Advanced Composites Profile
Utah Competitive Advantages

Strong Industry Cluster
Beginning with the strategic missile programs of the 1950’s, Utah has grown 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 annually graduate hundreds of qualified workers at all levels of education and experience. Additionally, the state’s science, technology, and research initiative (USTAR), and University Tech Transfer programs spin out more 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 2013
Economic growth in Utah has been accelerating throughout 2012. Employment is forecast to increase 3% for the year as a whole. Construction employment is forecast to increase 2.3%, 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 5.4%, the improving labor market will support increased consumer spending and a broad based recovery.
HyperComp joins 3M and Chesapeake Energy on CNG fuel tanks, 2012

Utah based HyperComp Engineering is designing and certifying advanced composite fuel tanks for use with Compressed Natural Gas (CNG) in a wide range of automotive applications. They are partnered with Vexxel, also in Utah, to manufacture the tanks and other systems.

Hexcel Adds New Fiber Production, 2012

Hexcel Corporation continues its expansion into part of West Valley City’s new 400+ acre industrial park EDA and create about 600 new jobs with $1.1 billion in capital investment over the next 10 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.

ATK to Manufacture Composite Parts for Airbus A400M, 2012

Airbus Military selected ATK for a contract in excess of $100 million to produce composite wing cover stringers for A400M Transport Aircraft. The work will be done in the ATK Aircraft Commercial Center of Excellence (ACCE) facility used for Airbus A320 commercial aircraft and other engine programs in Clearfield.

Boeing Opens Second Manufacturing Facility in Utah, 2013

Boeing opened a new 850,000 square foot composite fabrication facility for a second site in Salt Lake City. It will begin fabrication and assembly of the all composite 787-9 horizontal stabilizer in addition to 787 vertical fin already underway there.

ITT Exelis Opens Center for Composite Aerostructures, 2012

Exelis opened a new 250,000 ft² composite design and manufacturing center in Salt Lake City. It will increase capacity and automation capability for advanced commercial and military composite aircraft structures, with new automated fiber placement and tape laying capability combined with high speed machining, inspection and assembly. It is expected to add more than 2700 jobs over the next 15 years.
Utah Composites Companies

**ACT Aerospace, Gunnison**
Composite aircraft and helicopter components.

**ATK, Clearfield**
Commercial and military aircraft component manufacturing for Airbus and Rolls Royce.

**ATK, Magna**
Design, manufacturing and test of military and space based composite structures.

**Advanced Composites, Salt Lake City**
Military and commercial components including recreation and prosthetics.

**Aerospace & Engineering Support, Ogden**
Engineering, machining, electrical, and plating.

**Aerovision International, Ogden**
Consulting services for the design and construction of composite aircraft.

**Analyswift, Logan**
Composite design analysis software.

**Black Diamond, Salt Lake City**
Design and manufacturing of outdoor gear including carbon composite skis, climbing equipment and high performance clothing.

**Boeing, Salt Lake City**
Vertical fin and horizontal stabilizer for 787.

**BTG Composites, Inc Taylorsville**
Specializing in advanced FRP composite consulting.

**Ceramatec, Salt Lake City**
Focuses on R&D in advanced materials and electrochemistry.

**ClosedMold Composites, Salt Lake City**
Providing design, analysis, and development of service for composite products.

**Composites Coatings International, Woods Cross**
Specializing in design, fabrication, and repairs of most composite materials.

**Composites One, Salt Lake City**
Composite material distributor.

**Conductive Composites, Heber**
Expertise and materials to enable conductivity in polymers and composites.

**Contour Composites, Salt Lake City**
Radome and other composite component manufacturing.

**Diamond Mold, Salt Lake City**
Specializing in precision machining, injection molds, design, and packaging.

**DPS, Salt Lake City/Ogden**
Design and manufacturing of ultra high performance carbon composite skis.
Utah Composites Companies (cont.)

**Easton Technical Products, Salt Lake City**
Aluminum fabrication and composites capabilities addressing the needs of the sports equipment market.

**Entec Composite Machines, Salt Lake City**
Filament winding machines and controls.

**Enve Composites, Ogden**
Composite bicycle wheels, bike components, and accessories.

**Exelis (formerly ITT), Salt Lake City**
Commercial & military structures for Lockheed, Sikorsky, USAF and others.

**G3 Engineering, Salt Lake City**
Design, analysis, and manufacturing consulting for advanced composites.

**GA-ASI, Spanish Fork**
Military aircraft structural component manufacturing.

**GeoStrut, Lindon**
Carbon fiber tower design and manufacturing.

**Gold Tip, Orem**
Manufactures carbon graphite equipment for archers and bow hunters.

**Goldco Fiberglass Fabrication, Centerville**
Fiberglass manufacturing.

**Goode Ski Technologies, Ogden**
Patented manufacturer of carbon composite pencil ski pole and skis.

**Green Sales Guy, Sandy**
Engineering services and support for filament winding machines.

**Groen Brothers Aviation, Salt Lake City**
Develops high performance gyroplanes using advanced composites.

**Hexcel, West Valley City**
Largest aerospace grade carbon fiber manufacturing facility in the US. prepreg manufacturing and distribution.

**Hoyt, Salt Lake City**
Archery equipment design and manufacturing utilizing composite technology.

**Hunter Composites, Manti**
Fiberglass architectural column manufacturer for homes, businesses and buildings.

**HyPer Comp Engineering, Brigham City**
Development, engineering, and testing of high performance filament wound tanks.

**Industri-Tech, Murray**
Representatives for Newport Adhesives & Composites and Airtech International.
**Utah Composites Companies (cont.)**

**Janicki Industries, Layton**  
Design and fabrication of large scale precision metal and composite tooling.

**Krayden, Bountiful**  
Technical problem solving distributor specializing in various types of chemistries.

**Klune Aerospace, Spanish Fork**  
Manufacturing of metal and composite machine parts and assemblies.

**Nammo Composite Solutions, Salt Lake City**  
Commercial and military component fabrication.

**Otto Bock, West Jordan**  
Manufacturing of prosthetics using advanced composite materials.

**Owens Corning, South Salt Lake**  
Creator of various material solutions.

**Radius Engineering, Salt Lake City**  
Manufacturing processes and tooling.

**Reynolds Cycling, West Jordan**  
Composite bicycle wheels and accessories.

**Rock West Composites**  
Stock & custom carbon fiber tubes, molded parts and precision assembly.

**Skinner Creative, Draper**  
Composite consulting services.

**Solar Temp Fiberglass, Woods Cross**  
Experience in design, tooling, mold making, and boat repair.

**Solid Carbon, Provo**  
Composite fabricator using carbon nanotubes and other materials.

**TBC Composite, Ogden**  
Provider of vibration resistant spinners and bulkheads to general aviation community.

**TCR, Ogden**  
High performance prepreg manufacturing and distribution.

**Technology Marketing, Salt Lake City**  
End item and process materials, accessories, and equipment for composites.

**Utah Foam Products, Salt Lake City**  
Specializing in two component urethane systems.

**Vexxel Composites, Brigham City**  
Manufacturing of advanced composite fuel tanks for automotive CNG applications

**Wasatch Advanced Materials Development, Ogden**  
Providing polymer materials expertise to range of companies.

**Wyoming Test Fixtures, Salt Lake City**  
Design and fabrication of mechanical test fixtures for composites testing.
Related Utah Aerospace Companies

- **ATI** – only North American manufacturer of titanium sponge and related materials
- **Barnes Aerospace** – precision machining
- **Kitco** – aerospace parts distributor
- **L3** – secure military communications
- **Lockheed Martin** – aircraft and missile support services
- **Metalcraft** – manufacturer of Swearingen business aircraft
- **Moog** – aerospace control systems
- **Northrup Grumman** – missile support services, navigation systems manufacturing
- **Parker Hannifin** – aircraft controls
- **Peterson Inc** – precision machining and manufacturing
- **Sierra Nevada** – aero systems integration
- **Triumph Gear Systems** – high precision machining
- **Williams International** – small turbine engineering and manufacturing
Industry & Government Support

• The Governor’s Office of Economic Development (GOED) and EDCUtah include composite materials in the aerospace economic cluster and put significant effort into recruiting and retaining companies in this space.

• GOED and EDCUtah have created the Utah Advanced Composites Industry Working Group (ACWG) with two dozen companies represented, including direct competitors.
  – The ACWG meets quarterly to advocate for composites industry issues in Utah.
  – The ACWG provides industry direction to education programs related to the advanced composites industry.
  – The ACWG regularly meets with Governor Herbert to bring forward industry issues to the forefront for state advocacy.

• Launched Utah Cluster Acceleration Partnership (UCAP) in aerospace.
  – UCAP is designed to capitalize on the contributions of higher education in accelerating the growth and capacity of the aerospace and composites talent pool.

• Working to create an advanced composites technology center that would work across education and industry for research, development, and workforce skills enhancement.

• Utah has a strong aerospace culture and a right-to-work labor environment (6% unionization rate across all industries).

• Advanced nanofabrication facility for use by industry opened in 2013 with clean rooms, microscopy and characterization suites created by Utah Science Technology and Research Authority (USTAR).
Military Resources

• **Hill Air Force Base, Layton**  
  – Composites engineering and repair facility has system-wide responsibility for major airframe programs and upgrades  
  – Air Force Research Laboratory programs  
  – Total Utah Workforce of 25,000

• **U.S. Army Dugway Proving Grounds, Tooele County**  
  – Operator of largest UAV testing facility in continental USA  
  – Support contractors include AAI, L3, GA, many others  
  – Total Utah workforce of 250

• **Utah Test and Training Range, Tooele County**  
  – Largest supersonic test and training range in continental USA  
  – Consists of over 19,000 square miles of restricted airspace with 2,675 miles of ground space

• **Rapid Integration Acceptance Center, Tooele County**  
  – Consolidating the testing of UAS payloads and technologies to allow for faster deployment  
  – Open to any military agency that needs UAS technologies or payloads quickly tested and fielded  
  – Utah chosen for its abundant restricted air space and available frequency spectrum, existing infrastructure, and room for expansion
Education Resources

• **Composites Engineering** programs at University of Utah (U of U), Utah State University (USU), and Weber State University (WSU)

• **Advanced Manufacturing** programs with composites emphasis at Brigham Young University, USU, WSU, and U of U

• Close working relationship with **NIAR** (National Institute for Aeronautics Research)

• Strong commitment to comprehensive composites manufacturing programs at **Salt Lake Community College** and the **Davis, Ogden/Weber, and Mountainlands Applied Technology Colleges**

• One of the largest and most active **SAMPE** chapters in the world

• **Space Dynamics Laboratory** at USU – Advanced development of space based instrumentation and micro spacecraft
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