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INFORMATION CONFRONTATION: THE EVOLUTION OF U.S. COGNITIVE STRATEGIES AFTER THE COLD WAR (1991–2014)

Abstract. The purpose of the study *is to provide a comprehensive analysis of the evolution of the United States' cognitive strategies within the framework of information confrontation during 1991–2014 as a component of the transformation of its military-strategic doctrine after the end of the Cold War. Particular attention is paid to the transition from the concept of "soft power" to the development of a systemic approach in planning and implementing information operations aimed at achieving cognitive superiority.* ***The research methodology*** *is based on the principles of historicism, scientific objectivity, systematization, and interdisciplinarity. General scientific methods (analysis, synthesis, generalization) and special historical methods (comparative-historical, historical-genetic, and historical-typological) were applied.* ***The scientific novelty*** *lies in a systematic interpretation of the cognitive dimension of American psychological operations as a consistent process of transition from information dominance to the management of the adversary's behavioral models. It has been proved that between the 1990s and the early 2010s, a gradual institutionalization of cognitive practices took place in U.S. military doctrines, driven by the evolution of communication technologies and the experience of wars in the Balkans, Afghanistan, and Iraq.* ***Conclusions.*** *The study establishes that the experience of this period laid the foundation for the modern paradigm of cognitive warfare, in which information-psychological confrontation became an instrument for achieving strategic advantage through influence on the perception, decision-making, and behavior of the adversary.*

Key words: *cognitive warfare, psychological operations, United States, strategic communications, information security, cognitive superiority, propaganda.*

ІНФОРМАЦІЙНЕ ПРОТИБОРСТВО: ЕВОЛЮЦІЯ КОГНІТИВНИХ СТРАТЕГІЙ США ПІСЛЯ ЗАВЕРШЕННЯ ХОЛОДНОЇ ВІЙНИ (1991–2014 РР.)

Анотація. Мета дослідження *полягає у всебічному аналізі еволюції когнітивних стратегій Сполучених Штатів Америки в межах інформаційного протиборства в період 1991–2014 рр. як складника трансформації військово-стратегічної компоненти після завершення Холодної війни. Особлива увага приділена процесу переходу від концепції «м'якої сили» до формування системного підходу в плануванні й реалізації інформаційних операцій, спрямованих на досягнення когнітивної переваги.* ***Методологія дослідження*** *базується на принципах історизму, наукової об'єктивності, системності й міждисциплінарності. Використано загальнонаукові (аналіз, синтез, узагальнення) та спеціально-історичні (порівняльно-історичний, історико-генетичний, історико-типологічний) методи.* ***Наукова новизна*** *полягає в спробі системно осмислити когнітивний вимір американських інформаційно-психологічних операцій як послідовний процес переходу від інформаційного домінування до управління поведінковими моделями противника. Доведено, що між 1990-ми та початком 2010-х рр. відбувалася поступова інституціоналізація когнітивних практик у воєнних доктринах США, зумовлена еволюцією комунікаційних технологій, війнами на Балканах, в Афганістані та Іраку.*

Висновки. *З'ясовано, що досвід зазначеного періоду заклав основи сучасної парадигми когнітивної війни, у межах якої інформаційно-психологічне протиборство стало інструментом досягнення стратегічної переваги через вплив на сприйняття, рішення та поведінку противника.*

Ключові слова: *когнітивна війна, психологічні операції, Сполучені Штати, стратегічні комунікації, інформаційна безпека, когнітивна перевага, пропаганда.*

Problem Statement. Information and psychological confrontation became one of the key factors shaping the security environment after the end of the Cold War. The rapid development of communication technologies, globalization of information flows, and the growing role of the media in shaping public opinion led to the emergence of new forms of influence on human consciousness and behavior. In this context, the leading world powers, primarily the United States, began to view the information space not only as a tool of foreign policy, but also as an independent domain in which the issue of cognitive superiority is determined. Despite the considerable number of works devoted to the theoretical and applied aspects of information warfare, the evolution of the cognitive component of American information and psychological strategies remains insufficiently studied in modern Ukrainian and foreign historiography. It concerns the gradual paradigm shift – from propagandistic concepts to a comprehensive influence on perception, thinking, and decision-making processes within military and political campaigns. Therefore, the problem requires historical comprehension from the standpoint of interdisciplinary analysis that combines the approaches of military history and cognitive psychology.

Purpose of the Article. The purpose of the article is to provide a historical and analytical understanding of the evolution of U.S. cognitive strategies within the system of information and psychological confrontation after the end of the Cold War (1991–2014). The study attempts to identify the main stages in the development of American psychological operations as an instrument of strategic influence, to trace their transformation from traditional forms of propaganda to concepts of perception and behavioral management, and to identify the factors that contributed to the institutionalization of the cognitive dimension in U.S. military planning. Particular attention is paid to the analysis of military conflicts during which new approaches to achieving "cognitive superiority" were consolidated as a key element of modern information confrontation.

Presentation of the Main Material. After the collapse of the Soviet Union and the end of the Cold War, the United States found itself in a unique position of information superiority, where the global communication space became not only a means of influence dissemination but also a factor in shaping the new security architecture. It can be assumed that this was the period when a reassessment of the role of information as a distinct instrument of power began. Harvard University political scientist Joseph Nye, in his work *Bound to Lead* (1990), substantiated the concept of "soft power", emphasizing the importance of achieving political goals not through coercion but through the attractiveness of one's values, culture, and policies [1]. Meanwhile, RAND analysts John Arquilla and David Ronfeldt in the mid-1990s introduced the concept of "netwar", defining information and control over communications as the central axis of future conflicts [2]. In light of these developments, U.S. strategic thought began to regard the information domain not merely as a support theater for operations but as a separate arena of struggle for perception. The variations and combinations of these approaches formed the foundation for the subsequent evolution of American psychological operations, which gradually acquired the characteristics of cognitive influence.

One of the first tests of these concepts came during the Balkan Wars. Between 1995 and 1999, during the operations in Bosnia and Kosovo, the United States and its NATO allies carried out extensive psychological operations aimed at delegitimizing the regime of Slobodan Milošević, neutralizing his information resources, and ensuring that coalition actions were perceived as a humanitarian mission. The summary study *Psychological Operations: Principles and Case*

Studies (Air University Press, 1996) emphasized that U.S. officers viewed "the management of emotions, motives, and reasoning of the audience as a critical condition for operational effectiveness" [3, p. 47]. The doctrinal reflection of this practice appeared in *Joint Publication 3-53: Doctrine for Joint Psychological Operations* (1996), which established the structure, objectives, and methods of joint PSYOP, defining them as an integral component of U.S. combined operations [4]. This demonstrated that by the late 1990s, U.S. military thinking had already shifted from information support to the systemic use of influence over cognitive processes – shaping perceptions, expectations, and behavioral models of target groups.

After 2001, the terrorist attacks of September 11 drastically changed perceptions of global threats, prompting a reevaluation of the role of information in new-type conflicts. In the context of the "Global War on Terror", psychological operations assumed new strategic tasks. In the early years of *Operation Enduring Freedom* (Afghanistan, 2001–2003), PSYOP units employed multi-channel communication – from printed materials to FM radio and mobile broadcast systems – to alter local population behavior, encourage cooperation, and weaken support for the Taliban [5]. This experience demonstrated that information influence became a separate phase of combat, where persuasion models rather than means of destruction played the key role. The field manual *FM 3-05.301 Psychological Operations Process: Tactics, Techniques, and Procedures* (2003) stated that the goal of PSYOP is "to evoke emotions, motives, objective reasoning, and ultimately behavioral reactions that support the commander's objectives" [6, p. 2–5]. Thus, psychological influence was established as a normative function aligned with the general principles of command and control.

During the same period, the Pentagon developed a new management logic that envisaged the integration of all information instruments into a single cycle. This was codified in the *Information Operations Roadmap* (2003), prepared by the U.S. Department of Defense, which emphasized the need to integrate five IO components – PSYOP, electronic warfare (EW), computer network operations (CNO), military deception (MILDEC), and operations security (OPSEC) [7]. The document defined information operations as a joint function aimed at achieving "information dominance" through perception management, speed of response, and cognitive superiority in decision-making. In parallel, David Alberts and Richard Hayes, in their work *Power to the Edge* (2003) from the Pentagon's Command and Control Research Program (CCRP), formulated the principle that "information superiority enables decision superiority" [8, p. 27]. The evolution of U.S. PSYOP in the early 2000s thus reflected not only the expansion of influence tools but also a gradual approach to the cognitive dimension of warfare, where control over information flows was equated with control over behavioral reactions.

The launch of Operation Iraqi Freedom in 2003 marked a turning point in the practice of U.S. information-psychological operations. Whereas in earlier stages PSYOP mainly served as a supporting tool for combat through information dissemination, during the Iraq campaign they became integrated into the strategic planning framework. As military historian A. Paddock Jr. observed, it was in this war that "psychological operations ceased to be merely propaganda tools and became a component of command management aimed at changing the behavior of the enemy and the civilian population" [9, p. 56]. From the outset, the Pentagon employed a multi-level system of information influence – from leaflets and local radio to satellite and internet media – seeking not only to persuade but to reshape mental and behavioral models by instilling a sense of inevitability regarding the regime's collapse and the legitimacy of coalition presence.

This experience was codified doctrinally in *Joint Publication 3-13: Information Operations* (2006), which systematized the principles and procedures of IO within joint forces [10]. The doctrine defined IO as "the integrated employment of electronic, computer, psychological, and deception means to influence the adversary's decision-making processes, protect one's own processes,

and ensure information dominance" [10, p. II-1]. Thus, IO became the framework for managing the cognitive space, where the object of influence included not only the information infrastructure but also perception mechanisms, analytical reasoning, and behavioral reactions.

After 2006, the development of U.S. information-psychological operations entered a phase of institutional rethinking. Information superiority began to be associated not only with technological or communication capacity but primarily with the ability to influence perception, interpretation, and decision-making processes. Counter-insurgency practice shifted focus "from the battle for territory to the battle for minds." Within the Joint Chiefs of Staff and U.S. Special Operations Command, the notion of *decision superiority* was consolidated – an advantage achieved through speed of sense-making, narrative coherence, and resilience to hostile influence [11; 12]. Institutionally, this was reflected in the 2010 renaming of *Psychological Operations* to *Military Information Support Operations (MISO)* – a step intended to emphasize analytical and informational aspects while removing "propaganda" connotations [15].

Simultaneously, the Joint Information Operations Warfare Center (JIOWC) within U.S. Strategic Command (STRATCOM) centralized inter-agency coordination in the information domain, while RAND and the Defense Science Board stressed the need to merge "hard" and "soft" tools within a unified cognitive cycle [11; 12]. The development of strategic communications at the Department of Defense and the Department of State focused on synchronizing national and military narratives with cultural diplomacy and media partnerships [13]. During this period, applied cognitive research also expanded: DARPA's Narrative Networks initiative (2011) explored neuro- and socio-cognitive mechanisms of influence through language, symbols, and storytelling structures, integrating its results into MISO training and assessment frameworks [16].

Field applications in Iraq and Afghanistan (2007–2012) incorporated targeted influence programs based on sociocultural profiling and big data analytics to forecast audience reactions to specific information stimuli. As analyst David Kilcullen emphasized, "control of the narrative in insurgent environments matters more than control of territory" [14, p. 112]. Cooperation with NATO's Allied Command Transformation (ACT) advanced the integration of cognitive factors into training doctrines, while the institutionalization of strategic communication within the Alliance accelerated amid the challenges of 2014 [17].

Conclusions. In summary, between 1991 and 2014, U.S. information-psychological operations underwent a profound transformation – from propagandistic communication to cognitively oriented strategies aimed at managing behavioral processes. The years 1991–2003 marked the conceptual and institutional foundation; 2003–2006 – doctrinal codification and transition toward decision-process control; 2007–2014 – institutional consolidation of the cognitive approach within inter-agency strategic communications, supported by behavioral sciences and data-analysis technologies. By 2014, the United States had thus established the foundations of a modern model of cognitive superiority, in which the adversary's mind and one's own information environment are regarded simultaneously as key objects and instruments of warfare.

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