Joint Capability Technology Demonstrations (JCTDs)

FY08 Process

U.S. Strategic Command

ACTD/JCTD Conference

August 1, 2006
Joint Capability Technology Demonstrations (JCTDs)

• A coherent approach that provides a means for demonstrated new joint and coalition capabilities to transition without traditional barriers (a “cradle to grave” model).

• Developed to address concerns of CoCom customers, USD (AT&L) and Comptroller, GAO, DSB, & Congressional Staff.

• Introduce a new generation of demonstration processes: faster start, reduced risk, enabling Service partnerships and assured transition.
What are JCTDs?

• Joint, Coalition & Interagency

• Demand Driven (~ 80%)
  - Capability Needs
  - CoCom Specific / CoCom Common

• Transformational (~ 20%)
  - Disruptive Innovation
  - Tech Push
Areas of US / Coalition Risk

Irregular
- PSYOPS ACTD
- Theater Effects Based Operations
- Active Denial system
- CHAMPION JCTD

Catastrophic
- Classified WMD
- Agent Defeat Warhead
- CASPOD
- CMA JCTD

JCTDs will continue to meet traditional needs that are joint, coalition and/or inter-agency seams and gaps.

Traditional
- JMID JCTD (though traditional in definition, it meets the “joint” characterization).

Disruptive
- Predator/Global Hawk
- MANPACK
- Net Centric Collaboration Targeting
- LARGE Data JCTD

Likelihood

Vulnerability

Higher

Lower
What Does JCTD Success Look Like?

• COCOM Demand Driven
• Quicker Starts and Finishes
• Increased Transition
  - Transition new capability to a Program of Record
  - Start a new Program of Record
  - Risk reduction or cost reduction to a Program of Record
• “Game Changers” (e.g., Change of doctrine)
• “Big Bets” -- transformational, new capability
## ACTD-JCTD Wing Walk: Enhancing Business Model for Joint Customers

<table>
<thead>
<tr>
<th>Combatant Commander remains the Primary Customer</th>
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<tr>
<td><strong>Advance Concept Technology Demonstration (ACTD)</strong></td>
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| o Final Demonstration: 3-4 years | • Final Demonstration: 2 - 3 years with spiraled-out capabilities.  
**Impact**: Mature capabilities demonstrated to the joint warfighter faster. |
| o Challenging ACTD selection process: CoCom near-term versus rigid PPBE 2 year resource process. | • Greater CoCom Focus through JCTD Selection Process: Stakeholders have decision in resource allocation for funds already set-aside.  
**Impact**: JCTDs maintain relevancy/purposely resourced for success. |
| o OSD provides limited funds: Services required to “break” programs to fund new capabilities. | • JCTD Resources (Quick Start): OSD provides majority Service funding for the first two years of the JCTD.  
**Impact**: Accelerate JCTD initiation and increase funding stability. |
| o Difficult to track ACTD funding in Service lines (multiple Program Elements). | • JCTD-specific Program Elements Created. **Impact**: Increase funding accountability and tracking. Provides time for Services to POM for selected JCTDs. |
| o ACTDs face difficult Transition challenges, creating “joint & coalition orphans.” | • JCTD Transition stability: Funding across the Acquisition process. DAE pilot program  
**Impact**: Prevents delays and provides a strong advocate for “joint orphaned” capabilities. |
## Performance Metric Comparison

### ACTD - JCTD

<table>
<thead>
<tr>
<th>Performance Metric</th>
<th>ACTD</th>
<th>JCTD</th>
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<tr>
<td><strong>Project Selection Focus</strong></td>
<td>Threat Based: Shared Military Service and CoCom influence</td>
<td>Capability Based: Greater CoCom influence looking at nearer term <strong>joint/coalition</strong> needs..</td>
</tr>
<tr>
<td><strong>Spiral Technologies</strong></td>
<td>No Metric currently established</td>
<td>Spiral Technology available within <strong>one year</strong> of JCTD initiation.</td>
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<tr>
<td><strong>Final Demonstration Completed</strong></td>
<td>3 to 4 years after initiation (Implementation Directive (ID) Signed)</td>
<td>50% completed by the end of the 2\textsuperscript{nd} year. All JCTDs completed by the end of the 3\textsuperscript{rd} year.</td>
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<tr>
<td><strong>Shared Funding and Visibility of resources</strong></td>
<td>OSD provides no more than 30% of the budgeted resources. Funding provided from many different program elements.</td>
<td>OSD provide significantly more funding (more than 50% depending on cost of the JCTD), especially in the first two years.</td>
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<tr>
<td><strong>Military Utility Assessment (MUA) conducted by an independent activity</strong></td>
<td>MUA traditionally tied to a specific planned exercise for evaluation</td>
<td>JCTDs not necessarily tied to an exercise. Greater flexibility to establish military utility via operational “real-world” demonstration or specifically designed test / venue</td>
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<tr>
<td><strong>Transition of technology</strong></td>
<td>70% of ACTDs transition at least one product to sustainment</td>
<td>80% of JCTDs transition at least 50% of their products to sustainment</td>
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Source: FY 2006 President’s Budget
AS&C JCTD Current Efforts

• **Transition ‘fully’ to JCTDs**

• Develop **JCTD Operating Guidelines**
  - Retain Flexibility & Respond Rapidly

• Improve / Integrate **CoCom Lead with JFCA Lead Processes** to serve effectively!

• **Institute KIMS** to streamline JCTD Process
  - Promote efficiencies between CoComs/Services/OSD/Agencies, ...Industry/Coalition

• **Revamp Military Utility Assessments**
  Process to better serve CoComs and Transition
FY07 ACTD/JCTD Process

Service/Partnership Meetings

FY07 Proposal Finalization

Candidate Review

Needs Validation

5-7 Possible Starts

Priority and Ranking

JFCA

JCB

USD/AT&L Approval

Notify Congress

Selection

Candidate Review

2-3 Possible Starts

2-3 Possible Starts

Candidate Review

Manager’s Conference

FY08 Proposal Development w/ CoComs

Initial JCTD Guidelines

Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec

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Jan
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Capabilities-Based JCTD Selection Process - “First On-Ramp - Feb/Mar 07”

AS&C CoCom Leads & Capabilities Based Planning

EUCOM
PACOM
CENTCOM
SOUTHCOM
SOCOM
NORTHCOM
TRANSCOM
STRATCOM
JFCOM

JS Functional Areas

Specific / Common Deficiencies

Sep 06

ACTD / JCTD Mgrs & CoCom Capabilities Conferences

AS&C FCA Leads/OEs/CoComs
• Works JCTD Proposals
• Works with JS FCBs
• Coordinate Solution/Capability Sets

FY08 JCTD Candidates Review Board

Feb 07

Identify CoCom Specific & Common “Threads”

2nd On-Ramp - Sep 07 based on Urgent CoCom Pulls
Capabilities-Based JCTD Formulation Process (Sep - Jan)

- Focused Logistics
- Force Application
- Battlespace Awareness
- Command & Control
- Net Centric
- Force Protection
- Joint Training
- Force Management

ACTD / JCTD Joint Functional Area Leads

ACTD / JCTD CoCom Leads

Specific & Common CoCom Deficiencies

SCO Solutions / Capabilities

Identify Common ‘Threads’

AS&C (Integration Process)
- Service Integration / Partnerships
- Joint Staff J-8 JCIDS Integration / Partnership
- Coalition Opportunities
- Industry Opportunities
- JAWP
- CTO / FCT
- TTI / ManTech
- Tech Link
- IR&D
- DAC
Beginning of FY08 Process

• Annual Call Memo
  - “2 On Ramps” for JCTD Proposals
    • Was “Breakfast Club”...
      • now JCTD Executive Candidate Review Board
    • Feb 07 – 5-7 Proposals ( Ranked & Prioritized)
    • Sep 07 – 2-3 Proposals max! (‘Urgent’ Pull)

• Manager’s Conference
  - Monday is CoComs/Services Forum
  - Services can present ‘White Paper’ Proposals

• Sep 06 – Jan 07 “FY08 Candidate Development”
  - CoCom “Gatekeeper” for Candidate Review Board

• Proposals can be submitted Year Round
  - Must wait for “On Ramp” – either Feb or Sep
FY08 Annual Conferences – Combatant Commander

CoCom Capabilities & ACTD/JCTD Conferences

- Provides a Forum to conduct ACTD/JCTD Annual Oversight Groups – “Rudder Check”
- Expands Understanding of the Specific CoCom Challenges & Gaps...Identify common shortfalls/gaps
- Opportunity for Needs/Capability Workshops
- Opportunity to collaborate with Coalition & Inter-Agency Partners

Mar 07 → Aug 07

NORTHCOM  PACOM  CENTCOM  EUCOM  STRATCOM  SOUTHCOM  JFCOM  SOCOM  TRANSCOM
JCTD Proposal Development

• Proposals accepted Year Round
  - Sent to CoComs (via KIMS) for further development and adoption
  - 80% of JCTD Proposals – CoCom is primary Gatekeeper - ~20% Transformational Input

• Coordinate with FCBs – JCTD JFCA Leads & CoCom Leads
  - Needs Validation
  - Joint Staff criteria – emphasis area

• Selection and Execution via every 6 months ‘On Ramps’ – “when they are ready... JCTD CRB

• Operating Guidelines being developed
  - Proposal Workshop template, etc.
Transition Planning Upfront & in Imp Dir
‘Transition Phase’ after Demo – updated yearly – Interim Capability for Warfighter
Semi-Annual Transition Review Process
  - CoCom / Service / OSD / JS Interaction
  - DDR&E Support for POM efforts
Business Case Analysis (OE/OM/TM/XM)
Terry Mitchell – Process Lead
Mgrs Conference - Sept 06

- **Monday** – CoComs / Services Day
  - Needs / Capabilities Discussion – CoComs
  - Potential Solutions Discussion – Services
  - Various Solution Sources – OSD
- **Tues** – JCTD Managers Tutorial
- **Wed / Thurs** – Main Conference
- **Fri** – JCTD Candidate Review Board
  - PV, Re-Attacks, etc.

**Creating Enduring Joint / Coalition Capabilities**
FY08 JCTD Process - Summary

- Guidelines with Flexibility – May not ALWAYS follow process but 70% solution
- Proposal Development as soon as possible with CoComs
  - Path to JCTD Candidate Review Board (aka Breakfast Club) is with CoCom Sponsorship
  - Transformational JCTD Proposals may go without CoCom
  - Fewer proposals but ‘more developed’/‘socialized’ through KIMS functionality
- Transition up-front planning a must...continuous process!
- On-Ramps provided Semi-Annually – ‘Flexibility’
  - Feb still main ‘on Ramp’ with larger number of different type proposals... transformational / joint / coalition / inter-agency
  - Sep is CoCom specific/common needs pull only (2-3 max)
- Solicit Ideas and Better Ways – Continuously Improve!
Rapidly transition new and/or enhanced capabilities to the warfighter so that they can:

1) Find the enemy …
2) Kill them

Questions?
Joint Capabilities Technology Demonstrations (JCTDs)
9-11 was a turning point

**Historical Vs Now**

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<th>Military distinct from civilians</th>
<th>Need to distinguish from Civilians</th>
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<tbody>
<tr>
<td>• Uniformed military</td>
<td>• Civilian dress</td>
</tr>
<tr>
<td>• Distinct military equipment</td>
<td>• Civilian equipment</td>
</tr>
<tr>
<td>• Distinct Military Frequencies</td>
<td>• Civilian Frequencies</td>
</tr>
<tr>
<td>• From Service and agency intelligence</td>
<td>• Truly Joint Information Operations Centers</td>
</tr>
<tr>
<td>• Exposed forces forward</td>
<td>• Reach back to CONUS to support expeditionary forces</td>
</tr>
<tr>
<td>• From vertical structures and processes (stovepipes)</td>
<td>• More transparent, horizontal integration (matrix)</td>
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<tr>
<td>• Department of Defense solutions</td>
<td>• Interagency approaches</td>
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<tr>
<td>• Nation States change action measured in Years</td>
<td>• Shaping the Choices of Countries @ Strategic Cross roads</td>
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<tr>
<td></td>
<td>• Terrorist TTP’s and change action measured in months</td>
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What has not changed is our need to adapt to this new environment.
Joint Capability Technology Demonstrations (JCTDs)

From AS&G's PB06 R-2.....

Beginning in FY 2006, an ACTD business process will be initiated which will take the successful ACTD program and update it to meet the Department’s transformational goal of becoming capability vice threat based in its focus. The program will be referred to as the Joint Capability Technology Demonstration (JCTD) program. The JCTD program will include many of the positive aspects of the ACTD program, but will be revamped to meet the defense challenges of the 21st century. The new process will integrate the ACTD program with the new Joint Integration and Development System (JCIDS) developed by the Joint Chiefs of Staff (JCS). Beginning in FY 2006, the Department estimates a three to five year transition period from the current ACTD process to the improved JCTD program. Eventually, JCTDs will replace ACTDs, providing an even faster process that focuses on joint and transformational technologies that are initiated in Science and Technology (S&T) and carried through the difficult transition stage, sometimes referred to as the “S&T valley of death.” The new JCTD business model includes a Defense Acquisition Executive (DAE) pilot program which will take a limited number of “joint peculiar” JCTDs past milestone B, through engineering and manufacturing, and into procurement, followed by initial sustainment---a “cradle to grave” approach. The piloted program envisions using joint acquisition activities like the Joint Precision Strike Demonstration (JPSD) program office, or even U.S. Special Operations Command (USSOCOM), to provide the necessary acquisition compliant and program management functions. The DAE pilot program will give overall programmed oversight of JCTDs that are deemed uniquely joint/combined (i.e., capability directly supports more than one Military Service) and/or transformational. The new JCTD demonstration model will specifically address congressional concerns and recommendations made by the General Accountability Office (GAO) regarding the ACTD program.

Initiated in FY06, JCTDs will be phased replacement for ACTDs over 3-5 years
Joint Capability Technology Demonstrations (JCTDs)

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What are Joint Capabilities?

AS&C Program Perspective

Multi-Service Core Capabilities

Common denominator Military forces provided worldwide as self-integrated, self-sustaining echelons by the Services.

(GPS, Movement Tracking System)

Joint / Coalition Enabling Capabilities

Additional capabilities required by warfighters to exercise joint / coalition Command & execution, and to enable core military elements to function effectively as a coherent joint / coalition force.

(Network Centric Operations, Common Op Picture)

Unique Regional/Specified Mission Requirements

Capabilities beyond common core military capabilities required by warfighters to effectively function in operational environments associated with assigned regional or specified missions.

(Foliage Penetrating Radar, Language Translators)

Joint is an inter-Service reliance acting together as one - not a patchwork of deconflicted Service operations.

(General Tommy Franks, excerpts from American Soldier)
The Challenge: Meeting Joint Capability Goals

Old

Technology Transition

System Design

Technology Development

Service/Agency Centric

R&D/Acquisition Infrastructure

Mismatched processes for needs development and acquisition will limit attainment of capability goals

New

Strategic Policy Guidance

Joint Operating Concepts

Joint Functional Concepts

Integrated Architectures

Joint Capabilities: COCOM IPLs, LL, JE...

Service Operating Concepts/Capabilities

Joint Capabilities Need Process

Born Joint
How JCTDs Fill the Gap

CoCom 1 (EUCOM)
CoCom 2 (PACOM)
CoComs 3 → 9

Components
Army
Navy
Air Force
Defense Agencies
Air Force
Navy
Army
Defense Agencies

Normal Needs Process

Mission Execution

Title 10
Organize, Equip, Train, Field

Inter-Agency
Coalition

Support Gap
JCTD Uniqueness: ‘Minding The Gap’

Title 10

IPLs
CBP