VISION

Building Transformational Capabilities
On
Today’s Solid Foundation
Current Situation
What we need to do better

Requirements
• Setting capability-based requirements
• Adapting to changing conditions
• Matching operational, systems, and technical views of architectures
• Overcoming biases of Services and others
• Moving to transform military

Acquisition
• Making system decisions in a joint, mission context
• Transitioning technology
• Assessing complexity of new work and ability to perform it
• Controlling schedule and cost
• Passing operational tests
• Delivering fully integrated and interoperable systems-of-systems

PPBS
• Laying analytical foundation for DPG and program review
• Aligning budgets with acquisition decisions

Sustainment
• Controlling O&S costs
• Reducing logistics tails
How will we do it?

An integrated approach addressing:

• Non-material
• Systems-of-systems
• Organizations and management
What are we doing?

- Harmonizing Requirements and Acquisition Process
- Emphasizing Jointness
- Focusing on system-of-systems vs. pieces
- Forging new leadership roles
  - JFCOM (COCOMs)
  - “Lead Service” roles
  - CIO
  - Industry and academia
How Are We Structured to do It?

Partnership!

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- Policy and Guidance Documents
- Top Level Analysis
- Integrated Architectures (Capability Roadmaps, Investment Plans and Decisions)
AT&L, DEFENSE SYSTEMS
Glenn Lamartin
Director

Dir. V. GARBER
SYSTEMS INTEGRATION
What to do?

Dir. GLENN LAMARTIN (ACTING)
SYSTEMS ENGINEERING
How to do it well

Dir. GLENN LAMARTIN
SYSTEMS ACQUISITION
Doing it
Integrated Architecture Development

**Mechanism**

*Integrated Representation of Operations & Systems*
- Developed and documented in a form which supports reasoning
  - Industry standards-based
- Created by an integrated operations/systems team
- Integrated view of systems capabilities supporting operating concept
- Provides basis for analysis of gaps and alternative

**Process**

*Integrated Capability Analysis*
- Integrated capability analysis strategy
- Capability Analysis Teams
- Metrics for operational and systems performance
- Common reference scenarios
- Common analytic approaches
- Integrated simulation environment
- Assessment of GIG support to areas
  - Input to the GIG architecture

**Products**

*Leading to……*
- Capability Roadmaps
- Investment Plans
- DPG, POM, PPBS Input

Executive oversight direction to Components Leadership!

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LtGen Cartwright, J8, 17 December 2002
Steps in Process High Level Functional View
Based on Interim 5000

Develop Operational View

Develop Systems View

Produce Integrated Architecture

Conduct Gap Analysis

Identify Needed Capabilities

Conduct AoA(s)

Develop Capabilities Roadmap

Develop Investment Strategy

New Start or Upgrade

Designated Lead

Joint Staff

AT&L Collaboration

Apply GIG

Select standards from JTA
A Vision for Building System of Systems Capability

Today

Sys A
Sys X
Sys B
Sys D
Sys C
Sys Y

System Focus

Joint Staff
Joint Operating Concepts and Functional Concepts “To Be”

Joint Operating Concepts
- Major Combat Operations
- Stability Operations
- Homeland Security
- Strategic Deterrence
Functional Concepts
- Battlespace Awareness
- Command and Control
- Protection
- Logistics

Capability Focus

Loosely Federated
Tightly Federated

PMs Highlight Mission Area Impacts @ DABs
AT&L / JS “Mission Area Reviews”
The Problem: No Coherent View of the Battlespace from COCOM to Soldier/Sailor/Airman/Marine

Inability to Prosecute a Coordinated Strategy

**USER/CONCEPT**

**Com Op-level “pics”**

**JTF Tactical-level “pictures”**

**Firing Unit Aerospace, Ground, Maritime “pictures”**

*The cause:* multiple systems, conceived and developed individually

*Compounding the problem:* systems, TTP, missions changing continuously, new coalition partners, stove-piped intelligence dissemination

Notes:
- Some Svc systems deployed on other Svc platforms
- As is depicts presence in at least one CINC theater
FIOP Implementation

Joint Distributed Engineering Plant (JDEP)

SIMP - Single Integrated Maritime Picture
SISP - Single Integrated Space Picture
SIGP - Single Integrated Ground Picture
SIAP - Single Integrated Air Picture
CTP - Common Tactical Picture
COP - Common Operational Picture
SOFP - Special Operation Force Picture

[Diagram shows relationships between various operational pictures and their leadership agencies.

- FIOP Systems Engineer
  All Services
  (AF Led)

- JROC (COP)
- FIOP Task 1
  (AC2ISR Led)

- SOFP
  (SOCOM Led)

- SIAP
  (Navy Led)

- ForceNet
  (SIMP-Navy Led)

- SIGP
  (Army - CECOM Led)

- SISP
  (Air Force Led)

- JFCOM

- Doctrine, Organization, Training, Materiel, Leadership, Personnel, Facilities
  (DOTMLPF)
Example: FIOp (JBMC2)

- Maintain and Expand Multi-Service Participation
- Continue Spiral Acquisition

Future Network Centric Capability

Distributed Common Ground Station (DCGS)

JFN Provides Initial Operational Capability

Legacy BM/C2 and Sensor Systems

Scalable Open Systems Integrated Architecture

Tied to Key Efforts: PE,FCS,CID . . .
SUMMARY

• We are in the midst of *REAL* transformation
• We have a VISION, PLAN, and KEY EFFORTS underway
• We must marshal all of our resources
• Your partnership and participation is the key
### AT&L Engagement
with Policy and Requirements Efforts

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X - Primary Responsibility
Y - Secondary Responsibility

DPG - Defense Planning Guidance
PDM - Program Decision Memorandum
QDR - Quadrennial Defense Review
CPR - Chairman's Program Recommendations
CPA - Chairman's Program Assessment
BA - Battlespace Awareness
C2 - Command and Control
Force Appl - Force Application
LOG - Logistics