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# AI Integrated Command and Control (C2): Operational Viewpoints for the Future C2 Operations Process and C2 Organizations

by Anna Madison and Christopher Kelshaw

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# **AI Integrated Command and Control (C2): Operational Viewpoints for the Future C2 Operations Process and C2 Organizations**

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## REPORT DOCUMENTATION PAGE

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| <b>14. ABSTRACT</b><br>The integration of AI into command and control (C2) represents not just a technological enhancement but a fundamental transformation of how we wage war. Legacy C2 systems, rooted in sequential and linear processes, cannot deliver the speed of thought required on tomorrow's battlefield. Future C2 will shift toward dynamic, cohesive operational flows where human insight and AI-driven capabilities work in synergy, enabling faster decision-making, greater adaptability, and decisional advantage at every echelon. By streamlining the operations process—planning, preparing, executing, and assessing—AI integration will empower C2 personnel to understand and act with unprecedented speed and precision. This C2 evolution necessitates new organizational structures, including smaller, AI-enabled functional and integrating cells that optimize human-machine teaming and support distributed command nodes. Ultimately, this transformation is more than operational efficiency; it is a reimagining of the Army's C2 system for the modern era, designed to seize and maintain decision overmatch over adversaries in complex, contested environments. |                                    |                                         |    |                                                                |                             |
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## Contents

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|                                                                                                    |           |
|----------------------------------------------------------------------------------------------------|-----------|
| List of Figures                                                                                    | v         |
| Acknowledgments                                                                                    | vi        |
| AI Use Disclosure                                                                                  | vi        |
| Executive Summary                                                                                  | vii       |
| <b>1. Addressing Evolving Command and Control (C2) Challenges with AI Integration</b>              | <b>1</b>  |
| <b>2. Capabilities Unifying AI Integration with the C2 Operations Process and C2 Organizations</b> | <b>2</b>  |
| 2.1 Human–Machine Collaboration Interface                                                          | 3         |
| 2.2 Autonomy Governance                                                                            | 3         |
| 2.3 Compliance Monitoring                                                                          | 4         |
| 2.4 Adaptive Collective Knowledge Systems                                                          | 4         |
| 2.5 Reliable, Predictive System Performance                                                        | 4         |
| 2.6 Distributed C2                                                                                 | 4         |
| <b>3. Operational Viewpoints for Future AI-Integrated C2</b>                                       | <b>5</b>  |
| 3.1 Planning: From Deliberation to Dynamic Exploration                                             | 7         |
| 3.2 Preparing: Proactive Readiness through Predictive Analysis                                     | 8         |
| 3.3 Executing: Real-Time Adaptation and Opportunity Exploitation                                   | 9         |
| 3.4 Assessing: Continuous Feedback and Rapid Refinement                                            | 10        |
| <b>4. Future C2 Organizational Structures: Human–AI Integrated Formations</b>                      | <b>11</b> |
| <b>5. Conclusion</b>                                                                               | <b>17</b> |
| <b>6. References</b>                                                                               | <b>18</b> |

|                                                     |           |
|-----------------------------------------------------|-----------|
| <b>List of Symbols, Abbreviations, and Acronyms</b> | <b>19</b> |
| <b>Distribution List</b>                            | <b>20</b> |

## List of Figures

---

|                                                                                                          |    |
|----------------------------------------------------------------------------------------------------------|----|
| Figure 1. Unifying capabilities for an integrated AI–C2 system. ....                                     | 3  |
| Figure 2. Future C2-integrated operations process. ....                                                  | 5  |
| Figure 3. Planning capabilities and enabling technologies, leading to optimized staff coordination. .... | 7  |
| Figure 4. Preparing capabilities and technologies, leading to shared situational understanding. ....     | 9  |
| Figure 5. Executing capabilities and technologies, leading to cross-echelon coordination. ....           | 10 |
| Figure 6. Assessing capabilities and technologies, leading to automated feedback loops. ....             | 11 |
| Figure 7. Operational viewpoint overview of future integrated AI–C2 processes and organizations. ....    | 13 |
| Figure 8. Evolution of C2 organizations with integrated AI. ....                                         | 14 |
| Figure 9. A future of C2 organizational structures with integrated functional cells. ....                | 15 |
| Figure 10. Future AI-integrated C2 organizations across echelons. ....                                   | 16 |

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## **AI Use Disclosure**

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## **Executive Summary**

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This technical note outlines a future vision for Army command and control (C2) systems, focusing on the integration of AI to enhance operational effectiveness. It examines necessary process and organizational structure adaptations required to leverage AI capabilities, moving beyond automation, to achieve true cognitive enhancement of C2 personnel (i.e., commanders and staff members). The report adopts an operational viewpoint, prioritizing practical application and outlining the human-machine integrated formation imperative for future operational environments.

## **1. Addressing Evolving Command and Control (C2) Challenges with AI Integration**

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Warfare is becoming increasingly volatile, uncertain, complex, and highly transparent. These characteristics present numerous operational and technical challenges. While current C2 systems\* have been shaped by significant technological advancements, they are reaching the limits of their effectiveness when confronted with the sheer scale and pace of change in future operational environments.

An increase in battlefield transparency and ubiquitous sensor data presents critical challenges, namely, information overload and vulnerability. The exponential growth of available data threatens to exceed human processing capacity, leading to “analysis paralysis” where the sheer volume of information prevents effective decision-making. This situation can also lead to compressed decision-making timelines and an increased potential for critical oversight to monitor for errors, particularly as intelligent systems become more integrated into Army C2 systems and are further relied on. These changes in future operational environments are compounded by the challenge of incomplete information, including denied, degraded, intermittent, and limited (DDIL) communication capabilities that can limit the amount, quality, and accuracy of real-time data updates needed for creating a holistic understanding of operational risks and opportunities. Furthermore, a rise in increasingly deceptive information enabled by generative AI (e.g., deepfakes) can be especially dangerous when cognitive load is high, as it can obscure the identification of both intentional manipulation and unintentional errors and lead to contamination of intelligent system analytics. Critically, these developments introduce new vulnerable attack surfaces. Adversaries could exploit the inherent susceptibility of human cognition to biases, aiming to induce suboptimal decision-making.

Traditional military planning methodologies, such as the Military Decision-Making Process (MDMP) and Joint Planning Process, while doctrinally sound, are increasingly recognized as being too deliberately linear to effectively respond to the rapidly evolving conditions, emergent risks, and fleeting opportunities inherent in the future operational environment. Furthermore, maintaining comprehensive and timely situational awareness and shared understanding, cornerstones of effective C2, remain persistent challenges, particularly with respect to multi-domain operations in highly complex, dynamic, and contested operational

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\*C2 systems comprise C2 personnel/organizations, communication networks, C2 processes, and command post nodes (HQDA 2019).

environments. The inability to synthesize disparate data streams into accurate, coherent operational pictures hinders quality decision-making and can lead to protracted decision cycles.

Intelligent systems, such as modern AI, present a transformative opportunity to overcome these limitations not by replacing human judgment, but by augmenting it (McDowell et al. 2024; Barrett-Taylor and Karner 2025). AI-integrated C2 promises to dramatically enhance the ability to operate effectively in the face of these challenges and reenvision the C2 operations process by streamlining aspects of planning (i.e., the MDMP) and conducting steps in parallel based on modern data processing and analysis capabilities. Examples include automated data analysis and pattern recognition to identify critical trends and anomalies, predictive analytics to forecast future operational risks and provide early warning, robust decision-support systems offering optimized courses of action (COAs), and collaborative planning tools that accelerate and refine the planning process through AI-assisted COA analysis (i.e., wargaming).

Crucially, this integration must be underpinned by meaningful human control (Madison et al. 2024) to enforce ethical, legal, and rules of engagement principles; adaptive knowledge systems to capture and distribute institutional, doctrinal, and historical learning; and support distributed C2 architectures to maintain operational resilience by enabling the C2 operations process to continue across multiple echelons. Embracing these capabilities is no longer a matter of technological advantage, but a necessity for maintaining operational effectiveness in 21st-century operational environments.

## **2. Capabilities Unifying AI Integration with the C2 Operations Process and C2 Organizations**

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The following operational viewpoints are described in the present tense to portray a future where our envisioned AI transformation is a reality. This approach treats projected capabilities (Figure 1) as existing systems, encouraging a more tangible and productive analysis.

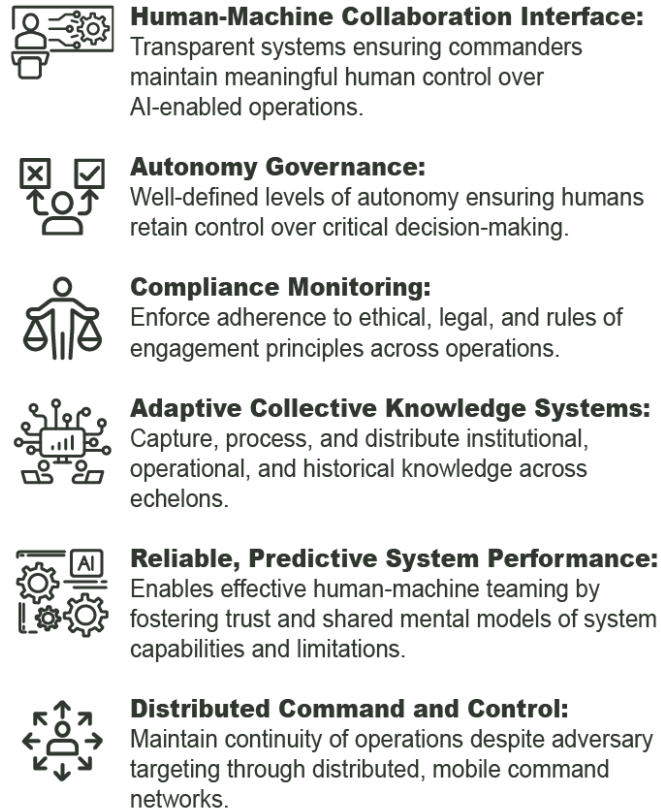


Figure 1. Unifying capabilities for an integrated AI-C2 system.

## 2.1 Human-Machine Collaboration Interface

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Advanced human-machine interfaces form the foundation of the AI-integrated C2 system, enabling transparent collaboration and a shared understanding between human and machine. COAs are dynamically codeveloped through a transparent and predictable interaction. AI provides system analysis reports on data integrity, bias, and accuracy, which elevates human understanding and ensures the suitability, feasibility, and acceptability of the codeveloped COAs.

## 2.2 Autonomy Governance

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At its core, the AI-integrated C2 system is human-centered. C2 personnel (i.e., commanders, staff members, and liaisons) remain the ultimate decision-makers, maintaining meaningful control by setting analytical parameters, priorities, and risk thresholds. While the set of “human-only” tasks has reduced, AI does not substitute for human judgment in decisions requiring value trade-offs, political sensitivity, and moral reasoning.

## **2.3 Compliance Monitoring**

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Human control is maintained within a strict ethical framework. The AI-integrated C2 system operates in full compliance with all legal and regulatory requirements at every stage of the operations process. High-consequence decision-making, including those decisions governed by the Law of Armed Conflict and Rules of Engagement, inherently requires human authority and deliberate review.

## **2.4 Adaptive Collective Knowledge Systems**

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The AI-integrated C2 system is not static; it constantly learns and adapts. It evolves in real-time by integrating operator feedback, historical data, established doctrine, and lessons learned from across the Joint Force. This allows the team, both human and machine, to adapt to changing conditions (i.e., emerging risks and opportunities) and shifting commander priorities.

## **2.5 Reliable, Predictive System Performance**

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Trust is built upon the system's consistent and predictable performance. This reliability allows C2 personnel to develop robust mental models of the AI coworker's capabilities and constraints—in essence, building a shared picture of how the AI “thinks.” This deep understanding of the AI's processes, including its potential vulnerabilities, fosters a calibrated trust and has proven fundamentally crucial for maintaining an effective level of human-machine teaming.

## **2.6 Distributed C2**

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Enhanced analytics allow the C2 operations process to span and synchronize across all domains and functional areas (e.g., intelligence, fires) simultaneously. By leveraging computational power with human insight, the AI-integrated C2 system achieves a level of integration and synchronization beyond the bounds of solely human possibility. Even when disconnected from the network (i.e., DDIL conditions), the AI component of the C2 system continues to support C2 personnel within the established commander's intent by providing operationally relevant and goal-aligned predictions and recommendations using locally managed data, ensuring the C2 operations process continues without interruption.

The next sections describe the AI transformation across the core elements of the C2 operations process, emphasizing the synergistic relationship between human judgment and AI-driven capabilities and describing the organizational shifts in C2 organizations and command posts.

### 3. Operational Viewpoints for Future AI-Integrated C2

The integration of intelligent tools into C2 systems transforms how the operations process is conducted and who executes it through a dynamic combination of human and machine intelligence, which provides a transformative approach to the C2 system. The involves a fundamental shift from a predominantly human-centric undertaking to a human-machine enhanced system, altering how a socio-technological system plans, prepares, executes, and assesses operations. Now, C2 systems use AI to achieve a rapid, adaptive, and continuously optimized operational and decisional tempo against near-peer and peer adversaries and are no longer constrained by the limitations of industrial-era linear processes and solely human cognitive capacities.

C2 processes comprise the overarching operations process phases of planning, preparing, executing, and assessing, along with C2 integrating processes of targeting, information collection, intelligence preparation of the operational environment (IPOE), risk management, and knowledge management (HQDA 2019). A result of AI integration is the ability to streamline all phases into a cohesive whole rather than discrete, sequential, and linear steps that are dependent on one another (Figure 2). In essence, the process becomes continuous, parallel, interconnected, and updating in real time based on new data and analysis from humans and machines working together. This enables accelerated decision cycles, reducing timelines from days (e.g., 72 h for and operations process cycle at the division level) to hours or minutes through AI-enabled analytics and recommendations combined with C2 personnel within optimized C2 organizations.



**Figure 2. Future C2-integrated operations process.**

This evolved human-machine C2 operations process allows for AI-driven pattern recognition to enhance decision-support tools to help expedite the plan and prepare phases through recommendations to C2 personnel through an interface that allows

humans and intelligent machine systems to interact. C2 personnel have transitioned from creating plans from human-driven processes to setting parameters, managing, and adapting plans generated and refined by technologies such as Course of Action Generative Pretrained Transformer (COA-GPT; Goecks and Waytowich 2024), a generative AI for MDMP. These human–AI generated plans coupled with AI-powered simulation technologies enable rapid COA development along with enhanced analysis using digital twin modeling and advanced wargaming technologies. AI helps make the C2 integrating process of risk management more quantitatively rigorous while balancing against solely qualitative/subjective assessments. AI-enabled technologies provide more comprehensive and objective risk assessments than human planners by considering a wider range of factors and potential consequences. This enables commanders to make more informed decisions, balancing risk and opportunity.

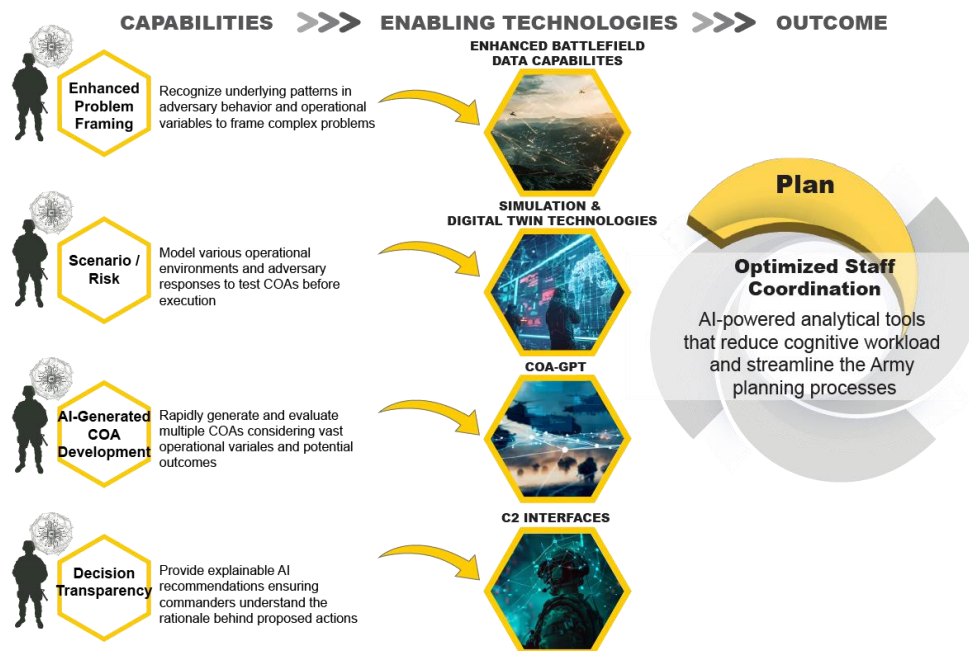
AI identifies gaps in Soldier readiness and situational awareness through Soldier monitoring systems, proactively recommending actions to be addressed during preparation and analyzing current plans for misaligned situational awareness (Perez-Cabarcas et al. 2025). During the execution and assessment phases, AI continuously monitors the operational environment, leveraging near- and real-time battlefield data sources, and recommends adjustments to plans based on each echelon and the changing conditions therein. AI fuses data from multiple sources to create common operational pictures (COPs) appropriate for each echelon that are continuously updated and disseminated to all relevant stakeholders and viewed through mixed reality interfaces (see extended reality COP [XR-COP]; Dennison et al. 2020). At each phase of the C2 operations process, intelligent system augmentation allows C2 personnel to produce highly agile planning and decision-support outputs, all while maintaining unity of effort in transformative ways that result in higher quality, timely outcomes that contribute to relative C2 system overmatch in relation to our adversaries.

Across the operations process, AI drives a convergence of data, analysis, and human judgment, resulting in a more responsive and effective fighting force. Sections 3.1–3.4 describe how AI is reshaping planning, preparation, execution, and assessment, moving beyond isolated applications to a fully integrated system across all four phases. This integration fosters a continuous feedback loop, enabling near-instant refinement of operations based on real-time data and predictive analysis. AI-powered tools do not replace human expertise but rather amplify it. AI integration with C2 personnel reshapes roles, where AI will assume responsibility for redundant or simpler tasks while simultaneously amplifying human capabilities through cognitive enhancement. This allows personnel to concentrate on uniquely human functions such as critical thinking, ethical considerations, and the nuanced

art of command. The result is a more agile, adaptable force capable of operating effectively in a rapidly changing, increasingly complex operational environment. This transformation maintains the core tenets of established doctrine while using the power of AI to achieve decisive advantage.

### 3.1 Planning: From Deliberation to Dynamic Exploration

Planning in the future operational environment has evolved from a time-consuming, linear process to a rapid, adaptive approach powered by AI-human teams that results in more optimized staff coordination that reduces cognitive workload on C2 personnel (Figure 3). AI-powered technologies like COA-GPT (Goecks and Waytowich 2024) reduce cognitive workload and streamline the planning process. C2 personnel now benefit from AI-generated COA development that can rapidly explore thousands of possibilities across multi-domain operations, considering variable interactions that would have been impossible for human C2 personnel to process in the past. The MDM and Army Design Methodology have not been replaced but rather enhanced through AI-powered analytical tools.



**Figure 3. Planning capabilities and enabling technologies, leading to optimized staff coordination.**

C2 capabilities to enhance more robust planning allows for planning to occur at a more rapid pace in this new socio-technical era. What took days now takes hours or even minutes, with AI handling data processing while human C2 knowledge workers focus on creative problem-solving, ethical considerations, and weighing operational risk versus payoff. Planning products are now generated through

natural language processing systems that produce doctrinally sound orders, reducing administrative and cognitive burdens. Commanders maintain overall decision authority while benefiting from explainable AI that provides reasoning behind recommendations, ensuring transparency in the decision-making process.

Enhanced battlefield data enables more effective problem framing, allowing AI systems to assist by recognizing underlying patterns in adversary behavior, identifying trends in operational variables, and visualizing these insights. These systems can predict likely outcomes through sophisticated simulations, enabling commanders to select optimal COAs that maximize opportunities while minimizing risks. These systems continuously model both threat and friendly forces in the form of digital twins of individuals and organizations based on enemy movements, supply chain vulnerabilities, and data from battlefield dynamics to predict future states, leading to higher-quality planning decisions by C2 personnel. After reaching a higher understanding of the adversary and potential operational plans, AI rapidly generates and evaluates COAs that consider operational variables and provides potential outcomes through wargaming simulations. At each step, C2 personnel can maintain unity of effort and shared understanding through explainable AI recommendations and data analysis processes that allows for transparency from intelligent systems for C2 personnel to understand rationale behind proposed actions plans.

### **3.2 Preparing: Proactive Readiness through Predictive Analysis**

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The preparation phase becomes less resource-intensive, as well as more effective at building mission readiness, by providing timely and accurate refinements of COAs as part of ongoing planning (Figure 4). Preparation is transformed to engender enhanced shared situational understanding through AI-powered updates creating a data-driven, accurate COP tailored for each echelon. This begins with immersive training environments that significantly increase readiness by exposing C2 personnel to a wide range of potential adversary tactics and operation environmental conditions before deployment. Advanced virtual and augmented visualization systems allow leaders to conduct virtual terrain walks and rehearsals with unprecedented fidelity. Driven by simulation and digital twin technologies, exposure targeted for each echelon's range of potential operational scenarios and decision points allows for development of a wider breadth of mental models of the operational environment and to practice operations at varying speeds to innovate rehearsals and aspects of wargaming. C2 personnel and units now prepare by entering execution with a more optimized, intelligence-informed, and comprehensively rehearsed operational posture, dramatically increasing their chances of success and unity of effort. Real-time readiness assessment systems

continuously evaluate C2 personnel and each unit's status, proactively identifying weaknesses in training, equipment, or logistics before they potentially lead to mission-critical failures. This continuous assessment, backed by AI analytics allows for proactive rotation of C2 staff and units to maintain high levels of effectiveness. Coupled with predictive logistics that anticipate supply requirements based on developed COAs, operational forecasts ensure that units can focus more on the mission and less on sustainment as they prepare for and execute fast-paced operations. Automated risk mitigation planning analyzes mission hazards and refines reduction measures based on historical patterns and real-time threat intelligence. Most importantly, AI-powered intelligence estimates and other IPOE product updates ensure all echelons maintain an up-to-date common intelligence and operational picture despite distributed operations or degraded communications.

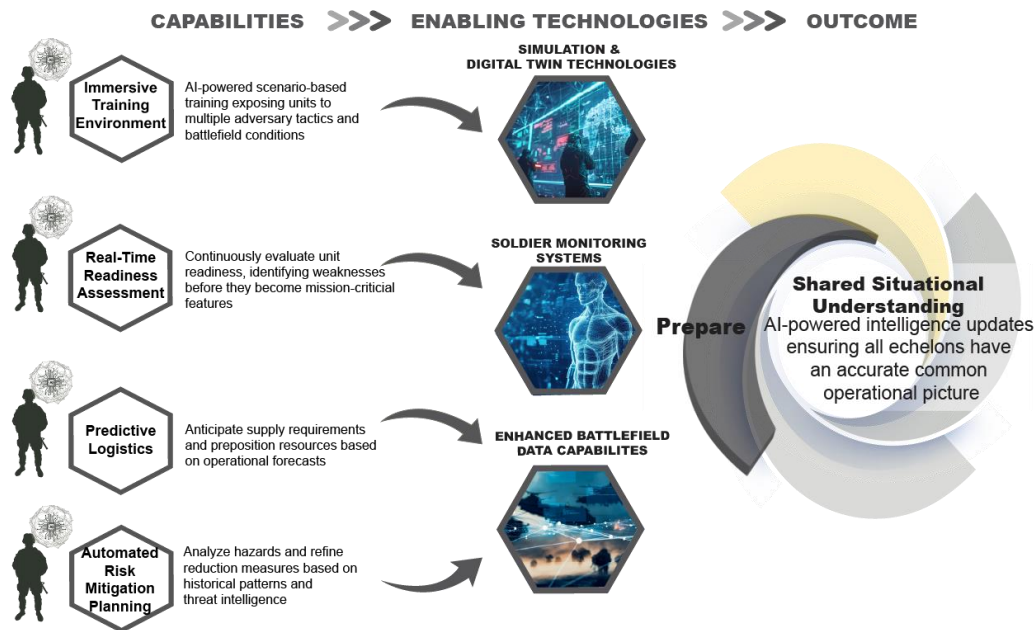


Figure 4. Preparing capabilities and technologies, leading to shared situational understanding.

### 3.3 Executing: Real-Time Adaptation and Opportunity Exploitation

Enhanced execution leads to better cross-echelon coordination, enabling unity of effort and synchronization through AI-integrated tools despite distributed operations and command nodes (Figure 5). At their core, AI-enabled decision-support systems continuously analyze the operational environment, providing recommendations based on unfolding conditions in real time. Using these enhanced battlefield data capabilities and real-time data insights, C2 personnel with AI coworkers better anticipate the need for rapid adjustments as conditions change

during execution of operations. Human–AI systems teamed with AI COA development and generation help identify emergent risks and fleeting windows of opportunity to suggest plan branches and sequels that allow for dynamic exploitation across land, air, sea, space, and cyberspace. Pulling these human–AI systems together, XR-COP technologies create a coherent systems visualization of the changing operational environment across echelons (Dennison et al. 2020). This enables C2 personnel to understand and act with greater relative precision with this comprehensive picture, even in contested, degraded environments. Predictive resupply and logistics systems monitor system consumption rates and preemptively adjust supply chains to sustain operations and prevent culmination throughout rapidly changing dynamics during execution. This real-time adaptation to operations during execution ensures maintaining high-tempo execution to outpace adversaries and provides cross-echelon capabilities that maintain integration and synchronization.

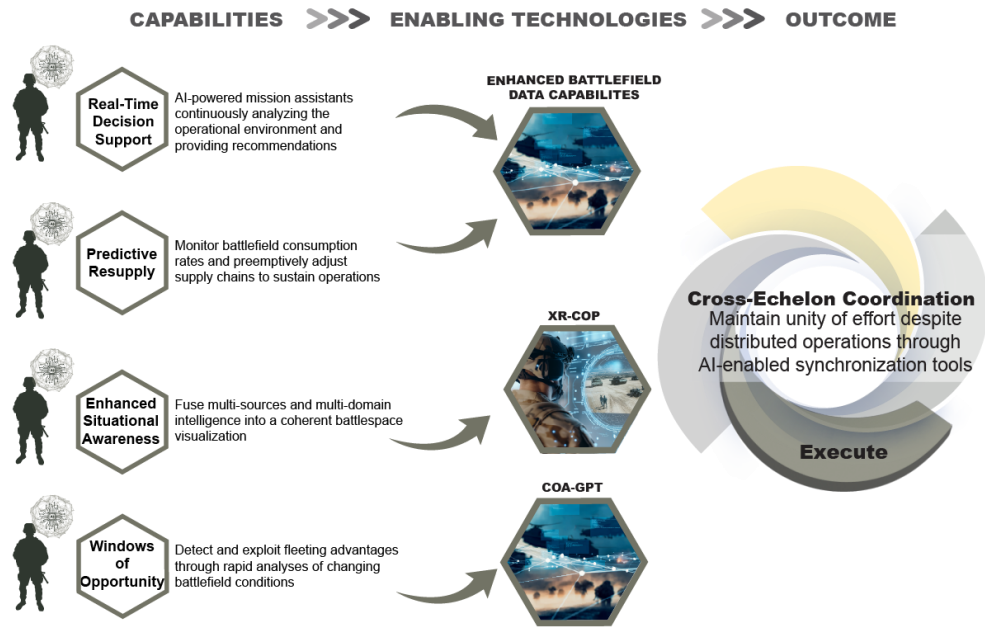


Figure 5. Executing capabilities and technologies, leading to cross-echelon coordination.

### 3.4 Assessing: Continuous Feedback and Rapid Refinement

Assessment evolves from a relatively periodic, labor-intensive process to a continuous, AI-driven feedback loop providing near-instant feedback enabling rapid refinement to ongoing operations (Figure 6). Comprehensive data collection and integration from intelligence reports, reconnaissance assets, multi-domain sensors, and open-source information is automatically aggregated and normalized through human–AI analysis. Pattern recognition and predictive analysis capabilities

detect hidden trends in mission and operational variable behaviors and create data insights faster than human analysts can without AI support. By creating and maintaining digital twins, these systems forecast the operational environment for battlefield assessment by processing data on enemy maneuvers, supply chain weaknesses, and battlefield dynamics. Measures of performance and effectiveness are enhanced through data-driven real-time updates, ensuring assessments remain relevant in rapidly changing conditions. Assessment metrics are dynamic rather than static, adapting to changing mission and operational variable behaviors based on battlefield data. Most significantly, automated feedback loops provide near-instant input to C2 personnel, enabling humans and AI to refine plans and execute ongoing operations rapidly. This allows for simultaneous planning of future operations and real-time updates to COAs based on battlefield data and intelligence. The assessment phase is no longer separated from other phases but is truly integrated and occurring throughout the operations process.

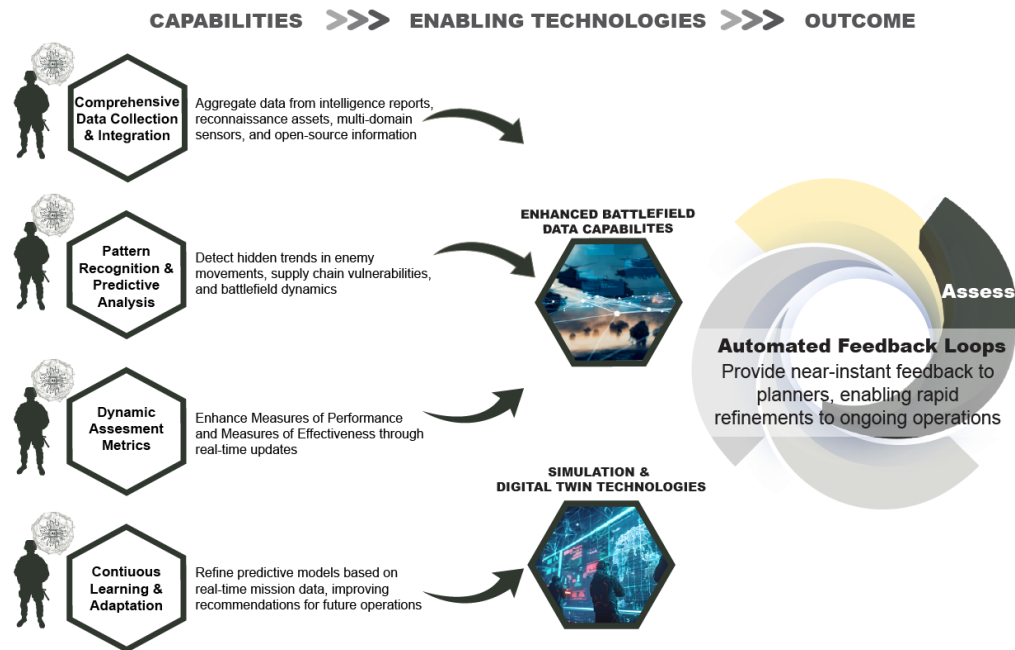


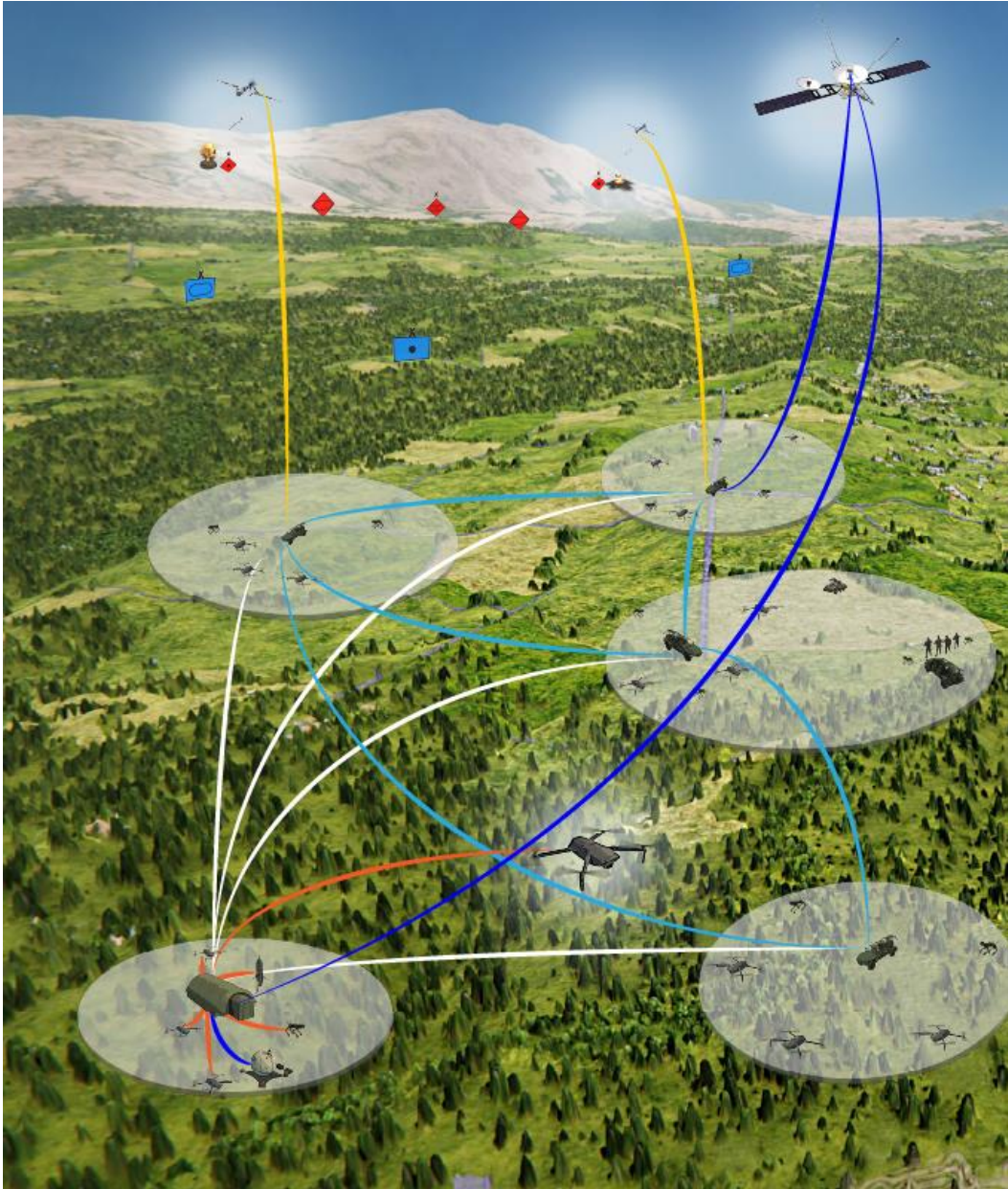
Figure 6. Assessing capabilities and technologies, leading to automated feedback loops.

#### 4. Future C2 Organizational Structures: Human–AI Integrated Formations

Maintaining overmatch in 21st-century operational environments requires command posts (CPs) and C2 personnel to balance survivability and effectiveness. Shifting from a central CP that is vulnerable due to its large size and electromagnetic signature, distributed CPs with integrated AI execute the C2 operations process to increase survivability if one CP is attacked or has degraded capabilities.

The streamlined, continuous C2 operations process and MDMP described in the previous section enables distributed command nodes containing each of the C2 warfighting functions (i.e., fires, intel, maneuver, sustainment, and protections) to maintain unity of effort and conduct each phase of the C2 operations process. Each command node (shown in Figure 7 as a circular entity) can execute the C2 operations process individually or together, forming a network of C2 personnel for distributed execution of the C2 operations process.

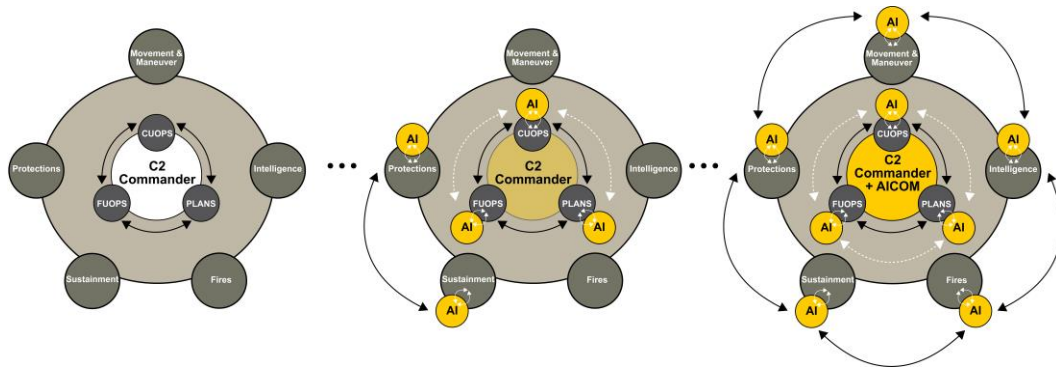
This C2 system organizational structure ensures that a high level of effectiveness is maintained by dynamically integrating and synchronizing combat power from within the entirety of the command post constellation (CPC). Depicted in Figure 7, distributed CP nodes integrate information collection (i.e., sensing) and targeting of enemy elements while synchronizing with other nodes. Near- and real-time battlefield data produced during execution are shared throughout the CPC through next-generation communication networks. This allows CP nodes composed of both human and AI technologies performing data analytics, predictive forecasting, and rapid planning or replanning to work collaboratively throughout the operations process, yielding meaningful insights into dynamically changing operational conditions. Lastly, this organizational structure allows the operations process to continue even in situations where some CP nodes must maneuver to increase survivability.



**Figure 7. Operational viewpoint overview of future integrated AI-C2 processes and organizations.**

Successful integration of AI into C2 necessitates changes to organizational structures and fundamentally alters the nature of how C2 is accomplished (Figure 8). While human-machine systems are similar to traditional teams, managing these new configurations introduces unique challenges (e.g., maintaining unity of effort and shared understanding) that are addressed by the technologies discussed in previous sections. Reducing the overall number of human C2 personnel through AI augmentation allows for smaller distributed command nodes but simultaneously increases the complexity of human-machine system interaction. This new C2

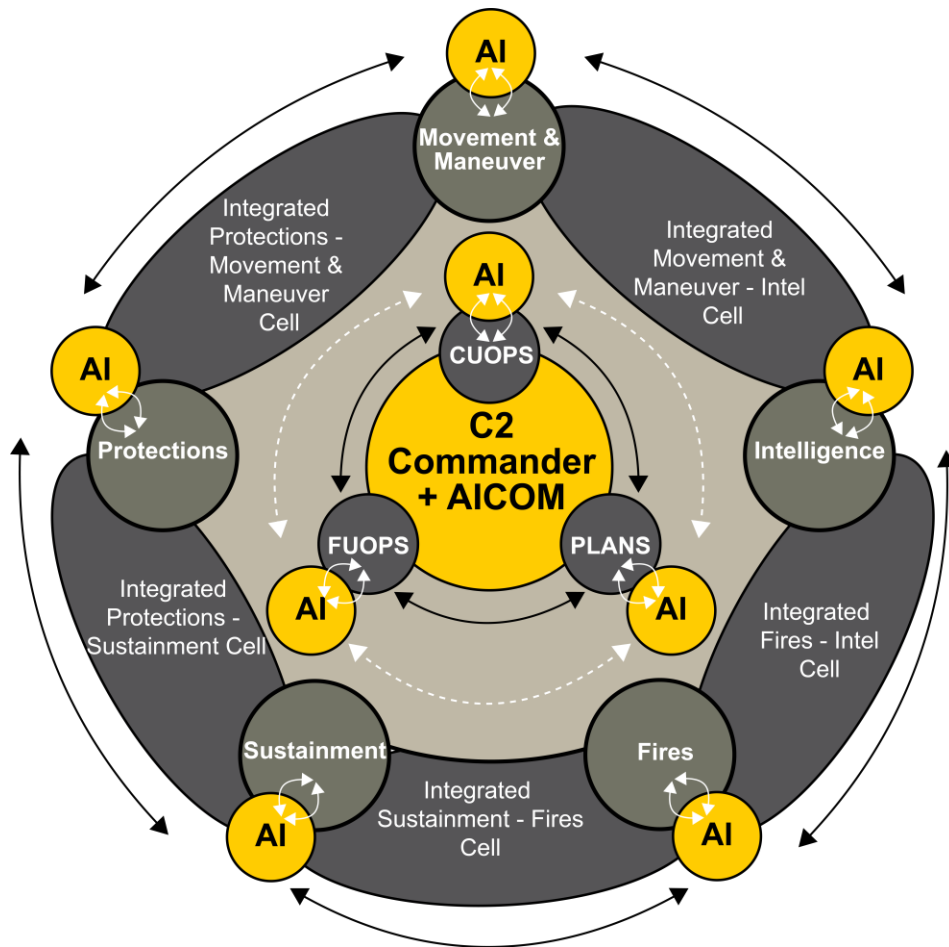
organization is composed of human–human, human–machine, and machine–machine formations (Figure 8; Madison et al. 2024, Jensen and Strohmeyer 2025).



**Figure 8.** Evolution of C2 organizations with integrated AI (reproduced from Madison et al. 2024).

The optimal configuration of this hybridization of human–machine systems is task-dependent, rather than defined by inherent capabilities of either component (Metcalf et al. 2021). AI excels at rapid data processing and analysis while human intelligence remains critical for contextual interpretation, handling ambiguity, and validating recommendations. This necessitates a shift from categorizing roles based on perceived strengths to designing systems where AI handles routine tasks like data fusion, visualization, and contributions to the running estimate. This frees C2 personnel to focus on validation, contextualization, and alignment with commander’s intent.

This operational construct supports the development of AI-enabled functional cells of data-informed C2 personnel partnered with dedicated, domain-specific AI technology designed to accelerate analysis and provide rapid, high-fidelity running estimates and recommendations (Figure 9). These functional cells associated with each warfighting function feed integrating cells (e.g., current operations), collapsing traditional staff delays and siloed analyses, which increases synchronization and enhances decisional tempo under contested conditions. Each warfighting function now contributes in ways that generate richer insights and improved decision quality. Cross-domain agentic AI technologies integrated within the plans, future operations, and current operations integrating cells helps C2 personnel fuse functional cell inputs, increasing the range of creative operational options. Importantly, the plans, future operations, and current operations cells will become more integrated to rapidly plan and replan. As described earlier, the evolving fight demands speed of thought that legacy staff structures could not match; reorganizing into smaller, AI-enabled functional and integrating staff cells achieves critical decision advantage and supports distributed command node organizational structures.



**Figure 9. A future of C2 organizational structures with integrated functional cells.**

This hybrid human–AI C2 organizational structure is replicated and integrated across all echelons, fostering both top-down situational awareness and bottom-up reporting of tactical-level insights (Figure 10). The integration of AI and intelligent technologies into each echelon enhances interoperability and synchronization, enabling higher echelons to effectively execute the MDMP while empowering lower echelons to conduct enhanced troop leading procedures. This is not simply a parallel implementation; the architecture is designed for dynamic cross-echelon collaboration. For example, AI-driven pattern analysis at the tactical level can automatically flag anomalies and emerging trends, pushing relevant information upwards to higher echelons for incorporation into the MDMP. Conversely, higher-level intent and guidance are refined through AI-assisted wargaming and translated into actionable tasks with refined execution plans at lower echelons. This bidirectional flow of information is facilitated by standardized data formats and AI-powered translation tools, ensuring all echelons operate with a shared understanding of the operational environment and contribute to a cohesive,

synchronized effort. The result is a more responsive, adaptive C2 posture across the force, enabling faster decision cycles and improved mission outcomes.

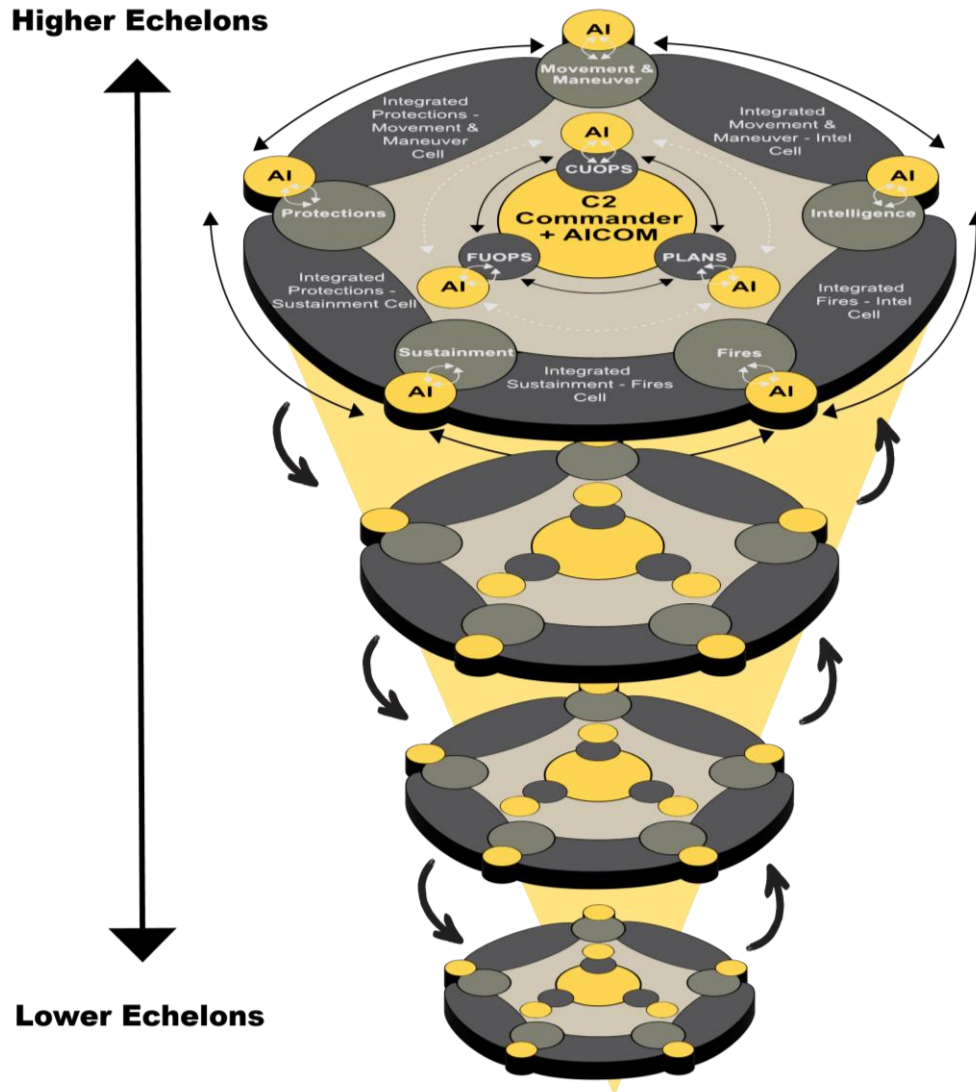


Figure 10. Future AI-integrated C2 organizations across echelons.

Recognizing the potential for contested electromagnetic environments, the system is designed to maintain critical C2 functionality even under DDIL communication conditions. Units operating with limited or no connectivity to cloud networks due to adversary jamming or other disruptions can continue to execute missions and maintain limited C2 capabilities by using onboard AI processing and preloaded data. Critically, even in a disconnected state, each echelon's human-AI C2 structure can sustain its respective operations processes at an elevated performance level, using local processing and collaborative filtering to maintain a relevant COP. Upon restoration of connectivity, these locally refined insights and operational data are seamlessly reintegrated into the broader enterprise network, ensuring continuity

of effort and minimizing information loss. This resilience mitigates the risk of C2 degradation in contested environments.

## **5. Conclusion**

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The Army's C2 operations process and organizational structures will fundamentally change as it continues to move away from industrial to intelligence-era warfare. By leveraging AI, ML, and human-machine collaboration, the Army will achieve unprecedented levels of decisional quality, speed, and C2 system resilience.

This transformation is not merely technological, it requires the thoughtful integration of complementary doctrine and training updates, novel leadership approaches, and supportive organizational structures. The human element will remain central to Army C2, with technology serving as a cognitive force multiplier that enhances, rather than replaces, human judgment and leadership.

The future battlefield belongs to those who can think, decide, and act faster than their opponents. The transformed operations process used in future human-AI C2 organizations will be key to achieving that advantage.

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## List of Symbols, Abbreviations, and Acronyms

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|         |                                                         |
|---------|---------------------------------------------------------|
| AI      | Artificial Intelligence                                 |
| C2      | Command and Control                                     |
| COA     | Course of Action                                        |
| COA-GPT | Course of Action Generative Pretrained Transformer      |
| COP     | Common Operating Picture                                |
| CP      | Command Post                                            |
| CPC     | Command Post Constellation                              |
| DDIL    | Denied, Degraded, Intermittent, and Limited             |
| IPOE    | Intelligence Preparation of the Operational Environment |
| MDMP    | Military Decision-Making Process                        |
| ML      | Machine Learning                                        |
| XR-COP  | Extended Reality Common Operating Picture               |

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