Aerospace & Defense in Missouri

MISSOURI
Advanced Manufacturing Excellence
Aerospace & Defense in Missouri

Missouri is a global leader in the aerospace and defense industry, and could be the best place for your next company expansion.

Aerospace

Nearly one in ten Missouri workers is employed in manufacturing, with automotive and aerospace being the sector’s largest components.

Boeing’s Defense, Space & Security, in St. Louis, the U.S.’s second largest defense contractor, has more than 14,000 employees in Missouri, making the F/A-18, F-15, EA-18G, MQ-25 and the new USAF T-X Trainer, along with composite parts for the 777X and a large line of defense munitions. GKN Aerospace employs approximately 800 highly-skilled workers at their aerospace manufacturing facility in St. Louis. LMI Aerospace continues to grow with a recent $17.5 million investment in their Washington, Missouri, facility, and in 2016 High Tech Solutions relocated its HQ to, and expanded in, Lee’s Summit.

Seyer Industries in St. Peters specializes in high-complexity machined parts for the aerospace industry, PAS Technologies near Kansas City manufactures, maintains and overhauls components in the aerospace industry, and NEMO Manufacturing, a manufacturer of electrical components for fighter jets in La Grange is currently expanding.

From Charles Lindbergh, to the Mercury space program, to the latest in aerospace innovation by Boeing, Missouri has led the way in every aspect of aviation for nearly 100 years and that leadership continues today. Statewide, Missouri is home to 100 aerospace manufacturing companies and we could be the best location for your next expansion.

Defense

From the 3,000+ (and increasing) employees at the National Geospatial-Intelligence Agency (NGA) West in St. Louis providing intelligence support to US forces globally, to EaglePicher’s high-tech lithium batteries that power NASA and the US military built in Joplin, to the Kansas City National Security Campus supporting the warfighter and keeping America’s nuclear deterrent safe, secure and reliable, Missouri is a defense industry leader in the heart of America. The defense industry invests $10.5 billion investment annually in Missouri, directly impacting more than 25,000 businesses.

Recently, NGA chose Missouri as the site of their new $1.7 billion western headquarters. “The St. Louis city site provides NGA with the most technological, academic and professional environment,” agency director Robert Cardillo said. And the urban base is preferable to “attract, recruit and retain” its more than 3,000 high-tech workers.

Leonardo DRS has two defense locations in Missouri, with both their DRS Land Systems HQ and a 100-acre heavy equipment manufacturing facility located here. Missouri’s World Wide Technology is a global leader in computer system design for the defense industry. And Northrop Grumman Innovation Systems’ Small Caliber Systems is based in Independence, Missouri, where the company has produced more than eight billion rounds of small-caliber ammunition in the last five years.

And when it comes to military bases, Missouri is home to Whiteman Air Force Base and America’s B-2 Spirit stealth bomber fleet, where both high-skilled military and civilian personnel work to defend the USA, such as technicians from L3 Technologies who maintain the B-2 Bomber simulators on base. Additionally, Missouri is home to Rosecrans Air National Guard Base and their “Top Gun” C-130 training program, and Fort Leonard Wood Army Base with the U.S. Army Maneuver Support Center of Excellence, along with the US Army’s Chemical, Biological, Radiological and Nuclear School, Engineer School, Military Police School, and 5th Engineer Battalion.

Geospatial Analysis and Cybersecurity

Geospatial analysis and cybersecurity are emerging sectors in Missouri, with solid foundations due to the presence of NGA and their thousands of employees.
Twenty-two colleges across Missouri have cybersecurity programs, and many are also engaged in research related to cybersecurity. SixThirty CYBER, a cybersecurity focused seed fund and business development program provides startups with up to $250K in funding, focused mentorship, and rapid connectivity to the top US financial, healthcare, and federal agency Chief Information Security Officers and executives.

Additionally, the new Geospatial Resource and Innovation Center has launched at T-REX in downtown St. Louis, just two miles from NGA, and NGA has engaged with St. Louis’ LaunchCode to establish coding apprenticeships for talented individuals who lack the traditional IT credentials.

**Workforce**

Missouri understands that an educated and trained workforce is essential to success. As a result, Missouri offers traditional and non-traditional training options for workers and companies that allow employers to recruit a workforce customized to fit their needs. A key Missouri example in the aerospace and defense industry is the customized pre-employment training developed by Boeing and St. Louis Community College in 2007.

And across the state, aerospace and defense training programs are developing the talent pipeline needed for today’s aerospace and defense industry at Missouri’s Knowledge Centers for Aerospace which include:

- Aviation Institute of Maintenance (Kansas City)
- Boeing Research and Technology's Collaborative Autonomous System Laboratory (St. Charles)
- Flight Safety International (Berkeley)
- Missouri State University (Springfield)
- Missouri S&T (Rolla)
- Saint Louis University
- Southeast Missouri State (Cape Girardeau)
- St. Louis Community College
- State Technical College of Missouri (Linn)
- University of Central Missouri (Warrensburg)
- Washington University in St. Louis

These Centers connect talent and industry together in a real-world environment that moves the industry forward. The Center for Aerospace Manufacturing Technologies (CAMT) at Missouri S&T, for example, is a national center of excellence for the development and transition of innovative advanced technologies for the aerospace manufacturing supply chain. Its industrial consortium includes The Boeing Company, GKN Aerospace, 3D-printing manufacturer Stratasys and other industry leaders.

In total, 58 Missouri institutions offer aerospace and defense related degrees and certificates, 22 offer degrees in cybersecurity and 15 offer degrees in precision production. And when it comes to colleges offering degrees in engineering and engineering technology, there are 20 offering associates programs, 15 bachelors, 7 masters and 4 PhD.

Additionally the Midwest Cyber Center of Excellence works extensively across Missouri to assist with workforce development. We can show you how Missouri can meet your unique talent needs.
Missouri Aerospace & Defense Companies

- Largest aerospace & defense employers in Missouri
- Aerospace & defense company
- Commercial airport
Missouri’s Largest Aerospace & Defense Companies
Missouri’s Cyber Security Companies
3M (Springfield) expanded its footprint in Springfield through a $40 million investment at its facility, where it produces industrial adhesives and tapes for the aerospace industry and other heavy industrial customers around the world. 3M expected its expansion to result in the creation of approximately 90 full-time positions.

ACCI Specialty Materials (Harrisonville), a startup that manufactures chemical products for the aerospace and automotive industries, expanded in Harrisonville, Missouri, in 2016. The expansion added 14 new jobs to the region.

American Outdoor Brands Corporation (Columbia), a company that represents a broad portfolio of entities in the hunting and outdoor enthusiast market, including Smith & Wesson, expanded with a new national distribution center in Columbia, Missouri. The expansion added 300 new jobs to the region.

American Marksman, LLC (Independence), a distributor of bullets of varying calibers, announced their expansion in Independence, Missouri. The expansion created 65 new advanced manufacturing jobs in the region.

Boeing (St. Louis), a global aerospace advanced manufacturing company, expanded in St. Louis, Missouri in 2016 with new commercial work for the 777X, representing more than $300M in capital investment and 700 new jobs. In 2018, Boeing won the $9.2 billion USAF T-X Trainer contract and the MQ-25 unmanned refueler contract, both of which will be built in Missouri. Also in 2018, Boeing acquired KLX Inc. for $4.25 billion in order to further enhance Boeing’s growing services business.

EaglePicher (Joplin) celebrated the opening of its new Lithium Ion Center of Excellence in 2016, which will focus on battery systems for the aircraft market, the U.S. military, and the field of medicine.

Flying Colours Corp. (Chesterfield), privately owned and operated aviation services company, expanded in Chesterfield, Missouri, in 2017. The expansion created 70 new jobs in the region.

High Tech Solutions LLC (Lee's Summit), which makes aerospace machined components and assemblies, relocated its HQ to, and expanded in Lee's Summit, Missouri, in 2016. The project represented $14.4 million in investment and 46 new jobs to the state.

Honeywell Federal Manufacturing & Technology (Kansas City) expanded with the hiring of 800 people in 2017 and another 450 in 2018 at their Kansas City National Security Campus, the facility that manufactures all the non-nuclear components for the U.S. nuclear stockpile.

LMI Aerospace (Washington), a leader in providing aerostructures, systems and components to the commercial, business and regional and military aerospace markets, expanded in Washington, Missouri, in 2016. The expansion represented $17.5 million in capital investment, and created 60 new jobs in the region. LMI Aerospace, as of February 2017, was acquired by Sonaca Group, an aero structures company headquartered in Belgium.

O’Fallon Casting (O’Fallon), a manufacturer of castings for commercial, government and aerospace markets, expanded in O’Fallon, Missouri, in 2016. The expansion represented $7.2 million in capital investment.

Nammo AS (Sedalia), an international aerospace and defense company headquartered in Norway, chose Sedalia, Missouri, as the site for their newly formed Capstone Precision Group LLC’s U.S. logistics center. The expansion added 13 new jobs to the region.

NEMO Manufacturing (La Grange), a manufacturer of electronic components for everything from computers to fighter jets, announced its plans to expand in La Grange, Missouri, in 2017. The 22,000 sq. ft. expansion is expected to add up to 20 new advanced manufacturing jobs in the region.

Seyer Industries (St. Peters), a manufacturer of higher-level assemblies for the aerospace and maritime industries, announced its expansion in Missouri in 2017. The 70,000 sq. ft. expansion represents more than $25 million in investment and is expected to add 125 new jobs to the region.
Talent & Education In Missouri

Missouri understands that an educated and trained workforce is essential to success in aerospace manufacturing. As a result, Missouri offers traditional and non-traditional training options for workers and companies in the aerospace field with academic institutions statewide granting degrees in engineering related fields and aerospace knowledge centers around the state supporting collaboration with industry leaders such as Boeing. From pre-employment training to advanced degrees Missouri takes flight with our workforce solutions.

Talent for Tomorrow is fundamentally resetting Missouri’s approach to meeting the state’s workforce needs, across K-12, higher education, and into the labor market. A full assessment of the current workforce and how well it matches needs, economic scenario analysis, identification of pilot projects and overall workforce recommendations was just the beginning. Now, Missouri is focused on implementation and is about to roll out a full-service, customized, one-stop shop for talent needs across the state. Missouri is ready to compete to win and increase the size and productivity of Missouri’s workforce.

Knowledge Centers for Aerospace

Aviation Institute of Maintenance (Kansas City)
- Aviation Maintenance Technician (AMT) Program
- Metropolitan Community College (Kansas City)
- AAS in Engineering Technology

Boeing Research and Technology’s Collaborative Autonomous System Laboratory (St. Charles)
- Serve as Boeing’s leading location for collaborative autonomous technology development with academic institutions and research partners, including government agencies and other companies
- Recently unveiled its prototype air cargo drone, produced by HorizonX

FlightSafety International Inc. (Berkeley)
- Provides aviation training services to pilots, technicians, and other aviation professionals.
- Offers business and corporate aviation, commercial aviation, military and defense aviation, customer, maintenance, and aircraft dispatcher and corporate scheduler training services.

Missouri State University (Springfield)
- Center for Applied Science and Engineering develops and supports advanced materials research.
Missouri University of Science & Technology (Missouri S&T) (Rolla)
• Collaborates with Boeing on research projects.
• Worked with Boeing to create the Center for Aerospace Manufacturing Technologies, supporting the aerospace supply chain.
• Center for Intelligent Maintenance Systems partners with companies to develop new technologies.
• Intelligent Systems Center performs research to address companies' technology needs and technical issues.

Saint Louis University
• Home of Parks College of Engineering, Aviation and Technology, the first federally certified school of aviation in the US.
• Space Systems Research Laboratory performing research in the design, fabrication and operation of space systems.
• The AirCRAFT Lab leverages the advantages of Unmanned Aerial Systems (UAS)—versatility, low cost, flexibility, minimal risk overhead and the tacit acceptance of a potential loss. This makes them the ideal platforms for experimental evaluation of cutting edge, high risk/high reward flight control algorithms, especially those addressing adverse flight conditions such as failures of sensors and actuators.

Southeast Missouri State University (Cape Girardeau)
• BS in Unmanned Aircraft Systems (UAS)

St. Louis Community College
• St. Louis Community College's Workforce Solutions Group and the Emerson Center for Engineering & Manufacturing formed a joint venture with Boeing to develop a customized preemployment training program.
• Provides 208 hours of instruction in aircraft assembly techniques, work instructions, teamwork, interview skills and resume writing.
• More than 427 assembly mechanics recruited and trained through this program to date.
• Aerospace Institute works with adults and high school students to grow a ready workforce for entry-level technician jobs in partnership with regional aerospace companies.

State Technical College of Missouri (Linn)
• Offers hands-on training in airframes and powerplants

University of Central Missouri (Warrensburg)
• Offers degrees in Aviation Management, Aviation Maintenance Management and Professional Pilot. Training conducted by current and former B-2 and A-10 pilots based at Whiteman AFB.

Washington University in St. Louis
• Institute of Materials Science & Engineering leverages an interdisciplinary platform in engineering, physics, chemistry, and earth and planetary sciences.
• Washington University has partnered with Phantom Works, Boeing's defense research arm, to develop new technologies for the defense industry.

Other Resources
Missouri Enterprise also provides manufacturing, engineering and business optimization services for Missouri companies. Missouri Enterprise has substantial experience in production, quality, and safety support and training for firms in the A&D sector.
Aerospace & Defense Workforce

Access to skilled labor means higher productivity, higher quality of product, and higher profits for Missouri companies. With a workforce of more than three million, Missouri has a tremendous resource for growing businesses.

Manufacturing employs 263,314 Missourians in over 6,400 establishments, making up 9.6 percent of the state’s total employment (BLS, 2016).

Additionally, military bases in and around the state of Missouri—including Ft. Leonard Wood, Whiteman AFB, Scott AFB and Fort Leavenworth—are home to more than 22,000 active duty military personnel.

Military bases in Missouri:
Fort Leonard Wood (Fort Leonard Wood)
Whiteman AFB (Johnson)
Marine Corps Mobilization Command (Kansas City)

Additional military bases nearby:
Scott AFB (St. Clair County, Illinois)

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<tr>
<th>Code</th>
<th>Occupation title</th>
<th>Missouri employment</th>
<th>Missouri median hourly wage</th>
<th>US median hourly wage</th>
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<td>All Occupations</td>
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<td>51-4121</td>
<td>Welders, Cutters, Solderers, and Brazers</td>
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<td>51-4122</td>
<td>Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders</td>
<td>1,030</td>
<td>$15.76</td>
<td>$17.78</td>
</tr>
</tbody>
</table>

Source: BLS, May 2016
North America’s Logistics Center

Missouri knows logistics, and can get your product to the global market quickly and efficiently. We are the nation’s rail, river and road crossroads, and a booming epicenter of commerce. We can get your goods anywhere in the world via our international airports, extensive river barge infrastructure, or any of the US Class 1 railroads. Missouri is home to the confluence of the two largest rivers in North America, the Missouri and Mississippi, and is home to the most northern ice free port on the Mississippi with unrestricted access to the Gulf of Mexico.

Missouri’s central location allows companies to reach more than 50% of the continental U.S. within one-day’s drive, and most of the rest within two. Ninety-six percent of Missouri’s population lives within 15 miles of a 4-lane divided highway.


Railroad lines:
- BNSF Railway
- Canadian National Railway
- Canadian Pacific Railway
- CSX Transportation
- Kansas City Southern Railway
- Norfolk Southern Railway
- Union Pacific Railroad

Port

600 mile radius

1,200 mile radius

Minneapolis – St. Paul
Chicago
Columbia
Denver
Houston
Indianapolis
Memphis
Minneapolis – St. Paul
Nashville
Oakland
San Antonio
San Francisco
Seattle
St. Louis
Tulsa
Washington, DC

Port

600 mile radius

1,200 mile radius

Minneapolis – St. Paul
Chicago
Columbia
Denver
Houston
Indianapolis
Memphis
Minneapolis – St. Paul
Nashville
Oakland
San Antonio
San Francisco
Seattle
St. Louis
Tulsa
Washington, DC
Missouri’s Transportation Network

Railroad lines:
- BNSF
- CN
- CP
- CSX
- KCS
- NS
- UP

Ports

Airports

Intermodal
Missouri Reduces Your Risk and Your Costs

Missouri provides you with a solid business foundation, financial and otherwise. In Missouri, taxes and business costs don't eat up all of your company's profits.

Our services
Missouri is also committed to your growth. We are ready to work with you, statewide, to make the journey from the initial site search to the day you open a seamless and efficient process through professional and confident support and site selection assistance. Our team is ready to work with you and provide a concierge-like service as you consider where your next expansion will be.

Benefits like our low business and labor costs, reliable and inexpensive energy, aggressive and performance-based incentives and a statewide commitment to attracting companies and investment, make Missouri a place where your company can come to grow and thrive. Whether it's in six weeks, six months, or six years, we are an expert resource to support you when the time is right to look at Missouri.

Certified Sites
Missouri's Certified Sites Program also reduces your risk by ensuring there has already been a comprehensive review of items including the availability of utilities, site access, environmental concerns, land use conformance, and potential site development costs. Having a site "certified" reduces the unknowns associated with site development by providing upfront and consistent information.

Additionally, Missouri has nearly 60 rail served sites of 50+ acres or more and 146 industrial facilities with more than 50,000+ square feet (Source: LocationOne as of 2/14/2018).

Income tax allocation
An important tax advantage for Missouri businesses is the amount of income considered taxable as only income earned in Missouri is taxed. In January 2020, Missouri is lowering the corporate income tax rate from 6.25 percent to 4 percent, which will rank us second among states that levy such a tax.

In addition, it is important to note that Missouri has not adopted worldwide or nationwide unitary tax assessment in computing multinational corporate income tax liability.

Tax exemptions for manufacturers
Manufacturers locating in Missouri enjoy numerous tax advantages, including:
- Sales/use tax exemption on machinery and equipment used to establish a new or expand an existing facility
- Property tax exemption for inventories
- State sales tax & local use tax exemption on energy purchases

ONE OF THE BEST TRACK RECORDS IN THE U.S. FOR FISCAL RESPONSIBILITY
Steve Johnson, CEO
314-725-2688, steve@missouripartnership.com

Steve joined the Missouri Partnership in early 2015, having led regional economic development efforts in both St. Louis and Kansas City over the past 20+ years. Steve directs the Partnership's marketing and business recruitment teams, working in close cooperation with the Missouri Department of Economic Development and the Hawthorn Foundation.

Subash Alias, SVP
314-932-3973, subash@missouripartnership.com

Working primarily out of the St. Louis office, Subash focuses on business recruitment activities including lead generation and project management across multiple industry sectors to bring jobs and investment to Missouri.

Sean Johnson, VP of Business Recruitment
816-489-5898, sean@missouripartnership.com

Sean Johnson serves as Vice President of Business Recruitment for Missouri Partnership. Sean’s responsibilities include vetting available sites and buildings, providing community and workforce information, communicating Missouri’s favorable tax climate, and working hand-in-hand with companies considering the Show-Me State as a location to invest and create jobs.

Deborah Price, VP of Business Recruitment & General Counsel
314-932-3974, deborah@missouripartnership.com

Focusing mostly in domestic markets as well as South America and Israel, Deborah is generating, cultivating and closing opportunities with companies across multiple industry sectors. As General Counsel, Deborah serves as the Partnership’s senior attorney responsible for advising the CEO on legal issues involving organizational operations, contractual and statutory compliance and overall risk management.

Dennis Pruitt, CEcD, VP of International Business Recruitment
314-932-3972, dennis@missouripartnership.com

Dennis, who is based in the St. Louis office, works across multiple industry sectors, primarily targeting companies in Europe, Asia, and Canada to bring new jobs and investment into Missouri.