# Interconnecting the Edges
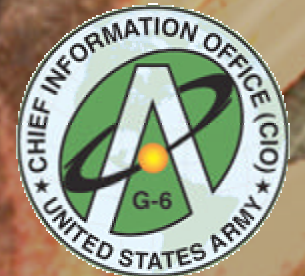
## Boundaryless Information Flow

**BG(P) Dennis Moran**

Director of Information Operations,
Networks & Space / G-6
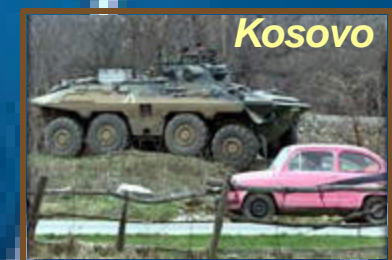
CHIEF INFORMATION OFFICE (CIO) · UNITED STATES ARMY · G-6

YOUR ARMY IS
AT WAR......

......AND TRANSFORMING ITSELF
FOR THE FUTURE

OEF
Afghanistan

Somalia

Iraq
OIF

Kosovo

# The Global C4 Challenge

East Timor

Kosovo

Bosnia

Iraq

Afghanistan

- Agile
- Deployable
- Flexible
- Modular
- Scaleable
- Balanced

**Global Information Grid**

Bandwidth Expansion

Information entered anywhere in the GIG

Smart Data Pull

Unit of Employment (Operational Level)

UE (XXX/XXXX)

. . . is available anywhere in the GIG

Joint Data Net

Global Hawk

UE (XX)

Comanche

Predator

WIN-Tactical Network

Common Relevant Operational Picture

Unit(s) of Action (Tactical Level)

Unit of Employment (Tactical Level)

"Space to Mud"

"Factory to Foxhole"
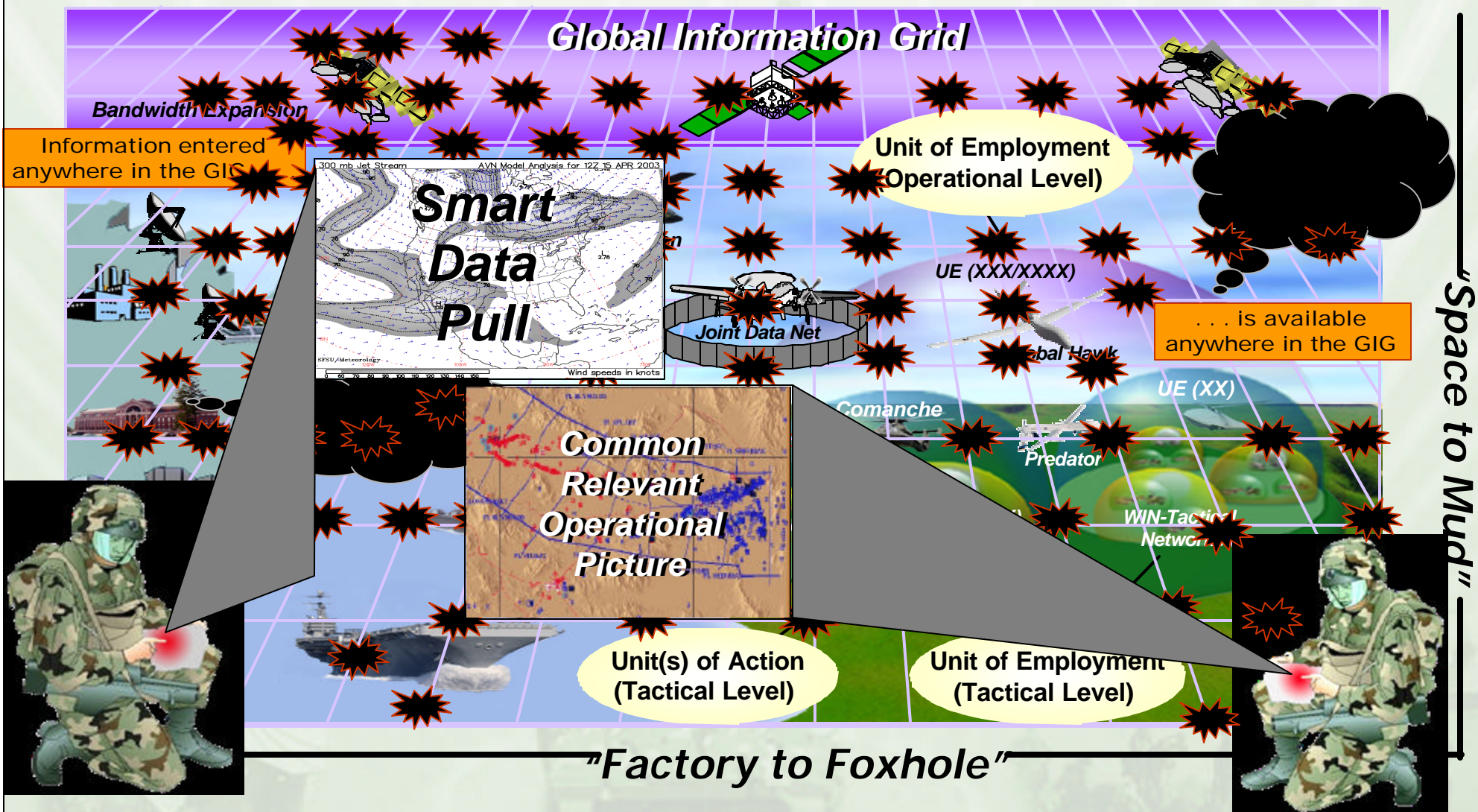
# Sustaining Base

- **Army Knowledge Management (AKM)** – **Strategy** to leverage real-time, network access to information between Army missi̲ for information sup̲

- **Army Knowledge E̲ (AKEA)** - **Framework** (̲ regulatory) to guide i̲ investments, acquisiti̲ achieve AKM objectiv̲
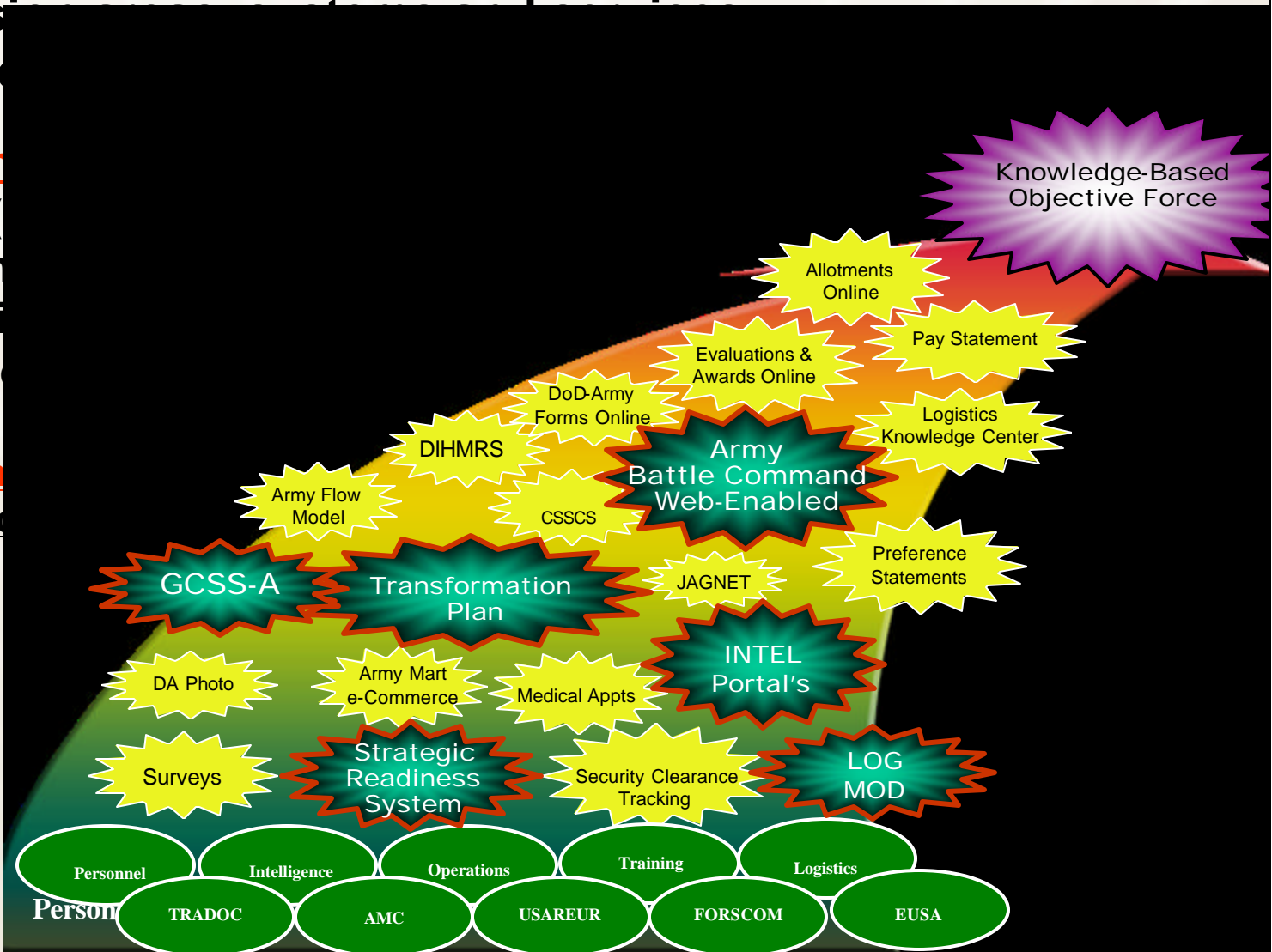
- **Army Knowledge Onlin̲ (AKO)** -Army's **single se̲ website/portal** providing̲ products and services for users to accomplish AKM objectives.

Knowledge-Based Objective Force

Allotments Online

Pay Statement

Evaluations & Awards Online

DoD-Army Forms Online

Logistics Knowledge Center

DIHMRS

Army Flow Model

CSSCS

Army Battle Command Web-Enabled

GCSS-A

Transformation Plan

JAGNET

Preference Statements

INTEL Portal's

DA Photo

Army Mart e-Commerce

Medical Appts

Surveys

Strategic Readiness System

Security Clearance Tracking

LOG MOD

Personnel

Intelligence

Operations

Training

Logistics

Person̲

TRADOC

AMC

USAREUR

FORSCOM

EUSA

# Knowledge Management Pillars

**AKM**

| GOAL 1 | GOAL 2 | GOAL 3 | GOAL 4 | GOAL 5 |
|--------|--------|--------|--------|--------|
| GOVERNANCE | BEST PRACTICES | INFO-STRUCTURE | AKO | HUMAN CAPITAL |

### Initiatives

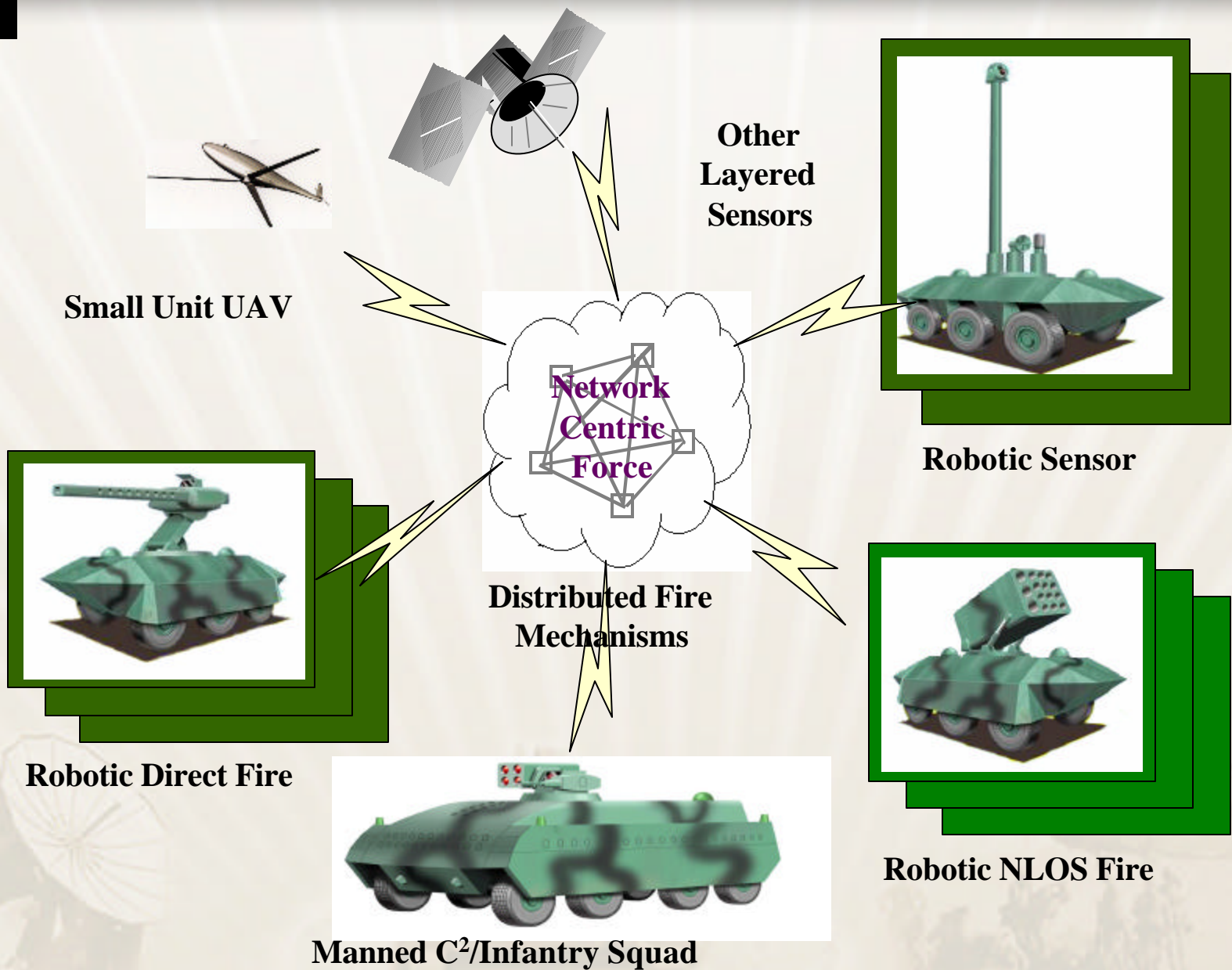| | | | | |
|--------|--------|--------|--------|--------|
| Enterprise Portfolio | Consolidation of Applications | One Army Network | Army Operations Portal | 3rd Wave AKE Org Design |
| Rapid Resourcing Reallocation | Implement Knowledge Systems | Integrate Reserve Component | SRS Scorecard AKO BP | Human Resource Planning |
| Knowledge-Based Decision Support | Knowledge Sharing | Signal Force Structure | Scale AKO & AKO-S Domain Leverage | Professionalization of Workforce |
| Army Regulations & Policy Revisions | Collaborative Processes | NETOPS CONOPS Defense In-Depth | Networked KM Improve Cycle Time | Institutionalize AKM in Schoolhouses |
| AKM Strategic Communications Plan | Achieve eArmy Transformation | Server and Processing Center Consolidation | Improve Service W/ Dynamic Feedback | Information Operations Assets |

# Future Combat System Architecture

Small Unit UAV

Other Layered Sensors

**Network Centric Force**

Robotic Sensor

Robotic Direct Fire

Distributed Fire Mechanisms

Robotic NLOS Fire

Manned C$^2$/Infantry Squad

# Future Combat System

## Joint Tactical Radio System (JTRS)

- Software defined waveforms
- Open standards Software Communications Architecture
- Modular, enabling add on capabilities/features
- Scaleable, enabling additional capacity to be added later

- **Army is lead Service for Cluster 1/5 (FY06 Cluster 1, FY08 Cluster 5)**
- **SOCOM - Cluster 2 (FY05)**
- **Navy - Cluster 3 (FY04)**
- **AF - Cluster 4 (FY08)**

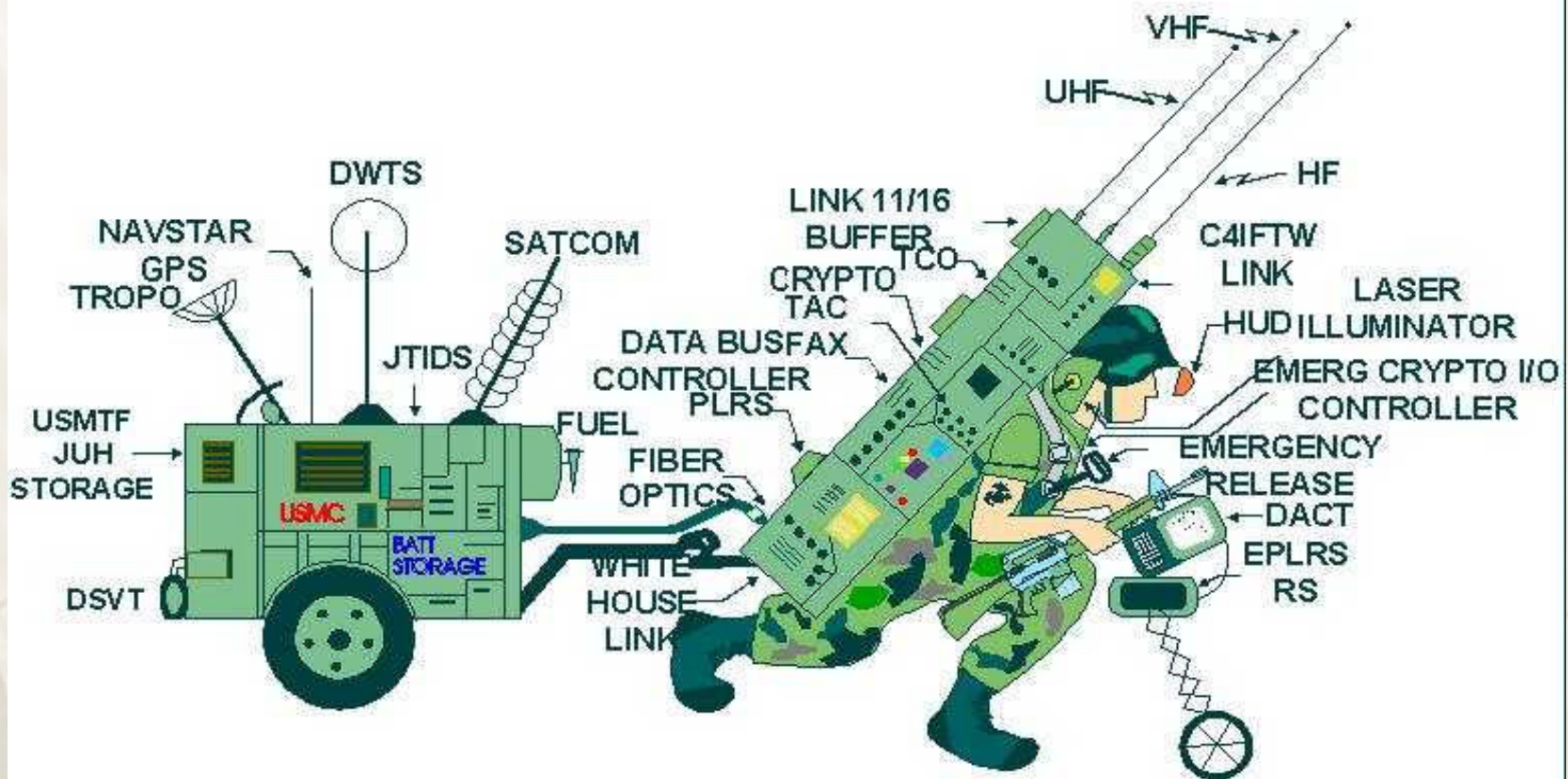## Warfighter Information Network – Tactical (WIN-T)

- Objective Force high-speed, high-capacity *backbone* Communications network
- Integrated Network Operations
- Tactical GIG Component
- Army Battle Command Enabler

- **Line of sight and Non-line of sight**
- **Satellite/Space based platforms**
- **Airborne platforms**
- **Data Packages**
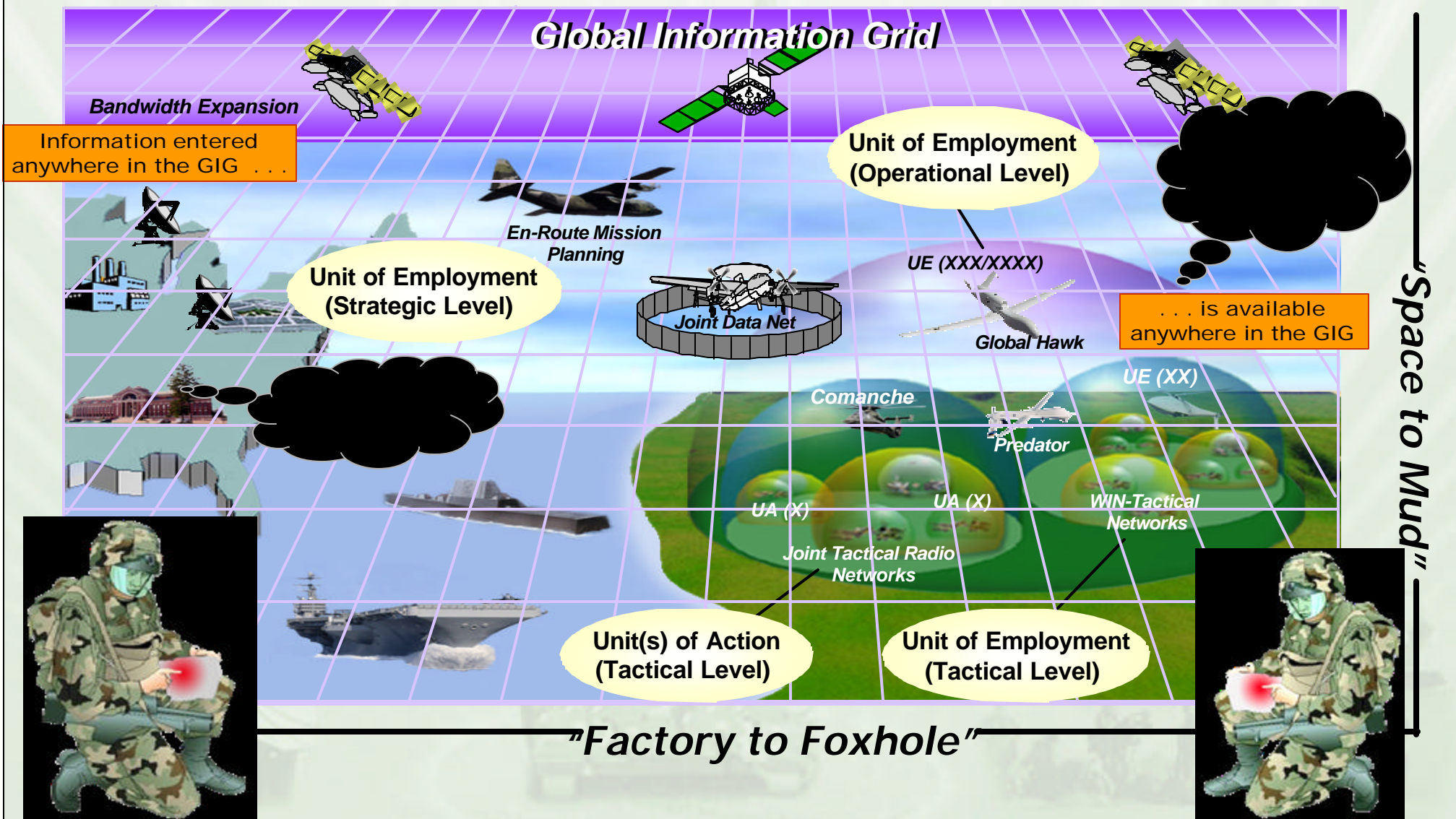
UE

UA
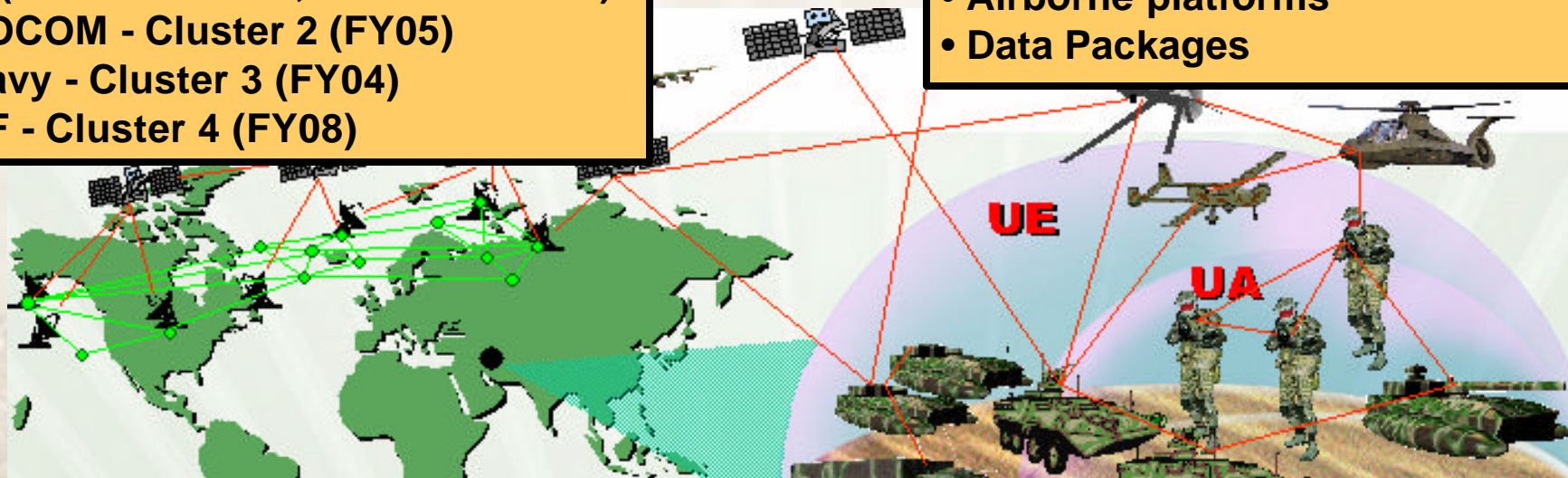
**Enablers for Future Combat System and Objective Force**

# Then...Is This The Future?

Army Approach: "SEAMLESS INTEGRATION"

Global Information Grid

Bandwidth Expansion

Information entered anywhere in the GIG . . .

Unit of Employment (Operational Level)

En-Route Mission Planning

UE (XXX/XXXX)

Unit of Employment (Strategic Level)

Joint Data Net

Global Hawk

. . . is available anywhere in the GIG

UE (XX)

Comanche

Predator

UA (X)    UA (X)    WIN-Tactical Networks

Joint Tactical Radio Networks

Unit(s) of Action (Tactical Level)

Unit of Employment (Tactical Level)

"Space to Mud"

"Factory to Foxhole"

Factory to the Foxhole

space to Mud

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