QUALITY
LEADERSHIP FORUM
— VIRTUAL SERIES —

Supply Chain Risk Management

Thursday, Sept. 10, 2026 | 1:00 – 2:00 p.m. Eastern

Presenter

- *Lisa Hicks* – Deputy, Office of Safety and Mission Assurance Supply Chain Risk Management Program

From Reactive to Resilient

NASA's Supply Chain Visibility Initiative - A Proactive Framework Driven to Strengthen the International Space Ecosystem

Quality Leadership Forum

September 10, 2026

Lisa Hicks
Supply Chain Risk Management (SCRM)
Deputy Program Executive
NASA Office of Safey and Mission Assurance (OSMA)



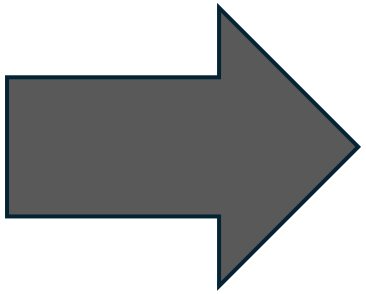
Artemis II Launch - NASA

Agenda

- Common Goals Across Supply Chain Management
- A Cohesive NASA's Supply Chain Management Culture
- Shifting from Reactive to Proactive Supply Chain Risk Posture
- Developing Centralized Approaches While Preserving Project/Program Autonomy
  - Supplier-Specific Risks vs. Agency-Level
- A Path to Supply Chain Resiliency
- NASA's Enterprise Supply Chain Visibility (SCV) Approach
  - Deployment & Status

Common Goals Across Supply Chain Management

- Proactive Supplier Risk Management
- Supply Chain Visibility
- Cross-Cutting Risk Management
- Product and Personnel Quality & Safety
- On-Time
- On-Budget



Mission Success

Advancing a Cohesive Supply Chain Management Culture Across NASA

- SCV was managed differently by each project, using different data collection tools, and in many cases, the critical supply chain was not identified.
- Increasing commercialization further complicated insight into the health of the broader space industrial base, amplifying the need for unified visibility.
- Without a clear understanding of the supply chain and its criticality, risks could not be proactively identified, leading to issue-driven responses rather than prevention.

Reactive, decentralized, stove-piped Supply Chain Management could not be addressed by a directive alone

A Culture Shift: Reactive to Proactive SCRM

Reactive, Decentralized, Stove-Piped SCRM	Proactive, Centralized, Cross-Cutting SCRM
NASA traditionally focused on Project-by-Project and supplier-by-supplier Supply Chain Risk Management	Shift to understand shared supply chain risks and leverage information to mitigate risk across projects
Supply Chain Surveillance activities varied by Center – no standardized approach	Supply Chain Surveillance performed by the OSMA
OSMA's role in Supply Chain viewed primarily as "management" of Quality Assurance	OSMA recognized as a key contributor to Supply Chain strategy development
Supply Chain risks primarily managed at the Project or Program level	Supply Chain risks elevated to Agency-level when appropriate

Developing Centralized Approaches That Preserve Project/Program Autonomy

- Breaking down information stovepipes, integrating information and mitigating cross-cutting risks
- Driving culture change by providing a mechanism to HELP Projects & Programs get risk strategy and mitigation solutions – changing the perception that OSMA takes care of Supply Chain issues
  - The Supply Chain Resiliency Board (SCRB) was established
- Establishing a process for projects to elevate cross-cutting supply chain risks that cannot be resolved at the project or program level.

Develop trust through a team approach = increased visibility into the supply chain

Supplier-Specific Risks vs. Agency-Level

Consideration	Supplier-Specific Risk	Supply Chain Risk
Scope	One supplier	Entire multi-tier network
Visibility	Tier 1 – lower if known	All tiers with vulnerabilities frequently identified in lower tiers
Risk Factors	Performance, quality, financial, capacity, security, location, nonconformance, delivery, cost changes, technology readiness	Dependencies, geopolitics events, systemic data gaps, disruptions, fragmented data, systemic blind spots, sole/limited source products, workforce gaps
Consequence	Impacts 1 project	Impacts Cross-Mission or program-wide disruption

Supplier-Specific Risks vs. Agency-Level

Consideration	Supplier-Specific Risk	Supply Chain Risk
Scope	One supplier	Entire…rk
Visibility	Tier 1 – lower if kno…	…ies frequently
Risk Factors		…s events, …ptions, …systemic blind …le/limited source products, workforce gaps
Consequence		Impacts Cross-Mission or program-wide disruption

Both supplier-level and agency-level risks can only be effectively understood and mitigated with strong supply chain visibility

Path to Supply Chain Resiliency

- Continue developing a cohesive approach towards SCRM
    - Enhance collaboration across NASA stakeholders
    - Eliminate stovepipes and unify fragmented supply chain information
    - Improve supplier partnerships and diversity
    - Strengthen Supply Chain Visibility
    - Ensure information framework and systems proactively identifies and analyzes supplier risk
- Focus on critical risks first
    - Major gaps in supply chain visibility existed below the Prime Contractor

A Wide Range of Coordinated Improvements Strengthened NASA's Enterprise SCV & Risk-Management Posture

- Department of Commerce Civil Space Industrial Base (CSIB) Survey was updated to provide NASA's critical supply chain visibility.
- Supply Chain Insight Central (SCIC) expanded to capture other key supply chain data.
    - NASA's Critical At-Risk Technology Integrated and mapped to supply chain
    - Mission Directorates contributed key and critical supplier inputs to build a more comprehensive enterprise view
    - Dashboards and profiles were generated to provide summarized data
    - Contract Data was incorporated to illuminate Tier 1 relationships
    - Conducted Supplier Research & Analysis on key suppliers
    - Performed snapshots on supply chain issues and markets



Addressing the Root Cause



Limited information on sub-tiers was available – often related to issues that had occurred.



Despite extensive efforts and the significant amount of data collected, a persistent gap remained in consistently obtaining sub-tier information early enough to prevent disruptions.



To truly strengthen our posture, it became clear that we needed to address the issue at its source by improving how sub-tier data was captured, shared, and integrated across the supply chain.

The SCRB Recognized A Need For An Enterprise SCV Solution

- Mission Directorates implement contractual SCV Reporting
  - Contracts include a deliverable for Primes to periodically report on sub-tier supply chain
  - Applicable to future contracts of $20M+ and Key Programs
- Procurement enforces the contractual requirement
- OSMA maintains the data and captures critical SCRM data points for analyses

SCV Deployment Strategy

- The contract implementation required multiple changes:
  - Data Requirements Description (DRD) template developed
  - Procurement requirements updated
    - Including integration in planning activities, procurement requests, and requirement
  - OSMA developed NASA Stakeholder Guidance
  - Developed online data collection application
    - Included method for registering suppliers
  - Stakeholder education material and training

SCV Reporting Implementation Timeline

2023	• SCRB worked to implement SCV Reporting
2024 1st Quarter	• Socialized SCV Reporting requirement with selected Primes
2024 2nd Quarter	• Deployed SCV Reporting (requires reporting supply chain information two tiers below Prime)
2025 4th Quarter	• 1st SCV Report received

Next Steps – SCV Reporting Proactive Risk Analyses

Enhance visibility into Prime Contractor's Supply Chain to make data available for cross-cutting analysis

- **Enhanced visibility into Prime Contractor's supply chain directly contributing to NASA missions**
  - Facilitates data needed to visualize NASA's supply chain across all Mission Directorates (MD) and Programs/Projects

Improve SCRM analytics and trends to aid decision-making and risk mitigation efforts

- **Data provides ability to map cross-cutting suppliers at the product/service and assess, mitigate and monitor risks**
  - Supplier overreliance, limited source, domestic unavailability, geopolitical, disruptions

Enable mapping of NASA's supply chain in relation to corresponding NASA's Technology Taxonomy

- **Enable mapping of NASA's supply chain in relation to corresponding NASA's taxonomy**
  - Common Suppliers, Supply Chain Mapping to identify single points of failure or known shortages, provide input to NASA's Critical A-Risk Technology List

Conclusion

- We are not done with this journey
- Supply Chain Visibility is critical for Supply Chain Risk Management
- We are leveraging information and technology to get efficient results
- We made it to the proactive risk analyses stage!



OSMA
OFFICE OF SAFETY & MISSION ASSURANCE

NASA

THANK YOU

Questions or Comments?

SCRM
SUPPLY CHAIN RISK MANAGEMENT

QUALITY
LEADERSHIP FORUM

THANK YOU!

Upcoming Webinars

- Oct. 15, 2026 – QLF Virtual Series: How Fatigue Impacts Performance and Quality
- Dec. 2, 2026 – QLF Virtual Series: IMAP Lessons Learned

Please visit https://sma.nasa.gov/sma-disciplines/quality/qlf/virtual-series for upcoming virtual events