Shaping the Future Force:
Transitioning JC2 and ISR for Irregular Warfare

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Overview

- **Introduction**
- **USJFCOM Command Priorities**
- **JC2… "Leader Centric—Net Enabled"**
- **The Irregular Warfare Challenge**
- **Summary**

USJFCOM: Mission and Functions

The United States Joint Forces Command provides mission ready Joint Capable forces and supports the development and integration of Joint, Interagency, and Multinational capabilities to meet the present and future operational needs of the Joint Force.

- ✓ **Provide** *trained and ready joint forces and capabilities*

- ✓ **Develop, explore, and integrate** *joint warfighting concepts*

- ✓ **Develop combined warfighting concepts and** *integrate multi-national and interagency warfighting* **transformation efforts**

- ✓ **Serve as the** *lead joint force integrator*

- ✓ **Support development of integration and fully** *interoperable systems and capabilities*

- ✓ **Lead development of** *joint doctrine,* **concepts, requirements and integrated architectures**

- ✓ **Develop** *joint tactics, techniques, and procedures* **and doctrinal publications**

Elements of the JC2 Vision

"Leader-centric… net-enabled"

Strengthened Partnerships	Policy	Joint / Coalition Integration	Training & Education

What this is about…

- ➤ **Joint Command and Control is fundamentally a Human endeavor**
- ➤ **Operational art – beyond the science**
- ➤ **Assured information that builds knowledge and speeds decision-making**
- ➤ **Reliable systems and tested processes**
- ➤ **Distributed information; relevant knowledge – allowing decentralized execution**
- ➤ **Promote decision cycles inside the enemy's ability to adapt**

NECC is a direct contributor and must be developed with the same operational focus!

Current C2 Mission Space

National Military Command System

↕

Combatant Commanders

↕

Service/Functional Components

↕

Tactical Edge

Service-Specific, Non-Interoperable, Program-Centric Cylinders of "Excellence"

CFACC
Tactical Air

Air Defense

Air Superiority

Suppression of Enemy Defenses

CFLCC
C2 of Ground Forces

Civil Affairs

Artillery

Armor

ISR

CFMCC
Tactical Air

Sea-Launched Cruise Missiles

Fleet Defense

Littoral Ops

CFSOC
Spec Ops

Fires Support

Time Critical Targets

Forced Entry

Search & Rescue

Joint Functional Component Commands
Global Strike & Integration

ISR

Global Net Ops

Space

Info Ops

Net Warfare

"The Department must develop a unified C2 capability that can integrate selected information, allowing decision makers at all levels to act in a timely manner . . . "

-- Defense Strategic Planning Guidance for FY2006-2011

Migration to Net-Enabled Services

Current Capabilities

Global Command and Control System (GCCS)

Platform-Centric Characteristics

- **Systems oriented**
- **Man–Machine interface**
- **Years on system development**
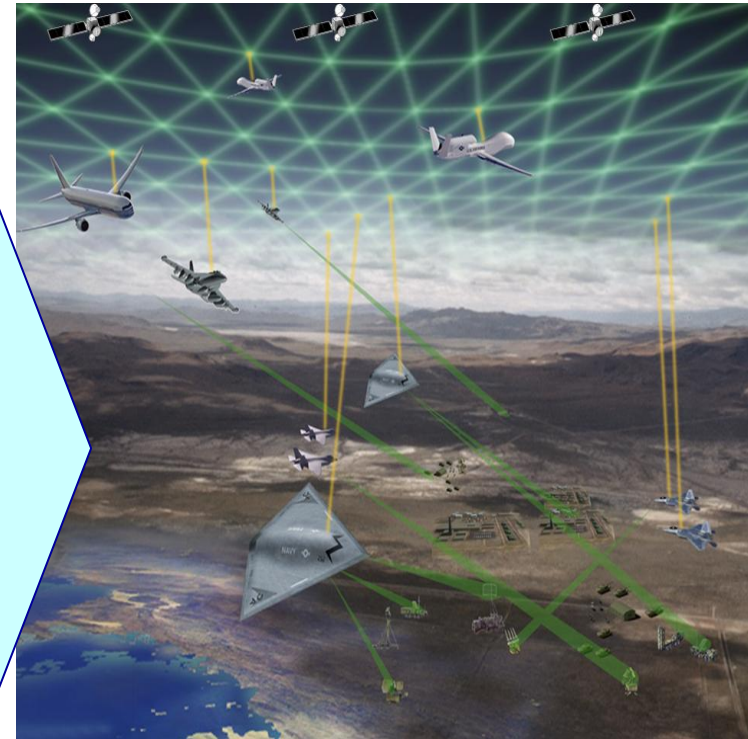- **Tightly integrated functionality**

Evolving Environment

- *Share situational awareness and understanding*

  - *Synchronize maneuver*

  - *Achieve constructive interdependence*

- *Fuse intelligence products / data*

- *Collaborative decision making & planning*

Future Capabilities

Net-Enabled Command Capability (NECC)

Net-Centric Characteristics

- **Service Oriented Architecture**
- **Machine–Machine interface**
- **Loosely coupled functionality**
- **Iterative, parallel processes**

Emerging Problem…

Capabilities, systems, and processes designed for major combat operations have not been optimized for irregular warfare.
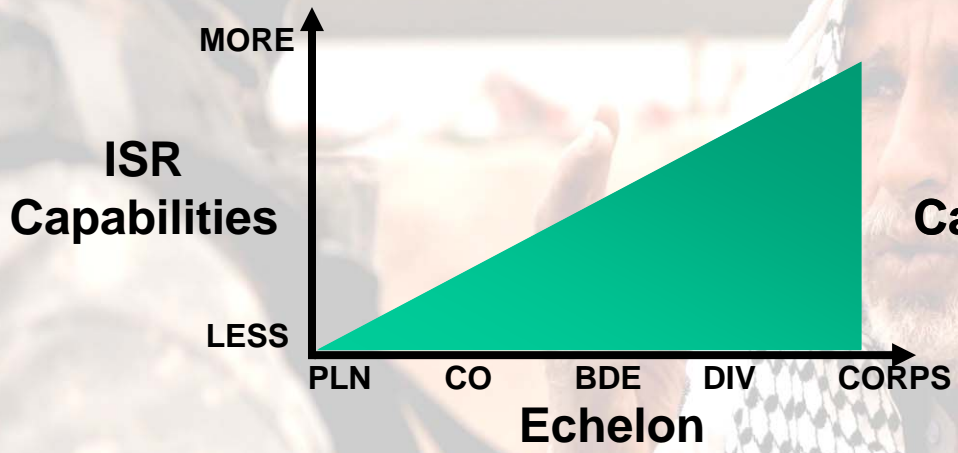
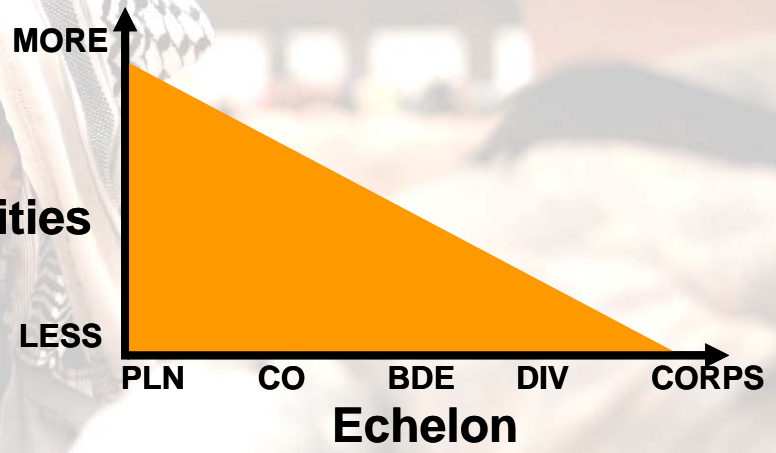**In particular, this applies to ISR support (e.g., collection, exploitation, analysis, and dissemination).**

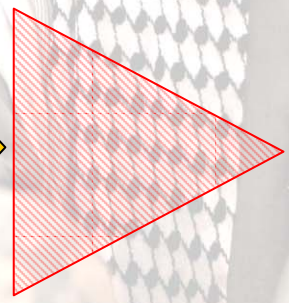# Transitioning DCGS
for Conventional and Irregular Warfare

Conventional

COIN

ISR Capabilities

MORE

LESS

PLN CO BDE DIV CORPS

Echelon

ISR Capabilities

MORE

LESS

PLN CO BDE DIV CORPS

Echelon

Knowledge Speed at the Edge →

← **Dominate both fights!**

The Solution…

Adapting **capabilities, systems, and processes for use in both major combat operations and irregular warfare**

Building **capabilities for irregular warfare**

Battlespace Awareness

ISR Support

Profiling
- Biometrics... observable physiological signals…
- Observable body language…
- How [...]
- How people operate in groups…

The Edge

Tactical Tasks

CIED

- Intelligence Prep of Environment
- Time Sensitive Targeting
- Pattern of Life
- Persistent Surv[...]
- Precision Geol[...]
- Positive Identi[...]
- Predictive Analysis
- Damage Assessments
- Indications and Warning
- Tipping / Cueing Other ISR Assets

Irregular warfare demands timely, precise, tailored products useful at the tactical edge.

Force Protection

Training
- What they know…

Border Monitoring

Equipment
- Offensive and Defensive
- Optics…

Peace Keeping

Communications
- Voice, radio, hand signals…

Attributes of Intelligence

JP 2.0

- **Complete**
- **Relevant**
- **Objective**
- **Available**
- **Anticipatory**
- **Timely**
- **Accurate**
- **Usable**
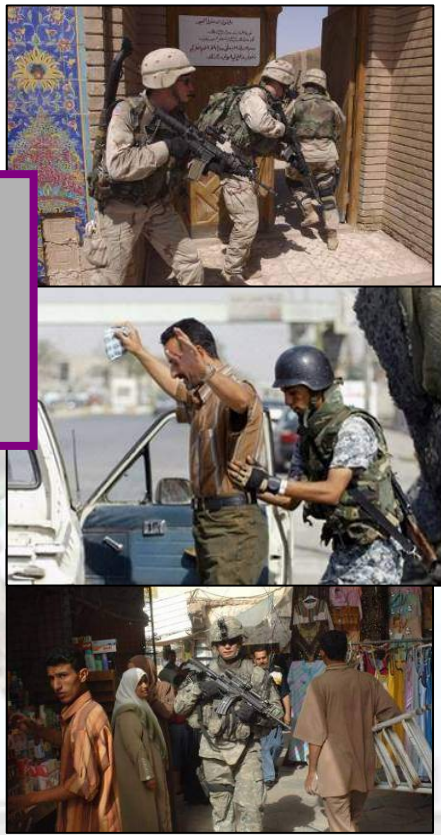
Need for Increased Speed and Fidelity

Real-Time Chat

Annotated Video Clips

Annotated Imagery Stills

Mission Planning Overlays

National Imagery Overlays

Mission Segment Summaries

| Traditional	Today's Requirement
1 Vehicle	1 blue 2-door sedan
Personnel Activity	Wedding / Funeral / HVT Meeting
2 PAX	1 Male in Dark Pants, Light Shirt, 1 Female in Black Cover
NSTR	No change in last 15 minutes
Qualified Guess	Estimate Size & Distance
Answer in 2+ Minutes	Real-Time Tracking
No Assessments	Precision, Speed, Accurate, Tailored
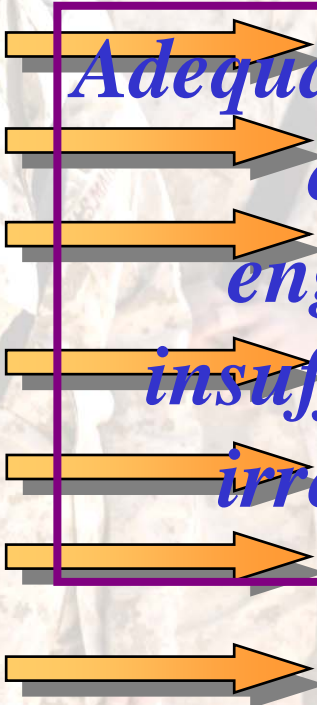
Adequately supported past conventional engagements, but insufficient for today's irregular warfare.

What is Net-Enabled Command Capability (NECC)?

- DoD's emerging principal command and control capability

- Dependent upon Core Enterprise Services (CES) provided by Net Centric Enterprise Services (NCES) program and establishment of Global Information Grid (GIG)

- USJFCOM is operational sponsor and requirements/capability lead – J8 ensures continuous, dedicated engagement and flexibility from capability development through fielding

- Defense Information Systems Agency (DISA) is lead acquisition agent

GCCS Joint
GCCS-I3

GCCS Army

GCCS Maritime

GCCS Air Force
TBMCS

C2 Capability
Modules
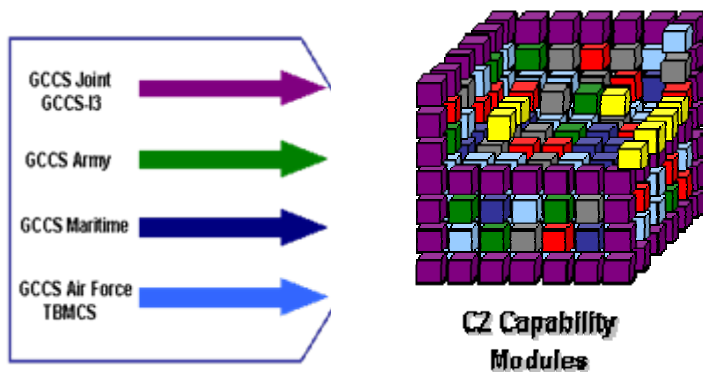
Rapidly develop, test, evaluate & certify capability and deliver to the Warfighter

NECC – Warfighter Perspective

Reasonable vertical interoperability, but limited horizontal interoperability

NMCC GCCS -J	
Combatant Command GCCS -J	
JTF GCCS -J	

- JFACC GCCS-AF / GCCS-M
  - USAF TBMCS / USN GCCS-M
    - TBMCS
- JFLCC GCCS-A / GCCS-J
  - USA ABCS / USMC GCCS-J
    - TBMCS
- JFMCC GCCS-M
  - USN GCCS-M
    - TBMCS
- JSOTF GCCS-J
 - TBMCS
- GCCS-I3
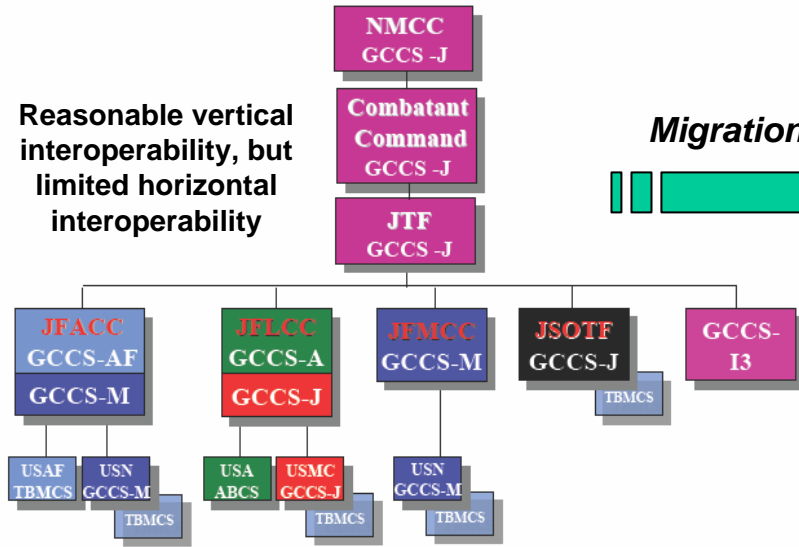
Client-Server

Migration to →
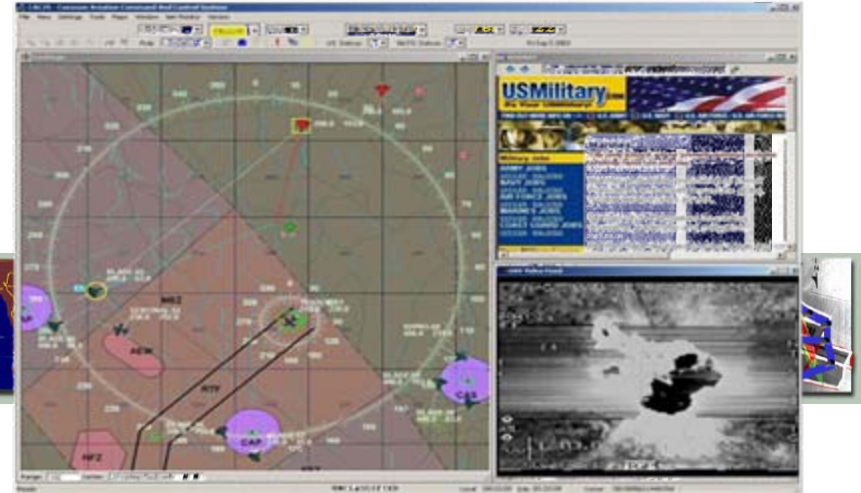
Service Oriented Architecture

- *Joint C2 capabilities* - **National thru Joint Force Commanders to components/tactical-level warfighters**

- *Joint Combat Capability Developer* **provides capability needs process & end-to-end warfighter engagement**

- *Federated Development & Certification Environment* **enables rapid development, test/evaluation, certification and delivery of C2 capabilities**
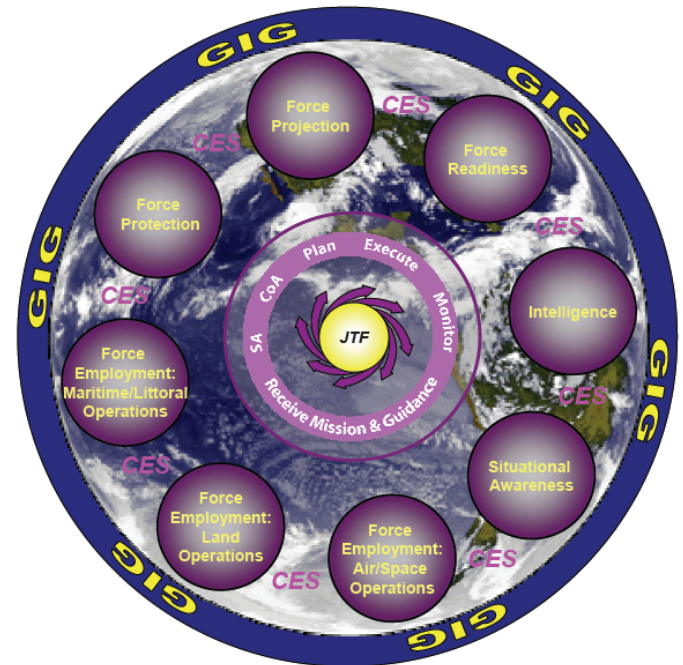
Summary

- **Focus on…**
  - ➢ **Challenge of Irregular Warfare**
  - ➢ **Adapting ISR processes and products**
  - ➢ **Serving the warfighter at the tactical edge**
  - ➢ **Building knowledge speed, accuracy, and timeliness**
  - ➢ **Achieving Intelligence and Operations Enterprise Interoperability**

"Leader Centric – Net Enabled"

Joint C2 Vision

"Joint Command and Control (JC2) is first and foremost a human endeavor."

".....command and control is not synonymous with network operations and the employment of advanced technology."

General James Mattis
Commander, USJFCOM

- Coherent C2 policy

- Training and education initiatives

- Strengthened partnerships

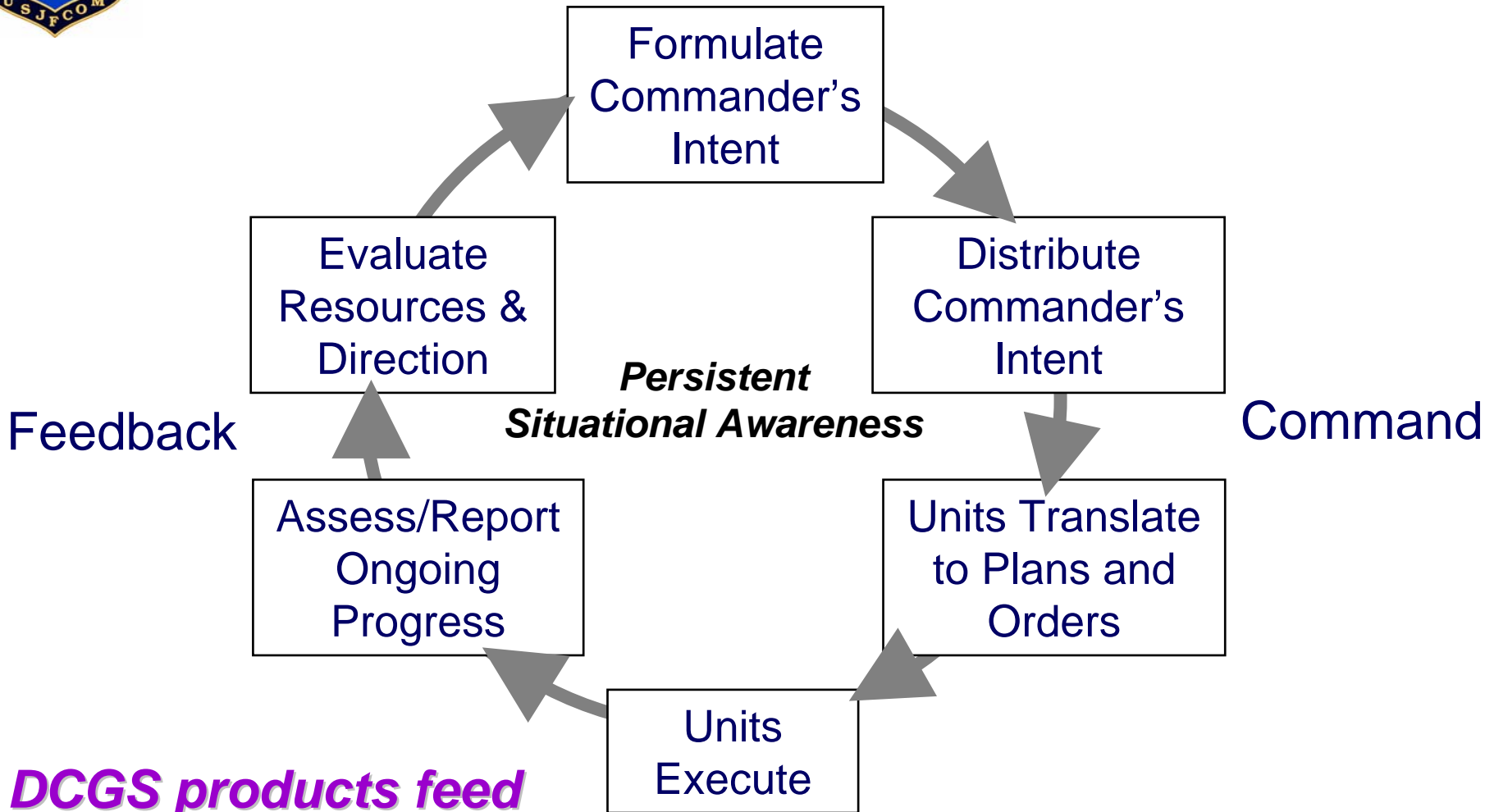- Joint & Coalition capability integration

The Joint Commander and the Joint Warfighter are our first and most demanding Customer

Backup

A Net-Enabled Command Capability:
Well Informed Freedom of Action

Formulate Commander's Intent

Distribute Commander's Intent

Units Translate to Plans and Orders

Units Execute

Assess/Report Ongoing Progress

Evaluate Resources & Direction

Persistent Situational Awareness

Feedback

Command

DCGS products feed C2 -- enabling Persistent Situational Awareness

Unclassified