

Aerospace & Defense Industry Profile



Colorado Springs 2017

Colorado Springs

Aerospace & Defense Industry Competitive Advantages

Aerospace & Defense Industry Cluster



Colorado Springs and the Pikes Peak region are home to established and strong aerospace & defense communities. The Colorado Springs military community has grown over the past 60 years around five military installations that surround the region. The number of aerospace, defense, information technology, and data networking/storage companies has expanded and grown to serve not only the military community, but also a thriving and growing commercial aerospace industry.

Colorado Springs maintains a vibrant economy for Aerospace and Defense industries.

Colorado has the second largest space economy in the United States. The State's aerospace industry includes over 55,000 highly skilled workers, including 26,000 plus private employees.

- The Pikes Peak region is home to over 240 aerospace and defense companies, with hundreds more high-tech companies operating in the region.
- Colorado enjoys a significant industrial base from all major aerospace and defense communities. Tools, equipment, software, and technologies are developed in Colorado's Front Range High Tech Corridor ranging from Boulder to Pueblo. Many companies operate on highly classified military projects and significant investments have been made in Colorado Springs by major corporations such as Northrop Grumman Corporation, Aerospace Corporation, Boeing, Raytheon, Science Applications International Corporation, and Lockheed Martin. Additionally, Colorado Springs has attracted new commercial aerospace industry developments such as Sierra Completions, which is proceeding with plans to build an \$88 million complex at the Colorado Aerospace Park at the Colorado Springs Airport.

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Aerospace & Defense Industry Competitive Advantages

Education Resources

Educational programs and intellectual capital are abundant in the Pikes Peak region. Colorado Springs is home to an established, highly-collaborative network of academic and research institutions. Universities offer Associates through PhD degrees and public-private requirements-based research directly supportive of the Aerospace and Defense communities.

Relationships with the United States Air Force (including the Air Force Academy, Air Force Space Command, and Air Force Office of Scientific Research), United States Northern Command, North American Aerospace Defense Command, the Missile Defense Agency and other defense and security agencies advance aerospace and defense technologies for both military and commercial applications.

Emerging commercial aerospace sectors include Unmanned Aircraft Systems, Information Technologies, Space Traffic Management, additive manufacturing and a host of technology transfer from area universities.

Colorado's universities and research facilities are turning ideas into discoveries and making breakthroughs with significant worldwide impact. Several companies across a variety of industries have gotten their start as a result of tech transfer activities at area universities.

The Pikes Peak region is home to a wide variety of Universities, Colleges and Trade Schools that provide a ready labor force for the Aerospace and Defense industries:

- United States Air Force Academy: 4,400 cadets and 20 research centers and institutes focused on topics like Cyberspace, Space Systems, Space Physics, Atmospheric research and modeling & simulation, exceeding \$60 million annually.
- University of Colorado, Colorado Springs (UCCS): UCCS is part of the University of Colorado (CU) family of campuses, which has attracted close to one billion dollars in NASA research since 2010. UCCS is geographically the largest CU campus in the state and annually enrolls over 12,000 students. UCCS is the lead university in the Space Education Consortium.

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Education Resources (continued)

- Colorado College: A private university established in 1874 and located in downtown Colorado Springs. It is home to over 2,000 undergraduate students and offers 42 major areas of study and 33 minors, including physics, mathematics and computer science.
- Colorado State University – Pueblo: Founded in 1933 and enrolls over 7,500 students in its degree programs which include physics, mathematics, industrial engineering, computer information systems and homeland security.
- Webster University: The Military Times named Webster University to its “Best for Vets: Colleges 2017” list, based on a survey of several hundred schools. Webster has developed cooperative degree programs for regional military members, offering advanced degrees in cybersecurity, space systems operations management and information technology management.

In addition, there are numerous community colleges, trade schools and remote university campuses in the region that feed into the aerospace and defense sectors, including Pikes Peak Community College, Colorado Technical University, University of the Rockies, Devry University and IntelliTec College. Only an hour away in Denver, Colorado, many other educational institutions offer the aerospace and defense industry a ready pipeline of young, intelligent, capable and enthusiastic workers from CU Boulder, Colorado School of Mines, University of Denver, Metro State University in Denver, Colorado State University in Ft Collins and others, with a combined student population of well over 100,000.

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Military Installations

Colorado Springs has a strong military presence and one of the highest concentrations of high-ranking military positions in the nation, with over 30 active general officers and many more general officers that are retired. Many aerospace and defense firms have located in Colorado Springs for proximity to that leadership. Major military installations and organizations include:

Peterson Air Force Base: Home to the 21st Space Wing, consisting of a work force that provides missile warning and space control for combat forces and the national command authorities of the United States and Canada. Host of the headquarters for USNORTHCOM, NORAD, Air Force Space Command and Army Space Command. Air Force Space Command determines requirements and programs the resources for the Air Force Space budget of approximately \$7.4 billion per year. (peterson.af.mil)

Cheyenne Mountain Air Force Station: Provides and operates secure, survivable systems and facilities for North American Aerospace Defense Command, NORAD. Air Force Space Command crews perform air defense, space surveillance, and missile warning missions at Cheyenne Mountain Air Force Station. (norad.af.mil)

Schriever Air Force Base: Command, control and launch support are given to over 100 operational satellites, which support the National Command Authorities, federal and civilian agencies, and all U.S. and allied military forces. Site of the 50th Space Wing, 50th Operations Group, 50th Communications Group, 50th Support Group, Space Warfare Center and Naval Satellite Operations Center (NAVSOC), and the Missile Defense Integration & Operations Center. (schriever.af.mil)

U.S. Army - Fort Carson: The second largest employer in the state of Colorado, Fort Carson has over 20,000 employees and is home to the 7th Infantry Division Headquarters. A premier war fighting preparation center, Fort Carson's 377,000 acres of training area, second only to the National Training Center in size, is used by all the Services for realistic combined arms training. Fort Carson is also the first military installation to privatize its base housing, a 50 year three billion dollar contract. Fort Carson has recently been recognized by the Army as a "Community of Excellence" winning recognition as the Army's best in 1998. (carson.army.mil)

United States Air Force Academy: Educates and trains future decision makers for the Air Force, especially for space programs. The U.S. Air Force Academy traces its history to 1954 when President Eisenhower signed legislation authorizing its creation. The Pikes Peak region was chosen for many reasons including abundant land, good flying weather and a supportive community. Cadets complete four years of studies leading to a bachelor of science degree. Emphasis is given to academics, military training, athletic conditioning and spiritual and ethical development. Academics include classes in the basic sciences, engineering, the humanities and the social sciences. (usafa.af.mil)

Colorado Springs Aerospace & Defense Industry Competitive Advantages

Aerospace & Defense Companies

Colorado Springs has a major concentration of well-known aerospace & defense firms. A variety of disciplines are represented, including electronics, manufacturing of computer components, software, and engineering. A sample listing includes:

The Aerospace Corporation	Provide research, development, and advisory services to the Department of Defense, military, and other federal/state agencies.	www.aerospace.org
ANC Research & Development, LLC (ANC R&D)	An Alaska Native owned Small Disadvantaged Business. Specializes in strategic development and global solutions.	www.ancrd.com
Arctic Slope Regional Corporation (ASRC) Federal	The government services subsidiary of ASRC, an Alaska Native Corporation providing engineering, information technology, infrastructure support, professional and technical services and solutions to U.S. civil, intelligence and defense agencies.	www.asrcfederal.com
BAE Systems	Aerospace & defense marketing and service to federal systems and customer service divisions.	www.baesystems.com
Bal Seal Engineering, Inc.	Bal Spring® canted coil springs are used in aerospace and defense products connecting designs for avionics and lightning strike protection, as well as connecting and conducting electricity along satellite solar arrays.	www.balseal.com
Blackstone Technology Group	Deliver innovative cloud, Agile, cyber security, and DevOps solutions to US Government and civilian agencies.	us.bstonetech.com
Boecore Inc.	A woman owned small business focusing in the areas of Systems and Network Engineering, Software Development, and Engineering Support. Boecore supports a broad array of Department of Defense (DoD) and commercial programs.	boecore.com
The Boeing Company	Development and production of state-of-the-art space and communications systems for military, commercial and scientific uses. Provide technical support for GPS programs and polyoptical systems.	www.boeing.com
Booz Allen Hamilton	Management and technology consulting firm specializing in defense contracts.	www.bah.com

Colorado Springs Aerospace & Defense Industry Competitive Advantages

Aerospace & Defense Companies (continued)

Braxton Technologies	Provides integrated satellite command and control ground systems for both single satellite missions and large complex satellite constellations.	www.braxtontech.com
Cosmic Advanced Engineering Solutions (AES)	Provides innovative digital signal processing, software development, geolocation, intelligence, information operations, and space and communications solutions, specializing in new applications.	www.cosmicaes.com
Delta Solutions and Strategies	A technical and management consulting company providing services to both the government and private sectors of the defense industry.	www.deltasands.com
Harris IT Services	Provides IT, integration, space and mission support services to government and commercial customers. Is wholly owned subsidiary of Harris Corporation.	www.harris.com
Imprimis, Inc.	Professional technical services firm recognized nationally for Cybersecurity and Information Technology, ballistic missile defense systems, education and training, satellite components, energy and advanced engineering.	www.imprimis-inc.com
Lockheed Martin Corporation	Advanced technology systems integrator providing space, aeronautics, electronics, integrated systems & solutions, and information & technology systems to mostly government customers.	www.lockheedmartin.com
Modern Technology Solutions, Inc. (MTSI)	Rapid capabilities development and fielding, aviation technology integration, software applications, Ballistic Missile Defense systems.	www.mtsi-va.com
Northrop Grumman Corporation	Marketing for government contracts, quality improvement training and consulting.	www.ngc.com
PeopleTec	Provides industry leading research, development and engineering essential to our nation's missile defense, space and aviation programs.	www.peopletec.com
Polaris Alpha	Provides software development, Intranet/Extranet portal development and Internet web development services. Developers of the WebTAS suite of data analysis tools, which store, analyze, visualize and detect patterns in large data sets.	www.issinc.com
Raytheon	Technology and innovation leader specializing in defense, civil government and cybersecurity solutions.	www.raytheon.com

Colorado Springs Aerospace & Defense Industry Competitive Advantages

Aerospace & Defense Companies (continued)

Rim Technologies	A service-disabled veteran/woman-owned small business providing innovative solutions and expertise for an array of global networks transcending the federal and commercial markets. Specializing in tech insertion – refining software architecture and tool development.	www.rimtech.co
Techwise	A Woman-owned small business specializing in multi-national government, military, and business consulting and services with headquarters in both Colorado Springs and the United Arab Emirates.	www.techwise.com
Vectrus	Designs, develops, installs and maintains radar and communications systems primarily for the military. Associated with Peterson AFB, Falcon Air Force Base and Norad.	www.vectrus.com

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Space Foundation

With their world headquarters located in Colorado Springs, the Space Foundation is the foremost advocate of the space industry and a global leader in space awareness activities and educational programs. The headquarters features a **Discovery Center** that is open to the public and annually publishes The Space Report: The Authoritative Guide to Global Space Activity.

Unmanned Aircraft Systems

Colorado Springs is actively engaged in efforts throughout the state to become a leader and pathfinder in UAS activity for the nation. El Paso County recently awarded a contract for the use of UAS in all Public Services, including public safety (firefighting, law enforcement, search and rescue) as well as utilities, transportation and other county-run public services. A plethora of military UAS activity already takes place at Fort Carson and the United States Air Force Academy, and the USAF trains its remotely piloted aircraft (RPA) pilots at Doss Aviation at the Pueblo Airport. Colorado Springs offers experienced professionals in a supportive environment with commercial opportunities for a variety of potential UAS uses. Colorado Springs is the home of UAS Colorado, the non-profit business league for the UAS industry in the state.

Workforce

Colorado Springs boasts a broad and skilled workforce. Whether through military retirement, routine departure from the military, or graduation from our many area universities, colleges and trade schools, our workforce comes with a comprehensive mix of educational backgrounds, security clearances and work experience in aerospace and defense environments. The range of backgrounds includes satellite operations, missile defense, high tech, information technology, cyber, ISR, homeland defense, disaster response, special operations, unmanned systems and numerous military career specialty codes from all US military services.



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Expansions / Relocations of Aerospace & Defense Companies 2004 - 2016

- Barrios Technology, Inc. (2004)
- SI International (2005 - expansion)
- SAIC (2005 - expansion)
- RT Logic, Inc. (2005 - expansion)
- The Aerospace Corporation (2006 - expansion)
- TechConFed (2008)
- Cyber Command (2009)
- Braxton Technologies (2009)
- MEI Technologies (2009)
- WP Aerospace, Inc. (2010)
- NEK (2010)
- ARES Corporation (2011)
- Space Foundation (2011 - expansion)
- Cosmic Advanced Engineering Solutions (2011)
- National Aviation (2011)
- Sierra Completions (2015)

If you would like to be part of this vibrant aerospace & defense economy, contact:

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