

Regina Palmer

Lockheed Martin Space Systems Company

Sensing & Exploration Systems (S&ES) Line of Business (LOB)

Quality Assurance Director

### **METEOROLOGY AND EARTH SCIENCE**

**Defense Meteorological Satellite Program (DMSP)** 

**Television Infrared Observation Satellite (TIROS)** 

### ASTRONOMY AND PHYSICS

**Hubble Space Telescope** (HST)









**International Space** 

Station (ISS)

**ASRG** 



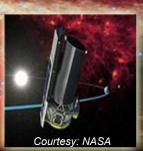
SUVI



**GOES-R** 



**Spitzer Space** Telescope (formerly SIRTF)



**Mars Science** 

(MSL)

Near Infrared Camera (NIRCam)

### MARS AND SOLAR SYSTEM EXPLORATION







2001 Mars Odyssey



Mars Reconnaissance Orbiter (MRO)





Stardust NeXT



**GRAIL** 

#### **Lockheed Martin Facilities**



West Coast Operations Sunnyvale - Palo Alto, CA

ISS, TIROS, DMSP, GLM, SUVI, NIRCam, IRIS



Space Exploration Systems
Denver, CO

Odyssey, Stardust, Spitzer, MRO, Phoenix, MSL, Juno, GRAIL, MAVEN, GOES-R



WindTracer®, ARPOD, WANDER, Biometrics, Guidestar



**Space Power** Valley Forge, PA

**ASRG** 



Commercial Space Newtown, PA

**GOES-R** 

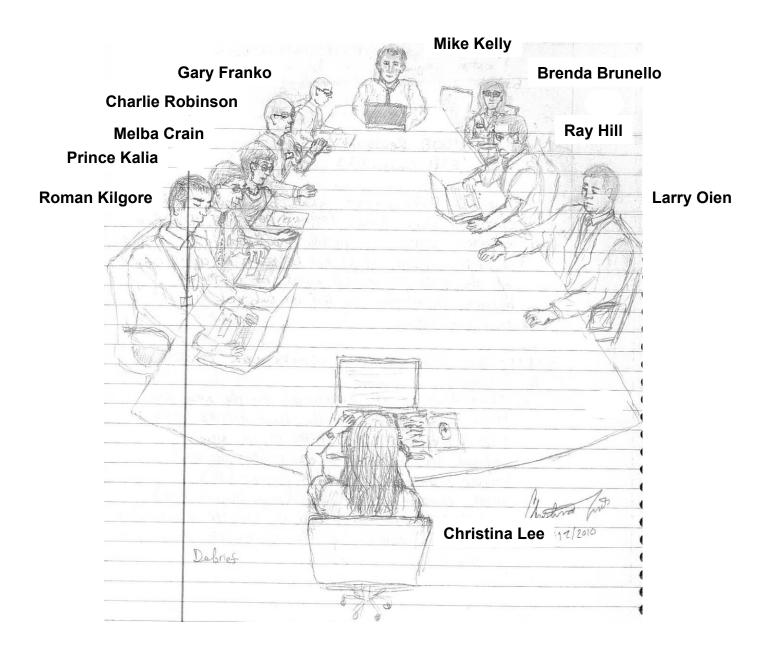


**East Coast Operations Greenbelt, MD** 

**HST, GOES-R** 

# NASA Intern's View of the NASA NCAS Assessment Team at the Recent Denver Assessment





#### **NASA NCAS Assessment Evolution**



- Assessments at Lockheed Martin Started in 2002 with NASA SAC (Supplier Assessment Contract) Audits and Evolved to NASA NCAS Assessments
- Assessments Conducted at Various Lockheed Martin Sites:
  - Denver
  - Sunnyvale
  - Palo Alto
  - Newtown
  - Stennis
- Assessments Cover Hardware, Software and Processes Randomly Sampled/ or 100% Reviewed for Objective Evidence
- Findings/Observations Identify Processes that Require Improvement/ Evaluation
- Identify Best Practices

## Breakdown of Findings/Observations from Previous NASA NCAS Assessments



Process Changes	Use-As-Is	Corrected	Training
56%	23%	17%	4%

- Process Changes—Process changes made
- Use-As-Is—Processes sufficient to meet requirements
- Corrected—issue/concern resolved
- Training—personnel re-trained

### **Summary**



- Multidiscipline Approach Makes Effective Assessments
- Assessment Team engaged in physical verification of hardware, software and processes instead of paper
- Provides communication of lessons learned and best practices
- Value Assessment Team Gives insight into capabilities of suppliers