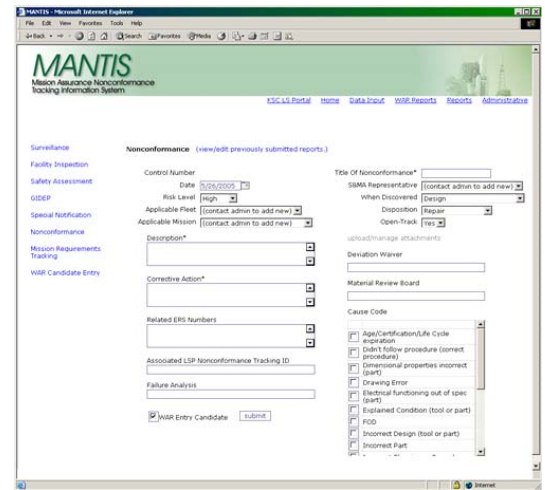




a.i. solutions Increases Efficiency of NASA's Safety & Mission Assurance Process

The Safety and Mission Assurance (S&MA) process provides surveillance at all Launch Service Provider (LSP) manufacturing, processing, testing, and launch site locations. Managing the people, data and activities associated with this process is challenging. The engineers participate in local reviews, meetings, pertinent tests and local site visits. They identify any LSP qualification test or test anomalies involving similar launch vehicle systems, subassemblies, and components. These anomalies and issues must be documented and tracked because they could adversely affect present or future NASA missions. For the engineers and managers to maintain insight into fleet-wide problems, deviations, and waivers to system, subsystem, materials, processes, and test equipment, vast amounts of paperwork were generated.



Essential to any S&MA process is the ability of a user community to gather data, perform trending, data mining and reporting. The type of information generated throughout the launch vehicle life cycle builds the database of information that enables metrics to be established and lessons learned to be tracked. NASA's S&MA community needed enabling tools to make the process easier to administer; **a.i. solutions** was up to the challenge and created the **Mission Assurance Nonconformance Tracking Information System (MANTIS)**.

MANTIS was created to save time and effort in collecting S&MA data by providing an easy mechanism for collection. All relevant information collected now helps provide the appropriate level of insight and surveillance to determine if NASA standards and Safety and Mission Assurance requirements are met. **MANTIS** also provides immediate communication with S&MA managers for any significant issues and allows for easy generation of surveillance reports identifying potential technical and program risks. The consolidation of this data and information in a centralized location and the reporting of key information was made easier by enhancing the extraction, summarization, and report generation process.

The Results – MANTIS provides a complete repository of information that enables better, faster, and more complete analysis of the issues and concerns of the S&MA community. **MANTIS** provides an efficient way for NASA to analyze data for adverse trends, and effectively communicates any significant issues. This web-based system is available to all approved users from any location. **MANTIS** enables the performance of systems' safety assessments and procedure reviews. It enables operations surveillance of Launch Service Provider (LSP) and spacecraft contractor design, integration, and test activities, at assigned facilities, to ensure the identification and assessment, and elimination (or control) of hazards. **MANTIS** facilitates the reporting and tracking of data from these activities to identify trends, areas of improvement, recommended hazard mitigating actions and capture of historical analyses (lessons learned).

NASA and the S&MA community now have available to them -- anytime, anywhere -- the information that allows them to increase the effectiveness of the S&MA process.

Enabling tools. Increased efficiency. Better information leading to better decisions.

a.i. solutions is proud to be the provider of MANTIS.

The Customer NASA's Launch Services Program

The Challenge
Managers and engineers needed a way to store, retrieve, process, and record the massive amount of information generated by the Safety & Mission Assurance process.

The Solution
Development of the Mission Assurance Nonconformance Tracking Information System (MANTIS).

The Results
Engineers are enabled, both local to KSC and remote, to quickly and easily submit and retrieve data and information relevant to Safety and Mission Assurance in support of the Launch Services Program.