BAE SYSTEMS

Ground Systems Capabilities

The ground systems needs of defense, civil and commercial customers are evolving to be more adaptable, scalable and autonomous. BAE Systems has a breadth of capabilities ready to support our customer's ground needs as they implement future architectures and technical innovations in any domain. Leveraging our expertise across the full mission lifecycle, we enable the integration of mission solutions into new or existing ground systems, delivering the right data to the end user at the right time.



Ground Systems

BAE Systems provides mission enabling satellite ground systems and capabilities to meet unique customer demands in mission management, command and control, mission data processing and dissemination along with mission operations and sustainment.

As a true mission partner with extensive space hardware and ground solution experience, BAE Systems supports customer lifecycle mission requirements from tasking, collection, processing, exploitation and dissemination. Our scientists develop state-of-the-art payloads and instruments, positioning us to provide advanced processing and sense-making capabilities that turn data into meaningful insights for uniformed service members and decision makers.

Mission Operations

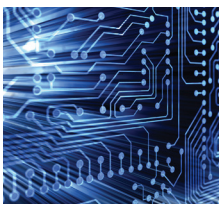
BAE Systems supports space hardware delivery, ensuring your mission from start to finish including test and operations. Prior to launch, our teams develop and deliver operator training, plan and execute mission rehearsals utilizing high fidelity vehicle and system simulators, and deliver operational documentation needed to operate the on-orbit assets. Post launch, our team plans and leads commissioning efforts on the spacecraft to ensure successful mission functionality and ground system integration.

Additionally, BAE Systems develops cloud-enabled Mission Operations Centers, allowing multiple systems and missions to utilize the same Ops Center while launch and initialization operations are conducted in dedicated facilities.

Engineering, Scientific & Technical Services

BAE Systems works with a variety of customers to transition mission relevant technologies into deployed capability and production systems. Our technologies help our customers extract intelligence from mission data. We are advancing mission relevant high-energy laser technologies into prototype and production directed energy systems developed in multiple domains.







Quick Facts

Key Ground Systems Capabilities and Technologies

- Multi-domain scalable end-to-end ground systems that supports a spectrum of enterprise and prototype demonstration missions
- Embracing open systems architectures enabled by micro-service and an event driven framework
- Cloud enabled platform agnostic solutions
- Artificial Intelligence and Machine Learning with Cognitive Modeling and Prediction
- Modern software factory with built-in cyber security supports DevSecOps with automated testing & rapid capability deployment into operations
- Full spectrum autonomous mission operations and sustainment maximizing value of on-orbit assets
- State-of-the-art Mission Support Center provides mission operations and factory support from launch to operations with expedited SME anomaly support
- High-energy laser technology

Agile Software Development

BAE Systems has invested to create an extensible software factory that utilizes templates and plugins for tailoring to specific customer and partner contracts. This is a non-proprietary, open set of capabilities that enables rapid project initiation and drives efficient development. With implementation of CI/CD model, capability can be developed on unclassified networks and pushed to classified environments daily. Automated, functional testing ensures new features do not risk mission operations, virtually eliminating system regression problems. Secure agile development tools are ready to use and include features such as issue tracking, configuration management and chat.

BAE Systems, Inc.
303-939-4000 • www.baesystems.com

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