

MISSION COMMAND AND ARTIFICIAL INTELLIGENCE

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ABSTRACT

One approach to military leadership is the philosophy of mission command. Mission command is supported by several principles and all of them are essential, without those it cannot be fully applied. These principles are the mutual trust between participants, the understanding, the clearly articulated intent of the superior, the decentralized execution and the timely-made decisions. As the Artificial Intelligence is progressing and gaining ground it will influence the entirety of the military command and control process: new decision situations will arise and the human-machine cooperation may create new relationships. This paper scrutinizes whether the identified principles of mission command can be applied in the same way in the Artificial Intelligence-infused operational environment as it can be among traditional circumstances.

KEYWORDS: Artificial Intelligence, Mission command, machine learning

1. Introduction

Militaries all over the world struggle to find their Philosopher's Stone that provides the very solution with which they will be able to outmatch the enemy. Several concepts and technologies are considered to be valid applicants for this position, some of them on the field of command and control. Among these concepts there is one candidate that is widely considered in the Western world as a game-changer, namely the mission command approach. On the technological side several innovations can be examined, but the most promising and trending one is the Artificial Intelligence.

These two seemingly distant things, the Artificial Intelligence and mission command are coexisting in the military world, having been applied in the command and control systems. This study aims to explore their interrelation, scrutinizing the impact of Artificial Intelligence on the mission command philosophy. The main research

question of this paper is whether mission command can be exercised in a command and control system infused with Artificial Intelligence solutions. Answering this question requires a discussion of mission command and setting up a common understanding for the purpose of this study, as mission command's understanding varies from country to country. Regarding Artificial Intelligence, it is required to describe the nature of existing and prospective systems with emphasis on its potential military usage. After the basic ideas are clarified, the author aims to identify the interaction between the mission command and the Artificial Intelligence in command and control. In the absence of unclassified Artificial Intelligence-based systems to conduct tests with, the basic method of achieving these goals is to analyze relevant books, studies, and articles from military journals, synthesizing their essence in order to answer the research question.

2. Mission Command

A modern military needs effective leadership that applies the best methods available for leading the subordinates. One approach for achieving this modern, effective leadership is the mission command. Although the term itself is widely used, its meaning differs from country to country, or even has multiple context-dependent meanings in a single country. This part of the study tracks down the origins and development of mission command until the 1980s, and its proliferation afterwards.

The mission command is an English term which is used by the militaries of English-speaking countries. The concept is adapted by the North Atlantic Treaty Organization (NATO) and serves as one of the key tenets in its joint operational doctrine. The term itself is chiefly propagated by the United States Army, with some of its former doctrinal documents suggesting that their current notion of mission command roots in the German *Auftragstaktik*, an approach developed in the late 19th century by the Prussian – later German – army (ADP 6-0, 2019). Despite this claim it seems clear that while the term mission command is a loose translation of the German term *Auftragstaktik*, they are not identical. More often than not studies and articles dealing with the mission command tend to oversimplify the origin story. To provide a detailed outlook on the birth of *Auftragstaktik* is beyond the scope of this article.

The Mission Command as we know and use today roots in the United States Army efforts to increase the quality of its leadership. To enhance leadership, they reached back to German experiences of the Second World War and made extensive study of the *Auftragstaktik* exercised by Wehrmacht commanders on the Eastern front. As a result, the first version of the new doctrine, the AirLand Battle included the main principles of the *Auftragstaktik* and German maneuver warfare. The concepts of speed, initiative, rapid decision-making, clear objectives and

designated main effort are seemed like logical derivatives of the *Auftragstaktik* fundamentals used by the Prussians more than 100 years before (Shamir, 2010). Nevertheless Robert M. Citino (2005) and Ricardo A. Herrera (2022) pointed out that the notion of *Auftragstaktik* which the American doctrine visualized never existed. They argue that the term *Auftragstaktik* was never used in the contemporary German documents discussing command issues, they used the term “*independence of subordinate commanders*” instead.

The term *Auftragstaktik* was translated into Mission Command at an early stage of the concept development, but there were debates around this term, as Eitan Shamir (2011) stated. Other proposed translation solutions included “mission-type orders” and “directive control”, but all were rejected. Scholars and experts pointed out the shortfalls and conceptual problems with the system of Mission Command, and highlighted, that the original *Auftragstaktik*, and what Mission Command means today are two distinct, but nonetheless related notions. The term Mission Command officially included in the British doctrine in 1995, and in the U.S. Army doctrine in 2003. Several other militaries followed suit all over the world, some adopting Mission Command as a philosophy and method, some designating it as just one of the possible command methods.

The U.S. Army Field Manual FM 6-0, approved on 11 August 2003, was titled “Mission Command: Command and Control of Army Forces”. This manual was the first to describe the fundamentals of the Mission Command as the U.S. Army interpreted it. The manual included the following definition for Mission Command: “*the conduct of military operations through decentralized execution based upon mission orders for effective mission accomplishment*” (FM 6-0, 2003, Glossary-10). To achieve this, disciplined initiative is required from the subordinates, and a clear intent from the commanders. But the most important feature

of Mission Command is the environment of trust and mutual understanding. These two are related and build on each other, but the manual does not provide extensive details how to achieve them. Later the continuous fine-tuning of the doctrinal products changed and refined the definition of Mission Command. The FM 5-0 in 2010 gave this summary: “*Mission command is the preferred method of exercising command and control*” (FM 5-0, 2010, vii.). The other mentioned method, the detailed command was not discussed further in the document.

In less than 2 years the U.S. approach to mission command was changed fundamentally. In the 1980s the doctrine developers created the notion of the “battlefield operating systems” by grouping the physical means used to accomplish the mission. One of these seven systems were labeled command and control. In 2008 the battlefield operating system structure was reworked and transformed into the system of warfighting functions. A warfighting function is not simply consisting of physical means, but instead it is defined as “*group of tasks and systems (people, organizations, information, and processes) united by a common purpose that commanders use to accomplish missions and training objectives*” (FM 3-0, 2008, Glossary-15). In 2012 the command and control warfighting function was renamed to mission command warfighting function, thus giving the mission command an additional, completely different meaning.

According to the 2012 edition of the ADRP 6-0 the phrase “mission command” meant three different things at the same time: first, one of the foundations of unified land operations; second, the preferred method of command; and third, a warfighting function. This proliferation of the term was counterproductive: it confused some in the leadership about how to approach mission command, and what its real essence is. The ADRP 6-0 stated that the roots of the U.S. Army’s mission command can be found

in the German Auftragstaktik, however while the Auftragstaktik provided the overarching basis for leadership and command, the mission command can be considered as only one of the four foundations of unified land operations. Naming the command philosophy, the preferred method of command, and a warfighting function as mission command alike became a source of confusion and misunderstanding. Brett Matzenbacher (2018) points out that this supposedly innovative change sowed confusion instead, since the reason behind renaming the warfighting function – namely the intention to change the underlying command philosophy – was not clearly communicated throughout the U.S. Army. One can understand the problem through describing the environment set up by the doctrine: the mission command is a foundation of the operations being led by using the mission command method to synchronize the warfighting functions through the mission command warfighting function. To increase confusion further, the doctrine also introduced the term “mission command system”, which is “*the arrangement of personnel, networks, information systems, processes and procedures, and facilities and equipment that enable commanders to conduct operations*” (ADRP 6-0, 2012, 1-5).

Despite these problems the multifunctionality of mission command stood the test of time for a long time. The 2017 edition of ADRP 3-0 explicitly stated that “*mission command remains both a philosophy of command and a warfighting function*” (ADRP 3-0, 2017, v.). This also meant that it was not a method of command anymore. From 2016 on the U.S. Army gradually changed its approach: first, the mission command became one of the six principles instead of the four foundations. Second, the 2019 edition of the ADP 6-0 rescinded the term “mission command system” and “mission command warfighting function”. The warfighting function was

renamed back to command and control, so the term mission command finally became purer and clearer. The ADP 6-0 and the May 2022 edition of FM 6-0 redefines the mission command as “*the Army’s approach to command and control that empowers subordinate decision making and decentralized execution appropriate to the situation*” (FM 6-0, 2022, Glossary-5).

At its most recent state the U.S. Army mission command became a well-defined approach to command and control. It’s no longer a fundamentum or principle of the unified land operations, but it supports them. Exercising mission command requires competence equally on the subordinate’s and the commander’s side as well as mutual trust. The commander’s intent provides the framework, in which – through shared understanding of the situation – the troops conduct their activities guided by mission orders. When opportunity or necessity raises, the subordinate should exercise disciplined initiative to fulfil the commander’s intent. The most important component of mission command is arguably the risk acceptance and responsibility, since not all undertakings may result in success.

The other major NATO military that applies mission command for a longer time period – aside from the German – is the British Army. According to Oliver Burwell (2016) their understanding of the mission command is similar to the original German one: they consider it a philosophy, which governs the leadership activities. Their mission command’s principles are decentralized command, freedom of action, initiative and speed. The execution of mission command relies on trust, mutual understanding and initiative.

The NATO’s approach to mission command derives partly from the United Kingdom’s and partly from the United States’ understanding of the term. The NATO doctrines are subject to periodical review, and during these the terms and principles are regularly updated. The most recent update

happened in 2022, when in February the AJP-3.2(B) Allied Joint Doctrine for Land Operations, and in December the AJP-01(F) Allied Joint Doctrine were updated. Both of them contain the base for NATO’s mission command, although their contents are not identical. They agree that mission command is NATO’s command philosophy for the command of military operations, but differ in identifying the principles. According to AJP-01(F) the fundamentals of mission command are trust and mutual understanding, while unity of effort, timely and effective decision-making, and decentralized execution are the principles that guide its application. This overview slightly differs from the previous one described in the AJP-3.2(B), that only distinguishes five principles and does not mention any fundamentals. This inconsistency is a characteristic of the NATO doctrine system, and roots in the offset doctrine update periods. Based on the practice of the previous decades, by the time the lower-level doctrines catch up with the capstone doctrine, a new capstone doctrine will be published.

To sum up, mission command is an approach to command and control of forces, in which the commanders and subordinates have a certain relationship. The NATO doctrine defines mission command as “*a philosophy of command that advocates centralized, clear intent with decentralized execution; a style that describes the ‘what’, without necessarily prescribing the ‘how’*” (AJP-3.2(B), 2022, Lex-8). The commander is responsible for clearly articulating their vision and for organizing the planning effort to reach a decision. After the decision made, the commander must inform the subordinates about the objectives, set the limits, and provide them the means to achieve the designated goals. The NATO’s approach promotes centralized planning and decentralized execution, which requires proper training and leadership qualities. The main aim behind the implementation of mission command was to provide flexibility

that enables our organizations to outthink the enemy by making decisions faster at the level of relevance. There are various principles that are essential in orchestrating the mission command throughout the force. In this study we will consider the trust, the mutual understanding, the effective decision-making and decentralized execution as points of further interest.

3. Artificial Intelligence

Artificial Intelligence an emerging general-purpose technology with high prospects for the future. One of the fundamental works on the topic considers Artificial Intelligence to be so complex that it doesn't even try to create a straightforward definition (Russell & Norvig, 1995). AI represents a multidisciplinary endeavor, and its possibilities go well beyond computer sciences. In this study we only focused on the modern interpretation of digital Artificial Intelligence. Its fields include image recognition, computer vision, robotics, language recognition, natural language processing, neural networks and machine learning. Looking back to the past 60 years of Artificial Intelligence research it becomes clear that the interpretation of the term "Artificial Intelligence" is changing over time. The working definition of Artificial Intelligence for the purpose of this paper is: Artificial Intelligence is a computer system able to perform tasks that normally require human operators (RAND, 2020). Military application of Artificial Intelligence is currently twofold: the autonomous systems, and command and control support applications. This study is dealing mainly with its role in command and control, thus scrutinizing the latter has the focus.

Dwelling into the details of Artificial Intelligence development history cannot be done in this study. The gradual advances in computer hardware combined with new algorithms gave a new momentum to Artificial Intelligence research by the late 1990s. The birth of internet and the gradual

proliferation of the so-called Internet-of-Things generates an inconceivable amount of data daily. This abundance of information, the so-called Big Data coupled with the trending Artificial Intelligence technique, the machine learning can be a powerful tool. Machine learning algorithms can improve and optimize their behavior by proper training data, thus they excel in rating and labeling newly encountered information by finding patterns, generating intelligent-like behavior. As the underlying mathematics and algorithms improved over time, the machine learning became more and more powerful, and in present times it is considered by most as the most favorable Artificial Intelligence solution to use (Scharre & Horowitz, 2018). Contemporary innovations are applying machine learning techniques to the hardware, by enabling the computer chips to reconfigure their electronic circuits on demand, this way emulating neurons and synapses to better mimic the process how the human brain is working. Research labs and commercial companies, such as the widely-known OpenAI, are racing to create the Artificial General Intelligence, a level of Artificial Intelligence that is undistinguishable from the human intelligence capabilities. The OpenAI's latest "biggest hit" is the ChatGPT, an application that is capable of human-like written conversation with anybody on various topics. The ChatGPT uses a certain type of machine learning, the generative pre-trained transformation. This needs a large pool of already processed data to generate output relevant to the input. Although this method results in spectacular responses, the model itself is still far from being a "thinking machine". Its critics, such as Noam Chomsky (2023), consider it as an efficient "autocomplete", a dead end on the road to the general intelligence due to its flawed approach to the problem.

Artificial Intelligence and potentially machine learning has its limitations nevertheless, which constrains its possible application. Despite the hype it seems the

Artificial General Intelligence still remains a distant dream. Current Artificial Intelligence, though it evolves constantly, in its current state is only suitable for solving well-defined problems with similar variables. They cannot understand their operating contexts, they are rigid, they are inflexible, and they are unable to go “out of the box” they were designed for (Scharre & Horowitz, 2018). A contemporary image recognition system, for example, could accurately identify the type and size of objects in a picture or video, but it is unable to tell a coherent story about what is happening, what the interactions on the spot are. Machine learning can easily be fooled by corrupted input, and it can also learn human biases, which makes this technology vulnerable (Hawkins & Kott, 2022). The security of the database from hacking is another issue that must be dealt with. Artificial Intelligence in its current state can perform specialized tasks far better and faster than humans do, but the output they provide require human intelligence to analyze them and make them suitable for further use (Layton, 2018).

Military application was always a driver of Artificial Intelligence development. Several systems were developed to speed up planning or command processes. The U.S. armed forces pioneered the development of deployment planning software, that sped up the preparation for several operations, and also contributed to budget-saving measures. As technology improved new opportunities arose, which led to the development of automated decision-making systems or autonomous weapon systems. Militaries all over the world realized that they can best their enemies if they reduce the time required for decision-making. Reducing decision-making time today cannot be considered without extensively engaging Artificial Intelligence in the planning and execution phases of an operation. The triad of Big Data, the high-performance machine learning, and the continuously improving cloud technology together contributes to a novel approach

referred to as Algorithmic Warfare by some experts. Experts and researchers – such as Peter Layton (2018) and Greg Rowlands (2018) – speculate that the future of warfare will have a significant contest against algorithms and hardware.

Future conflicts may differ in several aspects from the contemporary ones. One of these aspects is the command and control system, as Peter Layton (2021) states in his work. Improving own decision-making and degrading enemy decision-making are the two primary ways to gain advantage in an armed conflict. One option for improvement is the integrating Artificial Intelligence, one way for doing this is the theory called Hyperwar. The name implies that the speed of battle and information processing accelerates beyond the level of human cognition, meaning the decision must also be made in short notice, even less than in a second. In such an environment, theoretically, the side with more autonomous decision-making system will likely prevail. AI systems will contribute to generating a better Common Operational Picture and will be able to predict enemy courses of actions and suggest their own ones. Artificial Intelligence will speed up deconfliction, assign tasks to subordinates in a supervised or non-supervised way. The execution process will include several autonomous weapon systems and Artificial Intelligence assisted decision-making systems as subordinates. If applied well, Artificial Intelligence-enabled subsystems will increase the speed of operations and reduce time required for decision-making. The inevitable proliferation of technology may lead to conflicts in which both sides will have the capability to conduct Hyperwar in some degree. In this accelerated environment the traditional military decision-making models may not be suitable: an even more intense cooperation will have to take place between Artificial Intelligence subsystems and their (optional) supervisors. The rapid changing of the situation will render the traditional methods untenable,

giving way to computer-enabled prediction. Decentralized decision-making is one key to seize the rare opportunities as fast as possible, and a struggle to seize and/or retain the initiative will be a central element of operations in a Hyperwar environment.

Without capabilities to match the speed and effectiveness provided by Hyperwar, one side may engage Artificial Intelligence-enabled systems to disrupt the adversary party's decision-making. Autonomous or semi-autonomous systems may be used for deception, overloading of enemy sensor systems, jamming of adversary communications, acting as decoys, basically whatever means needed to slow down the adversary decision-making, or ideally blocking it completely. Even obstructing some parts or functions of the enemy decision-making systems – such as sensors, communication networks, command posts – may have significant impact on the operations by providing more time for our own decision-making.

The role of autonomous systems in modern warfighting environment must be considered too. Artificial Intelligence-driven systems can perform dangerous tasks without risking the lives of own troops. They have two main categories, autonomous weapon systems and robotic vehicles. Weapon systems are capable of destroying adversary targets, robotic vehicles can operate with or even without human remote control. Whichever asset will be in use in an operation, the decision-making authority will be human hands, but human commanders must take Artificial Intelligence-driven subordinates into consideration. The measure of autonomy and own judgement of such an asset may raise concerns, on the ethical and operational side alike. Scrutinizing these concerns is out of the scope of this paper as it would require separate studies.

4. The Impact of Artificial Intelligence on Mission Command

In the previous chapters the essence of mission command and a brief overview of

Artificial Intelligence was discussed to provide a common ground for scrutinizing their interaction. Making the final decision traditionally involves humans, and humans only. Traditional mission command approach considers the participants of the command process human beings, and accepts the fact, that the humans are not error-prone. Should in the future a reliable and explainable Artificial General Intelligence materialize, it would foreshadow the substitution of humans with Artificial Intelligence in some parts of the chain of command. This kind of mixed human-machine organizations may be realized sooner than we can imagine. This prospected future “synthetic comradeships” will require special approach of command. The potentially applied leadership method will most likely be a modified mission command, that can some researchers already labeled as mechatronic mission command.

Military command is often considered an art, for even though there are set principles and methodology, the classic Clausewitzian friction and the peculiarity of human nature hamper the application of a pure scientific approach to command. The mission command is a method for pursuing this art based on the best practice of preceding military leaders. The already mentioned competence, as one of the main ingredients of mission command, extensively depends on the personality and training of the commanders. The mutual trust and understanding between the participants of the chain of command are dependent on their personalities. Artificial Intelligence in its current state can come into play mainly as a decision-support tool.

As a support tool, the impact of Artificial Intelligence can be twofold: it may contribute to the speed of reaching the decision and/or improve the validity of the decision. Normally a human commander makes an estimate of the situation prior making decisions. Depending on the level of command and the time available, this estimate may involve the insights and

expertise of other personnel, in higher echelons it is called the commander's staff. The speed of the decision-making is the function of the speed that the commander and its staff can operate at. Time-constrained environment or haste may corrupt the quality of the decision, but as a rule of thumb an adequate decision on time is considered better than a perfect decision late. Artificial Intelligence enabled decision-support systems can help staff experts to improve the speed of their advice, and this contributes to a sound and timely decision on the commander's side. Similarly, the potential Artificial Intelligence-enabled decision support systems will have a solid knowledge base that draws from past experiences and shared databases. Their advice or decisions, that have foundation in the accumulated knowledge base, can contribute to the trust and understanding, which strengthens the mission command.

Drawing from the discussion above we can state that the Artificial Intelligence in the near future will have a supporting role only, contributing to timely and precise decision-making. To determine whether it will have any impact on the mission command philosophy, we must scrutinize the change it makes in trust, mutual understanding, effective decision-making and decentralized execution.

Regarding trust, the emerging question is whether the commanders can trust the AI decision support systems' suggestions, and to what extent. As stated above, AI systems excel in processing large volumes of input data and can provide an assessment in short time compared to human workforce. The commanders must decide if they trust the validity of the AI's assessment or disregard it. The extent of trust in the AI will depend on the usefulness and value of the information provided by it. However, it can be extremely complicated to assess the validity of this information prior the start of the operation. If the operation goes well, the AI probably will not get credit. In case of failure the AI would likely be one of the scapegoats to

blame. Providing the information acquired via AI will be extraordinary, unusual, or differ from customary human findings, the decision-makers may face a problem. If they cannot check the validity or feasibility of the findings, they may be reluctant to use it, or may ignore it completely. This probable behavior is due to a human cognitive bias, that forces us to choose the familiar one from a set of possible solutions. There is also a significant risk if the decision-maker chose to use the unusual finding of the AI, that the subordinates would have problem in comprehending the intent or the mission due to the lack of sufficient background knowledge. If the subordinates trust the commander, they will not question the intent. Nevertheless, if things go wrong, the subordinates' trust will decrease, as well as the commander's trust in the AI. Trust once lost is extremely hard to recuperate.

Trust is also a function of understanding: one rarely trusts someone without common understanding. Mutual understanding among humans normally requires common terminology, common procedures and shared experiences. Working in international environment or in close cooperation with non-military entities does not guarantee understanding as such, since military procedures and terminology are usually special. In the military, different branches have their own jargons, which can complicate effective communication between the branches themselves. The optimal way to mitigate this would be having a single standardized military language for all, but this would be a radical and impractical move. AI decision support systems may be programmed to interpret input in the various branch-specific terminologies, but the output must be a standardized one that ensures mutual understanding. So one must ensure that the AI will understand the task required from it, but the generated output must also comply with the terminology and standards. Should this compliance be achieved, the level of trust would increase towards the AI-enabled system.

Artificial Intelligence can also contribute to the timely and effective decision-making. It can speed up things by reducing the time required for making or altering plans. Distributing plans and orders via AI-enabled communication systems also helps in keeping operational security and achieving optimal speed. Reducing the time needed for a higher command to make up a plan enables the subordinate to act in a timely fashion. As stated in the previous chapter, the Hyperwar theory builds upon the high-speed decisions and effects aiming at the disruption of the enemy decision-making systems. Similarly, one must be prepared to anticipate that the enemy will try to interfere with our own decision-making systems in the same way, so better AI-enabled support systems and faster communication systems are the key to achieve superiority.

Decentralized execution is also a feature that can be positively or negatively affected by the application of AI systems. The final decision and plan of the superior sets up tasks and objectives that may not be accomplished or achieved due to significant changes in the situation. In this case the subordinate must exercise disciplined initiative and do everything he can to contribute towards the fulfilment of the commander's intent. But since the assessment is an ongoing process during operations, it is possible that basing on new information – produced by AI-enabled systems analyzing the changing operating environment – the commander's intent may change. The AI may propose changes to the units' objectives in a speed that is inconceivable right now, that would put pressure on decision-makers and their staffs. Successfully navigating through the complex battlespace in speed requires novel peacetime training methods, presumably conducted in a virtual training environment with most of the real-life participants present. To train for Hyperwar it is necessary to produce a training environment that is similar to the projected future operational environment. AI systems

can be a powerful tool in achieving this goal, thus building the troops' capability to successfully conduct mission command.

Although since in the future an all-networked military is envisioned, where all systems and sensors are connected to each other, using AI-enabled systems to provide an almost real-time situational awareness. This theoretically enables the higher echelons to intervene with the subordinates, in the worst case bypassing the chain of command. To effectively apply mission command this possibility must be ruled out, the subordinate must be freed from interference through the proper application of the decentralized execution principle.

We can see from these few paragraphs above that the Artificial Intelligence will have its influence on the mission command. Every single principle will have its meaning and underlying mechanism modified by the impact of AI-enabled decision support systems. First and foremost, the mutual understanding and trust must be achieved between man and machine, which can be quite a challenge, but professional training and joint exercises would facilitate the forming of an effective synthetic comradeship.

5. Conclusion

The main question of the study was whether mission command can be applied in an environment enabled and accelerated by Artificial Intelligence systems. As the speed of decisions improve the command interactions must change, leaving greater autonomy to the subordinates. This is in line with the principles of mission command. Infusing staffs with AI-enabled decision support systems will affect the trust and mutual understanding factors of mission command. AI is also a helpful tool in improving the timeliness of decision-making, and also facilitates the decentralization of the execution, if used in a right way. But successful integration of AI requires new methods for staffwork, great amount of

training, and a new mindset that treats machines as comrades. Since the technology is relatively new, it is vague to expect optimal solutions from the very start. I honestly think that the prospected level of detail and the improved communication possibilities provided to a higher level commander would frustrate the mission command practices, enabling the circumvention of the chain of command by micromanaging the troops on the ground. One aspect of the Hyperwar is about high-speed decisions at the lowest possible level, but is it always right that the subordinate makes decisions faster than the superior does? The subordinate usually has a narrower view of the situation, for they must focus on their own area of operations. The decision made by the superior usually has more insight of the broad situation, thus its

more likely to successfully contribute to the intent. If the subordinate starts executing something that the superior with his superior knowledge considers a fault, then what will happen to mitigate that? Stopping or micromanaging an operation that has already started is ill advised. Proponents of Hyperwar may say that the subordinate has the same operational picture as the superior, but the level of education and experience may not be the same, not to mention the task and responsibility. All of these aspects will have influence on how mission command evolves in the future operational environment. I conclude that usage of AI solutions cannot be avoided for they provide a competitive edge, and there must be unavoidable but yet undeterminable alterations in the way mission command is exercised.

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