

**WILL
"FLYING AND FIGHTING"
IN CYBERSPACE
GIVE ME SKILLS I
CAN USE OUTSIDE THE
AIR FORCE?**

The Air Force is advancing skills and capabilities across the entire spectrum of cyberspace and is working with many of the nation's leading companies to explore emerging technologies. We are building partnerships that will harness the brightest minds in industry, academia, and the government to lead the world in cyberspace technologies.

Service in the Air Force will give Airmen access to cutting edge thoughts and ideas on lasers, high-power microwaves and advanced technologies in directed energy, electronic and network warfare, secure communications, and electronics.



**Sounds great.
How do I sign up?**

As we stand up Cyber Command, we are developing new career fields for cyberspace operations. Until fully established, the Air Force will continue to rely upon specialties that have made us successful to date. Career fields such as Communications and Information, Electronic Warfare, Space Operations, Scientist, and Engineering will provide the best "on-ramps" to cyberspace operations. Regardless of the path chosen, selection into cyber operations is anticipated to be highly competitive. Individuals interested in pursuing a career in this arena are strongly encouraged to have a solid background in mathematics and/or the technical sciences.

In addition, candidates who demonstrate an ability to apply technical knowledge to solving complex problems will be more likely to find success in this arena.

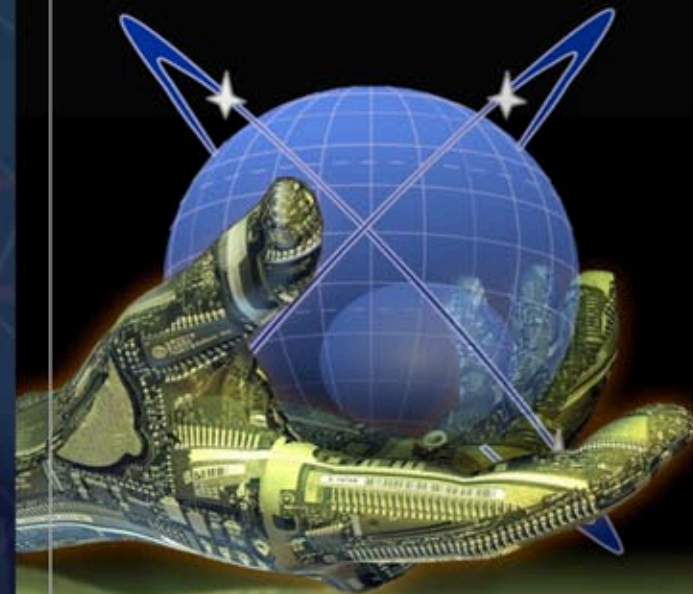


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Contact your nearest
U. S. Air Force recruiter:

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**US AIR FORCE
CYBER
SPACE**



**...The
5th DIMENSION**

WHAT IS CYBERSPACE?

A domain is an operational area or environment such as land, sea, air, and space. The cyberspace domain is characterized by the use of networks, electronics, and the electromagnetic spectrum to store, modify & exchange information. It may be hard to visualize, but it is a domain that most of us depend on to conduct daily activities. When you use your cellphone, the electronics in the handset stores your friends' phone numbers in memory. The handset and base station send and receive signals through the electromagnetic spectrum. You depend on the telephone network to send your signals to the right place, so the process can work in reverse on the other end, and your friend can hear you. "Can you hear me now?" seems funny, but it's all about cyberspace. It applies to everything from your internet connection to the ATM to your GPS receiver.



WHY ARE YOU "FLYING AND FIGHTING" IN CYBERSPACE?

This domain is critical to Air Force operations. We use radio waves, infrared, light, electricity and other electromagnetic energy to sense, signal, connect, transmit, process and control the delivery of military effects. Our airplanes depend on computers to fly. We use cyberspace to locate and track the enemy. We depend on GPS signals to tell us where we are. Radios coordinate what we're doing and maintain awareness of what's going on. We depend on computer networks to coordinate our plans, make decisions, and obtain the resources to carry them out.

For this reason, we must ensure that we can use cyberspace when we want and prevent our adversaries from using it when they want. If you have ever suffered a dropped cellphone call, a computer virus, or a chip malfunction in your car, you know that the ability to use cyberspace is not guaranteed. Estonia provides a good example. This small country has one of the best Internet security programs in the world. However, a recent month-long cyber attack severely inhibited government, banking, and other services, denying banking or email to those outside the country for several days at the height of the attack. The Air Force can not afford to have communications with forces across the globe removed, or even degraded. Operating in cyberspace is no longer just about keeping adversaries from hacking into our systems or jamming radars. It's now a fight over who gets to use cyberspace at all.



WHY ESTABLISH A NEW WARFIGHTING ORGANIZATION IF YOU'RE ALREADY "FLYING AND FIGHTING" IN CYBERSPACE?

Cyberspace has been used in military operations since the signal fire, when light (part of the electromagnetic spectrum) was used to pass messages. Our use of cyberspace began in earnest with the invention of the telegraph, then radio, then radar. As each of these technologies was perfected, ways to intercept or disrupt them were also explored.

We can no longer confine ourselves to being cyberspace users and part-time cyber warriors. Our nation's dependence on this domain requires a dedicated, professional force skilled and experienced to fight IN cyberspace, not just through it.

To gain efficiencies and offer an operational focus, the Air Force is standing up a new major command to organize, train, and equip our forces to achieve superiority in cyberspace. The new command will lead establishment of techniques, tactics, and procedures for fighting in this domain. It will also guide how we build and buy components and infrastructure to support military operations in cyberspace.

