

Survivable and responsive strategic deterrence

Sustaining the ICBM Mission

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credit: USAF

Since 2013, BAE Systems has delivered systems engineering, integration, testing, logistics and other services to maintain the readiness of the nation's Intercontinental Ballistic Missile (ICBM) strategic weapon system. As the Prime Contractor for the ICBM Integration Support Contract (ISC), we provide full lifecycle support to the Air Force Nuclear Weapons Center (AFNWC) ICBM Systems Directorate by assisting the government team in the sustainment of the missile, ground, and launch systems for the nation's 400 deployed Minuteman III missiles.

Ready for launch at any moment, the Minuteman III weapons system is the prompt response leg of our nation's nuclear triad. Supporting the operational credibility of the weapons system while meeting nuclear safety and surety standards drive our commitment to maintaining the highest level of compliance with systems engineering and configuration control processes.

Weapon System Sustainment and Operational Readiness

BAE Systems has more than 60 years of systems engineering experience and technical expertise with strategic weapons systems, including the U.S. Navy's Strategic Systems Program (SSP) sustaining the Trident Submarine-Launched Ballistic Missile (SLBM) and in our role as the ICBM ISC Prime Contractor. For each nuclear deterrent capability, we work alongside the U.S. Air Force and Navy to ensure both weapons systems are operational if called to action.

We accurately, effectively, and efficiently detect, determine, and resolve the challenges of supporting the ICBM weapons system and implement best-in-class solutions. To date, BAE Systems has provided on-time pre-launch support and comprehensive post-launch data analysis for 38+ MMIII operational test launches, proving the safety, security, and effectiveness of the ICBM fleet.

Trusted Partnership

BAE Systems recognizes and understands the importance of the mission, ensuring system availability, reliability, and survivability. Our ICBM Weapons Systems capabilities include:

- Systems Engineering, Integration & Test (SEIT) in Digital Engineering Environments
 - Model Based Engineering
 - Model Based Systems Engineering
 - Digital Modeling, Simulation, and Performance Analysis
 - Risk Analysis and Management
 - Technical Requirements Analysis
- Sustaining Engineering
- Specialty Engineering
 - Weapon Systems Safety
 - Nuclear Surety
 - Nuclear Hardness and Survivability
 - Environmental Engineering
 - Corrosion Engineering
 - Program Protection Analysis and Planning
- Weapon Systems Assessment
 - Flight Test Analysis
 - Reliability, Availability, Maintainability (RAM) Analysis
 - Technical Assessments
 - Cyber Security Assessments
- Cyber Security
- Cloud Services
- Agile Software Development
- Administration
- Knowledge Management and Knowledge Transfer
- Logistics and Supply Chain Management
- Diminishing Manufacturing Sources and Material Shortages (DMSMS)/Obsolescence Management
- Program Management
- Strategic Planning
- Transition Management Planning and Execution
- Workforce Strategy, Recruitment and Retention

Innovative solutions advancing the nuclear mission

At BAE Systems, we are **Digital Engineering** and **Model Based Systems Engineering** (MBSE) experts. We bring proven, innovative modeling practices and methods to the ICBM enterprise, using our MBSE capabilities to support and improve acquisition, operations, and sustainment performance to advance and modernize the management of the nation's ICBMs.

We use MBSE architectures for system design analysis and requirements development and management of large and complex systems. Our MBSE approach results in a continuous end-to-end digital representation of the ICBM System of Systems (SoS), subsystems, and components. We enable a complete system-level model-based digital thread that supports consistent modeling, simulation, and analysis (MS&A), providing a complete picture of how a system functions. This continuity provides the U.S. Air Force more effective and efficient decision-making across the ICBM mission.

We also provide a digital engineering environment for complex systems engineering and integration (SE&I) environments. At Hill Air Force Base (HAFB) in Utah, our team has been transitioning the 60-year legacy program's documents into a digital engineering environment using MBSE to manage the cost, schedule, and performance benefits.

Workforce Mission Expertise

We know how exacting and demanding the mission is. Acquiring and sustaining ICBM weapon systems requires unique skills, technical expertise, and a strong organizational and team structure. Our team on average has over 17 years of experience in systems engineering, integration, logistics, safety, and nuclear surety for these critical weapon systems. That's why each and every one of our staff is committed to delivering excellence every day and why BAE Systems has been recognized as a "Top Workplace" by the Salt Lake Tribune every year since 2018 for its work on the ICBM program.

BAE Systems, Inc.
Intelligence & Security

For more information contact
www.baesystems.com

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