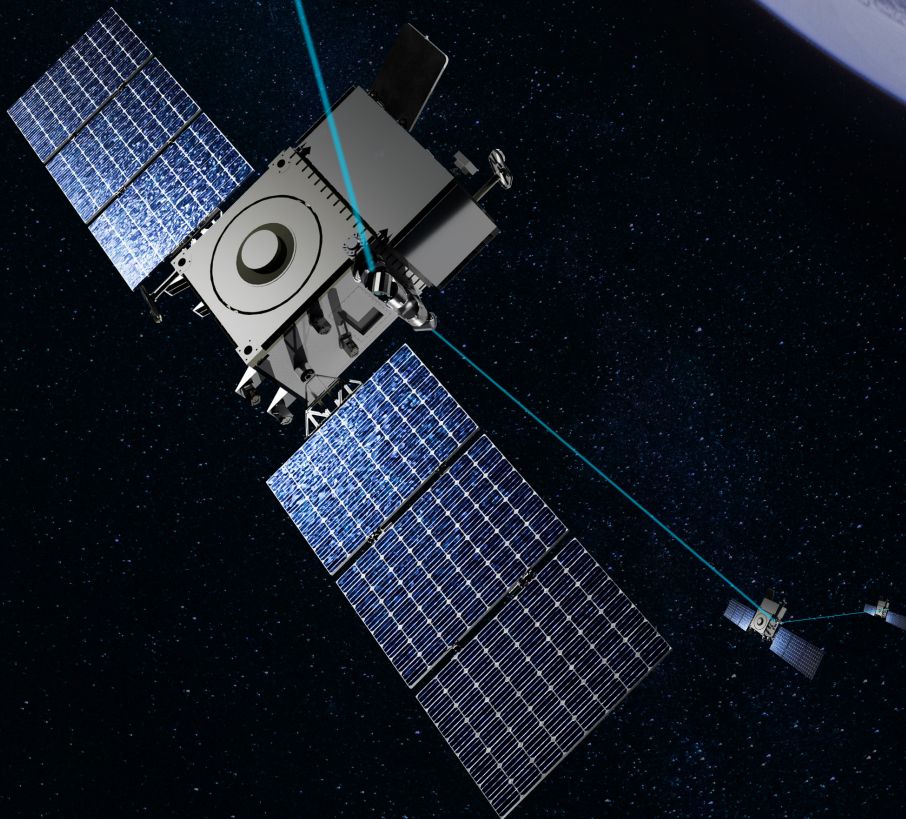
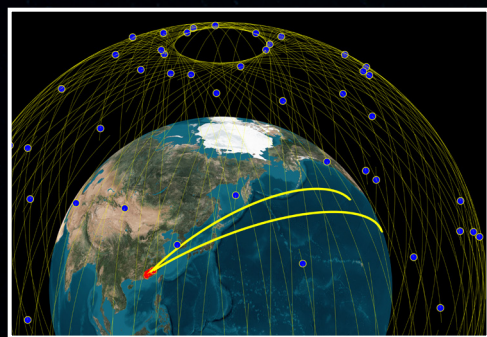
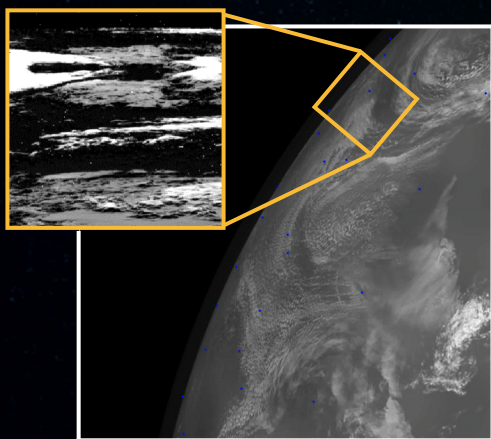


Missile Warning & Track Mission Capabilities

BAE Systems offers next-generation Missile Warning and Missile Track (MWMT) capabilities that enhance our Nation's current missile defense architecture to meet future security needs. We offer high-performance, resilient, cost-effective solutions that utilize our infrared payload experience, proven hardware flown in the harshest Medium Earth Orbit (MEO) environment, and ground system expertise. As a vertically integrated mission partner, we enable streamlined scheduling and customer insight.

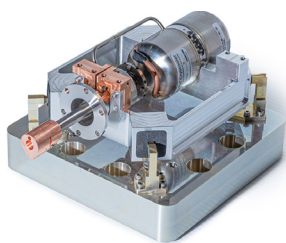


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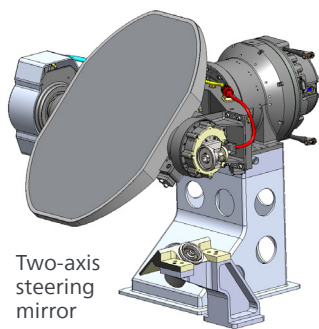
Infrared payloads

BAE Systems has extensive infrared and hyperspectral imagery payload experience—from low-cost Low Earth Orbit (LEO) to exquisite Geosynchronous Orbit (GEO) for dim target detection and tracking. We provide:

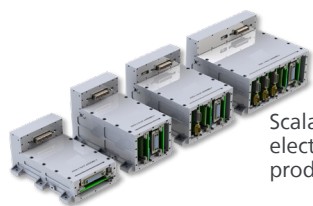
- High-performance optical systems and 2-axis steering mirror mechanisms supporting high-rate line of sight control and image stabilization to high-agility, wide-angle line of sight pointing with feedback sensors
- Focal planes including 6k2 and 8k2 sensors
- Scalable payload electronics that control critical payload functions: commanding; thermal and mechanism control; and focal plane device bias, data readout, and processing
- Low-cost cryocoolers and driving electronics with variable heat lift and exported force and torque suppression
- Integrated radiation and resiliency solutions



Cryocooler with isolation mounting



Two-axis steering mirror



Scalable payload electronics product line

Spacecraft bus

Our Elevation™ spacecraft product line provides a range of standardized, high-performing spacecraft with guidance, navigation and control capabilities. We also support tactical relevant timelines with black/red networking and communications of encrypted mission data, including space ground link subsystem, Ka-band and optical communication terminals.

Ground system integration & software

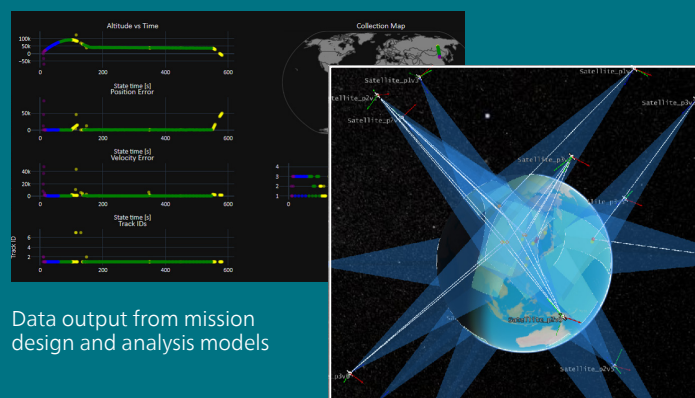
We have expertise developing and integrating applications using event-driven architecture ground frameworks used in the Overhead Persistent Infrared (OPIR) polar-orbiting satellite. We are the lead system integrator for the Future Operationally Resilient Ground Evolution Command and Control (FORGE C2) responsible for integrating and deploying enterprise command and control for Next Gen Polar, Legacy and other forthcoming OPIR missions.

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

Modeling and simulation

To design and optimize missile warning mission and space vehicle performance, we use a suite of customized software tools:

- Modeling and simulation dashboards for rapid assessment of MWMT performance against complex target scenarios with variable space segment capabilities and constellation configurations, including resource tasking and data latency
- TSE for complete radiometric sensor modeling
- PRISM+ASSET simulators to create radiance images with overlaid or embedded objects
- Image Processing Module provides mature Onboard Mission Data Processor (OMDP) framework for image processing algorithms, including registration and clutter suppression
- BOBCAT 2D/3D tracker with modular algorithms and data fusion analysis
- Sim-Lite spacecraft simulator with independent N-body dynamics for line of sight pointing and error analysis, and validated flight heritage algorithms



Data output from mission design and analysis models

Model-based systems engineering

BAE Systems manages systems engineering for programs entirely within the CAMEO environment, including operations concept development, AI&T planning, requirements management integration with Jama, and integration with Government reference architectures.