



SSAI: National Defense-Ready

Overview

For nearly 50 years, SSAI has been a trusted partner in delivering advanced science, engineering, and IT solutions that can directly support warfighters on the front lines. Our expertise in AI/ML modeling and cyber operations sharpens battlefield awareness and speeds critical decision-making in high-pressure environments. Drawing from experience supporting over 160 NASA and NOAA missions, we bring unmatched skills in remote sensing, intelligence gathering, and data integration to provide mission-critical tools that enhance operational effectiveness.

From climate-informed logistics to real-time data fusion, our scalable, intelligent solutions can help warfighters maintain an edge across modern warfare domains, resilient communications, and coordinated multi-domain operations. We develop secure, automated systems and AI-powered tools designed to keep forces ready, connected, and ahead of evolving threats delivering faster, smarter, and more reliable defense capabilities tailored for those who serve.

Our engineers and scientists have led innovations in system automation, secure cloud migration, and high-performance computing expertise now being applied to deliver cyber-secure, AI enhanced tools across the government enterprise. We fuse deep scientific knowledge with innovative digital capabilities to deliver faster, smarter, and more adaptable defense solutions, ensuring mission readiness and technological superiority.

Cyberspace & Digital Defense



- **Cybersecurity & Resilient Systems:** Advanced cybersecurity solutions protecting national security infrastructure against evolving digital threats through AI-enhanced monitoring and automated threat response systems.
- **Artificial Intelligence & Machine Learning:** Real-time analytics and predictive modeling to identify vulnerabilities, streamline defense logistics, and enhance autonomous defense systems.
- **High-Performance Data Infrastructure:** Large-scale secure data center development, infrastructure operations, and data visualization enabling rapid processing and interpretation of strategic intelligence.

Precision Domain Intelligence



- **Domain Data & Defense Resource Optimization:** Predictive analytics and modeling to strengthen the warfighter readiness, ensure resource efficiency, and optimize logistical operations, thereby reducing operational costs and unnecessary resource allocation.
- **Geospatial & Remote Sensing Expertise:** Advanced Lidar, remote sensing theory, and global modeling for accurate and timely geospatial intelligence critical for strategic operations and humanitarian missions.
- **Ocean & Atmospheric Security:** Oceanography and aerosol science capabilities integrated with defense strategies for marine domain awareness and airspace protection.

GPS & APNT Operations



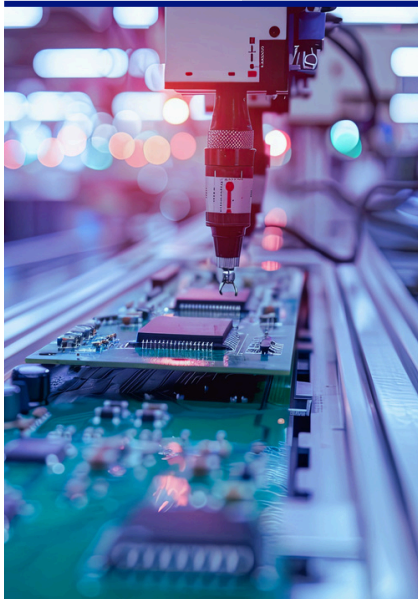
- **Secure Satellite Data Solutions:** Mission-critical satellite systems with advanced cybersecurity and resilience, ensuring reliable navigation and timing for defense operations in contested environments.
- **Precision Sensor Data Integration:** Expertise in fusing multi-source sensor data with cutting-edge algorithms to deliver assured precision navigation and timing (APNT) for national defense applications.
- **Proven Defense Program Execution:** Demonstrated leadership in high-stakes federal programs, enabling rapid technology development, testing in denied environments, and seamless collaboration with government and industry partners.

Artificial Intelligence & Machine Learning (AI/ML)



- **Intelligent Decision Support Systems:** AI-driven systems providing actionable insights and decision-making support for command-and-control operations, reducing response time and improving operational efficiency.
- **Predictive Maintenance & Asset Management:** AI/ML models predicting equipment maintenance needs and system performance, reducing downtime, enhancing reliability, and lowering lifecycle costs of defense assets.
- **Autonomous Systems:** Advanced AI/ML techniques underpinning the development and deployment of autonomous vehicles and robotic platforms, enhancing battlefield effectiveness and minimizing personnel risks.

Innovative Engineering & Manufacturing



- **Multidisciplinary Engineering Solutions:** Cutting-edge electrical, mechanical, optical, and thermal engineering capabilities enhancing defense system performance and reliability.
- **Sensor and Instrument Development:** Custom instrument design, laser and lidar sensors tailored for high-precision surveillance, reconnaissance, and intelligence collection operations.
- **Integration and Validation:** Robust systems engineering and rigorous testing protocols to ensure operational readiness, reliability, and performance integrity in challenging environments.
- **Subassembly and Parts:** Design, manufacture, and testing of high-quality electronic subassemblies and systems and production of Mil-I-45208A and Mil-std-45662 compliant mechanical parts and assemblies.

Space & Strategic Operations



- **Space Weather and Solar Wind Monitoring:** Predictive modeling of Earth-Sun interactions and space weather to safeguard satellite operations, communications, and global positioning systems critical to national security.
- **Deep Space Observations & Data Assimilation:** Leveraging experience with NASA and NOAA satellite missions to enhance defense-related strategic space situational awareness and early-warning systems.

Cost Efficiency & Sustainable Defense Practices

- **Resource-Efficient Algorithms:** Specialized algorithm development for validation, calibration, and efficient data production, significantly reducing defense operating costs.
- **Observing System Simulation Experiments (OSSEs):** Advanced simulation techniques to assess the effectiveness of defense systems and operations, facilitating cost-effective defense investments and capability development.

Workforce Excellence & STEM Advancement

- **Skilled Workforce & Innovative Culture:** SSAI's robust pipeline of world-class talent, recruited through partnerships with leading universities, ensuring sustained innovation and skilled personnel dedicated to national defense missions.
- **STEM Leadership:** Commitment to targeted internships and training programs that prepare the next generation of defense innovators and leaders.

SSAI maintains an onsite Facilities Security Officer (FSO) and services security personnel.

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Points of Contact



Chris Williamson is the Chief Strategy Officer of SSAI, responsible for shaping SSAI's strategic direction, growth, and communication. Before working for the company, he worked for Newport News Shipbuilding, and at Jacobs for twenty-plus years. His service at Jacobs included leading the growth of the Government Technology Performance Operations unit and served as a VP for more than three years.

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Gonzalo Lassally serves as SSAI's Defense Emerging Account Manager, bringing extensive experience in Army and Joint Forces capability development and integration. As a seasoned warfighter, he possesses deep insight into operational requirements and the critical needs of deployed personnel. Gonzalo combines advanced scientific expertise with proven leadership in rapid capability development, successfully delivering tailored solutions to address tactical and operational gaps within six months, often while forces remain deployed.

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