



# Multi-National Corps – Iraq

## OIF 04 – 06 Rotation

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## XVIII Airborne Corps

# Battle Command and C4I Observations, Lessons Learned and Recommendations

**JAN '05 to JAN '06**

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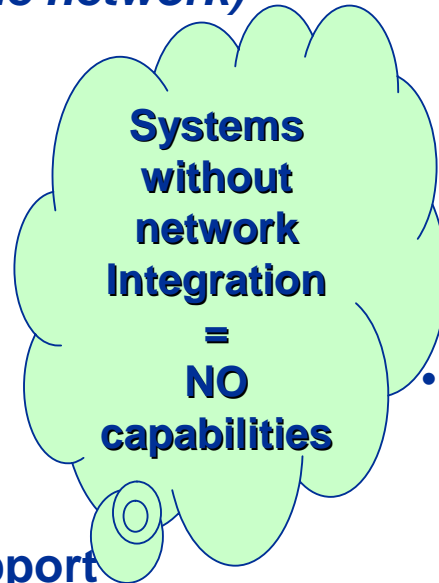


# The Current Battlespace

- Combat Capabilities Fielding

(systems on the network)

- UAV
- COIC
- BATS
- JIOC-I
- CPOF
- CIDNE
- Fusion Net
- Crew
- CDS
- Convoy Support



## Combat Strategy Shifts

- FOB / COB collapse
- “Bridging Strategy” → TTs as center of gravity
- Force / Corps merger

- Non-standard missions

- Commercialization
- Cable / Fiber construction
- Network Monitoring & Reporting
- Network Defense – multiple levels
- Small unit “on the move”

- Executing without additional resources

- Active Directory } DoD Mandated
- CAC / PKI } Set Fielding Timeline
- Commercial vs. Tactical Equipment
  - Promina
  - IGX
  - Exchange Clustering
  - Commercial Switches } Limited Training and Expertise

Specialized skills = contractor reliance



# Warfighter Requirements

## Warfighters Require a Battle Command Information System that:

- Captures **STANDARDIZED SPOT REPORTS**
- Feeds a **COMMON DATA BASE** searchable, relational

### THAT

- Can be **POSTED GRAPHICALLY ON A MAP**  
and populate assessment tools
- Is **DISTRIBUTED VIA A WEB-PORTAL**
- And is **AVAILABLE ACROSS MULTIPLE DOMAINS**  
to all Services and Coalition Partners

Must answer:

1. Are we asking anyone for the same report more than once?
2. Where is the PLT, CO, BN, BDE data going?



# **BATTLE COMMAND THEMES FOR WARFIGHTING**

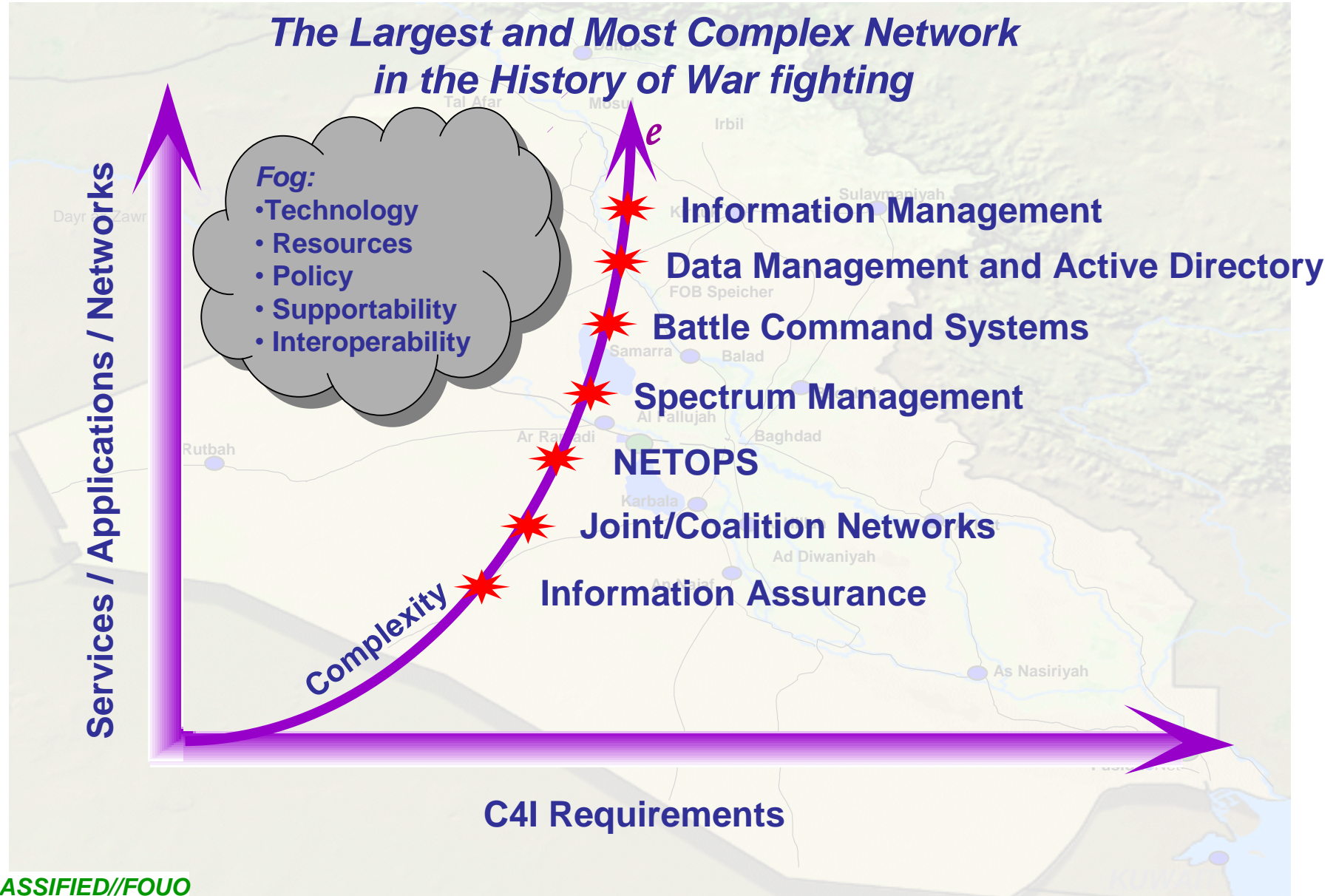
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- **KNOWLEDGE MANAGEMENT IS –**
  - **COMMANDERS' BUSINESS**
  - **OPERATIONS DRIVEN**
  - **CROSS WARFIGHTER FUNCTIONS**
  
- **ACHIEVING COMMON “RELEVANT” OPERATIONAL INFORMATION THAT IS – ADAPTABLE**
  - **RESPONSIVE (TIMELY)**
  - **FLEXIBLE**
    - **SUPPORTS SERVICE**
    - **SUPPORTS JOINT**
    - **SUPPORTS COALITION**
  
- **UNDERSTANDING BANDWIDTH AND SPECTRUM MANAGEMENT**
  - **A DIVISION AND A CORPS RESOURCE**

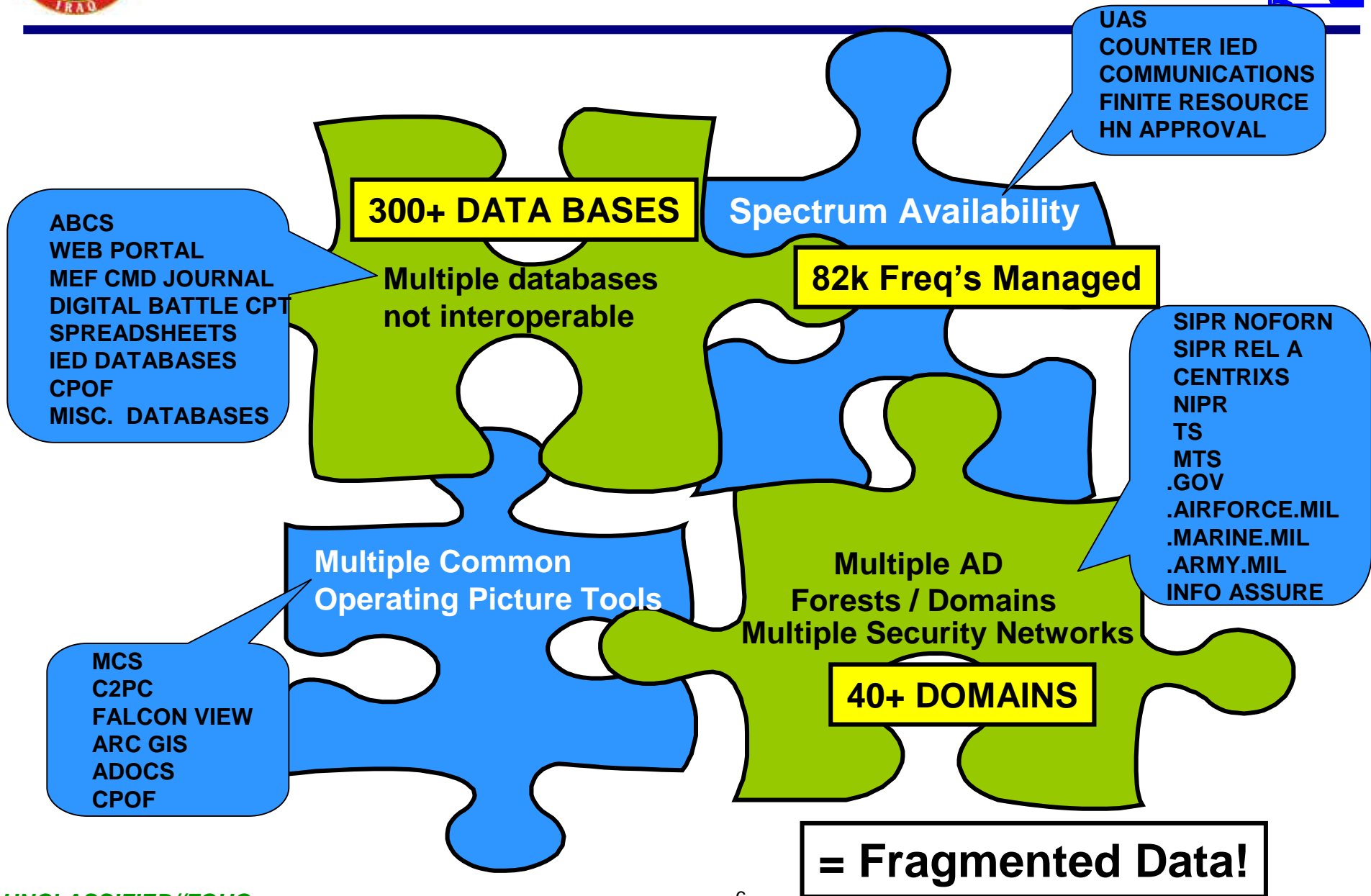


# The FOG & Friction of the Operational Environment





# Battle Command Information Challenges





# Key Take - Aways



## Observations:

- **Need to transform the Acquisition process**
  - **To long to get solutions to the field**
  - **Need to own intellectual property**
  - **Programs of record need to be more responsive to warfighter needs and mission requirements**
  - **Warfighters are using more COTS and GOTS C4I technology to meet their immediate needs.**
- **Need to bridge the divide between garrison and tactical networks...policy, IA, netops and definition of common level services add to the frustration of the warfighting community.**

## MNC-I/ V and III Corps C4I Take Aways: Revalidated



# Battle Command Recommendations



- Need **Joint Networks** vice Service Networks
- Need **Service Standards & Trust Agreements** with regards to Information Assurance and Data Networks
- **FusionNet** functionalities are ideal for primary COP view for operational SA.
- Build **information systems** that are **simple and intuitive** to use and compatible with our standard Microsoft Office tools.
- Leverage a **web-based** information portal for distribution of knowledge and general information management.
- Develop information systems that synthesize information and data requirements that are designed for **non-linear and non-contiguous battle space**.
- Information systems require a **JSOA architecture** for interoperability and data flexibility to support iterative and “real-time” modifications in a rapidly changing environment.
- Need **seamless Data Networks and Services**...A common Military Domain vice Autonomous Unit and Service Domains
- Need **Cross Domain Solutions** to Seamlessly Bridge Data Networks
- Need a **centralized process** to vet all systems / platforms requiring In – Theater spectrum support: UAS, Counter IED Systems, Comms / Radios, etc.



## *Where We Need Help from DoD, Academia and Industry*



- **Help shape Policy and set data standards**
- **Multi-spectrum C4I systems and ISR platforms**
- **Cognitive radio technology**
- **Network simulations and modeling tools**
- **Spectrum modeling and automated management tools**
- **Smart network management tools that pulse the vitals of the network... *proactive vice reactive***
- **More robust, scalable and efficient collaborative tools**
- **Common Relevant Operating Picture (CROP) all in one box and operating in one security domain**



## *Where We Need Help from DoD, Academia and Industry*

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- **Data mining tools and applications**
- **Cross Domain solutions**
- **IP technology...*EOIP***
- **Small and durable high capacity LOS systems**
- **Standardization in data structure**
- **C2 OTM and enhanced Battle Command applications through SOAs**