

## EDUCATING US ARMY OFFICERS TO OPERATE IN THE INFORMATION ENVIRONMENT

### INTRODUCTION

The information environment is a critical field of competition for modern nation-states. The ability to influence both mass audiences and individuals over a variety of modern media is expanding at a dizzying pace. This cacophony of information vectors is generated by state and non-state actors, many of whom routinely disseminate misinformation and disinformation. International disputes and conflicts ranging from Ukraine to Korea demonstrate the ability of information to help or hinder nations as they pursue their national security goals. This can occur either because of or despite government information activities.

What role should a government play in furthering or countering these activities, particularly its armed services? Because the military is typically the overwhelmingly largest portion of a state's national-level power resource, it can be seen as a ready instrument to employ in a variety of roles. For the US, the 2022 National Defense Strategy states that "To strengthen deterrence while managing escalation risks, the Department (of Defense) will enhance its ability to operate in the information domain."<sup>i</sup>

At the service level, the U.S. Army, Navy and Air Force each have graduate-level education institutions designated for ongoing, focused education of their officer corps. In the Army it is this system that provides an inherent opportunity to meet the intent of the Joint Staff and educate its future leaders to understand the role of information in helping secure U.S. national security objectives. This paper will describe efforts to update and expand the information-related curricula at the Army's two post-graduate education programs for field-grade officers: The Army War College (AWC) and Command & General Staff College (CGSC).

## BACKGROUND

Addressing any problem begins by understanding the problem. An opportunity to do this occurs in the professional military education (PME) program the Army has developed for its field-grade officers. Guidance to the force comes down from the Joint Staff in the form of Special Areas of Emphasis (SAEs) that are expected to be integrated into curricula at all levels. A Joint Staff Memorandum on this topic dated 6 May 2019 lists six SAEs. The second SAE listed is Globally Integrated Operations in the Information Environment. The memorandum goes on to stipulate that “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.”<sup>ii</sup>

The Department of Defense recently promulgated its newest doctrine on information activities. Joint Publication (JP) 3-04 *Information in Joint Operations* supersedes JP 3-13 *Information Operations*. The numeric change is not insignificant: it implies higher-level organizational emphasis on Information Operations (IO) in the Army. As of this writing Army doctrine lists the traditional five “core” information capabilities of Psychological Operations, Electronic Warfare, Cyber, Operations Security and Military Deception. In time it can be expected to come more in line with JP 3-04 which now refers to these as information forces, defined as “...those Active Component and Reserve Component forces of the services specifically organized, trained and equipped to create effects in the IE” (Information Environment).<sup>iii</sup>

Although AWC and CGSC are similar institutions, they do have important differences. Both colleges offer a one-year resident or two-year non-resident program of instruction culminating in award of a master's degree in Strategic Studies (AWC) or Master of Military Art and Science (CGSC). Both curricula cover a range of military topics including history, theory, leadership, force management, and integration with joint, interagency and multi-national partners. Both have a robust menu of elective courses offered at the end of the school year. Both are offered to U.S. Army officers from all branches of the service, with the student body also including members of other Department of Defense (DoD) services, DoD civilians, and international students.

The differences largely stem from the career levels of the respective student bodies. AWC students are officers selected for promotion to Colonel, most are around the 20-year mark of their careers. Many will graduate and take command of brigades (2000-5000 soldiers) or work at 4-star combatant command level or inside the Beltway. They will be expected to participate in planning, advise and inform decision-makers at the operational and strategic levels of the Army, Joint, Interagency and Multi-National conglomerations.

CGSC students are officers selected for promotion to Major who have been on active duty for about 10 years. Most will compete for branch qualifying positions at battalion (300-700 soldiers) level such as Operations Officer or Executive Officer, the two primary staff positions working for a battalion commander. These officers will be focused on tactical level Army activities when they return to the force. Because AWC occurs at a later stage in an officer's career, it only has about 1/3 the student throughput of CGSC.

These differences show up in faculty composition and curricula emphasis. At AWC the Department of Military Strategy, Planning and Operations (DMSPO) is the lowest level of the art and science of war instructed at the college. The focus is still on echelons above corps, meaning 3-star

general or admiral-led joint task forces, combatant commands and strategic entities. Nearly half the core curriculum is devoted to this block of instruction. The other two AWC departments are centered on organizational management and theory: many of the faculty members at these two AWC departments do not have prior military experience.<sup>1</sup> For nearly all of the active-duty faculty, AWC is their terminal military assignment: they will retire out of the position and leave the military, take a government job elsewhere or in some cases remain on the faculty performing the same job but come to work in a suit instead of a uniform.

At CGSC the most comparable organization to DMSPO is the Department of Joint, Interagency and Multinational Operations (DJIMO). The DJIMO curriculum is similar to that of DMSPO: however, it only occupies about two months of the beginning of the CGSC curriculum. At CGSC the capstone instructional block of nearly four months is taught by the Department of Tactics (DTAC). As the name implies, the focus is on tactical considerations such as route reconnaissance, front-line logistics and specific maneuvers such as turning movements (Did you know 11 strands of concertina wire is the right amount to impede enemy mechanized movement? 10 isn't enough, 12 is a waste of resources). The other departments at CGSC include history, leadership and force management/sustainment. Most of the faculty are active-duty or former military officers, primarily Army, which does include some officers and retirees with PhDs, but not to the extent of those found at AWC. Although most of the active-duty faculty at CGSC will retire from there, some do return to the force, even including selection for battalion command and/or promotion.

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<sup>1</sup> The joke among the DMSPO faculty is "we put the war in Army War College."

## CURRICULA

Core curricula (common instruction given to all students) forms the bulk of contact time in both schools and includes instruction on Army forces, resources and techniques available to operate in and influence the information environment. Instruction can include lectures, guest speakers and exercise practicum, although the intent is for learning to occur primarily through the Socratic method. As the author told his AWC class on the first day, “There are over 300 years of military experience in this room, and I have 26 of them.”

## AWC

At AWC in AY22 there was one three-hour block of instruction titled “Special Operations Forces and Information Operations” roughly evenly divided between the two. The IO portion talked about



**THE UNITED STATES ARMY WAR COLLEGE**  
**INFORMATION OPERATIONS (cont.)**

**TAKEAWAYS**

- IO is joint
- IO is interagency
- IO is coalition
- IO may take time
- IO may need special authorization
- IO is about your environment
- IO is being done by every member of your command
- IO is not a silver bullet
- IO is not static
- IO is not standalone
- IO is being done by your adversary

STRENGTH—WISDOM

Fig 1. AWC IO Instructional Slide

cognition, Joint doctrine regarding employment and Army force structure available for IO, both units and staffing.

Intent was not to make students experts on IO, but to

familiarize them with base concepts and help them find and

integrate IO practitioners into planning and execution when

they reached their next assignments. Points of emphasis

were that good IO takes time, it is a complex problem, and it is

being enthusiastically practiced by our adversaries. See Fig 1 for the penultimate slide in the IO portion of the lesson presentation. The lesson authors were former IO practitioners who will conduct faculty development sessions with all department instructors, then the block of instruction is conducted by all DJIMO faculty regardless of branch specialty.

There were also three separate blocks at AWC covering space, cyber and electronic warfare. The four courses are not contiguous, although they are all taught by the same department. As with the IO lesson, authors of the blocks are subject matter experts on the topic, then the lesson is delivered by all department faculty. AWC is exploring expanding the time allotted to discussing the information environment in the core curriculum, moving IO instruction to earlier in the curriculum, and integrating the disparate blocks into a more cohesive whole. Net effect will be to increase the emphasis on the importance of IO to the student body. During wargaming, there are also opportunities for students to introduce information activities into the exercise.

#### CGSC

The CGSC AY23 core curriculum features a 2-hour block of instruction titled M333 “Information Advantage.” The objective of the block is described in the advance sheet as “...to understand the Army’s doctrine regarding information and achieving information advantage and applying information doctrine to the planning and execution of large-scale ground combat operations.” The first hour of the lesson introduces the foundational Army doctrinal concepts and discusses the nature of the information domain. The second hour includes a practicum providing students the opportunity to apply their knowledge against a tactical problem. In addition to M333, CGSC has lessons covering space, cyber operations and electronic warfare, all considered key elements of information advantage. These lessons are conducted earlier in the academic year and are primarily conducted in lecture format, in some cases in large groups in an auditorium. Intent is not to make students experts in these areas. Intent is to familiarize them with US Army and other structures for assembling and employing these capabilities and the staffing procedures and doctrinal guidance that are in place to coordinate their effectiveness within the force.

## ELECTIVES

In both schools, electives are an opportunity for students to delve deeper into various details of information. Electives take up proportionately more class time at AWC, so students there will take about 4 electives versus 8 at CGSC. Some of the student choices may be limited by their respective branches, who may mandate or encourage attendance in specific electives tied into future needs and expectations for that branch.

### AWC

The information elective syllabus developed at AWC is detailed in Appendix One. In line with the AWC core curriculum, the intent of the course is not to create certified IO practitioners to send back to the force. The intent is to go a level deeper into the topics raised during the curriculum lesson for those with an interest in the field. It is not a required elective for any students. Readings are assigned to the students with the idea that much of the learning will come through the Socratic method in the classroom. A number of guest speakers were also brought in to provide unique perspectives on past, present and future IO utilization by the Army and joint force. Students also provided individual presentations at the end of the elective covering an element of IO they found of interest and wished to explore in more detail.

### CGSC

At CGSC electives authorship for information-related offerings is scattered more widely amongst the Departments. The Department of Tactics hosts A323 "Army IO Planning." The History Department is responsible for A647 "Civ-Mil Relations in the American Experience." The Department of Joint,

Interagency and Multinational Operations holds A502 “MILDEC”, A517 “Foreign Policy & National Security: Diplomacy in the Information Advantage Environment”, and A556 “Cyber Ops.” There are also a number of electives related to intelligence, which is treated as more of a cohort to than element of information operations in the US Army.

Treating A323 as the most-equivalent CGSC elective offering to WF2303, it is described in its syllabus as a course of instruction in “...Army Information Operations doctrine at the tactical echelons. Students will learn to plan, integrate, synchronize, coordinate and assess IO to support an approved course of action, line of effort, or named operation.” After an introductory lesson, the next two lessons familiarize students with the Army’s Information Related Capabilities, then there are six lessons covering IO and planning, and the final two lessons are executing IO, with practicums exposing students to Assessment, IO Working Groups and Engagement.

Similar to the AWC elective offering, the course outcome is not to create certified IO practitioners: rather, the intent is to give interested soldiers a deeper look at integrating information into the work of their own specialties. The focus is more of a tactical to high-tactical level of war-fighting in the information domain.

#### CGSC INFORMATION SCHOLAR’S PROGRAM

In addition to the education opportunities discussed above, CGSC is in its second year of offering an Information Scholar’s Program to qualified students. Students compete for the program in November: those selected are placed into a dedicated seminar for the remainder of the academic year.<sup>2</sup> According to the program syllabus, the goal is to “...offer a select group of students a range of

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<sup>2</sup> I can personally attest to the quality of students accepted: one of the best students in my seminar was among the selectees.



accelerated, rigorous, graduate-level studies that promote analysis, stimulate the desire for learning, and reinforce academic research skills. Information Advantage Scholars strive to understand the complexities inherent in the integration of information technology in the joint force and the importance of compelling narratives to achieve operational success.” The students come from a variety of service branches not necessarily information-related, although all will publish a thesis based on information as a part of solving complex national-level security issues. The program also intends to send graduates into the force with an increased ability to integrate information into military operations while remaining competitive for command and future career advancement. Many graduates of the Information Scholar’s Program have also been selected to stay at Ft Leavenworth for a second year to complete the School of Advanced Military Studies program, an extremely competitive opportunity for selected students to continue their academic development.

## INITIATIVES

At AWC the responsible instructors are working to develop an electives information concentration that would encompass taking WF 2303 Joint Warfighters in the Information Environment along with other information-related electives such as Cyber Operations or Military Deception. Students who meet the requirement would receive a certificate of completion upon graduation. Program is advertised at the electives fair held for students in November. Much of the challenge comes from deconflicting the applicable electives to enable students interested in the concentration to take all offerings. There are three electives terms: because of the small size of the AWC faculty, they can usually only offer an elective once per academic year. If any of these electives are offered in the same term, then an interested student will be unable to take both.

WF 2303 itself is also being fine-tuned by its two current AWC instructors to bring current information into the curriculum, which is always a challenge in the fast-paced world of information. Readings need to be continually updated, the Joint Publication revision needs to be incorporated, and guest-speakers are being chosen to bring the right mix of relevance and student interest into the lessons. They are also developing an appropriate end-of-course student paper project to maintain course academic requirements.

In both collages there is a continuing debate over whether or not to run electives as classified. The advantage is that it allows faculty to bring in additional learning materials and scenarios based on real-world situations. The disadvantages are that special facilities are required to conduct classified classes, and that classification would exclude international students. It is the author's opinion that since the schools are only trying to introduce general concepts to the students, the incremental gain of adding the "wow" factor of some nuggets of classified material is outweighed by the inconvenience of conducting class in a cleared room and loss of valuable input provided by our international students. For courses of this length and depth, there seem to be ample open-source materials available to achieve the course intent.

## CHALLENGES

The process of educating US Army officers regarding the information environment is clearly expanding. Part of the problem is a service-wide tendency to see education as at best a necessary detour on an officer's career track. At Army War College students had to travel to unrelated activities such as command qualification, missing several days of class at a stretch. Students at both CGSC and AWC are awaiting or just pinning on higher rank. As a result, the academic performance review (APR) they receive at the school will be at the bottom of the fitness reports for their new rank when the time

comes to compete for the next rank. Board members who have a few minutes to review an officer's records are barely going to scan the APR, if at all. Becoming a distinguished graduate may open academic or analyst doors for students, but not necessarily increase their competitiveness in their career branch.

There is still a need for increased information advocacy at the highest levels of the Army, although the force itself has demonstrated improvement. Thirty years ago, the Army did not even have a professional cadre of information practitioners. Today it has a Functional Area (but not a branch) for Information Operations officers and enlisted personnel. However, it is very difficult for these practitioners to achieve rank above the grade of colonel. Consequently, although the Army now has professional people staffing information problems and advising leadership on information issues, the information practitioners are not the decision-makers. Until information professionals are reaching multi-star general officer positions in the Army, it will continue to lack people with the career outlook and authority to make sweeping information-related change based on a career of experience viewing information problems.

Information activities by the Army are also controversial in light of the traditional American preference for limited national-level authority. The World Wide Web means that messaging cannot be contained to an area bounded by a newspaper's readership or the local radio station. Congress reflects the wishes of many of its constituents when it demands close oversight of messaging anywhere in the world by the national government because of its accessibility by the modern US public. This means that information products must be staffed to a degree that often results in an irrelevant product by the time it gets approved, as the event the US wanted to take advantage of has passed beyond the point of relevancy.

## CONCLUSION

Information is a growth field in today's U.S. Army, and that is a good thing. Doctrine is being expanded and adapting to changes in the information environment, demonstrating an organization-wide recognition of the importance of information. Leadership, authority and the budget to maintain and propagate a narrative in accordance with U.S. national security objectives is on the rise. The Army is increasing its pool of members whose profession is solving problems in the information domain. All of this indicates an increased appreciation of the power of information.

But the Army isn't where it could or should be. Continued investment in people, resources and management of the information domain are needed to counter malign actor advances on the information field of competition. A key component of that investment is expanding the post-graduate education of Army officers preparing for mid and upper-level staff and leadership positions at Command & General Staff College and the Army War College. Increased emphasis on core curricula lessons, electives and specialized study tracks at both institutions will result in an increased ability for the U.S. Army to field a force that can successfully compete with adversaries in the contest for control of information across the spectrum of conflict.

The views expressed are those of the author and do not reflect the official position of the United States Army War College, United States Army Command and General Staff College, Department of the Army, or Department of Defense.

## ABOUT THE AUTHOR

The author is a retired U.S. Army Psychological Operations officer who holds a PhD in international relations from Old Dominion University. He is currently employed as an Assistant Professor at the Department of Joint, Interagency and Multinational Operations at CGSC. During Academic Year 2022 he was an Assistant Professor at AWC in the Department of Military Strategy, Planning and Operations where he was hired for the specific purpose of reviving the Information elective as well as assisting in authorship of the information portion of the core curriculum.

### Joint Warfighters in the Information Environment

Course was taught at the unclassified level to allow maximum participation by International Fellows attending AWC. Course was open to students with any level of experience in Information Operations, or none. Course met for 9 three-hour blocks during Term II. There was also an optional staff ride to visit the 193d Air National Guard Wing in Harrisburg, PA. Course lessons were as follows:

1. Introduction
2. Influence \*
3. Foreign Information Operations\*
4. Friendly Information Concepts, Doctrine and Capabilities\*
5. Future Projections and Concepts\*
6. Decision-making, Command and Control, and Assessment\*
7. Case Study and Project Time
8. Case Study and Project Time
9. Student Presentations on Information Operations Topic

\* Denotes class sessions with a scheduled guest speaker or panel discussion

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<sup>i</sup>U.S. Department of Defense, *2022 National Defense Strategy*, p. 9. Accessed 11 Nov 22 at: <https://media.defense.gov/2022/Oct/27/2003103845/-1/-1/1/2022-NATIONAL-DEFENSE-STRATEGY-NPR-MDR.PDF>

<sup>ii</sup> U.S. Joint Chiefs of Staff, *Special Areas of Emphasis for Joint Professional Military Education in Academic Years 2020 and 2021*, 6 May 2019, p. 2. Accessed 12 November 2022 at: [https://www.jcs.mil/Portals/36/Documents/Doctrine/education/jpme\\_sae\\_2020\\_2021.pdf](https://www.jcs.mil/Portals/36/Documents/Doctrine/education/jpme_sae_2020_2021.pdf)

<sup>iii</sup> Joint Publication 3-04, *Information in Joint Operations*, p xi, Department of Defense, 14 September 2022.