

LAUNCH

Overview

Launch and Range Operations Support

As a uniquely qualified provider of launch and range operations support ManTech has assisted the U.S. Government in developing and deploying highly complex space systems and in managing these complex programs of national significance. Our more than 50 years' experience provides the framework for applying highly effective technologies and solutions and disciplines across our customer's unique life cycle requirements.

Systems Engineering and Integration (SE&I)

ManTech provides "cradle to grave" systems engineering and integration expert support to launch vehicles, spacecraft, and robotic systems. We deliver these services for all Department of Defense (DoD) National Security Space (NSS) National Security Space Launch (NSSL) launches for the US Air Force Space and Missile Systems Center (SMC)

Launch Enterprise (ESL) resulting in 100 percent mission success. Similarly, for spacecraft systems, we support the entire development and operational lifecycles for National Aeronautics and Space Administration (NASA). Our support includes:

- Risk management
- Concept of Operations (CONOPS) development
- Mission integration and schedule management
- Configuration and data management
- New entrant launch vehicle certification/non-recurring design validation

We also support the full gamut of launch/range operations, provide test and evaluation, and perform operator training including Mission Directors, responsible for Go/No Go launch decisions.

On our LE SE&I contract, and as a leader in process development for future mission integration, we are creating the digital model of the Standard Interface Specification (SIS) between launch vehicle systems and the payload (spacecraft). This approach is the future of mission integration and will serve to streamline decision-making about mission integration via Model Based Systems Engineering (MBSE), model-driven analyses, simulation, and requirements management.

Mission Assurance

Systems engineering for mission assurance extends throughout the entire traditional acquisition life cycle, from concept development through deployment and beyond, to



include supply chain considerations and field operations. ManTech's objectives are to ensure our customers achieve their missions considering all external and internal factors and managing risks to ensure mission success.

We provide a complete range of hardware and software quality assurance activities to multiple customers' space projects, supporting launch, spacecraft Research & Development (R&D), and major weapon system development. We have experienced and flexible Systems Safety experts to help meet the systems safety program requirements of our most demanding customers. We excel in providing comprehensive qualitative and quantitative assessments, including reliability and probabilistic assessments.

Examples of our Safety and Mission Assurance (S&MA) support includes:

- Analyzing spacecraft systems to ensure robustness of design
- Mission environments modeling and environmental design and test requirements
- Hardware and software quality assurance
- Systems safety for launch vehicle and spacecraft systems



Mission IT

ManTech's launch and space program customers face complex challenges and manage enormous amounts of risk throughout the life of their programs. Our unparalleled expertise, unique perspectives, and proven performance in Mission IT solutions provide our customers greater visibility into the programs, hardware, and operating environments needed to achieve mission success. We excel in systems engineering and integration, cybersecurity, software and tools development, data management, and Mission Control Centers design, integration, operations and sustainment, operator training, and running operational exercises. Innovation and responsiveness are at the heart of everything we do. Our engineers and experts seek out challenges others avoid, evolving best-of-breed technologies to create secure, custom solutions that deliver immediate value.

Examples of our Mission IT support include:

- Design and build of the Vandenberg Air Force Base (VAFB) Launch Support Center
- Advanced training development and execution

Our objective is to empower our customers in their missions of successful flight, space exploration, and supporting the warfighter.

LEARN MORE

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