

PROVEN SATELLITE SOLUTIONS

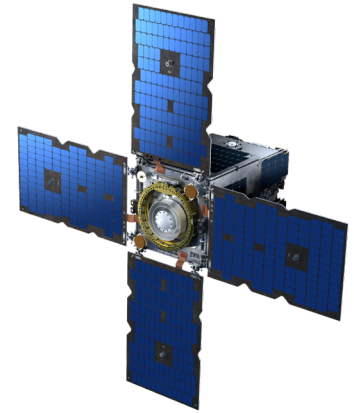


General Atomics Electromagnetic Systems (GA-EMS) is revolutionizing access to space with our advanced satellite platforms. GA-EMS satellites offer a broad spectrum of capability combined with reduced acquisition costs, making them ideal spacecraft for a wide variety of missions. From custom, single platform solutions to interconnected constellations, GA-EMS satellites have a proven history of on-orbit flight heritage enabling robust space-based service capabilities.

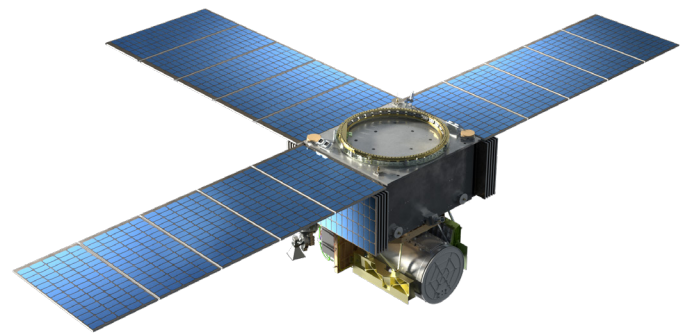
ORBITAL TEST BED

The Orbital Test Bed (OTB) is GA-EMS' most capable satellite platform. The modular and scalable architecture of the OTB platform enables GA-EMS to readily design and build an optimized spacecraft while using a variety of proven systems and components to mitigate mission risk. OTB's versatility allows GA-EMS to provide specific solutions for a variety of missions ranging from hosting unique customer payloads to satisfying complex mission and constellation requirements.

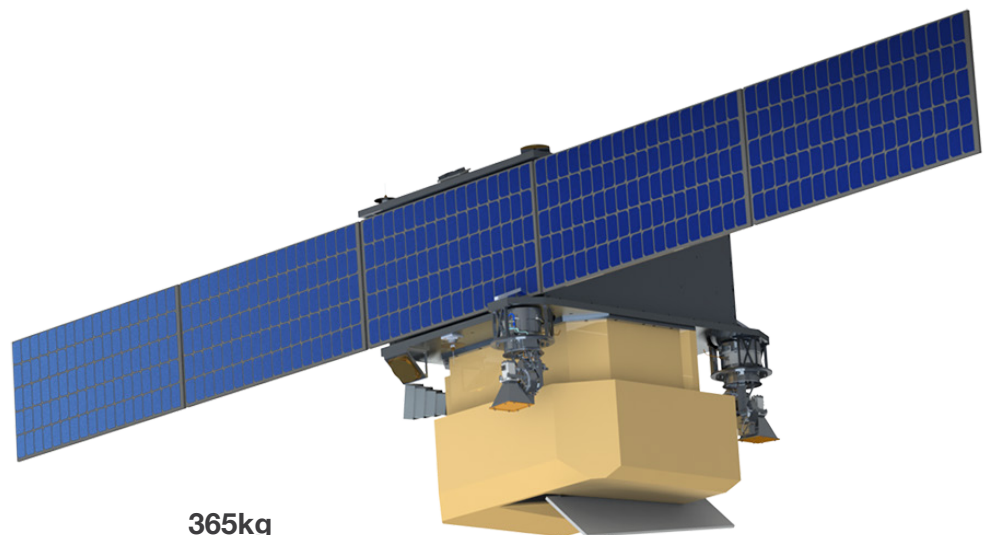
- Readily integrate GA-EMS' Optical Communication Terminals (OCT) to facilitate Multi-Domain Optical Communication
- 5 year nominal lifetime
- Able to reliably orient payload as required
- Maneuverable to change/maintain altitude and avoid space debris or a hostile attack autonomously or through GA-EMS Mission Operation Centers
- Supports multiple payloads with diverse capabilities on a single platform
- Modular and scalable spacecraft design and manufacturability



139kg



250kg



365kg

CUBESAT PLATFORMS

GA-EMS' modular CubeSat platforms offer an economical, low-risk mode to launch demonstration payloads, validate new technologies in space, and increase the Technology Readiness Level (TRL) of novel components and payloads.

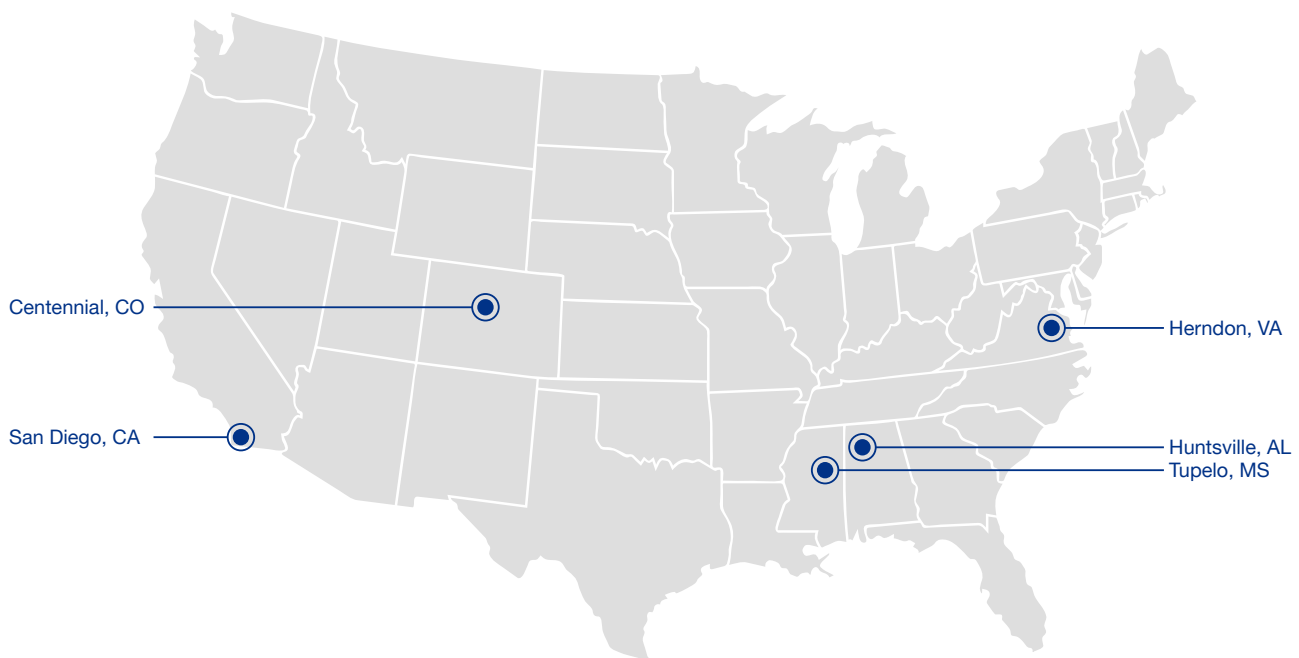
- Robust hardware and software design allows for higher reliability and longer mission lifetimes than most small satellite designs
- Adaptable to accommodate a wide variety of advanced payloads such as GA-EMS' OCTs
- Accommodates up to 50% of its mass for payloads
- High accuracy pointing for sensors and terminals
- Scalable from 3U - 27U offering a wide range of payload options



SATELLITE & SPACE SYSTEMS DEVELOPMENT

With AS9100:2016 certified, state-of-the-art facilities across the nation, GA-EMS' infrastructure supports design, prototyping, test, mission control, and manufacturing of modular, scalable and innovative space systems at any scale.

- Mission analysis/orbital mechanics
- Full system design, modeling, simulation, analysis and test
- Payload design, integration and test
- Mechanical and thermal design, analysis and test
- Propulsion system design, analysis and test
- Guidance, Navigation and Control (GNC) design, modeling, simulation and test
- Communication systems analysis, integration and test
- Satellite avionics and power systems design, build and test
- Mission planning and analysis
- Spacecraft assembly, integration and test



MISSION SUPPORT AND LAUNCH SERVICES

- Launch integration, negotiation and management
- Ground systems for operations
- Full Hardware-in-the-Loop (HWIL) modeling and simulation
- Constellation and communication design and analysis