Transforming an Army While at War

NDIA Combat Vehicles Conference
24 Oct 2006

MG Richard Rowe
Deputy Director, Army Capabilities and Integration Center
US Army Training and Doctrine Command

Release of this information does not imply any commitment or intent on the part of the U.S. Government to provide any additional information on any topic presented herein. This briefing is provided with the understanding that the recipient government will make similar information available to the U.S. Government upon request.

TRADOC: Victory Starts Here!
Agenda

- ARCIC Overview
- TRADOC Centers of Excellence (CoEs)
- Strategy → Concepts → Capabilities
- Concepts Development and Experimentation
- The Network--LandWarNet
- Soldier Modernization
- Comprehensive Force Protection
- Future Force Integration Directorate and the Evaluation Brigade Combat Team
Army Capabilities
Integration Center

The Army Capabilities Integration Center (ARCIC) designs, develops, integrates and synchronizes force capabilities for the Army across the imperatives of Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel and Facilities (DOTMLPF) into a Joint, Interagency, and Multinational operational environment from concept through capability development.

Goals:

- Lead Innovation
- Explore and Experiment
- Develop the Future Force
- Integrate the Force
- Strengthen Joint, Interagency, and Multinational Capabilities
- Reshape Capabilities Developments

**Initial capability March 07**
Driving Change for the Army
Integrating DOTMLPF for the Operating Force

Army Capabilities Integration Center

- Operational Concept Development
  - Illustrate how future forces will operate

- Wargaming and Experimentation
  - Explore innovative methods
  - Identify and verify solutions for required changes in DOTMLPF

- Requirements Determination
  - Determine, recommend, and document DOTMLPF changes with supporting analysis
Transforming to Centers of Excellence

Center of Excellence Definition: Designated installation, centered on TRADOC core functions, that improves combined arms solutions for joint operations, fosters DOTMLPF integration, accelerates the development process, and unites all aspects of institutional training to develop Soldiers, leaders, and civilians who embody Army values.

Objectives
- Fuse TRADOC functions and capabilities
- Develop synergy of intellectual capacity
  - Accelerate / promulgate innovation
  - Promote broader leader mindset
  - Stimulate cross-branch exchange
- Facilitate capability development across DOTMLPF
  - Consolidate to maximum extent possible; leverage “commonness”
  - Facilitate integration of operational lessons learned
  - Facilitate collaboration and interaction within TRADOC and with the rest of the Army and other agencies
  - Facilitate outreach to the rest of the Army
Capstone Concept intended for experimentation and subordinate concept development
- Operating and Functional Concepts are further elaboration of Capstone Concept key ideas
- Concept Capability Plans (CCPs) enable capability development as envisioned in operational concepts
- Army concepts – nested and support the family of Capstone Concept for Joint Operations (CCJO)

A Comprehensive Set of Operational Concepts Covers All Warfighting Functions and Missions.
Concept Development and Experimentation

- Inform the future
- Spiral forward Future Force capabilities
- Satisfy critical operational needs
- Test compelling technology

- Concepts based
- Coherently joint
- Reduce Risk
- Actionable recommendations

- FY04 FY06 FY08 FY10 FY12 FY14 FY16

- Army Concept Development Path
- Army Prototype Path
- Joint Prototype Path

- Operational Lessons Learned
- Joint Concept Development

- Stryker
**Operational Imperative**

- **FUTURE OPERATING ENVIRONMENT**
  - Conduct Strategically Responsive Full-Spectrum Operations
  - Defeat Enemy Robust Anti-Access Capabilities
    - APODS, SPODs and Terrain Chokepoints
  - Fully Network-Enabled Battle Command on the move at the lowest levels
  - Adaptive adversaries gaining technologies (e.g. hyper kinetic) or using old technologies in new ways (e.g. IEDs)

- **FUTURE OPERATIONAL CONCEPT**

- **CAPABILITY GAPS**
  - FCS strikes optimum balance of transportability, mobility, lethality, survivability with fully integrated battle command on the move to swiftly defeat adaptive enemies in MCO and counter irregular, traditional, catastrophic and disruptive challenges.
  - There are over 270 other Programs of Record that will enable the future Modular Force

**Solutions**
Why the Joint Force Needs FCS?

- Joint Operating Environment will continue to evolve: tomorrow’s threat is more demanding than today’s

- Must operate across full spectrum (disaster relief to major combat)

- Provides Joint Force Commanders optimum balance of transportability, mobility, lethality, survivability with fully integrated battle command on the move

- Hyperkinetic technology advancements will severely challenge passive armor solutions

- Our wargaming and experimentation, along with real-world experience, demonstrates the potential of network-enabled solutions to address both our current and future capability gaps
How FCS Enables Warfighting Capability

Close with and destroy enemy forces to seize terrain and dominate the battlefield

Seven Key Ideas
- Shaping and Entry Operations
- Operational Maneuver from Strategic Distances
- Intratheater Operational Maneuver
- Decisive Maneuver
- Concurrent and Subsequent Stability Operations
- Distributed Support and Sustainment
- Network-Enabled Command
Future Combat Systems
Integration Mechanism

Future Force Integration Directorate (FFID): Generating Force Throttle

- Develop training/leader development products, train and certify Evaluatin Brigade Combat Team (EBCT)
- Synchronize and coordinate plan for development-related activities (Exercises, Experiments, Test & Evaluation events)
- Develop Doctrine and Organization products, applying Lessons Learned
- Update and synchronize systems development documents
- Serves as the principal interface between Generating Force and EBCT chain of command
- Exercises Tactical Control (TACON) over the EBCT
Defining LandWarNet

- LandWarNet is the Army’s contribution to the GIG
- Consists of all globally interconnected Army information capabilities, including:
  - Associated processes
  - Personnel for collecting, processing, storing, disseminating, and managing information
- Supports warfighters, policy makers, and support personnel
- Includes:
  - All Army communications & computing systems
  - Applications
  - Services

LandWarNet is the means by which the Land Component conducts information-enabled, joint warfighting and supporting operations.

Integrates the following:
- Static Command Posts (CP)
- Limited Connectivity & Collaboration
- Tethered to fixed CP
- Collocated Stovepipe
- Army-Centric
- Comms On-The-Move, Leader-Centric
- Global Connectivity, Collaboration
- Assured Mobile Comms Anytime, Anywhere
- One Joint Common Picture
- Joint at the Core
**Soldier Modernization**

**Focus of Developing Systems**

### Vehicle as a System

- **Lethality**
  - Individual/Squad Weapons

- **Fightability**
  - Body Armor, NBC Gear

- **C^2**
  - Voice/Data

- **Mobility**
  - Load Management, Foot Movement

- **Sustainability**
  - Power Supply, Maintenance, Supply

### Soldier as a System

- **Integrated Modular System**
  - Not Modular Integrated System
Land Warrior and Ground Soldier System

- Integrated, Modular, Scaleable System
- Capability Tailored to Duty Position
- Voice/Digital Communications to current and future platforms
- Connects Soldiers And Leaders to Tactical Internet

Squad Leader and Team Leader

Vehicle Integration Kit provides:
- Gateway to Tactical Internet
- Land Warrior II Network Hub
- Soldier Battery Charger
- Combat Net Radio System - Voice/Data
- Video Display Terminal

Commander’s Digital Assistant

- Not Currently Integrated With Land Warrior
- CO CDR Level Only (Carried by RTO in Assault Ruck)
- Provides Over The Horizon Communications
Comprehensive Force Protection Initiative (CFPI)

- CG TRADOC directed effort initiated 17 Nov 2005
  - ARCIC lead with Materiel Developer, Test, and Acquisition Communities
  - Objectives:
    - identify OIF/OEF force protection gaps
    - identify on-going efforts
    - develop recommendations for additional, immediate actions
    - develop an interim requirements strategy to enhance force protection

Enhanced Soldier Lethality And Survivability

Enhanced Vehicle Lethality And Survivability

Enhanced Force Protection in the Current and Future Modular Force
Summary:
What We’re Doing for the Army

- Supporting Soldiers Today and Preparing for the Future
- Integrating the Force
- Implementing the Army Modular Force
- Powering Joint Interdependencies
- Leading Joint Wargaming, Experimentation and Concept Development

Developing a Campaign Quality Army with Joint and Expeditionary Capabilities