




UNCLASSIFIED
CHAIRMAN OF THE JOINT CHIEFS OF STAFF
WASHINGTON, D.C. 20318-9999

CM-0108-19
6 May 2019

MEMORANDUM FOR CHIEFS OF THE MILITARY SERVICES
PRESIDENT, NATIONAL DEFENSE UNIVERSITY

SUBJECT: Special Areas of Emphasis for Joint Professional Military Education in Academic Years 2020 and 2021

1. This memorandum establishes six special areas of emphasis (SAEs) for the Joint Professional Military Education (JPME) curriculum of academic years 2020 and 2021. These topics should be incorporated into the JPME curriculum at all levels.
2. These SAEs are designed to enhance the relevance of JPME course content. They reflect input from my office, the Joint Staff, Combatant Commands, and other customers of the JPME enterprise.
3. The attachment explains the six SAE topics in detail:
 - a. The Return to Great Power Competition
 - b. Globally Integrated Operations in the Information Environment
 - c. Strategic Deterrence in the 21st Century
 - d. Modern Electromagnetic Spectrum Battlefield
 - e. Space as a Warfighting Domain
 - f. Ability to Write Clear and Concise Military Advice Recommendations
4. My point of contact is Mr. Jerome M. Lynes; Deputy Director for Joint Education and Doctrine, Joint Staff.


JOSEPH F. DUNFORD, JR.
General, U.S. Marine Corps

Attachment:
As stated

cc:
Director for Joint Force Development, Joint Staff

UNCLASSIFIED

UNCLASSIFIED

**ACADEMIC YEARS 2020–2021
JOINT PROFESSIONAL MILITARY EDUCATION
CHAIRMAN OF THE JOINT CHIEFS OF STAFF
SPECIAL AREAS OF EMPHASIS**

1. The Return to Great Power Competition (Submitting Agency: Joint Staff J-7)

a. The National Defense Strategy (NDS) states that “the United States now faces a more competitive and dangerous international security environment than we have seen in generations, demanding clear-eyed appraisal of the threats we face, acknowledgement of the changing character of warfare, and a transformation of how the Department of Defense (DoD) conducts business.” The NDS identifies the reemergence of great power competition from China and Russia as the central challenge to U.S. prosperity and security.

b. The NDS emphasizes that we require significant and urgent change in the way that we rebuild the force and alter its posture in order to maintain our competitive advantage. It calls for reforming institutional processes that lack agility, focusing on high-end, large-scale combat, quicker innovation, and building more lethal warfighting capability and an agile posture. This approach carries significant implications for how we think about and study warfare.

c. Joint Professional Military Education (JPME) curriculums should provide students with the following:

- (1) A broad understanding of strategic competitions and historic rivalries.
- (2) An understanding of “competitive advantage” and how it applies to nations and their militaries.
- (3) An understanding of the complex and dynamic character of competition between the United States and great power threats and the implications for future warfare.
- (4) An understanding of the current and future role of technology in the changing character of war.
- (5) Consideration of new operational constructs, operating concepts, and capabilities as a way of maintaining friendly competitive advantage in the face of increasingly capable threats.
- (6) Consideration of innovative solutions and institutional processes that generate lethal capabilities with greater affordability at the “speed of relevance.”
- (7) An appreciation of the role of alliances and partnerships in building a more lethal force for major combat.
- (8) An understanding of the role of leaders in the transformation of the DoD and the Joint Force.

UNCLASSIFIED

2. Globally Integrated Operations in the Information Environment (Submitting Agency: Joint Staff J-39)

a. The United States is facing a more competitive and dangerous global security environment than it has ever seen due to several global trends including the reemergence of great power competition, declines in U.S. military advantage, new communications and information technologies, and an increase in competitors' battle of narratives that aggressively attempt to influence governments and their populations. Within this changing environment, global audiences observe and interpret every physical action of the Joint Force. These actions shape or reinforce those audiences' perceptions that ultimately inform, assure, or deter their attitudes, beliefs, and decision-making.

b. To meet this challenge, the Joint Force must expand its competitive nature by improving its efforts to integrate information (now a joint function) with its physical activities. This requires a new perspective that every Joint Force action has an inherent informational aspect that requires accountability with respect to relevant actors who can effect Joint Force objectives. In the new security environment, the Joint Force must seek to gain and maintain an information advantage over its competitors by better understanding the power of information and its effect on relevant audiences; applying information considerations during operational art and design; and being proactive rather than reactive during execution.

c. JPME curriculums should provide students with the following knowledge:

(1) The importance of understanding human, physical, and informational aspects of the security environment.

(2) How to formulate options that integrate informational and physical capabilities and activities.

(3) How the Joint Force executes operations in the information environment and modifies those operations as audiences respond.

3. Strategic Deterrence in the 21st Century (Submitting Agencies: U.S. Air Force, U.S. Navy, National Defense University, and U.S. Strategic Command)

a. Core U.S. strategy and policy documents (National Security Strategy, NDS, Nuclear Posture Review, etc.) recognize that deterring adversaries from aggression against our vital interests is a key defense objective and that contemporary deterrence is significantly more complex than during the Cold War era. This is not because the principles of deterrence have changed, but rather because of a transformation in the geopolitical and military context for "waging deterrence." The United States must now deter multiple nuclear-armed adversaries, all of which are modernizing their capabilities and some of which have indicated a willingness to escalate to the use of nuclear weapons to achieve victory in local or regional wars. Adversaries are also seeking to acquire kinetic and non-kinetic capabilities that would allow them to mount strategic-level attacks against the United States and our allies and partners without resorting to nuclear weapons. As adversary capabilities

UNCLASSIFIED

and doctrine evolve, and as the operating environment becomes more complex, the ways in which deterrence principles are applied must also adapt. Some past approaches to intra-war deterrence and the management of escalation risk may no longer apply. These must yield to updated or new approaches tailored to contemporary realities that are better able to hedge against uncertainty. Adding to this core challenge are the shifting dynamics of extended deterrence relationships and the growing challenge to the legitimacy of nuclear weapons on humanitarian grounds.

b. Leadership has noted the importance of JPME in developing leaders capable of understanding these challenges and driving needed adaptations. JPME curriculums in support of this special area of emphasis should provide students conceptual and practical grounding in the following:

(1) Deterrence Theory and Concepts

(a) Basic principles of deterrence and escalation as they have evolved during the Cold War and post-Cold War eras.

(b) Key concepts that have defined the advance of deterrence thinking (e.g., rational actor model, game theory/bargaining, escalation dynamics and risk manipulation, prospect theory and the role of perceptions, mutual assured destruction, strategic stability, limited nuclear options/limited nuclear war).

(2) Application

(a) Harmonizing deterrence and assurance requirements.

(b) Integrating deterrence, assurance, and strategic stability considerations into regional/global conflict planning to balance resources and meet national-level and DoD objectives.

(3) Nuclear Weapons and U.S. National Security

(a) Why nuclear weapons remain unique.

(b) Evolution of U.S. nuclear forces and doctrine (Triad, non-strategic nuclear weapons).

(c) Service perspectives and missions.

(d) Soviet/Russian and Chinese nuclear capabilities and strategy.

(e) The nuclear proliferation challenge and non-Western nuclear powers.

UNCLASSIFIED

- (f) Arms control as a way to manage great power nuclear competition.
 - (g) Nuclear weapons and the Laws of Armed Conflict.
- (4) Contemporary Deterrence Challenges
- (a) Deterrence in U.S. national and defense strategy.
 - (b) Adversary doctrine and perceptions.
 - (c) Tailored deterrence strategies for specific adversaries.
 - (d) Extended nuclear deterrence and assurance of allies.
 - (e) “Integrated deterrence” approaches to account for all elements of national power, the spectrum of conflict, and emergent capabilities (e.g., cyber, space, conventional precision strike, missile defense).
 - (f) Deterrence messaging in the modern information environment.
 - (g) Conventional-nuclear planning integration.
 - (h) Conventional campaigns in the “nuclear shadow.”
 - (i) Challenges to the legitimacy of nuclear deterrence.
- (5) Primary Level of Education. Fundamentals of deterrence concepts and supporting capabilities, including nuclear force composition (weapons, delivery systems) and missions.
- (6) Intermediate Level of Education. Joint/Service and allied/partner contributions to deterrence planning, operations, and capability development.
- (7) Senior Level of Education. Deterrence in relation to other instruments of statecraft and national power in strategy implementation and Joint Force campaign planning.
- (8) General Officer/Flag Officer Level of Education
- (a) Application of deterrence and escalation management concepts as part of national strategy implementation.
 - (b) Strategic considerations shaping the development and execution of joint, interagency, and coalition deterrence operations requiring the allocation of national security resources to achieve an optimal balance of deterrence capabilities in relation to competing demands on the Joint Force.

4. Modern Electromagnetic Spectrum Battlefield (Submitting Agency: U.S. Strategic Command)

a. Electromagnetic spectrum (EMS) superiority is essential to U.S. military capabilities and operations. However, the growing widespread use of modern EMS-dependent technologies by the global civilian populace, commercial sector, and potential adversaries (both state and non-state) challenges U.S. military freedom of maneuver in the EMS.

b. For more than a century, the U.S. military has exploited the EMS almost at will. Today, all Joint Force operations depend on assured EMS access/superiority in every domain and across all joint functions. From command and control to joint fires and logistical support, EMS-enabled capabilities are essential to military operations and are critical enablers of cross-domain synergy. Friendly, adversary, and commercial users increasingly congest the EMS, and it is contested by adversaries who are rapidly pursuing technologies to directly challenge U.S. freedom of maneuver and ability to operate. The cost of entry is low, and the global proliferation of technology means that individual actors now have access to capabilities once reserved for global powers. Recent global events demonstrate that the U.S. military is already seeing EMS dependence as an exploitable vulnerability targeted by adversaries utilizing asymmetric capabilities. The Joint Force's ability to dominate the EMS is key to success in the future joint operational environment and across the range of military operations.

c. U.S. military EMS operations (EMSO) cross all joint functions (command and control, intelligence, fires, movement and maneuver, protection, sustainment, and information) and domains (air, maritime, land, space, cyberspace). Awareness of U.S. military EMSO and dependencies, along with threats to access, will educate JPME graduates on how the EMS affects them and prepare them to enable the U.S. military to overcome the issues of a congested and contested EMS and retain U.S. EMS access while denying access to adversaries. The overall topic is relevant to all levels of JPME:

(1) JPME I junior and senior courses for awareness as graduates become the warfighting planners, operators, and decision makers.

(2) JPME II as these graduates move into joint/Service operational-level staff positions and begin to influence acquisition, near-to-midterm policy, capabilities, plans, and processes.

d. EMS access is a warfighting planning issue relevant to education at the Joint Forces Staff College and Service schools. JPME curriculums should provide students with an understanding of the following EMS issues:

(1) How the EMS pervades every aspect of military, commercial, and adversary EMS operations.

(2) How the EMS is a critical enabler to superiority in all other domains and must be considered first in planning and executing any Joint Force operation.

(3) How congested the EMS is and how it affects military operations.

(4) Why EMS superiority is a primary objective in any military operation.

(5) Why EMSO is important in coordinated/deconflicted planning and operations.

(6) How EMSO impacts acquisition decisions, near-to-midterm policies, capabilities, plans, and processes.

5. Space as a Warfighting Domain (Submitting Agency: U.S. Strategic Command)

a. Space is a warfighting domain. Potential adversaries know the great strategic, operational, and tactical advantage U.S. space capabilities provide the Joint Force and our allies. These potential adversaries threaten our use of space in many orbital regimes. They may soon be able to threaten all U.S. space capabilities in all orbital regimes. Joint Force planners should not assume space capabilities will either be available or completely eradicated, with no middle ground. In a conflict that extends to space, joint forces need awareness of how air, land, and sea forces can support space combat objectives. Unified action of the Joint Force will protect and defend space superiority.

b. Current JPME can better prepare current and future leaders to understand our reliance on space capabilities, the threat to space systems, and the options for fighting through contested space to maintain U.S. space superiority. This special area of emphasis will prepare current and future leaders for warfighting in space by increasing their awareness of U.S. reliance on space, adversary space capabilities, and space warfighting (threats, dependencies, and joint tactics, techniques, and procedures for maintaining space superiority).

c. JPME curriculums should provide students with the following:

(1) Comprehension of the space domain (e.g., orbits, missions); U.S. space system capabilities, limitations, and vulnerabilities; and Joint Force/coalition reliance on space.

(2) Awareness of potential adversary space capabilities and their reliance on space systems.

(3) Comprehension of the principles of space warfighting (understand the threat and identify options for resilience options and associated space-unique policy, planning timelines, and decision framework).

(4) Officers at the intermediate level should understand the operational integration of space capabilities and Joint Force actions that support space superiority, as well as the impact of losing space capabilities on operations in other domains.

(5) At the senior level, future leaders should analyze space threats, the strategic environment, and instruments of national power to effectively employ space capabilities and maintain space superiority in support of national security objectives.

(6) At the general/flag officer level, leaders should understand key tenets of space as a warfighting domain to plan, organize, and prioritize maintaining space superiority against competing demands on the Joint Force.

6. Ability to Write Clear and Concise Military Advice Recommendations (Submitting Agency: Joint Staff J-7)

a. Federal law (title 10, U.S. Code, section 2151) establishes that JPME is designed to promote a theoretical and practical in-depth understanding of joint matters, further specifying the subject matter to be covered. Implicitly, “practical preparation” assigns JPME institutions the responsibility to prepare staff officers, as assignment to Joint and Service headquarters is often the first assignment students receive on graduation from a JPME (I or II) institution. This assignment may also occur throughout the careers of intermediate and senior JPME course graduates.

b. Senior officers and senior civilian officials have observed that many recent graduates of JPME programs lack the ability to write clear and concise military advice recommendations. Often the advice is not clear, concise, or focused on the military instrument of national power.

c. In the belief that writing clear and concise military advice recommendations is a learned skill refined through repetition, JPME institutions are addressing the practical abilities of their students to produce military advice recommendations. This involves using historical examples of advice (good and bad) to educate students on how to identify the core issues of a complex project, assess the military implications/dimensions, and produce clear and concise military advice recommendations.

d. This SAE has two components: clear and concise writing and military advice. These two components combine to form a third objective for JPME graduates: clear and concise military advice.

(1) Clear and Concise Writing. JPME graduates must demonstrate the ability to apply proper grammar in a direct and economical manner. This area of emphasis requires students to learn and practice writing that is free of the passive voice, jargon, acronyms, unnecessary modifiers, and metaphor. As a JPME I and II requirement, “clear and concise writing” is a skill applicable to all professional writing required throughout an officer’s career, including orders, plans, reports, and official correspondence.

(2) Military Advice. Civilian authorities expect senior military leaders to provide professional military advice on a broad range of topics related to the development, maintenance, and employment of the Armed Forces. Military advice comes in myriad forms, ranging from a conversation between civilian and military leaders to a formal document submitted to Congress. JPME I and II graduates must demonstrate an understanding of civil-military relations and be able to support the formulation of apolitical advice focused on the military instrument of national power. Specifically, graduates must develop the ability to identify the military implications of complex problems and provide options and recommendations related to the application of military resources to achieve political objectives.

(3) Clear and Concise Military Advice. JPME I and II graduates must demonstrate the ability to provide clear and concise military advice in written form. An example is formulating military advice from a variety of policy guidance and distilling it into a short paper that recommends a point or position for the employment of the military instrument of national power. That advice will generally focus on operational art for intermediate course graduates, while senior course graduates will generally focus on strategy.