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# Disruptive Mechnologies Conference

Evolving Joint Needs & Desired Joint Military Capabilities



Moderator: Mike Knollmann

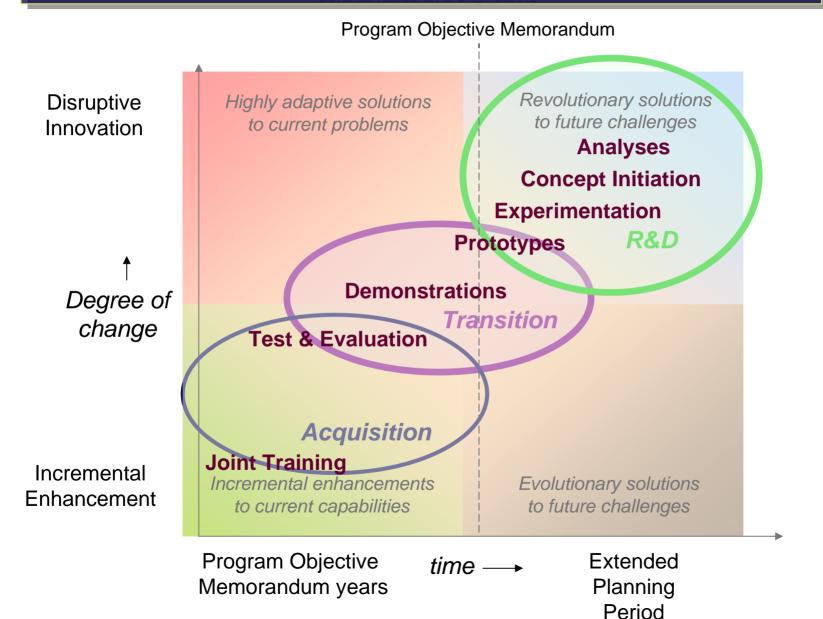
ADUSD (Joint & Coalition Operations Support)

Defense Research & Engineering

## Capability Transition Environment

**Defense Research & Engineering** 





# Joint Capability Areas

**Defense Research & Engineering** 



| Force Application       | Movement & Maneuver<br>Joint Fires<br>Territorial Control                | Surface Warfare<br>Undersea Warfare<br>Maritime Warfare<br>Littoral Expeditionary Operations |
|-------------------------|--|--|
| Command & Control       | Command Leadership<br>Command Structures<br>Cdr Intent, Guidance         | Operational Planning Govt Interagency Integration Mission Partner Leverage                   |
| Net Centric             | Information Transport<br>Network Management<br>Information Assurance     | Enterprise Services<br>Applications<br>Knowledge Management                                  |
| Battlespace Awareness   | Information Transport<br>Network Management<br>Information Assurance     | Enterprise Services<br>Applications<br>Knowledge Management                                  |
| Protection              | Conventional Weapon Pro<br>Personnel Recovery<br>WMD Threat Protection   | otection<br>Terrorist Threat Protection<br>Exploitation Threat Protection                    |
| Logistics               | Joint Deployment/Distrib<br>Agile Sustainment<br>Operational Engineering | ution Joint Health Protection<br>Joint Tehater Logistics<br>Log Information Fusion           |
| Influence               | Public Affairs Ops Planning<br>Public Information<br>Community Relations | ng Military Diplomacy<br>Security Cooperation<br>Presence                                    |
| Force Support           | Man<br>Equip<br>Organize   | Skills Development<br>Global Posture<br>Global Force Management                              |
| Corporate Mgt & Support |  |  |

## Development Model for Acquisition Solutions

**Defense Research & Engineering** 



#### more

#### **Maturity**

of

# Operational Concept

and

#### **Technology**

less

#### **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**

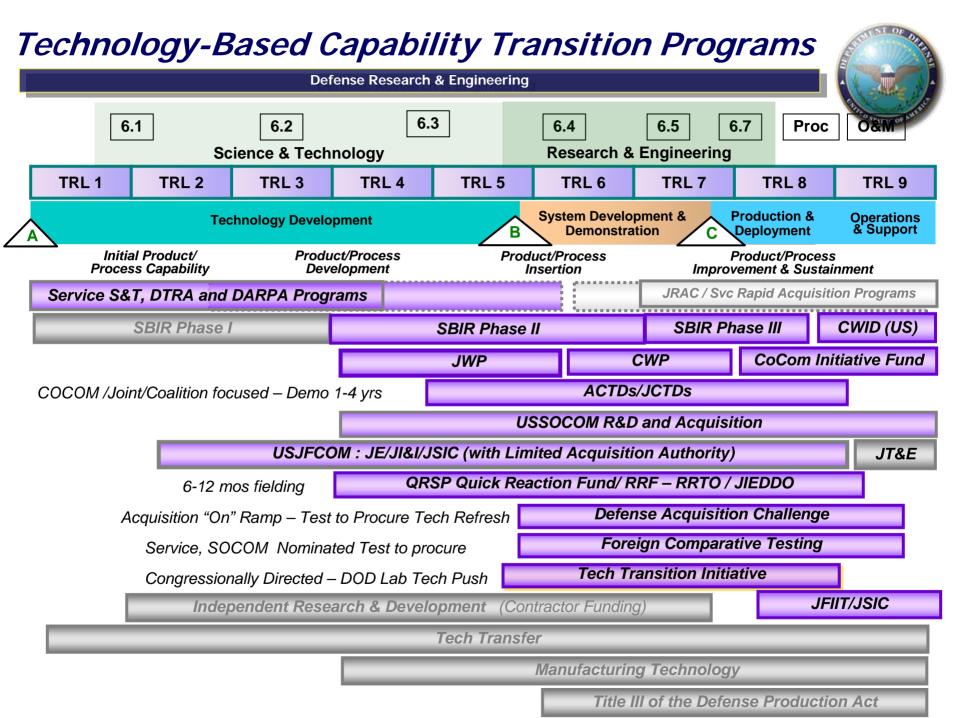
Prototyping

#### Alternatives Development & Assessment

- Experimentation
- Red Teaming Analysis

#### Conceptualization

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



# 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 acqusition 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



# CoCom Options: Needs Translation Into Capabilities



#### Defense Research & Engineering

#### 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 dapted 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

# U.S. Combatant Command Representatives



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### Characterization of Acquisition Processes

Defense Research & Engineering/Advanced Systems & Concepts



# JRAC ✓ Urgent, mission critical

✓ 120 days or less initial materiel or logistics solution

Delivers within 2 years

# Agile/"Limited" Acquisition Process

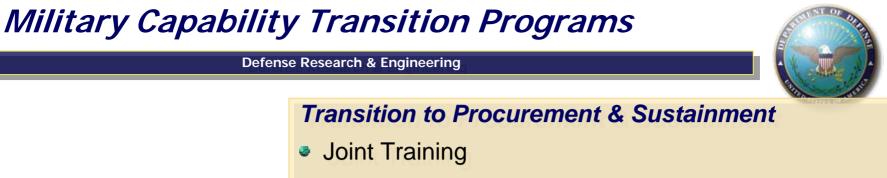
Delivers between 1 and 3 years

- ✓ Attuned to CoCom timelines
- ✓ Well adapted for integrating joint solutions
- ✓ Rapid, responsive, flexible program
- ✓ Decentralized execution
- ✓ Transformation engine; innovation enabler
- ✓ Small, non-traditional business "on-ramp"
- ✓ "Try before you buy" cost control mechanism
- ✓ Spiral improvement generator; risk mitigation

# Deliberate Acquisition Process

- ✓ 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

Delivers between 4 and 11 years



Foreign Comparative Testing Defense Acquisition Challenge

ACTDs JCTDs

JI&I JFIIT JSIC

Joint Experimentation

JWP

**JAWP** 

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