## NSA veteran to USAWC students: Cyber is changing warfare

By Curt Keester 22 December 2017



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CARLISLE, Pa. (Dec. 22, 2017) – National Security Agency veteran Howard Taylor took to the stage of Bliss Hall this week to educate Army War College students about the domain of cyber, providing common understanding of terminology and fundamentals, and addressing cyber

implications at the strategic level.

Now a USAWC professor, Taylor drew on 22 years work in the cyber community as he urged students to grasp the unique nature of this warfighting domain. Cyber, unlike artillery, has the ability to impact more than just service members and operations, he noted. Cyber is part of a consolidated set of tools leaders have as they look for a means to achieve an effect. And, he emphasized the importance for strategic leaders to know how cyber is being implemented, where to go, and who to ask for help.

He compared cyber to the early days of the machine gun: a deadly technology, but how to use it is not fully understood, said Howard. "It's being used on the ground very effectively, but the commanders who are planning campaigns don't take it into account, and they suffer horrendous casualties and problems, because they don't understand how to use it."

So, the question he poses is, "How do you approach the operationalization of cyber?"

"I like what the War College is doing, teaching the higher level strategy in terms of how are we going to get after tackling this relatively new domain because ... to some extent, this is the baby domain" said Army Lt. Col. 'Oz' Ortiz, student. "Defining the environment, I think that's being done very well -- specifying some of the categories, or the buzzwords ... so everyone has a common understanding ..., and identifying the big picture items that apply to national policy and tie in to the other domains."

The important part, said Ortiz, is to understand how to integrate planning for cyber with the land, sea, air, and space.

In a later discussion, Howard noted the two-pronged approach of cyber education in the curriculum.

"We're trying to make it a richer, fuller experience for those who want to know more about cyber, and we want to make sure that everybody gets a certain level [of understanding]," he said. While cyber has been a point of discussion in the curriculum to date, the core course of Theater Strategy and Campaigning positions the cyber lesson as a springboard for in-depth discussion about planning and decision-making.

Students who are intent on deeper study, can create an elective plan with one, two or all three electives. New this year, is a developmental series of three electives plus a strategic research project in the cyber domain. Cyber Issues: Cyber Fundamentals and Strategy, National Cyberspace Issues, which examines international cyber approaches and approaches by the

United States; and Cyberspace Effects in Multi-Domain Operations. The third elective will look at cyber from the perspective of combatant commands, and how cyber mission teams within these commands operate at a strategic level.

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