



**SCIENCE SYSTEMS AND APPLICATIONS, INC.**

*Science and Technology with Passion*



## Company Overview

Science Systems and Applications, Inc. (SSAI) is a 47-year-old, SBA-certified Woman-Owned Small Business (WOSB) with approximately 750 world-class employees. We specialize in delivering innovative science, engineering, and IT solutions to high-profile government and commercial clients. To date, SSAI has supported over 175 contracts for federal agencies, leading universities, and cutting-edge scientific institutions. Our vision is to harness science and technology to improve life on Earth and address some of humanity's most pressing challenges.

## Science Capabilities



- Algorithm Development / Validation / Calibration / Data Production and Maintenance
- Remote Sensing Theory
- Meteorology
- Global Atmospheric Modeling
- Data Assimilation
- Land-Atmosphere Interaction and Land Surface Modeling
- Weather Forecasting and Numerical Weather Predictions
- Oceanography
- Hydrology
- Biosphere Modeling
- Ocean Biogeochemistry
- Global Modeling of the Earth System (Atmosphere, Land, Ocean and Cryosphere)



- Observing System Simulation Experiments (OSSEs)
- Mesoscale Modeling
- Micrometeorology and Boundary Layer Modeling
- Cloud Physics
- Lidar Science
- Aerosol Science
- Atmospheric Chemistry – Air Quality
- Stratosphere Observations and Modeling
- Stratospheric Ozone Observations and Modeling
- Climate Diagnostics
- Climate Sensitivity and Variability
- Geodesy
- Solid Earth Geophysics
- Cryosphere Remote Sensing and Modeling
- Earth-Sun Interaction
- Space Weather

## Engineering

- Systems Engineering / Requirements Development and Management
- Verification and Validation
- Avionics Systems
- Software Engineering / CMMI Level 2 (Level 3 in process)
- FPGA Design, Testing and Verification
- Electrical, Electronic and Electromechanical (EEE) Parts
- Power Electronics

## Information Technology

- Solutions Engineering
  - Cloud Solutions
  - High Performing Computing
  - Database Administration
- Artificial Intelligence (AI), Machine Learning (ML) Systems and Services Development
- API Integration Services
- Mobile Apps & Omnichannel Web Presence

### Contact Us



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10210 Greenbelt Road, Ste.  
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## Overview

### Science

Our scientists bring unique expertise and a strong track record of success. SSAI has contributed to over 160 NASA space and Earth science missions spanning Earth sciences, geophysical sciences, planetary sciences, and heliophysics. We actively support most of NASA's current observation systems, leveraging our remote sensing expertise to monitor Earth's atmosphere, water, ice, land, and biological activity. Our longstanding collaboration with NOAA spans several major satellite missions, including SARSAT, Landsat-7, and DSCOVR.

### Engineering

From the historic James Webb Space Telescope (JWST) to the recent Plankton, Aerosol, Cloud, and Ocean Ecosystem (PACE) satellite launch, SSAI engineers have led the way in designing and implementing complex systems for spaceflight missions. Our specific areas of expertise include instrument and electrical engineering for in-orbit sensing.

### IT

Our IT strategy employs a systematic and interdisciplinary approach to address complex challenges. We focus on four core competency areas: Intelligent Systems & Automation, Maintenance and Operations, Solutions Engineering, and IT & Data Services. Key projects include migrating the Ocean Biology Distributed Active Archive Center (OB-DAAC) to AWS and applying AI/ML to standardize hurricane remote sensing data for improved forecasting and prediction of direction and intensity.

### New & Emerging Business

While maintaining our traditional focus on NASA and NOAA, we are also expanding into new horizons. Our subsidiaries—Advanced Mission Partners, Elucidation Concepts, and Sigma Engineering Solutions—enable us to deliver robust machining, manufacturing, and cybersecurity solutions to federal and private-sector customers. Additionally, we are exploring the exciting intersection of Health and IT while strengthening our capabilities in Defense.

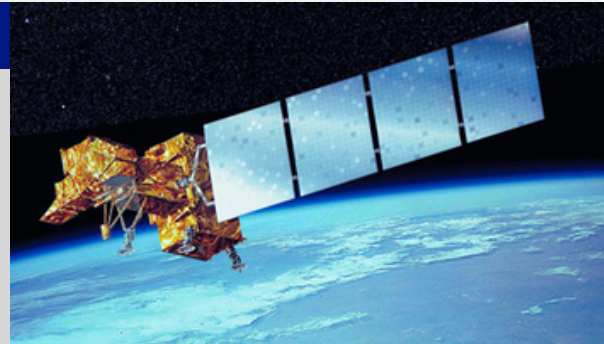


## Major Programs Supported:

- Hydrosphere, Biosphere, and Geophysics (**HBG**) contract at NASA Goddard
- Support for Atmospheres, Modeling, and Data Assimilation (**SAMDA**) at NASA Goddard

## Major Missions Supported:

- Joint Polar Satellite System (**JPSS**)
- Geostationary Operation Environmental Satellite-R Series Program (**GOES-R**)
- Terra, Aqua, and Aura Satellites
- Moderate Resolution Imaging Spectroradiometer (**MODIS**)
- Active Sending of CO2 Emissions over Nights, Days, and Seasons (**ASCENDS**)
- James Webb Space Telescope (**JWST**)
- Nancy Grace Roman Space Telescope (**NGRST**)



## Point of Contact



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**SSAI UEI:** PJ2SP76D3HJ3 | **Cage Code:** 5S009 | **DUNS Number:** 087694808  
**NAICS Codes:** 541715, 541330, 541511, 541512, 541513, 541519, 541611, 541620, 541690, 541990



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