

Valued Partner

By Robert W. Moorman

The Triumph Group has built a large portfolio of companies over 22 years to become a major supplier to manufacturers of fixed and rotary-wing aircraft



Triumph builds the Osprey tail, ramp, sponsors, side skins and main landing gear panels. (Triumph photo)

In a January 26, 1900 letter to a colleague, U.S. President Theodore Roosevelt penned the phrase that outlined his template for conducting U.S. foreign policy: "Speak softly and carry a big stick; you will go far."

A variation of that maxim could describe the publicity-shy Triumph Group, a \$4 billion big-stick competitor, whose 47-companies produce aerostructures and aerospace systems, and provide maintenance, repair and operations (MRO) and other aftermarket services for the civil and military market.

Berwyn, Pennsylvania-based Triumph has grown through acquisition and balanced the portfolio with civil and military businesses. Unlike some large corporations, which are micro managed by a parent company, Triumph's companies operate independently. The parent sits at the top of three major divisions: Aerostructures, which has 16 companies at 29 sites with 14 product groups; Aerospace Systems, 20 companies, 25 sites, 15 product groups; and Aftermarket Services, 7 companies,

10 sites, 7 product groups.

Aerostructures make up 64% of Triumph's business, while Aerospace systems and Aftermarket Services comprise 28% and 8%, respectively.

"Triumph has a nice diversity between its military and commercial business, which is almost necessary in the current market," said Richard J. Pettibone, senior government and industry analyst for aerospace consultancy, Forecast International.

Since its 1993 founding, Triumph has become a major, multi-tier vendor to several OEMs. "Triumph is sort of a like junior member of the mezzanine contractor club that includes Honeywell, GE Aviation, Safran and UTC," said Richard Aboulafia, vice president of analysis, The Teal Group. "Their strategy is sound. Forty-seven niche companies would be a lot weaker on their own."

A number of those companies partner with helicopter OEMs. "The rotorcraft industry is an important piece of Triumph's business and an integral part of our growth plans," said

Jeffrey D. Frisby, Triumph's President and Chief Executive Officer. "Triumph continues to invest in technologies and advancements in engineered structures solutions, systems integration and processes. Triumph's capabilities span multiple disciplines and provide a cohesive approach to satisfy our customers' needs."

Among the new business of approximately \$150 million in annual revenue has been additional helicopter shafts and gear systems contracts, Frisby told attendees of the JP Morgan "Aviation, Transportation and Industrials Conference" in early March.

Various Triumph companies provide parts and systems for 18 civil and 15 models of military rotorcraft. The companies build everything from mechanical/electromechanical control systems, cockpit controls, landing gear and complex gear systems to major metal and composite structural assemblies and subassemblies and hydraulic components.

"You can't go 12 inches without seeing a Triumph part on an aircraft" is one oft-heard saying among employees.

Growing Rotorcraft Work

Triumph builds parts for variants of the Sikorsky Aircraft S-76 and S-92. It provides the complete transmission for the light, twin-engine Bell 429 and is part of a team that builds airframe structures for the 525 Relentless.

Company leaders say securing work on the rotorcraft of tomorrow is a priority.

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Company leaders say securing work on the rotorcraft of tomorrow is a priority. Triumph builds the complete landing gear for the next generation Sikorsky S-97 Raider. In early March, Sikorsky announced the start of the final assembly of the second Raider at the company's Development Flight Center in West Palm Beach, Florida.

Various divisions said they're moving toward electro-mechanical actuators versus the hydraulic actuators and some units are dabbling in 3-D printing of aerostructures.

Work continues on the military side. Triumph Aerostructures – Vought Aircraft Division produces the main landing gear panels and entire tail section of the Bell Boeing V-22 Osprey, including the aft body section, the vertical and horizontal sections plus empennage, rudders, elevators, ramp and ramp door side panels. Triumph has delivered well over 100 tail structures since signing onto the V-22 program in 1996.

Triumph Aerostructures has facilities in Red Oak, Texas; Dallas, Texas; Hawthorne, California; Milledgeville, Georgia; Nashville, Tennessee and Stuart, Florida.

Triumph's \$1.44 billion stock and cash purchase of Vought Aircraft Division in March 2010 was a "key acquisition



The company says securing work on the rotorcraft of tomorrow is a priority. The design, engineering and fabrication of the entire Sikorsky Raider landing gear were completed by Triumph. (Sikorsky photo)

for Triumph and a significant step up in the aerostructures business," said Norm Jordan, president of Triumph Aerostructures – Vought Aircraft Division.

So too was the December 2014 assumption of Spirit AeroSystems' Gulfstream G650 and G280 wing part assembly business in Tulsa. As part of the deal, Spirit paid Triumph \$150 million to cover transfer and other costs.

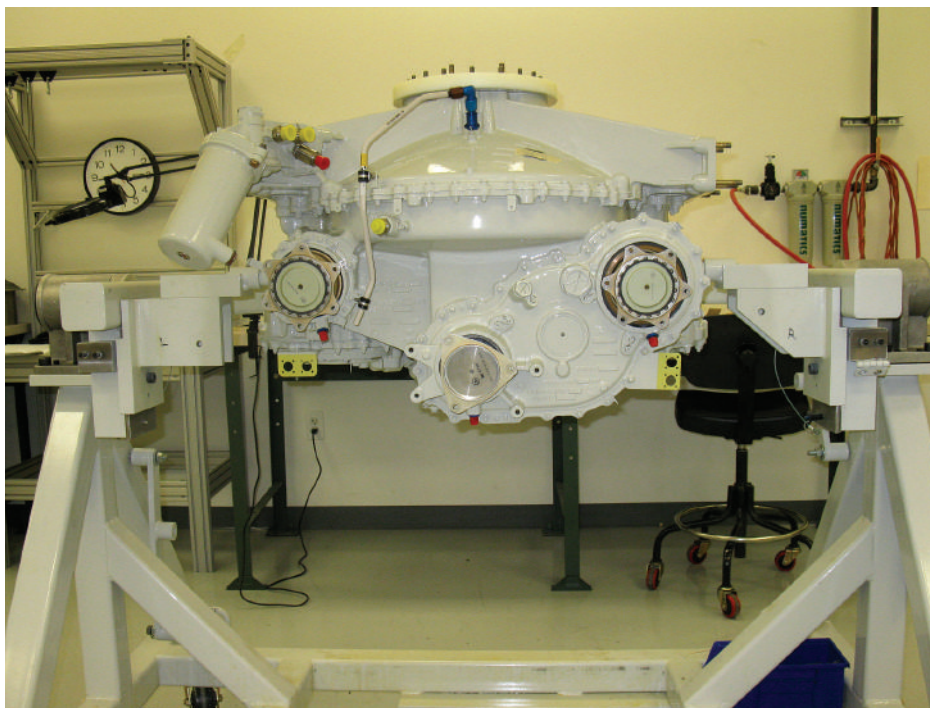
The Tulsa plant makes wing parts for the Gulfstream Aerospace Corp., a division of General Dynamics. While a direct benefit to the fixed-wing business, the acquisition broadens Triumph's market appeal worldwide, said analysts.

These kinds of purchases are part of Triumph's long-term growth through diversification plan, said company leaders. Diversification is also a hedge against a downturn in either the civil or military markets.

Growth continues in the Aftermarket Services Group. In October 2014, Triumph acquired San Antonio-based MRO company North American Aircraft Services, Inc. The now-named Triumph Aviation Services – NAAS Division provides line maintenance, ground support maintenance, routine and emergency fuel systems maintenance and repair. NAAS provides work for Boeing, Airbus, Northrop Grumman, Southwest Airlines, FedEx and UPS.

In addition to MRO, the Aftermarket Services provides auxiliary power units, nacelles, thrust reversers and engine aircraft components.

A significant portion of the business within the Vought Aircraft division "is new build, but we also build spares for most of our customers," said Jordan. "Our strategy hasn't changed. In order to increase spares activity, we need to have new build," he said. Seventy-percent of Vought's business is civil, the rest military.



Triumph manufactures the transmissions for the Bell 429 (shown) and the MDHI MD500 series. (Triumph photo)

The Vought Aircraft Division also has a multi-year contract with Sikorsky to produce cabin structures for UH-60L/M Black Hawk and MH-60S Knighthawk helicopters.

Various Triumph companies have a role in producing the Sikorsky CH-53K heavy lift helicopter for the US Marines. Triumph's Seattle-based engineering group developed the blade fold system, blade damper and the rotor brake module. Triumph also produces numerous hydraulic components and thermal transfer systems and components for the CH-53K.

Triumph Actuation Systems – Connecticut often works with the Seattle division on helicopter projects. TAS-CT specializes in the development of various aerospace products, including mechanical actuation systems, structural landing gear systems and components for the civil and military aircraft.

The Engine Controls Systems division produces Full Authority Digital Engine Controls (FADECs), fuel pumps and fuel metering units for civil and military rotorcraft, including the Boeing CH-47

Chinook and the Black Hawk, as well as commercial,

regional business aircraft. Work in this division is likely to pick up and involves supplying control systems on seven different models of military rotorcraft, including the UH-1, AH-6, OH-58 and other military helicopters. On the civil side, the division supplies engine control systems for the EC130, AW109, Bell 407/430, the AW169 and other helicopters.

Triumph Aerospace Systems – Newport News (Virginia), an engineering and test facility, is instrumental in the engineering and manufacture of aerospace hardware and prototype systems for fixed-wing and helicopter

systems. In one project, the division is currently developing a full-scale rotor test stand for Korean Aerospace Industries in support of their production, product development and MRO requirements.

Triumph's aftermarket services include engine overhaul and repair on various civil and military rotorcraft, including the AH-64D Apache and CH-47F Chinook, and the MD Helicopters MD369/500/600.

Growth Plans

Recent events and statements by key Triumph executives indicate the company would bolster its helicopter business, particularly in the civil sector.



The company manufactures systems and controls for a wide range of AgustaWestland, Airbus (EC130 shown), Bell, Boeing, MD and Sikorsky aircraft. (Airbus photo)

"We are focusing certainly on trying to be more international," said Tom Holzthum, vice president of the Triumph Group, who oversees eight companies in the systems segment, actuation side. "A lot of our content is on domestic built aircraft. We'd like to have more business with Airbus Helicopters."

The need to seek new business wherever possible is a theme *Vertiflite* heard often from heads of various divisions. Many divisions continue to perform well, but the most recent earnings statement also shows cutbacks in certain fixed wing programs, increasing the pressure for Triumph

to enhance its rotorcraft business. Triumph reported an operating loss of \$61.3 million for the quarter ending December 2014. This included a pre-tax charge of \$152 million for forward losses associated with the Boeing 747-8 program. The Vought Aircraft Division produces the fuselage for the 747-8, nacelles for the C-17 and also supports the A330/340 and A320 programs. The company also reported a drop in the production rate on the Boeing C-17 military transport and Airbus A330 civil airliner.

The Aerospace Systems and Aftermarket Services segments "continued to perform well" during the third quarter, but the Aerostructures unit reported net sales of \$559.5 million in

the third quarter, compared to \$637.2 million in the prior year period.

Luckily, sequestration, the congressionally-mandated budget cuts for military and other government programs, has yet to significantly affect Triumph's helicopter business. The Budget Control Act-defined sequestration funding levels in FY2014 and FY 2015 "had little or no impact" on Triumph's

rotary wing programs, according to a statement by Triumph's government affairs department. A deal orchestrated by leaders in the US House and Senate budget committees restored \$45 billion that sequestration would have extracted from the defense budget each year.

President Obama's proposed budget for FY2016 is \$39 billion above the sequestration-required level. "It is now a fight between the defense hawks and the budget hawks in Congress with the outcome undefined," said Triumph's government affairs offices. "If the President's request holds, our helo programs will again be essentially fully



The NASA Large Rotor Test Apparatus (LRTA) was designed and built by Triumph. The company also designed and built the Tiltrotor Test Rig (TTR) in conjunction with Bell Helicopter. (NASA photo)

funded. If not, the specific program and amount redacted is yet to be defined.”

Forecast’s Pettibone said sequestration will affect Triumph’s military business, “but it isn’t going to be as bad as once anticipated,” he said.

Current production rotary wing programs remain relatively steady “for the next 7 to 8 years,” said Art Bresh, director of sales for the Triumph Group. Additional business from Airbus Helicopters plus continued expansion efforts in Europe and China will help boost revenues. Triumph has a France-based parts division that could supply parts for Airbus Helicopters.

Bresh provides a unique perspective on the parent company’s ability to successfully juggle so many companies. Before coming to Triumph, Bresh worked 28 years for Sikorsky, a company that contracted with several of the companies that Triumph now owns.

“You always get nervous when a new owner comes in and takes over,” Bresh remembered. “I never saw a negative

impact when Triumph took over, because its policy is to maintain the existing management structure and let them operate as an independent unit.”



Triumph is part of a team that builds airframe structures for the 525 Relentless. (Bell photo)

The biggest positive change is having a deep-pocketed parent that invests in its individual companies, according to various executives of Triumph companies. Also there is a good deal of collaboration between various companies, which makes one-stop shopping packages possible for customers.

Company executives would not comment on specific plans to enhance Triumph’s rotorcraft programs, but some divisions are talking about partnering with Korea aerospace industry on systems development, said Holzthum.

Maintaining long-term military rotorcraft programs – even at reduced levels – would help bolster Triumph’s coffers. “We have been very successful with the CH53-K,” said Bresh. “The CH-53K will account for a lot of growth in the next ten years.”

About the Author

Robert Moorman is a freelance writer specializing in various facets of the fixed and rotor wing air transportation business. With nearly 30 years of experience, he runs a freelance writing business, RWM Associates. His writing clients include several of the leading aviation magazines targeting the civil and military markets. He can be reached at

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