

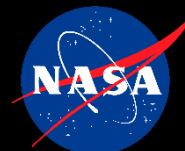


NASA's Mars 2020 Rover flexes it's Arm after successfully going through environmental testing. JPL is building and will manage operations of the Mars 2020 rover for NASA. Mars 2020 is part of a larger program that includes missions to the Moon as a way to prepare for human exploration of the Red Planet.

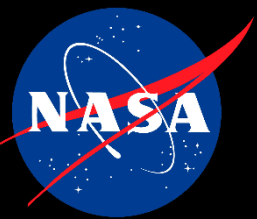
Quality Leadership Forum Agenda

March 11 & 12, 2020

Radisson at the Port, Cape Canaveral, FL



National Aeronautics and Space Administration
Office of Safety and Mission Assurance
NASA Headquarters, Washington, D. C.



NASA Quality Leadership Forum

Wednesday, March 11, 2020

8:00 - 8:30 AM

Opening Remarks / Announcements:

John O'Donnell, Jet Propulsion Laboratory /

Jeannette Plante, NASA Headquarters

Poll – What Company or Organization Are You Representing Here at the QLF?

8:30 - 9:00 AM

KEYNOTE: Wide Field Infrared Survey Telescope (WFIRST) Leadership: Navigating Challenges of Complex NASA Missions

Jody L. Davis, WFIRST Deputy Payload Manager Systems Engineer

9:00 - 9:15 AM

Meet the New Career Professionals

9:15 - 9:50 AM

Understanding Mission Risk Class D:

Mayra Montrose, NASA Science Mission Directorate (SMD),
Tony DiVenti, NASA Office of Safety and Mission Assurance,
Steve Pereira, Johns Hopkins University Applied Physics Laboratory

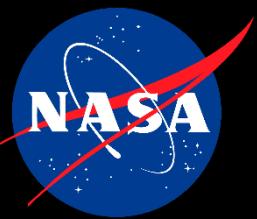
9:50 - 10:10 AM

Break / Move to Breakout Rooms



Boeing CST-100 Starliner Landing. Boeing, NASA, and U.S. Army personnel work around the Boeing CST-100 Starliner spacecraft shortly after it landed in White Sands, New Mexico, Sunday, Dec. 22, 2019. The landing completes an abbreviated Orbital Flight Test for the company that still meets several mission objectives for NASA's Commercial Crew program.

Credit: NASA/Bill Ingalls



NASA Quality Leadership Forum

Wednesday, March 11, 2020 – *Breakout Sessions*

Breakout Session 1: 10:10 - 10:50 AM

Main Hall

Understanding SMD's Strategy for Class D Missions and How It Will Drive Requirements Tailoring:

Moderator: Mayra Montrose

Martinique Room (Main Hotel)

Understanding How NPR 8705.4 Will Be Used and How It Will Drive Requirements Tailoring:

Moderator: Tony Diventi

Jamaica Room (Main Hotel)

How Requirements Were Tailored For a Class D Project:

Moderator: Steve Pereira

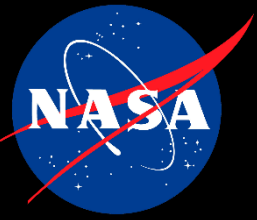
10:50 - 11:00 AM

Reconvene in Main Hall



Astronaut Christina Koch unloads new hardware for the Cold Atom Lab (CAL) aboard the International Space Station the week of Dec. 9, 2020. CAL is an experimental physics facility that chills atoms to almost absolute zero, or minus 459 degrees Fahrenheit (minus 273 degrees Celsius).

Credit: NASA



NASA Quality Leadership Forum

Wednesday, March 11, 2020

11:00 - 11:30 AM

Class D Panel Take-aways: Themes, Significant Comments and Questions, Ideas:

Breakout Session 1 Moderators

11:30 - 12:00 PM

Networking Session

12:00 - 1:00 PM

Lunch

1:00 - 1:10 PM

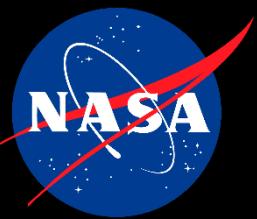
Poll: Biggest Challenges, Most Troubling Processes /

Video: Artemis, SLS



Technicians at NASA's Michoud Assembly Facility in New Orleans moved the engine section for NASA's Space Launch System (SLS) rocket to another part of the facility on Sept. 3 to prepare it for joining to the rest of the rocket's core stage. The engine section, which comprises the lowest portion of the 212-foot-tall stage, is the last major component to be horizontally integrated to the core stage.

Credit: NASA Jude Guidry



NASA Quality Leadership Forum

Wednesday, March 11, 2020

1:10 - 1:40 PM

Speaking the Format of Risk: NASA Risk Management:

Taylor Dacko, NASA Kennedy Space Center

1:40 - 2:15 PM

NC/CA Management Panel:

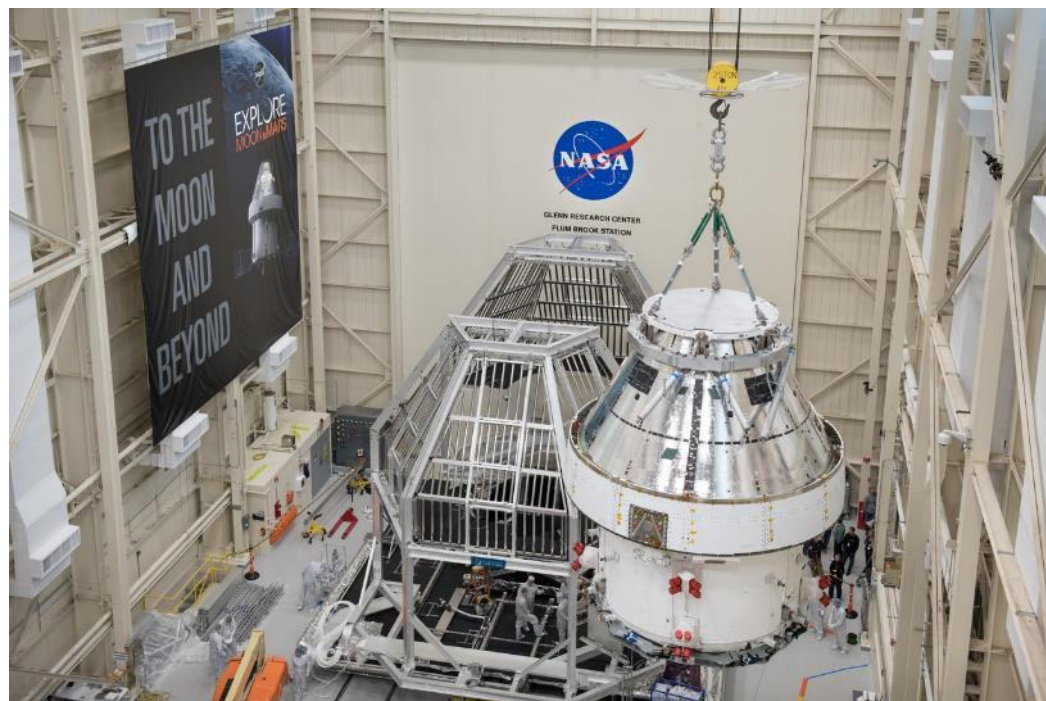
George Frey, Defense Contract Management Agency (DCMA),

Regina Senegal, NASA Johnson Space Center,

Peter Klopsis, Frequency Electronics, Inc.

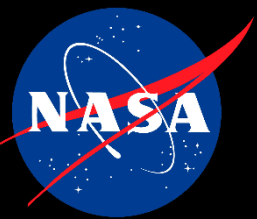
2:15 - 2:35 PM

Break / Move to Breakout Rooms



Orion Spacecraft is prepared for Space Environment Testing at the Glenn Research Center, GRC Plum Brook Station, Space Environments Complex, SEC.

Credit: NASA/GRC/Marvin Smith



NASA Quality Leadership Forum

Wednesday, March 11, 2020 – *Breakout Sessions*

Breakout Session 2: 2:35 - 3:05 PM

Main Hall

How does NASA Analyze DCMA's Results?:

Moderator: George Frey

Martinique Room (Main Hotel)

Protocols for Elevating NCs to a Material Review Board:

Moderator: Regina Senegal

Jamaica Room (Main Hotel)

Getting Past Barriers to Scope and Root Cause (RC) Investigations:

Moderator: Peter Klopsis

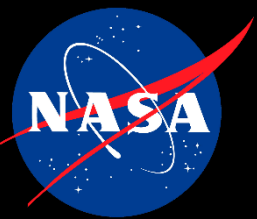
3:05 - 3:15 PM

Reconvene in Main Hall



NASA initiated a forward looking corrective action request focused on improving the production system in preparation for Core Stage 2 and beyond. As a result of this corrective action, Boeing chose to stand down in some areas and ensure the whole production team was aware of the intent behind the corrective action request.

Credit: NASA



NASA Quality Leadership Forum

Wednesday, March 11, 2020

3:15 - 3:45 PM

NC/CA Management Panel Take-aways:

Themes, Significant Comments and Questions, Ideas

Breakout Session 2 Moderators

3:45 - 4:15 PM

Lessons In Leading A Quality Organization

John O'Donnell, Jet Propulsion Laboratory

4:15 - 4:45 PM

New NASA FAR Supplement (NFS) Requirements for Counterfeit Avoidance:

Tony Rodgers, NASA Armstrong Research Center

4:45 - 5:15 PM

Using Agile Techniques to Improve a Quality Culture:

David Swanson, Northrop Grumman Corporation, Space Systems

5:15 - 5:20 PM

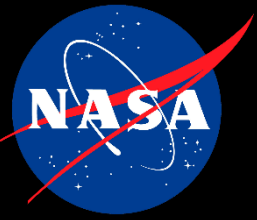
Logistics Announcements for Next Day:

John O'Donnell, Jet Propulsion Laboratory



Nancy Bray, director of Spaceport Integration and Services at NASA's Kennedy Space Center in Florida, speaks to Kennedy employees on Sept. 26, 2019, in the Kennedy Learning Institute during the first in a series of five TED Talk-style informational sessions. Sponsored by Kennedy's Launching Leaders and Leadership for the Future.

Credit: NASA/Kim Shiflett



NASA Quality Leadership Forum: Kennedy Visitor's Center

Wednesday, March 11, 2020, 7:30 – 8:30 PM

Movie Special Event “Journey to Space”

Join us for “Journey To Space,” a brand new 3D IMAX® film showcasing NASA’s bold plans for the future, including landing astronauts on Mars and capturing asteroids. Through visually stunning imagery and extensive interviews with astronauts Chris Ferguson, commander of the final shuttle mission, and Serena Aunon, a new astronaut chosen for future flights, as well as narration by film and television legend Sir Patrick Stewart, “Journey To Space” gives a sweeping overview of NASA’s past space accomplishments, current activities and future plans.

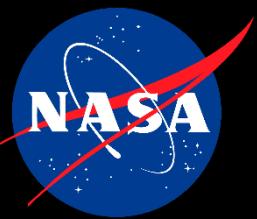
Don’t miss this chance to see how NASA has been transitioning from the end of the space shuttle era to a much more ambitious future that will forever change how we live and operate in space.

Families are also welcome to attend.



Directions:

- A1A NORTH to SR528 WEST to Exit 49. Turn RIGHT at light to SR3
- Continue NORTHBOUND approx. 6 miles to Space Commerce Way, turn left
- Turn RIGHT for Kennedy Space Center Visitor Complex



NASA Quality Leadership Forum

Thursday, March 12, 2020

8:00 - 8:15 AM

Announcements / Welcome Back & Thoughts from Yesterday:

Jeannette Plante, NASA Headquarters /
John O'Donnell, Jet Propulsion Laboratory

8:15 - 9:25 AM

Digital Transformation:

**Office of Safety and Mission Assurance (OSMA) Supply Chain Risk
Management Program Overview:**

Valle Kauniste, NASA Johnson Space Center

Building a Digital Twin for NASA's Nondestructive Evaluation (NDE) Discipline

Bryan Bookhart, NASA Kennedy Space Center

9:25 - 9:45 AM

Short Break

9:45 - 10:00 AM

Poll: Crowd Source Quality Taxonomy

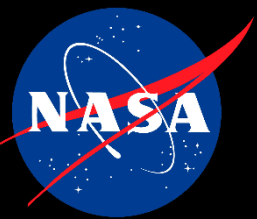
10:00 - 10:30 AM

Process FMEA, Perform Them or Suffer the Consequences:

Aron Brall, Millennium Engineering and Integration Company



InSight Project Manager Tom Hoffman (standing) and engineer Marleen Sundgaard wear Microsoft HoloLens augmented reality headsets, which project digital terrain models of InSight's landing location on Mars over a lab space. Credits: NASA/JPL-Caltech/IPGP



NASA Quality Leadership Forum

Thursday, March 12, 2020

10:30 - 11:00 AM

Screening Approaches for Identifying Commercial Li-ion Cells With Subtle/Latent Defects:

Dr. Eric Darcy, NASA Johnson Space Center

11:00 – 11:30 AM

Networking Session

11:30 - 12:30 PM

Lunch

12:30 - 1:05 PM

QMS Panel: Conformance vs Compliance:

Kenna Butler, United States Geological Survey (USGS)

Chana Johnson, NASA Marshall Space Flight Center

Jonathan Demboski, Millennium Engineering and Integration Company, NASA Ames Research Center

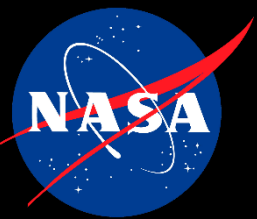
1:05 - 1:15 PM

Break / Move to Breakout Rooms



A two-stage United Launch Alliance Atlas V rocket lifts off from Space Launch Complex 41 at Cape Canaveral Air Force Station in Florida for Boeing's Orbital Flight Test, Dec. 20, 2019. Liftoff occurred at 6:36 a.m. EST. The uncrewed Orbital Flight Test is the Starliner's first flight for NASA's Commercial Crew Program.

Credit: NASA/Tony Gray & Kevin O'Connell



NASA Quality Leadership Forum

Thursday, March 12, 2020 – *Breakout Sessions*

Breakout Session 1: 1:15 - 1:45 PM

Main Hall

Standing Up a QMS for Government R&D Labs:

Moderator: Kenna Butler

Martinique Room (Main Hotel)

What in AS9100 Gets Waived When Evaluating Supplier's "Conformance"?:

Moderator: Chana Johnson

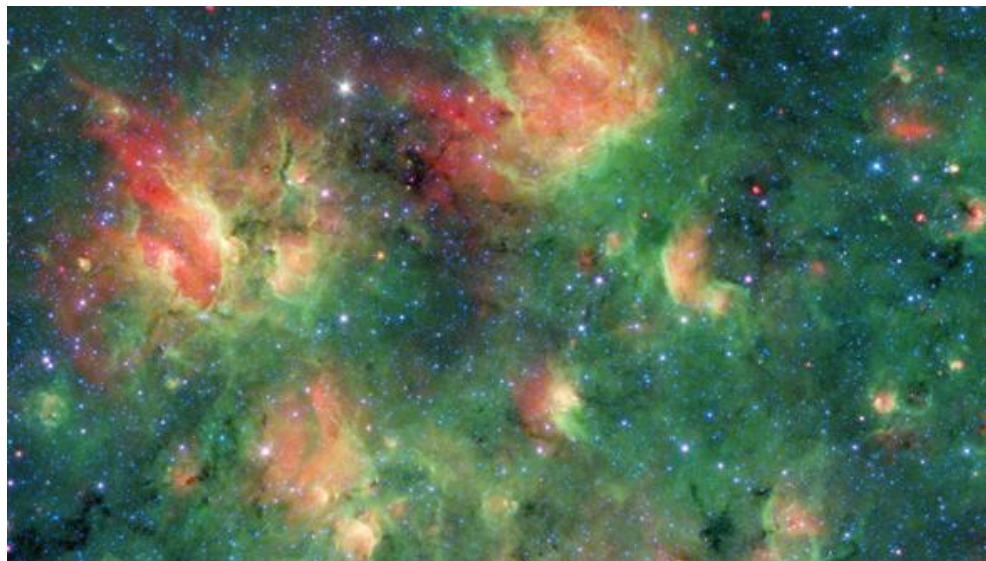
Jamaica Room (Main Hotel)

How to Manage the Risk Associated with Findings?

Moderator: Jonathan Demboski

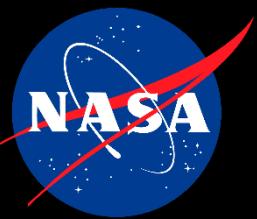
1:45 - 2:00 PM

Reconvene in Main Hall



This cloud of gas and dust in space is full of bubbles inflated by wind and radiation from massive young stars. Each bubble is about 10 to 30 light-years across and filled with hundreds to thousands of stars. The region lies in the Milky Way galaxy, in the constellation Aquila (aka the Eagle).

Credit: NASA/JPL-Caltech



NASA Quality Leadership Forum

Thursday, March 12, 2020

2:00 - 2:30 PM

QMS Panel Take-aways:

Themes, Significant Comments and Questions, Ideas

Breakout Session 3 Moderators

2:30 - 3:00 PM

University Partnerships and Quality Assurance Development Challenges

Mitch Nelson, Jet Propulsion Laboratory

3:00 - 3:15 PM

Short Break

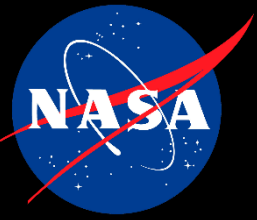
3:15 - 3:45 PM

A Quality Early Career Hire Experience

Shaunessy Grant, Jet Propulsion Laboratory



An external view of the deployment of the AQT-D CubeSat from the JEM Small Satellite Orbital Deployer aboard the International Space Station (ISS). Aqua Thruster-Demonstrator (AQT-D) is a 3U CubeSat demonstration of a water resistojet propulsion system developed by The University of Tokyo.
Credit: NASA / Johnson Space Flight Center



NASA Quality Leadership Forum

Thursday, March 12, 2020

3:45 - 4:15 PM

New Career Hires Feedback:

New Career Hire Panel

4:15 - 4:45 PM

Missile Defense Agency's Method of Quality Requirements Tailoring Across Diverse Domains

Rama Jayaraman, Missile Defense Agency

4:45 – 4:55 PM

Wrap-Up / Concluding Remarks

Jeannette Plante, NASA Headquarters /

John O'Donnell, Jet Propulsion Laboratory



Space & STEM - How Do You Fit In. NASA astronaut Doug Wheelock, left, is joined by a panel of young professionals from NASA centers across the country during an interactive STEM discussion with students attending the 70th International Astronautical Congress, Wednesday, Oct. 23, 2019, at NASA Headquarters in Washington.

Credit: NASA/Joel Kowsky



NASA Counterfeit Parts Avoidance and Inspection Training

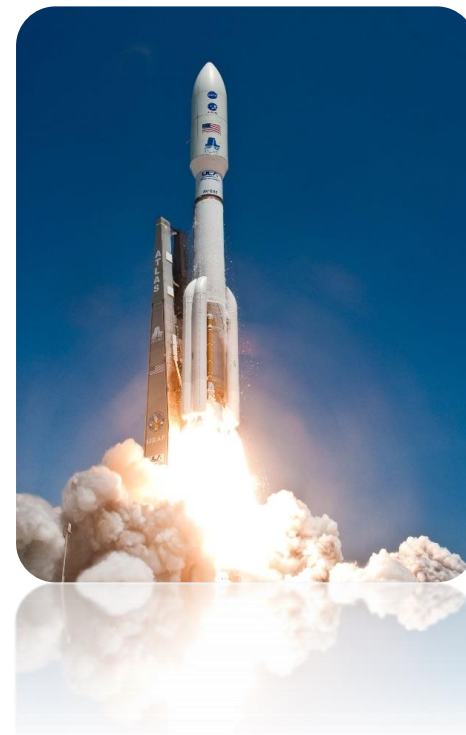
Friday, March 13, 2020, 8:00 - 12 Noon

Topics

- Sources of Supply
 - Controlled vs Open Market
- Government and NASA Regulations
- Industry Standards
- Importance of a Counterfeit Mitigation Plan
 - Procurement, Part Availability, Inspection
- How Counterfeit Parts Enter the Supply Chain
- Counterfeiting Techniques
 - Clones, Blacktopping, Returns, False Upgrading
- What You Can Do to Avoid Counterfeits
 - Counterfeit Avoidance Team
 - Receiving Inspections
 - Inspector Certifications
 - Destructive Analyses

Training Schedule:

- Half day training session
- Includes hands-on inspection of electronic components
- Participants will receive a certificate of completion and electronic copy of the material



To register for the class, contact:
Diana Shellman
(818) 393-0745

Diana.L.Shellman@jpl.nasa.gov
Space is limited, and filling up fast!

Speaker Biographies

- **Brian Bookhart** – Throughout his 30 year NASA career, Bryan has always had a passion for driving strategic, transformational, and organizational changes and improvements. Over the past 12 years, Bryan has served in the role of KSC Chief Enterprise Architect and more recently in the role of NASA Deputy Chief Enterprise Architect. In these capacities, he oversees the modeling of the elements of various Mission and Mission Support enterprises in an effort to support decision making, business goals, and transformation efforts. Bryan has a Bachelor's degree in Industrial Engineering and Master's degrees in both MIS and Enterprise Architecture (EA). His thesis, Leveraging a DoDAF-Based Capability Model to Aid Strategy Execution, helped crystalize his vision for modeling capabilities to aid with strategy execution and is now largely codified in the current strategy, methodology, and practices of the NASA EA program.
- **Aron Brall** – Aron Brall is Reliability Subject Matter Expert at NASA Goddard Space Flight Center for Millennium Engineering and Integration Company and also performs private consulting in Reliability, Manufacturing, and Process Improvement. Previously he was Reliability Service Area Lead at Goddard for ManTech International, and he was Vice President of Quality, during 14 years at Landis Grinding Systems, a UNOVA Company. Prior to that he worked 12 years for Amecom Division of Litton Systems as a Systems Effectiveness Project Engineer. Out of 52 years professional experience, 45 have been in Reliability and Product Assurance. He received a BS in Electrical Engineering in 1967 from Columbia University School of Engineering and Applied Science, NY, NY, and an MBA in 1987 from Sellinger School of Business at Loyola University, Baltimore, MD. He was a member of the RAMS® (Annual Reliability Symposium) Management Committee from 1999 – 2013, was the General Chair for RAMS® 2013, and has been on the RAMS® Board of Directors since 2013. He is a senior member of ASQ, a senior life member of IEEE, and a member of the SRE and SAE. He is an ASQ Certified Reliability Engineer. He is a contributing member of the committees that prepared both editions of SAE M-110, Reliability and Maintainability Guideline for Manufacturing Machinery and Equipment. He is the sole author of eight technical papers, co-author of two additional technical papers, and presented two tutorials at RAMS®.

Speaker Biographies (continued)

- **Kenna Butler** – Kenna Butler serves as the U.S. Geological Survey Quality Management System (QMS) Coordinator in the Office of Science Quality and Integrity (OSQI). The USGS serves the Nation by providing reliable scientific information to describe and understand the Earth; minimize loss of life and property from natural disasters; manage water, biological, energy, and mineral resources; and enhance and protect our quality of life. The USGS has a long-standing reputation for scientific excellence, integrity and objectivity. Laboratory science and research is integral to the mission of the USGS, and the USGS has over 500 laboratories located across the Nation. The USGS is developing a tailored and scalable QMS for its laboratories that is focused on utilizing resources in a manner that is commensurate with the level of acceptable risk. All laboratories, regardless of the degree of routine versus non-routine activities, will implement the QMS. Before her role in QMS, Kenna gained experience as an organic chemist in a drinking water quality laboratory for the U.S. Army, as an environmental chemist running a research project and laboratory studying organic carbon, and as a Science Center Director managing 85 research scientists.
- **Taylor Dacko** – Taylor Dacko is the Center Risk Manager at NASA's John F. Kennedy Space Center. Taylor is responsible for implementing the center's risk management program, which tracks high visibility, cross-cutting risks and creates a community of practice amongst KSC program and institutional risk managers. He also serves as the risk manager for the Gateway Logistics Element, and represents KSC to NASA's Agency Risk Management Working Group. Taylor previously worked as a NASA Safety liaison to KSC's commercial partners and tenants, and he now strives to bring this perspective to risk management at a multi-user spaceport. Taylor received a B.S. in Aerospace Engineering from the Georgia Institute of Technology in 2012, and currently lives with his family in Merritt Island, FL.

Speaker Biographies (continued)

- **Dr. Eric C. Darcy** – Eric C. Darcy, Ph.D, has spent his 32-year career at NASA in the areas of battery design, verification, and safety assessments for the rigors of manned spacecraft applications. As Battery Technical Discipline Lead at NASA-JSC, his main objective has been the development of safe, while high performing, battery systems with a deep focus on understanding, preventing, and mitigating latent defects that could lead to catastrophic cell internal short circuits. With National Renewable Energy Laboratory (NREL) colleagues, he is co-inventor of the patented On-demand Internal Short Circuit Device that has provided significant design insights into the cell response during thermal runaway (TR), enabled valid battery TR propagation assessment, and received the prestigious R&D100 award in 2016 and Runner-up NASA Invention of 2017.

He has led NASA's design and test efforts for providing a path for developing safe, high performing Li-ion spacecraft batteries using small commercial cells. He was selected for a Navy Panel to guide the review and revision of their safety verification processes for naval deployment of large Li-ion batteries after their Advanced Seal Delivery Vehicle battery incidents in 2008. He's been invited to give talks at numerous battery conferences, has over 30 publications and 2 patents, and has participated in audits of numerous Li-ion cell production lines across Asia and North America.

Ph.D, ChE, University of Houston, 1998; MS, ChE, Texas A&M University, 1987; BA, Chemistry, Pomona College, 1984

- **Jody L. Davis** – Jody Davis is a Systems Engineer at NASA Goddard Space Flight Center. She earned a B.S. in Aerospace Engineering from Embry-Riddle Aeronautical University and an M.S. in Mechanical and Aerospace Engineering from University of Virginia. Jody has worked missions such as Cassini-Huygens, Mars Phoenix and Mars Science Laboratory, specializing in entry, descent and landing flight dynamics and trajectory simulation at NASA Langley Research Center. She served as the NASA Langley Technical Lead for the Low-Density Supersonic Decelerator (LDSD) flight test project. She also served as the James Webb Space Telescope (JWST) Optical Telescope Element & Integrated Science Instrument Module (OTIS) Responsible Engineer for the Harness Radiator at NASA Goddard, focused in systems engineering and flight hardware integration and test. She currently supports the Wide Field Infrared Survey Telescope (WFIRST) as the Deputy Payload Systems Engineer. In this role, she is responsible for aiding the development life cycle of the WFIRST Payload, including development, design, fabrication, test, verification, mission integration, launch support, and on-orbit operations. The WFIRST Payload consists of the Wide Field Instrument (WFI) and Coronagraph Instrument (CGI) technology demonstration, the optical telescope assembly and instrument carrier structure.

Speaker Biographies (continued)

- **Jonathan Demboski** – Jonathan Demboski serves as the Deputy Quality Management System Manager at NASA's Ames Research Center responsible for the execution and performance of the Ames Quality Management System and continuous improvement activities. Jonathan ensures that the quality management system drives compliance to all applicable regulations and is scalable and appropriate for the organization and its various aerospace projects. Jonathan is retired from the United States Air Force where he held a variety of operational and leadership positions throughout his career in the fields of aircraft maintenance, satellite launch, on-orbit command and control, satellite ground control systems, advanced space operations training, and most notably in the Office of the Secretary of the Air Force, Pentagon, Washington D.C. developing the Air Force's lean-six sigma transformation efforts.
- **Anthony Diventi** – Anthony (Tony) DiVenti is the NASA Technical Fellow for Reliability and Maintainability (R&M). He provides leadership and oversight of the R&M discipline through the management of directives and standards (e.g., 8705.4 Risk Classification for NASA Payloads), development of technical capabilities and guidelines, conduct of reviews and assessments, leadership of a number of related Agency working groups and communities of practice. He also serves as NASA's OSMA representative on the Agency's Digital Transformation (DT) Working Group.
- **George F. Frey, Jr.** – George is the Quality Assurance Director for the Defense Contract Management Agency NASA Product Operations team and has served in this capacity since 2013.
 - He began his civil service career with DCMA AIMO Kelly, San Antonio, Texas in 2005 as a Quality Assurance Specialist. During his DCMA career in addition to AIMO he has served overseas, DCMA Saudi Arabia, Riyadh, 2009-2011, in a Foreign Military Sales / Military Assistance environment and also a geographic Contract Management Office serving with DCMA Dallas (Austin office) 2011-2013. George is Production Quality & Manufacturing Level III certified and a member of the Defense Acquisition Corps. He is an U.S. Air Force veteran having served 26 years as an Aircraft Maintenance Technician supporting F-15 and U-2 operations.

Speaker Biographies (continued)

- **Shaunessy Grant** – Shaunessy Grant is a Hardware Quality Assurance Engineer at NASA JPL. In her 2 years at JPL, she has worked on earth orbiting satellites, Mars missions, and is currently supporting the Europa Clipper mission, which will study Jupiter and its moons. Besides qualifying hardware that will go on spaceships, she's passionate about Quality Assurance outreach, and helping educate university students on engineering career paths they may not have been exposed to.
- **Rama Jayaraman** – Rama Jayaraman is a Senior Quality Engineer with the U.S. Navy supporting the Missile Defense Agency Office of Quality, Safety, and Mission Assurance. The Missile Defense Agency's mission is to develop and deploy a layered Missile Defense System to defend the United States, its deployed forces, allies, and friends from hypersonic and ballistic missile attacks of all ranges and in all phases of flight. Rama supports all phases of the quality life cycle for MDA. He has developed new requirements, tailored requirements for contracts, and verified implementation of requirements. Prior to his current position, Rama worked as a quality engineer for Raytheon Missile Systems where he supported the PHALENX weapon system. Rama received a Bachelor of Science in Electrical Engineering from the University of California, Riverside and currently resides with his family in Orange County, CA.
- **Chana Johnson** – Chana Johnson joined NASA's Marshall Space Flight Center in Huntsville, Alabama, in 1991 as a design engineer supporting the special test equipment branch after working in private industry for 11 years. She worked on several programs and projects designing test support equipment, fixtures and structures, including the Space Shuttle Program, the space shuttle shipping pallet, Marshall Center test stands and vacuum chambers, optics development tools and the Lightweight External Tank testing shroud. In 2001, she was detailed to the Safety and Mission Assurance Directorate as a quality engineer supporting the International Space Station Environmental Control and Life Support System project. She was a lead auditor and also facilitator for the NASA Engineering Quality Audit (NEQA) process for the space shuttle program elements. In 2011, Chana became a Safety and Mission Assurance Representative for the Marshall Engineering Technicians and Trade Support Services contract, and in 2013, she became the Marshall Center's audit manager. Chana and her team perform internal quality management system audits, supplier/vendor QMS audits, safety audits and environmental management system conformance audits and facilitate MSFC NEQAs. She has received numerous awards during her career, including a Silver Snoopy in 2014, Silver Achievement Medal in 2013 and a NASA Director's Commendation Honor Award in 2012. Chana is now the Assessment and Assurance Branch Chief in SMA.

Speaker Biographies (continued)

- **Peter Klopsis** – Peter Klopsis is the Director of Quality and Mission Assurance at Frequency Electronics, Inc. (FEI), Uniondale, New York, where he has been involved in the production of space qualified electronics for the past 28 years. He previously held the positions of Director of Procurement and Material Control and as Program Manager for High Reliability Space Applications at FEI. He holds certifications in Quality Management/Operational Excellence from ASQ and is certified by Purdue University as a Lean Six Sigma Green Belt.

FEI's commercial and military space legacy include many past and current LEO and GEO programs. FEI products can also be found on many NASA programs such as the International Space Station, Deep Space Atomic Clock and on the Voyager Space Craft, now 11.7 billion miles from earth.

- **Valle Kauniste** – Valle Kauniste, of the Johnson Space Center, Safety and Mission Assurance Directorate, is the full-time delegated program manager for the new Office of Safety and Mission Assurance Supply Chain Risk Management Program. Valle's experience spans 25+ years between Federal Service (United States Air Force and NASA) and Contractor experience. While at NASA, Valle has supported the Space Shuttle Program, International Space Station Program, and the Extravehicular Activity Programs. Valle's United States Air force Career was in Aerospace Physiology where he was responsible for the Life support system for the U2 and SR-71 high altitude reconnaissance Aircrafts. In his current position, Valle will be developing the risk mitigation strategy for the agencies supply chain which will be used by NASA programs and projects. This includes developing the methodologies for gauging NASA supply chain health, enhancing the Agency Process for Government Contract Quality Assurance (GCQA) Management efforts, and Increase Program Management insight and accountability pertaining to supply chain risk. Valle holds a Bachelor's of Science Degree in Business Management.

Speaker Biographies (continued)

- **Mayra Montrose** – Ms. Mayra Montrose is Acting Deputy Associate Administrator for Programs in the Science Mission Directorate (SMD) of NASA since December 16, 2019.

Prior to this job, she served as Assistant Deputy Associate Administrator for Programs. She was Program Executive for Earth Science Flight Missions in SMD (2015-2018), where she managed five spaceflight projects: monitoring solar irradiance (TSIS-1 on ISS), methane and carbon (GeoCarb), polar radiant energy (PREFIRE), surface mineralogy and dust sources (EMIT) and plant health (ECOSTRESS).

She worked at the National Science Foundation (NSF) (2006-2015), where she served as Manager of the Presidential National Medal of Science and the NSF Alan T. Waterman Award. She was also the Executive Secretary of the Committee on Science of the White House National Science and Technology Council (NSTC) that coordinates science policy for the U.S. Federal Government, and of the Committee on STEM Education of the NSTC.

Ms. Montrose began her professional career at NASA, where she managed programs, such as the Energy and Water National Applications in the Applied Sciences Program in SMD, the Education Program in the Exploration Systems Mission Directorate, and the Life Sciences Small Payloads program in the Office of Life and Microgravity Sciences and Applications. Ms. Montrose worked for five years as Executive Officer to the NASA Chief Scientist. Ms. Montrose's first job with NASA was at the Kennedy Space Center, where she worked as an experiment engineer. She has received numerous achievement awards acknowledging her significant contributions, including two from the European Space Agency and the German Space Agency, and the NASA Cooperative External Achievement Award for her efforts in serving as an interface with new prospective commercial partners of NASA.

She earned Masters and Bachelor degrees in Computer Engineering at the University of South Florida in Tampa. Ms. Montrose was born and raised in Puerto Rico.

Speaker Biographies (continued)

- **Mitch Nelson** – Mitch Nelson is a Procurement Quality Engineer at Jet Propulsion Lab in Pasadena, CA, a role he has held for three years. Mitch has over fifteen years of Quality Assurance experience in Aerospace, Defense, Energy, and Industrial sectors, where he specialized in supplier audits and supplier quality partnership. In addition to holding roles as the North American Quality Manager for Bodycote, Procurement Quality Specialist at BP Exploration – Alaska, and Senior Supply Chain Quality Engineer at Cessna Aircraft; Mitch sat on the Nadpap Heat Treat Task Group for ten years, seven years as Vice-Chair, and one year as Chair. A graduate of Michigan Technological University with a BS in Materials Science, Mitch has also held a Six Sigma Green Belt Certification and ASQ certifications for Certified Manager of Quality and Operational Excellence, Certified Quality Engineer, and Certified Quality Auditor. He has previously presented at the ASQ Alaska Quality Symposium and the Academy of Aerospace Quality Workshop.
- **John O'Donnell** – John O'Donnell is currently the Manager of Quality Assurance at the Jet Propulsion Laboratory in Pasadena. He has 36 years of experience in Quality Assurance which include 14 at JPL and another 22 at Aerojet-Rocketdyne working on the Space Shuttle Program. John has been managing and leading people for 30 years and specializes in strategic planning, team building, and leadership development. John holds a Bachelor of Science in Management, and a Master of Science in Organizational Development both from Pepperdine University.

Speaker Biographies (continued)

- **Steven Pereira** – Steven Pereira is the Group Supervisor for Space Exploration Safety and Mission Assurance at the Johns Hopkins University Applied Physics Laboratory. In this role, Steven manages all aspects of SMA support to the Laboratory's portfolio of Civil Space and National Security Space projects as well as the activities associated with the Laboratory's quality management system, corrective action system, internal audit program, as well as the Laboratory's AS9100 certification. He serves as the Laboratory's internal SMA technical authority as an approver of all project-specific safety and mission assurance plans as well as waiver / deviation requests. Steven has been at the Applied Physics Laboratory for nearly 14 years and is a member of the Laboratory's Principal Professional Staff. Before becoming the Group Supervisor, Steven served as a Systems Assurance Manager supporting several flight projects, including the JEDI instrument on NASA's JUNO mission, the RBSPICE instrument on NASA's Van Allen Probes mission, and several national security space projects. Prior to joining APL, Steven worked at Missile Defense Agency's Quality, Safety, and Mission Assurance Directorate where he performed system safety assessments of the Ballistic Missile Defense System. Earlier in his career, Steven performed software safety assessments of weapon systems for Naval Sea Systems Command and system safety assessments for the Launch Programs Directorate at the US Air Force Space and Missile Systems Center. Steven holds a Bachelor's degree from the University of Southern California and Master's degrees from the University of Massachusetts and Johns Hopkins University.

Speaker Biographies (continued)

- **Anthony Rodgers** – Anthony P. Rodgers is the Procurement Quality Assurance Lead at NASA's Armstrong Flight Research Center in Edwards, California. He has been with NASA since August of 2018 and is responsible for applying quality control requirements and methods to determine risks and compliance standards for aircraft parts procurement and implementing associated risk mitigation actions. Additionally, Rodgers serves as NASA's Office of Safety and Mission Assurance Counterfeit Avoidance Representative in which he acts as a liaison to other NASA HQ and external groups, recommends policy change in regards to counterfeit avoidance, and advises in NASA counterfeit training content.

Prior to his current assignment with NASA, Rodgers served as a Quality Assurance Specialist and Data Analyst with the Defense Contract Management Agency in Palmdale, California. He was responsible for analyzing Contract Management Office and Group level performance data and provided information enabling situational awareness and insight into CMO's management of all contracts within Area of Responsibility. He also ensured compliance to Quality Assurance contractual requirements on multiple aircraft flight test programs.

From 2005 to 2009, Rodgers served in the United States Air Force as an Aircraft Mechanic on C-130 and A-10 aircraft and was assigned to the 355 Component Maintenance Squadron at Davis-Monthan Air Force Base in Tucson, Arizona.

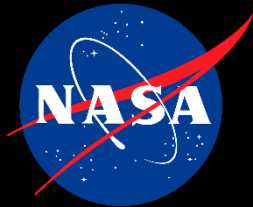
Rodgers studied aeronautics at Embry-Riddle Aeronautical University's Worldwide Campus.

- **Regina Senegal** – Regina Senegal is the Chief of the Quality Engineering branch within the Quality and Flight Equipment Division at the Lyndon B. Johnson Space Center. She leads the JSC quality engineers and specialty engineers engaged with the design, development, and testing of spaceflight equipment. Mrs. Senegal has 23 years' experience with the Safety and Mission Assurance Directorate at Lyndon B. Johnson Space Center as a Quality Engineer in the contractor and civil servant work force. She has provided support for Spacelab, Shuttle, ISS, Orion and Gateway along with several payloads in her service. Prior to coming to NASA Mrs. Senegal spent a decade in private industry with General Motors as a controls engineer, manufacturing engineer and supervisor for the fuel line. Regina Senegal has a Bachelor of Science in electrical engineering from Prairie View A&M University and a Masters' of Science in manufacturing management from Kettering University.

Speaker Biographies (continued)

- **David Swanson** – David Swanson joined Orbital Science Corporation (OSC) in May 2011 as the Senior Director for Safety and Mission Assurance leading the Space Systems Group's (SSG) Directorate of employees responsible for Occupational Safety, Quality, Mission Assurance, Configuration Management and its Quality Management System. He served on the Antares Mishap Investigation Board and assumed the job of study and program manager for SSG's bid to build JPL's Asteroid Retrieval Robotic Mission (ARRM). Since 2011, OSC merged with ATK and was then acquired by Northrop Grumman. Today, Dave manages a Directorate of 200+ safety, mission assurance and quality professionals.

Dave is a native of Libertyville, Illinois. He attended college in Carbondale, IL at the Southern Illinois University and earned his commission in the US Air Force in 1986 after graduating with a degree in Electrical Engineering. In his nearly 25 year Air Force career, Dave has served as a satellite operations officer during Desert Storm, a manager of satellite research and development, an architect of future space missions, and a Space Test Program Manager. During the 9/11 attacks, he worked in Cheyenne Mountain's Satellite Control Center. Subsequently, during Operation Noble Eagle and the start of the War on Terror he managed space forces as part of the Special Technical Operations in USSPACECOM. After spending time writing speeches for CINCSPACE, General Eberhart, he was assigned to the Air Force Academy developing future officers. Dave's last assignment was as the Director of Engineering, Space and Missile Systems Center in Los Angeles. Dave retired in the rank of Colonel and holds three Masters Degrees in the disciplines of electrical engineering, space operations, and military arts and sciences. Dave is currently working towards his doctorate in Computational Sciences and Informatics at George Mason University, VA.



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