



Joint Battle Management Command and Control

NDIA – SPAWAR Industry Conference 2003

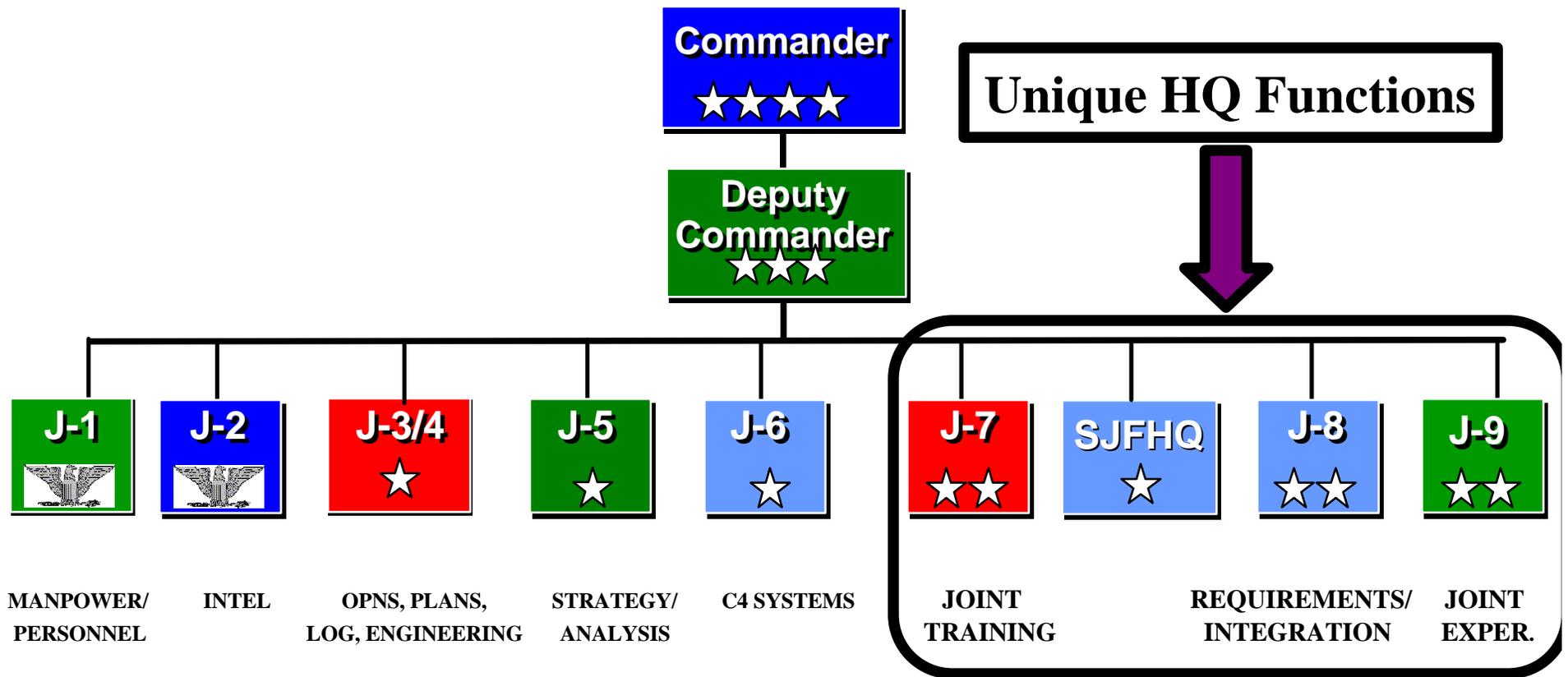
*BGen Marc “Buck” Rogers
Director, Joint Requirements
and Integration*

United States Joint Forces Command

USJFCOM Mission

USJFCOM maximizes the Nation's future and present military capabilities by **leading the transformation of joint forces**, through *joint concept development and experimentation*, identifying *joint requirements*, advancing *interoperability*, conducting *joint training*, and *providing ready continental U.S.-based forces* and capabilities – all to support the Combatant Commands.

The JFCOM Difference – Part 1



778 Personnel
 430 military (56%)
 170 civilian (22%)
 178 contractors (22%)

Army = 30% **Navy = 34%**
Air Force = 25% **Marine = 11%**

The JFCOM Difference – Part 2

Joint Warfighting
Center



Joint Futures
Lab



Joint C4ISR Battle
Center



Joint Training and Simulation Center

Joint Forces
Intel Command



Joint Combat
Identification
Evaluation Team



Joint Warfare
Analysis Center



Special Ops
Command,
JFCOM



Joint Personnel
Recovery Agency



Joint
Communications
Support Element

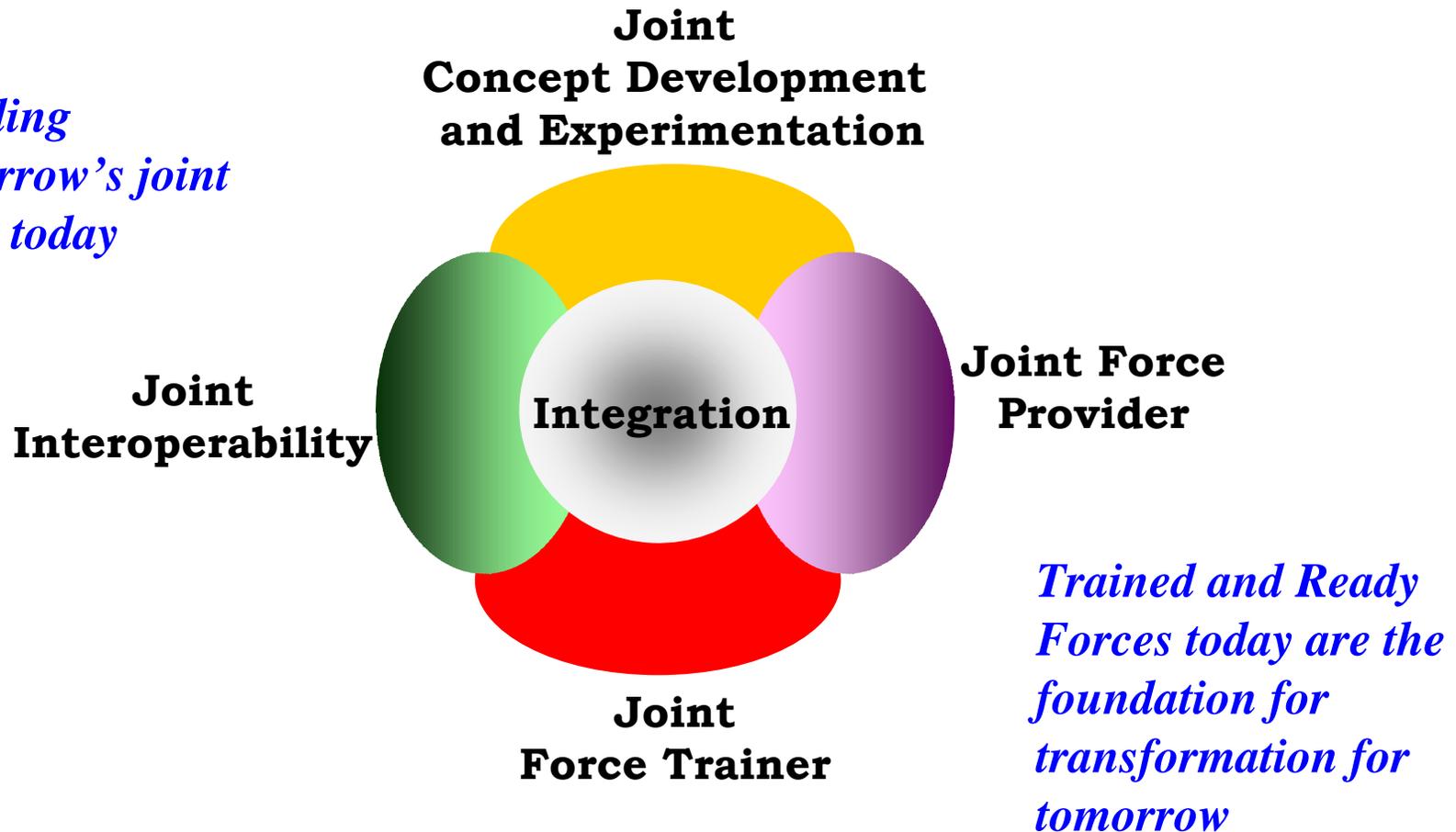


2500 personnel

Centers of excellence to advance transformation

JFCOM's Transformation Engines

*Building
tomorrow's joint
force today*



*Integrating all enterprises to create
coherent joint and combined capabilities*

***MANAGEMENT INITIATIVE DECISION 912
(MID 912) January 2003***

***“Expanded USJFCOM roles and responsibilities
for oversight and direction of Joint Battle
Management Command and Control
Capabilities”***

Management Initiative Decision 912 Highlights

Expands USJFCOM responsibility for:

- **Strengthening Department's fielding of Joint Battle Management Command and Control (JBMC2) capabilities**
- **Leading Combatant Commanders in development of joint doctrine, concepts, mission/capability requirements for Joint BMC2**
- **Coordinating JBMC2 capabilities for joint integration and interoperability with the Joint Requirements Oversight Council (JROC)**
- **Direct oversight and directive authorities for selected DoD programs and initiatives**

Additional JBMC2 Tasks

- **Operational through tactical level joint integration of the following capabilities:**
 - **Common operational and tactical pictures.**
 - **Combat identification.**
 - **Situational awareness.**
 - **Adaptive mission planning and rehearsal.**
 - **Interoperable joint fires, maneuver, and intelligence.**

Challenges in Transformation

What We Do Know

- **It's still about people... and ability to use force**
 - **Changing the behavior of bad people**
- **Nation's power is still D-I-M-E**
- **Military will still require capability to kill people**
- **Principles of War will still apply**
 - **(Cyber equiv of "maneuver"... "surprise"?)**
- **IT will shape way ahead**
 - **Info Environment extends operational arena**
 - **IT is the great "Equalizer"**
 - **The enemy WILL exploit the Info Environment**
 - **Readiness requirements increase**
- **Information overload = threat to effectiveness**

What We Have to Do

- **Exploit new ways of doing business enabled by technical capabilities**
 - **We tend to adapt new technologies to old ways of doing business – (inability to see)**
- **Enable decision-making**
 - **(It's a thing human beings do...)**
(Decision aids do not make judgments)
- **Train to the capabilities**
 - **Still key to dominance in Info Age**
- **Advance Effects Based Operations (EBO)**
 - **Deter/defeat wide range of adversaries**
- **Master Knowledge Management**

Why is Knowledge Management Important?

Data Overload means Information Camouflaged



World War I:
30 wpm
Field Phone



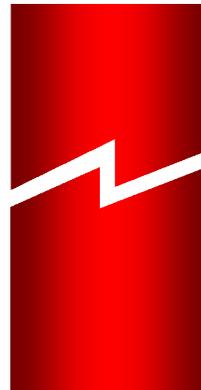
World War II:
60 wpm
Radio



Vietnam:
100 wpm
SATCOM



Gulf War:
192,000 wpm
Networked
Computers



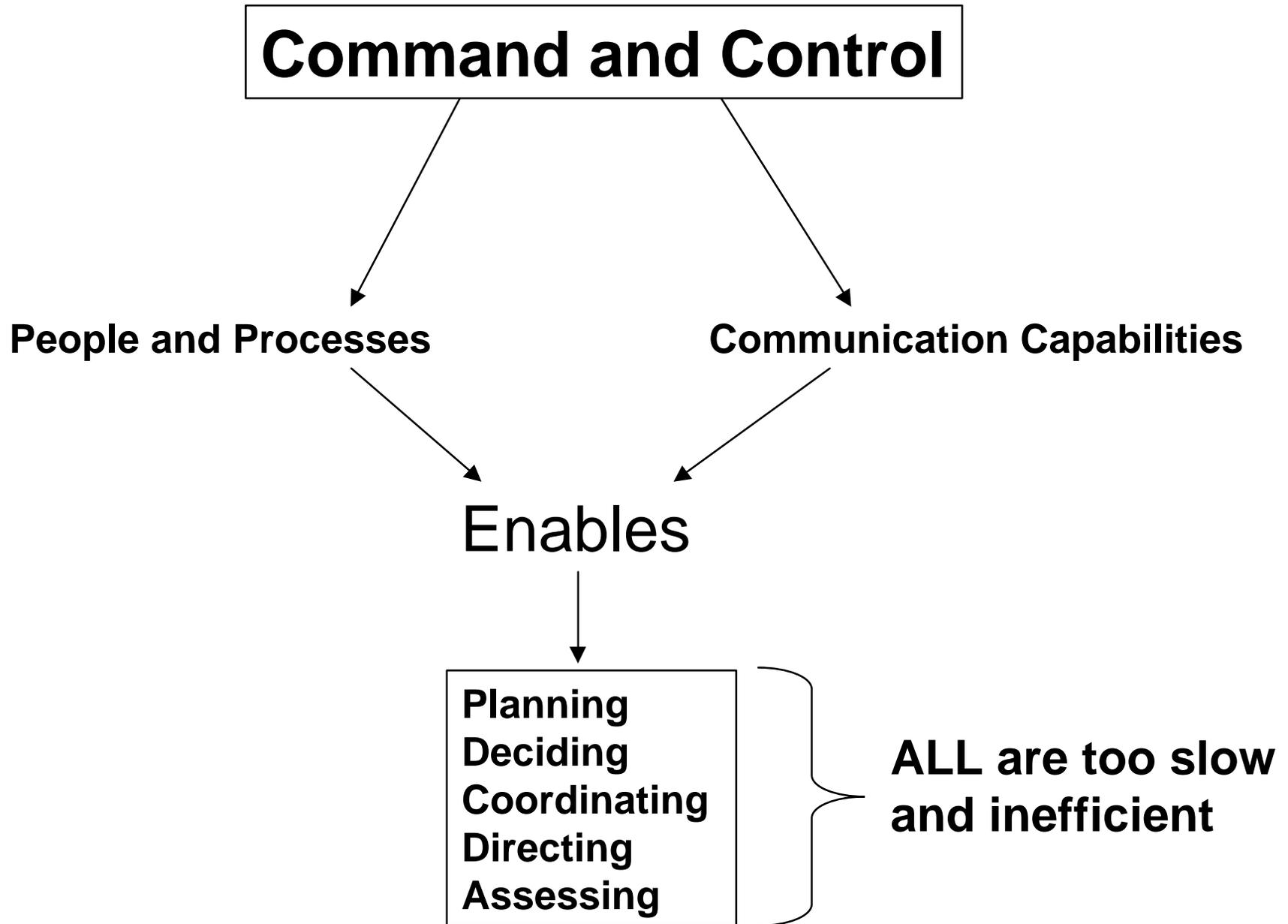
War in 2010:
1.5 trillion wpm
Wideband Datalinks



wpm - words per minute₁₂

A Key Joint Warfighting Capability Gap...

Command and Control



Command and Control Shortfalls (Legacy)

People and Processes

Ad hoc establishment
Lack of readiness - untrained HQ personnel
Individual
Collective – JFC/JTF/CTF/CC HQ staff level
Takes too long to stand up
Takes too long to organize
Nonstandard or nonexistent procedures
Too long to “gel” as a team
Too long to learn to use equip, software tools, rules, how a headquarters works
Too long to gain situational awareness
Lack of expertise in joint force planning
Too long to begin planning, produce COAs
Lack of doctrinal expertise / skills employing warfighting concepts in operations
Insufficient joint/multinational interoperability

Communication Capabilities

Legacy technology mixed with new
Non-interoperable C2 systems
Modern C4I too complex to employ on “walk-in” basis
Lack of decision tools for Info Age
Varying standards
Incompatibility
Information stovepipes
Non-standard tools
Incoherent architectures
Lack of ‘business rules’
Lack of database visibility
Non-responsive environment
Limited horiz & vert integration

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Makes this difficult

Planning
Deciding
Coordinating
Directing
Assessing

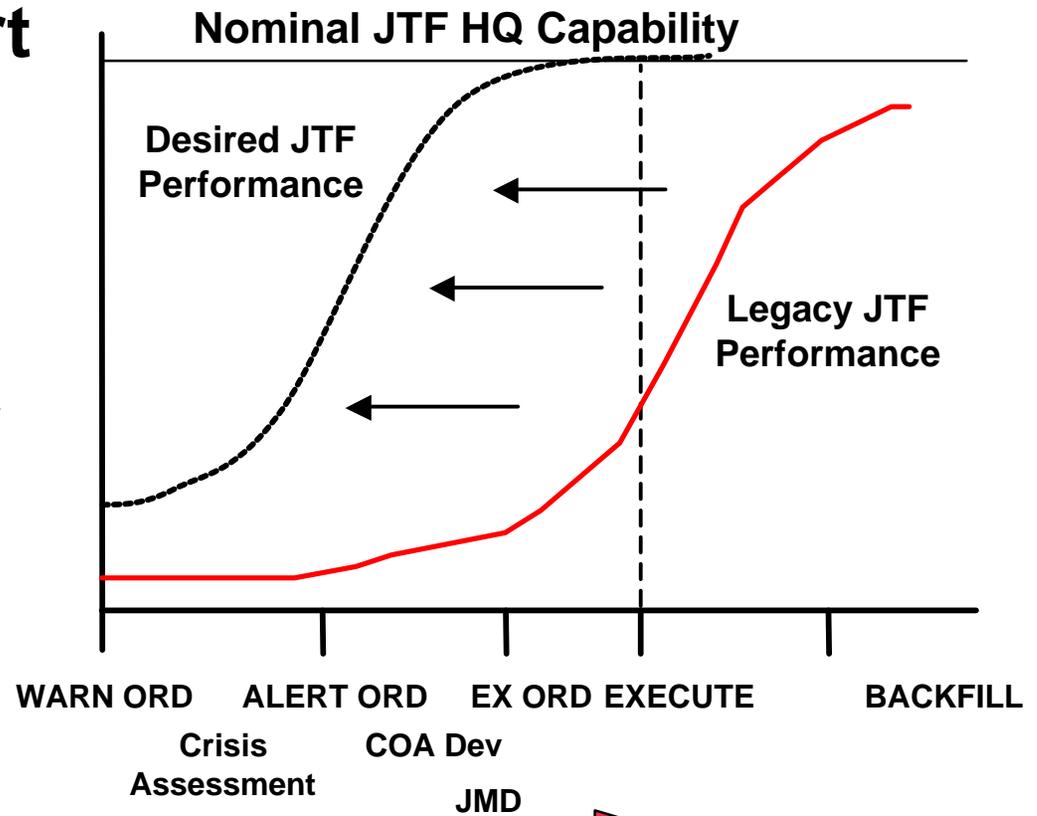
Too slow and inefficient

We have force elements today who are able to deploy, employ, create effects quicker than we can “command and control” them!

Historical JTF Standups

- Just Cause
- Provide Comfort
- Somalia
- Haiti
- Kosovo
- Enduring Freedom
- JTF 510
- JTF 160/170
- JTF GTMO
- JTF 180
- JTF Horn of Africa

9/11



Chain of Command Gap

Peacetime Service Chain of Command



Not present
for duty
every day

Joint Warfighting Chain of Command



Joint Command and Control Issue **(Two-Parts)**

- **The need for JTF Readiness**
 - **Combat Units Train the Way They will Fight**
 - *They are ready*
 - **JTF HQ's rarely train the Way They Will Fight**
 - *Service HQ's challenged to sustain readiness*
 - **Demand for JTFs increasing**
 - *Sustaining JTFs – challenge for all services*
- **Technology is available now to enable more rapid, effective decision-making and execution**
 - **But, increases HQ personnel readiness requirement**
 - **Collaborative environment drives both C2 processes and organizational changes**
- **No single command and control authority in DoD**

Near Term Operational Arena

Legacy C2 will not meet this challenge

- Effects-Based Operations (EBO)
- Information Operations (IO)
- Force Projection
- Joint Tactical Actions (JTA)

**Knowledge
Centric**

- Operational Net Assessment (ONA)
- Joint Intelligence, Surveillance and Reconnaissance (JISR)
- Decision Superiority

**Effects
Based**

**Thinking
Differently**

**Coherently
Joint**

- Collaborative Information Environment (CIE)

**Fully
Networked**

- Standing Joint Force Headquarters (SJFHQ)
- Joint Interagency Coordination Group (JIACG)

Commanders are moving out – building CIEs, altering C2 CONOPs, writing SOPs – attempting to solve shortfalls and already employing some concepts

Multinational Challenges

- **Interoperability**
- **Language**
- **Culture**
- **Processes**
- **Rules**
- **Security**
- **Laws**
- **Organizational Structures**
- **Command and Control**
- **Unity of Command**
- **Unity of Effort**
- **Rapid HQ establishment**
- **Use of special coalition expertise**

Focussing on JBMC2

Start with the basics

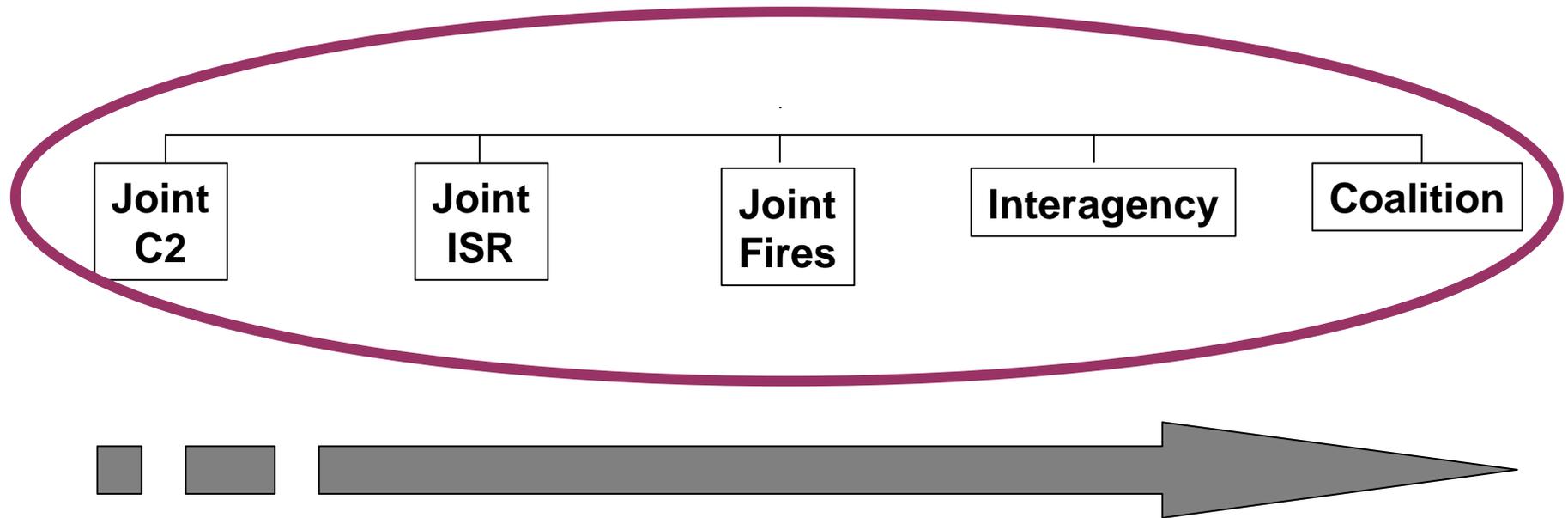
(...a definition would help)

Joint Battle Management Command and Control Definition (DRAFT)

- **JBMC2 consists of the processes, architectures, systems, standards, and command and control operational concepts employed by the Joint Force Commander. The Joint Force Commander executes joint operations by employing the entire array of JBMC2 capabilities during the planning, coordinating, directing, controlling, and assessing of joint force operations from interface with the strategic level through the tactical level.**

- **JBMC2 aims at providing an integrated, interoperable, and networked joint force that will:**
 - **Insure common shared situational awareness**
 - **Allow fused, precise and actionable intelligence**
 - **Support coherent distributed and dispersed operations, including forced entry into anti-access or area-denial environments**
 - **Ensure decision superiority enabling more agile, more lethal, and survivable joint operations**

JBMC2 Arena

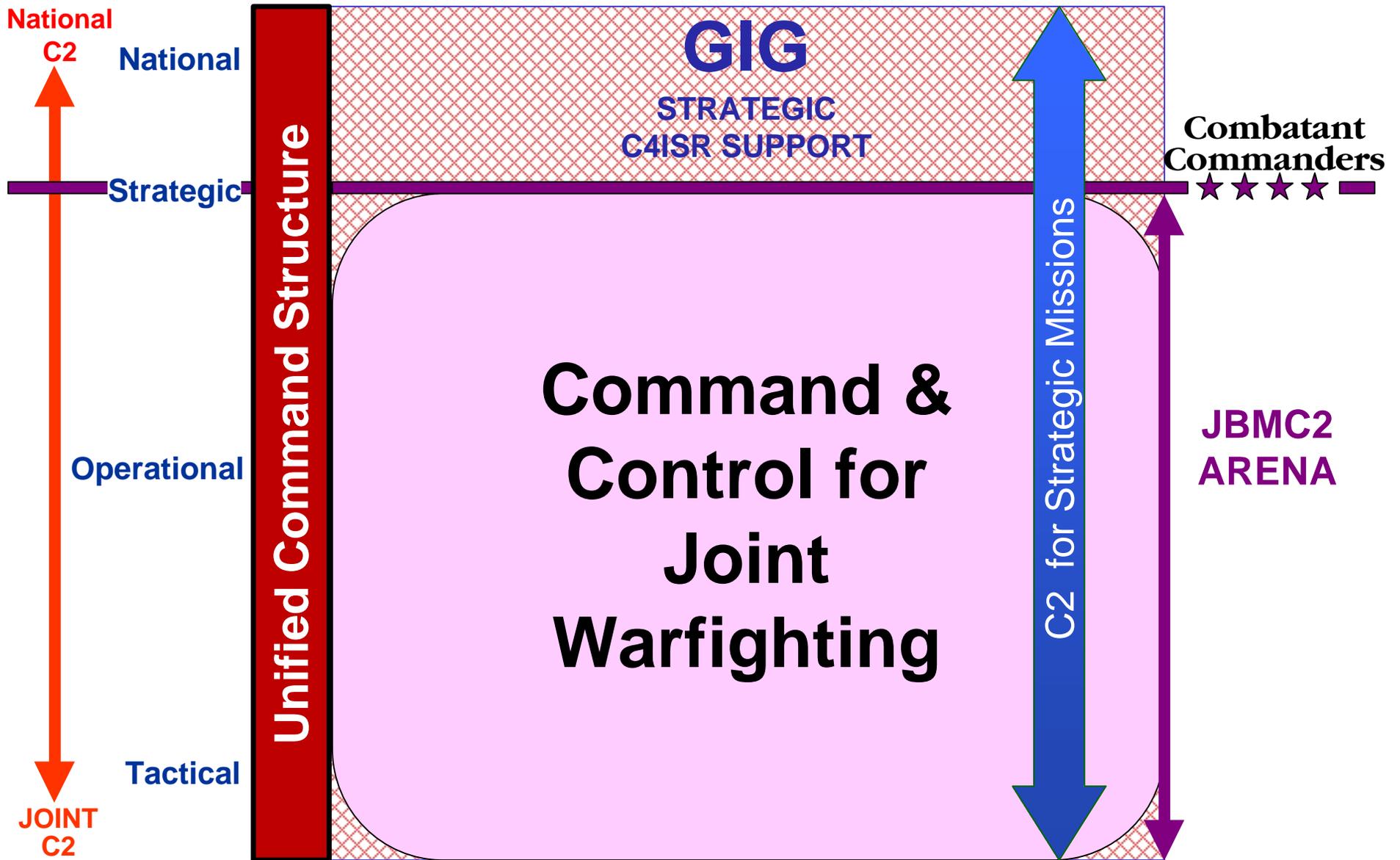


Joint Battle Management Command and Control spans the continuum of Joint C2, Joint Intelligence (ISR), Joint Fires, Interagency, and Coalition

Fundamental Battlefield Process = The Kill Chain

USJFCOM *Command and Control Landscape*

(DRAFT)



JBMC2 Drivers

- For any crisis, all Combatant Commanders must:
 - Execute command and control functions
 - Plan and execute using the same forces provided
 - Coordinate with the same national agencies
 - Rely on the same ISR forces/sources/agencies
 - Receive guidance from same national authorities
 - Perform crisis action planning
 - Perform assessment functions
 - Execute force deployment/redeployment
 - Employ the same national strategic capabilities
 - Execute Information Operations
 - Employ same SOF forces / “special” capabilities
 - Coordinate with / employ multinational forces
 - Rely on same supporting commands
 - Be ready to execute Joint C2 (Train)
- We need **integrated** and **interoperable** BMC2

JBMC2 Transformation Leaders

- **Standing Joint Force Headquarters**
- **Deployable Joint Command and Control**
- **Net-Centric Warfare**
- **Joint Fires Networks**
- **Collaborative Information Environments**

Multinational Challenges

- Interoperability
- Language
- Culture
- Processes
- Rules
- Security
- Laws
- Organizational Structures
- Command and Control
- Unity of Command
- Unity of Effort
- Rapid HQ establishment
- Use of special coalition expertise

• These issues exist today

• They will exist in the Collaborative Information Environment (CIE) as well

BUT! CIE, and use of standard procedures offer possibilities to reduce the impact of these challenges

JBMC2 Capability Challenges

- **Improving service interoperability**
- **Integrating joint capabilities**
- **Sustaining capability while evolving to GIG enabled Joint Force**
 - **Integrated architectures**
 - **Migration of legacy systems to netcentric capabilities**
- **Standards & Configuration management**
 - **Data and Applications strategies**
- **Collaborative Information Environments**
- **Last Tactical Mile – bandwidth challenged**

Interoperability & Integration Efforts

- **Joint National Training Capability (JNTC)**
- **JBMC2 Roadmap**
- **JFCOM/STRATCOM Partnership**
 - **Goal: Seamless Global C2 and Integrated ISR capabilities – Horizontally and Vertically**
- **Joint Fires Initiative**
- **Joint Close Air Support Action Plan**
- **Joint Blue Force Situational Awareness (JBFSA)**
- **Combat Identification**
- **Joint Deployment Process Initiative**
- **Joint Lessons “Noted” to Lessons Learned**

Summary

**Lot on the plate
Moving out**

