PIONEERING THE PRODUCTION OF COMPLEX AEROSTRUCTURES

Advancing Aerostructures, Leading MRO

ST Engineering

Welcome to MRAS

For over nine decades, MRAS has been a leading provider of complex aerostructures for the aerospace and defense industries. With a rich history of innovation and expertise, MRAS is a trusted partner to some of the world's most prominent aerospace companies.

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Business Overview

In 2019, MRAS was acquired by ST Engineering North America, becoming part of its global network of aerospace facilities and offices. With the ownership change, the company was renamed Middle River Aerostructure Systems.

MRAS is a world leading manufacturer of complex aerostructures including nacelle systems and specialized structural components of the airframe. In addition to design, development and manufacturing capabilities, the company provides technical support, spares and other services for its products.

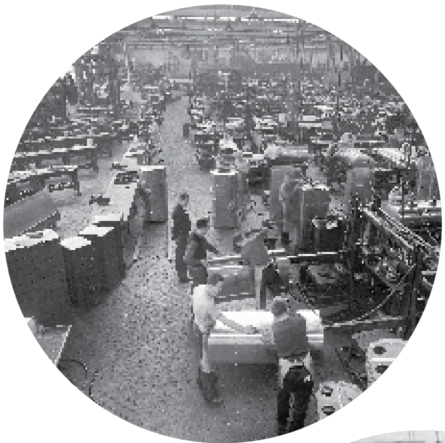
1,300,000
Sq. ft. Production Space

100,000
Sq. ft. MRO Repair Station

11,000+
Aircraft Production Heritage

10,000+
Nacelle Systems in Service

3,000+
Customers Worldwide



HISTORY

Located on Maryland's Chesapeake Bay near Baltimore, MRAS and its predecessors have designed, built, and equipped civil and military aircraft for 95 years. In 1929, visionary pioneer Glenn L. Martin purchased the first company site where the company designed and constructed the first Baltimore-made airplane to take flight. Over the decades, MRAS continued to redefine the limits of aircraft design, producing the world's first practical intercontinental airliner and the first streamlined bomber.

The Company saw quick growth with the onset of World War II, producing B-26 Marauders, guided missiles, and rockets. In the 1950s, the company expanded into commercial airliners and by 1961 began designing space products. By the 1990s the company was focusing on cutting-edge composite technology and had ventured into new arenas like environmental clean-up, utilizing robotic technology. In 1995, a "merger of equals" with the Lockheed Company, took place forming Lockheed Martin.

Later, as operations turned over to General Electric, identity as a leading manufacturer of engine nacelles, thrust reverser systems and complex aerostructures was established under the name MRAS. In 2019, ST Engineering acquired the company that continues to be a world-leading expert in the use of composite materials in the aerospace field.

MARKETS

MRAS's long and innovative history has given the company the skills and expertise to successfully operate in a range of aerospace markets.

Business Aviation

MRAS specializes in the production of nacelles and aerostructures for a range of business jets. Using advanced manufacturing techniques, the company's products are designed and built to optimize aerodynamic efficiency, reduce noise emissions, and enhance overall performance.

Commercial Aviation

As a leading provider of thrust reversers, nacelle systems, and specialized aerostructures for commercial airliners, the company's products are renowned for reliability, durability, and safety.

Defense

MRAS has long been a trusted partner for the defense industry, producing complex aerostructures and high-performance components for a range of applications. The company's expertise ensures that all products meet the demanding requirements of military operations.

Space

The company has played a significant role in the development and production of components for various space programs. MRAS's unique offerings have been instrumental in the success of various spacecraft missions.

PRODUCTS

We are committed to providing the highest quality aerostructure solutions. Our team of engineers and technicians are dedicated to understanding the specific needs of each customer and will work to exceed your expectations.

Nacelle Systems

MRAS provides commercial and military nacelle components. We can design, develop, and manufacture a wide range of nacelle components, including inlets, fan cowls, thrust reversers, exhaust nozzles, and EBU.

Complex Structures

MRAS is a recognized leader in the design, development, and manufacturing of complex aerospace structures. We leverage our in-depth knowledge of advanced materials and manufacturing technologies to deliver exceptional fabrication and assemble of complex metallic and composite structures.

MRAS is also able to assist in the start-up of new product lines, providing guidance and support throughout the development process.

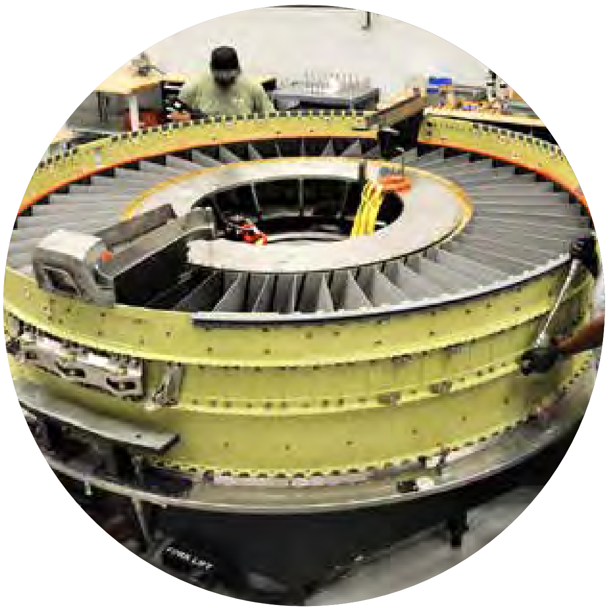
ST Engineering

SUPPORT & SERVICES

MRAS provides extensive customer and aftermarket support for our product lines, including customer field support, spare parts, production support engineering, technical publications, and warranty support.

MRO

We operate a 100,000 sq. ft. state-of-the-art maintenance, repair, and overhaul (MRO) facility with extensive capabilities which leverage our 90 years of history and expertise. The FAA/EASA Part 145 Repair Station can provide maintenance, repair, and overhaul of various nacelle systems.



Spares

Our spares support is unrivalled, ensuring critical components are available when needed. With an extensive on-site inventory of over 5,000 part numbers and 24/7 team support, MRAS meticulously track delivery performance and metrics to maintain excellence.

Engineering Solutions

MRAS partners with a range of aerospace OEMs and Tier 1 suppliers to address the most complex engineering challenges. Our full-scope capabilities enable a design-to-cost approach that optimizes product performance while minimizing costs.

MRO Highlights

- FAA/EASA Part 145 Repair Station MYER988K and can provide maintenance, repair, and overhaul of nacelle systems for: A320neo (LEAP-1A), 787 (GEnx & T1000), CF6-80C2 reversers (all models), CF6-80E1 reversers, A320 (CFM56-5B & V2500), 737 (CFM56-7B)
- Special projects. MRAS accomplishes PIP 2 (Performance Improvement Package) work in our repair station on major OEM projects to upgrade to the latest configuration.
- Experts in grinding of composite material around the fan case interior and rebuilding to airframe & OEM requirements.
- 1000 employees based in our Middle River MD facility including Engineers, Fabricators, Assemblers, Technicians and Nacelle and Structures Experts.
- ST Engineering's global footprint supports the world in Nacelle MRO care.
- We are committed to providing the highest quality aerostructure solutions. Our team of engineers and technicians are dedicated to understanding the specific needs of each customer and will work to exceed your expectations.

CAPABILITIES

MRAS's comprehensive capabilities span a wide range of processes, including additive manufacturing, advanced composites manufacturing, automated systems, non-contact metrology, advanced assembly, and test and certification.

Technology

From initial concept development through fielded product support, MRAS offers a full range of engineering solutions for nacelles and aerostructures. We develop weight and cost-optimized designs that meet the challenging requirements of each customer.
Key engineering competencies include digital product assemblies, kinematic simulations, integrated composite design and manufacturing, static and dynamic structural analysis, impact analysis, computational fluid dynamics (CFD), and thermal management.

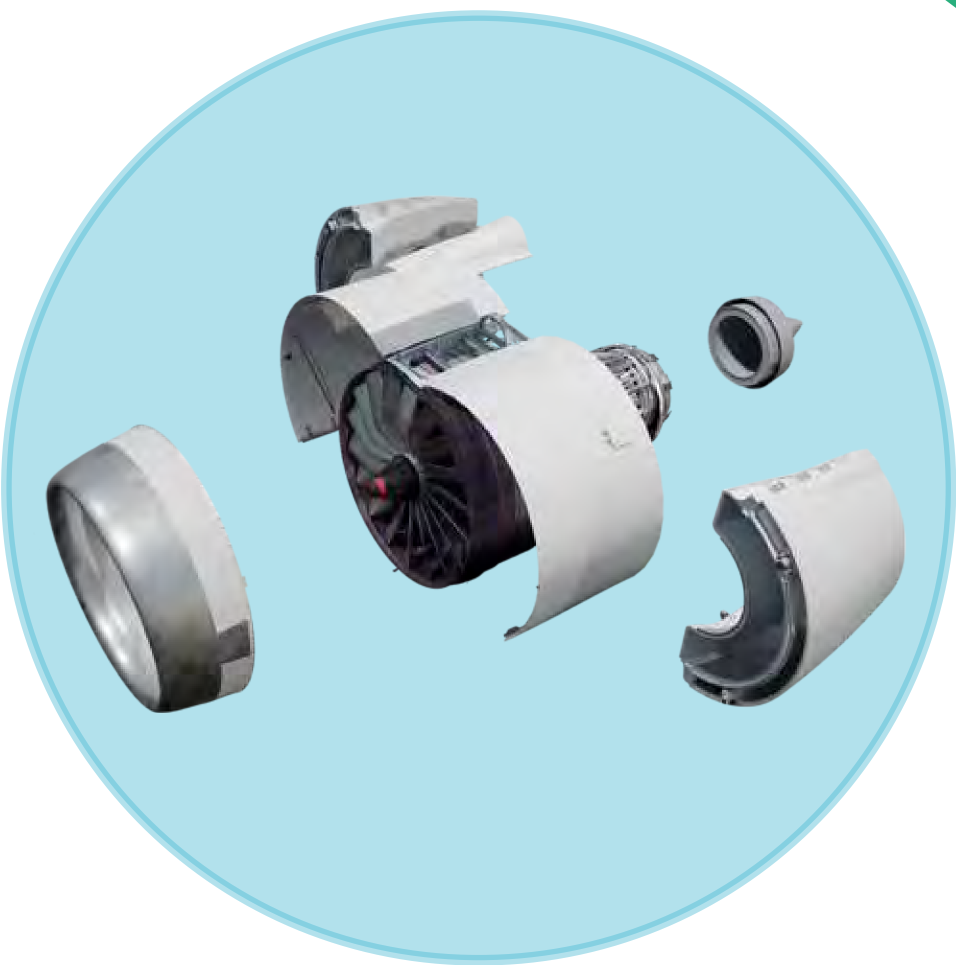
Production and Assembly

Our assembly group encompasses a comprehensive range of responsibilities, from tooling and process planning to shop floor support and ongoing production support. MRAS meticulously develops assembly methodologies, ensuring seamless process flow, efficient assembly line set-ups, and optimized assembly facilities.

Our facility has a 75,000 sq. ft. high-bay assembly area, equipped with 3-ton cranes, and a 90,000 sq. ft. low-bay assembly area, featuring 2-ton cranes.

FAA 145 Repair Station

MRAS is certified to perform MRO work on a variety of nacelle systems, under the FAA/EASA Part 145 Repair Station Certificate. We offer a comprehensive range of services including maintenance, repair, and overhaul or nacelle systems and thrust reversers, composite and metal bonding, Performance Improvement Package (PIP) work, and on-site spare parts support.



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MRAS is certified to AS 9100 Rev.D, FAA 145 and EASA 145-6726