Getting It Right In An Imperfect World

Dr. Wanda Austin
4th Annual
NASA Supply Chain Quality Assurance Conference
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NASA Goddard Space Flight Center
• Dedication to Mission Success
• Technical Excellence
• Commitment to People
• Objectivity
• Integrity

Our Values
OUR VALUES

Dedication to Mission Success
Space Telemetry Acquisition and Reporting System
Aerospace Mission Assurance Processes
• The RFP for a National Security Space program specifies compliance with tailored critical standards
• Revised Specs and Standards List applies to space, launch (missile) and ground systems contracts
  – Leveraging existing military, international, and industry (e.g., AIAA, EIA, IEEE) standards, and Aerospace TORs
  – Updated to reflect current best practices

Ensuring sound technical practices are applied to National Security Space programs
OUR VALUES

Technical Excellence
Picosats – Small Spacecraft for the Future
Space Industrial Base Council
Co-chairs: U.S. Air Force and the Intelligence Community

SQIC
Industry–Aerospace
Government: MDA, NASA, NSSO, SMC
Primary Focus: Prime Contractor

SSC
Industry–Aerospace
Government: MDA, NASA, NSSO, SMC, SPAWAR
Primary Focus: Supplier Base

MAIW
Industry–Aerospace
Government: MDA, NASA, SMC
Primary Focus: Mission Assurance

SIBC Working Groups
Government–Industry–Aerospace
- Critical Technology WG
- Specs and STDS WG

Joint Mission Assurance Council
Government Only: MDA, NASA, SMC

Coord Govt-Ind MA Initiatives

Government-Industry Leadership Cooperation on Space Mission Success
• USAF Operationally Responsive Space Office supports Rapid Response Space Works

• NASA Rapid Spacecraft Development Office

Tailored Mission Assurance
OUR VALUES

Commitment to People
Mission Assurance Summit
OUR VALUES

Objectivity
• Engineering errors cause ~76% of failures and anomalies in new launch vehicle types.

Engineering errors = Design errors + Process errors
Likelihood of Mission Failure

Minimal Mission Assurance

Proven Mission Assurance Practices

Early Design
Late Design
Test
Launch

Likelihood of Failure

22%
2%
Integrity
Getting It Right! Go Delta IV! Go GOES-P!

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