Agile Acquisition Processes
For
Joint Capabilities

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OIF underscored role of joint capabilities

- OIF lessons learned reinforce role of joint capabilities
- Joint capabilities initially limited to strategic level: integration of segregated component commander activities
- OIF lessons learned portrayed expanding requirements for core joint capabilities at strategic, operational and tactical levels
What are Joint Capabilities?

Agile Acquisition Perspective

**Unique Regional/Specified Mission Needs**

*Capabilities beyond common core military elements required by warfighters to effectively function in operational environments for joint regional or specified missions.*

**Joint Enabling Capabilities**

*Additional capabilities required by warfighters to exercise joint command, and to enable core military elements to function effectively as a coherent joint force.*

**Multi-Service Core Capabilities**

*Common denominator Military forces provided worldwide as self-integrated, self-sustaining echelons by the Services.*
Developing Solutions for Joint Needs: Aligning Solutions Process with Joint Realities

- Emergent Needs
- Agile Solutions
  - Sustained capabilities
  - FYDP budgeted
  - Centralized solutions process
- Deliberate Needs
  - Executive/Budget Year initiatives
  - Engine for flexibility and innovation
  - Successful initiatives can transition into deliberate process
  - Tolerance for diversified, decentralized solution processes

JPIDS-identified Deliberate Needs

Developing Solutions for Joint Needs: Aligning Solutions Process with Joint Realities
Balanced Score Card Acquisition

Rapid, responsive, flexible program
- Decentralized execution
- Transformation engine; innovation enabler
- Small, non-traditional business “on-ramp”
- “Try before you buy” cost control mechanism
- Potential spiral improvement generator

Checks & balances for accountable acquisition
- Optimized for delivery of complex systems
- Methodical oversight and synchronization
- Includes sustainment resources
- Well adapted to individual Service cultures
- Scalable for large-scale military solutions
Agile Acquisition Processes

- **Initial Product/Process Capability**
- **System Development & Demonstration**
- **Product/Process Improvement & Sustainment**
- **Science & Technology**
- **Research & Engineering**
- **Service S&T and DARPA Programs**
- **JFCOM Prototypes**
- **Service Rapid Acquisition Programs**
- **ACTDs/JCTDs**
- **QRSP Quick Reaction Fund/ CTTTF/ IED Task Force**
- **Defense Acquisition Challenge**
- **Foreign Comparative Testing**

**Service**
- A: Concept & Technology Development
- B: Product Development
- C: Product Improvement & Sustainment

**Technology**
- TRL 1
- TRL 2
- TRL 3
- TRL 4
- TRL 5
- TRL 6
- TRL 7
- TRL 8
- TRL 9

**Proc & O&M**
- 6.1
- 6.2
- 6.3
- 6.4
- 6.5
- 6.7

**Processes**
- A: Initial Product/Process Capability
- B: System Development & Demonstration
- C: Product/Process Improvement & Sustainment

**Joint/Coalition focused – Demo 2-4 yrs**
- 6-12 mo fielding
- Congressionally Directed – Tech Refresh
- Service Driven – Test to Procure

**Independent Research & Development** (Contractor Funding)

**Manufacturing Technology**

**Tech Transition Initiative**

**Title III of the Defense Production Act**

**Connects the commercial sector to DoD sharing the best from both for mutual benefit**
AS&C ACTD/JCTD Program Philosophy:

• Seek effective processes to **rapidly** respond to CoCom needs for capabilities providing decisive battlefield advantage

• **Focus on primary customers:** Combatant Commanders
  
  *Provide sustainable joint warfighter capabilities*
  
  *Emphasize transformational technology & operations*

• **Rapidly field transformational mature technologies with complementing tactics, techniques and procedures**

• **Generate, demonstrate and field “80% solutions”**
  
  *Aim for fast delivery of hands-on prototypes*
  
  *Keep moving - maintain rapid spiral tech insertions*

• **Pursue coalition partnerships**

• **Engage Services in joint ventures – and TRANSITION!**
  
  *Seek equitable new processes to field & sustain joint capabilities*

Get critical joint capabilities based on emergent technology effectively fielded & sustained!
ACTD Timeline

Emphasis placed on spiraling out confirmed capabilities as quickly as practicable
Assessing the ACTD Program…

Where Have ACTD’s Excelled?

• Showcasing innovative technical & TTP solutions
• Nurturing concepts without established communities of interest
• Fielding capabilities “just in time” to address emergent threats
• Addressing emergent critical technology needs & opportunities
• Highlighting limitations of Service-centric PPBES process
• Forging Service/Agency partnerships to address joint needs
• Embracing CoCom joint and coalition warfare needs
**ACTD/JCTD Transition Models**

**Transition to Program of Record**
- Military utility successfully demonstrated
- Concepts adopted by warfighters
- Products transferred to Program of Record (POR) or GSA schedule
- Acquisition of additional capability funded

**Residual Meeting Need of Warfighter**
- Military utility successfully demonstrated
- Concepts adopted by warfighter
- Products may or may not have been sent to a POR
- Residual quantities fully meet warfighter needs and are being maintained.

**Return to Technology Base**
- Military Utility not successfully demonstrated
- Components or capabilities may be incorporated into other systems, transferred to the technology base or terminated.
JCTDs Offer Significant Benefits

ACTDs

- Innovative & joint efforts
- Partnerships serving CoCom needs beyond core Military capabilities
- Unique perspective on challenges of transitioning proven joint capabilities into acquisition

JCTDs

- Tailors solutions to CoCom needs
- Yields faster starts, faster deliveries
- Structures funding to permit Service participation without “breaking” programs
- Pilots “top-down” DAE process for joint acquisition
- Provides “window on joint investment”

“DoD has a long way to go to ensure that our acquisition process achieves the appropriate jointness and interoperability needed in the 21st Century” SECDEF Snowflake (2004)
<table>
<thead>
<tr>
<th>Year 1 &amp; 2: Year 3 (and 4 if necessary)</th>
<th>Transition to Acquisition and/or Sustainment</th>
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</thead>
<tbody>
<tr>
<td>Congressional Notification</td>
<td>Military Utility Assessment Completed</td>
</tr>
<tr>
<td>DUSD (AS&amp;C) Direct Funding to Program Offices (Stable Profile)</td>
<td>Funding profile is visible – Cost shares will vary depending on project costs (POM-08 initiative)</td>
</tr>
<tr>
<td>OSD Provides First two years of Service Dollars (New JCTD PE)</td>
<td>Army PE (BA-3)</td>
</tr>
<tr>
<td>Navy PE (BA-3)</td>
<td>Air Force PE (BA-3/4)</td>
</tr>
<tr>
<td>Marine Corps PE (BA-3)</td>
<td>DARPA PE (BA-3)</td>
</tr>
<tr>
<td>DAE Pilot Program</td>
<td>Selected JCTDs</td>
</tr>
<tr>
<td>Provides Defense Wide RDT&amp;E (BA-5), and Procurement funding to Joint Program Office(s) or Component PEOs for initial/rapid fielding of capabilities.</td>
<td></td>
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<tr>
<td>Transition decision made by DAE (in consultation with TTC)</td>
<td>Joint Capabilities provided to CoCom Joint Warfighters</td>
</tr>
<tr>
<td>Service/Agency Sustainment of Deployed Capability</td>
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**Additional JCTD Resource Partners**
- Defense and Non-DoD Agencies
- Coalition Partners
- CoCom Support
Defense S&T infrastructure is predominantly Service organizations investing in technologies supporting core Military capabilities.

Most joint capabilities include technologies that are developed and acquired by Services as adjuncts to core Service deliverables.

PPBES leaves little room for exploitation of unanticipated discoveries.

Truly innovative joint ventures tend to become program orphans because they represent “unshared bills” to individual Services.

Joint aspects of technology investments by Services are frequently the last adds to Service budgets – and the first to go when dollars are tight.

CoCom perceived joint requirements are usually near-term, requiring emergent/mature technologies and tailored employment concepts.

Coalition efforts involve “time & complexity tax” that can delay introduction, equating to diminished technology advantage at fielding.
**How Are Joint/Coalition Solutions Acquired & Sustained? Success & Risks**

**Distributed Procurement** …multiple Services and/or agencies agree to acquire system elements with intention of combining in the field to yield a coherent joint operational capability.

Risk…Service-centric solutions migrate away from seamless interoperability.

**Trusted Service** …Single Services tasked or volunteered to act as DoD agent for acquisition of joint systems to be used by other Services.

Risk…Joint aspects first sacrificed to emergent budget constraints

**Joint Program Office** …JPMO formed to develop, field joint capability

Risk…Joint Offices proliferate.

**CoCom Direct Procurement** …CoCom refines requirement, then fields and, in some cases, sustains joint capability

Risk…Duplicated efforts if coordination mechanism not emplaced

*Regardless of acquisition strategy, joint capabilities must still find Service home for sustainment*
Agile Acquisition Processes

For

Joint Capabilities
Responsiveness to the Joint Warfighter: Need – Solution Dynamics

Critical Elements:

- Needs Determination/Resource Allocation Process
  - What do joint commanders need to execute their mission?

- Funding Apportionment/Program & Budget Process
  - Does funding reflect the end warfighter needs for core military capabilities and specific joint capabilities?

- Acquisition/Solutions Process
  - Is the DoD acquisition process (writ large: life cycle) generating warfighting resources relevant to joint customer needs

Needs without funding are just wants...

Acquisition without validated needs is wasteful and potentially disruptive
Need to Solution: 
Processes & Roles

**Program – Budget Process**

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

**Acquisition Solution 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

**Need Roles**
- CJCS/JCS
- CoComs
- Joint Staff
- Military Staffs
- CoCom/Component Cdr Staffs

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

- 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
To cap the grim day, three al Qaeda-style seaborne bombs driven by suicide killers attempted to destroy Iraq’s main revenue lifeline, Basra’s offshore oil terminals that have been handling up to 21.6 million barrels a day. Two US sailors were killed and five injured intercepting one of the three lethal speedboats. Two more blew up near the oil rig 7 miles out to sea where tankers were moored.

**SPARTAN CORE SYSTEM**

- Communications link independent
- Common mission module interface
- Off-the-shelf components
- Distributed architecture
- Open source software
- Minimize effort to exchange Mission Modules
- Ensure interoperability in joint and coalition environment
Joint/Coalition Technology Success
Advanced Transportation: TSV

**Increase Throughput:**
- Soldiers, equipment, leaders go together
- Reduce battlespace RSO&I

**Increase Survivability:**
- Threat identification system
- Active/Passive rockets/missile defense

**Increase Situational Awareness:**
- Army crewed and armed
- Enroute mission planning
- Joint interoperable communications

**Increase Responsiveness:**
- Rapid worldwide responsiveness
- Access to austere ports
- Increase access points within theater

**Improve Closure Rates:**
- 36 to 50 knots (~31 to 58 mph)
- Sustained deployment momentum
- Offset/complement intra-theater airlift
- Provide Intermodal Operations Capability
- Shallow draft (less than 18 feet)
Joint Technology Success

Networking/Human Systems: JEOD KTOD
Joint/Coalition Technology Success

Data Fusion: Area Cruise Missile Defense

**WARFIGHTER PAYOFF**
- Limited “single integrated air picture” using JCTN, JDN, and host nation radar sensors
- Enhanced small, low altitude air object detect capability for cruise missile defense
- Improved Full-Dimensional Protection
- Enhanced Air Superiority

**MATURE TECHNOLOGY**
- Proven radar sensors and C2 mediums.
- Maturing fusion/correlation engines.

**INTERIM (RESIDUAL) CAPABILITY**
- Mobile, tactical interface with fusion/correlation engine and data link for increased interoperability.
- Test range for continued CMD testing and TTP development.
Joint/Coalition Technology Success
Data Integration: ADOCS

ADVANCED SYSTEMS AND CONCEPTS

MIDS
- Integrated Database

AMPS
- Air Routes

Radar
- Q-36
- Q-37

IPL
- Imagery

IOS
- Tracks
- Unit Reports
- Order of Battle

AFATDS
- Fire Missions
- Fire Plans
- Measures
- Status and Location

C2PC
- Overlays

GCCS / GCCS-M
- Tracks
- Unit Reports
- Overlays

GCCS-A
- Enemy and Friendly
- Order of Battle
- Tracks
- Overlays

TBMCS
- Nominations
- ATO/ACO
- Air Operations DB

MCS
- Blue Order of Battle
- Overlays

ASAS/RWS
- Overlays
- Enemy OB
- TACELINT
- Radar Reports
- Target Nominations

JWS
- Radar Reports
- MTI

No Strike List

Restricted Target List

FALCONVIEW
- Overlays

IFSAS
- Weather
- Fires Information

SBMCS
- Ground Tracks
- GPS Accuracy

CGS
- UAV

ADSI
- Air Tracks
The Active Denial System ACTD will produce the first non-lethal counter-personnel directed energy weapon for the battlefield.

It uses breakthrough technologies that will provide an unprecedented standoff non-lethal capability to complement lethal weapons across the military force spectrum.

The ADS will provide the warfighter a dramatically new and different non-lethal capability with unparalleled range, speed, and universal effects.
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