



U.S. Air Force photos

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# Air Force trains warriors to defend cyberspace from terror

By Tom Vanden Brook  
USA TODAY

WASHINGTON — Ready. Aim. Click.

The military relies on computers and electronic communication to launch precision weapons, spy on its enemies and communicate with troops in combat. The Air Force is revamping its training to prepare its 320,000 airmen to protect its front lines in cyberspace, Air Force Brig. Gen. Mark Schissler said. The battlefield includes the Internet, cellphone calls and signals that trigger roadside bombs.

"In cyber, the weapon of choice is going to be the computer that sits on your desk," said Schissler, the Air Force's director of cyberoperations.

Every enlisted man and officer will be taught about cyberwarfare in basic training, the Air Force Academy or officer candidate school, Schissler said. About 100 students per year will receive more advanced instruction at the Undergraduate Network Warfare Training course at Hurlburt Field in Florida. Graduates of the six-month program will be able to operate a computer like "a weapon system" and will be known as cyberwarriors or cyberoperators, Schissler said. The first class graduated last month.

The Air Force wants to build offensive and defensive capabilities in cyberspace. A presentation from the Center for Cyberspace Research at the Air Force Institute of Technology states the goal plainly: The Air Force "can drop a 2,000-pound bomb anywhere we want. ... We need to be able to do the same thing in cyberspace ... while denying that ability to any adversary!"

Air Force Secretary Michael Wynne noted last year that terrorists exploit the Internet and need to be fought there.

"These adversaries can communicate globally with their agents, spread propaganda, mobilize support worldwide, conduct training, detonate improvised explosive devices and can empty or create bank accounts to fund their causes," Wynne told an Air Force conference.

Muslim extremists, Schissler said, run as many as 6,000 websites for recruiting.

A cyberwarrior will monitor computers used by terrorists to learn of imminent attacks and help thwart them, Schissler said. Wynne wrote in an article in an Air Force professional journal that in cyberwarfare, airmen

in Colorado can use satellites to program weapons on an F-16 to kill insurgents planting roadside bombs in Iraq.

The Pentagon acknowledges that its computers are attacked hundreds of times each day.

Most of the intrusions are thwarted, but an attack last June disrupted an unclassified e-mail system in the Defense secretary's office.

Schissler said there's no ideal cyberwarrior. "You have to be quick to learn," he said. "That's the only real requirement."

John Pike, a defense analyst and director of GlobalSecurity.org, questioned whether the Air Force program would overlap with responsibilities of the National Security Agency (NSA), which gathers and analyzes foreign communication.

Jamming enemy air-defense radar and protecting computers from hackers have been part of traditional electronic warfare for the Air Force.

"This thing sounds like they've set up their own operation separate from the NSA," Pike said.

## DISCUSSION

- ▶ How does the military use computers?
- ▶ Why is the Air Force training every enlisted man and officer in cyberwarfare?
- ▶ What do you think the job of cyberwarrior entails?
- ▶ What would be an example of an offensive capability in cyberspace? A defensive capability?
- ▶ What might the cyberspace equivalent of a 2,000-pound bomb be?
- ▶ How do terrorists exploit the Internet? In your opinion, which of these means of exploitation should cyberwarriors target first? Explain.
- ▶ Air Force Brig. Gen. Mark Schissler says there's no ideal cyberwarrior. If you were interviewing candidates for the position, what three characteristics or skills would you look for?

## VOCABULARY

precision weapons  
 revamping  
 cyberwarfare  
 adversary  
 exploit  
 propaganda  
 detonate  
 imminent  
 thwart  
 insurgent

**ACTIVITY** In small groups, adopt the role of U.S. Air Force cyberwarriors. Your team is charged with three missions: to combat cyberterrorists' propaganda, to thwart their attempts to empty or create bank accounts to fund their causes and to disable their efforts to conduct training over the Internet. In small groups, brainstorm a list of strategies that you could use to tackle each problem. (Your solutions can, but do not have to be, carried out via the Internet.) Below, list your three best strategies for tackling each problem. Then, choose your very best idea and on the back of this page, write an official-sounding memorandum that explains the strategy to your superiors, tells them how you will implement it and describes what you believe the effects of it will be. Share your memorandum with the class.

Problem:	Strategies we could use to tackle the problem:
Terrorists are using the Internet to spread propaganda.	1.
	2.
	3.

Problem:	Strategies we could use to tackle the problem:
Terrorists are using the Internet to empty or create bank accounts to fund their causes.	1.
	2.
	3.

Problem:	Strategies we could use to tackle the problem:
Terrorists are using the Internet to train future terrorists.	1.
	2.
	3.