
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<td>✓ Transformation engine; innovation enabler</td>
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<td>✓ Small, non-traditional business “on-ramp”</td>
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<td>✓ “Try before you buy” cost control mechanism</td>
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<td>✓ Spiral improvement generator; risk mitigation</td>
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<td><strong>Delivers within 2 years</strong></td>
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<td><strong>Agile/”Limited” Acquisition Process</strong></td>
<td><strong>Delivers between 1 and 3 years</strong></td>
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<tr>
<td></td>
<td>✓ Optimized for delivery of complex systems</td>
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<td></td>
<td>✓ Methodical oversight and synchronization</td>
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<td>✓ Includes sustainment resources</td>
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<td>✓ Well adapted to individual Service cultures</td>
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<td>✓ Scalable for large-scale military solutions</td>
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<td><strong>Delivers between 4 and 11 years</strong></td>
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# Military Capability Transition Programs

**Defense Research & Engineering**

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- Joint Training

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| JWP |

| JAWP |