ManTech has been providing modeling, simulation, and analysis (MS&A); weapon systems performance analysis; analysis of alternatives (AoA); and operational support to the Army Materiel Systems Analysis Activity (AMSAA) for more than ten years. The MS&A support ManTech provides to AMSAA has resulted in a heightened awareness of numerous aspects of materiel systems performance among top Army decision makers and positively influenced acquisition programs.

AMSAA support
ManTech supports AMSAA's Reliability Branch in the continued development of various vehicle and platform models, computer aided design and finite element modeling and analysis, reliability analysis, test planning and oversight, time series analysis, and training. Several branches we support include:

- AMSAA's Reliability Branch in Physics of Failure (PoF) initiatives to redesign Army systems for increased reliability using MS&A.
- AMSAA's MPEG Branch (Mobility/Power&Energy/Geospatial Information Analysis) with automotive industry expertise (automotive systems, vehicle dynamics, and concept of operations), stellar geospatial information systems (GIS) capability, engineering expertise and software solutions that have elevated the speed and accuracy of the MPEG branch modeling and simulation efforts.
- AMSAA's Chemical, Biological, Radiological and Nuclear (CBRN) Branch in Support of Analysis of Alternatives (AoA) related to Chemical, Biological, Radiological, and Nuclear (CBRN) contamination threats.

ATEC T&E support
ManTech provides analytical support to the Army Evaluation Center (AEC) Integrated Suitability and Methodology Evaluation Directorate (ISMED). This support includes Reliability, Availability, Maintainability (RAM) analysis/evaluation, RAM T&E plan review, RAM data collection/review/monitoring, reliability growth planning, growth tracking & projection, and refinement/verification/validation of materiel availability modeling & simulation. ManTech supports the AMSAA/AEC Center for Reliability Growth (CRG) with development of training materials, methodology development, policy and contract language development, historical studies, and archiving of data. ManTech has successfully provided RAM evaluation support on over 200 Army programs helping to ensure increased reliability, reduced life cycle cost, and improved materiel performance for the warfighter.
ManTech uses the full spectrum of MS&A tools to assess system availability, system lethality, and munitions effectiveness for the Joint Technical Coordinating Group for Munitions Effectiveness (JTCG/ME), the Army Materiel Command (AMC), and the Air Force Research Laboratory (AFRL). ManTech performs effectiveness analysis, and weapon systems performance assessments which include performing parametric sensitivity analyses, analyzing combat data, supporting experimental firings, characterizing logistics performance, and developing plans, procedures, and methodologies. ManTech tests complex and mission-critical hardware and software systems used by the Army, Navy, and NASA.

We have key roles in improving the performance, reliability, maintainability, supportability, and weapons effectiveness of all Navy in-service rotary and fixed-wing platforms. For the U.S. Department of Homeland Security, we provide systems analysis, modeling and testing of technologies and systems being deployed to identify and detect nuclear and radiological sources attempting to enter the U.S. We perform technology assessments, sensor modeling, situational awareness, and test preparation and planning. ManTech provides safety, reliability, quality assurance and engineering support to NASA Flight Projects. This includes application of reliability, maintainability, and availability engineering; systems safety engineering; hardware and software quality engineering; and software assurance practices; and lifecycle support.

**Systems Engineering Services**
ManTech is a recognized leader in the application of systems engineering across a wide array of complex system development and acquisition programs executed by both government and industry. We are noted for implementing a disciplined, tailorable systems approach across the life cycle for leading edge, advanced systems research, development and acquisition within DoD and government agencies. We apply traditional systems engineering approaches including conducting requirements analyses, requirements allocations, systems tradeoffs, design compositions, and test and validation.

**Geospatial Intelligence Tools**
ManTech applies expertise in information processing to develop geospatial intelligence analysis tools that support the Department of Homeland Security Common Operating Picture, the State Department’s Blue Force Tracker, and a radar signal processing toolkit that creates synthetic aperture radar images and performs moving target detection and characterization. More recently, ManTech has expanded its GIS capabilities to the AMSAA Mobility Team where high fidelity feature attribution and first-of-its-kind geospatially referenced terrain access analysis have been performed to support AoA studies. The ManTech staff in Belcamp, Maryland, has made a significant investment into providing GIS capabilities to AMSAA and is supporting the newly formed Geospatial Informational Analysis (GIA) team within the MPEG Branch.

ManTech is committed to advancing customer success by delivering unique best-value solutions, consulting services, and technologies that meet our clients’ mission-critical needs - anytime and anywhere. We create added value through quality, innovation, and partnership. We strive to be our customers’ most trusted industry partner, integral to their success.

**For more information contact**
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