BLUE CANYON TECHNOLOGIES

SPACECRAFT BUSES,
SYSTEMS & SOLUTIONS

MISSION OPERATIONS



At Blue Canyon Technologies, our vertical integration spans from individual spacecraft components and subsystems to complete spacecraft solutions and mission operations services. With direct access to the engineering teams that design and build our spacecraft, we provide unmatched insight into spacecraft subsystem and flight software behavior - enabling efficient, reliable operations and effective anomaly mitigation and resolution.

With decades of heritage and more than 160,000 supported contacts, our Mission Operations team delivers proven solutions that simplify execution and ensure dependable on-orbit performance.

SECURE AND SCALABLE PLATFORM

Blue Canyon’ s proprietary, cloud-based Mission Operations platform provides a secure, NIST-compliant environment for operating a diverse range of spacecraft and mission profiles. Developed and maintained in-house, it is designed to rapidly onboard new missions through standardized, configurable processes within a scalable architecture supporting numerous ground network interfaces.

AUTONOMOUS OPERATIONS

- Event-driven automation manages the full contact lifecycle from ground resource scheduling and pre-pass setup through command execution, state-of-health monitoring, and post-pass data delivery, enabling engineers to focus on higher-value mission activities.
- Mission-configurable frameworks autonomously execute routine command objectives using standardized, state-based logic that scales efficiently while maintaining flexibility for mission-specific requirements.
- Tiered anomaly detection and response automation identifies off-nominal conditions in real time and executes flight-proven recovery actions and escalation paths for operator intervention when needed.

MONITORING AND AWARENESS

- Integrated monitoring tools provide real-time and historical visibility into spacecraft telemetry and system performance, enabling tactical and long-term trending analysis across missions.
- Customers have secure, direct access to mission data through standardized APIs and visualization tools that connect to the same trusted telemetry sources used by Blue Canyon operations engineers.
- Configurable alerting mechanisms enhance situational awareness for both engineers and customers, ensuring timely visibility into key events and system performance.

COMPREHENSIVE PRE-LAUNCH AND LEOP SUPPORT

- Dedicated pre-launch operations support ensures all operational requirements are met through customer collaborative CONOPS development, mission integration, system interface testing and LEOP simulations.
- Our team of highly experienced engineers execute against a streamlined, flight proven LEOP commissioning strategy specifically designed to achieve operational readiness quickly and safely, often within hours of launch.

GROWING OPERATIONAL HERITAGE

- Our team is currently operating more than 20 spacecraft, supporting more than 250 contacts per day. Backed by a decade of experience and refined practices, we are fully prepared to support new missions, leveraging our insights and proven strategies to drive mission success.



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