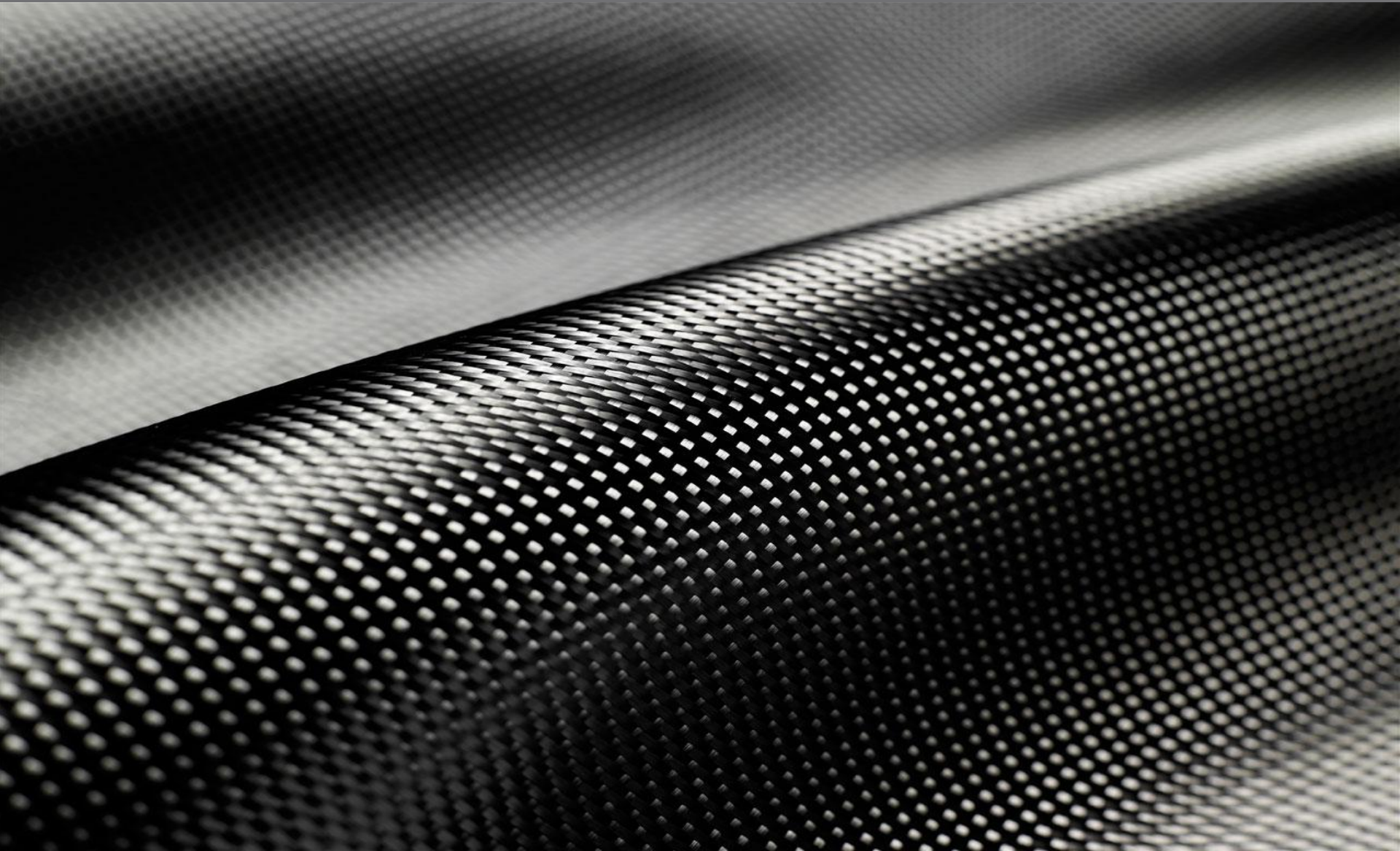


Advanced Composites Profile

2011



Utah's Advanced Composite Industry Competitive Advantages



Strong Industry Cluster:

Utah has **one of the highest concentrations** of advanced composites companies in the nation and is home to more than **10,000 workers** employed by advanced composites-related firms. Major employers in Utah include Hexcel, the **largest U.S. based manufacturer of high-end carbon fiber** and Janicki Industries, one of the **world's most respected tooling companies**. This density of employment and expertise provides relocating and expanding companies access to a **highly-skilled workforce** and an **abundance of talent**.

Education & Innovation:

Six colleges and universities from around the state offer training and specialized programs in the composites field and graduate hundreds of qualified workers at all levels of **education and experience annually**. Additionally, the state's science, technology and research initiative (USTAR) and University Tech Transfer programs spin out more companies and **next-generation technology than any other in the nation**. By investing in education, R&D and entrepreneurs Utah is **ensuring the state has a solid pipeline** of future leaders and talent to support our local industries.

Robust Supporting Industries:

In addition to Utah's economic development focus on advanced composites, the **state also pays close attention to growing the aerospace, wind energy and outdoor products industries in Utah**. These three complementary industries, with their strong ties to the advanced composites market, allow for a strong **local customer base for relocating and expanding companies**.

Utah Economic Outlook 2011

Economic growth in Utah is expected to accelerate during 2011. Employment is forecast to **increase 1.4% for the year** as a whole, with larger increases as the year progresses. Construction employment is forecast to increase 3.3%, the first year of growth following three years of contraction. Housing permits are forecast to move up slightly from historic lows. As the **overall unemployment rate declines to 7.1%**, the improving labor market will support increased consumer spending and a broad based recovery.

Utah's Advanced Composite Industry Recent Announcements



Hexcel add 400 new jobs

*Hexcel Corporation plans to expand into part of West Valley City's new **400+ acre industrial park EDA** and create roughly **400 new jobs** and **\$1.1 billion in capital investment** over the next 15 years. The new manufacturing facility will allow Hexcel to remain the **largest manufacturer of high performance carbon fiber in the U.S.** and will serve as a catalyst for continued growth in the advanced composites and aerospace industries in the state.*

Janicki Industries adds 50+ Jobs in Utah, 2010

*Janicki Industries **supplies engineering and composite manufacturing services** to ATK in Clearfield, Utah and to Hitco Carbon Composites in Gardena, California. Janicki Industries will make a **\$19.5 million** capital investment in real and personal property. It will hire **50 new employees** at an average salary that is over 125% percent of the Davis County average.*

Alliant Techsystems (ATK) adds 800 jobs in Utah, 2010

*The state of Utah is happy to announce the new ATK composites campus to serve **commercial airframes**, classified military programs, and commercial engine structures manufacturing facility in Clearfield City, Davis County. ATK's expected initial capital investment will be **\$100 million** with significant future investments. Employing over **800 new full-time positions**.*

Conductive Composites Company expands in Utah, 2009

Conductive Composites is a Utah based company that is developing a new form of advanced composite material that will act as a conduit of electricity. The company expanded its operations by adding a \$1 million facility to a 500 acre development in Green River Utah.

Hill is Too Valuable

*During the last round of military base closures, the Base Realignment and Closure (BRAC) Commission considered the serious economic impact of closing Hill AFB and **decided against it**. Other than being the state's **second largest employer**, Hill AFB operations result in a national economic impact of **\$2.02 billion with \$1.2 billion** of that total benefiting Utah's own economy.*

Utah's Leading Advanced Composite Companies



| Name | Location | Size | Description |
|---------------------------------|----------------|----------------|--|
| Hill Air Force Base | Davis County | 20,000+ | An Air Force Material Command base providing logistics and engineering management, including composites. |
| ATK | Clearfield | 5,000 to 9,999 | Designs and manufactures advanced weapon and space system equipment. |
| Boeing Company | Salt Lake City | 500 to 999 | Manufactures commercial aircraft, aircraft equipment and integrated defense systems. |
| Moog Aircraft Group | Salt Lake City | 500 to 999 | Manufactures high-performance military and commercial aircraft control systems and space vehicles. |
| Parker-Hannifin Corporation | Ogden | 500 to 999 | Manufactures aircraft motion control systems and related components. |
| Hexcel Corporation | Salt Lake City | 250 to 499 | Manufactures the nation's largest amount of carbon fiber and fiberglass electronic materials and products. |
| Northrop Grumman | Clearfield | 250 to 499 | Designs and manufactures military aircraft, defense systems and military aero structures. |
| Peterson, Inc. | Ogden | 250 to 499 | Manufactures guided missile components and space vehicles. |
| Barnes Aerospace | Ogden | 100 to 249 | Manufactures components for the compressor, combustor and turbine sections of jet engines. |
| ITT | Salt Lake City | 100 to 249 | Manufactures and designs lightweight advanced fiber-reinforced composite products. |
| Kitco, Inc. | Springville | 100 to 249 | Manufactures and distributes military aircraft and ship parts. |
| Klune Industries | Spanish Fork | 100 to 249 | Manufactures assembled components for the military and commercial aerospace sectors. |
| Metalcraft Technologies, Inc. | Cedar City | 100 to 249 | Manufactures a broad range of precision machined components for the aerospace industry. |
| Triumph Gear Systems | Park City | 100 to 249 | Manufactures and engineers high-quality components and systems for aerospace and actuation applications. |
| Williams International | Ogden | 100 to 249 | Develops and manufactures small gas turbine engine technology. |
| Advanced Composites, Inc. | Salt Lake City | 50 to 99 | Produces composite structures emphasizing high-performance composite tubing through filament winding. |
| Aerospace Engineering & Support | Ogden | 50 to 99 | Designs, develops, manufactures, tests and evaluates aircraft parts, systems and equipment. |

Utah's Leading Advanced Composite Companies



| Name | Location | Size | Description |
|-------------------------------|----------------|----------|---|
| Ceramatec | Salt Lake City | 50 to 99 | Focuses on R&D in advanced materials and electrochemistry. |
| Groen Brothers Aviation, Inc. | Salt Lake City | 50 to 99 | Develops high performance gyroplanes and gyrodynes using advanced composite materials. |
| Gold Tip, Inc. | Orem | 50 to 99 | Manufactures carbon graphite equipment for archers and bow hunters. |
| MacLean Quality Composites | West Jordan | 50 to 99 | Designs, engineers and fabricates advanced composite products. |
| Zoltek Corporation | Salt Lake City | 50 to 99 | Manufactures carbon fiber and advanced composite prepares for individual / recreational applications. |

Utah's Aerospace Industry Business Case



| | Utah | Washington | Kansas | California | South Carolina | Florida |
|--|----------|------------|----------|------------|----------------|----------|
| Mean Wages: Title (SOC code) | | | | | | |
| Managers of Production / Operating Workers (51-1011) | \$50,330 | \$62,930 | \$51,610 | \$57,840 | \$54,740 | \$54,620 |
| Aerospace Eng. Techs (17-3021) | \$53,240 | \$60,340 | n/a | \$59,320 | n/a | \$54,610 |
| Industrial Machinery Mechanics (49-9041) | \$43,540 | \$53,390 | \$42,510 | \$52,450 | \$43,680 | \$43,330 |

Source: Bureau of Labor Statistics

| Real Estate (\$/sq.ft. annual) | | | | | | |
|---------------------------------------|---------|---------|---------|---------|---------|---------|
| Class A Office | \$25.17 | \$23.00 | \$28.50 | \$32.31 | \$24.50 | \$26.75 |
| R&D | \$6.50 | \$12.00 | \$7.55 | \$6.19 | \$7.00 | \$20.00 |
| Industrial | \$3.84 | \$3.85 | \$3.86 | \$6.31 | \$3.75 | \$4.50 |

Source: NAI Gobal

| Unemployment Insurance | | | | | | |
|--|----------|----------|---------|---------|----------|---------|
| New Employer Rate (% of salary) | 1.20% | 1.38% | 4.00% | 3.40% | 2.64% | 2.70% |
| Taxable Wage Base | \$28,600 | \$35,700 | \$8,000 | \$7,000 | \$10,000 | \$7,000 |
| Duration of New Employer Rate (years) | 1 | 2 | 2 | 1 | 2 | 2 |
| New rate after "duration" with no lay-offs | 0.20% | 1.00% | 2.13% | 1.50% | 1.14% | 0.12% |

Source: US Dept. Of Labor

| Health Insurance | | | | | | |
|-------------------------|---------|---------|---------|---------|---------|---------|
| Single Coverage | \$3,485 | \$4,283 | \$3,336 | \$3,836 | \$3,605 | \$3,519 |

Source: Kaiser Family Foundation

| Utilities | | | | | | |
|---|--------|--------|--------|---------|---------|--------|
| Electricity (¢/kWh) Industrial | ¢4.16 | ¢3.98 | ¢6.15 | ¢10.33 | ¢5.69 | ¢9.06 |
| Natural Gas (\$/1000 Feet ³) Industrial | \$5.62 | \$9.43 | \$5.30 | \$10.80 | \$11.06 | \$9.41 |

Source: Energy Information Administration

Utah's Important Advanced Composite Industry Contacts



| Name | Organization | Contact | Description |
|-------------------|---|--------------|--|
| Gary Harter | Governor's Office of Economic Development | 801-538-8700 | The Governor's Office of Economic Development charter is based on Governor Herbert's commitment to economic development statewide. |
| Fred Lange | PTAC | 801-538-8733 | Utah Procurement Technical Assistance Centers (PTAC) help businesses with all phases of Government contracting -federal, state, and local. |
| Jerome Berg | ATK | 801.775.1350 | Designs and manufactures advanced weapon and space system equipment, one of the largest employers in the state of Utah. |
| Steve Rogers | SAMPE | 801-536-6203 | The Society for the Advancement of Material and Process Engineering (SAMPE), provides information on new materials and processing technology either via technical forums, journal publications, or books in which professionals in this field can exchange ideas. |
| Erin Gray | DATC | 801-593-2399 | Davis Applied Technology College is pleased to offer training opportunities in composites |
| Tim W. McLain | BYU | 801-422-4372 | Brigham Young University educates mechanical/material engineering students to contribute and lead in society. |
| Daryl Thompson | SLCC | 801-957-5236 | Salt Lake Community College offers a program in Composites Materials that offers basic knowledge on the materials used to build composite components and structures for aerospace, boating, automotive, building trades, wind turbine and recreation vehicle industries. |
| Anil V. Virkar | U of U | 801-581-5396 | The University of Utah offers degrees in Mechanical Engineering and Aerospace Studies, which focus on composite materials. |
| H. Scott Hinton | USU | 435-797-2021 | Utah State University offers both undergraduate and graduate programs in Mechanical and Aerospace Engineering with courses focusing on composite structures and materials. |
| Clay Christensen | MATC | 801-753-6282 | Mountainland Applied Technical College provides state-of-the-art training for skilled technicians in composites basics, mold preparation, non-vacuum and vacuum parts, prepped materials, core material, molds composite repair and blue print reading. |
| Collett W. Mecier | OWATC | 801-627-8300 | OWATC offers an accelerated 7 month Composites Technology program. |



For More Information:

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