



U.S. Marine Corps Sgt. Idris Idris, center, a small unmanned aircraft systems specialist with U.S. Marines with 1st Battalion, 2nd Marine Regiment, 2nd Marine Division, demonstrates the C100 drone capabilities to a Spanish marine during a company live-fire range as a part of Fleet Exercise 250 (FLEETEX) on Marine Corps Base Camp Lejeune, North Carolina, June 19, 2026. FLEETEX 250 represents the United States' commitment to layer defense of the homeland through forward-deployed forces and reinforces interoperability with allies and partners through collective maritime security. (U.S. Marine Corps photo by Cpl. Channah Chilton)

Building the Mental Golden Dome

Arming the Joint Force for Defensive Cognitive Warfare

By James M. Davitch

The decisive ground of tomorrow's wars will not be a hilltop, a seaport, or outer space; it will be within the human mind. Victory will belong to forces that can rapidly discern truth from deception. Adversaries across the world weaponize information to frac-

ture alliances and erode unit cohesion.¹ Yet while offensively focused terms like "information warfare" and "cognitive warfare" have entered popular military discourse, the *defensive* aspect remains doctrinally undefined. This absence is now glaring given that the Joint War-

fighting Concept—the Department of War's North Star for future force design—explicitly states that cognitive advantage is a prerequisite for victory.²

This article fills that gap by defining *defensive cognitive warfare* (DCW) as the protection of friendly forces from adversary attempts to distort perception, disorient judgment, and degrade decisionmaking. Although new terminology can risk creating confusion, this definition

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is intentionally precise and grounded in existing military concepts to facilitate clear communication and avoid unnecessary jargon. The article situates DCW within current academic scholarship and aligns it with joint and Service doctrine; deconstructs the term; recommends updates to doctrine, training, and assessment; and offers a four-phase, 36-month path to implementation.

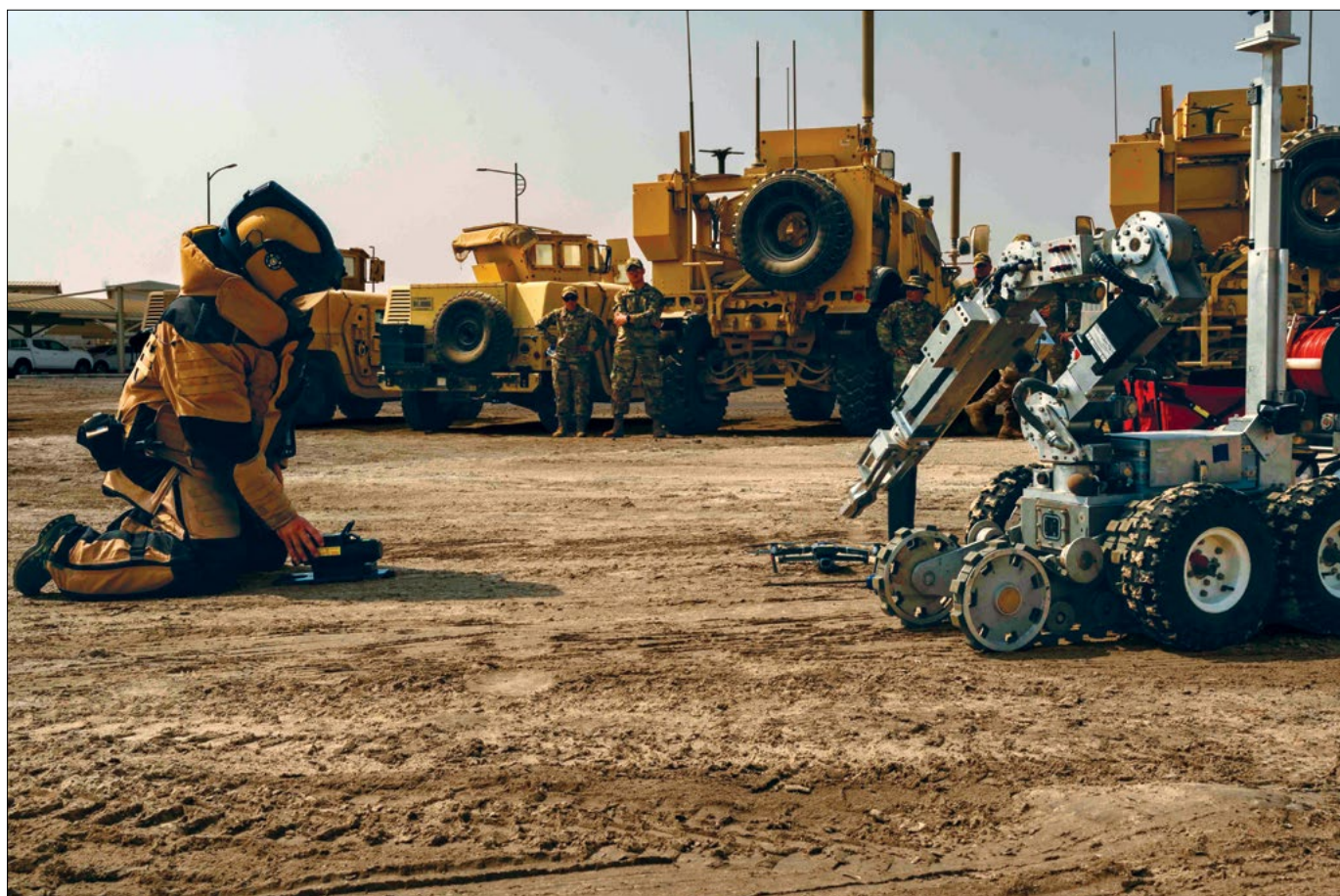
A unit unable to withstand cognitive attacks is unprepared for combat. Absent a shared definition, framework, or doctrine, the joint force remains susceptible to false sensory inputs, mental manipulation, and subconscious bias—conditions that can distort perception, disorient judgment, and ultimately degrade decisionmaking. Therefore, formalizing DCW in joint doctrine and operationalizing it within the joint force is mission-critical.

Defining Defensive Cognitive Warfare

Is Defensive Cognitive Warfare Necessary?

The first and most important step is to determine whether the definition is necessary and not a solution in search of a problem. Russian and Chinese disinformation in the 2020s illustrates the need all too clearly. On March 6, 2022, Moscow fired the first shot in a new information offensive, falsely claiming—via a tweet from Russia’s Ministry of Foreign Affairs—that Ukraine was frantically purging evidence of a secret bioweapons program.³ In doing so, Russia ensured that even its critics would picture the very scenario it invented. Most damning, the tweet stated that the U.S. Department of Defense had financed Kyiv’s biological weapons.

The next day, while reiterating the same accusation against Ukraine, China’s Ministry of Foreign Affairs went a step further, alleging that U.S. research contributed to the COVID-19 pandemic.⁴ While the White House quickly denied the accusations, in some ways Russia and China had already achieved the intent of their disinformation operation. They influenced how their audiences might interpret future information, especially those already skeptical of U.S. foreign policy or its transparency, by suggesting the United States was secretly supplying weapons of mass destruction. This dynamic is captured by Magruder’s Principle, which describes how messages may resonate more strongly when they align with existing viewpoints. DCW seeks to mitigate this effect by equipping personnel with the tools to critically evaluate information from all sources and consider alternative perspectives.



U.S. Air Force Tech. Sgt. Cameron Farrell, explosive ordnance team lead, assigned to the 380th Expeditionary Civil Engineer Squadron, approaches an ANDROS F6A robot during a training exercise at Al Dhafra Air Base, United Arab Emirates, August 6, 2021. The F6A is a highly dependable robot commonly used by the military for explosive ordnance disposal, reconnaissance, and other hazardous missions. (U.S. Air Force photo by Tech. Sgt. Michelle Y. Alvarez)

George Lakoff's elephant metaphor explains *negative framing*, a device that disinformation operations can weaponize by exploiting subconscious thinking.⁵ For example, if one is told, "Don't think of an elephant," it is difficult to avoid immediately doing precisely that because trying *not* to think about something makes one think about it even more. In March 2022, Russian and Chinese forces not only published false information but also executed an early multinational coordinated disinformation operation of the Russia-Ukraine war. By planting the suggestion that the United States was secretly supplying weapons of mass destruction to Ukraine, these U.S. adversaries made the claim seem plausible enough that even firm denials from the White House could not fully dispel the possibility that the stories were true.

The target of this disinformation campaign was the human mind. These tactics were meant to erode popular support for Ukraine, including in the U.S. military. Fake videos spread online, indirectly targeting U.S. Servicemembers, creating the potential for dissension and division within the military, thereby degrading unit cohesion. While leveraging information for advantage is not new, some have sought to label the present style of fighting that targets people's decisionmaking capabilities as *cognitive warfare*.

A brief literature review reveals that the preceding vignette is not an aberration, but indeed ongoing and, in fact, not new. Multiple *Joint Force Quarterly* authors have examined the role of cognition in warfare. Emily Bienvenue and Zachary Rogers describe how cognitive warfare is an "enduring feature of the existing and future operating environment."⁶ They take a societal view of trust, regard it as a strategic vulnerability, and argue that trust-building should be a deliberate military line of effort. More recently, Daniel Hall points to Russian and Chinese manipulation of cognitive terrain as a major factor eroding U.S. willpower.⁷ As such, he frames the protection of perception as an urgent joint requirement and offers compelling solutions to this problem. Both pieces accurately

diagnose the cognitive threat facing the joint force. Hall comes closest to advocating for defensive capabilities; however, it is more of a call for cognitive counteroffensive operations with protection as a secondary effect.

Elsewhere in the scholarly literature, Thomas Rid documents in *Active Measures* how the Soviet Union weaponized disinformation throughout the Cold War and escalated its efforts after the 1950s.⁸ He describes how Russian cognitive warfare techniques date to the 1920s and progressed through four identifiable phases. Rid argues they evolved to today's digital capabilities that use modern methods to attack vulnerabilities present in open societies. Renée DiResta et al. concur with Rid's analysis. They show how Russian mercenaries use social media to prey on predetermined vulnerable audiences.⁹ Their scholarship aligns with that of P. W. Singer and Emerson T. Brooking, who argue that these technologically aided cognitive attacks are not only present, but a battlefield for modern warfare.¹⁰ The current literature on cognitive warfare makes it unmistakably clear: the challenge to the Department of War is real, its vulnerabilities are immediate, and the threat is escalating. Thus, a definition of DCW will allow the joint force to name the threat and begin to create a coherent defense against it. To do so, DCW will have to nest within existing U.S. military doctrine.

Is DCW Consistent with Existing Doctrine?

The joint force has made meaningful progress in addressing cognitive warfare, yet significant gaps persist. In 2022, the joint force released its first information-centric doctrinal volume, Joint Publication, *Information in Joint Operations*. The same year, the Air Force published Air Force Doctrine Publication 3-13, *Information in Air Force Operations*. Existing doctrine, however, concentrates almost exclusively on offensive information-warfare principles, leaving a critical vulnerability in the defensive realm that DCW seeks to address.

While DCW does not exist in joint doctrine, it fits within the

established warfighting "Protection" and "Information" joint functions. Moreover, the Joint Warfighting Concept's tenet of integrated command and agile control presumes that commanders can make sense of real-time data despite adversary deception.¹¹ DCW may provide the protective layer enabling that agility. However, current joint doctrine defines protection primarily in physical terms, not cognitive. As written, it focuses on preserving the joint force's fighting potential through force protection, force health protection, and related activities. This framing is useful, but insufficient for addressing the mental dimension of modern conflict. Therefore, while not explicitly named, DCW conceptually aligns with the protection function as it exists today.

Joint doctrine's approach to cognitive defense is still developing. Joint Publication 3-0 presents the information joint function largely as a means for shaping external audiences and touches on defense primarily in terms of *information protection* as a function of cyber defense.¹² This publication's emphasis on generating, projecting, and denying information provides comparatively less guidance on preserving the cognitive resilience of friendly forces. Joint Publication 3-04 adds a valuable discussion of how emotion and bias filter perception, but that insight is confined to a brief sidebar.¹³ The publication has not yet outlined a detailed framework or procedures for safeguarding troops against hostile influence. It also defines cognition as "the mental process such as thinking, retrieving stored information, and processing of the information . . . by which knowledge and understanding is developed in the mind," a helpful start that could be refined for clarity and practical application.¹⁴ These limitations prevent joint doctrine from being more useful in the fight for cognitive advantage. As such, the joint force acknowledges the vulnerability exists but is unequipped to counter it. However, before proposing solutions, one must clearly and precisely specify what is to be defended.

Deconstruction

As noted earlier, this article defines DCW as the protection of friendly forces from adversary attempts to distort

perception, disorient judgment, and degrade decisionmaking.

To keep this definition actionable, it is broken into three nested layers: core terms, key vulnerabilities, and cognitive attack methods. Examining these layers individually helps to define with doctrinal precision what DCW means: shielding friendly forces against an enemy’s cognitive attacks on key vulnerabilities. Table 1 distills each subterm to one concise description.

With these subdefinitions in hand, the next task in pursuit of a definition of DCW is to further define the cognitive subcomponents. This is because these

subterms (perception, judgment, and decisionmaking) are both critical components and vulnerabilities of effective cognition. As such, they are the key cognitive areas the joint force must defend against adversary attempts to distort, disorient, and degrade.

The Cognitive Chain: Perception, Judgment, and Decisionmaking
 The core of DCW centers on defending the cognitive chain, which consists of three key vulnerabilities: perception, judgment, and decisionmaking. Adversaries attack this chain to undermine the joint force’s ability to act effectively.

Perception is the initial sensing of information from one’s environment. This is the starting point for situational awareness. Adversaries target perception by manipulating sensory inputs to create a false picture. For example, in the opening days of the Russia-Ukraine war, Russia’s false claim that Ukraine was running a secret bioweapons program was an attempt to distort perception by planting a false narrative that would stick in people’s minds, even amid later denials. This manipulation of the initial picture can cause subsequent judgment and decisionmaking to inherit the original error. DCW can help protect against these distorting effects to maintain the correct perceptual frame. One technique personnel can use is to seek disconfirming evidence of an existing belief, which is a form of what behavioral psychologists call actively open-minded thinking.¹⁵

Judgment is the deliberate process of weighing evidence to form the basis of a decision. It is vulnerable to attempts to manipulate cognitive biases. An adversary might intentionally flood an operations center with a mix of true, false, and irrelevant data. They could leverage a commander’s preexisting confirmation bias by burying a piece of false information that confirms a previous assumption. The result of this disoriented thinking is that individuals might overlook relevant information in favor of solutions that satisfy the desire for easy solutions. DCW techniques, including structured analytical techniques as described in the CIA’s *Tradecraft Primer* (that is, analysis of competing hypotheses, devil’s advocacy, red-teaming, and so on)¹⁶ can help combat cognitive biases if incorporated into routine training.¹⁷

Decisionmaking translates judgment into action by selecting a course of action to achieve a military goal. It is susceptible to time pressure and conflicting inputs. Adversaries can design the decision environment to paralyze or redirect this process, a technique that behavioral scientists call influencing *choice architecture*.¹⁸ For example, an adversary could disseminate deepfake videos and other emotionally charged disinformation aimed

Table 1. Building blocks of defensive cognitive warfare		
Term	Function	Definition
Defense	Core Term	Operations that preserve friendly combat power by defeating enemy attack
Cognition	Core Term	Mental process that carries information through perception → judgment → decisionmaking
Warfare	Core Term	Organized use of violence to secure political aims across physical, informational, and cognitive realms
Perception	Key Vulnerability	Initial sensing and pattern-recognition that shapes the raw picture of the environment
Judgment	Key Vulnerability	Deliberate evaluation of perceived data to weigh options and assess implications
Decisionmaking	Key Vulnerability	Selection of a course of action and commitment of resources under uncertainty
Distort	Cognitive Attack Method	Alter inputs to warp perception at the source
Disorient	Cognitive Attack Method	Manipulate one’s inherent cognitive bias to scramble analytic judgment
Degrade	Cognitive Attack Method	Techniques that paralyze or redirect decisionmaking

Source: Author.



A Ukrainian Special Forces soldier prepares to land during a military free fall with U.S. Navy SEALs from a CV-22 Osprey assigned to the 352nd Special Operations Wing during exercise Sea Breeze 21 in Ochakiv, Ukraine, July 1, 2021. Exercise Sea Breeze 21 is a U.S. and Ukraine co-hosted multinational maritime exercise held in the Black Sea designed to enhance interoperability of participating nations and strengthen maritime security within the region. (U.S. Army Photo by Sgt. Patrik Orcutt.)

at creating internal dissent within a unit. The flood of conflicting information can create analysis paralysis or pressure a leader into a rash decision, thus degrading the leader's decisionmaking capability.¹⁹ DCW techniques to mitigate adversary degradation effects could include personnel workload management through improved scheduling and rehearsals and wargaming that include adversarial attempts to channel decisionmaking.

The three critical links in the cognitive chain are perception, judgment, and decisionmaking. One link influences the next as joint force members attempt to make sense of their strategic and operational environments (see figure 1).

Adversaries seek to distort perception, disorient judgment, and degrade decisionmaking. DCW counters these attacks by strengthening each link of the cognitive chain, equipping personnel to critically evaluate information and resist manipulation. By shielding the mind from such interference, DCW preserves friendly forces' combat power.

Recommendations

Doctrinal Updates

The first step to rectify this doctrinal gap is to add it to joint publications. A cognitive protection annex would be a helpful addition to JP 3-04, *Information in Joint*

Operations. Next, using the definition above, the Joint Staff J7 (Joint Force Development) should sponsor an update that includes the term as a subfunction under the *protection* joint function in paragraph III in JP 3-0, *Joint Campaigns and Operations*. Additionally, the Joint Staff J7 should coordinate with the appropriate stakeholders to approve amplifying language to the Global Effects Coordination section (chapter IV, section 13, paragraph f) of JP 3-0 that describes how DCW is essential to maintaining information advantage. These doctrinal additions will help enshrine DCW as an enduring doctrinal requirement rather than a footnote.

Inject DCW Into the Joint Warfighting Concept

As Admiral Christopher W. Grady—the then-Vice Chairman of the Joint Chiefs of Staff—stressed in 2023, the Joint Warfighting Concept (JWC) “represents our best thinking on how the United States and its allies can mitigate and defeat military threats from peer adversaries.”²⁰ To support that aim, DCW should be embedded in the JWC. Thomas A. Walsh and Alexandra L. Huber describe the JWC as a “threat-informed, operational concept that provides an overarching approach to how the joint force will fight in the future.”²¹ DCW can integrate into the

JWC via pre-deployment drills and cognitive “go bags.” Pre-deployment²² DCW battle drills (supporting information advantage), cognitive go-bags (resilient logistics for mental supplies), and deception injects (stress tests for pulsed operations) can and should become a part of the joint distributive operations concept.²³ These battle drills can include red teams injecting false information as part of a 48-hour readiness or workup exercise to test commanders' and subordinates' sense-making under pressure. Cognitive go-bags could include structured analytic checklists and digital hygiene standard operating procedures. All of these concepts and tools could be added to Joint All-Domain Command and Control annexes.

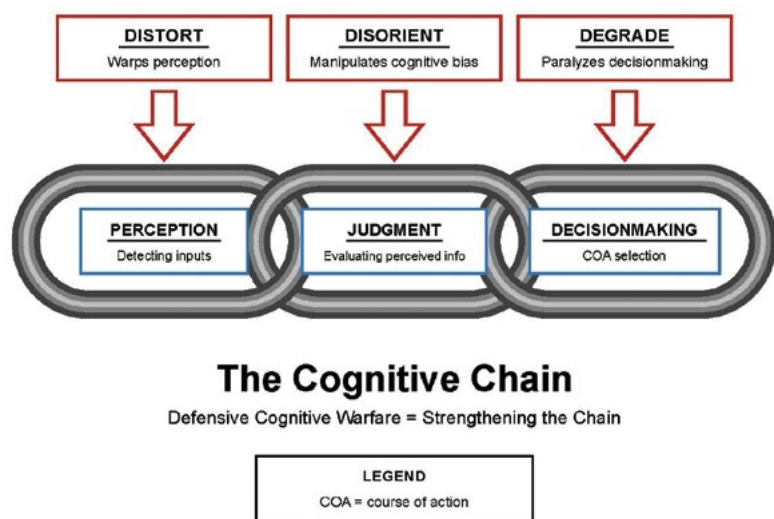
Modify CJCSI 3401.02B, *Force Readiness Reporting*

This Chairman of the Joint Chiefs of Staff Instruction (CJCSI) establishes the policy and procedures for readiness reporting and is a tool for military forces to report their status to the President and Secretary of War. Two updates to the instruction could help articulate cognitive readiness. First, adding a DCW readiness table to the Defense Readiness Reporting System (DRRS) could allow combatant commanders to report their defensive cognitive status quarterly. Second, the Joint Staff could mandate that unit mission-essential task lists capture perception-judgment-decision resilience. Embedding DCW readiness in DRRS would let the Joint Requirements Oversight Council score cognitive resilience as a Concept-Required Capability when it adjudicates JWC portfolio gaps in accordance with guidance from the Vice Chairman of the Joint Chiefs of Staff.²⁴

Joint Education and Training Upgrades

Most joint professional military education (JPME) programs touch on the concept of critical thinking by introducing some of the more common structured analytic techniques. This is essential. Even brief academic training

Figure 1. The Cognitive Chain



Source: Author.



Tennessee Army National Guard Sgt. Kit Young assigned to 3rd Battalion, 278th Cavalry Regiment, pilots a Skydio X10D Short Range Reconnaissance (SRR) unmanned aircraft system during new equipment training at Volunteer Training Site-Tullahoma, June 16, 2026. Following preflight checks and system startup procedures, Soldiers practiced aircraft control, hover operations, and maneuvering techniques while gaining hands-on experience operating the drone platform. The training supports the Tennessee Army National Guard's ongoing modernization efforts as the 278th transforms to a Mobile Brigade Combat Team. (U.S. Army National Guard photo by 1st Lt. Bailey Breving)

can reduce the impact of inherent cognitive shortcuts and biases.²⁵ However, emerging scholarship shows that certain types of cognitive de-biasing strategies may be more effective and efficient at improving judgment accuracy than other similar training programs.²⁶ Therefore, JPME Phase I and II courses should explore the findings from Welton Chang et al.²⁷ regarding these types of emerging training techniques. Furthermore, to make critical thinking training more available to a larger audience, the Joint Staff J7 should coordinate with the appropriate stakeholders to explore the development of a DCW computer-based training module. Such a module could also be used in conjunction with and in support of pre-deployment activities.

Joint Metrics and Assessment

One of the most important parts of this implementation program is the

assessment plan, which will determine whether the DCW program is achieving its goals (that is, to improve perception, judgment, and decisionmaking against adversary attempts to distort, disorient, and degrade cognition). Effectively executing the assessment plan will also identify areas for improvement and help justify enduring resource allocation.

JP 5-0, *Joint Planning*, recommends using measures of effectiveness (MOEs) and measures of performance (MOPs) to help gauge success. MOEs determine whether an organization is taking the correct steps to bring about a change in condition. MOPs determine whether an organization is executing those steps correctly. Both are applicable to DCW implementation; however, MOPs will be more useful initially to provide quantitative results that confirm the program is on track. Later, MOEs will be a better barometer to determine DCW's overall effectiveness as a combat enabler.

MOPs. MOPs are less glamorous, but they are essential data points for DCW implementation. Some examples of MOPs include certification accountability, policy adherence, and resourcing.

- **Certification Accountability:** 95 percent of personnel completing DCW training
- **Policy Adherence:** zero findings in quarterly DCW standard operating procedure audits
- **Resourcing:** more than 90 percent of DCW funds obligated by the end of the fiscal year

MOEs. MOEs help identify whether the force is achieving cognitive protection and might use a concept called *clean kill chain* methodology. This method gauges whether an individual can move a "target" through the perception-judgment-decision chain under conditions of active deception. This simple test could begin with a basic prompt and run as follows:

“When the adversary is actively feeding false info, spoofed comms, or deepfake orders, can Blue Forces still move a target cleanly from ‘detect’ to ‘engage’ (that is, from perception to decisionmaking) without a break or excessive delays and without mission-critical errors?” A viable metric that might also be used for post-analysis debriefing could follow the perception-judgment-decision scheme:

- **Perception Evaluation:** Did analysts recognize spoofed information?
- **Judgment Evaluation:** Did commanders weigh evidence correctly, or did bias and planted “intel” derail effective judgment?
- **Decision Evaluation:** Was the final execution order “decision” issued correctly and at the right time?

Lastly, the results, especially for large-scale exercises, should be captured for after-action analytics by the Joint Staff J7. These data should feed directly into the JWC’s multiyear experiment-wargame-assessment loop, ensuring DCW effects are visible in the same dashboards that track fires integration and contested logistics.²⁸ This will also allow commanders to begin to consider cognitive capabilities in the same context as traditional combat enablers.

Implementation Timeline

The overall implementation flow follows four sequential steps:

Doctrine Updates → Training and Education Changes → Exercises Incorporation → Assessment

Phase I: Doctrine

1. Lead Org: Joint Staff J7 (Joint Doctrine Division)
2. Timeline: 0–6 months

The Joint Staff J7 should lead two crucial updates to military doctrine. First, it should coordinate with stakeholders to add a Cognitive Protection Annex to JP 3-04. The lack of definitions for concepts related to cognition and metacognition in the *DoD Dictionary of Military and Associated Terms* shows that doctrinal language lags operational needs in cognitive warfare.

Therefore, the J7 must also coordinate with stakeholders to add an official entry for “defensive cognitive warfare” to the *DoD Dictionary*, using the definition provided in this article.

Phase II: Training and Education

1. Lead Org: Joint Staff J7 (Joint Education and Training Division), National Defense University elements, Service schools
2. Timeline: 6–18 months

The J7 should sponsor an update for computer-based and in-residence DCW modules for student use in professional military education, specifically JPME-I and JPME-II (Joint Forces Staff College). Next, the program should require a DCW computer-based training aid for individuals unable to attend formal courses. This training could leverage the existing Joint Knowledge Online portal. However, in line with guidance from the level of the Office of the Secretary of War, this type of training should be dependent on unit commanders’ prerogatives. Lastly, the Services can begin incorporating and adapting Joint Staff J7-approved material for their own Service-specific professional military education courses (at the U.S. Army Command and General Staff College, the Naval Postgraduate School, Marine Corps University, and the Air Command and Staff College).

Phase III: Operationalization

1. Lead Org: Combatant command J7 (joint force development) and J9 (civil-military operations or inter-agency partnering) and Services
2. Timeline: 18–30 months

Over the next 2–3 years, the combatant commands and Services should embed DCW injects into flagship joint exercises including Global Thunder (Strategic Command), Vigilant Shield (Northern Command/North American Aerospace Defense Command), Rim of the Pacific (Indo-Pacific Command), and the Defender series (European Command). All exercises should run at least one “distort–disorient–degrade” scenario, and component assessment cells should collect data for MOE analysis as described

in Vice Chairman of the Joint Chief of Staffs guidance.²⁹

Phase IV: Assessment and Refinement (30–36 months)

1. Lead Org: Joint Staff J3 (Operations) and J7 Tiger Team with the Office of the Under Secretary of War for Personnel and Readiness
2. Timeline: 30–36 months

At the conclusion of (a) major exercises and (b) the fiscal year, the Joint Staff should publish a joint after-action DCW readiness report for the review of the Secretary of War and the Chairman of the Joint Chiefs of Staff. These reports should recommend force-design changes, resource reallocations, and any follow-on doctrine revisions (that is, JP 5-0 planning annex templates).

Counterarguments and Mitigation

Transparency, legality, and ethics. The DCW definition that this article offers *does not* imply or endorse a higher headquarters, Joint Staff, or the Department of War becoming the arbiter of truth. DCW’s focus is equipping individuals with the tools to become resilient and persevere in the face of cognitive attacks and to highlight the Servicemember’s own thinking as a vulnerability.

Resource constraints. Any new problem that has not been adequately budgeted for faces challenges in the competition for scarce resources. However, the acquisition requirements for this type of program are minimal compared to the more technologically sophisticated means of warfare like fighter jets, tanks, and ships. In comparison, improving cognitive capabilities may generate significant return on investment *because* it is relatively inexpensive. Additionally, this initiative can and should leverage existing funding lines for human performance optimization.³⁰ Ultimately, because of DCW’s cost-effectiveness, it neatly aligns with the Joint Staff’s call to rapidly turn concepts into capabilities, making it actionable *now* for Service rapid prototyping funds.³¹

Information Operations

Duplication. A misconception may



Antonov Airport after Russian invasion of Ukraine and Mriya (Photo by Oleksandr Ratushniak)

exist because similar-sounding terminology, specifically “information operations,” could generate the logical question, “Don’t we do that already?” DCW is focused on improving friendly cognition against adversary attempts to corrupt it. It is about defense, not offense. Therefore, there is no duplication of effort between existing efforts to influence foreign actors, attack information networks, or deny information to adversary forces.

Conclusion: Securing Cognition for Future Military Effectiveness

Defensive cognitive warfare fills a doctrinal gap the joint force can no longer afford to ignore. This article has (1) defined DCW

and situated it within current doctrine and contemporary scholarship; (2) aligned it with joint and service doctrine; (3) deconstructed the definition to ensure doctrinal precision; (4) recommended updates to doctrine, training, and assessment; and (5) proposed a viable implementation plan.

Without a DCW framework, U.S. forces remain vulnerable to adversaries who weaponize techniques that may attack perception, judgment, and decisionmaking. The path forward is clear. First, adopt the proposed definition of DCW as the doctrinal cornerstone for protecting the cognitive domain. Second, create the necessary education and training aids to begin teaching and training the force. Third, begin thinking now about how to

incorporate DCW into exercise and pre-deployment training. Fourth, adopt a rigorous assessment regime based on relevant measures of performance and effectiveness.

The cognitive environment has shifted, and what remains is whether our military will keep pace. Formalizing DCW will arm every commander with a shield equal to the information spear. Now is the time to arm the forces for cognitive battle. JFQ

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Notes

¹ Daniel S. Hall, “America Must Engage in the Fight for Strategic Cognitive Terrain,” *Joint Force Quarterly*, no. 108 (1st Quarter 2023): 75–86, <https://ndupress.ndu.edu/Media/News/News-Article-View/Article/3264639/america-must-engage-in-the-fight-for-strategic-cognitive-terrain/>.

² Mark A. Milley, “Strategic Inflection Point: The Most Historically Significant and Fundamental Change in the Character of War Is Happening Now—While the Future Is Clouded in Mist and Uncertainty,” *Joint Force Quarterly*, no. 110 (3rd Quarter 2023): 8–9, <https://ndupress.ndu.edu/Joint-Force-Quarterly/Joint-Force-Quarterly-110/Article/Article/3447159/strategic-inflection-point-the-most-historically-significant-and-fundamental-ch/>; Thomas A. Walsh and Alexandra L. Huber, “A Symphony of Capabilities: How the Joint Warfighting Concept Guides Service Force Design and Development,” *Joint Force Quarterly*, no. 111 (4th Quarter 2023): 6, <https://ndupress.ndu.edu/Media/News/News-Article-View/Article/3568312/a-symphony-of-capabilities-how-the-joint-warfighting-concept-guides-service-for/>.

³ Russian Ministry of Foreign Affairs (@mfa_russia), “@mod_russia: During the course of the special military operation evidence of an emergency clean-up performed by the Kiev regime was found—aimed at eradicating traces of the military-biological programme, in Ukraine, financed by @DeptofDefense,” Twitter (now X), March 6, 2022, https://x.com/mfa_russia/status/1500539810418671626.

⁴ Edward Wong, “U.S. Fights Bioweapons Disinformation Pushed by Russia and China,” *New York Times*, March 10, 2022, <https://www.nytimes.com/2022/03/10/us/politics/russia-ukraine-china-bioweapons.html>.

⁵ George Lakoff, *Don't Think of an Elephant!: Know Your Values and Frame the Debate* (White River Junction, VT: Chelsea Green Publishing, 2004).

⁶ Emily Bienvenue and Zachary Rogers, “Strategic Army: Developing Trust in the Shifting Landscape,” *Joint Force Quarterly*, no. 95 (4th Quarter 2019), <https://ndupress.ndu.edu/Media/News/News-Article-View/Article/2018788/strategic-army-developing-trust-in-the-shifting-landscape/>.

⁷ Hall, “America Must Engage in the Fight for Strategic Cognitive Terrain,” 75–86.

⁸ Thomas Rid, *Active Measures: The Secret History of Disinformation and Political Warfare* (New York: Farrar, Straus and Giroux, 2020).

⁹ Renée DiResta et al., “In-House vs. Outsourced Trolls: How Digital Mercenaries Shape State Influence Strategies,” *Political Communication* 39, no. 2 (2022): 222–53, <https://doi.org/10.1080/10584609.2021.1994065>.

¹⁰ P. W. Singer and Emerson T. Brooking, *Like War: The Weaponization of Social Media* (Boston: Houghton Mifflin Harcourt, 2018).

¹¹ Walsh and Huber, “A Symphony of Capabilities,” 6–7.

¹² Joint Publication (JP) 3-0, *Joint Campaigns and Operations* (Washington, DC: Joint Chiefs of Staff, 2024).

¹³ This sidebar reference highlights how JP 3-04 marginalizes “cognition,” placing it in a separate section on information fundamentals rather than integrating it with human factors.

¹⁴ JP 3-04, *Information in Joint Operations* (Washington, DC: Joint Chiefs of Staff, 2022).

¹⁵ Uriel Haran et al., “The Role of Actively Open-Minded Thinking in Information Acquisition, Accuracy, and Calibration,” *Judgment and Decision Making* 8, no. 3 (May 2013): 188–201, <https://doi.org/10.1017/S1930297500005921>.

¹⁶ Central Intelligence Agency, *A Tradecraft Primer: Structured Analytic Techniques for Improving Intelligence Analysis* (Washington, DC: Center for the Study of Intelligence, 2009), <https://www.cia.gov/resources/csi/static/Tradecraft-Primer-apr09.pdf>.

¹⁷ Philip E. Tetlock and Dan Gardner, *Superforecasting: The Art and Science of Prediction* (New York: Crown, 2015). Tetlock and Gardner show that with a modicum of training, subjects were able to make surprising cognitive gains.

¹⁸ Richard H. Thaler and Cass R. Sunstein, *Nudge: Improving Decisions about Health, Wealth, and Happiness* (New Haven, CT: Yale University Press, 2008).

¹⁹ Daniel Kahneman et al., *Noise: A Flaw in Human Judgment* (New York: Little, Brown Spark, 2021). Kahneman and his coauthors describe “noise” as the unintentional variability in judgments when they should be identical. While they do not explicitly make the connection between social media and noise effects it is reasonable to infer that, in the future, social media will play a larger role in degrading decisionmakers’ ability to make accurate judgments.

²⁰ Christopher W. Grady, “Sharpening Our Competitive Edge,” *Joint Force Quarterly*, no. 111 (4th Quarter 2023), 16, <https://ndupress.ndu.edu/Media/News/News-Article-View/Article/3569518/sharpening-our-competitive-edge-honing-our-warfighting-capabilities-through-the/>.

²¹ Walsh and Huber, “A Symphony of Capabilities.”

²² These types of pre-deployment drills should be included in the U.S. Navy’s Distributed Maritime Operations plan, the U.S. Army’s Multi-Domain Task Forces, the U.S. Marine Corps’ Expeditionary Advanced Base Operations, and the U.S. Air Force’s Agile Combat Employment scheme of maneuver.

²³ Grady, “Sharpening Our Competitive Edge,” 16.

²⁴ Grady, “Sharpening Our Competitive Edge,” 18.

²⁵ Tetlock and Gardner, *Superforecasting*.

²⁶ Welton Chang et al., “Developing Expert Political Judgment: The Impact of Training and

Practice on Judgmental Accuracy in Geopolitical Forecasting Tournaments,” *Judgment and Decision Making* 11, no. 5 (2023), <https://doi.org/10.1017/S1930297500004599>.

²⁷ Chang et al., “Developing Expert Political Judgment.”

²⁸ Grady, “Sharpening Our Competitive Edge,” 22.

²⁹ Grady, “Sharpening Our Competitive Edge,” 22.

³⁰ Certain Air Force programs already underway at the Air Force’s 711th Human Performance Wing may be logical candidates to use as funding sources for DCW. See “Human Performance,” Air Force Research Lab, accessed August 5, 2026, <https://afresearchlab.com/technology/human-performance/>.

³¹ Milley, “Strategic Inflection Point,” 8–9; Walsh and Huber, “A Symphony of Capabilities,” 6.