

# Netlander

**FOCUSED PERFORMANCE. SOLID RESULTS.**

## **NASA SAFETY AND MISSION ASSURANCE PROCESSES**

### **The Situation**

In order to ensure the safety of critical missions, NASA developed a Safety and Mission Assurance (S&MA) Directorate so that the Space Shuttle, Space Station and ELV Programs were all operating at peak safety standards.

After the Space Shuttle Columbia tragedy, it became apparent that S&MA professionals working under the Space Shuttle, Space Station and Expendable Launch Vehicle (ELV) Programs could cause potential objectivity issues. Plainly put, S&MA professionals might think twice before reporting their superiors for safety violations.

NASA removed the S&MA function from within said programs and established an autonomous S&MA department to ensure fair reporting and mission safety.

In order to implement the new S&MA directorate, NASA was in need of authoritative, reliable operating processes. NetLander was chosen to help develop processes for Risk Management Watch Items, Quality Surveillance, and Operating Plans within the ELV program. In addition, NetLander began working in a fully immersed fashion to develop the S&MA Readiness Review Template that is used to perform a Wire Brush Review before each and every launch mission.

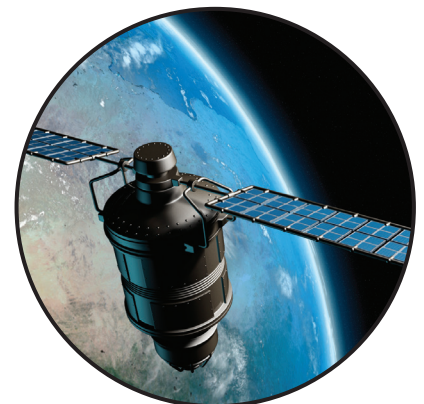
### **The Challenges**

Fine-tuning and reorganization within the S&MA division, as well as the programs it intended to monitor.

Ability to develop the new processes alongside program employees given the time constraints of full-time job responsibilities.

Resistance to the new changes and proper documentation of these processes.

After developing processes for the ELV S&MA division, NetLander was asked to complete similar processes for the Space Shuttle program. This brought about additional difficulties as the Shuttle program was six times larger and in Process Maturity.



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## The Solution & Results

Success in the ELV Program allowed NetLander to develop additional processes for the Space Shuttle Program to mirror what had been done in the ELV.

S&MA Directorate now has standard processes, technologies and reviews for operations. This allows S&MA to redeploy resources without retraining individuals to move from one division to another.

NASA Implemented a SMA Directorate Database for recording quality surveillance activities as a result of a NetLander recommendation from this process.

NASA S&MA division created a Mission Assurance Engineering Function to support 2nd Technical Opinion (on top of the engineering opinion) based on a NetLander recommendation (electrical, mechanical, avionics and software).

The S&MA processes created by NetLander are still in place currently.

## **ABOUT NETLANDER**

NetLander is a leading project management company providing innovative systems, processes and solutions in aerospace, healthcare, information systems, and security to commercial and government customers worldwide. Please visit [www.NetLander.com](http://www.NetLander.com) for more information.

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