

Mission Command Enabled by The Network

- How Did We Get Here?
 1. Modular Force Changes
 2. Speed of Technology
 3. Speed of War
- Commanders, Mission Command, and The Network
 1. Continual Operations
 2. Understanding the Operational Environment – then Decisions
 3. Command Posts - Static and On the Move: The numbers are staggering
- The State of the Command Posts
 1. Large, non-standard fixed sites; complex, stand-alone technology, contractor heavy
 2. Significant gap between CP capability, air & ground platform capability, and dismounted capability
 3. Training, Education, Leader Development VERSUS Material Solutions
- The Network
 1. A Weapons System – Establish, Install, Operate, Trouble Shoot, Employ
 2. CDRs direct Lethal and Non-Lethal Effects via The Network
 3. The NEWEST Class of Supply - BANDWIDTH

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- The Army and The Network – Our Plan

1. A Network Strategy
 - Incrementally build CP, Platform, and Dismounted Network capabilities
 - Collapse SW onto common HW; Converge functional systems & networks
2. Building Capability Sets
3. The Brigade Modernization Command @ Ft Bliss and White Sands Missile Range
4. Network Integration Exercises
 - Test, Evaluate, and Integrate
5. In the Hands of Leaders and Soldiers

Net-enabled Mission Command requires a coherent Network of CPs, air & ground platforms, and dismounted Soldiers linked by an integrated suite of MC applications & services connected via robust communications transport

- Industry – How you can help?


1. Bring technology that enhances current capability IAW the MC Essential Capabilities
2. Identify then Simplify Tools – Integrated and Interoperable are a MUST
3. Deliver Simple, Intuitive Solutions - Embedded Training is a MUST
4. Reduce Size, Weight, Power, and Cooling requirements (SWaPC)
5. Participate in the Agile Process – We need the Innovation and ideas

- Summary


1. We're in a Race – We must “Close the Gap”
2. MC Systems and The Network MUST be in the Hands of Soldiers - Everyday
3. Repetition Leads to Confidence, Confidence Leads to True Mastery

QUESTIONS

Mission Command Essential Capabilities (MCEC)

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- **Robust Network Transport** – a converged (voice-data- imagery-video) capability to the tactical edge (LOS & BLOS) protected & defended in a cyberspace; enables aggregation of intel & info from Soldiers, Platforms, and Command Posts during distributed operations
 - **Execute Tactical Network Operations** – provides operational control of transport resources to meet mission requirements; capability to execute MC in cyberspace during disconnected, intermittent and low bandwidth conditions.
 - **Standard & Sharable Geospatial Foundation** – updateable geospatial ref to describe physical context and precise coordination (Joint targeting)
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- **Display / Share Relevant Tactical Information - provide COP & shared visualization**
 - Access / query / store / retrieve data from multiple databases/sources
 - Display using a common mapping toolkit
 - Enemy/Friendly/Neutral Loc, Graphic Control Measures, SITREPs, etc.
 - PEMSII and ASCOPE info

Mission Command Essential Capabilities (MCEC)

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- **Enable Multi-form Collaboration** – voice, text, data, and video to enhance coordination; allows all leaders to contribute local context to overall visualization (Shared visualization → understanding & builds trust)
 - **Create, Communicate, and Rehearse Orders** – direction and coordination of forces and enablers; disseminate approved orders (created collaboratively); supports mission rehearsal during distributed operations.
 - **Execute a Running Estimate** – accurate status & staff estimates linked to mission execution; supports Commander's CCIR
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- **Mission Command on-the-Move** – MC OTM (C2 OTM) capability: integrated voice, text, data, applications while mobile (on the ground or in the air); access to shared commander's visualization; scaled CP capability
 - **Joint, Interagency, Intergovernmental, Multinational (JIIM) interoperability** – achieve unity of command & unity of effort within Joint, Coalition, and interagency operations; synch JIIM enablers
 - **Training Support** – enables individual on-the-job training and multi-echelon collective training. Supports both generating force learning institutions and operating force training resources.

Network Capabilities - “The Big 4”

“The Network” requires 4 x Capabilities:

1. **Command Post Capability** - CJTF to Company levels; requires mobility; Size, Weight, & Power (SWaP) engineered into a set footprint and rolling stock. Includes radio/signal equip, MC sys/applications, and infrastructure (workspace, environmental control, etc.) required to enable Msn Cmd and provide network services for the (#2) Platform and (#3) Dismounted capabilities.
2. **Platform Capability** - All Ground, Air, Waterborne platforms; MCOTM (Mission Command on-the-Move); SWaP engineered onto Vehicles or Aircraft. Includes radio/signal equipment and the MC systems/applications required to access and use network services.
3. **Soldier (Dismounted) Capability** - SWaP engineered to be carried by Soldiers (on body armor or fit into a rucksack). Includes appropriate radio/signal equipment and the MC systems and applications required to access and use network services.
4. **Network Infrastructure Capability** - The Army Enterprise Network infrastructure that extends specific network services to the Warfighter (CP, Platform, and Dismounted); includes: NetOps (i.e. spectrum management, routing & switching services, and IA services), Network Transport (i.e. ‘wired’ fiber-optic cabling and ‘wireless’ radio/SATCOM waveforms), and other Information Services (i.e. Info storage services, geospatial services, collaboration services: e-mail, VTC, etc.).

Materiel portion of “Capability” = Network Transport + Applications / Service(s) + SWaP
(PORs, TPE, ONS/JUONS, Industry Injects)