

# EMALS & AAG

LAUNCHING A NEW ERA  
OF NAVAL AVIATION



A FIRST-OF-KIND ELECTROMAGNETIC AIRCRAFT LAUNCH AND RECOVERY SYSTEM

Learn more at [www.ga.com/ems](http://www.ga.com/ems)



## ELECTROMAGNETIC AIRCRAFT LAUNCH SYSTEM (EMALS)



A multi-megawatt power system and powerful linear induction motor launches lightweight to heavy aircraft using electromagnetic technology.



The advanced control system maintains the appropriate takeoff speed for each aircraft, ensuring less stress to the aircraft and ship.



EMALS reduces manpower by 25% compared to the traditional steam catapult system that has been used for over 50 years.

## ADVANCED ARRESTING GEAR (AAG)



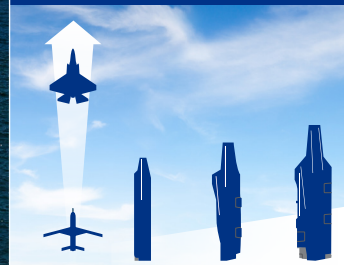
An electric aircraft recovery system that allows controlled deceleration, which means less potential damage to the aircraft upon landing.



Advanced technologies ensure safer and more reliable aircraft recovery.



EMALS and AAG can be configured for different size ships and can launch very light to very heavy aircraft.



# ADVANCED NUCLEAR REACTORS & MATERIALS

INNOVATION MADE REAL

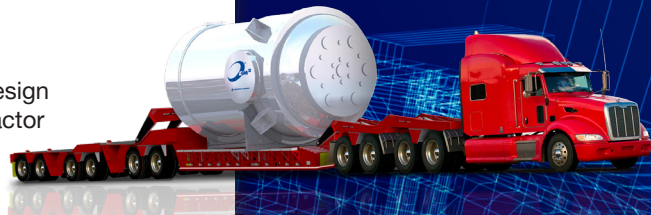
ON THE FOREFRONT OF INNOVATION IN NUCLEAR ENERGY SINCE 1955

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## ADVANCED REACTORS

We have been an innovator in nuclear reactor design since 1955 and continue to engineer nuclear reactor solutions that safely and cost effectively deliver clean energy.



## TRAINING, RESEARCH, ISOTOPE, GENERAL ATOMICS (TRIGA®) NUCLEAR REACTORS

TRIGA is the most widely used non-power nuclear test reactor in the world. We have installed 66 reactors at universities, laboratories and medical centers in 24 countries. TRIGA reactors are used in diverse applications including the production of radioisotopes for medicine and industry, treatment of tumors, basic research on properties of matter, and training.



## ADVANCED NUCLEAR MATERIALS

SiGA® Silicon Carbide (SiC) composite allows nuclear fuel rods to function at extremely high temperatures and can retain strength at well above 1600°C.





# SPACE SYSTEMS

EXPANDING THE  
POSSIBILITIES OF SPACE



DESIGNING AND BUILDING SATELLITES, PAYLOADS AND SUPPORT SYSTEMS

Learn more at [www.ga.com/ems](http://www.ga.com/ems)

 **GENERAL ATOMICS**  
ELECTROMAGNETICS



WEATHER  
FORECASTING



CLIMATE  
MONITORING



MILITARY  
COMMUNICATIONS



EARTH  
OBSERVATION



ENVIRONMENTAL  
DATA COLLECTION

## SATELLITES

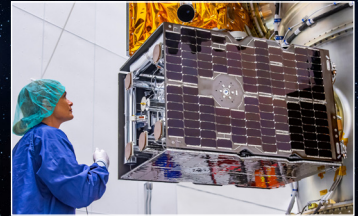
With a history of operational flight experience, our modular satellite platforms support defense, civil, commercial, and academic mission requirements.

## OPTICAL COMMUNICATION

Our Optical Communication Terminals enable faster than ever before space-based communications to ensure 24/7 total connectivity, relaying data and critical information from earth, to space, and beyond to inform decision making.

## SPACE NUCLEAR

Since the 1950s, we have been innovators in the space-nuclear industry. We are developing safe nuclear fuel and energy systems, and a Nuclear Thermal Propulsion engine to take space explorers even further than ever before.



Learn more at [www.ga.com/ems](http://www.ga.com/ems)

# POWER & ENERGY SYSTEMS

DRIVING INNOVATION,  
POWERING SUCCESS



GROUND VEHICLES



AIRCRAFT



SURFACE VESSELS



UNDERWATER MANNED/  
UNMANNED VEHICLES

DESIGNED TO SUPPORT A WIDE RANGE OF CHALLENGING LAND, SEA, AND AIR APPLICATIONS

Learn more at [www.ga.com/ems](http://www.ga.com/ems)



## LITHIUM-ION FAULT TOLERANT (LIFT™) BATTERY SYSTEMS

This modular and safe battery system utilizes commercial lithium-ion batteries to provide high energy density solutions for maritime, land, and air applications.

## ALUMINUM POWER SYSTEMS (ALPS)

A battery system with the capacity to store a large amount of energy which is created by mixing aluminum with water to produce hydrogen. ALPS powers underwater vehicles and is ideal for operations that require long-endurance and stealth.

## HIGH SPEED POWER GENERATION SYSTEMS

Permanent magnet motors, generators, and modular drives that deliver constant power and maximum efficiency while providing significant fuel savings for ship services.

## CAPACITORS

We are a world leader in delivering high energy density capacitors and have broken energy content records enabling more power in smaller packages for applications worldwide including defense, research, medical, industry, and transportation.

