

GENERAL ATOMICS ELECTROMAGNETIC SYSTEMS

Technology innovation comes from not only asking “what if”, but also asking “why not”.

General Atomics Electromagnetic Systems (GA-EMS), a leader in science, engineering, and research, answers these questions with transformative technologies, unique products, and integrated system solutions designed to meet the emerging challenges facing defense and commercial customers worldwide.

AVIATION LAUNCH AND RECOVERY



Our first-of-kind electromagnetic and electric power management technologies are revolutionizing the way aircraft are launched and recovered from the deck of naval aircraft carriers. GA-EMS launch and recovery systems replace traditional steam catapults and hydraulic arresting equipment, facilitating higher reliability, decreased wear and tear on aircraft, and reduced maintenance and manning requirements to significantly lower operation and lifecycle costs. These powerful new systems expand the Navy’s launch envelope and enable rapid sortie generation to enhance mission success.

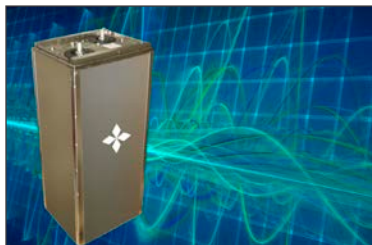
MISSILE DEFENSE AND SPACE SYSTEMS

Electromagnetic technology is driving the development of weapon systems to enhance our nation’s ability to defend against a wide array of threats. Our multi-mission railgun weapon system uses electromagnetic force instead of chemical propellants or explosives to launch hypersonic guided projectiles at high rates of fire, enabling shorter time to target and greater effectiveness at longer range. GA-EMS’ railgun system is designed to defeat threat swarms at a fraction of the cost per engagement compared to conventional systems, providing an effective capability to protect and defend assets from land and sea.



GA-EMS designs and develops nanosatellites, small satellites, and complete spacecraft systems for Department of Defense and government customers. With a flight-proven history and expertise in a broad range of advanced satellite technologies, we offer “concept to launch” engineering services to help customers deliver critical communications support and actionable intelligence to users located in remote areas of operation worldwide.

POWER AND ENERGY



Finding better, more efficient ways to power increasingly fuel-hungry systems is a challenge facing developers of complex defense and commercial applications. GA-EMS specializes in working closely with customers to create unique power and energy technologies to meet the most demanding specifications and extreme operating environments. From high voltage capacitors and the most energy dense railgun pulsed power modules, to safe, scalable lithium-ion fault tolerant batteries and permanent magnet motors, generators and modular power conversion drives, GA-EMS offers a wide range of specialized technologies to support a variety of air,

sea and ground platforms. Our products and integrated system solutions provide the high power density and fuel savings necessary to help improve overall system performance and lifecycle costs.

FILTRATION AND MONITORING

GA-EMS' sophisticated filtration and monitoring systems help customers protect the environment, deliver consistent, improved profitability, and provide safe, reliable performance over a life of operational service. Our filtration systems provide a means for the petroleum industry to increase revenue potential by creating value-add clarified oil products and reducing waste. For industrial facilities, our filtration systems provide environmentally sound methods to effectively treat and recycle a wide range of hazardous and non-hazardous waste. We are also world renowned for designing a broad range of qualified radiation monitoring systems to help maintain the safety of nuclear power plants, operating personnel, and the public for the entire service life of nuclear facilities.



EMERGING TECHNOLOGIES



Evolving and complex technical challenges drive the need for more innovative thinking. GA-EMS scientists and engineers continue to create bold new electromagnetic and electric power solutions to deliver revolutionary products with higher efficiencies, greater capacity, smaller footprints, and more flexibility to meet unique customer requirements. We are developing specialized energy products suitable for extreme air, land and underwater environments. As systems become increasingly interconnected, we are exploring applications for advanced analytics and sensor systems that deliver real-time, actionable insights to accelerate decision-making and improve customer competitiveness. GA-EMS

continues to investigate new ways to advance existing products to improve performance, respond to changing requirements, and address new market opportunities.

PRECISION MANUFACTURING

GA-EMS combines manufacturing expertise with cutting-edge equipment to make component, product and system concepts come to life. Our extensive manufacturing capabilities offer the latest in electronics, assembly, machining and testing equipment to take designs from prototype to full scale production. Whether the concept is our own, our partners, or our customers, GA-EMS' highly skilled experts and proven manufacturing processes support the most exacting component and product specifications, and conformance to the highest quality and compliance standards.



Driving Innovation. Powering Success.

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GA-EMSOVERVIEW REV A 0617-2016