

# Getting It Right In An Imperfect World



Dr. Wanda Austin  
4<sup>th</sup> Annual

NASA Supply Chain Quality Assurance Conference  
20 October 2010  
NASA Goddard Space Flight Center



- Dedication to Mission Success
- Technical Excellence
- Commitment to People
- Objectivity
- Integrity



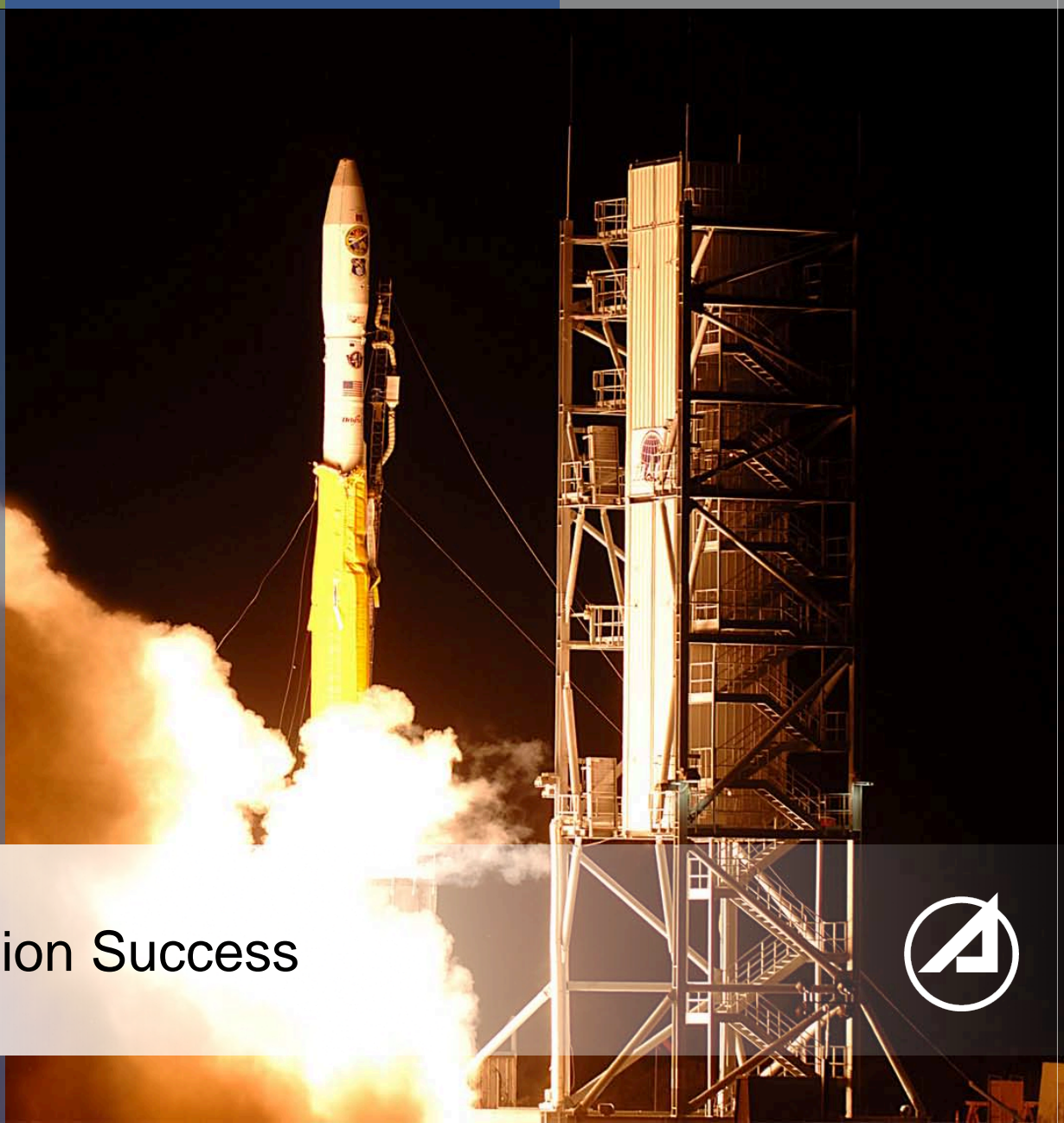
Our Values





# OUR VALUES

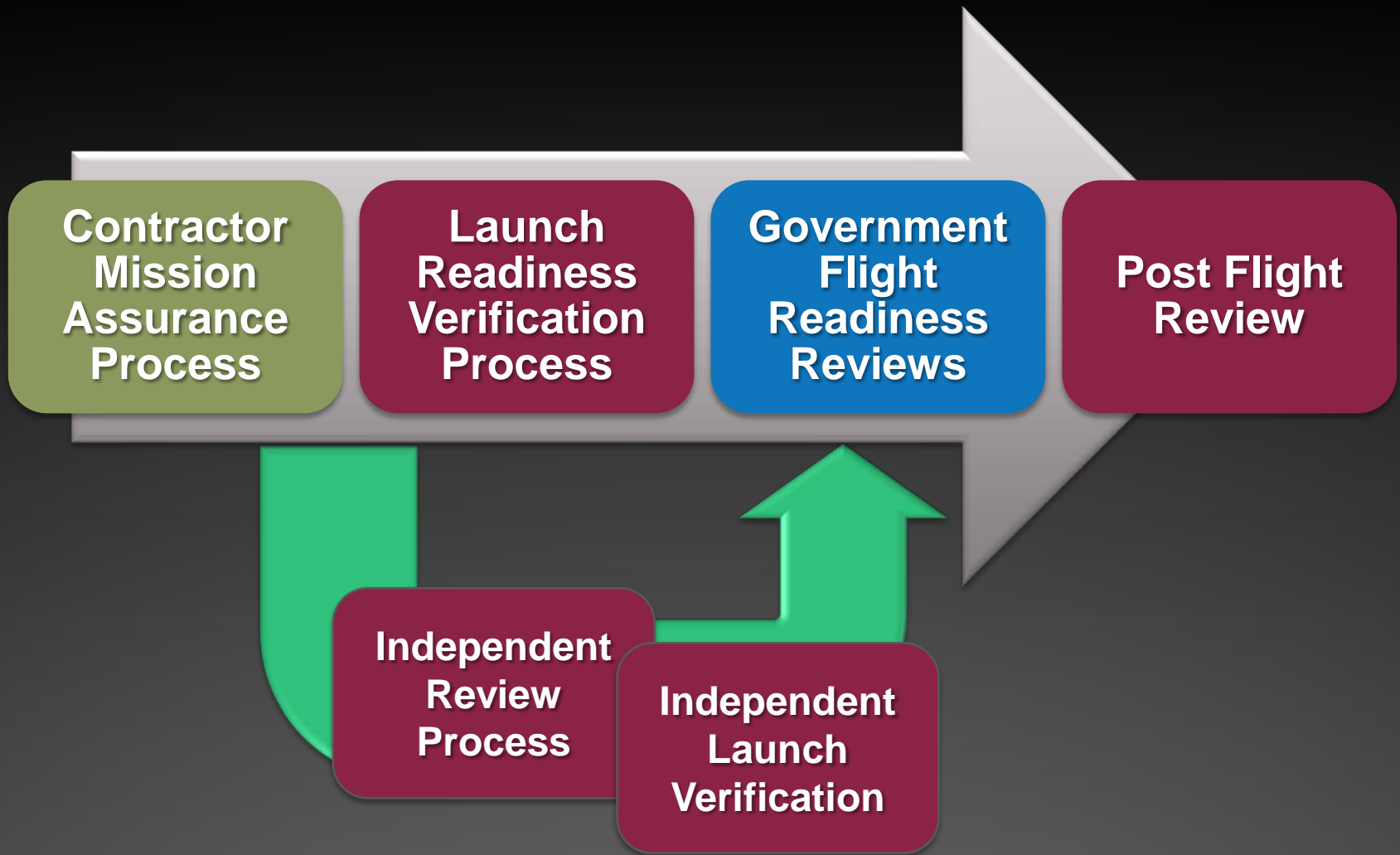
Dedication to Mission Success





# 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



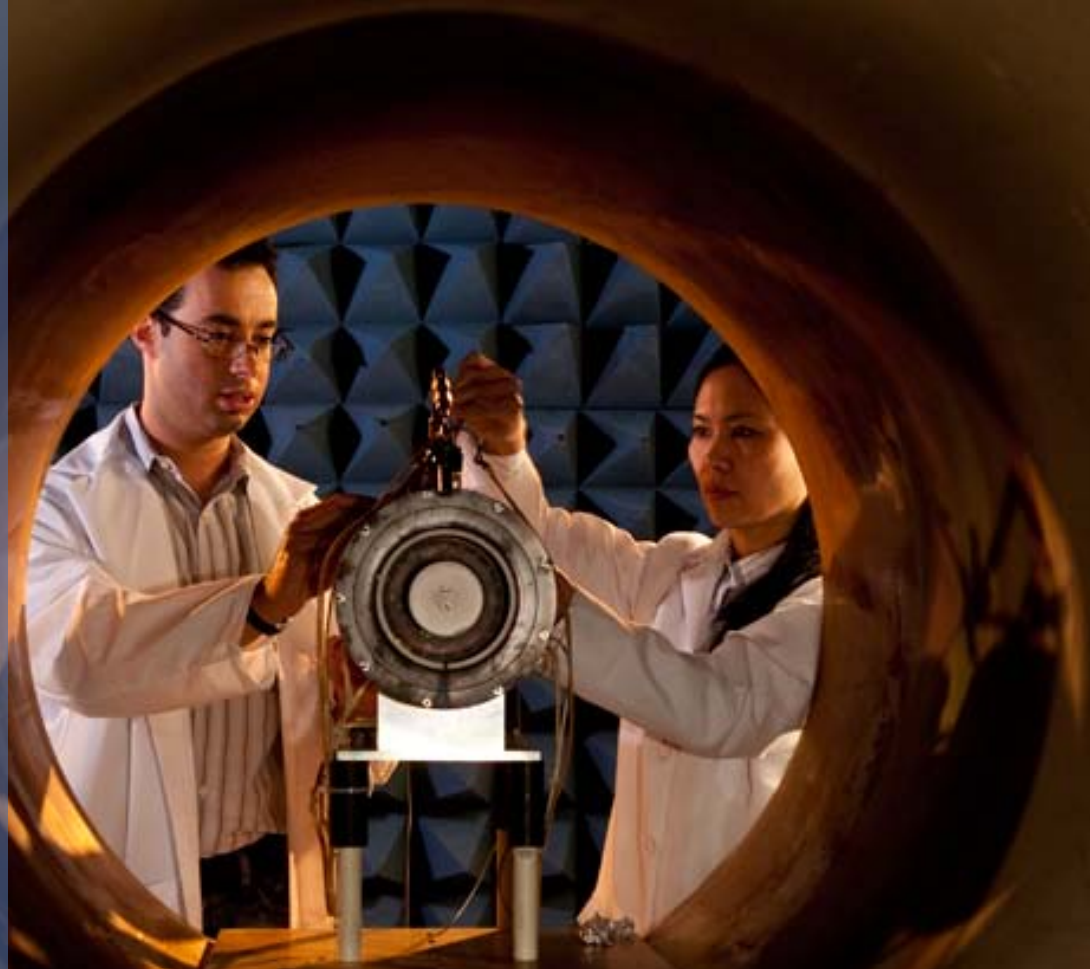
*Ensuring sound technical practices are applied to National Security Space programs*

Command Media Incorporation of Lessons





# OUR VALUES



Technical Excellence







# Picosats – Small Spacecraft for the Future



# Space Industrial Base Council

*Co-chairs: U.S. Air Force and the Intelligence Community*

## SIBC Working Groups

*Government–Industry–Aerospace*

Critical Technology WG

Specs and STDS WG

## 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*

*Coord Govt-Ind  
MA Initiatives*

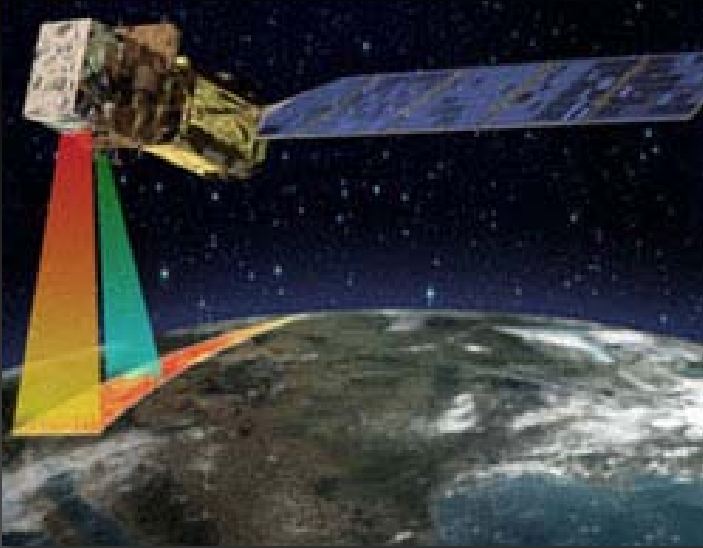
## Joint Mission Assurance Council

*Government Only:  
MDA, NASA, SMC*

*Coord Govt-Ind  
MA Initiatives*

Government-Industry Leadership Cooperation  
on Space Mission Success





- NASA Rapid Spacecraft Development Office

- USAF Operationally Responsive Space Office supports Rapid Response Space Works



Tailored Mission Assurance





# OUR VALUES

Commitment to People





# Mission Assurance Summit



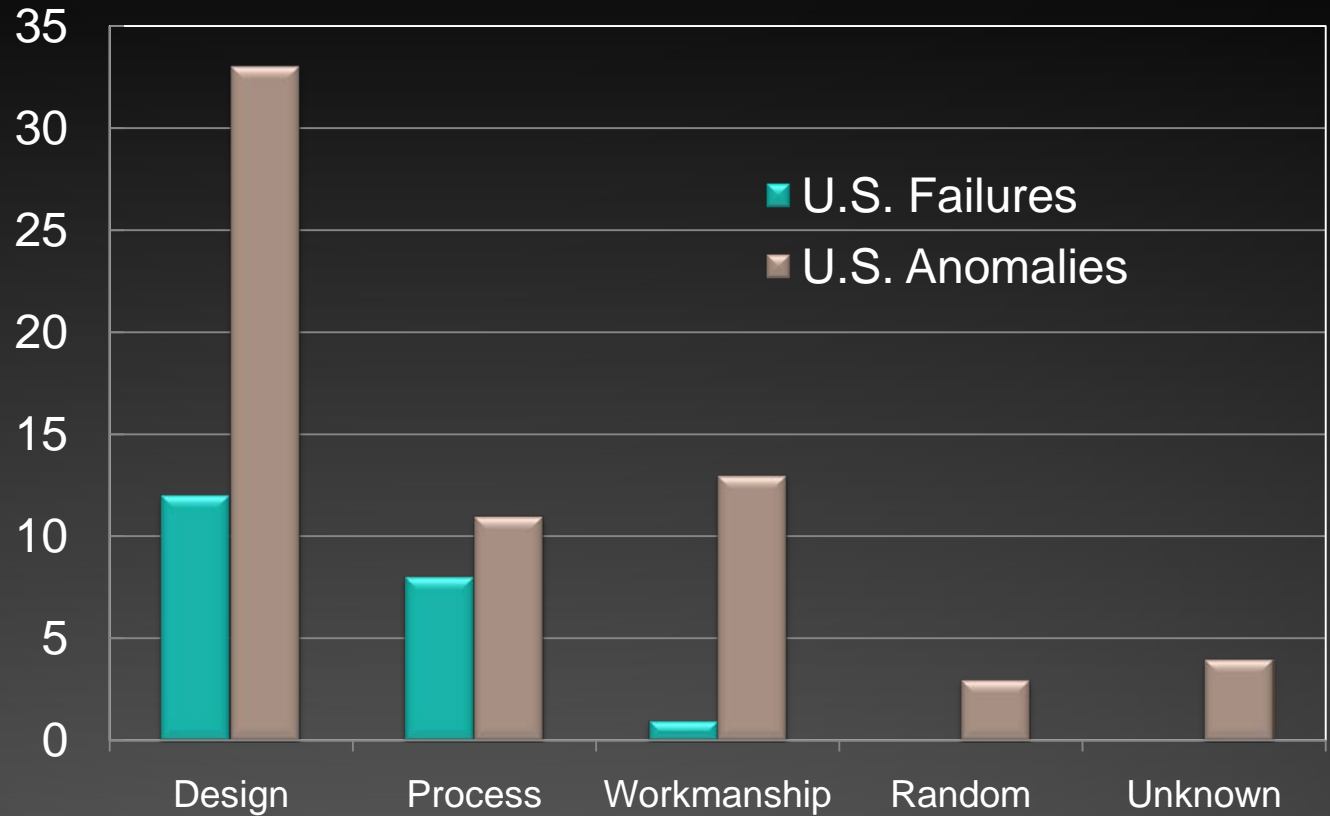
# OUR VALUES

Objectivity





- Engineering errors cause ~76% of failures and anomalies in new launch vehicle types

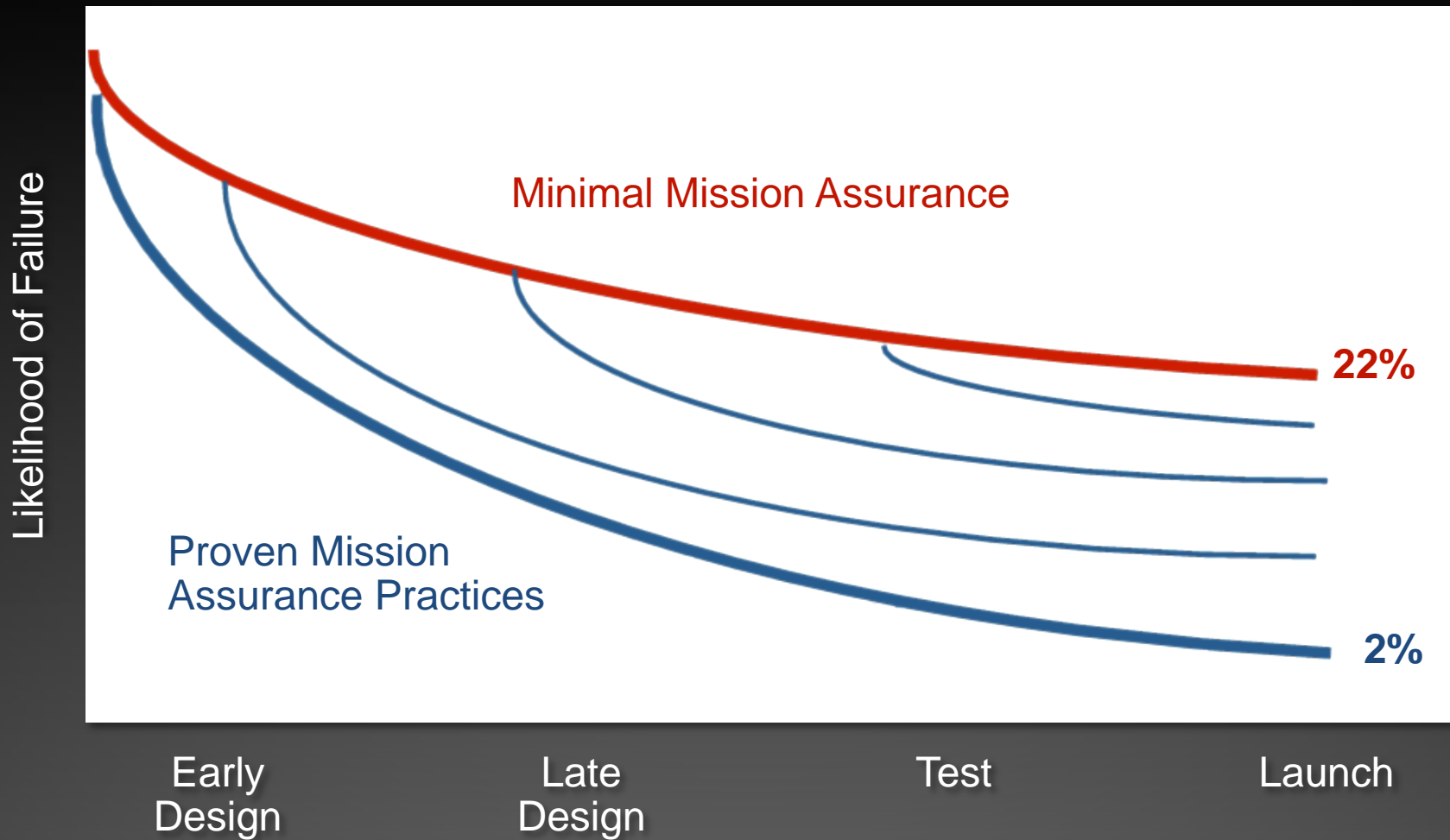


Engineering errors = Design errors + Process errors

## Cause of Failures and Anomalies

*First Seven Launches*





Likelihood of Mission Failure



# OUR VALUES

Integrity







Photo used with permission of ULA

Getting It Right ! Go Delta IV! Go GOES-P!



THE AEROSPACE  
CORPORATION



Assuring Space Mission Success

